



Proceeding Book of International Conference on Association of Indonesian Entrepreneurship Study Programs

The 4th APSKI International Conference 2026

“Empowering Future Ventures: The Nexus of AI & Entrepreneurial Excellences”

Bali - Indonesia, 23 July 2026

ISSN 3064-3635, Vol 04, Ed 01 (2026), pages 255 - 265

Are University Students Ready to Build Digital Startups? Evidence from Indonesian Higher Education

Masyithoh Annisaush Sholihah*

¹Universitas Islam Indonesia

*Correspondence: 242141201@uii.ac.id

Abstract: The rapid growth of digital entrepreneurship has encouraged higher education institutions to strengthen entrepreneurship education as a means of preparing students for venture creation. While previous studies have extensively examined entrepreneurial intention and self-efficacy, less attention has been given to students' preparedness to establish digital startups. This study examines key indicators associated with Digital Startup Readiness (DSR) among university students and explores the challenges that influence their readiness for digital venture creation. An explanatory sequential mixed-methods design was employed, involving 154 undergraduate students enrolled in entrepreneurship-related courses at an Indonesian university. Quantitative data were analysed using descriptive statistics, while qualitative responses to open-ended questions were examined through thematic analysis. The findings indicate that students demonstrate high entrepreneurial confidence, motivation, and proactive information-seeking behaviour, suggesting positive outcomes of entrepreneurship education. However, respondents continue to experience moderate difficulties in generating innovative business ideas and adapting them to changing market trends. Funding, technical capability, and limited mentoring were identified as the most significant challenges in developing digital startups. The qualitative findings further reveal that students expect entrepreneurship education to provide greater emphasis on practical mentoring, business incubation, customer validation, and networking opportunities. The study highlights the distinction between entrepreneurial enthusiasm and startup preparedness, suggesting that universities should complement entrepreneurial motivation with experiential learning and stronger institutional support to better prepare students for digital venture creation.

Keywords: Digital Startup Readiness; Digital Entrepreneurship; Entrepreneurship Education; University Students; Mixed Methods.



Copyright © 2026 The Author

This is an open access article Under the Creative Commons Attribution (CC BY) 4.0 International License

A. Introduction

Digital entrepreneurship has become an increasingly important driver of innovation, economic growth, and employment as digital technologies transform the way businesses are created, operated, and scaled (Autio et al., 2018). This transformation has encouraged higher education institutions (HEIs) to strengthen entrepreneurship education by equipping students with entrepreneurial competencies, digital capabilities, and innovation skills necessary to compete in technology-driven markets (Amalia & von Korflesch, 2021; Aparicio et al., 2019). Beyond developing entrepreneurial awareness, universities are now expected to cultivate entrepreneurial graduates who are capable of identifying opportunities, developing innovative business ideas, and creating sustainable digital ventures through experiential learning approaches (Listyaningsih et al., 2024; Uddin et al., 2025). Consequently, entrepreneurship education has shifted from emphasizing entrepreneurial intention toward preparing students to engage in the practical process of venture creation.

The expansion of entrepreneurship education has been accompanied by growing investment in university incubators, startup competitions, mentoring programs, and innovation hubs. These initiatives aim to strengthen students' entrepreneurial competencies and facilitate the commercialization of innovative ideas (Ayad et al., 2022; Mele et al., 2022). Previous studies have consistently demonstrated that entrepreneurship education positively influences entrepreneurial intention, entrepreneurial confidence, and innovation capability (Bardales-Cárdenas et al., 2024; Lopes et al., 2025). However, evidence also suggests that many students continue to experience difficulties when translating entrepreneurial aspirations into actual startup creation due to limited technical capability, insufficient mentoring, restricted access to entrepreneurial resources, and uncertainty regarding market validation (Haron et al., 2022; Mustofa & Mulyono, 2024). These findings indicate that entrepreneurial motivation alone is insufficient to ensure successful digital venture creation.

Existing research has predominantly examined entrepreneurial intention, entrepreneurial self-efficacy, digital literacy, and institutional support as determinants of entrepreneurial behaviour (Iskandar et al., 2024; Xanthopoulou & Sahinidis, 2024). Although these studies have substantially improved understanding of students' entrepreneurial potential, they provide limited insight into whether students are adequately prepared to establish digital startups. Recently, Mirhabibi et al. (2025) introduced digital entrepreneurship readiness as an emerging concept influenced by digital mindset and digital education, suggesting that students' preparedness for digital entrepreneurship extends beyond entrepreneurial intention and encompasses broader educational and capability-related factors. Nevertheless, empirical evidence remains limited regarding how university students perceive their readiness to establish digital startups and which aspects of their preparation require further strengthening, particularly within the context of higher education in emerging economies.

From a practical perspective, understanding students' startup readiness is becoming increasingly important as universities seek to evaluate the effectiveness of entrepreneurship education beyond conventional outcomes such as entrepreneurial intention. Rather than asking whether students intend to become entrepreneurs, higher education institutions also need to understand whether students possess the confidence, support, and capabilities necessary to initiate digital business ventures. Assessing these readiness indicators may provide valuable evidence for improving entrepreneurship curricula, business incubation programs, mentoring systems, and university-industry collaboration.

Accordingly, this study adopts Digital Startup Readiness (DSR) as a conceptual perspective for examining university students' preparedness to establish digital startups. Instead of treating DSR as a single measurable construct, this study investigates several indicators associated with startup readiness, including students' perceived ability to generate innovative business ideas, respond to changing market trends, access

entrepreneurship support, participate in entrepreneurial communities, develop confidence in business ideation, seek inspiration through digital information sources, and maintain entrepreneurial motivation despite challenges. These quantitative findings are complemented by qualitative responses that explore students' entrepreneurial experiences, perceived obstacles, and expectations regarding university support. By integrating both forms of evidence, this study aims to provide a comprehensive understanding of students' readiness for digital entrepreneurship and offer practical implications for strengthening entrepreneurship education in higher education institutions.

Therefore, this study aims to (1) examine key indicators associated with university students' Digital Startup Readiness, (2) explore students' experiences and perceived challenges in developing digital startups, and (3) provide recommendations for strengthening entrepreneurship education to better prepare students for digital venture creation.

B. Literature Review

1. Entrepreneurship Education and Digital Venture Creation

Entrepreneurship education has developed from a narrow emphasis on entrepreneurial intention toward a broader focus on venture creation, capability development, and innovation. Universities are increasingly expected to equip students with the knowledge, skills, and attitudes required to recognize opportunities, mobilize resources, and transform ideas into viable businesses (Aparicio et al., 2019; Morris et al., 2013). In Indonesia, entrepreneurship education has expanded across higher education institutions, although its implementation remains uneven in terms of experiential learning, mentoring, and access to entrepreneurial infrastructure (Amalia & von Korflesch, 2021). Recent studies indicate that entrepreneurship education can strengthen students' entrepreneurial motivation, business skills, and confidence (Bardales-Cárdenas et al., 2024; Listyaningsih et al., 2024). However, educational exposure does not automatically lead to venture creation. Uddin et al. (2025) argue that effective entrepreneurship education should combine

formal instruction with practical activities, mentorship, and ecosystem support. This perspective is particularly relevant to digital startups, where students must respond to technological change, uncertain markets, and rapidly evolving customer preferences. Therefore, the effectiveness of entrepreneurship education should be assessed not only through students' intentions but also through their preparedness to undertake the practical tasks involved in developing a venture.

2. Digital Entrepreneurship and the Demands of Startup Development

Digital entrepreneurship refers to entrepreneurial activity in which digital technologies shape opportunity identification, value creation, customer interaction, and venture scaling (Autio et al., 2018). Digital ventures differ from many conventional businesses because they often operate in highly dynamic environments, depend on digital platforms, and require continuous adaptation. These characteristics create opportunities for students to establish businesses with relatively low initial capital, while simultaneously demanding stronger digital, innovative, and market-oriented capabilities.

Digital literacy and innovation attitudes have been identified as important foundations of digital entrepreneurship. Iskandar et al. (2024) found that digital literacy contributes to entrepreneurial attitudes among university students, while Lopes et al. (2025) emphasized the influence of personality and innovation attitudes on digital entrepreneurial engagement. Digital venture creation therefore requires more than familiarity with technology. Students must be capable of interpreting market information, identifying unmet needs, developing creative solutions, and adjusting their ideas as technologies and consumer preferences change. Innovation capability is also essential because digital startups typically emerge under conditions of uncertainty. Tidd (2005) explains that innovation involves the integration of technological, market, and organizational change, whereas Wu and Gu (2022) emphasize that innovation capabilities can be cultivated through supportive learning environments. In the context of student entrepreneurship, these

capabilities are reflected in the ability to generate original business ideas, remain responsive to current trends, and translate information into commercially relevant opportunities.

3. Digital Startup Readiness

Entrepreneurial intention has been widely examined as an indicator of students' willingness to pursue entrepreneurship (Xanthopoulou & Sahinidis, 2024). Nevertheless, intention does not necessarily indicate that students possess the competencies, resources, or practical confidence required to establish a startup. A student may express strong entrepreneurial interest while still experiencing difficulties in idea development, market evaluation, technical execution, or resource acquisition.

Mirhabibi et al. (2025) position digital entrepreneurship readiness as a broader form of preparedness influenced by digital mindset and digital education. Their work suggests that readiness extends beyond motivation and includes the capacity to engage with the practical and cognitive demands of digital entrepreneurship. Similarly, Mustofa and Mulyono (2024) demonstrate that students' business innovation capabilities are influenced by university support and entrepreneurial resilience. These studies indicate that startup readiness should be understood through the interaction of individual attitudes, entrepreneurial competencies, digital capability, and institutional conditions.

In this study, Digital Startup Readiness is used as a conceptual perspective rather than a psychometrically validated construct. It refers to the extent to which students appear prepared to pursue digital venture creation based on several observable indicators: their perceived difficulty in generating innovative ideas, ability to remain responsive to market trends, entrepreneurial confidence, motivation, information-seeking behaviour, access to university programs, and participation in entrepreneurial communities or incubators. These indicators do not represent a complete measurement scale, but they provide evidence of the strengths and gaps associated with students' preparation for digital entrepreneurship.

4. Entrepreneurial Competencies, Ideation, and Market Validation

The capability to establish a startup depends on a combination of entrepreneurial competencies rather than on a single personal attribute. Man et al. (2002) conceptualize entrepreneurial competencies as including opportunity, relationship, conceptual, organizing, strategic, and commitment capabilities. Mitchelmore and Rowley (2010) similarly argue that entrepreneurial performance depends on a combination of personal, managerial, opportunity-related, and relationship competencies. Morris et al. (2013) extend this argument to entrepreneurship education, emphasizing that educational programs should develop competencies that can be demonstrated through entrepreneurial action.

For student digital entrepreneurs, ideation is a particularly important competency. Generating ideas requires more than creativity; it also requires the ability to connect emerging trends with customer problems and feasible solutions. Students who follow online platforms and digital information sources may have broad exposure to business trends, but this does not necessarily mean they can identify valuable entrepreneurial opportunities. Information must be critically interpreted and tested before it can become a viable venture concept.

Lean Startup literature reinforces the importance of validation in early-stage venture development. Ries (2011) emphasizes validated learning and iterative experimentation, while Bland and Osterwalder (2020) provide practical approaches for testing business assumptions. Leatherbee and Katila (2020) show that hypothesis-driven experimentation can improve the development of early-stage business ideas. Blank and Eckhardt (2023) further position Lean Startup as an actionable theory of entrepreneurship that links opportunity development with systematic experimentation. These perspectives suggest that students' difficulty in creating innovative and trend-relevant ideas may reflect limited exposure to structured customer discovery and market validation rather than a lack of motivation.

5. University Support, Incubation, and Entrepreneurial Communities

University support is an important factor in determining whether students can translate entrepreneurial aspirations into startup activity. Such support may include entrepreneurship courses, mentoring, incubators, networking programs, competitions, funding, and access to digital tools. Ayad et al. (2022) found that university incubator support contributes to entrepreneurial intention through students' personal attitudes, while Makai and Dóry (2023) identified perceived university support as an important influence on entrepreneurial development.

Incubators can accelerate student entrepreneurship by providing structured guidance, access to expertise, and opportunities to test business ideas. Mele et al. (2022) argue that university business idea incubators can speed up student venture development by reducing uncertainty and supporting early-stage experimentation. In Indonesia, Maritz et al. (2023) highlight the importance of aligning university accelerators with entrepreneurship education so that curricular and extracurricular initiatives do not operate separately.

Nevertheless, access to support is often inconsistent. Haron et al. (2022) found that university support influences entrepreneurial intention among non-business students, but access to such support may vary across disciplines and institutions. Choi-Lundberg et al. (2023) also note that digital learning innovations depend on educational design and institutional implementation, not merely on the availability of technology. Therefore, the presence of university programs does not automatically ensure that students receive effective assistance. The quality, continuity, and accessibility of training, mentoring, and incubation are important in determining whether institutional support contributes meaningfully to startup readiness.

6. Analytical Perspective of the Study

Based on the literature, students' readiness to develop digital startups can be examined through the relationship between individual preparedness and institutional support. At the individual level, relevant indicators include confidence in generating ideas, motivation to

continue despite challenges, ability to respond to trends, and active information-seeking behaviour. At the institutional level, relevant indicators include access to entrepreneurship training, incubators, entrepreneurial communities, mentors, and other venture-development resources.

Accordingly, this study examines Digital Startup Readiness through seven quantitative indicators: difficulty generating innovative digital business ideas, difficulty maintaining relevance to current trends, perceived university training support, access to entrepreneurial communities or incubators, confidence in generating creative ideas, engagement with information sources for business inspiration, and motivation to pursue digital entrepreneurship despite challenges. Qualitative responses are then used to explain the barriers and experiences underlying these patterns.

This analytical perspective allows the study to identify an important distinction between entrepreneurial enthusiasm and venture-development preparedness. Students may demonstrate confidence, motivation, and high digital engagement while still experiencing difficulties related to ideation, validation, funding, technical capability, and mentoring. Understanding this distinction provides a basis for evaluating how entrepreneurship education can move beyond encouraging entrepreneurial intention toward preparing students for the practical demands of digital startup creation.

C. Methods

This study employed an explanatory sequential mixed-methods design to examine university students' Digital Startup Readiness (DSR). The research began with a quantitative survey to describe students' perceptions regarding several indicators associated with startup readiness, followed by qualitative analysis of open-ended responses to provide a deeper explanation of the quantitative findings. This mixed-methods approach allows researchers to integrate numerical trends with participants' experiences, thereby generating a more comprehensive understanding of complex educational and entrepreneurial phenomena (Creswell & Plano Clark, 2017).

The quantitative phase involved 154 undergraduate students enrolled in entrepreneurship-related courses at a private university in Indonesia. Respondents were selected using simple random sampling from students who had participated in entrepreneurship learning activities and were either operating a digital business or developing a digital business idea. Data were collected using a structured questionnaire consisting of seven indicators associated with Digital Startup Readiness: (1) perceived difficulty in generating innovative digital business ideas, (2) perceived difficulty in maintaining business ideas relevant to current market trends, (3) perceived availability of university entrepreneurship training, (4) access to entrepreneurial communities or business incubators, (5) confidence in generating creative business ideas, (6) information-seeking behaviour through digital platforms for entrepreneurial inspiration, and (7) motivation to pursue digital entrepreneurship despite challenges. Responses to the Likert-scale items were measured using a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), while the information-seeking behaviour item was analysed descriptively using frequency and percentage distributions.

The quantitative data were analysed using descriptive statistics, including frequencies, percentages, means, and standard deviations. Since the objective of the study was to examine students' perceptions of startup readiness rather than test causal relationships or validate a latent construct, descriptive analysis was considered appropriate for identifying the strengths and weaknesses of each readiness indicator.

The qualitative phase utilised students' responses to open-ended questions included in the same questionnaire. These questions explored students' experiences in developing digital business ideas, the challenges encountered during startup development, and their expectations regarding university support. The qualitative data were analysed using **thematic analysis** following the six-step procedure proposed by Braun and Clarke (2021): familiarisation with the data, initial coding, theme generation, theme review, theme definition and naming, and report preparation.

Finally, the quantitative and qualitative findings were integrated during the interpretation stage through methodological triangulation. The qualitative themes were used to explain and enrich the descriptive quantitative findings, enabling a more comprehensive interpretation of students' Digital Startup Readiness and providing practical implications for strengthening entrepreneurship education and university support for digital venture creation.

D. Result and Discussion

1. Respondent Profile

A total of 154 undergraduate students participated in this study. All respondents had completed entrepreneurship-related learning activities and were either developing a digital business idea or operating a digital business. The respondents represented students with varying levels of entrepreneurial experience, providing a comprehensive overview of students' perceptions regarding Digital Startup Readiness within the context of entrepreneurship education.

2. Indicators Associated with Digital Startup Readiness

The quantitative analysis examined seven indicators associated with Digital Startup Readiness, including students' ability to generate innovative business ideas, adapt to market trends, perceive university support, access entrepreneurial communities, demonstrate confidence in business ideation, seek entrepreneurial inspiration, and maintain entrepreneurial motivation despite challenges.

Table 1. Indicators Associated with Digital Startup Readiness (N = 154)

Indicator	Mean	SD	Interpretation
Difficulty generating innovative business ideas*	2.95	0.97	Moderate
Difficulty maintaining business ideas relevant to market trends*	3.04	1.05	Moderate
University provides entrepreneurship training	3.75	0.97	High
Access to entrepreneurial communities or business incubators	3.41	1.08	Moderate-High

Confidence in generating creative business ideas	3.98	0.87	High
Entrepreneurial motivation despite challenges	3.97	0.87	High

*Higher scores indicate greater perceived difficulty.

Overall, the findings suggest that students possess a positive entrepreneurial mindset. Respondents reported high confidence in their ability to generate business ideas and remained motivated to pursue digital entrepreneurship despite various obstacles. University entrepreneurship programs were also perceived positively, indicating that institutional initiatives have contributed to strengthening entrepreneurial awareness. Nevertheless, students continued to experience moderate difficulty in developing innovative business ideas and ensuring that these ideas remained aligned with evolving market trends. These results imply that while entrepreneurship education has successfully fostered entrepreneurial motivation, students still require greater support in opportunity recognition and market validation.

3. Entrepreneurial Information-Seeking Behaviour

Students were asked whether they actively followed information sources or digital platforms to obtain inspiration for business ideas.

Table 2. Entrepreneurial Information-Seeking Behaviour (N = 154)

Response	Frequency	Percentage (%)
Yes	145	94.2
No	9	5.8
Total	154	100

The results demonstrate that almost all respondents actively sought entrepreneurial inspiration through digital platforms and various information sources. This behaviour reflects students' willingness to continuously learn and monitor developments in digital entrepreneurship. However, despite this high level of information-seeking behaviour, students still reported moderate difficulties in generating innovative and market-relevant business ideas.

This finding indicates that access to information alone is insufficient unless accompanied by the capability to evaluate opportunities and translate information into viable business concepts.

4. Major Challenges in Developing Digital Startups

Respondents were asked to identify the most difficult challenge encountered when developing a digital business.

Table 3. Most Difficult Challenge in Developing a Digital Startup (N = 154)

Challenge	Frequency	Percentage (%)
Funding	58	37.7
Generating innovative business ideas	27	17.5
Technical capability	24	15.6
Understanding market trends	24	15.6
Access to mentors	17	11
Other	4	2.6
Total	154	100

Funding emerged as the most frequently reported challenge, accounting for more than one-third of respondents. Difficulties in generating innovative business ideas, developing technical capabilities, and understanding market trends were also commonly reported. These findings suggest that students require not only financial support but also stronger entrepreneurial capabilities to transform innovative ideas into sustainable digital businesses.

5. Qualitative Findings

The qualitative responses were analysed to explain the descriptive patterns identified in the quantitative analysis. Five overarching themes emerged through thematic analysis.

Table 4. Summary of Qualitative Themes

Theme	Description
Entrepreneurial motivation	Students perceive digital entrepreneurship as an attractive career opportunity and remain motivated despite uncertainty.

Difficulty generating innovative business ideas	Many students struggle to identify distinctive ideas and create competitive value propositions.
Responding to market trends	Students experience uncertainty in identifying customer needs and adapting to rapidly changing digital markets.
Resource and capability constraints	Funding limitations, insufficient technical skills, and limited mentoring reduce students' readiness to develop digital startups.
Expectations of university support	Students expect more practical entrepreneurship education through mentoring, incubation, networking, and business validation activities.

The qualitative findings reinforce the quantitative results. Respondents generally expressed strong enthusiasm for entrepreneurship but acknowledged that transforming business ideas into viable digital ventures requires competencies that extend beyond classroom learning. In particular, students emphasized the importance of practical mentoring, customer validation, and entrepreneurial networking to complement formal entrepreneurship education.

6. Discussion

The findings indicate that university students exhibit encouraging levels of entrepreneurial confidence, motivation, and proactive learning behaviour, suggesting that entrepreneurship education has successfully fostered positive entrepreneurial attitudes. Students also perceived university entrepreneurship programs positively and demonstrated strong engagement with digital information sources, reflecting their willingness to continuously explore entrepreneurial opportunities. These findings are consistent with previous studies showing that entrepreneurship education strengthens entrepreneurial motivation, self-confidence, and innovation-oriented attitudes among university students (Listyaningsih et al., 2024; Lopes et al., 2025; Bardales-Cárdenas et al., 2024).

Nevertheless, the results reveal an important distinction between entrepreneurial enthusiasm and startup preparedness. Although respondents reported high confidence in generating business ideas, they simultaneously experienced moderate difficulty in producing innovative ideas and maintaining their relevance to rapidly changing market trends. This finding suggests that entrepreneurial confidence does not necessarily translate into opportunity recognition or effective market adaptation. Similar observations were reported by Mirhabibi et al. (2025), who argued that digital entrepreneurship readiness extends beyond entrepreneurial motivation and is influenced by digital competencies, entrepreneurial learning, and educational support. The findings also reinforce Tidd's (2005) argument that innovation requires the integration of technological knowledge, market understanding, and organizational capability rather than creativity alone.

Another notable finding concerns students' entrepreneurial learning behaviour. More than ninety-four percent of respondents actively sought inspiration through digital platforms and online information sources, demonstrating a high level of self-directed learning. However, this extensive exposure to entrepreneurial information did not eliminate students' difficulties in generating innovative business ideas. This result indicates that access to information alone is insufficient for venture development unless accompanied by structured opportunity recognition and market validation processes. In this regard, Lean Startup literature emphasizes that entrepreneurial ideas should be developed through continuous experimentation, customer discovery, and iterative validation rather than relying solely on inspiration or creativity (Blank & Eckhardt, 2023; Bland & Osterwalder, 2020).

Funding was identified as the most significant challenge, followed by limitations in technical capability, idea generation, and market understanding. These findings are consistent with previous studies highlighting the importance of entrepreneurial resources, mentoring, and institutional support in facilitating venture creation (Ayad et al., 2022; Makai & Döry, 2023; Mele et al., 2022). Interestingly, the qualitative findings further

demonstrate that students value practical guidance more than theoretical instruction. Respondents repeatedly emphasized the need for continuous mentoring, business incubation, customer validation activities, and networking opportunities that enable them to refine business ideas and reduce uncertainty during startup development. This supports the argument that entrepreneurship education should move beyond classroom-based knowledge transfer toward experiential learning environments that simulate the realities of venture creation (Uddin et al., 2025).

Taken together, these findings suggest that students' readiness to establish digital startups is shaped by the interaction between individual entrepreneurial attributes and institutional learning environments. While students demonstrate strong motivation and confidence, their preparedness to develop sustainable digital ventures remains constrained by limitations in opportunity recognition, market validation, technical capability, and resource accessibility. Therefore, improving entrepreneurship education requires not only strengthening students' entrepreneurial mindset but also providing systematic opportunities for customer discovery, prototype development, mentoring, and startup incubation. Such initiatives may help bridge the gap between entrepreneurial intention and successful venture creation, enabling universities to better prepare graduates for participation in the digital entrepreneurial ecosystem.

E. Conclusion and Recommendation

This study examined indicators associated with Digital Startup Readiness among university students by integrating descriptive quantitative findings with qualitative insights. The results demonstrate that students exhibit high entrepreneurial confidence, motivation, and proactive information-seeking behaviour, indicating that entrepreneurship education has successfully fostered positive entrepreneurial attitudes. However, students continue to experience moderate difficulties in generating innovative business ideas, adapting to changing market trends, and accessing the resources required to develop digital startups. Funding, technical capability, and mentoring were

identified as the most significant challenges during startup development.

The findings suggest that entrepreneurial enthusiasm alone is insufficient to prepare students for successful venture creation. Instead, startup readiness requires the integration of entrepreneurial motivation with practical competencies, opportunity recognition, market validation, technical capability, and institutional support. These findings contribute to the entrepreneurship education literature by highlighting the importance of evaluating students' preparedness for venture creation beyond conventional measures such as entrepreneurial intention.

Higher education institutions should strengthen entrepreneurship education by complementing theoretical instruction with experiential learning activities, including customer discovery, market validation, structured mentoring, business incubation, prototype development, and stronger collaboration with industry partners. Such initiatives can better prepare students to transform entrepreneurial aspirations into sustainable digital ventures.

Future research is encouraged to develop and validate a comprehensive Digital Startup Readiness measurement scale and examine its relationship with startup performance across different universities, disciplines, and national contexts. Longitudinal studies may also provide deeper insights into how entrepreneurship education influences students' readiness throughout the entrepreneurial journey.

References

- Amalia, R. T., & von Korflesch, H. F. O. (2021). Entrepreneurship education in Indonesian higher education: Mapping literature from the country's perspective. *Entrepreneurship Education*, 4(3), 291–333. <https://doi.org/10.1007/s41959-021-00053-9>
- Aparicio, G., Iturralde, T., & Maseda, A. (2019). Conceptual structure and perspectives on entrepreneurship education research: A bibliometric review. *European Research on Management and Business Economics*, 25(3), 105–113.

- <https://doi.org/10.1016/j.iedeen.2019.04.003>
- Autio, E., Nambisan, S., Thomas, L. D. W., & Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 72–95. <https://doi.org/10.1002/sej.1266>
- Ayad, T., Sobaih, A. E. E., & Elshaer, I. A. (2022). University incubator support and entrepreneurial intention among tourism graduates: Mediating role of personal attitude. *Sustainability*, 14(23), 16045. <https://doi.org/10.3390/su142316045>
- Bardales-Cárdenas, M., Cervantes-Ramón, E. F., Gonzales-Figueroa, I. K., & Farro-Ruiz, L. M. (2024). Entrepreneurship skills in university students to improve local economic development. *Journal of Innovation and Entrepreneurship*, 13(1), 55. <https://doi.org/10.1186/s13731-024-00408-1>
- Blank, S., & Eckhardt, J. T. (2023). The Lean Startup as an actionable theory of entrepreneurship. *Journal of Management*. <https://doi.org/10.1177/01492063231168095>
- Bland, D. J., & Osterwalder, A. (2020). *Testing business ideas: A field guide for rapidly testing new business ideas*. Wiley.
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage.
- Haron, H., Saa'Din, I., Ithnin, H. S., & Rakiman, U. S. (2022). Entrepreneurial intention among non-business students: The role of entrepreneurship education, interest and university support. *International Journal of Academic Research in Business and Social Sciences*, 12(10), 2825–2835. <https://doi.org/10.6007/IJARBS/v12-i10/14932>
- Iskandar, J., Chidir, G., & Simorangkir, Y. N. (2024). Digital literacy and entrepreneurial attitudes: A study of Indonesian university students. *Indonesian Journal of Management and Economic Research*, 1(2), 1–14.
- Leatherbee, M., & Katila, R. (2020). The Lean Startup method: Early-stage teams and hypothesis-based probing of business ideas. *Strategic Entrepreneurship Journal*. <https://doi.org/10.1002/sej.1373>
- Listyaningsih, E., Mufahamah, E., Mukminin, A., Ibarra, F. P., Santos, M. R. H. M. D., & Quicho, R. F. (2024). Entrepreneurship education, entrepreneurship intentions, and entrepreneurship motivation on students' entrepreneurship interest among higher education students. *Power and Education*, 16(3), 297–313. <https://doi.org/10.1177/17577438231217035>
- Lopes, J. M., Gomes, S., & Nogueira, E. (2025). Educational insights into digital entrepreneurship: The influence of personality and innovation attitudes. *Journal of Innovation and Entrepreneurship*, 14(1), 16. <https://doi.org/10.1186/s13731-025-00475-y>
- Makai, A. L., & Dóry, T. (2023). Perceived university support and environment as a factor of entrepreneurial intention: Evidence from Western Transdanubia Region. *PLOS ONE*, 18(6), e0283850. <https://doi.org/10.1371/journal.pone.0283850>
- Man, T. W. Y., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17(2), 123–142. [https://doi.org/10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6)
- Maritz, A., Arisian, S., Ardyan, E., & Ongkowitzo, G. (2023). Let's start talking: University accelerators and their strategic intent alignment with entrepreneurship

- education in Indonesia. *Jurnal Minds: Manajemen Ide dan Inspirasi*, 10(1), 1–18.
- Mele, G., Sansone, G., Secundo, G., & Paolucci, E. (2022). Speeding up student entrepreneurship: The role of university business idea incubators. *IEEE Transactions on Engineering Management*. <https://doi.org/10.1109/TEM.2022.3175655>
- Mirhabibi, A., Shayan, A., & Sahraei, S. (2025). Improving digital entrepreneurship readiness of business students: The moderating roles of digital mindset and digital education. *The International Journal of Management Education*, 23(2), Article 101151. <https://doi.org/10.1016/j.ijme.2025.101151>
- Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. *International Journal of Entrepreneurial Behavior & Research*, 16(2), 92–111. <https://doi.org/10.1108/13552551011026995>
- Morris, M. H., Webb, J. W., Fu, J., & Singhal, S. (2013). A competency-based perspective on entrepreneurship education: Conceptual and empirical insights. *Journal of Small Business Management*, 51(3), 352–369. <https://doi.org/10.1111/jsbm.12023>
- Mustofa, M. S., & Mulyono, K. B. (2024). Students' business innovation capabilities: The moderating role of university support and entrepreneurial resilience. *Journal of Infrastructure, Policy and Development*, 8(11), 7198. <https://doi.org/10.24294/jipd.v8i11.7198>
- Ries, E. (2011). *The Lean Startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown Business.
- Tidd, J. (2005). *Managing innovation: Integrating technological, market and organizational change* (3rd ed.). John Wiley & Sons.
- Uddin, M., Bal, H., & Hoque, N. (2025). Paving the way towards effective entrepreneurship education in private higher educational institutions in emerging economy: An analysis of barriers and strategies. *Sustainable Futures*, 10, 101027. <https://doi.org/10.1016/j.sftr.2025.101027>
- Wu, J., & Gu, Y. (2022). Innovation capabilities in the convergence trend of higher education from the perspective of quality management. *Frontiers in Psychology*, 13, 979059. <https://doi.org/10.3389/fpsyg.2022.979059>
- Xanthopoulou, P., & Sahinidis, A. (2024). Students' entrepreneurial intention and its influencing factors: A systematic literature review. *Administrative Sciences*, 14(5), 98. <https://doi.org/10.3390/admsci14050098>