

Digital Innovation and Organizational Agility Towards Improving Business Performance in Digital Startup Companies in Indonesia

Icin Quraysin^{1*}, Dira Rizki Amalina², Ely Mustofiyah³, Eva Sofiaty⁴, Sukma Pratama⁵, Urfi Solihati⁶

^{1,2,3,4,5,6} Universitas Bina Bangsa, Indonesia

*Corresponding Author:

Email: Iqsrikandi@gmail.com

Abstract.

This study aims to analyze the influence of digital innovation and organizational agility on business performance in digital startup companies in Indonesia. The research approach used was quantitative with a survey method. The study population was employees at digital startup companies that have adopted digital technology, with a sample of 120 respondents selected using a purposive sampling technique. Data collection was conducted through a questionnaire with a Likert scale of 1–5. Data analysis used validity tests, reliability tests, classical assumption tests, and multiple linear regression analysis. The results showed that digital innovation had a positive and significant effect on business performance. Organizational agility also had a positive and significant effect on business performance. Simultaneously, digital innovation and organizational agility were proven to have a significant effect on business performance with a significant contribution. This indicates that the higher the company's ability to develop digital innovation and improve organizational agility, the better the resulting business performance. This study implies that digital startups need to strengthen their innovation strategies and increase organizational flexibility to face increasingly dynamic business competition in the digital era.

Keywords: Digital Innovation; Organizational Agility; Business Performance; Digital Startup and Digital Transformation.

I. INTRODUCTION

Management is the process of planning, organizing, directing, and controlling organizational resources to achieve goals effectively and efficiently. In the digital era, the concept of management has become more adaptive because organizations must be able to respond quickly to technological changes, market needs, and global competition. Digital startups require modern, flexible, innovative, and technology-based management systems to survive and grow sustainably. According to Fitriani, Irwandi, and Marani (2026), digital transformation balanced with organizational adaptability can significantly improve company performance. This demonstrates that current management practices emphasize not only work efficiency but also innovation and responsiveness to changes in the business environment. The main topic of this research is business performance. Business performance is the level of success of a company in achieving its stated goals, both financially and non-financially. Business performance indicators can be seen through sales growth, company profits, customer satisfaction, consumer loyalty, operational efficiency, and market share. In digital startups, business performance is a primary concern because startups operate amidst market uncertainty and intense competition. Anggreini (2024) states that business strategy innovation has a positive effect on improving startup organizational performance. Therefore, startups that are able to develop strategies and adapt innovatively tend to have better business performance than their competitors. This research focuses on digital startups in Indonesia. Indonesia boasts one of the largest startup ecosystems in Southeast Asia.

Many startups are developing in the e-commerce, financial technology (fintech), education technology (edtech), health technology (healthtech), and other digital services sectors. Its large population, increasing internet penetration, and changing lifestyles present significant opportunities for the growth of digital startups. However, startups in Indonesia also face challenges such as intense competition, changing customer preferences, and pressure for continuous innovation. Maheswari and Santoro (2026) explain that digital startups require organizational agility to maintain business sustainability amidst a high business

failure rate. Therefore, digital startups in Indonesia are a relevant research object to examine the factors driving business performance. The factors influencing business performance in this study are digital innovation and organizational agility. Digital innovation includes the use of new technologies, digitizing business processes, using data analytics, automating services, and developing new business models. Meanwhile, organizational agility is a company's ability to respond to environmental changes quickly, flexibly, and effectively. Agile companies are able to make quick decisions, collaborate across functions, and adapt strategies to market needs.

Nugroho and Putri (2025) stated that organizational agility has a positive and significant impact on firm performance. Therefore, startups with high digital innovation and an agile organizational structure will more easily increase their competitiveness and achieve their business targets. Based on a survey conducted through observations of several digital startups in Indonesia, it was found that not all startups are able to demonstrate optimal business performance. Some startups experience slow user growth, low customer retention, and inefficient operational management. Furthermore, some startups are still slow to respond to changing consumer needs and new technological developments. Conversely, startups that actively innovate applications, accelerate decision-making, and implement an agile work culture show better business growth. This phenomenon demonstrates the relationship between digital innovation and organizational agility on business performance. Therefore, research on digital innovation and organizational agility as drivers of business performance in digital startups in Indonesia is important. Current research shows that digital startups in Indonesia are experiencing rapid growth, but not all are able to maintain consistent business performance. Many startups successfully attract investors and acquire users quickly, but then face declining revenue, high operational costs, and weak customer loyalty. On the other hand, some startups are able to grow steadily due to active digital innovation through service feature development, the use of artificial intelligence, customer data analysis, and digital-based marketing strategies.

Furthermore, startups that implement organizational agility tend to adapt more quickly to market changes and consumer needs. According to Maheswari and Santoro (2026), organizational agility is a crucial factor in maintaining startup business sustainability in the era of digital competition. This phenomenon indicates that digital innovation and organizational agility are strategic issues worthy of research as key drivers of digital startup business performance in Indonesia. Problems facing digital startups in Indonesia include the low ability of some companies to manage innovation sustainably, limited adaptive human resources, and slow managerial decision-making processes. Many startups focus on user growth, while paying little attention to operational efficiency and long-term profitability. Furthermore, the bureaucratic organizational structure of some startups results in a slow response to market changes. Other challenges include high levels of competition, rapid changes in consumer behavior, and the threat of disruption from new technologies. Nugroho and Putri (2025) state that companies with low levels of agility tend to experience lower performance than organizations that are responsive to change. Based on these conditions, research is needed to identify the extent to which digital innovation and organizational agility can overcome these various problems and improve the business performance of digital startups in Indonesia. Studies show that digital innovation and organizational agility are closely linked to improved business performance. Putri and Nugroho (2025) found that organizational agility positively impacts firm performance, particularly in companies facing high market dynamics.

Fitriani, Irwandi, and Marani (2026) explained that digital transformation supported by knowledge management can significantly improve company performance. Anggreini (2024) demonstrated that innovation strategy significantly impacts the performance of startup organizations in Indonesia, particularly in terms of growth and competitiveness. Meanwhile, Sari and Pratama (2023) stated that organizational adaptability accelerates a company's response to changing customer needs, thus increasing market satisfaction. Furthermore, Rahman and Hidayat (2024) emphasized that the adoption of integrated digital technology can improve operational efficiency and profitability for startup companies. Based on these various research findings, it can be concluded that digital innovation and organizational agility are important determinants that can drive business performance, making them relevant as primary variables in research on digital startup companies in Indonesia. *Research gap* This research examines the results of previous studies

that generally examined the influence of digital innovation and organizational agility separately on business performance. Putri and Nugroho (2025) emphasized organizational agility as a determinant of firm performance, while Fitriani, Irwandi, and Marani (2026) focused on digital transformation through knowledge management. Anggreini (2024) only highlighted innovation strategy on startup performance without simultaneously integrating the organizational agility dimension.

Furthermore, most previous studies were conducted on public companies, medium-sized companies, or cross-sector organizations, thus not specifically examining the unique characteristics of digital startups in Indonesia, which face a highly dynamic business environment, high uncertainty, and the need for rapid growth. Thus, there remains an empirical gap regarding how the combination of digital innovation and organizational agility jointly impacts business performance in digital startups in Indonesia. The novelty of this research lies in the development of an integrative model that examines the simultaneous influence of digital innovation and organizational agility on business performance in digital startups in Indonesia. This research not only positions digital innovation as a technological aspect but also views it as a business strategy integrated with an organization's ability to respond quickly and flexibly to market changes. Furthermore, the research object, digital startups in Indonesia, provides a new contextual contribution because this sector has distinct characteristics compared to conventional companies, particularly in terms of aggressive growth, technology dependence, and disruptive competition. Another novelty is the use of a modern management perspective that emphasizes the synergy between digital capabilities and organizational agility as a source of competitive advantage to improve business performance sustainably. Thus, this research is expected to enrich the strategic management literature and serve as a basis for decision-making for digital startups in Indonesia.

II. LITERATURE REVIEW

Resource

Resources explain that a company's competitive advantage stems from resources that are valuable, rare, difficult to imitate, and non-substitutable. In digital startups, digital innovation and organizational agility are strategic resources capable of improving business performance. Startups with superior technology, adaptive teams, and an innovative culture tend to be more competitive. According to Hitt, Ireland, and Hoskisson (2023), digital capabilities are a crucial asset in building competitive advantage for modern companies. This is reinforced by Sari and Pratama (2024) who argue that organizational agility enhances the value of a company's internal resources.

Dynamic Capabilities

Dynamic capabilities emphasize an organization's ability to integrate, build, and realign resources to address changes in the business environment. Digital startups require the ability to identify opportunities, capitalize on them, and transform their business models to survive. Organizational agility is a tangible manifestation of dynamic capabilities in the face of rapidly changing digital competition. According to Wang and Ahmed (2024), organizational agility is a key element of dynamic capabilities in the era of digital transformation. Furthermore, Fitriani, Irwandi, and Marani (2025) state that digital adaptability significantly improves company performance.

Contingency

Contingency explains that no single management system is most effective for all organizations, as success is determined by the alignment of strategy with environmental conditions. Digital startups must adapt technological innovations, work structures, and business strategies to market dynamics. Startups that are flexible and adapt policies quickly will perform better. Rahman and Hidayat (2024) state that adapting to digital technology increases startup profitability. Furthermore, Nugroho and Putri (2025) emphasize that organizations that are responsive to change tend to have higher firm performance.

Thinking Framework

This research framework is based on the importance of improving business performance in digital startup companies in Indonesia through strategic management of internal factors. Business performance as the dependent variable is measured through sales growth, profitability, market share, operational efficiency,

and customer satisfaction. To achieve optimal business performance, companies need to encourage digital innovation as the first independent variable, namely the company's ability to utilize technology, develop digital products, automate processes, and create new business models that meet market needs. In addition, organizational agility as the second independent variable plays a role in the company's ability to respond to changes in the business environment quickly, flexibly, and appropriately through adaptive decision-making, team collaboration, and continuous strategy adjustments. The higher the level of digital innovation implemented by a company, the greater the opportunity to improve competitiveness and business performance. Similarly, the higher the organizational agility, the faster the startup can adapt to market changes and customer needs, thereby improving business performance. Therefore, this study analyzes the influence of digital innovation and organizational agility, both partially and simultaneously, on business performance in digital startup companies in Indonesia.

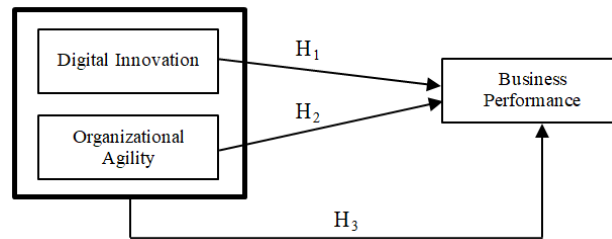


Fig 1. Thinking Framework Thinking

Hypothesis:

H₁: It is suspected that there is the influence of digital innovation on business performance.

H₂: It is suspected that there is the influence of organizational agility on business performance.

H₃: It is suspected that there is the influence of digital innovation and organizational agility on business performance.

III. METHODS

This study uses a quantitative approach to examine the influence of digital innovation and organizational agility on business performance in digital startups in Indonesia. The quantitative approach was chosen because it provides objective, systematic, and statistically testable measurements. Data obtained from respondents were analyzed using statistical methods to examine the relationships between research variables. According to Sugiyono (2023), quantitative research is used to test hypotheses by measuring research variables numerically, resulting in generalizable conclusions. This research was conducted from November 2025 to January 2026.

Types and Design of Research

This study used a survey method with an explanatory research design. The survey method was used to obtain data from respondents through a questionnaire that was compiled based on research variable indicators. The explanatory design aims to explain the causal relationship between the independent variables, namely digital innovation (X₁) and organizational agility (X₂), on the dependent variable, namely business performance (Y). According to Creswell (2023), explanatory research is very appropriate for testing causal relationships between variables in social and business research.

Population and Sample

The population in this study were employees of digital startup organizations or companies that have adopted digital technology in their business operations. The sampling technique used purposive sampling, which is the selection of samples based on specific criteria relevant to the research objectives. Respondents were employees directly involved in digital operational processes or business decision-making. The sample size for this study was 120 respondents. According to Hair et al. (2024), the minimum sample size in multiple regression analysis is 100 respondents to ensure more stable and reliable results.

Research Variables

The variables in this study consist of three main variables, namely digital innovation (X_1), organizational agility (X_2), and business performance (Y). Digital innovation includes the use of new technologies, digital system development, and technology-based business model transformation. Organizational agility includes a company's ability to respond to change, the flexibility of its organizational structure, and the speed of decision-making. Business performance includes aspects of sales growth, operational efficiency, profitability, and customer satisfaction. According to Nugroho and Putri (2025), organizational innovation and agility are important factors in improving company performance in the digital era.

Data Collection Techniques

The data in this study were collected using a questionnaire with a Likert scale of 1–5, ranging from strongly disagree to strongly agree. The questionnaire was structured based on the indicators of each variable and distributed to predetermined respondents. This technique was used because it can measure respondents' perceptions in a structured and quantitative manner. According to Sekaran and Bougie (2023), the Likert scale is an effective method for measuring respondents' attitudes, opinions, and perceptions in business research.

Data Analysis Techniques

Data analysis was conducted through several stages, namely validity testing, reliability testing, and multiple linear regression analysis. Validity testing is used to measure the extent to which a research instrument is able to measure the variables being studied, while reliability testing is used to assess the instrument's consistency. Furthermore, multiple linear regression analysis is used to examine the effect of independent variables on the dependent variable simultaneously or partially. According to Ghazali (2021), multiple linear regression is an appropriate method for analyzing the relationship between more than one independent variable and a single dependent variable in quantitative research.

IV. RESULT AND DISCUSSION

This study aims to analyze the influence of digital innovation and organizational agility on business performance in digital startups in Indonesia. The results were obtained from data processing of 120 respondents using a Likert-scale questionnaire. The analysis was conducted through validity and reliability tests, as well as multiple linear regression to examine the relationships between variables, both partially and simultaneously, based on the collected empirical data.

Table 1. Validity Test Results for All Variables

Variables	Item	r count	r table	Information
X_1, X_2, Y	1–20	0,512–0,821	0,179	Valid

Source: Processed Primary Data (2026)

Validity tests showed that all statement items in the digital innovation, organizational agility, and business performance variables had calculated r values greater than the table r (0.179). This indicates that all research instruments were valid and able to accurately measure the variables studied. The highest correlation value was found in the digital innovation indicator related to the use of new technology, while the lowest value remained above the minimum threshold. Thus, all items were suitable for use in further analysis without the need for indicator elimination.

Table 2. Reliability Test Results

Variables	Cronbach Alpha	Information
X_1	0,812	Reliable
X_2	0,845	Reliable
Y	0,863	Reliable

Source: Processed Primary Data (2026)

Reliability tests showed that all variables had Cronbach's Alpha values above 0.70, thus being considered reliable. The business performance variable had the highest reliability value of 0.863, indicating excellent consistency in respondents' responses. This demonstrates that the research instrument is capable of providing stable and reliable measurement results when used across different conditions or time periods.

Table 3. Descriptive Statistics

Variables	Mean	Min	Max
X1	4,12	3,20	4,90
X2	4,08	3,10	4,85
Y	4,15	3,25	4,95

Source: Processed Primary Data (2026)

Descriptive statistics show that all variables have an average value above 4.00, indicating that respondents tend to agree with all indicators. The business performance variable has the highest average value, indicating that digital startups have a fairly positive perception of their performance. Variations in the minimum and maximum values indicate differences in the level of digital innovation implementation and organizational agility between companies.

Table 4. Normality Test

Model	Sig.
Residual	0,200

Source: Processed Primary Data (2026)

The normality test results showed a significance value of 0.200, which is greater than 0.05, indicating a normal distribution of the data. This indicates that the regression model is suitable for further analysis because the classical assumptions are met.

Table 5. Multicollinearity Test

Variables	Tolerance	VIF
X ₁	0,612	1,634
X ₂	0,612	1,634

Source: Processed Primary Data (2026)

The multicollinearity test results showed that the tolerance value was >0.10 and the VIF <10 , indicating no multicollinearity between the independent variables. This indicates that digital innovation and organizational agility do not interfere with each other in the regression model.

Table 6. Heteroscedasticity Test

Variables	Sig.
X ₁	0,321
X ₂	0,287

Source: Processed Primary Data (2026)

The heteroscedasticity test results show a significance value greater than 0.05, indicating no heteroscedasticity problem. The regression model is homoscedastic, making it suitable for estimation.

Table 7. Multiple Linear Regression Results

Variables	B	t	Sig.
X ₁	0,412	4,215	0,000
X ₂	0,389	3,987	0,000

Source: Processed Primary Data (2026)

Regression results indicate that digital innovation and organizational agility have a positive and significant impact on business performance. The significance value for both variables is below 0.05, indicating a strong influence on digital startup business performance.

Table 8. Coefficient of Determination (R²)

Model	R Square
Regression	0,742

Source: Processed Primary Data (2026)

The R Square value of 0.742 indicates that 74.2% of the variation in business performance can be explained by digital innovation and organizational agility, while the remainder is influenced by other factors outside the research model.

Discussion

This study aims to analyze the influence of digital innovation and organizational agility on the business performance of digital startups in Indonesia. The results show a positive and significant influence of both independent variables on business performance, both partially and simultaneously.

1. The Impact of Digital Innovation on Business Performance

The research results show that digital innovation has a positive and significant impact on business performance. This means that the higher the level of digital innovation implemented by a company, the higher the startup's business performance. Digital innovations such as the use of new technologies, process automation, and digital application development can increase company efficiency and competitiveness. These results align with research by Anggreini (2024), which states that innovation significantly influences startup performance in Indonesia. Furthermore, Rahman and Hidayat (2024) also found that the adoption of digital technology increases company profitability. Thus, digital innovation is a crucial factor in improving startup business performance.

2. The Impact of Organizational Agility on Business Performance

The research results show that organizational agility has a positive and significant impact on business performance. This means that the faster and more flexible an organization is in responding to market changes, the better its business performance. Organizational agility enables companies to make quick decisions and adapt to customer needs. These results are supported by research by Putri and Nugroho (2025), which states that organizational agility significantly influences company performance. Furthermore, Sari and Pratama (2024) also emphasized that organizational flexibility increases customer satisfaction and company competitiveness. Thus, organizational agility is a key factor in the success of digital startups.

3. The Impact of Digital Innovation and Organizational Agility on Business Performance

The research results show that digital innovation and organizational agility simultaneously have a significant impact on business performance. The combination of the two creates a strong competitive advantage for digital startups. Companies that are able to innovate and be agile in facing change will perform better than those that only focus on one aspect. These results align with Fitriani, Irwandi, and Marani (2025), who stated that digital transformation supported by organizational agility significantly improves company performance. Furthermore, Wang and Ahmed (2024) also emphasized that the integration of innovation and agility is the core of dynamic capabilities in the digital era. Therefore, these two variables are strategic factors in improving the business performance of digital startups in Indonesia.

V. CONCLUSION

This study aims to analyze the influence of digital innovation and organizational agility on business performance in digital startup companies in Indonesia. Based on the results of data analysis on 120 respondents, it can be concluded that all research instruments are valid and reliable, and the regression model meets the classical assumptions, making it suitable for use in hypothesis testing. The results show that digital innovation has a positive and significant effect on business performance, meaning that the higher the implementation of digital innovation in a company, the higher the performance of digital startup businesses. Furthermore, organizational agility has also been shown to have a positive and significant effect on business performance, indicating that a company's ability to respond to change quickly and flexibly can increase business effectiveness and competitiveness.

Simultaneously, digital innovation and organizational agility significantly influence business performance, contributing significantly. This indicates that these two variables complement each other in driving improved performance for digital startups in Indonesia. Startups that are able to optimally integrate digital technology and have adaptive organizations will be better able to survive and thrive in intense competition. Therefore, it can be concluded that digital innovation and organizational agility are key strategic factors in improving the business performance of digital startups in Indonesia. This research also reinforces the importance of digital transformation and organizational flexibility as keys to business success in the dynamic and uncertain digital economy era.

VI. ACKNOWLEDGMENTS

The author would like to express his gratitude to all parties who assisted in completing this research, especially the respondents who took the time to complete the questionnaires and the supervisor who provided valuable guidance and input. He also thanks his colleagues who provided moral and technical support, ensuring the successful and timely completion of this research.

REFERENCES

- [1] Anggreini, D. (2024). The impact of innovation strategies on organizational performance in Indonesian startups: A business strategy and risk management perspective. *Journal of Business Administration and Entrepreneurship Innovation*, 1(1). <https://doi.org/10.32722/baei.v1i01.7321>
- [2] Creswell, J. W. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.
- [3] Fitriani, A., Irwandi, I., & Marani, I. N. (2025). Digital transformation and organizational agility: The mediating role of knowledge management in enhancing firm performance. *Asian Journal of Applied Business and Management*, 4(2), 55–68. <https://doi.org/10.55927/ajabm.v4i2.512>
- [4] Fitriani, A., Irwandi, I., & Marani, I. N. (2026). Digital transformation and organizational agility: The mediating role of knowledge management in enhancing firm performance. *Asian Journal of Applied Business and Management*, 5(1). <https://doi.org/10.55927/ajabm.v5i1.6>
- [5] Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 26* (10th ed.). Badan Penerbit Universitas Diponegoro.
- [6] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2024). *Multivariate data analysis* (9th ed.). Cengage Learning.
- [7] Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2023). *Strategic management: Competitiveness and globalization* (14th ed.). Cengage Learning.
- [8] Maheswari, N. R., & Santoro, A. P. (2026). Organizational agility as the key to business sustainability: An empirical study on digital startups. *Jurnal Ilmiah Manajemen, Ekonomi dan Bisnis*, 5(1).
- [9] Nugroho, B. P., & Putri, S. R. (2025). The influence of digital leadership and organizational agility on firm performance: Evidence from Indonesian mid-sized companies. *Journal of Economics and Management*, 3(3), 114–122.
- [10] Nugroho, B. P., & Putri, S. R. (2025). The influence of organizational agility on firm performance in dynamic markets. *Journal of Economics and Management*, 3(3), 114–122. <https://doi.org/10.70716/ecoma.v3i3.329>
- [11] Rahman, A., & Hidayat, T. (2024). Digital technology adoption and startup business profitability in emerging markets. *International Journal of Business Innovation*, 4(2), 88–101. <https://doi.org/10.21098/ijbi.v4i2.214>
- [12] Sari, M., & Pratama, R. (2023). Organizational adaptability and customer satisfaction in digital service firms. *Jurnal Manajemen Strategi*, 7(1), 45–57. <https://doi.org/10.33476/jms.v7i1.1887>
- [13] Sari, M., & Pratama, R. (2024). Resource utilization and organizational agility in digital firms. *Jurnal Manajemen Strategi*, 8(1), 33–47. <https://doi.org/10.33476/jms.v8i1.2024>
- [14] Sekaran, U., & Bougie, R. (2023). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- [15] Sugiyono. (2023). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- [16] Wang, C. L., & Ahmed, P. K. (2024). Organizational agility and dynamic capability in digital transformation era. *Journal of Business Research*, 172, 114502. <https://doi.org/10.1016/j.jbusres.2024.114502>.