

Triple Impact Model: Analysis of the Influence of Entrepreneurship Courses, Social Media Influencers, and E-Commerce on the Entrepreneurial Behavior of Febi Uinsu Students

Nona Mardiana Siregar^{*1}, Zuhri M Nawawi², Imsar³

^{1, 2, 3} Universitas Islam Negeri Sumatera Utara, Indonesia

Article Info

Article history:

Received, 16-06-2026

Accepted, 30-07-2026

Published, 10-08-2026

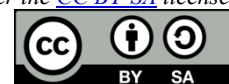
Keywords:

Digital Entrepreneurial Aspirations,
Entrepreneurship Education,
Social Media Influencers,
E-Commerce,
Triple Impact Model

ABSTRACT

The transformation of the digital economy has reshaped the way students develop entrepreneurial orientation. This study aims to analyze the influence of entrepreneurship education, social media influencers, and e-commerce on the formation of students' digital entrepreneurial aspirations and orientation within the framework of the Triple Impact Model. Unlike previous studies that tend to examine these factors separately, this research integrates them into a single conceptual model that positions student entrepreneurship as a digital aspiration construct formed through the convergence of educational institutions, platform symbolism, and technological infrastructure. The study employed a quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with 150 students from the Faculty of Economics and Islamic Business (FEBI), State Islamic University of North Sumatra (UINSU), who had completed entrepreneurship courses. The findings reveal that all three variables have a positive and significant effect on digital entrepreneurial aspirations, with social media influencers emerging as the most dominant determinant. The model demonstrates strong explanatory power, with a coefficient of determination (R^2) of 0.741. These findings confirm that the formation of entrepreneurial aspirations among the digital generation is platform-mediated, symbolically constructed, and technologically enabled. This study contributes to the development of entrepreneurship education literature by proposing an integrative model that reflects the dynamics of entrepreneurial orientation formation within the context of the digital economy and Islamic economics education.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Nona Mardiana Siregar
Fakultas Ekonomi dan Bisnis Islam, Universitas Islam Negeri Sumatera Utara, Indonesia
Email: *nonamardiana859@gmail.com

1. Introduction

Entrepreneurship is increasingly viewed as a strategic instrument for addressing the limited absorption capacity of the formal labor market for university graduates, particularly amid the rising rate of educated unemployment in Indonesia. Previous studies have highlighted that the gap between the number of graduates and the availability of employment opportunities has intensified the urgency of strengthening entrepreneurial capacity among university students (Satriadi et al., 2022; Diawati et al., 2024). This condition reflects a mismatch between higher education outputs and labor market demands, thereby necessitating alternative solutions based on self-employment and job creation through entrepreneurship. This perspective is supported by findings indicating that entrepreneurship education is designed to encourage self-employment and reduce graduate unemployment pressures (Abbas et al., 2025; Agbonna, 2025).

To further illustrate the urgency of this issue, recent national statistics indicate that university graduates continue to experience considerable challenges in entering the labor market. Statistics Indonesia (BPS, 2025). reported that the open unemployment rate among university graduates remains relatively high, demonstrating that higher education does not automatically guarantee employment. Simultaneously, the Ministry of Cooperatives and SMEs reported that Indonesia's entrepreneurship ratio reached approximately 3.47% of the total population in 2025, a figure that remains below the level generally considered necessary to accelerate economic development and strengthen national competitiveness. These conditions indicate that universities are expected not only to produce job seekers but also to cultivate graduates capable of creating employment opportunities through entrepreneurship.

The digital transformation occurring within higher education has further expanded entrepreneurial opportunities for university students. According to the Indonesian Internet Service Providers Association (APJII, 2024), internet penetration has reached more than 79% of Indonesia's population, with the highest proportion of users belonging to productive age groups, including university students. Moreover, Indonesia continues to rank among the largest digital economy and e-commerce markets in Southeast Asia, supported by the rapid growth of online transactions and digital payment systems (Ministry of Communication and Digital Affairs, 2025). Social media has also become one of the primary platforms for product promotion, customer engagement, and business networking among young entrepreneurs. Despite these favorable digital conditions, only a limited proportion of university students actively engage in entrepreneurial ventures or successfully transform digital platform utilization into sustainable business activities. This discrepancy suggests that the availability of digital technology alone is insufficient to encourage entrepreneurial behavior, highlighting the need to investigate how entrepreneurship education, social media influencers, and e-commerce jointly contribute to students' digital entrepreneurial orientation.

Previous research has also demonstrated that entrepreneurship courses significantly contribute to increasing students' entrepreneurial knowledge and intentions. However, several studies have found that such improvements are not always followed by actual entrepreneurial behavior. This suggests a gap between the cognitive dimension (knowledge acquisition) and the implementation dimension (entrepreneurial action), indicating that the effectiveness of entrepreneurship education in fostering actual business activities requires further investigation.

Earlier studies have reported that e-commerce facilitates business start-ups and market expansion. Nevertheless, more recent findings suggest that the utilization of e-commerce has not fully succeeded in enhancing the sustainability and intensity of student business activities. This limitation is often attributed to other determining factors,

including digital literacy, managerial competence, and marketing strategies. Consequently, a research gap remains regarding the extent to which e-commerce genuinely influences students' entrepreneurial behavior. Furthermore, most existing studies have been conducted among general student populations or within non-specific higher education settings. Limited attention has been given to students of the Faculty of Economics and Islamic Business (FEBI) at the State Islamic University of North Sumatra (UINSU), whose entrepreneurial orientation may be shaped by the distinctive characteristics of Islamic economics education. Differences in academic background and value systems may influence entrepreneurial behavior, thereby necessitating a more contextual and institution-specific investigation.

Within the higher education context, universities play a crucial role in shaping students' entrepreneurial mindsets and competencies through entrepreneurship courses. Empirical evidence indicates that entrepreneurship education significantly influences students' entrepreneurial mindset and entrepreneurial intention (Darman et al., 2025; Usman et al., 2025). These courses are intended not only to provide conceptual business knowledge but also to develop students' ability to identify opportunities, think creatively, and take calculated risks. Such outcomes are reinforced by studies demonstrating that entrepreneurship education enhances students' self-efficacy, creativity, and entrepreneurial attitudes (Sugihartono et al., 2025; Rumangkit et al., 2025). Although numerous studies have confirmed the positive influence of entrepreneurship education on students' entrepreneurial attitudes and tendencies, its effectiveness is strongly dependent on the relevance of learning methods to the social and technological contexts encountered by students, particularly in the era of digital transformation in higher education (Rauf et al., 2024; Ibanez et al., 2024).

The development of the digital ecosystem has expanded the range of factors influencing the formation of students' entrepreneurial behavior beyond formal learning environments. Research has shown that digital entrepreneurial ecosystems significantly

affect students' entrepreneurial intentions and business preparedness (Adam et al., 2025; Narmaditya et al., 2024). Social media has become a primary platform through which students obtain entrepreneurial information and inspiration, and it has been found to exert a significant influence on entrepreneurial intention (Juen & Lina, 2025; Novita, 2025). Within this ecosystem, social media influencers in entrepreneurship function as symbolic role models who shape students' perceptions and expectations regarding entrepreneurial careers. This phenomenon aligns with Social Learning Theory, which posits that role models presented through social media can significantly influence the development of entrepreneurial intentions (Novita, 2025).

In addition to the influence of formal learning and the symbolic digital environment, the development of e-commerce provides a practical mechanism through which students can directly implement business ideas. Access to technological infrastructure and support from entrepreneurial ecosystems have been identified as critical factors influencing the realization of student entrepreneurial ventures (Narmaditya et al., 2024). E-commerce platforms enable students to establish businesses with relatively low capital requirements, broader market reach, and efficient transaction systems. Previous studies have reported that students perceive digital media and online platforms as facilitating business operations without requiring substantial initial investment (Satriadi et al., 2022; Adam et al., 2025).

A considerable body of research has examined the roles of entrepreneurship education, social media, influencers, and e-commerce in shaping students' entrepreneurial intentions or behaviors. However, these studies have generally investigated such factors independently. Prior research, for example, has focused separately on entrepreneurship education and social media-related determinants of entrepreneurial intention (Satriadi et al., 2022; Juen & Lina, 2025). Despite their valuable contributions, most existing studies have treated these variables as isolated determinants and have not integrated them within a comprehensive analytical framework. Current models tend to emphasize one or two

determinants while overlooking the simultaneous interaction of institutional, symbolic, and structural dimensions that collectively shape entrepreneurial development (Narmaditya et al., 2024).

Furthermore, studies specifically focusing on students from Islamic higher education institutions remain relatively limited, despite evidence suggesting that religiosity may moderate the relationship between entrepreneurship education and entrepreneurial intention among university students (Usman et al., 2025).

This gap indicates the need for a more context-specific investigation that considers the distinctive educational and value-based environment of Islamic higher education.

To address these gaps, this study proposes a conceptual innovation through the development of the Triple Impact Model, which integrates institutional, symbolic-digital, and structural-technological dimensions within a unified analytical framework. The institutional dimension is represented by entrepreneurship courses, the symbolic-digital dimension by social media influencers, and the structural-technological dimension by e-commerce. Unlike previous studies that examined these variables separately, the present study conceptualizes student entrepreneurship as a form of digital entrepreneurial aspiration emerging from the convergence of formal education and platform-based ecosystems. Consequently, this research not only examines causal relationships among variables but also offers a novel perspective on the transformation of entrepreneurial orientation formation among the digital generation.

Previous studies have demonstrated that entrepreneurship education plays an important role in shaping students' entrepreneurial attitudes and tendencies. Nevertheless, its effectiveness in fostering actual entrepreneurial behavior has not always been consistent, particularly in the digital era (Darman et al., 2025). As digital ecosystems continue to evolve, recent studies have increasingly highlighted the influence of social media and social media influencers in shaping entrepreneurial perceptions and motivations among young people (Novita, 2025; Juen & Lina, 2025). However, much of this research

still positions influencers primarily as psychological factors without linking them to students' readiness for entrepreneurial implementation. At the same time, e-commerce has gained recognition as an entrepreneurial enabler due to its ability to reduce market entry barriers (Adam et al., 2025). Nevertheless, empirical studies that integrate e-commerce as a structural factor alongside entrepreneurship education and digital environmental influences remain limited (Narmaditya et al., 2024). Moreover, most existing studies have adopted a partial approach and rarely examined students within Islamic higher education contexts (Usman et al., 2025). Therefore, this study seeks to fill these gaps by proposing the Triple Impact Model, which integrates formal learning, symbolic digital influence, and technological feasibility in explaining students' entrepreneurial behavior.

Based on these research gaps, this study introduces the Triple Impact Model, which integrates entrepreneurship courses as a formal learning factor, social media influencers as a symbolic digital environmental factor, and e-commerce as a technological feasibility factor in shaping students' entrepreneurial behavior. Accordingly, the study aims to analyze the effects of Entrepreneurship Courses, Social Media Influencers, and E-Commerce on the digital entrepreneurial orientation of students at the Faculty of Economics and Islamic Business (FEBI), State Islamic University of North Sumatra (UINSU), within the framework of the Triple Impact Model.

Entrepreneurial Behavior of FEBI UINSU Students

Entrepreneurial behavior refers to the manifestation of concrete actions undertaken by individuals in identifying business opportunities, creating added value, and managing business activities independently. This behavior reflects not only entrepreneurial intention but also the actual implementation of productive and sustainable economic activities.

In the context of students at the Faculty of Economics and Islamic Business (FEBI), State Islamic University of North Sumatra (UINSU), entrepreneurial behavior is not solely oriented toward economic profit but is also grounded in Islamic ethical values such as

honesty (*sidq*), justice (*adl*), trustworthiness (*amanah*), and social responsibility. Consequently, the entrepreneurial behavior of FEBI UINSU students exhibits a more holistic character compared with conventional entrepreneurship, as it integrates economic objectives with moral and spiritual considerations.

Entrepreneurial behavior is influenced by various internal and external factors. Internal factors include motivation, entrepreneurial interest, self-efficacy, and entrepreneurial knowledge possessed by students. External factors encompass social environments, academic support systems, technological developments, and access to business ecosystems such as e-commerce platforms and social media networks. The interaction of these factors determines the extent to which entrepreneurial aspirations are translated into actual entrepreneurial activities.

From a theoretical perspective, entrepreneurial behavior can be explained through several complementary approaches. The Theory of Planned Behavior (TPB) proposed by Ajzen posits that individual behavior is determined by behavioral intention, which is formed through attitudes toward the behavior, subjective norms, and perceived behavioral control. In the context of FEBI UINSU students, positive attitudes toward entrepreneurship, supportive social environments, and confidence in personal capabilities serve as key determinants in fostering entrepreneurial behavior.

In addition, Social Cognitive Theory (SCT) developed by Bandura explains that human behavior emerges through reciprocal interactions among personal factors, environmental influences, and behavioral experiences. The concept of self-efficacy is particularly relevant in understanding how students develop confidence in entrepreneurial activities through learning experiences and observations of successful role models, including social media influencers who provide entrepreneurial inspiration and guidance.

Furthermore, Human Capital Theory emphasizes that education and skills constitute valuable investments that enhance individual productivity and economic performance. Within this framework, entrepreneurship education plays a crucial role in equipping

students with entrepreneurial knowledge, practical competencies, and an entrepreneurial mindset necessary for business creation and development. Through formal entrepreneurship courses, students acquire the cognitive and technical resources required to engage in entrepreneurial activities effectively.

Another relevant perspective is the Entrepreneurial Event Model (EEM) proposed by Shapero and Sokol, which suggests that entrepreneurial behavior emerges when individuals perceive entrepreneurial action as desirable, feasible, and worthy of pursuit. The model highlights three key dimensions: perceived desirability, perceived feasibility, and propensity to act. These dimensions are highly relevant in explaining how entrepreneurship education, social influence, and technological opportunities contribute to the formation of entrepreneurial behavior among university students.

Based on these theoretical perspectives, the entrepreneurial behavior of FEBI UINSU students can be understood as the result of a complex interaction among psychological factors, educational experiences, social environments, and digital technological developments. Therefore, the study of entrepreneurial behavior requires a comprehensive analytical approach that considers the multidimensional factors influencing students' entrepreneurial engagement within the contemporary digital economy.

Islamic Perspective on Entrepreneurship Education

Islam places strong emphasis on the pursuit of knowledge in all aspects of life, including commerce, trade, and entrepreneurship. Knowledge is regarded as a fundamental prerequisite for achieving individual prosperity and societal welfare. Entrepreneurship, therefore, is not merely an economic activity but also a means of fulfilling religious obligations through productive work, wealth creation, and social contribution.

Allah SWT states in the Holy Qur'an: (QS. Al-Mujadilah: 11)

خَبِيرٌ تَعْمَلُونَ بِمَا وَاللَّهُ ۖ دَرَجَاتٍ الْعِلْمُ أُوتُوا وَالَّذِينَ آمَنُوا الَّذِينَ اللَّهُ يَرْفَعُ

Translation:

“Allah will raise those who have believed among you and those who have been given knowledge by several degrees. And Allah is All-Aware of what you do.” (Qur'an 58:11)

This verse emphasizes the importance of knowledge in human life. In the context of entrepreneurship research, it provides a foundational basis for understanding that education, including entrepreneurship courses, plays a significant role in enhancing students' quality, competence, and capacity for personal and professional development.

Through entrepreneurship education, students acquire not only business knowledge but also the ability to think creatively, innovate, and independently identify and exploit entrepreneurial opportunities. From an Islamic perspective, knowledge that is applied to productive economic activities and lawful business endeavors constitutes a form of worship and devotion to Allah SWT. Furthermore, entrepreneurship serves as a means of achieving individual prosperity while contributing positively to social and economic welfare. Therefore, entrepreneurship education can be viewed as an important instrument for developing human capital that aligns with both economic objectives and Islamic ethical values.

Social Media Influencers

Social media influencers are individuals who possess the ability to shape the opinions, attitudes, and behaviors of audiences through social media platforms such as Instagram, TikTok, YouTube, and other digital channels. Influencers typically gain influence through their perceived credibility, substantial follower base, expertise in specific domains, and their ability to establish close relationships with their audiences.

From the perspective of Social Cognitive Theory (SCT) proposed by Bandura, influencers function as social models who affect individual behavior through the process of observational learning. Individuals learn not only from direct experience but also by

observing the actions, experiences, and outcomes demonstrated by others. In the context of entrepreneurship, students may acquire entrepreneurial knowledge and inspiration through content shared by influencers, including business development experiences, digital marketing strategies, innovation practices, and entrepreneurial success stories.

The influence of social media influencers on entrepreneurial behavior extends beyond the provision of information. Their impact is also emotional and motivational in nature. Engaging, inspirational, and relevant content can enhance students' entrepreneurial self-efficacy, strengthen their confidence in pursuing business opportunities, and encourage them to participate in entrepreneurial activities. Through continuous exposure to entrepreneurial role models on social media, students may develop more positive perceptions of entrepreneurship and greater willingness to initiate business ventures.

Furthermore, influencers contribute to the formation of entrepreneurial aspirations by reducing uncertainty and increasing the perceived attainability of entrepreneurial success. By presenting relatable experiences and practical business insights, influencers can shape students' beliefs regarding the feasibility and desirability of entrepreneurship as a career path.

The effectiveness of social media influencers is commonly measured through several indicators, including credibility, attractiveness, audience trust, and content relevance. Credibility refers to the extent to which an influencer is perceived as knowledgeable and competent. Attractiveness encompasses both personal appeal and the ability to engage audiences effectively. Audience trust reflects the confidence followers place in the information and recommendations provided by the influencer. Content relevance indicates the degree to which the influencer's content aligns with entrepreneurial interests and business-related topics. The stronger these dimensions are perceived by students, the greater the likelihood that entrepreneurial motivation and behavior will be positively influenced.

E-Commerce

E-commerce refers to an electronic trading system that facilitates the buying and selling of goods and services through digital platforms. The rapid growth of e-commerce platforms such as Shopee, Tokopedia, and Lazada has created significant opportunities for individuals, including university students, to establish and operate businesses with relatively low capital requirements. As a result, e-commerce has become an important component of the digital economy and a key driver of entrepreneurial development among young entrepreneurs.

From the perspective of modern entrepreneurship, e-commerce functions as an entrepreneurial enabler that facilitates market access, accelerates transaction processes, and reduces operational costs. Through digital platforms, entrepreneurs can reach broader customer segments beyond geographical limitations, promote products more effectively, and manage business operations with greater efficiency. These advantages align with the ongoing transformation of the digital economy, which requires entrepreneurs to adapt to technological advancements and digital business models.

The adoption of e-commerce can be explained through the Technology Acceptance Model (TAM) developed by Davis. According to this theory, an individual's acceptance and use of technology are primarily influenced by two factors: perceived ease of use and perceived usefulness. Perceived ease of use refers to the extent to which individuals believe that using a particular technology requires minimal effort, while perceived usefulness reflects the degree to which technology is perceived to enhance performance and productivity. In the context of student entrepreneurship, when students perceive e-commerce platforms as easy to use and beneficial for business development, they are more likely to engage in entrepreneurial activities and utilize digital platforms for commercial purposes.

Furthermore, e-commerce contributes to entrepreneurial feasibility by lowering entry barriers that traditionally hinder business creation. Students can market products,

communicate with customers, process transactions, and monitor business performance through integrated digital systems without requiring substantial physical infrastructure. This accessibility increases the practicality and attractiveness of entrepreneurship as a career option for university students.

The effectiveness of e-commerce utilization is commonly measured through several indicators, including ease of platform use, market accessibility, transaction efficiency, and business-supporting features. Ease of use reflects the simplicity of navigating and operating digital platforms. Market accessibility refers to the ability of businesses to reach a wider customer base. Transaction efficiency encompasses the speed, security, and convenience of online transactions. Business-supporting features include digital promotion tools, customer relationship management functions, logistics integration, and electronic payment systems. Optimal utilization of these features can enhance both the intensity and sustainability of students' entrepreneurial behavior, thereby strengthening their participation in the digital entrepreneurial ecosystem

2. Methods

This study employed a quantitative approach using a survey method with an explanatory research design to examine the causal relationships among entrepreneurship courses, entrepreneurial social media influencers, e-commerce utilization, and students' entrepreneurial behavior within the framework of the Triple Impact Model. The explanatory design was considered appropriate because the study aimed to test theoretically established hypotheses concerning the influence of exogenous variables on endogenous variables through latent construct modeling. Quantitative explanatory studies are widely utilized in entrepreneurship research to investigate complex causal relationships and to provide empirical evidence regarding the determinants of entrepreneurial behavior in higher education settings (Navarro del Toro et al., 2025).

The study was conducted at the Faculty of Economics and Islamic Business (FEBI), State Islamic University of North Sumatra (UINSU), involving a population of 4,853 active students. A total of 150 respondents were selected using purposive sampling techniques based on predetermined criteria, namely students who had completed entrepreneurship courses offered within the faculty curriculum. The selection of respondents through purposive sampling was intended to ensure the relevance and quality of information obtained, as participants were expected to possess sufficient exposure to entrepreneurship education and entrepreneurial-related experiences. Although the application of Slovin's formula with a 5% margin of error to the population size would theoretically suggest a larger sample, the present study emphasizes the estimation of latent variable relationships through the Structural Equation Modeling–Partial Least Squares (SEM-PLS) approach, which prioritizes predictive capability, parameter stability, and indicator adequacy rather than large sample requirements (Rafli et al., 2025).

SEM-PLS is considered suitable for studies involving moderate sample sizes and reflective latent constructs, particularly in entrepreneurship research contexts where predictive orientation is emphasized. The research model comprised four reflective latent variables measured through twenty indicators, including Entrepreneurship Course (X1), Entrepreneurial Social Media Influencer (X2), E-Commerce Utilization (X3), and Students' Entrepreneurial Behavior (Y). In accordance with recommendations for reflective construct validation, a sample size of 150 respondents was deemed adequate to produce stable, reliable, and valid parameter estimates relative to the number of indicators and latent variables incorporated in the model (Rafli et al., 2025). The demographic characteristics of respondents indicated that 70 participants (46.7%) were male and 80 participants (53.3%) were female, suggesting a relatively balanced gender composition among the surveyed students.

Primary data were collected through the administration of structured questionnaires distributed both directly and online to respondents who fulfilled the inclusion criteria. The

questionnaire employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), which is extensively used in entrepreneurship studies for measuring perceptions, attitudes, intentions, and behavioral tendencies (Rafli et al., 2025). The Entrepreneurship Course construct was operationalized through indicators associated with entrepreneurial competency development, creative thinking enhancement, and readiness to engage in entrepreneurial activities. The Entrepreneurial Social Media Influencer construct was measured through indicators capturing the influence of entrepreneurial content disseminated by influencers on students' motivations, attitudes, and entrepreneurial orientations. E-Commerce Utilization was assessed through indicators reflecting students' perceptions regarding the ease, capability, and usefulness of digital commerce platforms for entrepreneurial purposes, whereas Students' Entrepreneurial Behavior was measured through indicators representing entrepreneurial initiative, intention, risk-taking propensity, and commitment to entrepreneurial activities. All variables were specified as reflective constructs because the indicators were conceptualized as manifestations of the underlying latent dimensions rather than formative determinants, a specification commonly adopted in entrepreneurship instrument validation studies (Rafli et al., 2025).

Data analysis was performed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. This analytical approach was selected due to its flexibility in handling non-normal data distributions, its ability to estimate complex structural relationships involving latent variables, and its suitability for predictive model development in entrepreneurship research (Navarro del Toro et al., 2025; Rafli et al., 2025). The analytical procedure involved two complementary stages, namely the evaluation of the measurement model (outer model) and the assessment of the structural model (inner model). The measurement model evaluation focused on examining convergent validity, discriminant validity, and construct reliability. Convergent validity was assessed through indicator loading values and Average Variance Extracted (AVE), while construct reliability was evaluated using Composite Reliability (CR) and Cronbach's

Alpha coefficients. Discriminant validity was examined through the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT) to ensure adequate differentiation among latent variables.

Subsequently, the structural model was evaluated by examining path coefficients, coefficients of determination (R^2), and effect sizes (f^2), alongside the predictive capacity of the proposed model. Hypothesis testing was conducted through a bootstrapping procedure to estimate the significance of structural relationships among variables. Statistical significance was determined at the 5% level ($p < 0.05$), whereby relationships exhibiting p-values below the specified threshold were considered statistically significant. Through this procedure, the study sought to provide empirical evidence regarding the extent to which entrepreneurship courses, entrepreneurial social media influencers, and e-commerce utilization contribute to shaping students' entrepreneurial behavior within the conceptual framework of the Triple Impact Model (Navarro del Toro et al., 2025; Rafli et al., 2025).

3. Results

Measurement Model Evaluation (Outer Model)

Convergent Validity

The results of the analysis indicate that all indicators achieved factor loading values above the recommended threshold of 0.70. In the context of reflective construct evaluation using SEM-PLS, factor loadings of 0.70 or higher demonstrate that the indicators adequately represent their respective latent constructs (Rafli et al., 2025). The loading values for the E-Commerce construct ranged from 0.737 to 0.905, for Entrepreneurship Course from 0.802 to 0.904, for Entrepreneurial Behavior from 0.754 to 0.885, and for Social Media Influencer from 0.791 to 0.883. These results indicate that all indicators satisfy the recommended criteria for convergent validity in reflective entrepreneurship measurement models (Rafli et al., 2025). Therefore, all measurement items were retained for subsequent analysis.

Furthermore, the Average Variance Extracted (AVE) values for all constructs exceeded the minimum recommended threshold of 0.50. The AVE values were 0.749 for E-Commerce, 0.733 for Entrepreneurship Course, 0.711 for Entrepreneurial Behavior, and 0.706 for Social Media Influencer. According to SEM-PLS guidelines, an AVE value greater than 0.50 indicates that a construct explains more than 50% of the variance of its indicators (Rafli et al., 2025). Thus, the results confirm that all constructs possess satisfactory convergent validity and adequately capture the variance represented by their respective indicators.

Reliability Analysis

Construct reliability was assessed using Cronbach's Alpha, Composite Reliability (rho_a), and Composite Reliability (rho_c). The results show that all reliability coefficients exceeded the recommended threshold of 0.70, indicating a high level of internal consistency among the indicators measuring each construct.

Table 1. Reliability and Convergent Validity Assessment

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
E-Commerce	0.915	0.924	0.937	0.749
Entrepreneurship Course	0.908	0.915	0.932	0.733
Entrepreneurial Behavior	0.897	0.898	0.925	0.711
Social Media Influencer	0.896	0.902	0.923	0.706

Source: Authors' calculation using SmartPLS 4.0 (2026).

The findings demonstrate that all constructs exhibit strong reliability, as evidenced by Cronbach's Alpha values ranging from 0.896 to 0.915 and Composite Reliability (rho_c) values ranging from 0.923 to 0.937. Since all reliability coefficients are substantially above the minimum threshold of 0.70, the measurement instrument can be

considered reliable and internally consistent. Combined with the satisfactory AVE values, these results confirm that the measurement model possesses adequate convergent validity and reliability, thereby supporting the suitability of the constructs for subsequent structural model analysis.

Construct Reliability

The reliability assessment indicates that all constructs achieved Cronbach's Alpha and Composite Reliability values exceeding the recommended threshold of 0.70. In SEM-PLS analysis, reliability coefficients above 0.70 demonstrate satisfactory internal consistency among measurement items (Rafli et al., 2025). The Composite Reliability values ranged from 0.923 to 0.937, while Cronbach's Alpha values ranged from 0.896 to 0.915. These results indicate a very high level of reliability and are consistent with established practices for validating psychometric instruments in entrepreneurship research (Rafli et al., 2025).

The findings suggest that the measurement instrument possesses strong internal consistency and is highly reliable in capturing the latent constructs under investigation. Therefore, all constructs meet the recommended reliability criteria and can be considered suitable for further structural analysis.

Discriminant Validity

Discriminant validity was assessed using the Heterotrait–Monotrait Ratio (HTMT) criterion. The results reveal that all HTMT values were below the recommended threshold of 0.85, indicating the absence of discriminant validity issues among the reflective constructs. According to SEM-PLS guidelines, HTMT values below 0.85 confirm that each construct is empirically distinct from the others and measures a unique conceptual domain (Rafli et al., 2025).

The highest HTMT value was observed between Social Media Influencer and Entrepreneurial Behavior (0.814), which remains below the critical threshold. This result demonstrates that the constructs maintain adequate discriminant validity despite exhibiting relatively strong conceptual relationships. Consequently, no evidence of construct overlap was identified, and each latent variable can be considered empirically distinguishable from the others.

Overall, the results of the outer model evaluation confirm that the measurement model satisfies the requirements for both validity and reliability. Therefore, the model is considered adequate for proceeding to the evaluation of the structural model (inner model).

Table 2. HTMT Values for Discriminant Validity Assessment

Constructs	E-Commerce	Entrepreneurship Course	Entrepreneurial Behavior	Social Media Influencer
E-Commerce	—			
Entrepreneurship Course	0.638	—		
Entrepreneurial Behavior	0.727	0.789	—	
Social Media Influencer	0.661	0.804	0.814	—

Source: Authors' calculation using SmartPLS 4.0 (2026).

Structural Model Evaluation (Inner Model)

Coefficient of Determination (R^2)

The explanatory power of the structural model was assessed using the coefficient of determination (R^2). The results indicate that the Entrepreneurial Behavior construct achieved an R^2 value of 0.741 and an adjusted R^2 value of 0.735. These values suggest that the model possesses substantial explanatory power in predicting students' entrepreneurial behavior.

Specifically, the R^2 value of 0.741 indicates that 74.1% of the variance in Entrepreneurial Behavior can be explained by the combined effects of Entrepreneurship Course, Social Media Influencer, and E-Commerce. This finding supports the proposition of the Triple Impact Model that entrepreneurial behavior is shaped by the interaction of institutional factors, symbolic-digital influences, and technological enablers. It is also consistent with previous studies demonstrating that entrepreneurship education, entrepreneurial ecosystems, and digital infrastructure collectively contribute to students' entrepreneurial intentions and business behavior (Narmaditya et al., 2024).

According to commonly accepted SEM-PLS guidelines, an R^2 value above 0.67 can be considered substantial, indicating strong predictive and explanatory capability of the model. Therefore, the obtained R^2 value suggests that the Triple Impact Model provides a strong and comprehensive explanation of entrepreneurial behavior among FEBI UINSU students. The remaining 25.9% of the variance may be attributed to other factors not included in the present model, such as personal characteristics, family background, financial resources, entrepreneurial self-efficacy, or environmental influences.

Table 3. Coefficient of Determination (R^2)

Endogenous Variable	R^2	Adjusted R^2
Entrepreneurial Behavior	0.741	0.735

Source: Authors' calculation using SmartPLS 4.0 (2026).

The results confirm that the proposed structural model demonstrates strong explanatory power and provides empirical support for the integration of entrepreneurship education, social media influence, and e-commerce utilization in explaining students' entrepreneurial behavior.

Effect Size (f^2)

The effect size (f^2) analysis was conducted to assess the individual contribution of each exogenous construct to the explanatory power of the endogenous variable, Entrepreneurial Behavior. According to commonly accepted guidelines, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively.

The results indicate that Social Media Influencer has an effect size of 0.130, E-Commerce has an effect size of 0.129, and Entrepreneurship Course has an effect size of 0.079. These values fall within the range of small to approaching medium effects, suggesting that each predictor contributes meaningfully to explaining entrepreneurial behavior, although none demonstrates a dominant or large effect individually.

Among the three predictors, Social Media Influencer exhibits the largest effect size ($f^2 = 0.130$), followed closely by E-Commerce ($f^2 = 0.129$), while Entrepreneurship Course shows the smallest contribution ($f^2 = 0.079$). These findings suggest that symbolic-digital and technological factors exert relatively stronger influences on students' entrepreneurial behavior than formal entrepreneurship education alone. This result is consistent with previous studies indicating that social media environments and digital ecosystems play an increasingly important role in shaping entrepreneurial orientation and business engagement among university students in the digital era (Satriadi et al., 2022).

The relatively higher contributions of Social Media Influencer and E-Commerce support the core proposition of the Triple Impact Model, which emphasizes that entrepreneurial behavior is influenced not only by formal educational experiences but also by exposure to digital role models and access to technological platforms that facilitate entrepreneurial activities. Although the effect sizes are not large, their combined contribution significantly enhances the model's overall explanatory power, as reflected in the substantial R^2 value reported previously.

Table 4. Effect Size (f^2) Values

Constructs	E-Commerce	Entrepreneurship Course	Entrepreneurial Behavior	Social Media Influencer
E-Commerce	—	—	0.129	—
Entrepreneurship Course	—	—	0.079	—
Entrepreneurial Behavior	—	—	—	—
Social Media Influencer	—	—	0.130	—

Source: Authors' calculation using SmartPLS 4.0 (2026).

The findings indicate that all three predictors contribute positively to the explanation of entrepreneurial behavior, with Social Media Influencer and E-Commerce demonstrating relatively stronger effects than Entrepreneurship Course.

Hypothesis Testing

The hypothesis testing results were obtained through the bootstrapping procedure in SEM-PLS. The findings reveal that all structural paths in the proposed model have a statistically significant effect on Entrepreneurial Behavior. These results support previous studies indicating that entrepreneurship education and digital-related factors significantly influence students' entrepreneurial intentions and behavioral tendencies (Diawati et al., 2024). The first result shows that E-Commerce has a positive and significant effect on Entrepreneurial Behavior, with a path coefficient of 0.233 ($t = 2.184$; $p = 0.029$). Since the p-value is below the significance threshold of 0.05, the relationship is considered statistically significant. This finding suggests that greater utilization of e-commerce platforms enhances students' engagement in entrepreneurial activities by providing easier market access, efficient transaction systems, and broader business opportunities. The result is consistent with previous research demonstrating that access to and utilization of digital ecosystems improve students' entrepreneurial readiness and business implementation (Adam et al., 2025). The second result indicates that Entrepreneurship Course exerts a

positive and significant effect on Entrepreneurial Behavior, with a path coefficient of 0.312 ($t = 2.517$; $p = 0.012$).

This finding confirms that entrepreneurship education contributes positively to the development of entrepreneurial behavior by enhancing students' entrepreneurial knowledge, skills, creativity, and business readiness. The result aligns with prior studies reporting that entrepreneurship education plays a significant role in shaping entrepreneurial attitudes and tendencies among university students (Darman et al., 2025). The third result demonstrates that Social Media Influencer has a positive and significant effect on Entrepreneurial Behavior, with the largest path coefficient among all predictors ($\beta = 0.406$; $t = 2.922$; $p = 0.003$). This finding indicates that exposure to entrepreneurial influencers on social media substantially encourages students to engage in entrepreneurial activities. Through motivational content, business experiences, and entrepreneurial success stories, influencers function as digital role models that strengthen entrepreneurial aspirations and self-efficacy. The result is consistent with previous studies highlighting the strong catalytic role of social media in fostering entrepreneurial intentions and orientations among young people (Juen & Lina, 2025).

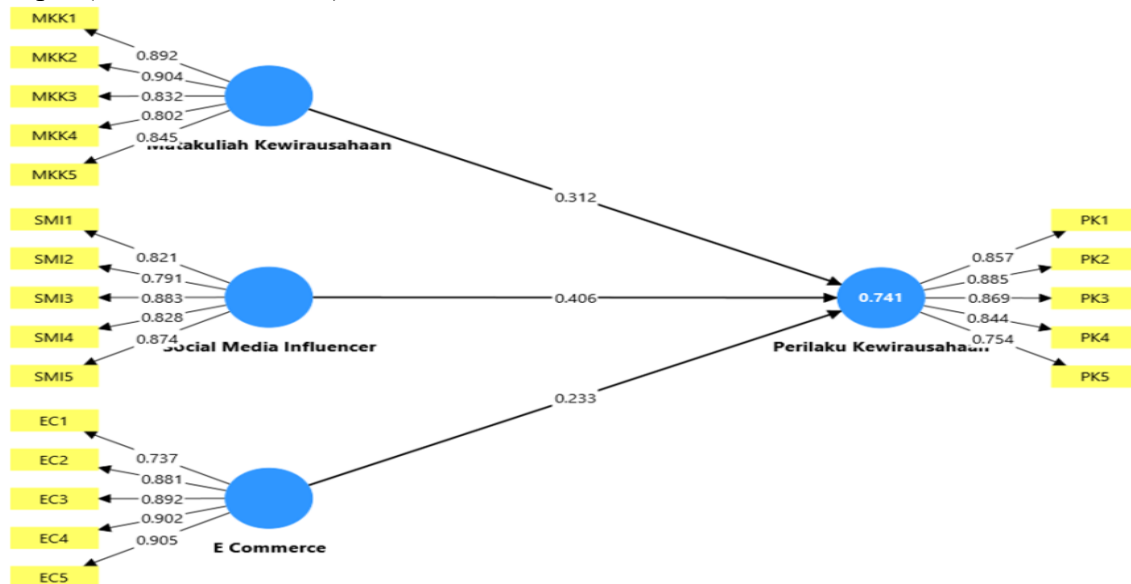


Figure 1. Hypothesis Testing

4. Discussion

The results of this study demonstrate that all three components of the Triple Impact Model significantly influence students' entrepreneurial behavior, with Social Media Influencer emerging as the strongest predictor ($\beta = 0.406$), followed by Entrepreneurship Course ($\beta = 0.312$) and **E-Commerce Utilization ($\beta = 0.233$). This finding confirms that entrepreneurial behavior among university students is increasingly shaped by digital ecosystems in addition to formal entrepreneurship education. Consistent with by (Agung, 2024), social media has become one of the strongest determinants of entrepreneurial intention because it enables students to interact continuously with entrepreneurial content that is relevant to their daily experiences. Likewise, (Satriadi et al., 2022). reported that social media plays a central role in stimulating entrepreneurial motivation among Generation Z students.

The dominant influence of Social Media Influencer can be explained through Social Learning Theory, which states that individuals develop attitudes and behaviors by observing role models whom they perceive as credible and successful. Entrepreneurial influencers do not merely provide business information but also demonstrate authentic entrepreneurial processes, including opportunity recognition, product development, marketing strategies, customer engagement, and problem-solving practices. According to (Novita, 2025), repeated exposure to entrepreneurial content through social media facilitates observational learning and strengthens entrepreneurial orientation among young people. This finding indicates that students are more likely to internalize entrepreneurial values because they observe real entrepreneurial experiences rather than merely learning entrepreneurial concepts from textbooks.

More importantly, the stronger influence of Social Media Influencer compared with Entrepreneurship Course suggests a transformation in entrepreneurial learning among Generation Z. Entrepreneurship courses are generally delivered within structured classroom settings and emphasize conceptual understanding, business planning, and

entrepreneurial knowledge. Although these competencies remain essential, they are often insufficient to stimulate immediate entrepreneurial action. In contrast, social media provides continuous, interactive, and real-time entrepreneurial experiences that are integrated into students' everyday digital activities. This interpretation is supported by (Rauf et al., 2024), who argued that entrepreneurship education should adapt to digital ecosystems because entrepreneurial competencies are increasingly developed through technology-enabled learning environments rather than through conventional classroom instruction alone. Similarly, (Tamima et al., 2023) demonstrated that social media and peer interaction significantly influence students' behavioral decisions within digital economic activities.

The findings therefore indicate that entrepreneurship education functions primarily as a cognitive foundation, whereas social media influencers act as behavioral catalysts. Entrepreneurship courses develop entrepreneurial knowledge, opportunity recognition, and business planning skills, while social media influencers strengthen entrepreneurial confidence, self-efficacy, and motivation through continuous exposure to successful entrepreneurial practices. This explains why Social Media Influencer exhibits a larger standardized path coefficient than Entrepreneurship Course. The present findings also support (Darman et al., 2025), who concluded that entrepreneurship education contributes significantly to entrepreneurial competencies but should be complemented by practical and technology-based learning experiences to maximize entrepreneurial outcomes (Melianto et al., 2024).

Meanwhile, the significant influence of E-Commerce Utilization confirms that technological readiness remains an important determinant of entrepreneurial behavior. Digital commerce platforms facilitate entrepreneurship by lowering market entry barriers, expanding market access, and simplifying business transactions. These findings are consistent with (Adam et al., 2025), who found that digital entrepreneurial ecosystems enhance entrepreneurial readiness and business implementation, and with (Narmaditya et

al., 2024)., who emphasized the importance of technological infrastructure in supporting entrepreneurial activities. Nevertheless, the lower coefficient of E-Commerce compared with Social Media Influencer indicates that technology primarily serves as an enabling mechanism, whereas entrepreneurial motivation is more strongly stimulated by digital social interaction through influencer-generated content (Rumangkit et al., 2025).

From a practical perspective, these findings have important implications for the development of entrepreneurship curricula in higher education. The dominance of Social Media Influencer suggests that entrepreneurship education should no longer rely predominantly on classroom-based theoretical instruction. Instead, universities should redesign entrepreneurship courses by integrating digital entrepreneurship ecosystems into the curriculum. Practical initiatives may include inviting successful entrepreneur influencers as guest lecturers, incorporating digital content creation and personal branding into entrepreneurship projects, implementing project-based learning through social media marketing, and utilizing e-commerce platforms as experiential learning media. Such curriculum innovation would strengthen the relevance of entrepreneurship education to Generation Z students while improving graduates' readiness to compete within the digital economy (Usman et al., 2025).

From a theoretical perspective, this study contributes to the development of entrepreneurship knowledge by extending the Triple Impact Model within the context of digital entrepreneurship. Previous studies have generally emphasized entrepreneurship education as the principal determinant of entrepreneurial behavior. However, the present findings demonstrate that symbolic digital influence, represented by Social Media Influencer, constitutes the most dominant factor shaping entrepreneurial behavior among university students. This finding expands previous research by demonstrating that entrepreneurial behavior is increasingly constructed through interactions among institutional learning, digital social influence, and technological readiness rather than through formal education alone (Diawati et al., 2024). Therefore, the study provides

empirical support for a more comprehensive framework of entrepreneurial behavior that is aligned with the characteristics of digital transformation and Generation Z learners.

5. Conclusion

The findings also carry important practical implications. Strengthening entrepreneurship at FEBI UINSU should involve the development of an integrated digital entrepreneurship ecosystem that combines formal learning, digital platform literacy, and the effective utilization of e-commerce technologies. Previous studies have shown that active participation by educational institutions in entrepreneurial ecosystems significantly enhances students' entrepreneurial readiness and business capabilities (Narmaditya et al., 2024). Therefore, the faculty should not limit its efforts to strengthening entrepreneurship courses within the curriculum. Instead, it should incorporate digital business practices, platform-based entrepreneurial experiences, mentoring programs, and ecosystem support mechanisms that are more responsive to the realities of the digital economy (Rauf et al., 2024). In addition, the findings indicating that Social Media Influencer is the most dominant determinant suggest that entrepreneurship curricula should be redesigned to better accommodate the learning characteristics of Generation Z. Entrepreneurship education should move beyond conventional lecture-based approaches by integrating digital content creation, collaboration with entrepreneur influencers as guest lecturers or mentors, project-based learning utilizing social media marketing, personal branding development, and business incubation through e-commerce platforms. Such curriculum innovation would enable students to experience authentic entrepreneurial practices within digital ecosystems while simultaneously strengthening entrepreneurial competencies, ethical awareness, and technological readiness. Through this integration, students' entrepreneurial aspirations can be shaped not only by influencer exposure and technological convenience but also by values, integrity, and social responsibility, thereby

fostering a more sustainable and ethically grounded entrepreneurial culture within the digital economy (Usman et al., 2025).

From a theoretical perspective, this study contributes to the development of entrepreneurship knowledge by extending the Triple Impact Model within the context of digital entrepreneurship in higher education. While previous studies have generally emphasized entrepreneurship education as the principal determinant of entrepreneurial behavior, the present findings demonstrate that symbolic digital influence, represented by Social Media Influencer, constitutes the most influential factor shaping students' entrepreneurial behavior. This finding enriches entrepreneurship literature by demonstrating that entrepreneurial behavior among Generation Z students is increasingly constructed through the interaction of institutional learning, digital social influence, and technological readiness rather than through formal education alone. Consequently, the study provides empirical support for a more comprehensive framework of entrepreneurial behavior that reflects the realities of digital transformation and contributes to the advancement of digital entrepreneurship theory, particularly within the context of Islamic higher education.

Nevertheless, the findings should be interpreted in light of several research limitations. First, this study employed a cross-sectional survey design that captured students' perceptions at a single point in time. Although significant relationships among variables were identified, the design does not allow strong causal inferences regarding the long-term development of entrepreneurial behavior. Second, the study was conducted exclusively among students of the Faculty of Economics and Islamic Business (FEBI) at the State Islamic University of North Sumatra (UINSU) using purposive sampling. Consequently, institutional characteristics and educational environments unique to FEBI UINSU may limit the generalizability of the findings to other higher education institutions. Third, although the Triple Impact Model explained a substantial proportion of the variance in entrepreneurial behavior, the model incorporated only three explanatory variables. Other

important determinants frequently discussed in entrepreneurship literature, such as entrepreneurial self-efficacy, entrepreneurial motivation, family support, personality traits, and institutional support, were beyond the scope of this study and therefore warrant further investigation. Finally, the study relied on self-reported questionnaire data, which may be susceptible to common method bias and social desirability bias despite procedural measures such as anonymity, confidentiality, and voluntary participation. Future research is therefore encouraged to employ longitudinal designs, mixed-method approaches, and broader institutional settings while incorporating additional psychological and contextual variables to provide a more comprehensive understanding of entrepreneurial behavior within digital entrepreneurship ecosystems.

6. Acknowledgement

The authors would like to express their sincere gratitude to all parties who contributed to the completion of this research. Special appreciation is extended to the Faculty of Economics and Islamic Business (FEBI), Universitas Islam Negeri Sumatera Utara (UINSU), for providing academic support and facilitating the research process. The authors also thank all student respondents who generously participated in this study and provided valuable data. Furthermore, appreciation is given to colleagues, reviewers, and all individuals who offered constructive suggestions and support throughout the research and manuscript preparation process. Their contributions have been invaluable in enhancing the quality of this study.

7. References

Abbas, S., Zafar, K., & A. (2025). Entrepreneurship education: A pathway to enhancing employability within the evolving market landscape. *Journal of Business and Management Studies*. <https://doi.org/10.32996/jbms.2025.7.2.2>.

- Adam, S., Fuzi, N., Ramdan, M., & Ismail, A. (2025). The effectiveness of digital entrepreneurship ecosystem toward enriching income generation: The moderating role of entrepreneurial intention. *SAGE Open*, 15. <https://doi.org/10.1177/21582440241305361>.
- Agbonna, A. (2025). Enhancing skill acquisition and self-employment through entrepreneurship education curriculum in tertiary education in Ogun State, Nigeria. *International Journal of Research Publication and Reviews*. <https://doi.org/10.55248/gengpi.6.0425.1405>.
- APJII. (2024). *Indonesia internet survey report 2024*. Jakarta: Indonesian Internet Service Providers Association.
- Badan Pusat Statistik (BPS). (2025). *Keadaan ketenagakerjaan Indonesia Februari 2025*. Jakarta: Badan Pusat Statistik.
- Darman, A., Sudarmiatin, S., & Dhewi, T. (2025). The effect of entrepreneurship education on entrepreneurial intention of vocational high school students in the City of Malang: Entrepreneurial self-efficacy and entrepreneurial mindset as mediating variables. *Journal of Educational Analytics*. <https://doi.org/10.55927/jeda.v4i1.20>.
- Del Toro, G., Chavira, I., Silva, J., & Valle, G. (2025). Optimization of the entrepreneurship ecosystem: 5-axis model for higher education systems and the higher education systems: Case study for Center University of Los Altos. *Seminars in Medical Writing and Education*. <https://doi.org/10.56294/mw2025677>.
- Diawati, P., Karneli, O., Siminto, S., Pitoyo, A., & Judijanto, L. (2024). Do entrepreneurship education and family experience promote students' entrepreneurial intention? The mediating role of unemployment rate: An integrated analysis through entrepreneurship theory, social learning theory, and hidden unemployment theory. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*. <https://doi.org/10.33394/jk.v10i1.10465>.



- Harahap, R. (2024). *Ekonomi digital dan kewirausahaan mahasiswa*. Medan: FEBI UINSU.
- Ibanez, A., Sorhegui-Ortega, R., Del Rio, J., & Sisodia, G. (2024). Fostering entrepreneurial ambitions in the UAE: A comprehensive study among undergraduate students. *Journal of Infrastructure, Policy and Development*. <https://doi.org/10.24294/jipd8734>.
- Imsar. (2020). *Pengantar kewirausahaan* (Modul perkuliahan). Fakultas Ekonomi dan Bisnis Islam, Universitas Islam Negeri Sumatera Utara.
- Imsar, Khairani, I., & Nasution, M. L. I. (2023). Analysis of the contribution of Islamic social capital to increasing MSMEs. *Journal of Islamic Economics and Finance Studies*, 4(1).
- Imsar, Ramadhani, R. M., & Tambunan, K. (2023). Pengaruh sikap, norma subjektif dan persepsi kontrol perilaku terhadap intensi mahasiswa FEBI UINSU menggunakan Linkaja Syariah. *Al-Muqayyad*, 6(1), 17–28.
- Juen, J., & L. (2025). Effects of social media, motivation, and creativity on entrepreneurial intention. *TECHBUS (Technology, Business and Entrepreneurship)*. <https://doi.org/10.61245/techbus.v3i1.28>.
- Kharisma, D. A., & Nawawi, Z. M. (2023). Pengaruh aplikasi TikTok Shop terhadap minat berwirausaha mahasiswa (Studi kasus FEBI UINSU). *Jurnal Ilmiah Manajemen, Bisnis dan Kewirausahaan*, 3(1), 22–31.
- Ministry of Communication and Digital Affairs. (2025). *Indonesia digital economy report 2025*. Jakarta.
- Muhammad Umar Maya Putra, Nawawi, Z. M., & Ramadhan, M. (2025). Transforming halal business management through digital innovation and spiritual entrepreneurship. *Multidisciplinary Output Research for Actual and International Issue (MORFAI)*, 5(5), 7182–7190. <https://doi.org/10.54443/morfai.v5i5.4291>.

- Narmaditya, B., Wardoyo, C., Wibowo, A., & Sahid, S. (2024). Does entrepreneurial ecosystem drive entrepreneurial intention and students' business preparation? Lesson from Indonesia. *Journal on Efficiency and Responsibility in Education and Science*. <https://doi.org/10.7160/eriesj.2024.170207>.
- Nasar, M., & Riady, A. (2025). Pengaruh social media influencer dan e-commerce terhadap perilaku generasi muda. *Jurnal Ekonomi Syariah*.
- Nawawi, Z. M., dkk. (2026). *Kewirausahaan Islam interdisipliner: Integrasi nilai syariah, digitalisasi, dan psikologi sosial di Sumatera Bagian Utara*. Medan: Merdeka Kreasi.
- Novita, W. (2025). What drives entrepreneurial intention? *Priviet Social Sciences Journal*. <https://doi.org/10.55942/pssj.v5i9.736>.
- Putri, D. A., Marliyah, & Imsar. (2025). Social and economic factors influencing the choice of halal-labeled food and beverages among Muslim Generation Z: A case study of FEBI UINSU students. *A-Turas: Jurnal Studi Keislaman*, 12(3).
- Rafli, M., Indreswari, H., Bariyyah, K., Hambali, I., & Muslihati, M. (2025). Validity and reliability of an Indonesian entrepreneurial intention instrument for vocational students. *International Journal of Entrepreneurship and Sustainability Studies*. <https://doi.org/10.31098/ijeass.v5i1.3335>.
- Rauf, R., Raheni, C., Tovan, T., Mardia, M., Setiawan, L., & Rodliyatun, M. (2024). Entrepreneurship education and digital transformation, opportunities and challenges in Indonesia. *Journal of Infrastructure, Policy and Development*. <https://doi.org/10.24294/jipd.v8i12.7740>.
- Rumangkit, S., Hadi, A., Sentosa, I., & AbWahid, R. (2025). The determinants of Indonesian students' intention and commitment to entrepreneurship: A multilevel study. *Multidisciplinary Reviews*. <https://doi.org/10.31893/multirev.2026041>.



- Sa'diyah, Y., Winarno, A., & Wardana, L. (2025). The effect of entrepreneurship education and self-efficacy with mediation of family support on entrepreneurial interest. *Journal of Educational Analytics*. <https://doi.org/10.55927/jeda.v4i1.28>.
- Satriadi, S., Ausat, A., Heryadi, D., Widjaja, W., & Sari, A. (2022). Determinants of entrepreneurial intention: A study on Indonesian students. *BISNIS & BIROKRASI: Jurnal Ilmu Administrasi dan Organisasi*. <https://doi.org/10.20476/jbb.v29i3.1323>.
- Sitorus, I. F. A. I., Nawawi, Z. M., & Jannah, N. (2024). Pengaruh e-commerce dan pengetahuan kewirausahaan terhadap minat berwirausaha fresh graduate dengan modal sebagai variabel moderating. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, 5(3), 1357–1372. <https://doi.org/10.47467/elmal.v5i3.706>.
- Sugihartono, A., Handayati, P., & Suharsono, N. (2025). The effect of self-efficacy and creative projects through entrepreneurship education on entrepreneurial motivation in vocational students. *Journal of Educational Analytics*. <https://doi.org/10.55927/jeda.v4i1.25>.
- Susilawaty, E. A. (2022). Pengaruh pendidikan kewirausahaan dan media sosial terhadap minat berwirausaha mahasiswa. *Journal of Business Administration (JBA)*, 2(1), 1.
- Usman, A., Kurjono, K., & Mulyani, H. (2025). Entrepreneurship education and green entrepreneurial intention: A religious perspective as a moderating variable. *Jurnal Inovasi Pendidikan Ekonomi (JIPE)*. <https://doi.org/10.24036/011342490>.
- Wafi, & Rachbini. (2025). Pengaruh influencer marketing dan e-commerce terhadap perilaku berwirausaha mahasiswa. *Jurnal Manajemen Bisnis Kewirausahaan*.
- Zimmerer, T. W., Scarborough, N. M., & Wilson, D. (2008). *Kewirausahaan dan manajemen usaha kecil*. Jakarta: Salemba Empat.