

The Role of Digital Business Education in Mediating Self-Efficacy and Entrepreneurial Intention Among Student's Economic Education

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Abstract

This study aims to determine the role of digital business education in mediating self-efficacy and entrepreneurial intention among students of the economics education study program at Universitas Negeri Semarang. This study is a quantitative research approach with a causal correlational design. The population of this study was 392 students, with a sample of 50 economics education students using a purposive sampling technique. Data collection was carried out through a questionnaire. The reliability of the questionnaire was assessed using Cronbach's alpha, and all composite reliability values for each construct were obtained to have a value greater than 0.7. The survey data was entered in SmartPLS version 3.2.9 for analysis. Direct effect analysis with path coefficients helps test the hypothesis of direct influence between variables at a significance level 0.05. There is a significant direct relationship between Digital business education and Entrepreneurial Intention among students of 0.327 (P-Value 0.002). Indirect effect analysis helps test the hypothesis of indirect influence between variables mediated by a variable. Digital business education significantly mediates self-efficacy and entrepreneurial intention of 0.197 (P-Value 0.002). This study concludes that digital business education, directly and indirectly, influences the increase of entrepreneurial intention. Digital business education significantly mediates the relationship between self-efficacy and entrepreneurial intention among economic education students. Digital business education plays an important role in increasing entrepreneurial intention. For this study, educators need to ensure that teaching and content in digital business education can spark entrepreneurial intention to impact the number of young entrepreneurs among students, and entrepreneurship becomes one of the right career choices for graduates of economic education study programs.

How to Cite

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INTRODUCTION

In a country, development success can be increased, one of which is through entrepreneurs who can open up employment opportunities. Therefore, entrepreneurship is essential for a country's economy (Cahayani et al., 2022). Becoming a new entrepreneur is a career choice and a driver of economic growth (Rahmawati & Setiawan, 2024). When people choose to pursue a career as entrepreneurs, full support is needed from universities to produce competent entrepreneurs (Sumual & Maramis, 2022). Entrepreneurial behavior can be formed due to high entrepreneurial intention, so universities must prepare students with strong entrepreneurial intentions (Tentama et al., 2024). However, many college graduates currently choose to look for jobs in their field of expertise, and only a few become entrepreneurs (Ali, 2024). On the other hand, it is important to understand the psychological and contextual factors that can influence a person's entrepreneurial intentions so as not to experience entrepreneurial failure (Nurul Husna, 2017).

One of the psychological factors that is believed to play an important role in triggering entrepreneurial intentions is self-confidence (Nurul Husna, 2017). Self-efficacy reflects an individual's understanding of their abilities based on past experiences completing a task (Amri, 2018). Individuals with high levels of self-confidence tend to be more willing to take risks, persistent in facing challenges, and optimistic about business success (Saraswati & Rozali, 2021). Self-confidence provides the internal confidence needed to make business ideas a reality (Safika et al., 2024). The results of Hassan's (2020) study also revealed that self-efficacy has a positive and significant influence on the study's dependent variable in the form of entrepreneurial intentions, namely 22.90%. A high level of self-efficacy indicates an individual's readiness and ability to face challenging conditions while developing a new business and pursuing their goals (Memon et al., 2019).

The digital era has fundamentally changed entrepreneurial practices (Asrul et al., 2025). Zubaidah (2019) emphasized that mastery of technology is the type of skill that someone must have in the digital era. Digital business education emerged due to the need for skills and knowledge relevant to modern entrepreneurial activities (Junaedi & Rojali, 2024). These educational programs equip prospective young entrepreneurs with an understanding of digital marketing, e-commerce, data analysis, and other online business strategies (Banjarnahor & Sari, 2023). The study's results stated that digital literacy significantly influenced the study's dependent variable in the form of students' e-business entrepreneurial intentions, which was only 14% (Hasanah & Setiaji, 2019). Other studies have found that the digital literacy variable influences the e-business entrepreneurial intention variable (Khoiriyah et al., 2022). This further emphasizes that digital business education plays an important role and can provide great opportunities and convenience to students when entering the world of entrepreneurship in the digital era.

Self-efficacy positively and significantly influences the study's dependent variable through entrepreneurial intention (Hassan, 2020). Shen et al. (2021) found that self-efficacy is important in optimizing entrepreneurial learning outcomes that impact sales performance. Khoiriyah et al. (2022) revealed that digital literacy influences the e-business entrepreneurial intention variable. Based on several previous studies, the analysis of self-efficacy and digital business education on entrepreneurial intention is still separate. On the other hand, digital business education has the potential to be a bridge connecting self-efficacy with entrepreneurial intention. The Social Learning Theory proposed by Albert Bandura (1977) states that salespeople learn through observation and modeling from coworkers and their work environment. Bandura's social learning theory focuses on what people learn from observing (observational) and interacting with others (Firmansyah & Saepuloh,

2022). Previous research stated that increasing learning capability can positively affect self-efficacy and sales performance (Pakpahan et al., 2025). In line with this, increasing students' understanding and capacity through digital business education can have a positive effect and become a link between self-efficacy and entrepreneurial intention. The novelty of this study lies in the integrative approach that tests the direct and indirect effects of self-efficacy on entrepreneurial intention with digital business education as a mediating variable using the SEM-PLS approach.

This study aims to determine the role of digital business education in mediating self-efficacy and entrepreneurial intention among students of the economics education study program at Universitas Negeri Semarang. Understanding this relationship can provide deeper insight into digital business education, which is a mediator in increasing entrepreneurial intention among economics education students. In addition, does digital business education directly and indirectly influence increasing entrepreneurial intention?

METHODS

The research method used in this study is quantitative research. The quantitative approach measures and analyzes the relationship between self-efficacy, entrepreneurial intention, and digital business education variables as mediating variables. This method allows researchers to obtain numerical data that can be analyzed statistically to identify significant patterns or relationships.

The population of this study was 392 students; a sample of 50 students was taken using a purposive sampling technique, with the criteria of economics education students from the 2022 intake who had completed entrepreneurship and digital business education courses at the Faculty of Economics and Business, Universitas Negeri Semarang (UNNES). The research data was obtained through a questionnaire assisted by Google Forms in September 2024. The questionnaire

was adapted from an instrument tested for validity and reliability. The collected data will be analyzed using statistical analysis techniques for the research objectives.

The data obtained were analyzed using the SEM-PLS technique through SmartPLS software version 3.2.9 to test the relationship between the independent variable (Self-Efficacy), the dependent variable (Entrepreneurial Intention), and the presence of a mediating variable (Digital Business Education). Using this technique, we can determine how much direct influence Self-Efficacy has on Entrepreneurial Intention. In addition, we can find the role of Digital Business Education in mediating Self-Efficacy and Entrepreneurial Intention among students of the Economics Education study program at Universitas Negeri Semarang.

The results of the Determination Coefficient (R-squared) analysis are used to determine the magnitude of the influence of the independent variable on the dependent variable. F2 effect size (F-Square) is a measure used to assess the relative impact of a variable that influences the variable that is influenced. Direct effect analysis helps test the hypothesis of the direct influence of a variable that influences the variable that is influenced. Indirect effect analysis helps test the hypothesis of the indirect influence of a variable that influences the variable that is influenced and mediated by an intervening variable.

RESULTS AND DISCUSSION

Respondent Data

Based on gender, respondent data:

Table 1. Respondent Gender Data

No.	Gender	f	Percentage (%)
1.	Male	14	28 %
2.	Female	36	72 %
Total		50	100 %

Source: Processed Primary Data, 2024

Table 1 shows 14 male respondents, or 28%, and 36 female respondents, or 72%.

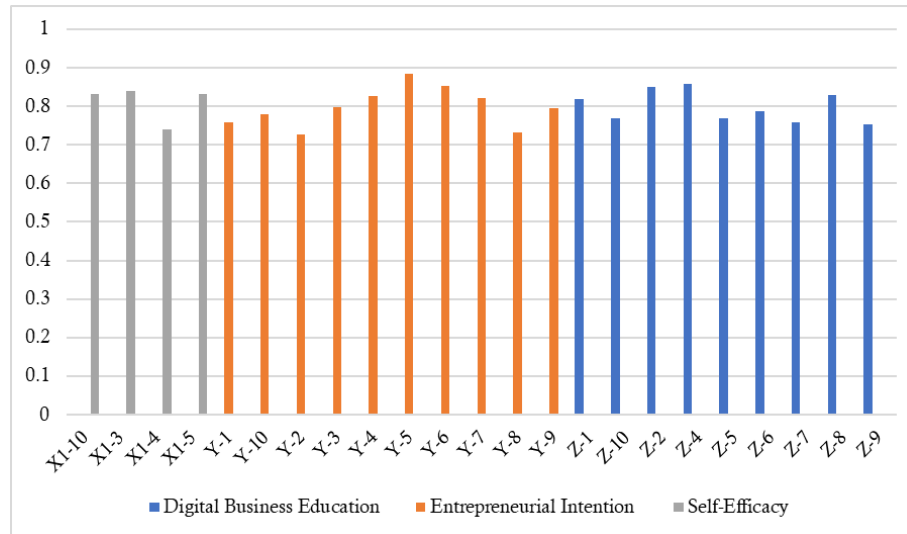


Figure 1. Factor Loadings for All Items

Thus, the total sample in this study was 50 economics education students who had taken digital business education at UNNES.

Validity Test

After carrying out calculations using SmartPLS 3.2.9, the following results were obtained (Figure 1):

First, the validity criteria with the loading factor results above show that all questionnaire items have a value of more than 0.7, which means all the indicators are valid. The next stage is the validity test using the Average Variance Extracted (AVE) value.

After carrying out the calculations, the following results were obtained:

Table 2. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Digital Business Education	0.640
Entrepreneurial Intention	0.639
Self-Efficacy	0.660

Source: Processed Primary Data, 2024

Based on the results, as shown in the table above, all variables have an AVE value above 0.5, meaning that digital business education, entrepreneurial intention, and self-efficacy are valid. Thus, all variables can be used to test hypotheses using inferential statistics.

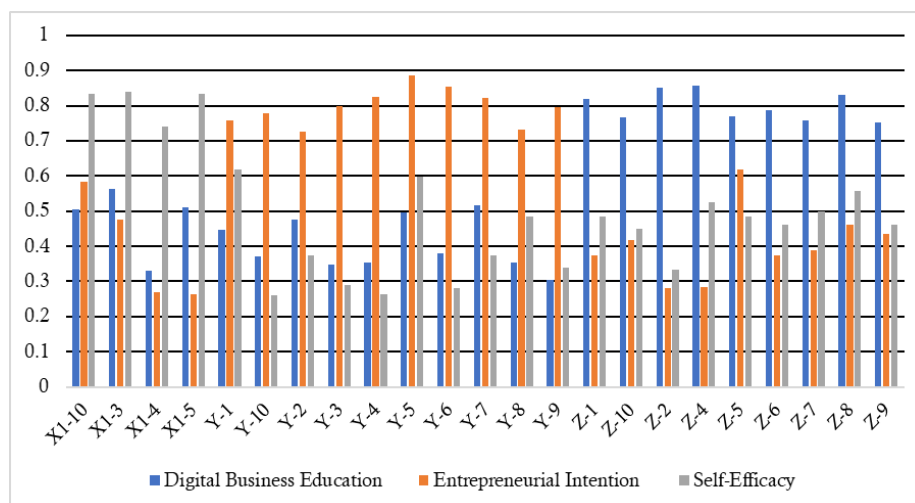


Figure 2. Discriminant Validity Cross Loading

Table 3. Composite Reliability and Cronbach's Alpha

Variabel	Cronbach's Alpha	rho_A	Composite Reliability
Digital Business Education	0.930	0.933	0.941
Entrepreneurial Intention	0.937	0.949	0.946
Self-Efficacy	0.832	0.860	0.886

Source: Processed Primary Data, 2024

Hypothesis testing uses inferential statistics, including Discriminant Validity Cross Loading. The following results were obtained after the data was processed as follows (Figure 2):

The cross-loading results in Table 2 above show that the correlation coefficient between the construct and its indicators is greater than the correlation coefficient between the construct and other constructs. Thus, all constructs or latent variables already have high discriminant validity.

Reliability Test

In this research, reliability testing was carried out using Composite Reliability and Cronbach Alpha. Table 3 are the results of the composite reliability and Cronbach alpha calculations.

The composite reliability results in the table above show that all composite reliability values for each construct are greater than 0.7, meaning all constructs are reliable. It can be seen that Cronbach's alpha value for all constructs is more significant than 0.7, which means all constructs are reliable.

Structural Model

R-Square

The value of the coefficient of determination can be shown in Table 4.

Table 5. F-Square

	Digital Business Education	Entrepreneurial Intention	Self-Efficacy
Digital Business Education		0.103	
Entrepreneurial Intention			
Self-Efficacy	0.566	0.101	

Source: Processed Primary Data, 2024

Based on the Table 4, it can be seen that the R Square value of Digital Business Education (Path Model I) is 0.361. This means that the ability of Self-Efficacy as an independent variable to explain Digital Business Education as an intervening variable is 36.1% (weak). The R Square value of Entrepreneurial Intention (Path Model II) is 0.338. This means that the ability of Self-Efficacy as an independent variable through Digital Business Education to explain the Entrepreneurial Intention variable is 33.8% (weak). On the other hand, other factors outside the study show different values.

Table 4. Coefficient of Determination (R-Square)

	R Square	R Square Adjusted
Digital Business Education	0.361	0.348
Entrepreneurial Intention	0.338	0.310

Source: Processed Primary Data, 2024

F-Square

The F-Square value can be shown in Table 5. Based on the Table 5, it can be concluded as follows: (1) The influence of Self-efficacy (X) on Digital Business Education

(Z) is 0.566, which is included in the medium category; (2) The influence of Self-efficacy (X) on Entrepreneurial Intention (Y) is 0.101, which is included in the small category; and (3) The influence of Digital Business Education (Z) on Entrepreneurial Intention (Y) is 0.103, which is included in the small category.

Direct Effect (Path Coefficient)

Based on Table 6, the following is a discussion of the hypotheses being tested: (1) The first hypothesis, the influence of Self-Efficacy (X) on Digital Business Education (Z), is 0.601 (positive); namely, if Self-Efficacy (X) increases, then Digital Business Education (Z) also increases, meaning a unidirectional influence. Based on the P-value value, namely $0.000 < 0.05$, it has a significant influence. There is a significant direct influence between Self-Efficacy and Digital Business Education;

(2) The second hypothesis, the influence of Self-Efficacy (X) on Entrepreneurial Intention (Y), is 0.323 (positive); namely, if Self-Efficacy (X) increases, then Entrepreneurial Intention (Y) also increases, meaning a unidirectional influence. Based on the P-value value, namely $0.013 < 0.05$, it has a significant influence. There is a significant direct influence between Self-Efficacy and Entrepreneurial Intention; (3) The third hypothesis, Digital Business Education (Z) on Entrepreneurial Intention (Y), is 0.327 (positive). That is, if the Influence of Digital Business Education (Z) increases, then Entrepreneurial Intention (Y) also increases, meaning the influence is in the same direction. Based on the P-value value, namely $0.002 < 0.05$, it has a significant influence. There is a significant direct influence between Digital Business Education and Entrepreneurial Intention.

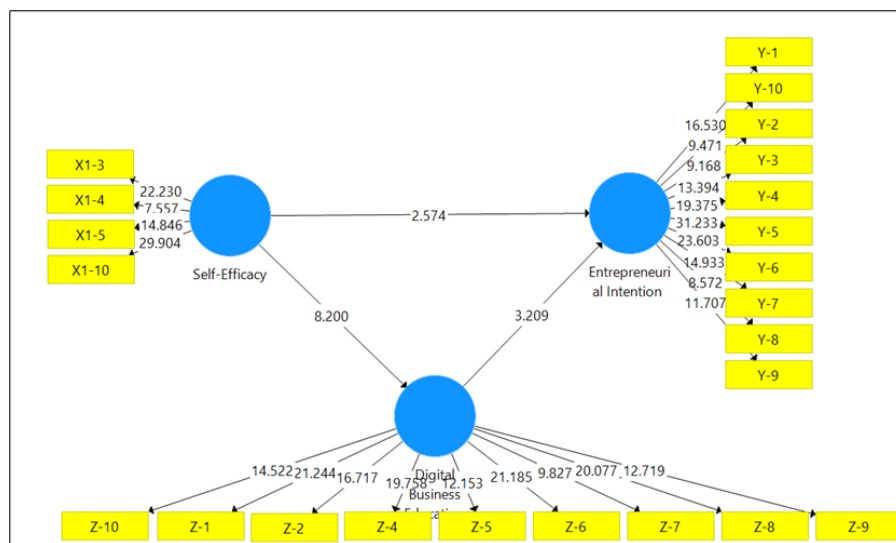


Figure 3. Structural Model Test

Table 6. Mean, STDEV, T-Statistics, and P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Digital Business Education -> Entrepreneurial Intention	0.327	0.345	0.102	3.209	0.002
Self-Efficacy -> Digital Business Education	0.601	0.624	0.073	8.200	0.000
Self-Efficacy -> Entrepreneurial Intention	0.323	0.352	0.125	2.574	0.013

Source: Processed Primary Data, 2024

Indirect Effect

Based on Table 7, the following is a discussion of the hypotheses being tested:

The fourth hypothesis, the Influence of Self-efficacy (X) on Entrepreneurial Intention (Y) through Digital Business Education (Z), is 0.197 (positive), with a P-value of $0.002 < 0.05$ (significant), meaning that the Digital Business Education variable has a role in mediating the influence of Self-efficacy on Entrepreneurial Intention.

Based on the results of the analysis, to determine the role of Digital Business Education in mediating Self-Efficacy and Entrepreneurial Intention among students of the Economics Education study program at Universitas Negeri Semarang, as follows:

First, digital business education and entrepreneurial intention have a significant direct influence. From the hypothesis test results, the path coefficient was obtained at 0.327 (P-Value 0.002). This means that the more digital business education students understand, the more entrepreneurial intention will increase. Conversely, if students do not understand digital business education, their entrepreneurial intentions will decrease. This is in line with the study results by Hasanah and Setiaji (2019), which stated that digital literacy significantly influences the intensity of students' e-business entrepreneurship. Other studies have found that the digital literacy variable influences the intensity of e-business entrepreneurship (Khoiriyah et al., 2022).

Second, there is an indirect influence between self-efficacy and entrepreneurial intention, with digital business education as a mediating variable. The hypothesis test results obtained a path coefficient of 0.197 (P-value

0.002), meaning that the digital business education variable has a role in mediating the influence of self-efficacy on entrepreneurial intention. This is in line with the Social Learning Theory proposed by Albert Bandura (1977) and the results of previous studies stating that increasing learning capability can have a positive effect on self-efficacy and sales performance (Pakpahan et al., 2025)

This study concludes that digital business education directly and indirectly influences increasing students' entrepreneurial intentions. Digital business education significantly mediates the relationship between self-efficacy and entrepreneurial intention among economic education students. Digital business education has an important role in increasing entrepreneurial intention; therefore, educators need to ensure that the teaching and content of digital business education provided to students can spark entrepreneurial intention so that it has an impact on increasing the number of young entrepreneurs among students. Entrepreneurship becomes one of the right career choices for graduates of economic education study programs.

CONCLUSION

Based on the results and discussion above, directly and indirectly, digital business education influences increasing students' entrepreneurial intentions. This is indicated by (1) There is a significant direct relationship between digital business education and entrepreneurial intention among students of 0.327 (P-Value 0.002). (2) Digital business education significantly mediates between self-efficacy and entrepreneurial intention of 0.197

Table 7. Mean, STDEV, T-Statistics, and P-Values

	Original Sample (O)	Sample Mean (M)	Standard Devia- tion (STDEV)	T Statistics (O/STDEV)	P Values
Self-Efficacy -> Digital Business Education -> Entrepreneurial Intention	0.197	0.212	0.060	3.282	0.002

Source: Processed Primary Data, 2024

(P-Value 0.002). Digital business education has an important role in increasing students' entrepreneurial intentions. This study suggests that educators must ensure that the teaching and content of digital business education can spark entrepreneurial intention and impact, increasing the number of young entrepreneurs among students. Entrepreneurship becomes one of the right career choices for graduates of economic education study programs.

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