

# Developing Digipreneurship Ecosystem in Local Communities to Enhance Digital Innovation

Gautam Khanna<sup>1</sup> , Muhammad Ghifari Ilham<sup>2\*</sup> , Tubagus Wahyu Rafiuddin<sup>3</sup>, Sudaryono<sup>4</sup> 

<sup>1</sup>CPS Cards, USA

<sup>2</sup>Dept. of Computer System, University of Raharja, Indonesia

<sup>3</sup>Dept. of Accounting, Bank Negara Indonesia, Indonesia

<sup>4</sup>Dept. of Information Technology, University of Raharja, Indonesia

<sup>1</sup>gkhanna042@gmail.com, <sup>2</sup>fahri@raharja.info, <sup>3</sup>tubagus.wahyu@raharja.info, <sup>4</sup>sudaryono@raharja.info,

## Article Info

### Article history:

Submission December 27, 2024

Revised February 18, 2025

Accepted March 13, 2025

Published April 08, 2025

### Keywords:

Digipreneurship

Digital Innovation

Ecosystem Development

Local Communities

Entrepreneurship Technology



## ABSTRACT

**Strategic financial management** is an important component in achieving sustainable business growth through optimal resource allocation. This research discusses a strategic framework that integrates financial planning, investment decision making, and risk management to achieve short term and long term goals. Effective financial planning ensures resource allocation is aligned with the company vision, while strategic investment decisions support the optimization of returns. **In addition**, integrated risk management helps companies mitigate the impact of market uncertainty. In facing an increasingly dynamic business environment, the importance of synchronization between financial strategy and business goals becomes increasingly apparent. **Modern technologies**, such as data analytics and artificial intelligence, act as catalysts in empowering data-based decision making. With an analytical approach supported by case studies from various industrial sectors, this research identifies that companies that adopt a strategic approach to financial management are able to increase operational efficiency, reduce financial risk, and drive consistent business growth. **The research** also show that financial technology integration provides a competitive advantage, allowing companies to navigate market changes more effectively. **This article offers** practical insights for financial managers to develop strategies that not only focus on financial stability, but also capitalize on existing growth opportunities. Thus, this research contributes to the literature on strategic financial management and provides applicable guidance for companies to achieve a balance between operational efficiency and long-term business expansion.

*This is an open access article under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license.*



DOI: <https://doi.org/10.33050/sabda.v4i1.719>

This is an open-access article under the CC-BY license (<https://creativecommons.org/licenses/by/4.0/>)

©Authors retain all copyrights

## 1. INTRODUCTION

Strategic financial management is one of the main pillars of business success, particularly in an era of increasingly complex global competition [1]. In today's dynamic business environment, companies face multifaceted challenges such as market volatility, evolving regulatory frameworks, and rapid technological advancements [2]. These challenges highlight the pressing need for organizations to optimize the use of financial resources while simultaneously achieving sustainable growth [3, 4]. The ability to design and implement a robust and integrated financial strategy has become an indispensable element for maintaining competitive-

ness and resilience [5]. Challenges arise as businesses navigate an unpredictable landscape characterized by fluctuating economic conditions and intense competition [6, 7]. Organizations must make swift yet precise decisions regarding resource allocation, investment prioritization, and risk mitigation [8]. Furthermore, the growing reliance on technology introduces new complexities, such as the need to adapt to advanced tools like artificial intelligence and data analytics, while ensuring these technologies align with strategic goals [9, 10]. Background Financial management traditionally revolved around functions such as budgeting, accounting, and reporting [11]. However, as the business ecosystem evolves, financial management has transformed into a strategic function that integrates financial planning, investment decision making, and risk management. This integration is essential for ensuring that companies can align their financial strategies with their overarching business vision and achieve both short term and long term objectives [12, 13]. Research Gap Despite extensive studies on financial management, limited research explores the intersection of financial strategy with modern technologies and their real world applications across diverse industries [14]. Moreover, the synergy between financial strategies and business vision is often underemphasized, leaving a gap in understanding how this relationship drives sustainable growth and long-term competitiveness [15, 16]. Addressing this gap can provide actionable insights for financial managers to better navigate the complexities of modern business environments [17]. Limitation This study focuses primarily on financial management strategies within organizations and does not delve deeply into external macroeconomic factors such as geopolitical instability or environmental risks [18, 19]. While the role of technology is considered, the analysis emphasizes its application in financial decision-making rather than a comprehensive exploration of emerging technological innovations [20]. This research aims to explore how strategic financial management helps organizations balance resource allocation with sustainable business growth [21, 22]. Emphasis is placed on the roles of financial planning, investment strategies, and risk management as critical components for achieving operational efficiency and long-term success [23]. Additionally, the study examines how modern technologies, such as data analytics and artificial intelligence, enhance financial decision making capabilities [24, 25]. Through this analysis, this research contributes to the development of a strategic financial management framework applicable across various industries, offering valuable insights for financial managers and business leaders [26].

## 2. LITERATURE REVIEW

In exploring how strategic financial management can balance resource allocation and business growth, recent literature highlights significant developments in concept and application [27, 28]. Aligning with the United Nations Sustainable Development Goals (SDGs), particularly Goal 8 (Decent Work and Economic Growth), Goal 9 (Industry, Innovation, and Infrastructure), and Goal 12 (Responsible Consumption and Production), this review examines how strategic financial practices contribute to sustainable economic development while addressing resource efficiency [29]. This review focuses on three main aspects that support the research theme: (1) Strategic Financial Planning, (2) Data-Based Investment Strategy, and (3) Integrated Risk Management [30, 31].

### 2.1. Strategic Financial Planning

Strategic financial planning plays a vital role in ensuring the alignment of financial resource allocation with organizational goals and sustainable development priorities. According to Johnson et al [32], financial planning that incorporates environmental, social, and governance (ESG) considerations supports SDG 12 by promoting resource efficiency and sustainable consumption [33, 34]. Additionally, robust financial strategies that prioritize long-term growth enable businesses to foster innovation and infrastructure development, contributing to SDG 9.

### 2.2. Data-Based Investment Strategy

The adoption of data analytics and artificial intelligence in investment decision-making has revolutionized how organizations allocate resources to maximize returns [35]. Recent studies, such as Smith and Lee, emphasize that leveraging predictive analytics in investments can align with SDG 8 by creating sustainable economic opportunities and driving equitable growth [36, 37]. By focusing on investments that promote innovation, organizations contribute to building resilient industries in line with SDG 9.

### 2.3. Integrated Risk Management

Integrated risk management is essential for mitigating uncertainties that could disrupt business operations or hinder sustainable development [38]. Studies by Garcia and Ahmed highlight that risk frameworks incorporating climate-related financial disclosures support SDG 13 (Climate Action) by addressing market uncertainties related to environmental risks [39]. Moreover, businesses that adopt holistic risk management strategies contribute to stable and sustainable growth, which aligns with SDG 8. By connecting strategic financial management practices to the SDGs, this literature review emphasizes how organizations can not only achieve operational efficiency but also support global sustainability initiatives [40]. The integration of ESG criteria into financial planning, data driven decision-making, and risk management frameworks underscores the role of strategic financial management as a critical enabler of sustainable economic and industrial progress.

## 3. METHOD

This research uses a mixed-method approach, which combines quantitative and qualitative methods to explore how strategic financial management can balance resource allocation with business growth. Research was conducted through collecting primary data surveys and interviews and secondary data literature, financial reports and case studies. The research stages are explained in the following subchapters.

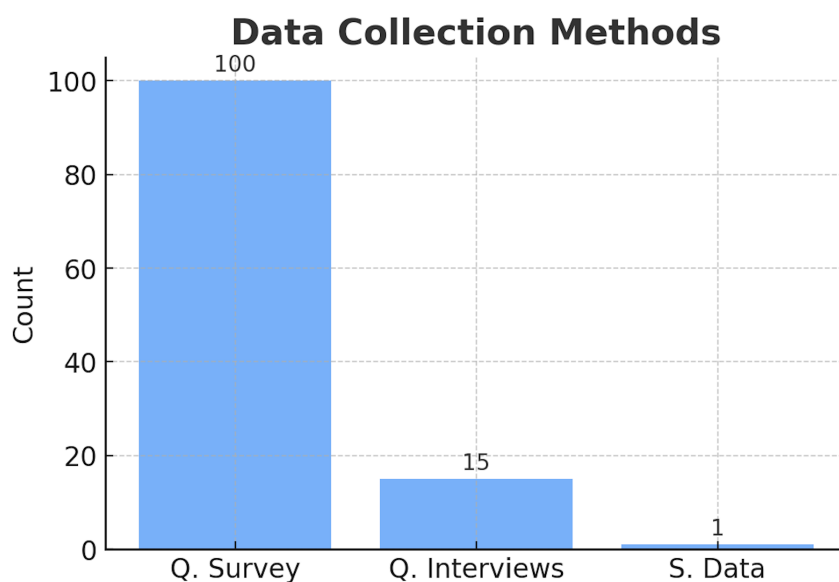


Figure 1. Data collection methods

The Figure 1 shows above illustrates the data collection methods used, presented in a bar chart. Three methods are highlighted: Quantitative Surveys, Qualitative Interviews, and Secondary Data. Quantitative Surveys are the most dominant method, with a frequency of 100, indicating it as the primary method utilized. Meanwhile, Qualitative Interviews were conducted 15 times, and Secondary Data was used only once, making it the least utilized method. This chart demonstrates that quantitative-based methods are more frequently employed compared to the others in this data collection process.

### 3.1. Research Approach

This research is descriptive and exploratory, aiming to understand the relationship between financial resource allocation, investment strategy and risk management on business growth. Descriptive research provides a general overview of strategic financial management practices, while the exploratory approach explores the influence of these factors on company performance.

### 3.2. Population and Sample

The population in this study consists of companies operating in the manufacturing, technology, and financial services sectors that have implemented strategic financial management practices. These sectors were chosen due to their significant contribution to economic growth and their varying levels of adoption of modern

financial strategies. A purposive sampling technique was used to select a sample of 50 companies that meet the following criteria: (1) the company has a minimum annual revenue of USD 10 million, (2) it has been in operation for more than 5 years, and (3) it actively engages in financial reporting with open access to performance data. This approach ensures the sample represents organizations with sufficient experience and financial capacity to provide meaningful insights into strategic financial management practices.

### 3.3. Data Analysis Techniques

This study adopts a dual approach to data analysis, combining quantitative and qualitative techniques to comprehensively explore the relationship between strategic financial management and sustainable business growth. The quantitative analysis involves the use of linear regression methods to examine survey data collected from financial managers. This method evaluates the relationship between resource allocation practices and business growth indicators, such as profitability, revenue, and market share. The analysis identifies statistical patterns, allowing for the quantification of how efficient resource allocation contributes to achieving organizational goals. By leveraging measurable data, this approach ensures that the research findings are robust, empirical, and actionable. In parallel, the study employs qualitative analysis to gain deeper insights from interview data gathered from financial executives. Thematic analysis is applied to identify recurring themes, such as organizational priorities, technology adoption, and the challenges of implementing financial strategies in diverse business environments. This method captures the complexities of real world financial decision-making processes, offering a rich narrative that complements the quantitative findings. Themes derived from the analysis highlight critical factors, including leadership's role, the integration of financial strategies with company vision, and the adoption of advanced technologies in financial management. By integrating these two approaches, the research ensures a balanced exploration of the topic. Quantitative analysis provides data-driven evidence, while qualitative insights contextualize and deepen the understanding of practical challenges and successes. This dual-method approach not only strengthens the study's conclusions but also lays a solid foundation for future research, enabling a comprehensive framework for strategic financial management across various industries.

## 4. RESULTS AND DISCUSSION

### 4.1. Research Stages

Table 1 shows was conducted through five main stages: (1) Literature Study, which involved collecting literature and secondary data to understand relevant theories and concepts, resulting in a theoretical foundation for the study; (2) Survey Design, which entailed developing research instruments such as questionnaires and interview guidelines tailored to the research objectives, producing ready-to-use data collection tools; (3) Data Collection, which included gathering primary data through surveys and interviews, as well as secondary data from company documents and reports, providing a comprehensive dataset for analysis; (4) Data Analysis, which comprised quantitative and qualitative analyses to identify relationships between variables and uncover key findings; and (5) Conclusion, which involved drawing conclusions from the analysis and providing practical recommendations aligned with the research objectives, ensuring a systematic process that generates insights to support strategic decision making.

Table 1. The research stages are explained in the following table

| Stages                    | Activity                                 | Output                                  |
|---------------------------|--|---|
| Stage 1: Literature Study | Collect literature and secondary data    | Understanding of theories and concepts  |
| Stage 2: Survey Design    | Develop questionnaires and interview     | Research instrument                     |
| Stage 3: Data Collection  | Conduct surveys, and document collection | Primary and secondary data              |
| Stage 4: Data Analysis    | Quantitative and qualitative analysis    | Results of analysis                     |
| Stage 5: Conclusion       | Draw conclusions and implications        | Practical recommendations for companies |

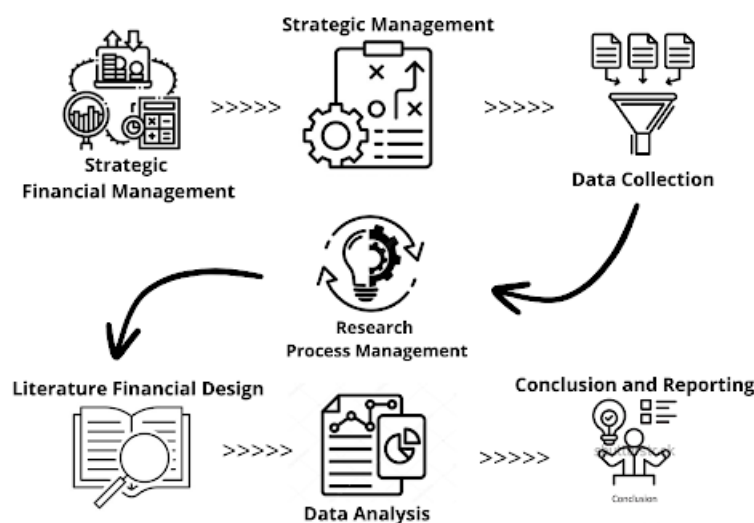


Figure 2. Research Process Flow in Strategic Financial Management

The Figure 2 show the process of strategic financial management begins with planning, controlling, and allocating financial resources to ensure the research runs efficiently. This is followed by strategic management, which involves defining the vision, mission, and strategy to align the research with its goals. Data collection is then conducted using appropriate methods to gather information from both primary and secondary sources. At the core of the process is research process management, which oversees planning, implementation, and control, connecting all other elements. A literature review is conducted at the literature financial design stage to establish a financial framework, providing a theoretical and methodological foundation. The collected data is analyzed using statistical techniques or other methods to extract relevant insights. Finally, the findings are summarized and presented in a comprehensive report, which includes key interpretations, conclusions, and recommendations based on the analysis.

The Table 2 show the research results show that strategic financial management is very important to optimize resource allocation and encourage sustainable business growth. Structured financial planning helps maintain liquidity, reduces operational costs, and supports growth strategies. Surveys show that 78% of financial managers agree that budgets that are aligned with long-term vision make it easier for companies to weather market fluctuations and take advantage of investment opportunities.

Table 2. Demographic Profile of Respondents

| Variable        | Category          | Frequency | Percentage (%) |
|-----------------|-------------------|-----------|----------------|
| Gender          | Male              | 135       | 69.23%         |
|                 | Female            | 60        | 30.77%         |
| Age             | < 25 years        | 73        | 37.44%         |
|                 | 25 – 35 years     | 64        | 32.82%         |
|                 | 36 - 45 years     | 52        | 26.67%         |
|                 | > 45 years        | 6         | 3.08%          |
| Education Level | Bachelor’s Degree | 168       | 86.15%         |
|                 | Master’s Degree   | 27        | 13.85%         |

The case study also notes that consistent investment in R&D increases market share significantly. Making strategic investment decisions is proven to increase operational efficiency and revenue. Companies that use data analytics in investment decisions see annual revenue increases of up to 12% and operational cost

reductions of 20%. Integrated risk management is also key to financial stability, with 70% of companies that implement it successfully reducing the impact of economic uncertainty. Predictive technologies, such as artificial intelligence, help mitigate risks, such as reducing losses due to currency volatility by up to 18%. Modern technologies, such as data analytics and artificial intelligence, strengthen financial decision-making, increase efficiency by up to 25%, and speed up risk evaluation. Financial sector companies, for example, are leveraging this technology to identify market opportunities more quickly, providing a competitive advantage. Overall, a strategic approach to financial management improves operational efficiency, manages risk, and supports business growth. These results provide practical guidance for companies to integrate financial strategy, technology, and long-term vision, ensuring financial stability and sustainable expansion in a dynamic business environment.

## 5. MANAGERIAL IMPLICATIONS

The findings of this study highlight the critical role of strategic financial management in ensuring sustainable business growth and financial stability. Managers must integrate data driven financial planning into their decision making processes by leveraging modern technologies such as data analytics and artificial intelligence. These tools enable more precise financial forecasting, efficient resource allocation, and informed investment decisions, ultimately enhancing overall business performance. Furthermore, companies must adopt a proactive approach to risk management by implementing real time financial monitoring systems. Identifying potential financial risks early allows businesses to develop effective mitigation strategies, ensuring resilience against market fluctuations and economic uncertainties. For small and medium enterprises (SMEs), financial strategies should be tailored to their specific needs. SMEs can benefit significantly from accessible digital financial tools that improve cash flow management and investment efficiency. Providing financial literacy programs and affordable technological solutions will empower smaller businesses to strengthen their financial foundations.

Beyond financial systems and technologies, the role of organizational culture and leadership in financial strategy implementation cannot be overlooked. Business leaders should cultivate a culture of financial accountability and transparency, ensuring that financial goals align with broader strategic objectives. Effective leadership in financial management fosters employee engagement and promotes a more disciplined approach to financial decision making across all levels of the organization. Additionally, companies across various industries should consider adapting financial management frameworks to suit their specific market conditions. Since financial strategies that work in one sector may not be directly applicable to another, businesses must remain flexible and tailor their financial planning based on industry dynamics. Finally, while quantitative financial metrics are essential for measuring success, organizations should not neglect qualitative aspects such as employee morale and customer satisfaction, as these factors contribute to long-term financial sustainability. By embracing these managerial insights, companies can enhance their financial resilience, drive sustainable growth, and maintain a competitive advantage in an increasingly complex business environment.

## 6. CONCLUSION

**This research highlights** the critical role of strategic financial management in optimizing resource allocation for sustainable business growth. By integrating financial planning, data driven investment decisions, and proactive risk management, companies can enhance efficiency, mitigate financial risks, and achieve greater stability. The findings emphasize the importance of modern technologies, such as data analytics and artificial intelligence, in strengthening financial decision-making and providing a competitive advantage. Businesses that implement structured financial strategies demonstrate significant performance improvements and resilience in navigating market challenges.

Despite these findings, the study has limitations. **The focus** on specific sectors limits its generalizability across industries, and the heavy reliance on quantitative methods leaves qualitative factors—such as organizational culture and leadership relatively unexplored. Additionally, the emphasis on large organizations overlooks how small and medium enterprises (SMEs) can utilize modern financial technologies to improve financial management. Addressing these gaps would provide a more comprehensive understanding of strategic financial management.

**Future research** should expand its scope by including diverse industries and adopting a mixed-method approach that integrates both quantitative and qualitative insights. Examining the influence of organi-

zational culture and leadership on financial strategies could offer valuable perspectives, while exploring how SMEs can effectively implement financial technologies would enhance the applicability of strategic financial management across various business contexts. These efforts will help bridge existing gaps and offer actionable recommendations for businesses striving for long-term financial sustainability.


## 7. DECLARATIONS

### 7.1. About Authors

Gautam Khanna (GK)  <https://orcid.org/0009-0003-5151-4271>

Muhammad Ghifari Ilham (MG)  <https://orcid.org/0009-0006-4613-1331>

Tubagus Wahyu Rafiuddin (TW)  -

Sudaryono (SY)  <https://orcid.org/0000-0001-8529-4420>

### 7.2. Author Contributions

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

### 7.3. Data Availability Statement

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

### 7.4. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

### 7.5. 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] H. Danial, R. Talib, R. T. Dako, and U. Pakaya, "Digipreneur 101: Regenerative tourism and bilingual promotion for local community empowerment in gorontalo," *Jurnal Pengabdian Masyarakat: Pemberdayaan, Inovasi dan Perubahan*, vol. 4, no. 6, 2024.
- [2] A. Awa *et al.*, "Explore the importance of creativity and innovation in micro, small and medium enterprises (msmes)," *Jurnal Visionida*, vol. 9, no. 2, pp. 199–217, 2023.
- [3] R. Fadillah, A. Yulastri, H. Hidayat *et al.*, "Development of mobile learning based on digital entrepreneurs using raspberry pi on tvet." *International Journal on Advanced Science, Engineering & Information Technology*, vol. 13, no. 6, 2023.
- [4] P. Servais and J. Aidemark, "Entrepreneurial learning through international business model innovation: an example from a south baltic interreg project," in *International Symposium on Digital Transformation*, 2023.
- [5] M. M. Bühler, I. Calzada, I. Cane, T. Jelinek, A. Kapoor, M. Mannan, S. Mehta, V. Mookerje, K. Nübel, A. Pentland *et al.*, "Unlocking the power of digital commons: Data cooperatives as a pathway for data sovereign, innovative and equitable digital communities," *Digital*, vol. 3, no. 3, pp. 146–171, 2023.
- [6] F. Afif, D. N. N. Nabila, and R. M. Rohmah, "Digipreneurship as an effort to strengthen the digitalization of the islamic economy in indonesia," *Maliki Islamic Economics Journal*, vol. 3, no. 2, pp. 72–87, 2023.
- [7] C. Kreiterling, "Digital innovation and entrepreneurship: a review of challenges in competitive markets," *Journal of Innovation and Entrepreneurship*, vol. 12, no. 1, p. 49, 2023.
- [8] J. Aarthy, S. Krishnakanth, N. A. Keshov, and S. Sowmya, "Digipreneurship-the role of digital entrepreneurship in shaping tomorrow's business landscape."

- [9] B. Rianto, A. K. Ganefri, H. Hidayat *et al.*, “Needs for implementing a production-based problem learning model on technopreneurship courses to improve the quality of engineering education for graduates,” *Journal of Human University Natural Sciences*, vol. 51, no. 4, 2024.
- [10] H. Amin, “Resilience and adaptation: The economy of pesantren amidst capitalism,” *Raudhah Proud To Be Professionals: Jurnal Tarbiyah Islamiyah*, vol. 9, no. 1, pp. 196–205, 2024.
- [11] J. Awad and R. Martín-Rojas, “Enhancing social responsibility and resilience through entrepreneurship and digital environment,” *Corporate Social Responsibility and Environmental Management*, vol. 31, no. 3, pp. 1688–1704, 2024.
- [12] D. R. Kurniawan, Y. Purnama, Y. Riady, H. K. A. Zaakiyyah *et al.*, “Technology integration in educational management: Its impact on community participation,” *Jurnal Terobosan Peduli Masyarakat (TIRAKAT)*, vol. 1, no. 1, pp. 10–20, 2024.
- [13] S. Nurbayanti, Z. G. Iqlima, M. F. Fauzi, and T. Lestari, “Opportunities promoting social inclusion in elementary school learning context: study of merdeka curriculum the indonesian policies on geds (gender, disability, and social inclusion) framework,” *Humanika: Kajian Ilmiah Mata Kuliah Umum*, vol. 24, no. 2, 2024.
- [14] S. N. Mamat, A. Shamsudin, N. F. Mohd, A. Sani, and A. Saidin, “Undergraduate students’ outlook on their digital entrepreneurship readiness, attitude and motivation.”
- [15] I. Rozeqqi and M. Ulfah, “Internalization of digital entrepreneurship education in the e-tafaqqh program at the darul ulum foundation kubu raya,” *Innovative: Journal Of Social Science Research*, vol. 3, no. 6, pp. 7121–7130, 2023.
- [16] I. I. Hidayat, S. Nurhayati, and G. Boriboon, “Vocational high school community service as innovative community empowerment program: A case study of garut vocational high school,” *Jurnal Paedagogy*, vol. 11, no. 1, pp. 48–60, 2024.
- [17] R. Rismansyah, Y. Dessy, M. Najib, A. Mahendra, M. Mursalin, E. Ardius, and Z. Hakim, “The mediating role of online marketing information systems products, technology, business managers, and digital entrepreneurship on change management,” *Technology, Business Managers, and Digital Entrepreneurship on Change Management*.
- [18] K. Kalogis, “Analysis of the role innovation, creativity and technology transformation on business sustainability in east europe,” *Journal of Current Research in Business and Economics*, vol. 3, no. 1, pp. 138–179, 2024.
- [19] F. Fahrial, D. Tjahjan, I. Oktaria, K. N. Salam, S. E. Putro, V. S. Adoe, V. Verawaty, W. S. Andriasari, and Y. Yudiansyah, “Entrepreneurship 5.0 customizing your digital opportunities,” 2022.
- [20] R. Purbasari, E. Munajat, and F. Fauzan, “Digital innovation ecosystem on digital entrepreneur: Social network analysis approach,” *International Journal of E-Entrepreneurship and Innovation (IJEEI)*, vol. 13, no. 1, pp. 1–21, 2023.
- [21] S. Wolfert, C. Verdouw, L. van Wassenaer, W. Dolfsma, and L. Klerkx, “Digital innovation ecosystems in agri-food: design principles and organizational framework,” *Agricultural Systems*, vol. 204, p. 103558, 2023.
- [22] L. Liang and Y. Li, “How does government support promote digital economy development in china? the mediating role of regional innovation ecosystem resilience,” *Technological Forecasting and Social Change*, vol. 188, p. 122328, 2023.
- [23] F. Santarsiero, G. Schiuma, D. Carlucci, and N. Helander, “Digital transformation in healthcare organisations: The role of innovation labs,” *Technovation*, vol. 122, p. 102640, 2023.
- [24] I. O. Pappas, P. Mikalef, Y. K. Dwivedi, L. Jaccheri, and J. Krogstie, “Responsible digital transformation for a sustainable society,” *Information Systems Frontiers*, vol. 25, no. 3, pp. 945–953, 2023.
- [25] R. A. Zhanbayev, M. Irfan, A. V. Shutaleva, D. G. Maksimov, R. Abdykadyrkyzy, and Ş. Filiz, “Demoethical model of sustainable development of society: A roadmap towards digital transformation,” *Sustainability*, vol. 15, no. 16, p. 12478, 2023.
- [26] V. Meilinda, S. A. Anjani, and M. Ridwan, “A platform based business revolution activates indonesia’s digital economy,” *Startuppreneur Business Digital (SABDA Journal)*, vol. 2, no. 2, pp. 155–174, 2023.
- [27] D. Yanti, D. Y. Heryadi, P. A. Cakranegara, M. Kadyrov *et al.*, “Developing rural communication through digital innovation for village tourism,” *Jurnal Studi Komunikasi*, vol. 7, no. 3, pp. 696–712, 2023.
- [28] M. Fragão-Marques and T. Ozben, “Digital transformation and sustainability in healthcare and clinical laboratories,” *Clinical Chemistry and Laboratory Medicine (CCLM)*, vol. 61, no. 4, pp. 627–633, 2023.

- 
- [29] A. Kwilinski, O. Lyulyov, and T. Pimonenko, "Unlocking sustainable value through digital transformation: An examination of esg performance," *Information*, vol. 14, no. 8, p. 444, 2023.
- [30] F. Kitsios and M. Kamariotou, "Digital innovation and entrepreneurship transformation through open data hackathons: Design strategies for successful start-up settings," *International Journal of Information Management*, vol. 69, p. 102472, 2023.
- [31] H. E. Adama, O. A. Popoola, C. D. Okeke, and A. E. Akinoso, "Economic theory and practical impacts of digital transformation in supply chain optimization," *International Journal of Advanced Economics*, vol. 6, no. 4, pp. 95–107, 2024.
- [32] N. Septiani, A. S. Bist, C. S. Bangun, and E. Dolan, "Digital business student development for entrepreneurs with software," *Startupneur Business Digital (SABDA Journal)*, vol. 1, no. 1, pp. 34–44, 2022.
- [33] L. Guan, W. Li, C. Guo, and J. Huang, "Environmental strategy for sustainable development: Role of digital transformation in china's natural resource exploitation," *Resources Policy*, vol. 87, p. 104304, 2023.
- [34] S. Heshmatisafa and M. Seppänen, "Exploring api-driven business models: Lessons learned from amadeus's digital transformation," *Digital Business*, vol. 3, no. 1, p. 100055, 2023.
- [35] X. Ren, G. Zeng, and X. Sun, "The peer effect of digital transformation and corporate environmental performance: empirical evidence from listed companies in china," *Economic Modelling*, vol. 128, p. 106515, 2023.
- [36] H. Haqqi, "The government's policy in encouraging the global competitiveness of indonesian msme through the digital ecosystem," *Journal of Economics, Management and Trade*, vol. 29, no. 8, pp. 66–76, 2023.
- [37] H. Khuan, E. Andriani, and A. Y. Rukmana, "The role of technology in fostering innovation and growth in start-up businesses," *West Science Journal Economic and Entrepreneurship*, vol. 1, no. 08, pp. 348–357, 2023.
- [38] M.-J. Lee and T. Roh, "Unpacking the sustainable performance in the business ecosystem: Coopetition strategy, open innovation, and digitalization capability," *Journal of Cleaner Production*, vol. 412, p. 137433, 2023.
- [39] M. C. M. Lapuz, "The role of local community empowerment in the digital transformation of rural tourism development in the philippines," *Technology in Society*, vol. 74, p. 102308, 2023.
- [40] N. Ani, S. Millah, and P. A. Sunarya, "Optimizing online business security with blockchain technology," *Startupneur Business Digital (SABDA Journal)*, vol. 3, no. 1, pp. 67–80, 2024.
-