

Entrepreneurial Mindset of Generation Z: The Role of Self-Efficacy and Achievement Motivation in Entrepreneurship Education

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Received: 28 September 2025

Accepted: 14 November 2025

Published: 16 February 2026

Abstract: This study aims to analyze and describe the influence of entrepreneurship education on Generation Z students' entrepreneurial mindset, with self-efficacy and achievement motivation as mediating variables. This study is a quantitative research type with the population in this study, namely: (1) domiciled or currently residing in Makassar, (2) aged 18–26 years, and (3) having an interest or experience in entrepreneurship education activities, either through formal education or through training, seminars, or independent experience. Determination of the number of samples using purposive sampling techniques, so that 141 research respondents were obtained. The research instrument was a Likert-scale questionnaire, and each item was developed by the researcher from the theoretical dimensions underlying the research variables. Data collection was carried out by distributing questionnaires online via a digital platform during June–July 2025. Of the 160 questionnaires distributed, 141 were returned, and all met the data validity requirements for further analysis. Data were analyzed using the SmartPLS application for Windows. Entrepreneurship education has a significant effect on achievement motivation and self-efficacy. Only achievement motivation has been proven to significantly mediate the relationship between entrepreneurship education and entrepreneurial mindset. Self-efficacy does not play a significant mediating role. This study shows that the most important factor in developing an entrepreneurial mindset is increasing achievement motivation in entrepreneurship education. In other words, developing an entrepreneurial mindset among Generation Z students should be directed not only to cognitive aspects but also to strengthening character and achievement motivation values.

Keywords: entrepreneurship, self-efficacy, achievement motivation.

Article's DOI: <https://doi.org/10.23960/jpp.v16i1.pp367-383>

■ INTRODUCTION

Generation Z, a digitally native generation now entering the workforce, faces significant challenges due to rapid economic, social, and technological change. Generation Z is the cohort born between 1997 and 2012 (exact dates may vary slightly across sources). This generation, often referred to as digital natives, grew up in a highly advanced digital era and have been familiar with the internet, smartphones, social media, and information technology since childhood (Chardonnens, 2025; Peredy et al., 2024). Amidst this dynamic, developing an entrepreneurial mindset for Generation Z is crucial.

Generation Z's entrepreneurial mindset can be shaped by entrepreneurship education that incorporates both theoretical and applied approaches through case studies and projects (Lopes et al., 2024).

Entrepreneurial mindset is a way of thinking characterized by the ability to recognize opportunities, take calculated risks, be innovative and proactive, and focus on creating value across contexts, both in business and other professional activities. Someone with an entrepreneurial mindset need not be an entrepreneur; rather, it is the ability to think and act like one: independent, creative, persistent, and adept at solving various

problems (Haynie et al., 2008; Kuratko et al., 2020). This is not only to support financial independence but also to strengthen their resilience in the face of uncertainty and to capitalize on emerging opportunities in the era of Industry 4.0 and Society 5.0 (Pimdee et al., 2023; Wahyuningsih et al., 2025).

Several previous studies have shown that entrepreneurship programs designed to foster entrepreneurial interest have not consistently shaped the desired entrepreneurial attitudes and behaviors (Lee et al., 2021; Sun et al., 2023). This indicates that other variables influence the outcomes of entrepreneurship learning, necessitating further examination. Providing theoretical material and case studies alone is insufficient; an approach that addresses students' psychological and motivational aspects is needed (Cui et al., 2019; Larsen et al., 2023).

One important variable that has become widely discussed in the academic literature is self-efficacy, namely, an individual's belief in their ability to complete a task or face a challenge. Previous research has shown that self-efficacy can mediate the relationship between entrepreneurial learning and the formation of an entrepreneurial mindset. Studies by Li et al. (2023), López-Núñez et al. (2022), and Wardana et al. (2020) found that combining self-efficacy with entrepreneurship education significantly increases an individual's intention to become an entrepreneur. This proves that self-confidence in running a business is crucial as a bridge between what is learned and how a person actually behaves toward business opportunities.

Furthermore, achievement motivation, or the drive to achieve goals and succeed, is also believed to have a significant influence on the formation of an entrepreneurial mindset. Research by Chang et al. (2024), Cui et al. (2019), Lee et al. (2021), Sun et al. (2023), and Wang et al. (2021) confirms that entrepreneurial motivation and knowledge are closely linked to

entrepreneurial intentions. These findings suggest that to foster an entrepreneurial mindset, entrepreneurship education must be designed not only to transfer knowledge but also to cultivate students' passion and a strong desire to succeed through independent entrepreneurship.

Generation Z occupies a strategic position in developing entrepreneurial mindset, self-efficacy, and achievement motivation, particularly when supported by entrepreneurship education. Generation Z lives in a dynamic, competitive, and technology-driven era that demands high adaptability and innovation. An entrepreneurial mindset is important for Generation Z because the current world of work is increasingly shifting from a stable employment model to a more flexible and creativity-based one. Entrepreneurship education helps them think critically, be opportunity-oriented, and solve problems creatively (Menon et al., 2023; Sholihah et al., 2023). Through practical experiences such as business projects, case studies, and idea incubation, Gen Z students and learners develop the ability to identify opportunities in the changes and challenges around them.

Self-efficacy develops when Generation Z is given space to try, experiment, and make decisions in the process of learning entrepreneurship. Activities such as presenting ideas, creating prototypes, or collaborating on project teams give rise to small success experiences (mastery experiences) that increase their confidence in their ability to run a business or project independently. Self-efficacy is crucial because without a sense of capability, creative ideas will not be realized (Caliendo et al., 2023). Achievement motivation is strengthened when entrepreneurship education provides clear goals, real challenges, and opportunities for competition or collaboration (Ogba et al., 2022). Generation Z inherently desires recognition and achievement. When they engage in entrepreneurial activities that require targets and innovation, this motivation is

directed toward productive achievement. Furthermore, success in developing business ideas encourages continued learning and improved performance (Caliendo et al., 2023).

Under certain circumstances, achievement motivation and self-efficacy act as bridges between entrepreneurship education and the development of an entrepreneurial mindset in Generation Z. In entrepreneurship education, students not only receive theoretical instruction but also engage in practical activities, including developing business ideas, conducting market research, presenting products, and participating in business simulations. These activities provide hands-on experience (mastery experience) (Badzińska, 2019; Pittaway & Cope, 2007). This experience fosters students' sense of self-efficacy in decision-making, risk-taking, and challenge management, thereby strengthening their entrepreneurial mindset (Larsen et al., 2023).

Entrepreneurship education is a strategic tool for instilling entrepreneurial knowledge, skills, and attitudes in students. This process is not only cognitive (the transfer of knowledge about business and economics) but also affective and conative. Therefore, it is necessary to cultivate self-confidence, the courage to take risks, and the ability to manage uncertainty so that entrepreneurship education can improve the entrepreneurial mindset of Generation Z (Hasan et al., 2024; Pittaway & Cope, 2007). According to Social Cognitive Theory (Bandura, 1997), self-efficacy, a psychological variable, significantly influences how individuals think, feel, and act. In the context of entrepreneurship learning, learning experiences that provide opportunities to try, experiment, and solve real-world problems are necessary for students to perceive themselves as capable of becoming successful entrepreneurs (Bandura, 1986; Moriano & Gorgievski, 2008).

The self-efficacy developed through entrepreneurship education will foster an

entrepreneurial mindset oriented toward opportunities, innovation, and the courage to take risks. Self-efficacy acts as a psychological mediator, bridging the gap between entrepreneurial knowledge and the mental readiness to become a true entrepreneur (Caputo et al., 2024). According to McClelland's Achievement Motivation Theory (1961), individuals with high achievement motivation tend to assume personal responsibility, set challenging goals, and strive for optimal outcomes. A structured, applicable, and project-based entrepreneurship education process can stimulate this motivation because it provides space for students to compete constructively, design innovations, and see the tangible results of their ideas (Bandhu et al., 2024; Urhahne & Wijnia, 2023). Achievement motivation bridges entrepreneurship education and an entrepreneurial mindset by fostering resilience, a sense of responsibility for outcomes, and a drive to improve. Students with high achievement motivation will view business challenges as opportunities for growth rather than as threats, demonstrate perseverance in the face of failure, and consistently seek innovative ways to achieve their goals. Therefore, achievement motivation serves as a bridge linking learning entrepreneurship to the development of a proactive, innovative, and competitive entrepreneurial mindset.

Justification of Generation Z theory, along with achievement motivation and self-efficacy, provides the psychological and pedagogical basis for developing an entrepreneurial mindset. Generation Z, with high achievement motivation and strong self-efficacy, will be better prepared to face future economic challenges, take risks, and drive innovation in entrepreneurship and digital work. This is in accordance with the characteristics of Generation Z, namely having a practical and realistic orientation towards the future; prioritizing speed, creativity, and flexibility; valuing recognition, personal achievement, and

self-autonomy; tending to have high social awareness, but also facing challenges in concentration and emotional resilience (Yılmaz et al., 2024).

In other words, entrepreneurship education does not automatically develop an entrepreneurial mindset; in certain circumstances, it must be mediated by increased self-confidence. Entrepreneurship education also provides goals, challenges, and achievement targets through projects, business idea competitions, or results-based assessments. These situations foster achievement motivation; Generation Z, with high achievement motivation, are more motivated to strive, innovate, and persevere in the face of failure (Gade & Opoku, 2020; Kang, 2023; Li et al., 2022). This is a crucial foundation for an entrepreneurial mindset, as entrepreneurship requires perseverance and a results-oriented mindset. Thus, achievement motivation acts as a driving force that directs entrepreneurial knowledge into an entrepreneurial mindset (Daspit et al., 2021; Larsen et al., 2023; Szczygie³ et al., 2024).

This situation emphasizes the importance of designing a more holistic and adaptive entrepreneurship curriculum. It should not only focus on hard skills, such as business planning and marketing, but also address soft skills, including mental resilience, self-confidence, and intrinsic motivation. This study aims to examine in greater depth the influence of entrepreneurship education on the entrepreneurial mindset of Generation Z, using self-efficacy and achievement motivation as mediating variables.

This research is expected to make a significant contribution to efforts to improve the entrepreneurial mindset of the generation, mediated by self-confidence and achievement motivation in entrepreneurship learning. Specifically, the research questions are:

1. Does entrepreneurship education influence entrepreneurial mindset?

2. Does entrepreneurship education influence self-efficacy?

3. Does entrepreneurship education influence achievement motivation?

4. Does self-efficacy have a significant influence on entrepreneurial mindset?

5. Does achievement motivation influence entrepreneurial mindset?

6. Does entrepreneurship education influence entrepreneurial mindset through achievement motivation?

7. Does entrepreneurship education influence entrepreneurial mindset through self-efficacy?

The hypothesis in this research is:

1. Entrepreneurship education has a significant effect on entrepreneurial mindset.

2. Entrepreneurship education has a significant effect on self-efficacy.

3. Entrepreneurship education has a significant effect on achievement motivation.

4. Self-efficacy has a significant effect on entrepreneurial mindset.

5. Achievement motivation has a significant effect on the entrepreneurial mindset.

6. Entrepreneurship education has a significant effect on entrepreneurial mindset through achievement motivation.

7. Entrepreneurship education has a significant effect on entrepreneurial mindset through self-efficacy.

■ **METHOD**

Participants

The study population consisted of Generation Z individuals aged 18-26 years residing in Makassar who had experience with entrepreneurship learning (estimated at 500 individuals). The sample size was determined using the PLS-SEM calculation by Hair et al. (2019), which is 10 times the number of structural paths, yielding a minimum of 40 respondents. The study employed purposive sampling (Creswell & Creswell, 2018) and obtained 141 valid

respondents from 160 distributed questionnaires (response rate 88.13%) through Google Forms during June-July 2025.

Research Design and Procedures

This quantitative study employed a correlational-mediation design to examine the mediating effects of self-efficacy and achievement motivation on the relationship between entrepreneurship learning and entrepreneurial mindset. A *cross-sectional survey* design (Sekaran & Bougie, 2016) was conducted from May to September 2025 through the following stages: preparation and pilot testing (May), ethical approval (June), 8-week data collection (June-July), data screening (July), PLS-SEM analysis (August), and reporting (August-September).

Instrument

A structured questionnaire with a 5-point Likert scale comprised: (1) Entrepreneurship Learning (15 items, Nabi et al., 2017; Pittaway & Cope, 2007); (2) Self-Efficacy (12 items, Chen et al., 1998; McGee et al., 2009); (3) Achievement Motivation (10 items, Hermans, 1970; Steers & Braunstein, 1976); and (4) Entrepreneurial Mindset (13 items, Davis et al., 2016; Haynie et al., 2010). Validity and reliability: pilot test with 30 respondents ($\alpha=0.78-0.89$); convergent validity with *factor loadings* 0.72-0.91, AVE 0.63-0.74, CR 0.89-0.94; discriminant validity HTMT 0.42-0.78 (<0.85); reliability $\alpha=0.85-0.92$ and CR=0.89-0.94, exceeding the 0.70 threshold (Hair et al., 2019; Nunnally & Bernstein, 1994).

Data Analysis

PLS-SEM with SmartPLS 4.0 was selected for complex models with mediating variables and sample $n=141$ (Hair et al., 2019; Sarstedt et al., 2021). Two-stage analysis:

Stage 1 - Measurement Model: (a) indicator reliability: *outer loadings* $e^{>0.70}$; (b)

internal consistency: α and CR $e^{>0.70}$; (c) convergent validity: AVE $e^{>0.50}$ (Fornell & Larcker, 1981); (d) discriminant validity: Fornell-Larcker and HTMT <0.85 (Henseler et al., 2015).

Stage 2 - Structural Model: (a) VIF <5 for collinearity; (b) R^2 with thresholds 0.75 (substantial), 0.50 (moderate), 0.25 (weak); (c) f^2 for effect size: 0.02 (small), 0.15 (medium), 0.35 (large); (d) $Q^2 >0$ for predictive relevance through *blindfolding* $D=7$; (e) path coefficients with *bootstrapping* 5,000 resamples, significant at $p < 0.05$ ($t > 1.96$); (f) mediation analysis with VAF: $<20\%$ (no mediation), 20-80% (partial), $>80\%$ (full). Model fit indices: SRMR <0.08 (Hu & Bentler, 1999) and NFI $e^{>0.90}$ (Lohmöller, 1989). Descriptive statistics and demographic characteristics were analyzed before PLS-SEM with $\alpha=0.05$.

■ RESULT AND DISCUSSION

Demographic Profiles

This study involved 141 Generation Z respondents aged 18 to 26, residing in various areas of Makassar City, Indonesia. By gender, 109 respondents (77.3%) were female, and 32 (22.7%) were male, indicating a predominance of female participation in this study. Respondents came from diverse areas, reflecting a wide distribution across the city. The area with the largest number of respondents was Antang (27), followed by Perintis and Tidung (18 each), Tamalanrea and Rappocini (10 each), and Bontoala and Alauddin (8 each). Additionally, there were respondents from Mapala (6), Jl. Daeng Tata 1 (6), Banta-Bantaeng (6), Jl. Pendidikan (6), Gunung Sari (5), and Sahabat Raya (5). Other areas where respondents resided were Batua (2) and Samata (2).

Regarding entrepreneurial experience, 83 respondents (58.9%) reported participating in informal entrepreneurship training or programs, 41 respondents (29.1%) reported participating

in formal programs, and 17 respondents (12.0%) stated they had never participated in entrepreneurship training. These data indicate that most respondents have exposure to

entrepreneurial activities, both through informal and formal channels, which may influence their insight, readiness, and interest in entrepreneurship or investing.

Table 1. Demographic distribution of respondents

Description	Category	Frequency	Percentage	Comment	
Gender	Woman	109	77.3%	The majority of respondents were women	
	Man	32	22.7%		
Entrepreneurial Experience	Yes, informally	83	58.9%	Most follow informally	
	Yes, formally	41	29.1%		
	Never	17	12.0%		
Domicile Area	Antang	27	19.1%	Most domiciled areas	
	Pioneer	18	12.8%		
	Tidung / Mariolo	18	12.8%		
	Tamalanrea	10	7.1%		
	Rappocini	10	7.1%		
	Bontoala	8	5.7%		
	Alauddin	8	5.7%		
	Mapala	6	4.3%		
	Jl. Daeng Tata 1	6	4.3%		
	Banta Bantaeng	6	4.3%		
	Education Street	6	4.3%		
	Mount Sari	5	3.5%		
	FRIEND OF THE RAYA	5	3.5%		
	Batua	2	1.4%		Other areas
	Samata	2	1.4%		Other areas

Source: Data processed by researchers, 2025

The study's respondents were predominantly female, indicating a strong tendency for women to develop entrepreneurial skills and mindsets. This is supported by theory and research suggesting that women are more motivated than men to start businesses, particularly in financial literacy (Brixiová et al., 2019; Dangcil et al., 2024).

Measurement Model

Measurement model testing assesses the validity and reliability of latent constructs in research. This evaluation includes tests of convergent validity, discriminant validity, and construct reliability, as presented in Tables 3, 4,

and 5. Convergent validity is assessed using the Average Variance Extracted (AVE), with a minimum threshold of 0.5. However, in the context of exploratory research, an AVE below 0.5 remains acceptable if supported by a Composite Reliability (CR) above 0.6. Based on Table 3, although some constructs have AVE values below 0.5, all constructs have CR values above 0.836. This indicates that the constructs in this model meet the criteria for convergent validity.

Table 4 shows that the correlation value between constructs is lower than the square root of the AVE of each construct, indicating that discriminant validity has been met. Furthermore,

in the cross-loading test, all indicators load highest on the construct they measure, thus demonstrating discriminant validity. Construct reliability was tested using Cronbach’s Alpha, rho_A, and Composite Reliability. All constructs had

Cronbach’s Alpha and rho_A values above 0.7, and CR values above 0.836. Thus, all constructs met the reliability criteria and were suitable for proceeding to the structural model testing stage.

Table 2. Results of convergent validity and construct reliability tests

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Achievement Motivation	0.879	0.814	0.833	0.523
Entrepreneurial Mindset	0.813	0.911	0.871	0.600
Entrepreneurship Education	0.786	0.821	0.885	0.521
Self-Efficacy	0.839	0.863	0.852	0.555

Source: Data processing results, 2025

Table 3. Discriminant validity test

Construction	Achievement motivation	Entrepreneurial mindset	Entrepreneurship learning	Self-efficacy
Achievement Motivation				
Entrepreneurial Mindset	0.370			
Entrepreneurship Education	0.311	0.718		
Self-efficacy	0.793	0.365	0.592	

Source: Data processing results, 2025

Structural Model

Structural Models: Goodness of fit is an important step to measure the extent of influence

of each variable under study, and the goodness-of-fit analysis technique used is R-Square (R2). This analysis uses PLS-SEM in SmartPLS4.

Table 4. The goodness of fit model

Construct	R-Square	R-Square Adjusted
Achievement Motivation	0.877	0.875
Entrepreneurial Mindset	0.340	0.305
Self-Efficacy	0.250	0.238

Based on Table 4, the effect of entrepreneurship education on achievement motivation is 0.875, or 87.5%. The effect of entrepreneurship education on entrepreneurial mindset is 0.305 (30.5%). The effect of entrepreneurship education on self-efficacy is 0.238 or 23.8%.

Hypothesis Testing

The testing criterion is based on the P-value: if P > 0.05, the research hypothesis is rejected. Based on the results of the analysis with SmartPLS4, as shown in Figure 1.

The structural equation model shows the overall factor loadings for each research variable

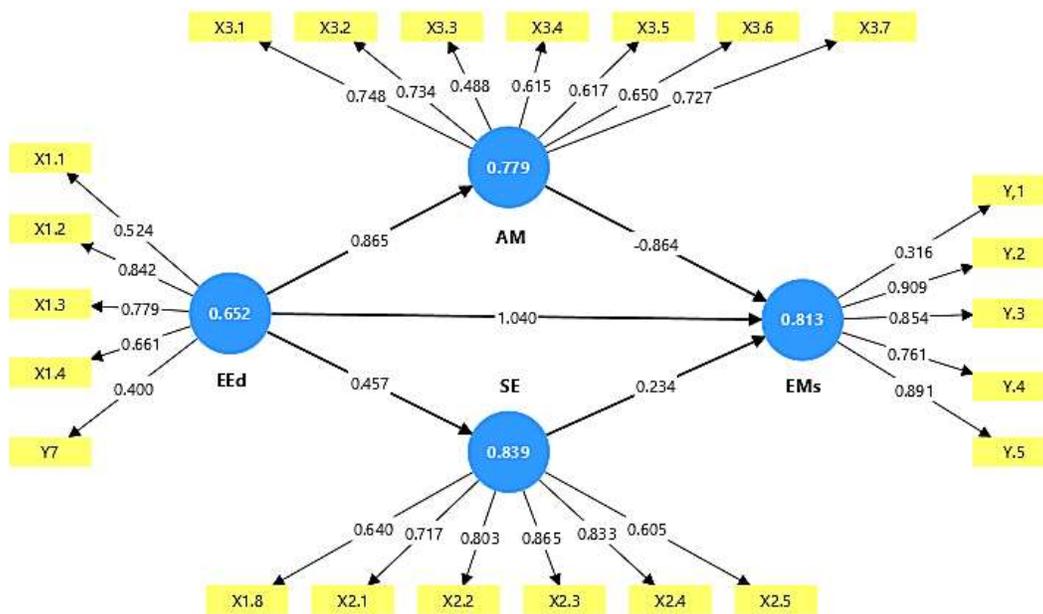


Figure 1. Structural equation model

and serves as a basis for testing the research hypothesis, as shown in Table 5.

The Influence of Entrepreneurship Education on Generation Z’s Entrepreneurial Mindset

Based on the results of the structural model analysis, evidence indicates that entrepreneurship

education plays a crucial role in shaping the entrepreneurial mindset among Generation Z. This means that the higher the quality of the entrepreneurial learning experience, the greater the opportunity to develop a proactive and innovative mindset in the business world. This finding aligns with research by Alkaabi &

Table 5. Hypothesis testing

Construct	P-Value	Conclusion	Hypothesis
EEd –EMs	0.020	Significant	Accepted
EEd- AM	0.000	Significant	Accepted
EEd- SE	0.002	Significant	Accepted
AM -EMs	0.000	Significant	Accepted
SE – EMs	0.040	Significant	Accepted
EEd- AM -EMs	0.004	Significant	Accepted
EEd- SE - EMs	0.126	Not Significant	Rejected

Source: Data Processing Results, 2025

Description:

Eed: Entrepreneurship Education

AM: Achievement Motivation

SE: Self-Efficacy

Ems: Entrepreneurial Mindset

Senghore (2024) and Sun et al. (2023), which suggests that well-developed entrepreneurship education can cultivate individuals who not only

understand theory but also possess an entrepreneurial mentality adaptable to changing times. The more relevant the learning material is

to students' characteristics and learning discipline, the more impactful it will be in shaping their entrepreneurial mindset (Hözlner & Halberstadt, 2022). Stinginess is a person's tendency to perceive and understand opportunities and to have the courage to take risks through thorough analysis, all of which are taught in entrepreneurship education.

The Influence of Entrepreneurship Education on Generation Z's Achievement Motivation

The study results show that entrepreneurship education significantly influences the achievement motivation of Generation Z. The more intense and high-quality the learning process, the greater their drive to achieve challenging business goals. These results reinforce McClelland's motivation theory and align with Nailan et al.'s (2024) findings, which show that a competitive learning environment can spark an individual's drive to continue developing. This is further clarified by Nabil et al. (2025), who show that individuals with high levels of motivation are more willing to take risks and think creatively when creating new business opportunities.

Entrepreneurship education is an educational process that aims to develop entrepreneurial knowledge, skills, and attitudes through planned learning experiences. In the context of higher education, this learning not only teaches business theory but also emphasizes character development, including creativity, the courage to take risks, innovation, and self-confidence in creating new opportunities. For Generation Z, who grew up in the digital era with adaptive technology, entrepreneurship education has particular appeal because it aligns with values of independence, flexibility, and a strong results orientation. Among Generation Z, achievement motivation is not only related to academic outcomes but also to a desire to create, innovate, and gain social recognition through work and accomplishments (Moriano & Gorgievski, 2008; Pradipta & Harahap, 2025).

The Influence of Entrepreneurship Education on Generation Z's Self-Efficacy

Entrepreneurship education contributes to increasing students' self-efficacy, or confidence in their own abilities. This means that, through a practical, applicable learning approach, they are encouraged to believe in their competence to start and manage a business independently. In accordance with Bandura's self-efficacy theory, successful learning experiences will build strong self-confidence in the face of challenges. This finding is supported by Ramdani (2024), who found that active entrepreneurship education can increase self-efficacy through value internalization activities and business simulations. Furthermore, entrepreneurship education increases students' self-efficacy, or confidence in their abilities. This means that, through a practical, applicable learning approach, they are encouraged to believe in their competence to start and manage a business independently. In accordance with Bandura's self-efficacy theory, successful learning experiences will build strong self-confidence in the face of challenges (Kurjono et al., 2020; López-Muñoz et al., 2023).

Explains that self-efficacy is an individual's belief in their ability to organize and carry out the actions necessary to achieve certain goals (Chunmei et al., 2023). Therefore, learning is an interaction that shapes an individual's thinking patterns and behavior. Therefore, in the learning context, it must truly present learning theories that can change self-confidence. This finding is supported by research that states that active entrepreneurship education can increase self-efficacy through value internalization activities and business simulations (Gielnik & Glösenberg, 2025).

The Influence of Achievement Motivation on Generation Z's Entrepreneurial Mindset

Achievement motivation has a strong, significant influence on the formation of the entrepreneurial mindset among Generation Z, as

the drive to achieve excellence is the main force behind innovative, creative, and results-oriented thinking and action. Generation Z individuals with high achievement motivation tend to set clear standards of success, face challenges, and strive to demonstrate their abilities through tangible outcomes. This spirit of achievement encourages them to think strategically, identify new opportunities, and take calculated risks as part of the learning process toward success. Furthermore, achievement motivation strengthens Generation Z's mental toughness and resilience in the face of uncertainty and failure, both important characteristics in entrepreneurship (Sholihah et al., 2023). In the context of entrepreneurship education, achievement motivation motivates Generation Z to participate more actively in project-based activities, business competitions, and digital innovation, as they are encouraged to perform at their best and gain recognition for their efforts. This drive not only shapes an orientation towards personal achievement but also fosters a desire to make social contributions through creative ideas and entrepreneurial-based solutions. Thus, achievement motivation plays a crucial role in shaping Generation Z's entrepreneurial mindset, characterized by optimism, risk-taking, an innovation-oriented approach, and adaptability to the dynamics of the modern economy. This mindset better prepares Generation Z to become productive, independent, and competitive individuals in facing the challenges of the creative economy and the ever-evolving digital era (Damanik & Silitonga, 2025).

The Influence of Self-Efficacy on Generation Z's Entrepreneurial Mindset

Self-efficacy has a profound influence on the development of the entrepreneurial mindset among Generation Z, as individuals' belief in their abilities underpins how they think, behave, and respond to entrepreneurial challenges. Generation

Z, who have high self-efficacy, tend to see themselves as capable of overcoming obstacles, facing risks, and finding innovative solutions in complex and uncertain situations. This belief fosters confidence to try new things, take initiative, and step outside one's comfort zone, which is central to the entrepreneurial mindset. Self-efficacy also plays a role in increasing perseverance, resilience, and intrinsic motivation, so that individuals do not easily give up when facing failure, but instead view it as a valuable learning experience for personal growth and subsequent innovation (Bandura, 1977; Gielnik et al., 2019; Lent & Maddux, 1997). In the context of Generation Z living in the digital era, self-efficacy strengthens their ability to use technology, adapt to change, and exploit creative economic opportunities to create value and independence. Effective entrepreneurship education can strengthen self-efficacy through direct experience, guidance, and inspiring role models, thereby fostering the belief that success can be achieved through effort, creativity, and consistency. Thus, self-efficacy is a key psychological factor in developing the entrepreneurial mindset of Generation Z, characterized by self-confidence, the courage to take risks, a solution-oriented approach, and the ability to innovate and adapt in the face of global challenges and technological disruption (Sholihah et al., 2023).

The Influence of Entrepreneurship Education on Generation Z's Entrepreneurial Mindset through Achievement Motivation

Entrepreneurship education significantly influences the entrepreneurial mindset of Generation Z by enhancing achievement motivation as a psychological mediating factor that drives the transformation of entrepreneurial thinking and behavior. Through an interactive, project-based, and experiential learning process, Generation Z students develop a deep

understanding of entrepreneurial concepts, innovation strategies, and values such as independence, creativity, and responsibility (Irawanto & Novianti, 2021; Mohamed et al., 2024). This process fosters achievement motivation, the internal drive to achieve excellence, to compete in a healthy manner, and to demonstrate one's abilities through tangible outcomes. As achievement motivation increases, individuals become more persistent, optimistic, and results-oriented, thus fostering an entrepreneurial mindset that is proactive, innovative, and bold in taking risks. Generation Z, motivated to achieve, will view business challenges as opportunities for self-actualization and success, rather than as obstacles (Sholihah et al., 2023). Thus, entrepreneurship education plays a role not only in transferring knowledge but also as a means of strengthening intrinsic motivation that encourages the formation of an entrepreneurial mindset in Generation Z, characterized by creative thinking, self-confidence, resilience, and a strong orientation toward achievement and innovation in facing the dynamics of the digital and global economy.

The Influence of Entrepreneurship Education on Generation Z's Entrepreneurial Mindset through Self-Efficacy

The insignificant influence of entrepreneurship education on Generation Z's entrepreneurial mindset, as measured by self-efficacy, suggests that formal learning has not fully fostered students' self-confidence to act and think entrepreneurially. Theoretically, this condition can be explained by Bandura's (1997) view of self-efficacy theory, which asserts that self-efficacy is not only formed through formal knowledge or instruction, but is more dominantly influenced by real-life successful experiences (mastery experience), social learning through observation (vicarious experience), and social and emotional support from the environment (Moriano &

Gorgievski, 2008; Ribeiro et al., 2025). In the context of Generation Z, entrepreneurship education in many educational institutions still focuses on cognitive aspects such as business theory, management, and business planning. At the same time, practical experience, opportunities for real action, and constructive feedback that can strengthen self-efficacy are often limited. As a result, although students understand the concept of entrepreneurship, they lack sufficient self-confidence to put it into practice; consequently, learning cannot significantly change their entrepreneurial mindset. In addition, the characteristics of Generation Z, who tend to seek instant experiences, get bored easily, and rely heavily on external validation, also make it ineffective to transfer motivation from learning to self-confidence (Putri et al., 2023). Thus, these results indicate that improving the entrepreneurial mindset of Generation Z through self-efficacy requires a more participatory, reflective, and experientially grounded learning approach to build self-confidence, the courage to take risks, and resilience in the face of uncertainty, which are core components of the entrepreneurial mindset.

CONCLUSION

This study examined the extent to which entrepreneurship education shapes an entrepreneurial mindset among Generation Z, while accounting for self-efficacy and achievement motivation as intervening variables. Hypothesis testing revealed that entrepreneurship education has a positive impact on achievement motivation and self-efficacy. However, only achievement motivation was shown to significantly link entrepreneurship education with an entrepreneurial mindset. Conversely, despite increasing self-efficacy, it did not directly influence the entrepreneurial mindset. New findings from this study indicate that the motivation to achieve plays a greater role than self-confidence in shaping an entrepreneurial mindset. This means

that students with a strong drive to achieve success are more likely to develop a resilient, creative, and open-to-change entrepreneurial mindset. However, self-confidence alone is not sufficient to motivate individuals to develop an entrepreneurial mindset, especially when it is not accompanied by a drive for continuous development. Theoretically, this research reinforces the understanding that achievement motivation is a crucial psychological factor that needs to be considered in entrepreneurship education. It also demonstrates that entrepreneurship education should ideally focus not only on cognitive aspects but also on shaping character, values, and the passion for entrepreneurship.

This study has several limitations that must be considered when interpreting the findings. First, the study employed a quantitative research design with a questionnaire-based survey; therefore, the data obtained are self-reported and heavily dependent on respondents' subjective perceptions. This opens the door to social and perception biases, particularly in variables related to self-efficacy and achievement motivation. Second, the study sample comprised only Generation Z students within a specific university environment; therefore, the respondents' learning culture, campus environment, and entrepreneurial experience may differ from those of students at other institutions. Therefore, the generalizability of this study's results is limited to populations with similar characteristics.

Recommended that universities and higher education institutions redesign entrepreneurship education to be more practical and experiential. Learning should not only teach theory but also challenge students to undertake real-world projects, provide constructive feedback, and create opportunities to develop entrepreneurial motivation and character. Furthermore, it is crucial to strengthen students' motivation and emotions through activities such as mentoring,

entrepreneurial guidance, business simulations, and reflective activities that build self-confidence and self-awareness. For future research, it is recommended that factors beyond the campus environment, such as students' social environments, families, and work experiences, be considered, as these can also shape the development of an entrepreneurial mindset among Generation Z.

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