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The Influence of Entrepreneurial Mindset and Innovation on Startup Growth in the Digital Era

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ABSTRACT

This research aims to analyze the influence of entrepreneurial mindset and innovation on startup growth in the digital era. The background to this research is **driven** by the rapid development of technology which has changed the business landscape, so it is important for startups to have an innovative entrepreneurial mindset and be able to adapt quickly in the face of dynamic market changes. Startups that have a strong entrepreneurial mindset tend to be better able to identify opportunities, take measured risks, and survive in tight market competition. The object of **this research** is startups operating in the digital sector in Indonesia, with a focus on how entrepreneurial mindset and innovation influence their performance and growth. The method used is a quantitative approach, by distributing questionnaires to startup owners and managers to collect data regarding entrepreneurial mindset, innovation and growth. The collected data was analyzed using linear regression to test the relationship between these variables. The research results show that both entrepreneurial mindset and innovation have a significant positive influence on startup growth, with innovation acting as a mediator that strengthens this relationship. The conclusion of this research is that to achieve sustainable growth, startups need to develop an entrepreneurial mindset that supports creativity and innovation in every aspect of their operations. This research provides insight for startup players in optimizing their business development strategies in the digital era.

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1. INTRODUCTION

The rapid development of digital technology in the last few decades has fundamentally changed the way of doing business [1]. The startup world, especially in the digital sector, is experiencing a significant transformation in terms of operational strategy, marketing, and resource management [2]. Digital startups now not only function as small businesses, but also as agents of change in the global economy, offering products and services that can revolutionize peoples way of life [3]. However, despite the many opportunities available, startups also face major challenges, including intense competition, market uncertainty, and the need to adapt to continuously evolving technology. In this context, two factors that are critical for the success of a startup are the entrepreneurial mindset and innovation [4]. Entrepreneurial mindset refers to an individuals attitude

and ability to recognize opportunities, innovate, and take measurable risks, whereas innovation refers to the creation and implementation of new ideas that can add value to the products or services offered by the startup [5].

Despite the increasing recognition of these factors, the research gap lies in understanding the interplay between entrepreneurial mindset, innovation, and startup growth, particularly within the digital sector in Indonesia [6]. While prior studies have examined various determinants of startup success, limited attention has been given to how entrepreneurial mindset drives innovation and, in turn, how both collectively influence the growth trajectory of startups in a rapidly changing digital economy [7]. Furthermore, studies in this domain often focus on Western markets, leaving a gap in understanding the dynamics within emerging economies like Indonesia, where cultural, economic, and technological contexts differ significantly [8]. The novelty of this research lies in its approach to positioning innovation as a mediator in the relationship between entrepreneurial mindset and startup growth, providing a more nuanced view of how these factors interact [9]. By focusing on digital startups in Indonesia, this research offers unique insights into how startups in developing economies can leverage these capabilities to compete globally. It fills a critical gap by addressing not only the direct effects of entrepreneurial mindset and innovation but also their synergistic impact on startup growth.

The findings of this study are expected to have significant implications for both theory and practice [10]. From a theoretical perspective, the research contributes to the development of entrepreneurship theory by providing empirical evidence on the mediating role of innovation. Practically, the study aims to offer actionable insights for startup founders, policymakers, and business practitioners in formulating strategies to foster an entrepreneurial mindset and cultivate a culture of innovation. These strategies can help startups overcome market uncertainty and competition, ultimately driving sustainable growth in the digital era [11]. Based on the aforementioned developments, the central issue emerges: the extent to which entrepreneurial mindset and innovation influence startup growth in the digital era. This research aims to provide a deeper understanding of this relationship, focusing on the context of digital startups in Indonesia [12]. By addressing the identified research gaps, emphasizing the novelty of the mediator role of innovation, and offering practical implications, this study seeks to contribute meaningfully to both academic and practical spheres in the startup ecosystem.

2. LITERATURE REVIEW

This study aims to describe and analyze previous theories and findings relevant to the research topic, namely the relationship between entrepreneurial mindset, innovation, and startup growth in the digital era [13]. This literature review provides a strong theoretical foundation for understanding how an entrepreneurial mindset and innovation contribute to the success and growth of startups, particularly in the dynamic and uncertain context of the digital age. Furthermore, this research aligns with the Sustainable Development Goals (SDGs), particularly Goal 8: Decent Work and Economic Growth and Goal 9: Industry, Innovation, and Infrastructure, by emphasizing the importance of innovation and entrepreneurship in promoting sustainable economic development through digital startups [13].

2.1. Entrepreneurial Mindset and Its Influence on Startups

Entrepreneurial mindset refers to a way of thinking that enables entrepreneurs or startup founders to recognize opportunities, make calculated risks, and adapt swiftly to changes. According to Santos, entrepreneurial mindset plays a pivotal role in navigating uncertainty and addressing the intense competition in dynamic markets, particularly within the digital startup ecosystem [14]. Their research revealed that founders with a strong entrepreneurial mindset are more adept at making strategic decisions, efficiently managing resources, and leading teams toward innovation, all of which contribute to accelerated growth. Similarly, Dog & Chen emphasized that an entrepreneurial mindset enhances a startup's ability to confront external challenges, fostering creativity in developing products or services that align more closely with market demands [15]. Consequently, a comprehensive understanding of the entrepreneurial mindset is essential for startup founders to craft effective business strategies and ensure sustainable growth [16].

2.2. Innovation as a Driving Force for Startup Growth

Innovation serves as a cornerstone for startup growth, particularly in the digital sector. Startups that successfully develop new products or services tailored to market needs or that deliver superior solutions compared to competitors can achieve a distinct competitive advantage. Innovation not only enhances operational efficiency but also unlocks opportunities to enter new markets and deliver unique customer experiences [17].

Moreover, research by Hosseini, underscores the critical role of innovation in building sustainable competitive advantages. Their findings indicate that startups fostering a culture of innovation are better equipped to adapt to evolving market and technological landscapes, thereby driving faster and more sustainable growth [18]. In the digital era, innovation is instrumental in creating adaptable and efficient business models, enabling startups to thrive in markets characterized by volatility and uncertainty. These perspectives emphasize that both entrepreneurial mindset and innovation are not merely complementary but essential factors in determining the success and growth of digital startups in a competitive landscape [19].

2.3. The Relationship

Between Entrepreneurial Mindset and Innovation in Startup Growth Numerous studies have highlighted the strong correlation between an entrepreneurial mindset and innovation in driving startup growth, that startup owners with a well-developed entrepreneurial mindset are more adept at understanding market demands and leading their teams to create relevant innovations [20]. They emphasize that an entrepreneurial mindset acts as a catalyst for generating new and creative ideas, enabling startups to develop more efficient and effective solutions to the challenges they encounter [21]. Entrepreneurial mindset into a companys culture fosters a more focused and deliberate approach to innovation [22]. This, in turn, significantly contributes to enhanced business growth and long-term sustainability [23]. The researchers noted that the ability of entrepreneurs to balance risk-taking with creativity drives the development of breakthrough innovations that help startups navigate competitive markets and achieve scalability [24]. Therefore, the synergistic relationship between an entrepreneurial mindset and innovation is crucial for startups in tackling challenges and accelerating growth in the digital era. By fostering this interplay, startups can build a strong foundation for sustainable success and remain agile in an ever-changing business environment.

3. METHOD

This research focuses on startups operating in Indonesia digital sector, considering the rapid growth of the industry and its significant contribution to the national economy [25]. The target population for this study includes startups with 5 to 50 employees that have been operating for at least one year, to ensure that the companies involved have sufficient time to develop and implement entrepreneurial and innovative strategies [26]. The sampling method used is purposive sampling, which allows the selection of startups that meet these criteria and are considered capable of providing relevant data for the research purposes [27]. Through this approach, the study aims to fill the gaps in existing research by focusing on digital startups in the context of emerging economies, where unique challenges such as resource limitations, cultural factors, and market dynamics may influence the relationship between entrepreneurial mindset, innovation, and growth [28]. The findings of this study are expected to make a significant contribution to the development of entrepreneurship and innovation theory, as well as provide actionable recommendations for startup founders, policymakers, and industry stakeholders to drive sustainable growth in the digital era.

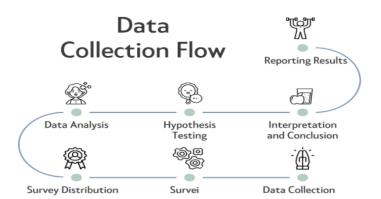


Figure 1. Evaluate the Sustainable of Ecopreneurship in Digital Economy

Figure 1, diagram depicts the research methodology. This diagram shows the main steps in quantitative research, starting from data collection, sampling, survey distribution, data analysis, to hypothesis testing. The population in this research is all digital startups in Indonesia, with the sample criteria being startups that have been operating for at least one year and have more than five employees. The sampling technique used is purposive sampling, where samples are selected based on certain criteria relevant to the research objectives [29]. The number of samples taken was 100 startups consisting of owners and managers who were directly involved in managing and developing the business.

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Table I	Sample	Distribution	Rased (on Startun	Type and	Niimher	of Emplo	Wees in	Indonesia
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No.	Startup Type	Number of Employees	Number of Samples
1.	Technology	5–50	40
2.	E-Commerce	5–50	30
3.	Social Media	5–50	20
4.	Mobile Application	5–50	10
5.	Total	_	100

The Table 1 provides a structured summary of the research sample used in this study. It categorizes the startups into four primary types: Technology, E-Commerce, Social Media, and Mobile Applications representing key sectors within the digital startup ecosystem of Indonesia. The startups are further defined by their employee count, which ranges between 5 to 50 employees, classifying them as small to medium-scale businesses.

- Technology startups represent the largest proportion, accounting for 40% of the sample (40 startups). This reflects the dominance of technological innovation within the startup ecosystem.
- E-Commerce startups comprise 30% of the sample (30 startups), highlighting the critical role of digital commerce in the economy.
- Social Media startups make up 20% of the sample (20 startups), showcasing the influence of platforms that foster connectivity and communication.
- Mobile Application startups contribute 10% of the sample (10 startups), indicating the rising demand for mobile-based solutions.

The total sample size consists of 100 startups, ensuring a balanced and diverse representation of the digital startup sector [30]. This distribution provides a clear framework for analyzing the relationship between financial management practices and the profitability of startups across different industries and scales of operation. It also emphasizes the diversity of the sample and the comprehensive nature of the research.

Table 2. Distribution of Startup Samples by Sector, Employee Size, and Percentage

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Category	Sector	Number of Startups	Percentage of Total
Startup Type Technology		40	40%
	E-Commerce	30	30%
	Social Media	20	20%
	Mobile Application	10	10%
Total		100	100%

To provide a comprehensive understanding of the digital startup ecosystem in Indonesia, the research classifies startups into four primary sectors based on their business focus. These sectors include Technology, E-Commerce, Social Media, and Mobile Applications, reflecting the diversity of digital innovation across industries. As shown in Table 2, startups in the Technology sector dominate the sample, accounting for 40% (40 startups), reflecting the rapid growth and innovation in this area. The E-Commerce sector follows with 30 startups (30%), indicative of its vital role in transforming traditional retail into digital platforms. The Social Media sector includes 20 startups (20%), emphasizing the influence of communication and content-sharing platforms

in the digital economy. Finally, the Mobile Application sector comprises 10 startups (10%), showcasing the increasing reliance on mobile solutions for various user needs.

The research focuses on startups with 5 to 50 employees, categorizing them as small to medium-scale businesses. This criterion is crucial as it represents startups at a stage where financial management is both a challenge and an opportunity for growth. The proportional distribution of samples ensures a balanced analysis across the four sectors, enabling insights into how specific financial management practices affect profitability within each category. This structured categorization highlights the significance of understanding financial management in diverse startup sectors and provides a foundation for analyzing their profitability and growth strategies.

3.1. Method Sampling

This research uses a purposive sampling method, namely a sampling technique with certain considerations. The criteria used in selecting samples are:

- Startups that have been operating for at least one year in the digital sector.
- Has the potential to develop innovation.
- Apply or have an entrepreneurial mindset that is relevant to business development in the digital era.

3.2. Research Context

This sample distribution is designed to provide a representation of various digital startup sectors that have a significant role in the era of digitalization in Indonesia. Focusing on startups with the criteria above aims to explore the relationship between entrepreneurial mindset, innovation, and startup business growth. The purposive sampling method was chosen because it allows researchers to focus on startups that meet specific criteria in accordance with the research objectives, namely analyzing the determining factors for startup success in the digital era.

3.3. Validity and Reliability

To ensure the validity and reliability of the questionnaire, the instrument was tested using a small sample before being used as a whole. This validity is tested using techniques content validity And construct validity, while reliability was tested using Cronbach Alpha.

4. RESULT AND DISCUSSION

In this study, the sample consisted of 100 startups operating in Indonesia's digital sector, representing various types of ventures, including technology, e-commerce, social media, and mobile applications. The average age of these startups ranges from 1 to 5 years. The majority of respondents are owners or managers who are directly involved in the management and development of their businesses, enabling them to provide relevant insights into entrepreneurial mindset, innovation, and startup growth. Most respondents lead teams of more than five individuals, indicating that these startups are in an active growth stage.

Before conducting data analysis, validity and reliability tests were performed on the research instruments. The results showed that all items in the questionnaire demonstrated good content validity and construct validity. Reliability testing using Cronbach's Alpha produced values exceeding 0.70 for each variable, indicating that the instruments are reliable. Therefore, the data collected from the questionnaires are considered both valid and reliable for further analysis.

To examine the influence of entrepreneurial mindset and innovation on startup growth, multiple linear regression analysis was conducted. The results show that both entrepreneurial mindset (= 0.402, p < 0.01) and innovation (= 0.357, p < 0.05) significantly and positively affect startup growth.

Upon closer examination, it is found that entrepreneurial mindset has a greater impact on startup growth compared to innovation. This suggests that startups led by individuals with a strong entrepreneurial mindset characterized by the ability to take risks, quickly adapt, and focus on identifying and exploiting opportunities are better equipped to thrive in an environment of uncertainty. On the other hand, while innovation remains important, its influence is less pronounced compared to that of entrepreneurial mindset. Startups that focus on innovation, whether in products, processes, or business models, possess growth potential. However, their success is more significantly shaped by their ability to create value through entrepreneurial

strategies. These findings support the hypothesis that both entrepreneurial mindset and innovation positively impact startup growth. This aligns with the theory proposed by Santos, who emphasize the crucial role of entrepreneurial mindset in managing uncertainty and making strategic decisions that facilitate growth. Moreover, the results are consistent with research by Hosseini, which underscores the importance of innovation in enhancing the competitiveness and growth of startups.

This highlights the importance of visionary leadership in guiding the company toward achieving growth objectives. While innovation in products and services is essential, without strong leadership and the ability to identify and capitalize on market opportunities, such innovation may not effectively contribute to significant growth. The results of this study offer valuable insights for startup founders and managers. To foster growth, startups should prioritize the development of entrepreneurial mindset among their leaders and teams. Furthermore, while innovation remains crucial, entrepreneurs must ensure that the innovations they develop align with market demands and are implemented strategically. Adopting an approach rooted in adaptive and proactive entrepreneurship will provide startups with a competitive edge in navigating the challenges of the digital era.

5. CONCLUSION

Based on the results of the regression analysis in this study, it can be concluded that entrepreneurial mindset and innovation have a significant positive impact on startup growth in the digital era. These findings indicate that startups led by individuals with a strong entrepreneurial mindset tend to be more successful in managing challenges and exploiting market opportunities. In addition, innovation whether in products, processes, or business models also plays an important role in supporting startup growth. However, the influence of entrepreneurial mindset on startup growth is greater than that of innovation, suggesting that visionary leadership and the ability to adapt to market changes play a crucial role in driving a startup's success.

This study successfully answers the main question regarding the impact of entrepreneurial mindset and innovation on startup growth in the digital era. The results show that these two factors indeed have a significant impact, with entrepreneurial mindset contributing more to startup growth. However, there are some limitations in this study, including the small sample size, which only includes 100 startups in Indonesia, and may not fully represent the diversity of sectors and startup sizes. Additionally, this study did not take into account other external factors such as economic conditions and government policies that may also influence startup growth.

For future research, it is recommended to expand the sample scope to include startups from various industrial sectors beyond the digital sector and to consider external factors that may affect startup success and growth, such as government regulations, access to financing, or global market conditions. Furthermore, more in-depth research on the role of entrepreneurial mindset at various stages of startup growth could provide additional insights. The use of a mixed-methods approach, combining both quantitative and qualitative methods, could also offer a more comprehensive understanding of the factors influencing startup success in the digital era. In addition, future studies could explore the impact of different types of innovation (e.g., disruptive versus incremental) and their relationship to entrepreneurial mindset. Researchers may also consider examining the influence of leadership styles, team dynamics, and organizational culture in fostering an entrepreneurial mindset and innovation within startups. Furthermore, longitudinal studies tracking the progress of startups over time would provide a more detailed understanding of how entrepreneurial mindset and innovation contribute to long-term growth. Lastly, a comparative study across different countries or regions could help to identify contextual factors that influence startup success in various economic and cultural environments.

6. DECLARATIONS

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6.2. Author Contributions

Conceptualization: AW; Methodology: TW; Software: MR; Validation: AW and TW; Formal Analysis: MR; Investigation: AW; Resources: TW; Data Curation: MR; Writing Original Draft Preparation: AW and TW; Writing Review and Editing: MR and AW; Visualization: TW; All authors, AW, TW, and MR, have read and agreed to the published version of the manuscript.

6.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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6.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

REFERENCES

- [1] O. S. Joel, A. T. Oyewole, O. G. Odunaiya, and O. T. Soyombo, "Navigating the digital transformation journey: strategies for startup growth and innovation in the digital era," *International Journal of Management Entrepreneurship Research*, vol. 6, no. 3, pp. 697–706, 2024.
- [2] A. Abdullah, A. Taliang, B. Efendi, M. Kasmi, and A. Aman, "Examining the effects of entrepreneurial mindset, digital marketing innovation and networking on sme performance," *Journal of System and Management Sciences*, vol. 14, no. 6, pp. 113–127, 2024.
- [3] Y. Zaki, A. Al Muwali, and N. Mahdi, "The role of nurturing technopreneurship education and building university students' entrepreneurial mindsets and skill sets in fostering digital innovation and augmenting the tech start-up ecosystem in bahrain," *International Journal of Learning, Teaching and Educational Research*, vol. 20, no. 6, pp. 152–173, 2021.
- [4] M. Soltanifar and E. Smailhodžić, "Developing a digital entrepreneurial mindset for data-driven, cloud-enabled, and platform-centric business activities: practical implications and the impact on society," in *Digital Entrepreneurship*, 2021, p. 3.
- [5] Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, "Permendikbudristek No. 53 Tahun 2023 tentang Penjaminan Mutu Pendidikan Tinggi," 2023. [Online]. Available: https://peraturan.bpk.go.id/Details/265158/permendikbudriset-no-53-tahun-2023
- [6] R. H. Solehudin, I. El Khuluqo, E. Budiarti, and I. Salman, "Building an entrepreneurship mindset through social science entering the society 5.0 era (critical review entrepreneurship urgency at sps uhamka jakarta)," *Journal of Namibian Studies: History Politics Culture*, vol. 33, pp. 2080–2097, 2023.
- [7] N. Aboobaker and Z. KA, "Fostering entrepreneurial mindsets: the impact of learning motivation, personal innovativeness, technological self-efficacy, and human capital on entrepreneurial intention," *Journal of International Education in Business*, vol. 16, no. 3, pp. 312–333, 2023.
- [8] A. D. Samoedra, A. M. Febrianti, K. Kaniawati, M. Hendri, and R. Kurniawan, "Entrepreneurial mind in fierce competition for startup businesses," *Review of International Geographical Education Online*, vol. 11, no. 6, 2021.
- [9] M. Soltanifar, M. Hughes, and L. Göcke, *Digital entrepreneurship: Impact on business and society*. Springer Nature, 2021.
- [10] K. Satjaharuthai and K. Lakkhongkha, "The role of entrepreneurs in driving the success of their businesses in the digital era," *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, vol. 8, no. 7, p. 109, 2023.
- [11] K. Hasan, M. Nazaruddin, R. Keumala, R. M. Aftah, and H. L. Elga, "Start up entrepreneurship millennials in lhokseumawe city 2022," in *Proceedings of International Conference on Social Science, Political Science, and Humanities (ICoSPOLHUM)*, vol. 3, 2022, pp. 00023–00023.
- [12] K. Crnogaj and M. Rus, "From start to scale: Navigating innovation, entrepreneurial ecosystem, and strategic evolution," *Administrative Sciences*, vol. 13, no. 12, p. 254, 2023.

- [13] Direktorat Jenderal Pendidikan Tinggi, Kementerian Pendidikan dan Kebudayaan, "Program Pembinaan Mahasiswa Wirausaha (PPMW)," 2020. [Online]. Available: https://dikti.kemdikbud.go.id/pengumuman/program-pendampingan-wirausaha-mahasiswa-indonesia-pwmi-tahun-2020/
- [14] E. Masnawati, E. Retnowati, R. Mardikaningsih, D. Darmawan, and M. Munir, "Entrepreneurial mindset building in adolescents: Learning strategies, potential identification, business initiation, and social media empowerment," *International Journal of Service Science, Management, Engineering, and Technology*, vol. 2, no. 2, pp. 42–47, 2022.
- [15] S. Sabil, S. A. S. Herjuna, L. Hakim, S. Suharmono, and E. Y. Utami, "The influence of startups in increasing entrepreneurship awareness and digital literacy," *West Science Journal Economic and Entrepreneurship*, vol. 1, no. 09, pp. 475–481, 2023.
- [16] O. Pricopoaia, A. V. Busila, N. Cristache, I. Susanu, and C. Matis, "Challenges for entrepreneurial innovation: Startups as tools for a better knowledge-based economy," *International Entrepreneurship and Management Journal*, vol. 20, no. 2, pp. 969–1010, 2024.
- [17] V. Bodolica and M. Spraggon, "Incubating innovation in university settings: building entrepreneurial mindsets in the future generation of innovative emerging market leaders," *Education+ Training*, vol. 63, no. 4, pp. 613–631, 2021.
- [18] A. S. Bein, Y. I. Graha, and A. P. Pangestu, "Pandawan website design based content management system as media e-commerce transaction," *Aptisi Transactions On Technopreneurship (ATT)*, vol. 2, no. 1, pp. 87–97, 2020.
- [19] E. Hazni and I. Nurhaida, "The influence of digital mindset, digital competence and leadership style on employee career development," *Siber International Journal of Education Technology (SIJET)*, vol. 1, no. 3, pp. 90–108, 2024.
- [20] H. Zaheer, Y. Breyer, J. Dumay, and M. Enjeti, "The entrepreneurial journeys of digital start-up founders," *Technological Forecasting and Social Change*, vol. 179, p. 121638, 2022.
- [21] M. Almansour, "Business incubators and entrepreneurial training: Leveraging technological innovations and digital marketing," *IEEE Transactions on Engineering Management*, 2022.
- [22] S. Seoke, A. Mamabolo, and M. M. Mtotywa, "The impact of mass media entrepreneurship education on entrepreneurial mindset and intentions," *Entrepreneurship Education and Pedagogy*, vol. 7, no. 4, pp. 529–556, 2024.
- [23] K. Gularso, T. N. Mursitama, P. Heriyati, and B. Simatupang, "Disruptive business model innovation in indonesia digital startups," *Pertanika Journal of Social Sciences Humanities*, vol. 28, no. 2, 2020.
- [24] S. Kaggwa, A. Akinoso, S. O. Dawodu, P. U. Uwaoma, O. J. Akindote, and S. E. Osawaru, "Entrepreneurial strategies for ai startups: navigating market and investment challenges," *International Journal of Management Entrepreneurship Research*, vol. 5, no. 12, pp. 1085–1108, 2023.
- [25] M. Pham, A. T. T. Nguyen, D. T. Tran, T. T. Mai, and V. T. Nguyen, "The impact of entrepreneurship knowledge on students' e-entrepreneurial intention formation and the moderating role of technological innovativeness," *Journal of Innovation and Entrepreneurship*, vol. 12, no. 1, p. 80, 2023.
- [26] D. B. Audretsch, M. Belitski, R. Caiazza, F. Chowdhury, and M. Menter, "Entrepreneurial growth, value creation and new technologies," *The Journal of Technology Transfer*, vol. 48, no. 5, pp. 1535–1551, 2023.
- [27] G. Nicola and R. Setiawan, "Creating competitive advantage through digital innovation: Insights from startupreneurs in e-commerce," *Startupreneur Business Digital (SABDA Journal)*, vol. 3, no. 2, pp. 131–140, 2024.
- [28] B. Lee, B. Kim, and U. V. Ivan, "Enhancing the competitiveness of ai technology-based startups in the digital era," *Administrative Sciences*, vol. 14, no. 1, p. 6, 2023.
- [29] S. Rodríguez and H. Lieber, "Relationship between entrepreneurship education, entrepreneurial mindset, and career readiness in secondary students," *Journal of Experiential Education*, vol. 43, no. 3, pp. 277–298, 2020.
- [30] A. Delhi and A. Sijabat, "The role of technology adoption in scaling startupreneur business models in the digital economy," *Startupreneur Business Digital (SABDA Journal)*, vol. 3, no. 2, pp. 141–147, 2024.