E-ISSN:
2721-13988

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE OF GRADUATE SCHOOL ON SUSTAINABILITY (ICGSS)

10th International Conference on Sustainability (ICoS10)
University of Merdeka Malang, November 15, 2025
https://jurnal.unmer.ac.id/index.php/icgss

The Influence of Digital Literacy on Digital Entrepreneurial Intention: Building Entrepreneurial Resilience among Business Students in the Digital Transformation Era

Budiman[1*], Puti Zahra[1]
[1]Master of Management, Widyatama University, Indonesia
*Corresponding author: budiman.3466@widyatama.ac.id

Abstract.

The rapid advancement of digital technology has transformed entrepreneurial ecosystems, demanding individuals to develop strong digital competencies and adaptability. This study aims to examine the influence of digital literacy on digital entrepreneurial intention as a means to build entrepreneurial resilience in the digital transformation era. The research was conducted with 120 students from the Faculty of Economics and Business (FEB) in Bandung, Indonesia, who were considered to have basic exposure to entrepreneurship and digital tools. The study employed a quantitative descriptive approach with simple linear regression analysis using SPSS version 26. Classical assumption tests, including the Kolmogorov–Smirnov test for normality and the Glejser test for heteroscedasticity, were applied to ensure model validity. The normality test showed a significance value of 0.200 (>0.05), indicating that the residuals were normally distributed. The heteroscedasticity test yielded a p-value of 0.055 (>0.05), indicating that the model was free of heteroscedasticity. The regression results demonstrated that digital literacy has a positive and significant effect on digital entrepreneurial intention, with a standardized coefficient (β) of 0.601 and a significance level of 0.000. The model yielded an R-square of 0.361, suggesting that digital literacy explains 36.1% of the variance in digital entrepreneurial intention. These findings highlight the critical role of digital literacy in fostering students' readiness to pursue digital entrepreneurship and in strengthening entrepreneurial resilience amid the ongoing digital transformation.

Keywords: digital literacy, digital entrepreneurial intention, digital transformation, entrepreneurial resilience, business student

1. Introduction

Amid the accelerating global digital transformation, many aspects of economic, social, and educational life have undergone fundamental shifts. Digital technology, the internet, online platforms, and digital ecosystems have opened new opportunities while simultaneously presenting challenges that young people and aspiring entrepreneurs have never faced before. In this context, digital competence, the ability to understand, access, utilize, and evaluate digital technologies and media, has become increasingly important for effective participation in the digital economy (European Commission, 2022). Furthermore, such competence should not be limited to consumption but should also enable innovation and value creation through digital entrepreneurship.

For business students, the digital era demands more than traditional business knowledge: they must also be prepared to become digital entrepreneurs who can adapt, leverage technology to create opportunities, and survive amid disruption and uncertainty. Within this

E-ISSN:
2721-13988

framework, the concept of entrepreneurial resilience, defined as the ability of entrepreneurs to remain robust, flexible, and capable of bouncing back from environmental changes, is highly relevant (Fisher et al., 2023; Schmidt & Cohen, 2021). As business models rapidly shift, competition becomes increasingly global, and new technologies continue to emerge, mental and digital preparedness become key differentiating factors.

Accordingly, digital literacy can be regarded as a foundational factor for the formation of digital entrepreneurial intention. Recent studies indicate that students or young individuals with higher levels of digital literacy tend to exhibit stronger intentions to start digital ventures or integrate digital elements into their businesses (López-Belmonte et al., 2023). For example, Mustain, Murwani, and Mukhlis (2023) found that digital literacy significantly influences entrepreneurial intention through entrepreneurial attitudes. In Indonesia, Ganefri et al. (2024) also reported that digital literacy, combined with an entrepreneurial mindset, affects students' entrepreneurial intentions. At the international level, Kang, Park, and Jang (2023) demonstrated that digital capability positively impacts entrepreneurial intention among South Korean students, while Chang et al. (2022) found that digital literacy influences social entrepreneurial intention and behavior among university students in Taiwan.

Despite increasing recognition of digital literacy, gaps remain in the literature regarding how it specifically affects digital entrepreneurial intention among business students and how it contributes to entrepreneurial resilience in the era of digital transformation. Therefore, this study empirically examines the influence of digital literacy on digital entrepreneurial intention among business students in Indonesia, while highlighting the role of digital competence in building entrepreneurial resilience amid technological disruption (European Commission, 2022; Fisher et al., 2023).

Based on this background, the study aims to investigate the influence of digital literacy on digital entrepreneurial intention among business students and its implications for developing entrepreneurial resilience in the digital transformation era. Specifically, the study addresses two objectives: (1) to examine whether digital literacy has a positive and significant effect on digital entrepreneurial intention among students at the Faculty of Economics and Business in Bandung, Indonesia, and (2) to assess the extent to which digital literacy explains the variance in digital entrepreneurial intention and how this contributes to the development of entrepreneurial resilience in the digital era.

This study is expected to make theoretical contributions by strengthening the framework linking digital literacy with digital entrepreneurial intention and entrepreneurial resilience, and to offer practical contributions by offering implications for higher education curriculum development, digital entrepreneurship policy, and enhancing the readiness of business students to thrive in a dynamic digital era.

2. Method

This study employed a quantitative, descriptive-verificative research design to analyze the influence of digital literacy on digital entrepreneurial intention among business students. The quantitative approach was chosen because the study emphasizes the numerical measurement of variables and the examination of relationships through statistical analysis, enabling objective, measurable conclusions. The study population comprised all students at the Faculty of Economics and Business (FEB) in Bandung, Indonesia, who possess a basic understanding of entrepreneurship and the use of digital technologies in both academic and non-academic activities.

The sample was determined using purposive sampling, with the criteria being students who actively use digital technologies in their learning processes or entrepreneurial activities and who were willing to participate in the study. Based on these criteria, 120 respondents were selected as the primary data source. Data were collected using a five-point Likert-scale questionnaire designed to measure two main variables: digital literacy (independent variable) and digital entrepreneurial intention (dependent variable). Each questionnaire item was structured to reflect aspects of digital literacy, such as the ability to access, understand, and utilize digital technologies, as well as indicators of digital entrepreneurial intention, including motivation, interest, and readiness to initiate a digital-based business.

After data collection, the analysis was conducted using SPSS version 26. Prior to hypothesis testing, a series of classical assumption tests were performed, including the Kolmogorov–Smirnov test for normality to ensure the data were normally distributed, and the Glejser test for heteroscedasticity to ensure the homogeneity of residual variances in the regression model. Subsequently, a simple linear regression analysis was applied to examine the effect of digital literacy on digital entrepreneurial intention. This analysis enabled the researchers to determine the direction and strength of the relationship between the variables and the extent to which digital literacy could explain the variance in students' digital entrepreneurial intention.

The results of this analysis were then used to evaluate the role of digital literacy in shaping students' readiness and resilience to face challenges and opportunities in digital entrepreneurship. Consequently, this study not only emphasizes the measurement of statistical relationships but also provides a more comprehensive empirical illustration of the contribution of digital literacy to the development of entrepreneurial resilience within the academic environment.

3. Result and Discussion

3.1 Descriptive Statistics

The descriptive analysis showed that the average digital literacy score among students was 73.77, with a range from 50 to 85 and a standard deviation of 6.996. This indicates that students have a relatively high level of digital literacy, distributed fairly evenly. Meanwhile, the mean score for digital entrepreneurial intention was 81.66, ranging from 63 to 95 with a standard deviation of 9.60, suggesting that most students exhibit a positive tendency toward digital entrepreneurship. Overall, these descriptive statistics indicate that students possess sufficient digital skills and motivation to engage in digital entrepreneurship, making them a suitable sample for examining the influence of digital literacy on digital entrepreneurial intention.

Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Digital Literacy	50	85	73.77	6.70
Digital Entrepreneurial Intention	63	95	81.66	9.60

Source: Data Processing Result, 2025

3.2 Classical Assumption Tests

Before conducting regression analysis, classical assumption tests were performed to ensure the statistical validity and reliability of the model. These tests included normality, heteroscedasticity, and linearity between variables.

Normality was evaluated using two approaches: the Kolmogorov–Smirnov test and the Normal P-P Plot of standardized regression residuals. The Kolmogorov–Smirnov test yielded a p-value of 0.200 (>0.05), indicating that the residual distribution did not deviate significantly from normality. This result was further supported by the P-P Plot, which showed that the residuals closely followed a straight line, confirming a normal distribution. Consequently, the normality assumption was met, ensuring that the regression parameter estimates are unbiased and that significance tests can be interpreted accurately.

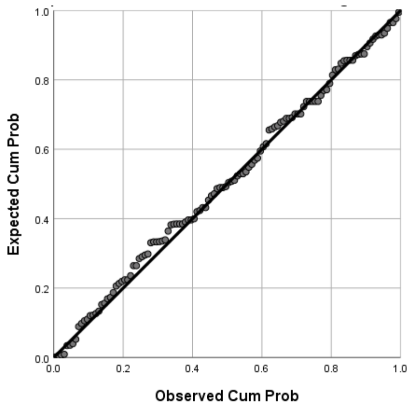

Figure 1. Normal P-P Plot of Regression Standardized Residual
Source: Data Processing Result, 2025

Heteroscedasticity was assessed using the Glejser test, which revealed no clear or systematic pattern between residuals and the predictor variable (digital literacy). This indicates that the residual variance is relatively constant across the range of predictors, confirming that the homoscedasticity assumption is satisfied. Meeting these assumptions is crucial to ensure efficient regression coefficient estimates and the validity of t-tests and F-tests.

With these assumptions fulfilled, the simple linear regression model used to examine the effect of digital literacy on digital entrepreneurial intention is considered appropriate, as the residuals meet the normality and homoscedasticity requirements. This provides a strong basis for conducting regression analysis and interpreting the results.

3.3 Simple Linear Regression Analysis

A simple linear regression analysis was conducted to examine the influence of digital literacy on students' digital entrepreneurial intention. SPSS analysis yielded the following regression equation:

$$Digital\ Enterpreneurial\ Intention = 20.846 + 0.824\ Digital\ Literacy \quad (1)$$

This regression equation indicates that the constant 20.846 represents the predicted level of digital entrepreneurial intention when digital literacy is zero. The regression coefficient of 0.824 implies that a one-unit increase in digital literacy increases digital entrepreneurial intention by 0.824 units, with a positive direction of influence.

Table 2. Simple Linear Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.846	7.481		2.786	0.006
	Digital Literacy	0.824	0.101	0.601	8.165	0.000

Source: Data Processing Result, 2025

The results indicate that digital literacy has a positive and significant effect on digital entrepreneurial intention. The standardized Beta value of 0.601 shows a moderately strong relationship, and the p-value of 0.000 confirms the statistical significance of this influence. The correlation coefficient (R) is 0.601, and the coefficient of determination (R^2) is 0.361, meaning that digital literacy explains 36.1% of the variance in students' digital entrepreneurial intention, while 63.9% is influenced by other factors outside the model.

Overall, the simple linear regression analysis confirms a positive relationship between digital literacy and digital entrepreneurial intention, and the regression model provides a solid basis for interpreting the statistical association between these variables.

3.4 Discussion

The results of this study indicate that digital literacy has a positive and significant effect on students' digital entrepreneurial intention in the Faculty of Economics and Business. The standardized Beta value of 0.601 highlights a moderately strong relationship, while the R^2 value of 0.361 shows that digital literacy accounts for approximately 36.1% of the variance in students' digital entrepreneurial intention. These findings confirm that digital literacy is not merely a technical skill but also a crucial factor in fostering students' readiness to engage in technology-based entrepreneurship (López-Belmonte et al., 2023).

These results align with previous research emphasizing the importance of digital literacy in shaping entrepreneurial intention. Mustain et al. (2023) found that digital literacy significantly influences entrepreneurial intention through a more positive entrepreneurial attitude, while Ganefri et al. (2024) highlighted that the combination of digital literacy and an entrepreneurial mindset enhances students' entrepreneurial intention. International studies by Kang et al. (2023) and Chang et al. (2022) further support these findings, demonstrating that digital capabilities contribute to entrepreneurial intention across diverse cultural contexts.

Furthermore, these findings support the concept of entrepreneurial resilience, defined as the ability of individuals to remain resilient, adaptive, and capable of overcoming changes and disruptions in the business environment (Fisher et al., 2023; Schmidt & Cohen, 2021). Students with high digital literacy not only exhibit stronger intentions to engage in digital entrepreneurship but are also better prepared to cope with uncertainty, market fluctuations, and rapid technological developments. Digital literacy enables them to access information quickly, understand digital trends, leverage online platforms, and implement innovative business strategies. Consequently, digital literacy enhances not only technical skills but also self-confidence, mental readiness, and resilience in the context of digital entrepreneurship.

In addition to theoretical implications, this study provides significant practical implications for higher education. Strengthening digital literacy within entrepreneurship curricula can be an effective strategy to enhance students' digital entrepreneurial intention (European Commission, 2022; López-Belmonte et al., 2023). Digital project-based learning, online business platform training, and technology-driven business simulations can strengthen digital skills while simultaneously enhancing students' mental readiness to adapt to rapidly changing market dynamics.

Overall, this study underscores the importance of digital literacy as a key driver of digital entrepreneurial intention and as a central component in building entrepreneurial resilience in the era of digital transformation (Fisher et al., 2023; Schmidt & Cohen, 2021).

4. Conclusion

Based on the results of this study, it can be concluded that digital literacy has a positive and significant impact on digital entrepreneurial intention among students of the Faculty of Economics and Business in Bandung. Students with higher digital literacy tend to exhibit greater intention to start digital ventures, with each increment in digital literacy significantly increasing digital entrepreneurial intention. Additionally, digital literacy explains a portion of the variance in students' entrepreneurial intention, indicating that while other factors such as prior entrepreneurial experience, intrinsic motivation, creativity, social support, and market opportunities also influence intention, digital literacy remains a foundational factor.

The findings also reveal that digital literacy contributes to the development of entrepreneurial resilience. Students with high digital literacy not only demonstrate stronger entrepreneurial intentions but also exhibit greater adaptability, self-confidence, and capacity to face risks and technological changes, thereby supporting their ability to sustain and grow in the context of digital entrepreneurship. The practical implications emphasize the importance of enhancing digital literacy through higher education curricula, including digital projects, online business platform training, technology-driven business simulations, and hands-on entrepreneurial experiences. In this way, digital literacy not only strengthens students' technical skills but also serves as a key factor in fostering mental readiness, digital entrepreneurial intention, and entrepreneurial resilience in the era of digital transformation.

In summary, this study confirms that digital literacy is a critical factor in driving digital entrepreneurial intention while simultaneously building entrepreneurial resilience, making it a strategic focus for higher education institutions aiming to cultivate adaptive, innovative, and resilient entrepreneurs capable of navigating challenges and disruptions in the digital age.

Acknowledgment

This paper is an output of the science project conducted within the Faculty of Economics and Business. The authors would like to express sincere gratitude to the institution, academic supervisors, and all students who participated in the survey, whose support and contributions made this research possible.

References

Chang, C.-L., Chen, Y.-H., & Lin, H.-C. (2022). *Digital literacy and social entrepreneurial intention among university students: The mediating role of social innovation orientation.* Journal of Entrepreneurship Education, 25(5), 1–12. https://doi.org/10.5465/jeea.2022.25.5

European Commission. (2022). *The Digital Competence Framework for Citizens (DigComp 2.2): With new examples of knowledge, skills, and attitudes.* Publications Office of the European Union. https://doi.org/10.2760/115376

Fisher, R., Maritz, A., & Lobo, A. (2023). *Entrepreneurial resilience: Key factors driving success in digital entrepreneurship.* Journal of Small Business Management, 61(2), 341–359. https://doi.org/10.1080/00472778.2022.2125769

Ganefri, G., Hidayat, H., & Kusuma, Y. (2024). *Digital literacy and entrepreneurial mindset as predictors of entrepreneurial intention among university students in Indonesia.* International Journal of Entrepreneurship, 28(1), 45–58.

Kang, S., Park, H., & Jang, M. (2023). *The effect of digital capability on entrepreneurial intention: Evidence from university students in South Korea.* Sustainability, 15(6), 5123. https://doi.org/10.3390/su15065123

López-Belmonte, J., Pozo-Sánchez, S., & López-Núñez, J. A. (2023). *Digital competence and entrepreneurial intention in higher education: The mediating role of innovation capacity.* Education and Information Technologies, 28(3), 3679–3698. https://doi.org/10.1007/s10639-022-11335-z

Mustain, M., Murwani, F. D., & Mukhlis, I. (2023). *The influence of digital literacy on entrepreneurial intention mediated by entrepreneurial attitude among students in Indonesia.* International Journal of Professional Business Review, 8(5), e04230. https://doi.org/10.26668/businessreview/2023.v8i5.4230

Schmidt, J. P., & Cohen, E. (2021). *Resilience in digital entrepreneurship: Adapting to disruption and uncertainty.* Entrepreneurship Research Journal, 11(4), 1–18. https://doi.org/10.1515/erj-2020-0214