The Asian Journal of Technology Management Vol. 18 No. 1 (2025): 55-76

Linking Entrepreneurship Education to Entrepreneurial Intentions: A Social Cognitive and Resource-Based Perspective

Yanti Mayasari Ginting* **and Muhammad Azizurrohman**
[1]Faculty of Economics and Business, Universitas Riau, Indonesia
[2]Department of Business and Management, Southern Taiwan University of Science and Technology, Taiwan

Abstract. *This study investigates the impact of entrepreneurship education and creativity on entrepreneurial intentions among university students in Indonesia, incorporating entrepreneurial self-efficacy as a mediator and resilience as a moderator. Grounded in Social Cognitive Theory and the Resource-Based View, the research examines how educational experiences, and psychological traits interact to shape students' entrepreneurial motivation. Using survey data from 400 students across five Indonesian islands, Java, Sumatra, Lombok, Bali, and Sulawesi, the model was tested using Structural Equation Modeling and Multi-Group Analysis. The results reveal that both entrepreneurship education and creativity significantly influence entrepreneurial intentions. Entrepreneurial self-efficacy mediates these relationships, reinforcing its role as a psychological mechanism that enables students to transform learning and creative potential into entrepreneurial drive. Additionally, the relationship between entrepreneurship education and intention is significantly stronger for students with high levels of self-efficacy and resilience, but not significant among those with low levels of these traits. These findings highlight the importance of psychological readiness in maximizing the impact of entrepreneurship education. Practically, universities should adopt pedagogical approaches that combine experiential learning with efforts to build self-efficacy, stimulate creativity, and cultivate resilience to better prepare students for entrepreneurial careers in emerging and dynamic economic contexts.*

Keywords: *Entrepreneurship education, entrepreneurial intentions, entrepreneurial self-efficacy, creativity, resilience, Indonesia*

1. Introduction

Entrepreneurship has increasingly become a vital driver of economic development, innovation, and employment generation, particularly in emerging economies (Prelipcean & Ungureanu, 2023). In Indonesia, fostering entrepreneurship is viewed as a national priority to address high youth unemployment and encourage sustainable economic growth (Timotius, 2022). In this context, universities are expected to play a transformative role by nurturing entrepreneurial mindsets and equipping students with the knowledge, skills, and confidence needed to pursue entrepreneurial careers. However, despite the expansion of entrepreneurship education (EE) programs across Indonesian universities, the extent to which these programs effectively influence students' entrepreneurial intentions (EI) remains an open question, particularly

*Corresponding author. Email: yantimayasari.ginting@gmail.com
Received: December 18th 2024; Revised: May 25th, 2025; Accepted: June 4th, 2025
Doi: http://dx.doi.org/10.12695/ajtm.2025.18.1.4. Print ISSN: 1978-6956; Online ISSN: 2089-791X.

Published by Unit Research and Knowledge- School of Business and Management-Institut Teknologi Bandung
How to cite: *Ginting, Y.M., and Azizurrohman, M. (2025). Linking Entrepreneurship Education to Entrepreneurial Intentions: A Social Cognitive and Resource-Based Perspective. The Asian Journal of Technology Management (AJTM), 18(1),55-76. https://doi.org/10.12695/ajtm.2025.18.1.4*

when considering the psychological factors that mediate or condition this relationship.

Recent studies suggest that the effectiveness of EE is not only a function of its content but also of the students' internal capabilities (Motta & Galina, 2023; C. Wang et al., 2022). One such capability is entrepreneurial self-efficacy (ESE) defined as the belief in one's ability to perform entrepreneurial tasks which plays a central role in shaping intention (Wu et al., 2022). Rooted in Social Cognitive Theory, ESE is both a mediator translating education into intention and a potential moderator that amplifies the influence of EE when students are already confident in their abilities (Adebusuyi et al., 2022). Despite its theoretical relevance, few studies have simultaneously explored ESE's dual function in the EE–EI relationship within the Indonesian higher education setting.

In addition to ESE, creativity is increasingly recognized as a foundational psychological trait that influences entrepreneurial behavior (Ferreira-Neto et al., 2023). Creativity facilitates opportunity recognition, problem-solving, and innovation core elements of the entrepreneurial process. Students who perceive themselves as creative are more likely to believe they can generate novel business ideas and act on them, thereby increasing their entrepreneurial intentions (Osmani et al., 2022). However, the role of creativity is often treated as a secondary construct, and its integration into EE models remains underexplored. In this study, creativity is positioned not only as a direct predictor of EI but also as an antecedent to ESE, offering a more comprehensive understanding of how psychological and cognitive traits interact.

Another important yet underexamined factor is resilience, which refers to the capacity to adapt and persist in the face of adversity (Mai et al., 2021). Entrepreneurship is inherently uncertain and failure-prone, and students who possess higher resilience are more likely to internalize EE positively and remain motivated despite perceived risks (Ediagbonya et al., 2024).

By functioning as a moderator, resilience strengthens the relationship between EE and EI by enabling students to translate what they learn into action, especially in challenging environments. Although resilience has been recognized as important in broader psychological research, its moderating role in entrepreneurship education remains underexplored, particularly in the Indonesian context.

Despite the growing interest in psychological mechanisms linking EE to EI (Do Nguyen & Nguyen, 2023; Duong, 2022; Hassan et al., 2021), prior research has tended to examine these variables in isolation, resulting in a fragmented understanding. This study addresses that gap by integrating EE, ESE, creativity, and resilience into a unified model. The model not only tests the direct effects of EE and creativity on EI but also examines the mediating role of ESE and the moderating role of resilience. By doing so, the study provides a more holistic view of how entrepreneurship education influences intention, especially when supported by psychological readiness and cognitive capabilities.

In sum, this study aims to answer the following research questions: (1) How does entrepreneurship education influence entrepreneurial intentions among university students in Indonesia? (2) Does entrepreneurial self-efficacy mediate the relationships between EE, creativity, and entrepreneurial intentions? (3) Does resilience moderate the effect of EE on entrepreneurial intentions? Grounded in Social Cognitive Theory and the Resource-Based View, this research contributes to the theoretical and practical discourse on how education, mindset, and psychological traits interact to shape entrepreneurial outcomes in higher education.

2. Literature Review/ Hypotheses Development

2.1 Entrepreneurship Education and Entrepreneurial Intentions

Entrepreneurship education (EE) refers to the structured teaching and learning processes designed to develop individuals' knowledge, skills, attitudes, and behaviors necessary for identifying, evaluating, and exploiting entrepreneurial opportunities (Duong, 2022). In the context of higher education, EE aims not only to prepare students for starting new ventures but also to cultivate entrepreneurial thinking, creativity, resilience, and initiative, which are increasingly important in today's dynamic labor markets (Amalia & Von Korflesch, 2021; Uddin et al., 2022). As entrepreneurship becomes a key instrument for economic development and innovation, universities are expected to play an active role in nurturing entrepreneurial mindsets and promoting entrepreneurial behavior among students.

Globally, numerous studies have confirmed that EE has a significant impact on students' entrepreneurial intentions (EI), which reflect the motivation and willingness to engage in entrepreneurial activities (Motta & Galina, 2023). EE influences EI by enhancing students' awareness of entrepreneurial opportunities, improving their confidence to engage in business creation, and shaping positive attitudes toward entrepreneurship as a viable career path (Martínez-Gregorio et al., 2021; C. Wang et al., 2022). EE programs that include experiential learning, mentorship, business simulations, and opportunity recognition exercises have been particularly effective in fostering entrepreneurial drive (Uddin et al., 2022).

In Indonesia, EE has received increasing attention as part of national strategies to reduce youth unemployment and support sustainable economic development (Amalia & Von Korflesch, 2021). Indonesian universities have introduced formal entrepreneurship courses and initiatives intended to instill entrepreneurial competencies among students. Empirical studies have shown that students exposed to EE demonstrate stronger entrepreneurial intentions compared to those without such exposure (Kusumojanto et al., 2021; Maydiantoro et al., 2021). However, the quality and consistency of EE programs across institutions vary, highlighting the need for more robust evaluations and theory-based models to understand the mechanisms through which EE influences EI.

Despite contextual differences, both global and local evidence support the notion that EE plays a central role in shaping entrepreneurial intentions. EE provides students with the cognitive and behavioral tools needed to reduce perceived risks and uncertainties associated with entrepreneurship, thereby increasing their intention to start a business (Anjum et al., 2024; Duong, 2022; Pham et al., 2023).

Based on this evidence, the following hypothesis is proposed:
H1: Entrepreneurship education positively influences entrepreneurial intentions among university students in Indonesia.

2.2 Creativity as a Predictor of Entrepreneurial Intentions

Creativity is widely recognized as a foundational element of entrepreneurship, defined as the capacity to generate novel and valuable ideas, solutions, or approaches in response to opportunities and challenges (Gouvea et al., 2021; Mahmudin, 2023). In the entrepreneurial context, creativity enables individuals to identify gaps in the market, reframe problems, and develop innovative products, services, or business models that offer competitive advantages (Frank & Mohamed, 2024; Syahruddin et al., 2024). As global markets become increasingly dynamic and uncertain, creativity is considered an essential skill for aspiring entrepreneurs to differentiate themselves and respond to emerging needs.

Theoretical support for creativity as a driver of entrepreneurial behavior can be found in the Resource-Based View (RBV) (Shaheen et al., 2023). RBV posits that individuals who possess valuable, rare, inimitable, and non-substitutable resources such as creativity can achieve superior performance and sustained advantage in the entrepreneurial process (Gerhart & Feng, 2021; Suleman et al., 2024). In this regard, creativity is not merely a trait but a strategic internal capability that enhances entrepreneurial potential and intent. Entrepreneurs must continuously adapt and innovate, and those with higher creative capacity are better equipped to navigate ambiguity, construct opportunities, and pursue ventures that others may overlook (Frank & Mohamed, 2024).

Empirical research reinforces the link between creativity and entrepreneurial intentions (EI). Studies have shown that individuals with greater creative thinking skills exhibit stronger entrepreneurial motivation, particularly in opportunity recognition and venture ideation (Gouvea et al., 2021; Shaheen et al., 2023), in a study involving entrepreneurship training in higher education, found that students with higher creativity scores were more likely to engage in opportunity identification and exhibit stronger entrepreneurial intentions. Similarly, Wach & Bilan (2023) reported that creativity was positively associated with EI among university students, even after controlling for other psychological variables such as self-efficacy and emotional intelligence.

In the Indonesian context, creativity is increasingly emphasized as a vital entrepreneurial competency. With the rapid expansion of the digital economy, creative industries, and start-up ecosystems, Indonesian universities and government agencies have highlighted creative thinking as a key pillar of entrepreneurship education (Atrup et al., 2023; Harianto et al., 2023). Students who can combine creative insight with entrepreneurial ambition are better positioned to contribute to local innovation and sustainable business creation.

Given the theoretical and empirical evidence, this study proposes the following hypothesis: *H2: Creativity positively influences entrepreneurial intentions among university students in Indonesia.*

2.3 Entrepreneurial Self-Efficacy (ESE) as a Mediator

Entrepreneurial self-efficacy (ESE) refers to an individual's belief in their ability to successfully carry out entrepreneurial tasks such as identifying opportunities, developing business plans, and managing resources (Pham et al., 2023; T.-L. Wang & Oscar, 2024). As a central concept within Social Cognitive Theory (Bandura, 2023), ESE is a critical psychological mechanism that helps explain how individuals translate learning experiences into entrepreneurial behavior. Students who believe in their entrepreneurial capabilities are more likely to develop strong intentions and take proactive steps toward starting a business.

Entrepreneurship education (EE) plays a vital role in strengthening ESE. Through experiential learning activities such as business simulations, real-world case studies, mentoring, and feedback sessions, EE enhances students' mastery experiences and perceived competence, two key sources of self-efficacy development (Bandura, 2023). As students gain entrepreneurial knowledge and apply it in practical settings, they become more confident in their abilities to succeed as entrepreneurs (Alkhalaf et al., 2022; Ortega & Acero, 2025).

Empirical studies provide strong evidence for ESE as a mediator in the EE–EI relationship. Atrup et al. (2023) found that exposure to EE significantly enhanced students' self-efficacy, which in turn led to greater entrepreneurial intention. Similarly, Ferreira-Neto et al. (2023) confirmed that ESE mediates the impact of EE on EI, especially among university students in developing countries like Indonesia, where entrepreneurship is increasingly viewed as a viable career path.

In addition to EE, creativity also contributes to the development of entrepreneurial self-efficacy. Creativity enables individuals to generate novel ideas, solve complex problems, and recognize unconventional opportunities, skills that directly enhance their confidence in navigating uncertain entrepreneurial environments (Frank & Mohamed, 2024). Studies suggest that creative students are more likely to believe in their ability to launch innovative ventures, thereby increasing both ESE and EI. In this way, creativity indirectly shapes entrepreneurial intention through its positive influence on self-efficacy (Osmani et al., 2022; C. Wang et al., 2022).

Given the theoretical rationale and empirical support, this study proposes the following hypotheses:
H3A: Entrepreneurial self-efficacy mediates the relationship between entrepreneurship education and entrepreneurial intentions.
H3B: Entrepreneurial self-efficacy mediates the relationship between creativity and entrepreneurial intentions.

2.4 Entrepreneurial Self-Efficacy (ESE) as a Moderator

Beyond its mediating role, entrepreneurial self-efficacy (ESE) is increasingly recognized as a potential moderator in the relationship between entrepreneurship education (EE) and entrepreneurial intentions (EI). As a moderating variable, ESE influences the strength or direction of the effect that EE has on EI. Social Cognitive Theory (Bandura, 2023) supports this premise by emphasizing the role of self-efficacy in regulating motivation and behavior. According to the theory, individuals with higher self-efficacy are more likely to act on the skills and knowledge they acquire, whereas those with low self-efficacy may hesitate to do so, regardless of their level of competence or education.

In the context of EE, students exposed to the same curriculum may respond differently based on their self-beliefs (Morales-Navarro et al., 2024). Those with higher levels of ESE tend to interpret learning experiences more positively, display greater initiative, and exhibit stronger persistence in the face of entrepreneurial challenges (Adebusuyi et al., 2022; Hatidja et al., 2025). Conversely, students with lower ESE may doubt their ability to start a business, even if they have been well trained. This distinction highlights ESE as a crucial psychological filter through which EE is internalized and transformed into intention.

Empirical studies reinforce the moderating role of ESE. For instance, Guo (2022) found that self-efficacy moderated the relationship between entrepreneurial learning and intention, with the impact of learning being significantly stronger among individuals with high ESE. Similarly, studies by (Adebusuyi et al., 2022; Guo, 2022) suggest that students with strong ESE are better positioned to convert entrepreneurship training into practical intention and behavior. These findings imply that the effectiveness of EE in fostering entrepreneurial intention may not be uniform across students and that ESE plays a pivotal role in amplifying this effect.

Within the Indonesian context, where the entrepreneurial ecosystem is still developing and uncertainty remains a major barrier to business creation, students' confidence in their own entrepreneurial capability becomes even more critical. ESE helps buffer the fear of failure and enhances students' willingness to act upon their entrepreneurial knowledge (Jamaluddin, 2025; Saptono et al., 2021).

Based on this reasoning, the following hypothesis is proposed:
H4: The relationship between entrepreneurship education and entrepreneurial intentions is stronger for students with higher levels of entrepreneurial self-efficacy.

2.5 Resilience as a Moderator

Resilience is defined as an individual's capacity to recover from adversity, adapt to change, and persist in the face of challenges (Ediagbonya et al., 2024). In the entrepreneurial context, resilience is a critical

psychological trait that influences how individuals respond to setbacks, uncertainty, and the inherent risks associated with starting and running a business (Aminullah & Wusko, 2025a; Ediagbonya et al., 2024). Entrepreneurs often encounter repeated failures and unexpected obstacles, and the ability to maintain motivation and adapt under pressure can distinguish successful entrepreneurs from those who abandon their ventures prematurely.

From the perspective of the Resource-Based View (RBV), resilience can be considered a valuable intangible resource that enhances individual performance and offers a sustainable competitive advantage (Ediagbonya et al., 2024). As a personal resource, resilience complements other psychological and cognitive attributes, allowing individuals to better utilize acquired knowledge and skills in entrepreneurial settings (Alshebami & Murad, 2022). In the context of entrepreneurship education (EE), students with higher resilience may be more capable of engaging with the curriculum, applying lessons in uncertain environments, and converting their learning into actionable entrepreneurial intentions (EI) (Aminullah & Wusko, 2025b; Ediagbonya et al., 2024).

Recent empirical research supports the moderating role of resilience in the EE–EI relationship. For example, Ukil & Jenkins (2023) found that resilience significantly enhanced individuals' willingness to pursue entrepreneurial activity despite prior failures. Alshebami & Murad (2022) observed that resilient entrepreneurs were more likely to re-engage with entrepreneurial endeavors after setbacks, suggesting that resilience amplifies the impact of prior learning experiences. In educational settings, resilience has also been linked to higher academic performance and persistence, indicating its broader relevance in motivation and goal attainment (Alam, 2025; Athota & Malik, 2019).

In Indonesia, where students may face socioeconomic barriers, limited institutional support, and an unpredictable business climate, resilience is especially relevant. EE programs may equip students with knowledge and skills, but without the resilience to navigate real-world challenges, many may hesitate to act. As such, resilience may serve as a psychological buffer, strengthening the pathway from EE to EI by increasing students' tolerance for risk and ability to handle failure (Drzewiecki et al., 2020).

Based on the theoretical rationale and empirical support, the following hypothesis is proposed:
H5: Resilience moderates the relationship between entrepreneurship education and entrepreneurial intentions, such that the relationship is stronger for students with higher levels of resilience.

2.6 Theoretical Foundation

This study is grounded in two prominent theoretical frameworks: Social Cognitive Theory (SCT) and the Resource-Based View (RBV). Together, these frameworks provide a robust explanation for the psychological and cognitive mechanisms that link entrepreneurship education to entrepreneurial intentions.

Social Cognitive Theory, introduced by Bandura (2023), posits that human behavior is shaped by the dynamic interplay between personal factors, behavior, and environmental influences. Within this framework, entrepreneurial self-efficacy (ESE) is seen as a central personal cognitive resource that mediates the translation of learning experiences into behavioral outcomes. SCT suggests that students' beliefs in their entrepreneurial capabilities influence their motivation, decision-making, and persistence in entrepreneurial endeavors. Thus, ESE is hypothesized to both mediate and moderate the relationship between EE and EI, as higher self-efficacy enhances individuals' ability to act on their education and intentions.

The Resource-Based View provides a complementary perspective by emphasizing the strategic value of internal resources in achieving competitive advantage. According

to RBV, intangible resources such as creativity and resilience are essential for sustained success in uncertain and competitive environments (Gerhart & Feng, 2021). Creativity enables individuals to generate novel business ideas and recognize opportunities, while resilience equips them to overcome challenges and adapt to change. In this study, creativity is positioned as a direct predictor of EI, while resilience functions as a moderator that strengthens the impact of EE on EI, especially in high-risk contexts. Together, SCT and RBV offer an integrated lens through which to examine the psychological, cognitive, and contextual factors influencing entrepreneurial intention. By applying these theories, this study not only advances the understanding of how EE shapes student outcomes, but also contributes to the refinement of both frameworks within the domain of entrepreneurship education.

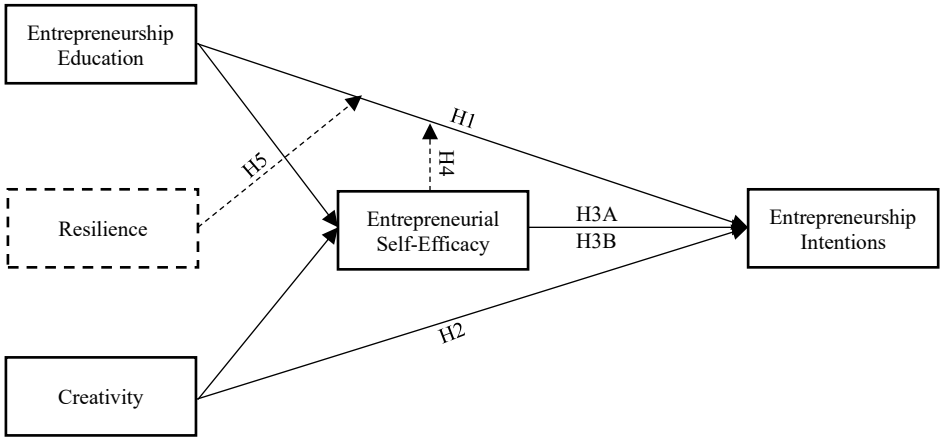

Figure 1.
Research Framework

3. Methodology

This study employed a quantitative, cross-sectional research design to examine the relationships among entrepreneurship education (EE), entrepreneurial self-efficacy (ESE), creativity, resilience, and entrepreneurial intentions (EI) among university students in Indonesia. A cross-sectional approach was chosen because it enables the analysis of multiple latent variables and their interrelations at a single point in time. Given the complexity of the proposed model, which includes both mediating and moderating variables, Structural Equation Modeling (SEM) using SmartPLS 4 was employed. This software is suitable for non-normal data and small to medium sample sizes, making it an appropriate tool for this study's analytical framework.

The target population for this study consisted of students enrolled in entrepreneurship-related courses at Indonesian universities that have formally implemented entrepreneurship education programs. A purposive sampling method was adopted to ensure that respondents had meaningful exposure to EE content. A total of 400 valid responses were collected from students attending 15 universities across various provinces of Indonesia, including institutions located in Java, Sumatera, West Nusa Tenggara, Bali, and Sulawesi. These universities represent diverse economic and cultural contexts, which increases the generalizability of the findings.

The sample included 90 percent undergraduate and 10 percent postgraduate students, with academic backgrounds ranging from business and management to engineering and information technology. These students were selected because their programs incorporate formal

entrepreneurship education modules, ensuring their familiarity with the constructs examined in this study.

Data collection was conducted from August to October 2024 through both online and in-person surveys. The questionnaire was developed in Bahasa Indonesia to ensure the respondent easily understand the questionnaire. Prior to the main data collection, a pilot study was conducted with 50 students to test the reliability, clarity, and cultural appropriateness of the items. Minor modifications were made based on the pilot feedback. Ethical approval was obtained from the institutional review boards of the participating universities. All participants were informed about the purpose of the study, assured of the anonymity and confidentiality of their responses, and provided informed consent before participating. Participation was voluntary, and respondents could withdraw at any time without consequence.

The constructs in this study were measured using previously validated multi-item scales. All items were rated on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Entrepreneurship education was measured using four items adapted from Atrup et al. (2023), assessing students' perceived value and relevance of the entrepreneurship course. Entrepreneurial self-efficacy was measured with four items from Saptono et al. (2021), capturing confidence in opportunity recognition, business planning, and problem-solving. Entrepreneurial intentions were measured using four items from the Entrepreneurial Intention Questionnaire (EIQ) by Ukil & Jenkins (2023), which assess students' motivation and commitment to start a business. Creativity was assessed using four items adapted from Wach & Bilan (2023), focusing on the ability to generate novel and useful ideas. Resilience was measured using four items adapted from Ediagbonya et al. (2024), evaluating students' capacity to recover from setbacks and persist through challenges. The full list of measurement items, along with their sources, is presented in Table 1.

Table 1.
Measurement Items

Construct	Item Code & Statement	Source
Entrepreneurship Education (EE)	EE1: The entrepreneurship course increased my awareness of business opportunities. EE2: I gained useful knowledge and skills in entrepreneurship education. EE3: The course content was relevant to real-world entrepreneurial challenges. EE4: The course inspired me to consider becoming an entrepreneur.	Adapted from Atrup et al. (2023)
Entrepreneurial Self-Efficacy (ESE)	ESE1: I am confident in identifying business opportunities. ESE2: I believe I can develop a working business plan. ESE3: I can handle unexpected challenges in business effectively. ESE4: I am capable of solving problems during venture creation.	Adapted from Saptono et al. (2021)

Table 1. *Continued*

Construct	Item Code & Statement	Source
Entrepreneurial Intentions (EI)	EI1: I intend to start my own business in the future. EI2: I will make every effort to start and run my own business. EI3: I am determined to create a firm in the future. EI4: I have seriously thought about starting a business.	Adapted from Ukil & Jenkins (2023)
Creativity (CR)	CR1: I often come up with original ideas. CR2: I am good at generating creative solutions to problems. CR3: I find it easy to think of new ideas. CR4: I enjoy exploring unconventional ideas and perspectives.	Adapted from Wach & Bilan (2023)
Resilience (RS)	RS1: I can recover quickly after experiencing setbacks. RS2: I remain calm under pressure. RS3: I persist in achieving goals despite obstacles. RS4: I adapt well to changes and challenges.	Adapted from Ediagbonya et al. (2024)

Data analysis followed a two-step approach. First, the measurement model was assessed for reliability and validity. This included examining factor loadings (minimum threshold of 0.70), Cronbach's alpha and composite reliability (minimum 0.70), and average variance extracted (AVE) values (minimum 0.50). Discriminant validity was assessed using the Fornell-Larcker criterion. Second, the structural model was evaluated to test the hypothesized relationships among constructs. Path coefficients, t-values, and p-values were obtained using a bootstrapping procedure with 5,000 resamples. The coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2) were also reported. Model fit was assessed using fit indices including the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR), all of which followed recommended cutoff values.

To test the mediation hypotheses, the indirect effects of EE and creativity on EI through ESE were analyzed using bootstrapping. Moderation analysis was conducted by including an interaction term between EE and resilience, and by comparing the path strength of EE on EI at high and low levels of resilience. This comprehensive approach allowed the study to capture both the direct and conditional effects proposed in the conceptual model.

4. Findings and Discussion

4.1 Descriptive Statistics

Table 2 presents the demographic profile of the 400 respondents who participated in this study. In terms of gender, the sample consisted of 180 male students (45%) and 220 female students (55%), indicating a relatively balanced distribution with a slightly higher representation of females. Regarding academic level, the majority of participants were undergraduate students, accounting for

90% of the total sample, while the remaining 10% were postgraduate students. This reflects the growing emphasis on entrepreneurship education at the undergraduate level across Indonesian universities.

The respondents came from a range of academic disciplines relevant to entrepreneurship. Business and management students formed the largest group, representing 37.5% of the sample. Students majoring in economics constituted 22.5%, while those from engineering and information technology each made up 20% of the participants. This distribution underscores the interdisciplinary interest in entrepreneurship and the inclusion of entrepreneurial curricula across diverse academic programs.

In terms of geographical representation, students were drawn from universities located in five regions of Indonesia. Java accounted for the largest share at 40%, followed by Sumatra with 20%. West Nusa Tenggara contributed 15% of the sample, while Bali and Sulawesi each accounted for 12.5%. This regional diversity ensures that the findings reflect a broad spectrum of educational and cultural contexts within the Indonesian higher education system, enhancing the generalizability and relevance of the study.

Table 2.
Respondent Statistics

Category	Subcategory	Frequency (n)	Percentage (%)
Gender	Male	180	45
	Female	220	55
Academic Level	Undergraduate	360	90
	Postgraduate	40	10
Field of Study	Business/Management	150	37.5
	Economics	90	22.5
	Engineering	80	20
	Information Technology	80	20
University Region	Java	160	40
	Sumatera	80	20
	West Nusa Tenggara	60	15
	Bali	50	12.5
	Sulawesi	50	12.5

Table 3 displays the descriptive statistics for the key constructs used in this study. The results show that all constructs had relatively high mean scores, ranging from 5.39 (Creativity) to 5.85 (Entrepreneurial Intentions), on a 7-point Likert scale. Entrepreneurship education had a mean of 5.62 with a standard deviation of 0.91, indicating that students generally perceived their EE experiences as positive, though with some variation. Entrepreneurial self-efficacy recorded a mean of 5.47 and a standard deviation of 0.88, suggesting a moderate to high level of confidence among students in their entrepreneurial capabilities. Entrepreneurial intentions had the highest mean score (5.85), reflecting a strong overall desire among participants to pursue entrepreneurial careers. Creativity and resilience also showed robust means (5.39 and 5.76, respectively), though resilience had a slightly higher standard deviation (1.05), indicating greater variability among students in their perceived ability to bounce back from challenges. The minimum and maximum values for all constructs remained within the expected scale range, confirming the suitability of the data for further analysis.

Table 3.
Descriptive Statistics

Construct	Mean	Standard Deviation	Min.	Max.
Entrepreneurship Education (EE)	5.62	0.91	3	7
Entrepreneurial Self-Efficacy (ESE)	5.47	0.88	3	7
Entrepreneurial Intentions (EI)	5.85	0.95	3	7
Creativity (CR)	5.39	0.92	2	7
Resilience (RS)	5.76	1.05	2	7

To examine the relationships among the study variables, a Pearson correlation matrix was computed, as shown in Table 4. The results reveal significant positive correlations between all variables, suggesting conceptual and empirical alignment within the proposed model. Entrepreneurship education was positively correlated with entrepreneurial self-efficacy (r = 0.62) and entrepreneurial intentions (r = 0.59), supporting the notion that students who find their EE experiences meaningful are more likely to develop confidence and intentions toward entrepreneurship. Entrepreneurial self-efficacy was also strongly associated with entrepreneurial intentions (r = 0.68), reinforcing its central role as a motivational driver in the intention formation process. Creativity showed moderate correlations with both ESE (r = 0.55) and EI (r = 0.52), indicating that students who perceive themselves as creative are more likely to feel confident and committed to entrepreneurial action. Resilience, while showing slightly weaker correlations than the other constructs, still demonstrated meaningful associations with EE (r = 0.44), ESE (r = 0.49), and EI (r = 0.50), suggesting that students with higher resilience are more likely to transform EE into actionable entrepreneurial goals.

Table 4.
Pearson Correlation Matrix

Construct	EE	ESE	EI	CR	RS
Entrepreneurship Education (EE)	1.00	0.62	0.59	0.48	0.44
Entrepreneurial Self-Efficacy (ESE)	0.62	1.00	0.68	0.55	0.49
Entrepreneurial Intentions (EI)	0.59	0.68	1.00	0.52	0.50
Creativity (CR)	0.48	0.55	0.52	1.00	0.41
Resilience (RS)	0.44	0.49	0.50	0.41	1.00

Taken together, the descriptive and correlational findings provide preliminary support for the hypothesized relationships in the structural model. The consistently positive and moderate-to-strong correlations among EE, ESE, EI, creativity, and resilience justify further testing through structural equation modeling to evaluate the mediation and moderation effects proposed in the study.

4.2 Measurement Model

Table 5 presents the reliability and validity results for the constructs, including factor loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). All items for each construct demonstrate factor loadings above the acceptable threshold of 0.7, confirming strong item reliability. For Entrepreneurship Education (EE), the four items (EE1–EE4) exhibit factor loadings ranging from 0.82 to 0.88, with a Cronbach's alpha of 0.88, CR of 0.9, and AVE of 0.65, indicating high internal consistency and convergent validity. Similarly, Entrepreneurial Self-Efficacy (ESE) shows robust reliability, with factor loadings between 0.81 and 0.87. Its Cronbach's alpha is 0.9, CR is 0.91, and AVE is 0.7, confirming strong reliability and validity.

The Entrepreneurial Intentions (EI) construct reports high factor loadings for its items (EI1–EI4), ranging from 0.83 to 0.89. The Cronbach's alpha is 0.92, CR is 0.93, and AVE is 0.68, indicating excellent internal consistency and convergent validity. For Creativity (CR), the factor loadings of its four items (CR1–CR4) range between 0.79 and 0.85, with a Cronbach's alpha of 0.85, CR of 0.88, and AVE of 0.62, demonstrating satisfactory reliability and validity. Finally, the Resilience (RS) construct also meets reliability and validity criteria, with factor loadings between 0.8 and 0.85, Cronbach's alpha of 0.87, CR of 0.89, and AVE of 0.64. Overall, the results confirm that all constructs satisfy the requirements for reliability, with Cronbach's alpha and CR values exceeding 0.7, and convergent validity, as AVE values surpass the threshold of 0.5. The strong factor loadings further validate that each item significantly contributes to its respective construct (Barkat et al., 2024).

Table 5.
Reliability and Validity

Construct	Item	Loading	Cron. Alpha	CR	AVE
Entrepreneurship Education (EE)	EE1	0.82	0.88	0.9	0.65
	EE2	0.85			
	EE3	0.88			
	EE4	0.84			
Entrepreneurial Self-Efficacy (ESE)	ESE1	0.81	0.9	0.91	0.7
	ESE2	0.83			
	ESE3	0.86			
	ESE4	0.87			
Entrepreneurial Intentions (EI)	EI1	0.84	0.92	0.93	0.68
	EI2	0.86			
	EI3	0.89			
	EI4	0.83			
Creativity (CR)	CR1	0.79	0.85	0.88	0.62
	CR2	0.82			
	CR3	0.84			
	CR4	0.85			
Resilience (RS)	RS1	0.8	0.87	0.89	0.64
	RS2	0.83			
	RS3	0.85			
	RS4	0.82			

Table 6 presents the discriminant validity results using the Fornell-Larcker criterion, where the diagonal values represent the square root of the AVE, and the off-diagonal values indicate inter-construct correlations.

Table 6.
Discriminant Validity

Construct	EE	ESE	EI	CR	RS
EE	0.81				
ESE	0.62	0.84			
EI	0.58	0.7	0.82		
CR	0.55	0.65	0.66	0.79	
RS	0.6	0.68	0.64	0.61	0.8

The square root of the AVE for each construct, Entrepreneurship Education (EE) (0.81), Entrepreneurial Self-Efficacy (ESE) (0.84), Entrepreneurial Intentions (EI) (0.82), Creativity (CR) (0.79), and Resilience (RS) (0.80) is greater than its correlations with other constructs, confirming discriminant validity. For instance, EE correlates with ESE (0.62), EI (0.58), CR (0.55), and RS (0.60), all of which are lower than the square root of EE's AVE (0.81). Similarly, ESE shows higher square root AVE (0.84) compared to its correlations with EE (0.62), EI (0.7), CR (0.65), and RS (0.68). The same pattern holds for EI, CR, and RS, where their respective square root AVE values are consistently higher than their inter-construct correlations. These results confirm that all constructs meet the criteria for discriminant validity, ensuring that each construct captures unique variance and remains distinct from others in the model.

4.3 Structural Assessment

The structural model was evaluated to test the proposed hypotheses and assess the strength and significance of the relationships between constructs. As shown in Table 7, all direct and indirect effects in the model were statistically significant. Entrepreneurship education had a significant positive effect on entrepreneurial intentions ($\beta = 0.45$, $t = 6.63$, $p < 0.001$), supporting Hypothesis 1. This indicates that students who perceive their entrepreneurship education as meaningful are more likely to develop strong intentions to engage in entrepreneurial activities. Creativity also showed a significant direct effect on entrepreneurial intentions ($\beta = 0.40$, $t = 4.44$, $p < 0.001$), confirming Hypothesis 2 and highlighting the role of creative thinking in shaping students' motivation to pursue entrepreneurship.

Table 7.
Direct and Indirect Effect

Hypothesis	Path Relationship	β	t-value	p-value	Result
H1	EE → EI	0.45	5.63	< 0.001	Supported
H2	CR → EI	0.40	4.44	< 0.001	Supported
H3A	EE → ESE → EI	0.20	6.14	< 0.001	Supported
H3B	CR → ESE → EI	0.18	3.91	< 0.001	Supported

The study further tested the mediating role of entrepreneurial self-efficacy. As hypothesized in H3A, entrepreneurial self-efficacy significantly mediated the relationship between entrepreneurship education and entrepreneurial intentions ($\beta = 0.20$, $t = 6.14$, $p < 0.001$). This suggests that entrepreneurship education enhances students' confidence in their entrepreneurial abilities, which in turn increases their intention to start a business. Similarly, Hypothesis 3B was supported, with entrepreneurial self-efficacy mediating the relationship between creativity and entrepreneurial intentions ($\beta = 0.18$, $t = 3.91$, $p < 0.001$). This finding indicates that creative students are more likely to develop entrepreneurial intentions when they believe in their ability to apply those creative ideas effectively in a business context.

Table 8.
Multi-Group Analysis

Moderator Group	Path (EE → EI)	t-value	p-value	Result
High ESE	0.55	6.88	< 0.001	
Low ESE	0.35	3.89	0.060	
Group Difference (ESE)	–	–	0.031	Significant
High Resilience	0.60	8.57	< 0.001	
Low Resilience	0.40	4.00	0.210	
Group Difference (Resilience)	–	–	0.044	Significant

To assess whether the effect of entrepreneurship education on entrepreneurial intentions varies across levels of entrepreneurial self-efficacy and resilience, a multi-group analysis (MGA) was conducted. The results are presented in Table 8. For entrepreneurial self-efficacy, the effect of entrepreneurship education on entrepreneurial intentions was significant and strong in the high-ESE group ($\beta = 0.55$, $t = 6.88$, $p < 0.001$), but it was not statistically significant in the low-ESE group ($\beta = 0.35$, $t = 3.89$, $p = 0.060$). The group difference was statistically significant ($p = 0.031$), indicating that entrepreneurial education is more effective in fostering intention among students who already possess high confidence in their entrepreneurial abilities.

This finding supports Hypothesis 4 and aligns with Social Cognitive Theory, which suggests that individuals with high self-efficacy are more capable of translating learning into action. Students with greater entrepreneurial confidence are likely to perceive entrepreneurship education as more relevant and applicable, thereby converting knowledge into clear intentions. In contrast, students with low self-efficacy may be less responsive to EE due to doubts about their ability to act on what they learn.

A similar moderation pattern was found for resilience. The effect of entrepreneurship education on entrepreneurial intentions was significant among students with high resilience ($\beta = 0.60$, $t = 8.57$, $p < 0.001$), but non-significant for those with low resilience ($\beta = 0.40$, $t = 4.00$, $p = 0.210$). The group difference was also statistically significant ($p = 0.044$), indicating that resilience plays a key role in enabling students to act on entrepreneurial education. Students with high resilience are more likely to persist in the face of uncertainty and risk, making them more capable of translating educational inputs into intention. In contrast, those with lower resilience may struggle to apply what they have learned due to fear of failure or lack of persistence.

These results underscore the importance of psychological readiness in entrepreneurship education. High levels of self-efficacy and resilience act as enabling conditions that strengthen the translation of educational exposure into intention, while their absence may limit the effectiveness of EE interventions. Educators and policymakers should consider strategies to build these psychological traits alongside knowledge delivery to maximize the impact of entrepreneurship education.

Table 9.
R^2, Q^2, and F^2

Endogenous Construct	R^2	Q^2	Predictor	f^2 (Effect Size)
Entrepreneurial Self-Efficacy (ESE)	0.49	0.31	Entrepreneurship Education (EE)	0.28 (Moderate)
			Creativity (CR)	0.16 (Small)
Entrepreneurial Intentions (EI)	0.61	0.42	Entrepreneurship Education (EE)	0.18 (Small–Moderate)
			Entrepreneurial Self-Efficacy (ESE)	0.34 (Large)
			Creativity (CR)	0.14 (Small)

In addition to hypothesis testing, the model's explanatory power was evaluated using coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2), as summarized in Table 9. The R^2 value for entrepreneurial self-efficacy was 0.49, indicating that nearly half of the variance in ESE could be explained by entrepreneurship education and creativity. For entrepreneurial intentions, the R^2 value was 0.61, suggesting a substantial level of explained variance. The Q^2 values for both constructs were above the recommended threshold of 0, confirming that the model has predictive relevance. Regarding effect sizes, entrepreneurship education had a moderate effect on ESE (f^2 = 0.28) and a small to moderate effect on EI (f^2 = 0.18). Entrepreneurial self-efficacy had a large effect on EI (f^2 = 0.34), while creativity showed small effect sizes on both ESE (f^2 = 0.16) and EI (f^2 = 0.14). These results demonstrate that the model not only explains a meaningful portion of the variance in key outcomes but also includes predictors with practically significant impacts.

Table 10.
Modem Fit Indices

Fit Index	Threshold	Value	Status
Comparative Fit Index (CFI)	≥ 0.90	0.93	Accepted
Tucker-Lewis Index (TLI)	≥ 0.90	0.91	Accepted
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.07	Accepted

Finally, the model's overall fit was evaluated using standard fit indices. As shown in Table 10, the Comparative Fit Index (CFI) was 0.93 and the Tucker-Lewis Index (TLI) was 0.91, both exceeding the commonly accepted threshold of 0.90. The Root Mean Square Error of Approximation (RMSEA) was 0.07, which falls within the acceptable range of ≤ 0.08. These results confirm that the structural model has a good overall fit with the data and that the theoretical framework is well supported by the empirical evidence.

Together, the structural model results, group comparisons, and fit indices demonstrate that entrepreneurship education, creativity, and psychological resources such as self-efficacy and resilience play a vital role in shaping students' entrepreneurial intentions. The findings not only support the hypothesized relationships but also provide empirical validation for the integration of Social Cognitive Theory and the Resource-Based View in understanding entrepreneurship education outcomes in the Indonesian context.

4.4 Discussion

The findings of this study provide valuable insights into how entrepreneurship education, creativity, and psychological factors shape entrepreneurial intentions among university

students in Indonesia. Consistent with previous literature (Maydiantoro et al., 2021; Pham et al., 2023), entrepreneurship education was found to have a significant direct effect on entrepreneurial intentions. Students who perceive EE programs as relevant and practical are more likely to develop the mindset and motivation necessary for pursuing entrepreneurial careers.

Creativity also emerged as a significant predictor of entrepreneurial intentions, both directly and indirectly. This supports the Resource-Based View (Gerhart & Feng, 2021), which frames creativity as a core personal resource that enables individuals to recognize opportunities and develop innovative solutions. Students who view themselves as creative are more confident in their capacity to generate and act on new ideas, which in turn enhances their entrepreneurial motivation. This finding suggests that cognitive traits such as creativity complement educational inputs in shaping entrepreneurial outcomes.

Entrepreneurial self-efficacy (ESE) played a central mediating role in this process. Both EE and creativity had significant indirect effects on entrepreneurial intentions through ESE, highlighting the importance of confidence in one's entrepreneurial abilities. These results align with Social Cognitive Theory (Bandura, 2023), which emphasizes the role of perceived self-competence in driving behavioral intentions. As shown in prior studies (Guo, 2022; Saptono et al., 2021), ESE serves as a key psychological mechanism through which students transform learning experiences and personal traits into action-oriented goals.

In terms of moderation, the multi-group analysis revealed that the positive effect of entrepreneurship education on entrepreneurial intentions was only significant among students with high entrepreneurial self-efficacy. Among students with low ESE, the effect of EE on intention was not statistically significant. This finding refines our understanding of ESE's role, showing that while ESE mediates the learning-to-action process, it also serves as a gatekeeper for the effectiveness of entrepreneurship education. Students who already possess high confidence are more likely to translate what they learn into actionable entrepreneurial goals, whereas those with lower confidence may not respond as strongly, even when exposed to the same educational content.

A similar pattern was observed for resilience. The relationship between EE and entrepreneurial intentions was significant among students with high resilience, but not among those with low resilience. This suggests that psychological adaptability is a crucial condition for converting educational exposure into motivation to act. Students with high resilience are better equipped to handle the risks and uncertainties inherent in entrepreneurship, and thus more likely to be influenced by EE. This finding supports prior work by (Alshebami & Murad, 2022), who emphasized the role of resilience in sustaining entrepreneurial effort, particularly in volatile environments.

Compared with previous studies, this research contributes a more integrated framework that considers both educational and psychological dimensions of entrepreneurial development. While many earlier models focused solely on content or intention, this study demonstrates the importance of sequencing where EE and creativity shape self-efficacy, and self-efficacy in turn determines whether EE can activate intention. By positioning resilience as a key moderator, the study also introduces a valuable affective dimension into entrepreneurship education research, especially in emerging economy contexts like Indonesia.

Overall, the findings indicate that entrepreneurship education must go beyond technical knowledge delivery. Effective programs should be designed to build students' entrepreneurial self-efficacy and psychological resilience while nurturing their creative potential. By doing so, universities in Indonesia and similar developing regions can

better equip their students to successfully navigate the uncertain terrain of entrepreneurship and contribute to national economic goals through innovation and self-employment.

4.5 Theoretical Implications

This study offers several theoretical contributions to the literature on entrepreneurship education and entrepreneurial behavior. First, the findings extend the Social Cognitive Theory by empirically demonstrating the mediating and moderating roles of entrepreneurial self-efficacy in the entrepreneurship education process. While previous studies have often emphasized ESE as a predictor of entrepreneurial intention, this study reinforces its dual function as both a mechanism through which learning experiences shape intention and a condition that enhances the effectiveness of those experiences. This dual role deepens our understanding of how personal beliefs influence behavioral outcomes in the entrepreneurial context.

Second, the study contributes to the Resource-Based View (RBV) by conceptualizing creativity and resilience as psychological resources that enable entrepreneurial action. Creativity is shown not only as a direct predictor of entrepreneurial intention but also as a driver of self-efficacy, illustrating how cognitive resources foster confidence in applying ideas practically. Similarly, resilience strengthens the relationship between entrepreneurship education and intention, confirming its role as a valuable intangible asset in shaping behavioral responses to learning. These insights enrich RBV by showing that internal, non-physical capabilities significantly contribute to entrepreneurial potential.

Lastly, the integration of psychological, educational, and contextual variables within a single model provides a more comprehensive framework for understanding entrepreneurial intention formation, particularly in the under-researched context of emerging economies such as Indonesia. The study addresses gaps in the literature by validating its model with data from a culturally and economically diverse student population, thereby enhancing its generalizability and theoretical relevance.

4.6 Practical Implications

The findings of this study offer several practical implications for universities and policymakers seeking to strengthen entrepreneurship education. First, the significant impact of entrepreneurship education on entrepreneurial intentions supports the continued integration of EE into university curricula. However, the effectiveness of these programs is contingent on more than content delivery. The results underscore the need to embed pedagogical components that foster self-efficacy, creativity, and resilience.

Among the universities sampled in this study, several have begun to implement experiential components such as business plan competitions, guest lectures from entrepreneurs, and case-based coursework. However, comprehensive implementation of experiential learning models, business simulations, and structured mentorship programs remains inconsistent and limited in scale. This gap reinforces the findings of the study, which demonstrate that students benefit most when psychological resources such as confidence and adaptability are developed alongside entrepreneurial knowledge.

Therefore, this study highlights a critical opportunity for universities to enhance their EE strategies. Institutions should not only broaden the scope of current offerings but also ensure that entrepreneurial self-efficacy and resilience-building exercises are embedded in the learning process. Doing so will better prepare students to transition from intention to entrepreneurial action, especially in the uncertain and competitive environment of emerging economies like Indonesia.

4.7 Limitations and Suggestions

Despite its contributions, this study is subject

to several limitations. The use of a cross-sectional design limits the ability to establish causal relationships among variables. Future research should consider longitudinal studies to better understand how entrepreneurship education and self-efficacy evolve over time and influence long-term entrepreneurial behavior. Additionally, while this study controls for some demographic diversity, it does not include potential confounding variables such as prior entrepreneurial experience, socio-economic status, or personality traits, which may influence both self-efficacy and entrepreneurial intention.

Another limitation is the self-reported nature of the data, which may be affected by social desirability bias. Students may overestimate their confidence or intention to become entrepreneurs, especially in institutional contexts where entrepreneurship is promoted. Furthermore, the sample, although geographically and academically diverse, is still limited to Indonesian universities, which may restrict the generalizability of the findings to other cultural or national contexts.

Moreover, this study did not control for potential confounding variables that could influence the observed relationships. Factors such as prior entrepreneurial experience, socioeconomic background, academic performance, and access to entrepreneurial networks may independently affect students' entrepreneurial self-efficacy and intentions. The absence of these controls may introduce bias or limit the precision of the estimated effects. Future research should incorporate these variables into the model to assess their potential impact and enhance the robustness of the findings.

Future studies should also explore longitudinal designs to trace how entrepreneurship education influences students' intentions and behaviors over time. Such designs would provide more robust insights into the causal mechanisms underlying the formation of entrepreneurial self-efficacy and intention. Researchers could also expand the model to include additional variables, such as entrepreneurial mindset, opportunity recognition, emotional intelligence, or institutional support, to offer a more holistic view of the entrepreneurial development process.

Cross-cultural studies comparing students from different countries or economic systems could help determine whether the relationships observed in this study hold true across contexts or are specific to Indonesia's educational and entrepreneurial ecosystem. Moreover, qualitative approaches, such as interviews or focus groups, may complement quantitative findings by uncovering deeper motivational and contextual factors that influence how students experience entrepreneurship education and perceive their entrepreneurial abilities.

Lastly, future work could investigate the effectiveness of specific educational interventions such as mentorship programs, hackathons, or startup incubators on building self-efficacy, resilience, and creativity among students. By identifying the most impactful components of entrepreneurship education, researchers can help educators design evidence-based curricula that are both engaging and transformative.

5. Conclusions

This study provides a comprehensive understanding of how entrepreneurship education, supported by creativity and key psychological resources, shapes entrepreneurial intentions among university students in Indonesia. The results underscore the central role of entrepreneurial self-efficacy in bridging education and intention, both as a mechanism through which knowledge is internalized and as a condition under which entrepreneurship education is most effective. The study also highlights creativity as a valuable cognitive asset that not only influences intention directly but strengthens students' confidence in their entrepreneurial capabilities.

Importantly, the findings reveal that psychological readiness specifically high levels of self-efficacy and resilience is essential for maximizing the impact of entrepreneurship education. Students with stronger belief in their capabilities and greater adaptability are more likely to translate educational experiences into meaningful entrepreneurial motivation.

Together, these insights contribute to advancing theory by integrating educational, cognitive, and affective dimensions into a unified model of entrepreneurial intention. From a practical perspective, they emphasize the need for entrepreneurship education programs that go beyond content delivery, focusing instead on cultivating psychological traits that support entrepreneurial action. In the context of Indonesia's efforts to strengthen its entrepreneurial ecosystem, this study offers timely and actionable guidance for shaping more impactful higher education strategies.

Declarations

Author contribution

All authors contributed equally as the main contributors to the conceptualization, design, data collection, analysis, and writing of this manuscript. Both authors have read and approved the final version of the paper.

Funding statement

The authors declare that this research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Competing interest

The authors declare that they have no conflicts of interest to report regarding the present study.

References

Adebusuyi, A. S., Adebusuyi, O. F., & Kolade, O. (2022). Development and validation of sources of entrepreneurial self-efficacy and outcome expectations: A social cognitive career theory perspective. *The International Journal of Management Education*, *20*(2), 100572. doi: 10.1016/j.ijme.2021.100572

Alam, R. (2025). Building Adaptive Workforces: HRM and Digital Competency in Tourism Innovation. *Global Review of Tourism and Social Sciences*, *1*(2), 119–128. doi: 10.53893/grtss.v1i2.357

Alkhalaf, T., Durrah, O., Almohammad, D., & Ahmed, F. (2022). Can entrepreneurial knowledge boost the entrepreneurial intent of French students? The mediation role of behavioral antecedents. *Management Research Review*, *45*(12), 1545–1571. doi: 10.1108/MRR-06-2021-0432

Alshebami, A. S., & Murad, M. (2022). The moderation effect of entrepreneurial resilience on the relationship between financial literacy and sustainable performance. *Frontiers in Psychology*, *13*, 954841. doi: 10.3389/fpsyg.2022.954841

Amalia, R. T., & Von Korflesch, H. F. O. (2021). Entrepreneurship education in Indonesian higher education: Mapping literature from the Country's perspective. *Entrepreneurship Education*, *4*(3), 291–333. doi: 10.1007/s41959-021-00053-9

Aminullah, A., & Wusko, A. U. (2025a). Pentahelix Model to Create Shared Value in Empowering the People of Winong Village, Gempol District, Pasuruan Regency. *Global Review of Tourism and Social Sciences*, *1*(2), Article 2. doi: 10.53893/grtss.v1i2.348

Aminullah, A., & Wusko, A. U. (2025b). Pentahelix Model to Create Shared Value in Empowering the People of Winong Village, Gempol District, Pasuruan Regency. *Global Review of Tourism and Social Sciences*, *1*(2), Article 2. doi: 10.53893/grtss.v1i2.348

Anjum, T., Díaz Tautiva, J. A., Zaheer, M. A., & Heidler, P. (2024). Entrepreneurial Intentions: Entrepreneurship Education Programs, Cognitive Motivational Factors of Planned

Behavior, and Business Incubation Centers. *Education Sciences*, *14*(9), 983. doi: 10.3390/educsci14090983

Athota, V., & Malik, A. (2019). *Managing Employee Well-being and Resilience for Innovation: Evidence from Knowledge-intensive Service Industries | SpringerLink*. https://link.springer.com/book/10.1007/978-3-030-06188-3

Atrup, A., Diawati, P., Syamsuri, S., Pramono, S. A., & Ausat, A. M. A. (2023). The effect of entrepreneurship education and creativity on students' entrepreneurial intention: The perspective of effectuation and cognitive flexibility theory. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *9*(2), 555–569. doi: 10.5539/ies.v10n9p61

Bandura, A. (2023). *Social cognitive theory: An agentic perspective on human nature*. John Wiley & Sons. *https://books.google.com/books?hl=en&lr=&id=uEq2EAAAQBAJ&oi=fnd&pg=PR9&dq=social+cognitive+theory&ots=A4-3MrXiYi&sig=Dt9UAH75F_pZNfGqUt1O49r4xUE*

Barkat, K., Mimouni, K., Alsamara, M., & Mrabet, Z. (2024). Achieving the sustainable development goals in developing countries: The role of remittances and the mediating effect of financial inclusion. *International Review of Economics & Finance*, *95*, 103460. doi: 10.1016/j.iref.2024.103460

Do Nguyen, Q., & Nguyen, H. T. (2023). Entrepreneurship education and entrepreneurial intention: The mediating role of entrepreneurial capacity. *The International Journal of Management Education*, *21*(1), 100730.

Drzewiecki, D. M., Wavering, H. M., Milbrath, G. R., Freeman, V. L., & Lin, J. Y. (2020). The association between educational attainment and resilience to natural hazard-induced disasters in the West Indies: St. Kitts & Nevis. *International Journal of Disaster Risk Reduction*, *47*, 101637. doi: 10.1016/j.ijdrr.2020.101637

Duong, C. D. (2022). Exploring the link between entrepreneurship education and entrepreneurial intentions: The moderating role of educational fields. *Education+ Training*, *64*(7), 869–891. doi: 10.1108/ET-05-2021-0173

Ediagbonya, K., Odibo, G. D., & Okoduwa, O. F. (2024). Entrepreneurship Education and Resilience as Predictors of Business Education Students' Social Entrepreneurial Intention in Edo State. *Journal of Business and Entrepreneurship Education*, *3*(1), 160–167. https://jobee.rsu.edu.ng/index.php/j/article/view/33

Ferreira-Neto, M. N., de Carvalho Castro, J. L., de Sousa-Filho, J. M., & de Souza Lessa, B. (2023). The role of self-efficacy, entrepreneurial passion, and creativity in developing entrepreneurial intentions. *Frontiers in Psychology*, *14*, 1134618. doi: 10.3389/fpsyg.2023.1134618f

Frank, L., & Mohamed, S. (2024). Innovation and Creativity: Exploring the role of innovation and creativity in strategic planning.

Gerhart, B., & Feng, J. (2021). The Resource-Based View of the Firm, Human Resources, and Human Capital: Progress and Prospects. *Journal of Management*, *47*(7), 1796–1819. doi: 10.1177/0149206320978799

Gouvea, R., Kapelianis, D., Montoya, M.-J. R., & Vora, G. (2021). The creative economy, innovation and entrepreneurship: An empirical examination. *Creative Industries Journal*, *14*(1), 23–62. doi: 10.1080/17510694.2020.1744215

Guo, J. (2022). The significance of green entrepreneurial self-efficacy: Mediating and moderating role of green innovation and green knowledge sharing culture. *Frontiers in Psychology*, *13*, 1001867. doi: 10.3389/fpsyg.2022.1001867

Harianto, E., Teofilus, T., Wahyudono, D. B. K., Menny, A. H., & Azizurrohman, M. (2023). The Phenomenon of Discomfort toward Organizational Change Moderated by Empowering Leadership. *Jurnal Aplikasi Manajemen*, *21*(4), 863–875. doi: 10.21776/ub.jam.2023.021.04.01

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. doi: 10.1177/09504222211007051

Hatidja, S., Bahtiar, Mariana, L., Quach, T. M., & Aisyah, S. (2025). Employee Excellence and Workplace Diversity: Key Drivers of Satisfaction, Retention, and Brand Success in Ethnic Restaurants. *Global Review of Tourism and Social Sciences*, *1*(2), 158–171. doi: 10.53893/grtss.v1i2.319

Jamaluddin. (2025). Impact of Remote Working on Employee Productivity During COVID-19 in Indonesia: The Moderating Role of Job Level and the Influence of Cultural Adaptability. *Global Review of Tourism and Social Sciences*, *1*(2), 88–98. doi: 10.53893/grtss.v1i2.356

Kusumojanto, D. D., Wibowo, A., Kustiandi, J., & Narmaditya, B. S. (2021). Do entrepreneurship education and environment promote students' entrepreneurial intention? The role of entrepreneurial attitude. *Cogent Education*, *8*(1). doi: 10.1080/2331186x.2021.1948660

Mahmudin, T. (2023). The Importance of entrepreneurship education in preparing the young generation to face global economic challenges. *Journal of Contemporary Administration and Management (ADMAN)*, *1*(3), 187–192. doi: 10.61100/adman.v1i3.78

Mai, Y., Wu, Y. J., & Huang, Y. (2021). What type of social support is important for student resilience during COVID-19? A latent profile analysis. *Frontiers in Psychology*, *12*, 646145. doi: 10.3389/fpsyg.2021.646145

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

Maydiantoro, A., Ridwan, R., Tusianah, R., Rachman, A., Kesuma, P., Isnainy, U., & Zainaro, M. A. (2021). Entrepreneurship in higher education curriculla: Evidence from Indonesia. *Psychology and Education*, *58*(3), 936–949. doi: 10.17762/pae.v58i3.3027

Morales-Navarro, L., Giang, M. T., Fields, D. A., & Kafai, Y. B. (2024). Connecting beliefs, mindsets, anxiety and self-efficacy in computer science learning: An instrument for capturing secondary school students' self-beliefs. *Computer Science Education*, *34*(3), 387–413. doi: 10.1080/08993408.2023.2201548

Motta, V. F., & Galina, S. V. R. (2023). Experiential learning in entrepreneurship education: A systematic literature review. *Teaching and Teacher Education*, *121*, 103919. doi: 10.1016/j.tate.2022.103919

Ortega, L., & Acero, J. P. (2025). Nexus of organizational Culture and Work Performance: The Mediating Role of Organizational Politics in Local Government Setting. *Global Review of Tourism and Social Sciences*, *1*(2), 129–144. doi: 10.53893/grtss.v1i2.362

Osmani, M., El-Haddadeh, R., Hindi, N. M., & Weerakkody, V. (2022). The influence of creativity on the entrepreneurial intention of university female graduates: An SEM approach. *Industry and Higher Education*, *36*(5), 556–567. doi: 10.1177/09504222211061231

Pham, M., Lam, B. Q., & Le, V. P. T. (2023). The e-entrepreneurial intention of

students: The role of self-efficacy and education. *Entrepreneurial Business and Economics Review*, *11*(1), 127–143. doi: 10.15678/EBER.2023.110107

Prelipcean, G., & Ungureanu, A. (2023). Entrepreneurship in emerging economies: The role of innovation and institutions. In *Entrepreneurship-New Insights*. IntechOpen. *https://www.intechopen.com/chapters/86115*

Saptono, A., Wibowo, A., Widyastuti, U., Narmaditya, B. S., & Yanto, H. (2021). Entrepreneurial self-efficacy among elementary students: The role of entrepreneurship education. *Heliyon*, *7*(9). *https://www.cell.com/heliyon/fulltext/S2405-8440(21)02098-3*

Shaheen, N., Al-Haddad, S., Marei, A., & Daoud, L. (2023). The effect of creativity on entrepreneurial behavior: The moderating role of demographics. *Information Sciences Letters*, *12*(3), 1365–1372. doi: 10.18576/isl/120326

Suleman, D., Azizurrohman, M., & Pramuja, R. A. (2024). Harnessing The Power of Health Education and Technology: Unveiling Their Impact on Employee Productivity in ASEAN Countries. *Jurnal Dinamika Manajemen*, *15*(2), Article 2. doi: 10.15294/jdm.v15i2.8789

Syahruddin, S., Mujahida, S., Azizurrohman, M., & Dewayani, E. K. U. (2024). Building Brand Awareness through Cultural Sensitivity: Factors Influencing Customer Loyalty in Indonesian Restaurants in Taiwan. *The South East Asian Journal of Management*, *18*(2), 81–101. doi: 10.21002/seam.v18i2.1686

Timotius, E. (2022). The Future of Entrepreneurship in Indonesia: Fostering The Millennials' Entrepreneurial Intention. *Indonesian Journal of Business and Entrepreneurship (IJBE)*, *8*(1), 12–12. doi: 10.17358/IJBE.8.1.12

Uddin, M., Chowdhury, R. A., Hoque, N., Ahmad, A., Mamun, A., & Uddin, M. N. (2022). Developing entrepreneurial intentions among business graduates of higher educational institutions through entrepreneurship education and entrepreneurial passion: A moderated mediation model. *The International Journal of Management Education*, *20*(2), 100647. doi: 10.1016/j.ijme.2022.100647

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. doi: 10.1108/JSBED-03-2022-0154

Wach, K., & Bilan, S. (2023). Creativity of students in favour of their entrepreneurial intentions: Empirical evidence from Poland. *Creativity Studies*, *16*(1), 211–224. doi: 10.3846/cs.2023.15028

Wang, C., Mundorf, N., & Salzarulo-McGuigan, A. (2022). Entrepreneurship education enhances entrepreneurial creativity: The mediating role of entrepreneurial inspiration. *The International Journal of Management Education*, *20*(2), 100570. doi: 10.1016/j.ijme.2021.100570

Wang, T.-L., & Oscar, W. (2024). How Supportive and Competitive Work Environments Influence Job Attitudes and Performance in French Sales Roles. *Global Review of Tourism and Social Sciences*, *1*(1), 1–12. doi: 10.53893/grtss.v1i1.322

Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y., & Pan, H. (2022). Entrepreneurship education and entrepreneurial intentions of college students: The mediating role of entrepreneurial self-efficacy and the moderating role of entrepreneurial competition experience. *Frontiers in Psychology*, *12*, 727826. doi: 10.3389/fpsyg.2021.727826