

INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELLING (IJEPC)





MAPPING THE DRIVERS OF DIGITAL ENTREPRENEURIAL INTENTION AMONG UNDERGRADUATE STUDENTS: A SCOPING REVIEW

Norulhuda Awang^{1*}, Mazita Mokhtar², Nor Aine Bahari³

- ¹ Universiti Malaysia Pahang al-Sultan Abdullah, Malaysia Email: huda241089@gmail.com
- ² Universiti Malaysia Pahang al-Sultan Abdullah, Malaysia Email: mazita@umpsa.edu.my
- Universiti Malaysia Pahang al-Sultan Abdullah, Malaysia Email: ainebahari@umpsa.edu.my
- * Corresponding Author

Article Info:

Article history:

Received date: 17.06.2025 Revised date: 08.07.2025 Accepted date: 26.08.2025 Published date: 17.09.2025

To cite this document:

Awang, N., Mokhtar, M., & Bahari, N. A. (2025). Mapping The Drivers of Digital Entrepreneurial Intention Among Undergraduate Students: A Scoping Review. *International Journal of Education, Psychology and Counseling, 10* (59), 589-603.

DOI: 10.35631/IJEPC.1059042

This work is licensed under **CC BY 4.0**



Abstract:

This scoping review aims to map the landscape of research on digital entrepreneurial intention among undergraduate students in higher education institutions. The review specifically focuses on undergraduates in universities and colleges, reflecting the growing interest in fostering entrepreneurship through digital means. Following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines, the review analysed studies published between 2020 and 2025. A total of 100 articles were selected using a structured search strategy with keywords related to entrepreneurial intention, higher education institutions, and undergraduate students. The findings reveal several dominant themes across the literature. Key influencing factors on digital entrepreneurial intention include entrepreneurship education, digital literacy, perceived behavioural control, self-efficacy, and institutional support. Many studies adopt theoretical frameworks such as the Theory of Planned Behavior (TPB) and Social Cognitive Career Theory (SCCT) to explain students' intentions to engage in digital entrepreneurship. There is also growing interest in the role of digital tools, online platforms, and experiential learning in shaping entrepreneurial aspirations. The review concludes that while significant progress has been made in understanding digital entrepreneurial intentions, research gaps remain. These include a lack of longitudinal studies, limited focus on socio-cultural contexts, and underrepresentation of data from developing countries.

Keywords:

Entrepreneurial Intention, Undergraduate Students, Higher Education Institutions, Digital Entrepreneurship

Introduction

In recent years, the concept of digital entrepreneurship has emerged as a vital area of interest within the field of entrepreneurship, particularly among university students. As digital technologies continue to evolve and reshape economic landscapes, more young individuals, especially undergraduates, are exploring entrepreneurial careers driven by innovation, flexibility, and access to global digital markets. Digital entrepreneurial intention (DEI) refers to an individual's conscious plan or desire to start a new venture by leveraging digital platforms, tools, or ecosystems. Among university students, DEI is gaining traction not only due to exposure to entrepreneurship education but also as a response to economic uncertainty, graduate unemployment, and the digital transformation of industries. Understanding the formation of digital entrepreneurial intentions among students is critical for higher education institutions (HEIs), educators, and policymakers aiming to build future-ready entrepreneurial talent.

The undergraduate phase represents a formative period where career intentions, including entrepreneurship, begin to crystallise. Therefore, exploring the factors influencing students' DEI is crucial for designing effective pedagogical strategies, institutional support, and national policies that promote digital entrepreneurship. While numerous empirical studies have examined entrepreneurial intentions in general, the specific domain of digital entrepreneurial intention among university undergraduates is still emerging. These studies vary significantly in terms of conceptual models, methodologies, contexts, and theoretical foundations. As such, a comprehensive synthesis is required to map out what is currently known, identify research gaps, and inform future inquiry. A scoping review serves as an ideal method to achieve this.

Despite growing scholarly interest, the literature on digital entrepreneurial intention remains fragmented, particularly in terms of constructs used, theoretical underpinnings, and regional focus. There is no consolidated understanding of how factors such as digital literacy, entrepreneurship education, institutional support, perceived behavioural control, or self-efficacy interact to influence DEI. In addition, there is a scarcity of literature reviews that comprehensively map this field, particularly reviews that focus exclusively on undergraduate students in higher education institutions between 2020 and 2025, a period marked by global digital acceleration due to the COVID-19 pandemic. Without such synthesis, it is challenging to track progress, compare findings, or identify overlooked dimensions, especially in developing country contexts.

To address this issue, this study undertakes a scoping review guided by the PRISMA-ScR framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews). Unlike systematic reviews that focus narrowly on effectiveness or outcome, a scoping review is better suited to explore the breadth and depth of research, clarify key concepts, and identify knowledge gaps. This methodology allows for the inclusion of diverse study designs, theoretical frameworks, and geographic contexts, thereby providing a broader understanding of the digital entrepreneurial intention landscape. By capturing

variations in constructs, methods, and findings across 100 studies, the scoping review contributes to the theoretical and practical advancement of the field.

Accordingly, the objective of this scoping review is to synthesise current research on digital entrepreneurial intention among university undergraduates by mapping the extent, range, and nature of existing studies. This includes identifying the main constructs examined, theoretical frameworks employed, and methodological approaches used. Ultimately, the review aims to provide a solid foundation for future empirical studies and inform curriculum design, institutional strategies, and policy formulation to nurture digital entrepreneurship among youth.

Methodology

This scoping review was guided by the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews) framework developed by Tricco et al. (2018). As an extension of the original PRISMA protocol used in systematic literature reviews, PRISMA-ScR provides clear methodological guidance for conducting scoping reviews in a transparent and systematic manner. One of its major strengths lies in its systematic search strategy, which enables researchers to conduct a comprehensive review process across broad research domains. In line with this framework, the methodology of this study consists of three primary phases: (1) formulation of research questions, (2) systematic search strategy, and (3) data extraction and thematic analysis.

Formulation of Research Questions

To guide the review process, the research question was formulated using the PICo mnemonic (Population, Interest, Context) as proposed by Lockwood et al. (2015). In this review:

- P (Population): University undergraduate students
- I (Interest): Entrepreneurial intention
- Co (Context): Higher education institutions

Based on these elements, the main research question was:

"What are the key determinants, theoretical perspectives, and research gaps in digital entrepreneurial intention among university students in higher education institutions?"

Systematic Search Strategy

A three-step systematic search strategy was adopted, comprising identification, screening, and eligibility.

I. Identification

This step focused on identifying relevant keywords aligned with the research question. Three core concepts were identified: entrepreneurial intention, higher education institutions, and undergraduate students. Using AI tools such as ChatGPT and DeepSeek, these core terms were expanded into a broader search string using synonyms and related phrases.

The search was conducted across four platforms: Web of Science, Scopus, ERIC, and AI-Elicit. Boolean operators (AND/OR), phrase searching, field codes (e.g., TITLE-ABS-KEY and TS=), truncation (*), and wildcard searches were applied. The final search string used was:

STEP	Query	Scope of Search	Results
#1	"entrepreneurial intention*" OR "entrepreneurship intention*" OR "startup intention*" OR "intention to become an entrepreneur*" OR "entrepreneurial aspiration*" OR "entrepreneurial goal intention*"	Title	
#2	"higher education institution*" OR "university" OR "college" OR "higher education provider*" OR "tertiary education institution*" OR "post- secondary education institution*" OR "academic institution*" OR "HEI*"	Title	
#3	"undergraduate student*" OR "university undergraduate*" OR "college undergraduate*" OR "higher education undergraduate*"	Title/Abstract	
#4	AI OR "artificial intelligence" OR "digital literacy" OR "digital platform" OR "technology adoption" OR "digital entrepreneurship" OR "digital education"	Title/Abstract	
#5	#1 AND #2 AND #3	Result of search	Result of literature search
#6	#1 AND #2 AND #3 AND #4	Result of search	Result of literature search

II. Screening

Screening was carried out using four inclusion criteria:

- 1. Publication year: Only articles published between 2021, and July 2025 were considered.
- 2. Type of publication: Only journal articles, proceedings, and book chapters were included.
- 3. Language: Only publications in English and Malay were selected.

After applying these criteria, 45 articles were excluded, leaving 135 articles for the eligibility stage.

III. Eligibility

During eligibility checking, article titles and abstracts were reviewed for relevance to the study's objective and research question. An additional 35 articles were excluded due to misalignment with the core themes of entrepreneurial intention. This process resulted in a final selection of 100 articles for full-text review and data extraction.

Data Extraction and Thematic Analysis

A deductive thematic analysis was conducted based on the framework of Braun and Clarke (2006). The following four steps were followed:

- 1. Theme Identification: With the help of AI ChatGPT, an initial set of themes was proposed based on recurring patterns in the literature. These were:
 - a. Personal and Psychological Drivers
 - b. Educational and Institutional Influences
 - c. Social Influences

- 2. Theme Validation: These themes were reviewed and validated in consultation with academic experts. The panel confirmed all three themes as relevant and comprehensive in capturing the scope of the literature.
- 3. Data Extraction: Relevant data from the results and discussion sections of the included articles were extracted using tailored AI prompts in ChatGPT. Information aligned with the three final themes was recorded in a structured coding matrix.
- 4. Theme Reporting: Extracted data were synthesised and reported according to the identified themes. This synthesis forms the basis of the findings section in this review.

Results

Data Charting Process

From the initial pool of 180 articles, 100 articles met the inclusion criteria and were fully analysed. Data was charted based on bibliographic details, theoretical frameworks, methodologies, sample characteristics, and main findings relevant to entrepreneurial intention (DEI) in higher education institutions. A deductive thematic analysis identified three overarching themes: cognitive, social, and institutional drivers aligned with the Theory of Planned Behaviour (TPB) and Social Cognitive Career Theory (SCCT).

Distribution of Publications

The distribution of studies by publication year is shown in Figure 1. Research on entrepreneurial intention among university students has seen a steady rise between 2020 and 2024, peaking in 2024 with 31 studies.

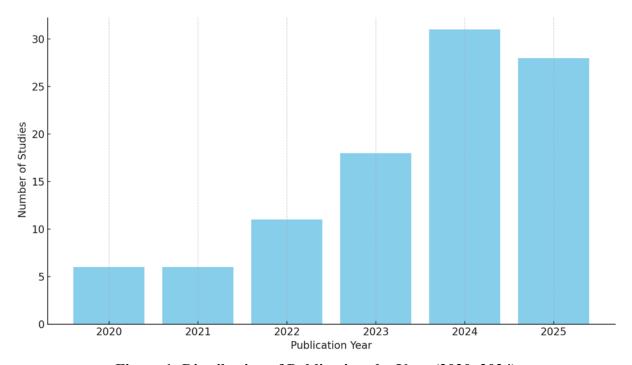


Figure 1: Distribution of Publications by Year (2020–2024)

Thematic Overview

Theme: Cognitive, Social, and Institutional Drivers of EI Sub-Theme 1: Personal and Psychological Drivers

- Digital Entrepreneurial Self-Efficacy (DES): Identified in 52 articles
- Perceived AI Competence (AIC): Found in 20 articles
- Entrepreneurial Opportunity Recognition (EOR): Reported in 31 articles
- Entrepreneurial Attitudes: A mediating factor in 43 articles

Sub-Theme 2: Educational and Institutional Influences

- Technology-Enhanced Learning (e.g., ChatGPT Adoption): Noted in recent studies
- Digital Entrepreneurship Education: Covered in 57 articles
- University Ecosystem Support: Evident in studies, Sub-Theme 3: Social Influences
- Subjective Norms: Cited in 36 articles
- Perceived Behavioural Control (PBC): Highlighted in 48 articles

Sub-Theme 3: Integrative Mechanism

• Serial Mediation: Observed in 15 articles showing how technology adoption influences intention through self-efficacy and attitudes.

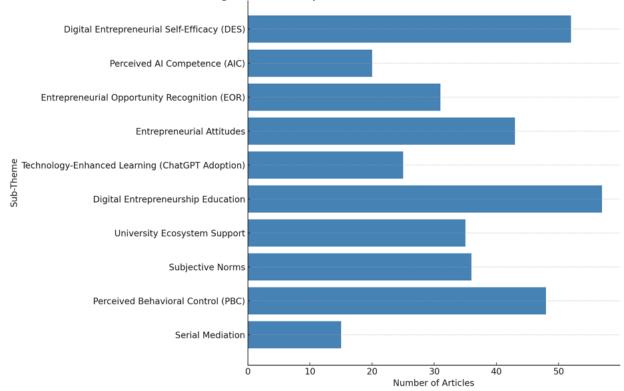


Figure 2: Distribution of articles across DEI sub-themes

Discussion

Using a critical reasoning approach, this review suggests that entrepreneurial intention is a multidimensional construct, shaped by personal cognition, social context, and institutional supports.

- Psychological factors, particularly self-efficacy and opportunity recognition, are strong predictors of EI, aligning with SCCT's focus on personal agency and capability.
- AI competence is emerging as a novel construct in DEI, indicating a shift from traditional to digitally driven entrepreneurship models.
- Educational structures, including digital entrepreneurship programs and university ecosystem support, play a central role in enhancing entrepreneurial intention, though gaps exist in resource availability across regions.

- Social factors, such as subjective norms and perceived control, have a weaker yet still relevant influence, especially in collectivist societies.
- Serial mediation pathways confirm that the adoption of technology only enhances intention when mediated by self-efficacy and positive attitudes.

Conclusion

This scoping review synthesised 100 articles to explore the cognitive, social, and institutional factors shaping digital entrepreneurial intention (DEI) among university students, guided by the Theory of Planned Behaviour (TPB) and Social Cognitive Career Theory (SCCT). Findings reveal that personal drivers such as self-efficacy and AI competence consistently predict DEI, while institutional support and digital education initiatives serve as crucial enablers. Social influences, including peer and family expectations, show a moderate effect. Moreover, serial mediation mechanisms highlight the interdependence among these domains. However, the review is constrained by several limitations, including a dominance of cross-sectional designs that limit causal inferences, underutilization of longitudinal or mixed-method approaches, and insufficient attention to intersectional factors such as gender, socioeconomic status, and digital access. Future research should adopt more robust methodological designs, investigate intersectional influences on DEI, and design intervention-based models utilising emerging tools like ChatGPT and digital simulation. Additionally, examining sustainability-oriented DEI models could provide valuable insights in addressing broader global challenges.

Acknowledgements

The authors wish to express their heartfelt gratitude to Universiti Malaysia Pahang al-Sultan Abdullah and Kolej Profesional MARA Indera Mahkota for their invaluable support in providing resources, guidance, and a conducive research environment. We are equally thankful to colleagues, peers, students, and educators whose constructive feedback and insights enriched this study. This work reflects the collective spirit of collaboration, mentorship, and shared commitment to advancing knowledge in digital entrepreneurship.

References

- Adam, S., Mohd Fuzi, N., Ramdan, M. R., & Ismail, A. F. M. F. (2025). The Effectiveness of Digital Entrepreneurship Ecosystem Toward Enriching Income Generation: The Moderating Role of Entrepreneurial Intention. *Sage Open*, *15*(1), 21582440241305361. https://doi.org/10.1177/21582440241305361
- Ahmadu Abubakar, Nurudeen Yusuff, & Amina Ibrahim. (2024). Effects of entrepreneurship education on entrepreneurial intention of the final year students of the Federal University Dutsin-Ma, Nigeria. *Journal of Management and Science*, 14(1), 40–48. https://doi.org/10.26524/jms.14.5
- Al Halbusi, H., Soto-Acosta, P., & Popa, S. (2023). Analysing e-entrepreneurial intention from the theory of planned behaviour: The role of social media use and perceived social support. *International Entrepreneurship and Management Journal*, 19(4), 1611–1642. https://doi.org/10.1007/s11365-023-00866-1
- Al Halbusi, H., Soto-Acosta, P., & Popa, S. (2024). Entrepreneurial passion, role models and self-perceived creativity as antecedents of e-entrepreneurial intention in an emerging Asian economy: The moderating effect of social media. *Asia Pacific Journal of Management*, 41(3), 1253–1284. https://doi.org/10.1007/s10490-022-09857-2

- Alferaih, A. (2022). Starting a New Business? Assessing University Students' Intentions towards Digital Entrepreneurship in Saudi Arabia. *International Journal of Information Management Data Insights*, 2(2), 100087. https://doi.org/10.1016/j.jjimei.2022.100087
- Alkhalaileh, M. Y., Kovács, S., & Katonáné Kovács, J. (2023). Factors influencing digital entrepreneurship intention among undergraduate business students in Jordan. *Human Technology*, 19(3), 400–418. https://doi.org/10.14254/1795-6889.2023.19-3.5
- Al-Mamary, Y. H. S., & Alraja, M. M. (2022). Understanding entrepreneurship intention and behavior in the light of TPB model from the digital entrepreneurship perspective. *International Journal of Information Management Data Insights*, *2*(2), 100106. https://doi.org/10.1016/j.jjimei.2022.100106
- Al-Mamun, A., Olowolayemo, A., Wani, S., & Sofiadin, A. (2022). Exploring The Impact Of Digital Entrepreneurship Education Among Graduates In Bangladesh. *Journal of Information Systems and Digital Technologies*, 4(2). https://doi.org/10.31436/jisdt.v4i2.337
- Almeida, J., Daniel, A. D., & Figueiredo, C. (2021). The future of management education: The role of entrepreneurship education and junior enterprises. *The International Journal of Management Education*, 19(1), 100318. https://doi.org/10.1016/j.ijme.2019.100318
- Ambarita, N., & Butar Butar, S. (2024). Social Cognitive Career Theory on Entrepreneurial Intention of Vocational Students. *JBMP (Jurnal Bisnis, Manajemen Dan Perbankan)*, 10(2), 224–235. https://doi.org/10.21070/jbmp.v10i2.2036
- Amin, N. U., Kiani, A., Ahmad, N., & Weng, Q. (2025). Motivation by role models: Do they inspire or discourage us? Investigating the link between role models and entrepreneurial career intentions. *The International Journal of Management Education*, 23(2), 101090. https://doi.org/10.1016/j.ijme.2024.101090
- Angelo, M. A. M., & Aranha, E. A. (2024). Entrepreneurial Intention in High School: Systematic Literature Review of the Period 2000–2022. *Journal of Education and Learning*, 14(1), 115. https://doi.org/10.5539/jel.v14n1p115
- Ardi, Z., Yulastri, A., Hidayat, H., Ganefri, G., Yuliana, Y., Susanto, P., Putra, A. H., Elfizon, E., & Eseadi, C. (2025). Enhancing entrepreneurial intention through curriculum, risk awareness, optimism and opportunities: The mediating and moderating roles of entrepreneur inspiration and support. *Journal of Social and Economic Development*, 27(1), 352–371. https://doi.org/10.1007/s40847-024-00339-3
- Arioseno, R. M., Tannady, H., & Lestari, E. D. (2023). The Effect of Entrepreneurship Education on Entrepreneurial Intention With Human Capital As A Mediating Variable For Students in Tangerang. *Indonesian Journal of Business Analytics*, 3(2), 149–160. https://doi.org/10.55927/ijba.v3i2.3586
- Ashari, H., Abbas, I., Abdul-Talib, A.-N., & Mohd Zamani, S. N. (2021). Entrepreneurship and Sustainable Development Goals: A Multigroup Analysis of the Moderating Effects of Entrepreneurship Education on Entrepreneurial Intention. *Sustainability*, *14*(1), 431. https://doi.org/10.3390/su14010431
- Astuti, R. D., & Fatimah, L. (2022). Adopting Planned Behavior Theory to Investigate the Effect of Entrepreneurship Education on Students' Entrepreneurial Intention. *AL-ISHLAH: Jurnal Pendidikan*, 14(1), 455–468. https://doi.org/10.35445/alishlah.v14i1.754
- Attuquayefio, S., Aboagye-Darko, D., & Okronipa, A. Q. (2024). Digital academic entrepreneurship in emerging economies: Antecedents of social media adoption for academic entrepreneurship. *Education and Information Technologies*, 29(10), 11765–11791. https://doi.org/10.1007/s10639-023-12286-3

- Bachmann, N., Rose, R., Maul, V., & Hölzle, K. (2024). What makes for future entrepreneurs? The role of digital competencies for entrepreneurial intention. *Journal of Business Research*, 174, 114481. https://doi.org/10.1016/j.jbusres.2023.114481
- Barra, C., Grimaldi, M., Muazzam, A., Troisi, O., & Visvizi, A. (2024). Digital divide, gender gap, and entrepreneurial orientation: How to foster technology adoption among Pakistani higher education students? *Socio-Economic Planning Sciences*, *93*, 101904. https://doi.org/10.1016/j.seps.2024.101904
- Bullini Orlandi, L., Bottura, M., Veglianti, E., & Zardini, A. (2025). Less is more: Digital and physical sustainability shortage impact on entrepreneurial intention. *International Entrepreneurship and Management Journal*, 21(1), 44. https://doi.org/10.1007/s11365-024-01058-1
- Chang, S.-H., Shu, Y., Wang, C.-L., Chen, M.-Y., & Ho, W.-S. (2020). Cyber-entrepreneurship as an innovative orientation: Does positive thinking moderate the relationship between cyber-entrepreneurial self-efficacy and cyber-entrepreneurial intentions in Non-IT students? *Computers in Human Behavior*, 107, 105975. https://doi.org/10.1016/j.chb.2019.03.039
- Cui, J., Sun, J., & Bell, R. (2021). The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes. *The International Journal of Management Education*, 19(1), 100296. https://doi.org/10.1016/j.ijme.2019.04.001
- D. A., Djatmika, E. T., & Rahayu, W. P. (2021). Entrepreneurial Intention: The Moderating Role of Improvisation on Student Faculty of Economics, State University of Malang. *Journal of Business and Management Review*, 2(4), 318–335. https://doi.org/10.47153/jbmr24.1342021
- Donald, W. E., Mouratidou, M., Nimmi, P. M., & Ma, Y. (2024). Strategies for enhancing entrepreneurial intention and wellbeing in higher education students: A cross-cultural analysis. *Higher Education*, 88(2), 587–607. https://doi.org/10.1007/s10734-023-01133-6
- Donaldson, C., Signes, Á. P., & Villagrasa, J. (2025). Is the road to high growth paved with intrapreneurial intention? The role of entrepreneurial self-efficacy and digital skills on entrepreneurship intention types. *The International Journal of Management Education*, 23(2), 101174. https://doi.org/10.1016/j.ijme.2025.101174
- Duong, C. D. (2024). ChatGPT adoption and digital entrepreneurial intentions: An empirical research based on the theory of planned behaviour. *Entrepreneurial Business and Economics Review*, 12(2), 129–142. https://doi.org/10.15678/EBER.2024.120208
- Duong, C. D. (2025). AI literacy and e-entrepreneurial intention: A serial mediation model of e-entrepreneurial self-efficacy and e-entrepreneurial identity aspiration. *International Journal of Information Management Data Insights*, 5(2), 100349. https://doi.org/10.1016/j.jjimei.2025.100349
- Duong, C. D., Le, T. T., Dang, N. S., Do, N. D., & Vu, A. T. (2024). Unraveling the determinants of digital entrepreneurial intentions: Do performance expectancy of artificial intelligence solutions matter? *Journal of Small Business and Enterprise Development*, 31(7), 1327–1356. https://doi.org/10.1108/JSBED-02-2024-0065
- Duong, C. D., & Nguyen, T. H. (2024). How ChatGPT adoption stimulates digital entrepreneurship: A stimulus-organism-response perspective. *The International Journal of Management Education*, 22(3), 101019. https://doi.org/10.1016/j.ijme.2024.101019

- Fatimah, S. E., & Purdianto, A. (2020). Factors Affecting Entrepreneurial Interest Among Students in Higher Education. *Proceedings of the 1st International Conference on Accounting, Management and Entrepreneurship (ICAMER 2019)*. 1st International Conference on Accounting, Management and Entrepreneurship (ICAMER 2019), Cirebon, Indonesia. https://doi.org/10.2991/aebmr.k.200305.036
- Ganefri, Waras, Trisno, B., Nordin, N. M., Hidayat, H., Rahmawati, Y., & Nurhidayatulloh. (2025). Cultivating digital entrepreneurs: Unravelling factors shaping digital entrepreneurship intention among engineering students in higher education. *The International Journal of Management Education*, 23(2), 101100. https://doi.org/10.1016/j.ijme.2024.101100
- Gunawan, V., & Wijaya, A. (2023). The Effect of Attitudes, Social Environment, and Self-Efficacy on Entrepreneurship Intention of S1 Management Students in West Jakarta. *International Journal of Application on Economics and Business*, 1(1), 418–426. https://doi.org/10.24912/ijaeb.v1i1.418-426
- Hadi, S., Abbas, E. W., & Rajiani, I. (2022). Should spirituality be included in entrepreneurship education program curriculum to boost students' entrepreneurial intention? *Frontiers in Education*, 7, 977089. https://doi.org/10.3389/feduc.2022.977089
- Harianto, E., Bernardus, D., Murwani, F. D., Jatiwiwaha, M. P., Jatiperwira, S. Y., & Effendi, L. V. (2024). Which Individual Characteristics Mediate the Relationship Between Social Entrepreneurial Passion and Social Entrepreneurial Intention? *Journal of Ecohumanism*, 3(7), 3162–3175. https://doi.org/10.62754/joe.v3i7.4459
- Herman, E. (2019). Entrepreneurial Intention among Engineering Students and Its Main Determinants. *Procedia Manufacturing*, 32, 318–324. https://doi.org/10.1016/j.promfg.2019.02.220
- Iddris, F. (2025). Entrepreneurship education on international entrepreneurship intention: The role of entrepreneurship alertness, proactive personality, innovative behaviour and global mindset. *Journal of Applied Research in Higher Education*, *17*(2), 640–662. https://doi.org/10.1108/JARHE-09-2023-0424
- Ilomo, M., & Mwantimwa, K. (2023). Entrepreneurial Intentions of Undergraduate Students: The Moderating Role Of Entrepreneurial Knowledge. *International Journal of Entrepreneurial Knowledge*, 11(1), 14–34. https://doi.org/10.37335/ijek.v11i1.178
- Ip, C. Y. (2024). Effect of digital literacy on social entrepreneurial intentions and nascent behaviours among students and practitioners in mass communication. *Humanities and Social Sciences Communications*, 11(1), 34. https://doi.org/10.1057/s41599-023-02587-w
- Ismail, I. J., & Rashidi, F. U. (2025). Linking dynamic entrepreneurial capabilities and behavioral intentions to adopt FinTech in small and medium enterprises through digital financial innovation. *Cogent Business & Management*, 12(1), 2470915. https://doi.org/10.1080/23311975.2025.2470915
- Iwu, C. G., Opute, P. A., Nchu, R., Eresia-Eke, C., Tengeh, R. K., Jaiyeoba, O., & Aliyu, O. A. (2021). Entrepreneurship education, curriculum and lecturer-competency as antecedents of student entrepreneurial intention. *The International Journal of Management Education*, 19(1), 100295. https://doi.org/10.1016/j.ijme.2019.03.007
- Jalil, M. F., Lynch, P., Marikan, D. A. B. A., & Isa, A. H. B. M. (2025). The influential role of artificial intelligence (AI) adoption in digital value creation for small and medium enterprises (SMEs): Does technological orientation mediate this relationship? *AI & SOCIETY*, 40(3), 1875–1896. https://doi.org/10.1007/s00146-024-01969-1

- Jena, R. K. (2020). Measuring the impact of business management Student's attitude towards entrepreneurship education on entrepreneurial intention: A case study. *Computers in Human Behavior*, 107, 106275. https://doi.org/10.1016/j.chb.2020.106275
- Jintana, S., Boonlab, S., & Supromin, C. (2025). Enhancing digital-era entrepreneurial intentions: A strategic model for university students. *Cogent Business & Management*, 12(1), 2494293. https://doi.org/10.1080/23311975.2025.2494293
- Lam, B. Q., Tran, H. Y., Nguyen, G. M. H., Nguyen, Y. K., Dinh, H. M. T., & Pham, M. (2024). The role of entrepreneurship orientation in forming students' entrepreneurial intention through entrepreneurial education. *Journal of Eastern European and Central Asian Research* (*JEECAR*), 11(2), 342–354. https://doi.org/10.15549/jeecar.v11i2.1630
- Lamichhane, B. (2023). Entrepreneurial Intention of Business Students Inside Pokhara Valley. *INTELLIGENCE Journal of Multidisciplinary Research*, 2(1), 35–48. https://doi.org/10.3126/ijmr.v2i1.53619
- Li, Y. (2025). How do cyber entrepreneurship courses affect Chinese college students' entrepreneurial intentions, stimulating or inhibiting? *Education and Information Technologies*, 30(6), 6899–6924. https://doi.org/10.1007/s10639-024-13103-1
- Liao, S., Javed, H., Sun, L., & Abbas, M. (2022). Influence of entrepreneurship support programs on nascent entrepreneurial intention among university students in China. *Frontiers in Psychology*, *13*, 955591. https://doi.org/10.3389/fpsyg.2022.955591
- Listyaningsih, E., Mufahamah, E., Mukminin, A., Ibarra, F. P., Santos, Ma. R. H. M. D., & Quicho, R. F. (2024). Entrepreneurship education, entrepreneurship intentions, and entrepreneurship motivation on students' entrepreneurship interest in entrepreneurship among higher education students. *Power and Education*, 16(3), 297–313. https://doi.org/10.1177/17577438231217035
- Maslakci, A., Sürücü, L., & Şeşen, H. (2024). Does the entrepreneur intention vary among university students? *Journal of International Education in Business*, 17(2), 319–339. https://doi.org/10.1108/jieb-08-2023-0061
- Mavlutova, I., Lesinskis, K., & Hermanis, J. (2025). Digital Tools in Education: The Impact on Entrepreneurial Intention and Attraction of Development Funding. *Procedia Computer Science*, 256, 513–520. https://doi.org/10.1016/j.procs.2025.02.147
- Mukhtar, S., Wardana, L. W., Wibowo, A., & Narmaditya, B. S. (2021). Does entrepreneurship education and culture promote students' entrepreneurial intention? The mediating role of entrepreneurial mindset. *Cogent Education*, 8(1), 1918849. https://doi.org/10.1080/2331186X.2021.1918849
- Napoli, P. H., Fischer, B. B., & Moraes, G. H. S. M. D. (2025). Entrepreneurial agency reloaded: Intentions, capabilities and the dynamics of entrepreneurial ecosystems. *Journal of Business Venturing Insights*, 23, e00540. https://doi.org/10.1016/j.jbvi.2025.e00540
- Nayak, M., Nayak, P. M., & Joshi, H. G. (2025). Digital platforms' use in SMEs A critical analysis of entrepreneurs' behaviour. *Cogent Economics & Finance*, 13(1), 2461337. https://doi.org/10.1080/23322039.2025.2461337
- Ngo, T. N. A., Ha, D. L., Tran, M. N., Nghiem, X. T., Pham, D. A., Hoang, M. K., & Ngo, Q. A. (2025). The Impact of Perceived University Support on Digital Entrepreneurial Intention with Perceived Desirability as a Mediation Variable. *Educational Process International Journal*, 15(1). https://doi.org/10.22521/edupij.2025.15.163

- Nguyen, P. N.-D., & Nguyen, H. H. (2024a). Examining the Role of Family in Shaping Digital Entrepreneurial Intentions in Emerging Markets. *Sage Open*, 14(1), 21582440241239493. https://doi.org/10.1177/21582440241239493
- Nguyen, P. N.-D., & Nguyen, H. H. (2024b). Unveiling the link between digital entrepreneurship education and intention among university students in an emerging economy. *Technological Forecasting and Social Change*, 203, 123330. https://doi.org/10.1016/j.techfore.2024.123330
- Nguyen, T. T., Dao, T. T., Tran, T. B., Nguyen, H. T. T., Le, L. T. N., & Pham, N. T. T. (2024). Fintech literacy and digital entrepreneurial intention: Mediator and Moderator Effect. *International Journal of Information Management Data Insights*, 4(1), 100222. https://doi.org/10.1016/j.jjimei.2024.100222
- Nurtanto, M., Mutohhari, F., Abdul Majid, N. W., & Fawaid, M. (2024). The Role of Digital Technology Competency and Psychological Capitalin Vocational Education Students: The Mediating Role of Entrepreneurial Self-Efficacy. *Journal of Technical Education and Training*, 16(3). https://doi.org/10.30880/jtet.2024.16.03.017
- Oufkir, Z. A., & Ouzaka, B. (2025). Exploring the linkage between digital entrepreneurship intentions and personality traits among university students in Morocco. *Multidisciplinary Science Journal*, 7(9), 2025425. https://doi.org/10.31893/multiscience.2025425
- Pérez-Fernández, H., Martín-Cruz, N., Delgado-García, J. B., & Rodríguez-Escudero, A. I. (2020). Online and Face-to-Face Social Networks and Dispositional Affectivity. How to Promote Entrepreneurial Intention in Higher Education Environments to Achieve Disruptive Innovations? *Frontiers in Psychology*, 11, 588634. https://doi.org/10.3389/fpsyg.2020.588634
- Pham, M., Lam, B. Q., Thi Nguyen, A. T., Thi Dinh, T. K., & Tran, H. Y. (2024). How do environment and innovativeness affect digital entrepreneurial intention through education? An explanation from the social cognitive career theory. *Social Sciences & Humanities Open*, 10, 101179. https://doi.org/10.1016/j.ssaho.2024.101179
- Pham, M., Nguyen, A. T. T., Tran, D. T., Mai, T. T., & Nguyen, V. T. (2023a). The impact of entrepreneurship knowledge on students' e-entrepreneurial intention formation and the moderating role of technological innovativeness. *Journal of Innovation and Entrepreneurship*, 12(1), 80. https://doi.org/10.1186/s13731-023-00351-7
- Pham, M., Nguyen, A. T. T., Tran, D. T., Mai, T. T., & Nguyen, V. T. (2023b). The impact of entrepreneurship knowledge on students' e-entrepreneurial intention formation and the moderating role of technological innovativeness. *Journal of Innovation and Entrepreneurship*, 12(1). https://doi.org/10.1186/s13731-023-00351-7
- Pham, S. L., Do, A. D., Ha, D. L., Trinh, M. V., Le, A. D., & Tran, T. P. H. (2025). The impact of FinTech literacy on digital entrepreneurial intentions: Exploring crowdfunding, blockchain, and AI through a social cognitive career theory lens. *Entrepreneurial Business and Economics Review*, 13(1), 79–94. https://doi.org/10.15678/EBER.2025.130105
- Ridwan, M., Fiodian, V. Y., Religia, Y., & Hardiana, S. R. (2025). Investigating the effect of intrinsic and extrinsic motivation in shaping digital entrepreneurial intention: The mediating role of self-efficacy. *Asia Pacific Journal of Innovation and Entrepreneurship*, 19(3), 190–207. https://doi.org/10.1108/APJIE-02-2024-0036
- Safitri, A. N., & Nugraha, J. (2022). The effect of entrepreneurship motivation and subjective norms on entrepreneurship intention through entrepreneurship education. *Jurnal Ekonomi Dan Bisnis*, 25(2), 295–320. https://doi.org/10.24914/jeb.v25i2.4440

- Salamzadeh, Y., Sangosanya, T. A., Salamzadeh, A., & Braga, V. (2022). Entrepreneurial universities and social capital: The moderating role of entrepreneurial intention in the Malaysian context. *The International Journal of Management Education*, 20(1), 100609. https://doi.org/10.1016/j.ijme.2022.100609
- Saptono, A., Wibowo, A., & Shandy, B. (2020). Factors Influencing Students' Intention to Establish a Digital Business (Start-up). *International Journal of Innovation*, 12(8).
- Shi, J., Nyedu, D. S. K., Huang, L., & Lovia, B. S. (2024). Graduates' Entrepreneurial Intention in a Developing Country: The Influence of Social Media and E-commerce Adoption (SMEA) and its Antecedents. *Information Development*, 40(1), 20–35. https://doi.org/10.1177/02666669211073457
- Shi, Y., Yuan, T., Bell, R., & Wang, J. (2020). Investigating the Relationship Between Creativity and Entrepreneurial Intention: The Moderating Role of Creativity in the Theory of Planned Behavior. *Frontiers in Psychology*, 11, 1209. https://doi.org/10.3389/fpsyg.2020.01209
- Si, W., Tian, J., Yan, Q., Wang, W., & Zhang, M. (2022). Research on the Influence of Non-Cognitive Ability and Social Support Perception on College Students' Entrepreneurial Intention. *International Journal of Environmental Research and Public Health*, 19(19), 11981. https://doi.org/10.3390/ijerph191911981
- Silveyra-León, G., Rodríguez-Aceves, L., & Baños-Monroy, V. I. (2023). Do entrepreneurship challenges raise student's entrepreneurial competencies and intention? *Frontiers in Education*, 8, 1055453. https://doi.org/10.3389/feduc.2023.1055453
- Singh, R., Kumar, V., Singh, S., Dwivedi, A., & Kumar, S. (2023). Measuring the impact of digital entrepreneurship training on entrepreneurial intention: The mediating role of entrepreneurial competencies.
- Soluk, J., Kammerlander, N., & Darwin, S. (2021). Digital entrepreneurship in developing countries: The role of institutional voids. *Technological Forecasting and Social Change*, 170, 120876. https://doi.org/10.1016/j.techfore.2021.120876
- Su, Y., Zhu, Z., Chen, J., Jin, Y., Wang, T., Lin, C.-L., & Xu, D. (2021). Factors Influencing Entrepreneurial Intention of University Students in China: Integrating the Perceived University Support and Theory of Planned Behavior. *Sustainability*, *13*(8), 4519. https://doi.org/10.3390/su13084519
- Sun, J., Shi, J., & Zhang, J. (2023). From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure. *Frontiers in Psychology*, 14, 954118. https://doi.org/10.3389/fpsyg.2023.954118
- Sutiadiningsih, A., Dewi, I. H. P., Ratnasari, W., Taufiq, A., & Miranti, M. G. (2025). How do digital competencies promote entrepreneurial intention among vocational students? A mediation analysis of entrepreneurial self-efficacy and entrepreneurial mindset. *Cogent Education*, 12(1), 2482486. https://doi.org/10.1080/2331186X.2025.2482486
- The Role of Entrepreneurship Orientation and Entrepreneurship Attitudes in Mediating the Effect of Entrepreneurship Education on Students' Entrepreneurship Intention. (2023).

 Journal of Higher Education Theory and Practice, 23(10).
 https://doi.org/10.33423/jhetp.v23i10.6186
- Uctu, R., & Al-Silefanee, R. (2023). Uncovering The Factors Influencing Entrepreneurial Intentions Of University Students: An Application Of Shapero's Model. *International Journal of Entrepreneurial Knowledge*, 11(1), 35–50. https://doi.org/10.37335/ijek.v11i1.182
- Uthamaputhran, S., Md Isa, Y. Z., & Hasan, H. (2024). The Key Factors the Influence Student's Digital Start-Ups: A Study from Malaysian Entrepreneurial University. *International*

- Journal of Academic Research in Business and Social Sciences, 14(12), Pages 2442-2456. https://doi.org/10.6007/IJARBSS/v14-i12/22750
- Uzkurt, C., Ekmekcioglu, E. B., Ceyhan, S., & Pampal, A. S. (2025). Entrepreneurial self-efficacy as a mediator in the entrepreneurial education-entrepreneurial intention nexus: The moderating role of government-based support and financial concerns. *Entrepreneurship Education*, 8(1), 131–156. https://doi.org/10.1007/s41959-024-00133-6
- Wang, H., Wu, W., & Zhang, C. (2025). Bouncing back from failure: Digital technology capability, entrepreneurial alertness, and reentry intention. *Asia Pacific Journal of Management*, 42(1), 197–232. https://doi.org/10.1007/s10490-023-09931-3
- Wibowo, A., Narmaditya, B. S., Saptono, A., Effendi, M. S., Mukhtar, S., & Mohd Shafiai, M. H. (2023). Does Digital Entrepreneurship Education Matter for Students' Digital Entrepreneurial Intentions? The Mediating Role of Entrepreneurial Alertness. *Cogent Education*, 10(1), 2221164. https://doi.org/10.1080/2331186X.2023.2221164
- Wibowo, A., Narmaditya, B. S., Suparno, Sebayang, K. D. A., Mukhtar, S., & Shafiai, M. H. M. (2023). How does digital entrepreneurship education promote entrepreneurial intention? The role of social media and entrepreneurial intuition. *Social Sciences & Humanities Open*, 8(1), 100681. https://doi.org/10.1016/j.ssaho.2023.100681
- Wibowo, A., Saptono, A., Narmaditya, B. S., Effendi, M. S., Mukhtar, S., Suparno, & Shafiai, M. H. M. (2024). Using technology acceptance model to investigate digital business intention among Indonesian students. *Cogent Business & Management*, 11(1), 2314253. https://doi.org/10.1080/23311975.2024.2314253
- Widjaja, A. W., Sugiarto, S., Kurniawan, D., & Sheng, H. F. (2025). Solving the small business paradox: E-commerce strategies for entrepreneurs. *The Southern African Journal of Entrepreneurship and Small Business Management*, 17(1). https://doi.org/10.4102/sajesbm.v17i1.1040
- Widyanty, W., Oktasari, D. P., Sumaedi, S., & Damayanti, S. (2024). The business students' intention to establish a start-up company: The role of higher education-related factors. *Higher Education, Skills and Work-Based Learning*, 14(5), 938–957. https://doi.org/10.1108/heswbl-06-2023-0144
- Wiramihardja, K., N'dary, V., Al Mamun, A., Munikrishnan, U. T., Yang, Q., Salamah, A. A., & Hayat, N. (2022). Sustainable Economic Development Through Entrepreneurship: A Study on Attitude, Opportunity Recognition, and Entrepreneurial Intention Among University Students in Malaysia. *Frontiers in Psychology*, 13, 866753. https://doi.org/10.3389/fpsyg.2022.866753
- Xie, Y., & Wang, S. (2025). Generative artificial intelligence in entrepreneurship education enhances entrepreneurial intention through self-efficacy and university support. *Scientific Reports*, 15(1). https://doi.org/10.1038/s41598-025-09545-3
- Xin, B., & Ma, X. (2023). Gamifying online entrepreneurship education and digital entrepreneurial intentions: An empirical study. *Entertainment Computing*, 46, 100552. https://doi.org/10.1016/j.entcom.2023.100552
- Xu, D., & Lee, C. (2025). Mechanisms Linking Restaurant Entrepreneurship Education to Graduating Hospitality Students' Entrepreneurial Intentions: Validating the Theory of Planned Behavior. *SAGE Open*, 15(1). https://doi.org/10.1177/21582440251319957
- Yaghoubi Farani, A., Karimi, S., & Motaghed, M. (2017). The role of entrepreneurial knowledge as a competence in shaping Iranian students' career intentions to start a new digital business. *European Journal of Training and Development*, 41(1), 83–100. https://doi.org/10.1108/ejtd-07-2016-0054

- Yesmin, Mst. N., Hossain, Md. A., Islam, Md. S., Rahman, Md. M., Jahan, N., & Kim, M. (2024). Entrepreneurial intentions and the role of educational and social support: Do the self-efficacy and the theory of planned behavior variables matter? *RAUSP Management Journal*, 59(4), 366–385. https://doi.org/10.1108/RAUSP-03-2024-0053
- Zeynalov, S., & Doğantan, E. (2025). The Effect of Digital Literacy and Entrepreneurship Education on Digital Entrepreneurship Intention: The Mediating Role of Personal Innovativeness. *Technology, Knowledge and Learning, 30*(2), 1189–1206. https://doi.org/10.1007/s10758-025-09821-1
- Zhang, Y., & Jiang, S. (n.d.). Pro-environmental personal norms and subjective norms related to AI-driven green entrepreneurship intention: A qualitative insight to explore students in higher education institutions.
- Zouari, S., & Mabrouki, K. (n.d.). Entrepreneurship Study and Its Impact on Students' Intention to Start Up: A Sample Case Study of Students Belonging to Two Universities of Tunisia.
- Zulwisli, Ambiyar, Muhammad Anwar, & Andhika Herayono. (2024). The Effect of Theory of Planned Behavior (TBP) and Creativity-Based Industry Perception on Digital Entrepreneurship: An Innovativeness as Mediator. *PaperASIA*, 40(3b), 96–105. https://doi.org/10.59953/paperasia.v40i3b.100