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The Effect of Intangible Assets, Cash Holdings, and Advertising Investment on Startup Firm Value

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Abstract

Investor decisions are influenced not only by a company's current financial condition but also by expectations regarding future business prospects. This study aims to examine the effect of intangible assets, cash holdings, and advertising investment on firm value in startup companies listed on the Indonesia Stock Exchange (IDX). This research is motivated by the tech winter phenomenon, which has led to declining startup funding and increased pressure on firms to maintain their value amid economic uncertainty. This study employed a quantitative approach using panel data regression analysis. The research sample consisted of technology-based startup companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period that met the research criteria. Data were obtained from annual financial reports and analyzed using EViews 13. The dependent variable in this study is firm value measured by Tobin's Q, while the independent variables consist of intangible assets, cash holdings, and advertising investment. The results show that intangible assets do not significantly affect firm value. Meanwhile, cash holdings have a significant positive effect on firm value, whereas advertising investment has a significant negative effect on firm value. These findings indicate that liquidity plays an important role in enhancing startup firm value, while excessive advertising spending may negatively influence market perceptions during periods of economic uncertainty.

Keywords Advertising Investment; Cash Holdings; Firm Value; Intangible Assets; Startup

INTRODUCTION

Investor decisions are influenced not only by a company's current financial condition but also by expectations regarding future business prospects (Ghani et al., 2023). These expectations are reflected in firm value, which represents market perceptions of a company's performance and future growth potential (Akanksha &

Manickam, 2026). A higher firm value indicates stronger investor confidence and better market perception of business sustainability (Suhartini et al., 2024). Therefore, maintaining firm value is essential because it is closely associated with shareholder wealth and the company's ability to attract investment in capital markets (Mustoffa et al., 2025).

The importance of firm value becomes increasingly relevant for startup companies, which operate in dynamic and uncertain business environments (Siswanto et al., 2025). Indonesia has become one of the largest startup ecosystems in Southeast Asia, supported by rapid digital transformation and increasing technology adoption across industries (Judijanto, 2024). Several startups have successfully grown into unicorn companies and publicly listed firms, reflecting the significant contribution of startup companies to Indonesia's economic development. However, despite their rapid growth potential, startup companies remain highly vulnerable to changes in market conditions and investor sentiment.

In recent years, the global startup industry, including Indonesia, has faced the tech winter phenomenon, a period characterized by slowing growth in the technology sector due to declining investment and increasing economic uncertainty (Rasyid et al., 2023). In Indonesia, this condition is reflected in the decline in startup funding from approximately US$6.9 billion in 2021 to significantly lower levels in subsequent years (Kure, 2026). Furthermore, the Financial Services Authority (OJK) reported that startup investment declined by 87% in the first semester of 2023 compared to the previous period (Indonesia Business Post, 2024). This trend continued through 2025, with total startup funding in Indonesia reaching only around US$355.7 million across 91 transactions, far below the funding peak recorded in 2021 (Rise, 2026).

These conditions have shifted investor priorities from aggressive expansion toward profitability, operational efficiency, and financial sustainability (Rasyid et al., 2023). As a result, effective internal resource management has become increasingly important in maintaining startup firm value, particularly during periods of economic uncertainty (Komakech et al., 2025). Among various internal resources, intangible assets, cash holdings, and advertising investment are considered highly relevant in influencing firm value (Mailani et al., 2024). Intangible assets can strengthen innovation and competitive advantage, cash holdings reflect liquidity and financial flexibility, while advertising investment may indicate either strategic market expansion or inefficient resource allocation depending on business conditions (Alfriansyach & Arsjah, 2026; Intara & Suwansin, 2024; Goliampolska, 2025).

Previous studies have mostly examined the effect of intangible assets, cash holdings, and advertising investment on firm value separately and within broader corporate contexts. In addition, prior findings remain inconclusive, showing mixed results across industries and countries. Research examining these three variables simultaneously in startup companies remains limited, particularly within the Indonesian context during the tech winter period. Therefore, this study aims to examine the effect of intangible assets, cash holdings, and advertising investment on firm value in startup companies listed on the Indonesia Stock Exchange during 2021–2025.

METHODS

This study adopts a quantitative approach with a causal research design to examine the effect of intangible assets, cash holdings, and advertising investment as independent variables on firm value as the dependent variable. This approach enables the objective measurement of causal relationships between variables using quantitative data. The study aims to analyze the extent to which internal resources influence startup firm value during periods of economic uncertainty.

The population of this study consists of startup companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period. In this study, startup companies are defined as technology-based companies that introduce new business models or innovative products within the last decade. The sample was selected based on several criteria, including companies that were consistently listed during the observation period, published complete financial statements, and had complete data for all research variables.

Table 1. Summary of Company Samples

No	Description	Amount
1	Startup companies listed on the Indonesia Stock Exchange during 2021–2025	29
2	Companies not consistently listed on the IDX during the observation period	(2)
3	Companies that did not publish complete financial statements during the observation period	(3)
4	Companies with incomplete data related to research variables	(2)
	Total Sample Companies	**22**
	Total Observations	**22*5=110**

Source: Processed Data (2026)

After the data selection process, 22 startup companies were obtained, resulting in 110 firm-year observations. However, the final regression model used 107

observations due to unbalanced panel data caused by missing observations in several periods. This study uses secondary data obtained from annual reports, financial statements, and company reports published through the IDX official website and respective company websites.

This study uses firm value as the dependent variable, intangible assets, cash holdings, and advertising investment as independent variables, and firm size, leverage, and growth as control variables. Firm value is proxied by Tobin's Q because this ratio reflects market valuation relative to company assets. The operational definition of all variables is presented in Table 2.

Table 2. Operational Definition of Variables

Variable	Symbol	Measurement
Firm Value	TBQ	(Market Value of Equity + Total Debt) / Total Assets
Intangible Assets	IA	Total Intangible Assets / Total Assets
Cash Holdings	CASH	Cash and Cash Equivalents / Total Assets
Advertising Investment	ADV	Advertising Expenses / Total Sales
Firm Size	SIZE	Ln (Total Assets)
Leverage	LEV	Total Liabilities / Total Assets
Growth	GROWTH	$(Sales_t - Sales_{t-1}) / Sales_{t-1}$

Source: Processed Data (2026)

This study employs panel data regression analysis using EViews 13 to examine the relationship between variables across cross-sectional and time-series dimensions. Based on model selection tests, the Fixed Effect Model (FEM) was selected as the final estimation model. To improve model robustness, this study applies white cross-section standard errors and covariance correction to address potential heteroskedasticity and autocorrelation. Hypothesis testing was conducted using the coefficient of determination (Adjusted R^2) and t-test. The following equation is used to estimate the panel regression model in this study:

$$TBQ = \alpha + \beta_1 IA + \beta_2 CASH + \beta_3 ADV + \beta_4 SIZE + \beta_5 LEV + \beta_6 GROWTH + \varepsilon$$

Note:
TBQ = Firm Value (Tobin's Q)
α = Constant
β = Regression Coefficient
IA = Intangible Assets
CASH = Cash Holdings
ADV = Advertising Investment
SIZE = Firm Size
LEV = Leverage

GROWTH = Growth
ε = Error Term

FINDINGS AND DISCUSSION

Model selection was conducted using the Chow test and Hausman test. The Chow test produced a probability value of 0.0000, while the Hausman test produced a probability value of 0.0008, both below the 0.05 significance level, indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model and Random Effect Model.

The data quality tests indicate that the regression model generally meets the required assumptions. The multicollinearity test using Pearson Correlation shows that all correlation coefficients among independent variables are below the threshold of 0.80, indicating no significant multicollinearity problem. The highest correlation value is found between Intangible Assets (IA) and Firm Size (SIZE), with a value of -0.375079, which remains within an acceptable range.

The heteroskedasticity test using the Glejser test indicates that the model experiences heteroskedasticity, as the Cash Holdings (CASH) variable shows a probability value of 0.0269, below the significance level of 0.05. In addition, the Durbin-Watson test produces a value of 1.417194, indicating weak positive autocorrelation in the regression model. To address these issues and improve estimation reliability, this study applies White cross-section (period cluster) standard errors and covariance in the regression analysis.

The coefficient of determination test shows an Adjusted R-squared value of 0.750169, indicating that approximately 75.02% of the variation in firm value can be explained by the independent and control variables included in this study, while the remaining 24.98% is explained by other variables outside the model. The t-test results used to evaluate each hypothesis are presented in Table 3.

Table 3. Result of Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16.32750	1.948637	-8.378934	0.0011
IA	-0.747115	0.492577	-1.516748	0.2039
CASH	2.879900	0.300910	9.570630	0.0007
ADV	-3.042667	0.086642	-35.11758	0.0000
SIZE	0.620431	0.073314	8.462616	0.0011
LEV	-0.840457	0.317746	-2.645057	0.0573
GROWTH	-0.006111	0.028485	-0.214524	0.8406

Source: Processed Data (2026)

The Effect of Intangible Assets on Firm Value

The regression results show that intangible assets have a coefficient of -0.7471 with a significance value of 0.2039, which is greater than the 0.05 significance level. These results indicate that intangible assets do not significantly affect firm value, so the first hypothesis is rejected.

This finding suggests that intangible assets have not yet become a primary determinant of startup firm value during the observation period. Although RBV explains that strategic internal resources can create competitive advantage and enhance firm value (Komakech et al., 2025), the existence of intangible assets alone may not be sufficient to improve investor confidence. Investors may place greater emphasis on how effectively these resources are utilized to generate business performance and sustainable growth.

This finding is consistent with Wira et al. (2025), who found that the effect of intangible assets on firm value varies depending on industry characteristics. This result differs from Intara and Suwansin (2024), who found a positive relationship between intangible assets and firm value. In the context of Indonesian startups, many strategic resources such as innovation capability, team quality, user data, and digital ecosystems are not fully reflected in accounting records (Barker et al., 2022; Purnamawati et al., 2022; Xiong et al., 2022). Therefore, accounting based intangible assets may not fully represent the actual strategic value of startup companies.

The Effect of Cash Holdings on Firm Value

The regression results show that cash holdings have a coefficient of 2.8799 with a significance value of 0.0007, which is below the 0.05 significance level. These results indicate that cash holdings have a significant positive effect on firm value, so the second hypothesis is accepted.

This finding supports RBV, which explains that effectively managed internal resources can create competitive advantage and improve firm value (Komakech et al., 2025). In this study, cash holdings serve as a strategic resource that provides startups with financial flexibility to sustain operations, respond to investment opportunities, and manage business uncertainty.

This result is consistent with Alfriansyach and Arsjah (2026) and Masyhur and Thamrin (2025), who found that cash holdings positively affect firm value. In the context of startup companies, this finding becomes increasingly relevant during the tech winter, where companies face higher uncertainty and funding limitations (Rasyid et al., 2023). Higher cash holdings provide a positive signal to investors regarding liquidity strength and financial resilience, thereby increasing startup firm value.

The Effect of Advertising Investment on Firm Value

The regression results show that advertising investment has a coefficient of -3.0427 with a significance value of 0.0000, which is below the 0.05 significance level. These results indicate that advertising investment has a significant negative effect on firm value, so the third hypothesis is accepted.

This finding suggests that higher advertising spending tends to reduce startup firm value. In startup companies, large advertising expenditures may be perceived by investors as a signal of aggressive expansion strategies that prioritize growth over operational efficiency (Berlin & Suryantara, 2025). Rather than being viewed as a strategic investment, excessive advertising spending may indicate inefficient resource allocation, increase burn rate pressure, and create concerns regarding short-term financial sustainability (Ma'mun et al., 2025; Goliampolska, 2025).

This result indicates that investors may interpret high advertising intensity as a sign that the company relies heavily on promotional spending to maintain market demand, which may reflect lower confidence in product strength, innovation capability, or organic business growth (Barker et al., 2022). In technology-based startup companies, investors generally expect sustainable growth to be driven by product innovation, technological capability, and strong business fundamentals rather than excessive promotional activities (Xiong et al., 2022). Therefore, higher advertising investment may weaken investor confidence and negatively affect startup firm value.

CONCLUSION

This study examines the effect of intangible assets, cash holdings, and advertising investment on firm value in startup companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The results show that intangible assets do not significantly affect firm value, indicating that accounting-based intangible assets have not yet become a primary determinant of startup firm value. In contrast, cash holdings have a significant positive effect on firm value, suggesting that startups with stronger liquidity tend to achieve higher firm value. Meanwhile, advertising investment has a significant negative effect on firm value, indicating that higher advertising expenditure tends to reduce startup firm value.

These findings suggest that investors in startup companies place greater emphasis on financial stability, liquidity, and operational efficiency, particularly during the tech winter period. The insignificant effect of intangible assets may be explained by the fact that many strategic startup resources, such as innovation capability, digital ecosystems, and intellectual capital, are not fully reflected in

accounting records. In contrast, strong cash holdings provide positive signals regarding financial flexibility and resilience, while high advertising spending may be perceived as inefficient resource allocation and a signal of aggressive expansion strategies that increase financial pressure.

Theoretically, these findings suggest that startup firm value during periods of economic uncertainty is influenced more by financial resilience and efficient resource allocation than by the accumulation of accounting-based strategic resources, which partially supports Resource-Based View (RBV). Practically, the results emphasize the importance for startup companies to maintain adequate liquidity and carefully manage advertising expenditures to preserve investor confidence and firm value. However, this study is limited by the relatively small sample size, the use of accounting-based proxies, and the focus on startup companies listed only on the Indonesia Stock Exchange during 2021–2025. Therefore, future research is encouraged to use broader samples, longer observation periods, and additional variables to better explain the determinants of startup firm value.

REFERENCES

Akanksha, A., & Manickam, T. (2026). Climate Performance and Firm Valuation: A Meta-Analysis of Tobin's Q in the Post-IPCC AR6 Era. Journal of Risk and Financial Management, 19(2), 112. https://doi.org/10.3390/jrfm19020112

Alfriansyach, R. V., & Arsjah, R. J. (2026). Do ESG Score and Cash Holding Drive Firm Value? Insights from Institutional Ownership in Indonesia. *Golden Ratio of Auditing Research*, *6*(2), 647–660. https://doi.org/10.52970/grar.v6i2.1966

Barker, R., Lennard, A., Penman, S., & Teixeira, A. (2022). Accounting for Intangible Assets: Suggested Solutions. Accounting *and Business Research*, *52*(6), 601–630. https://doi.org/10.1080/00014788.2021.1938963

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99–120. https://doi.org/https://doi.org/10.1177/014920639101700108

Berlin, H., & Suryantara, A. B. (2025). Analysis of the Impact of Burn Money Strategy on the Financial Performance of Startups in West Nusa Tenggara (NTB). Jurnal Pamator, 18(2), 160–169. https://doi.org/https://doi.org/10.21107/pamator.v18i2.29746

Ghani, R. A., Abu Samah, A. R., Baharuddin, N. S., & Ahmad, Z. (2023). Determinants of Firm Value as Measured by the Tobin's Q: A Case of Malaysian Plantation Sector. International Journal of Academic Research in Accounting, Finance and Management Sciences, 13(2), Pages 420-432.

https://doi.org/10.6007/IJARAFMS/v13-i2/17268

Goliampolska, A. (2025). Marketing Strategy as a Driver of Investor Perception and Capital Allocation. Universal Library of Business and Economics, 02(03), 52–56. https://doi.org/10.70315/uloap.ulbec.2025.0203009

Indonesia Business Post. (2024, January 24). OJK: Investment in Indonesian Startups Plummets 87% in H1 2023. https://indonesiabusinesspost.com/2025/investment-and-risk/ojk-investment-in-indonesian-startups-plummets-87-in-h1-2023

Intara, P., & Suwansin, N. (2024). Intangible Assets, Firm Value, and Performance: Does Intangible-Intensive Matter? Cogent Economics & Finance, 12(1), 2375341. https://doi.org/10.1080/23322039.2024.2375341

Judijanto, L. (2024). Perkembangan Startup Digital di Indonesia: Sebuah Tinjauan. Indo-Fintech Intellectuals: Journal of Economics and Business, 4(5), 2011–2032. https://doi.org/10.54373/ifijeb.v4i5.1875

Komakech, R. A., Ombati, T. O., Kikwatha, R. W., & Wainaina, M. G. (2025). Resource-Based View Theory and Its Applications in Supply Chain Management: A Systematic Literature Review. Management Science Letters, 15(4), 261–272. https://doi.org/10.5267/j.msl.2024.6.004

Kure, E. (2026, March 11). Indonesia Startup Funding Falls to $355.7M in 2025 Amid Global Tightening. Jakarta Globe. https://jakartaglobe.id/business/indonesia-startup-funding-falls-to-3557m-in-2025-amid-global-tightening

Kwon, G.-J. (2025). Time-Varying Value Relevance of Advertising Expenditures Around the COVID-19 Pandemic: Evidence from the Korean Stock Market. Multidisciplinary Science Journal, 8(6), 2026375. https://doi.org/10.31893/multiscience.2026375

Mailani, D., Hulu, M. Z. T., Simamora, M. R., & Kesuma, S. A. (2024). Resource-Based View Theory to Achieve a Sustainable Competitive Advantage of the Firm: Systematic Literature Review. International Journal of Entrepreneurship and Sustainability Studies, 4(1), 1–15. https://doi.org/10.31098/ijeass.v4i1.2002

Ma'mun, M. Y., Ilmi, Z., & Rahman, M. S. (2025). Burn Rate and Long-Term Sustainability of Indonesian Startups: A Literature Review. Prosiding Darussalam Martapura, 1(1).

Masyhur, M. A., & Thamrin, K. M. H. (2025). Firm Value: Analysis of Capital Structure, Capital Intensity, and Cash Holding in Transportation and Logistics Listed Companies. International Journal of Business, Economics and Management, 8(3), 186–201. https://doi.org/10.21744/ijbem.v8n3.2419

Mustoffa, A. F., Ulfah, I. F., & Wijianto, W. (2025). Firm-Specific Determinants of Stock

Prices in the Post-Pandemic Era. Owner, 9(4), 2993–3011. https://doi.org/10.33395/owner.v9i4.2801

Nugroho, Y. A., Rukmi, M. P., & Perdhiansyah, P. (2023). The Effectiveness of Advertising Cost Against Sales and Firm Value. Journal of Applied Accounting and Taxation, 8(1), 1–8. https://doi.org/10.30871/jaat.v8i1.5068

Pratiwi, E. U. (2022). Procedure Recording and Billing Receivables: Case Study on CV. Putra Baja Krakatau. Review of Accounting and Taxation, 1(01), 47–61. https://doi.org/10.61659/reaction.v1i01.133

Purnamawati, I. G. A., Jie, F., Hong, P. C., & Yuniarta, G. A. (2022). Analysis of Maximization Strategy Intangible Assets through the Speed of Innovation on Knowledge-Driven Business Performance Improvement. Economies, 10(6), 149. https://doi.org/10.3390/economies10060149

Rasyid, M. F., Sumirat, E., & Rahadi, R. A. (2023). Quantitative Study of Startup Valuation and Strategy Post 2022 Winter. Journal of World Science, 2(2), 300–309. https://doi.org/10.58344/jws.v2i2.226

Rennath, M. S., & Wijaya, H. (2024). Pengaruh Intangible Assets terhadap Firm Value di Indonesia. Jurnal Paradigma Akuntansi, 6(1), 279–289. https://doi.org/10.24912/jpa.v6i1.29923

Rise. (2026, March 5). Discover Indonesia's Startup Resilience: Indonesia Startup Report 2025. DailySocial. https://dailysocial.id/p/discover-indonesias-startup-resilience

Rohendi, A., Asriani, A., & Kharisma, D. B. (2023). Regulation for Startups in Indonesia: Problems and Recommendations. Cogent Business & Management, 10(3), 2276993. https://doi.org/10.1080/23311975.2023.2276993

Romano, A. L., Santos, C. H. D., Koch, C., Ubeda, C. L., Fogaça, D. R., Santos, F. C. A., & Freitas, V. (2025). Startups in the Era of Industry 4.0 and 5.0: Technologies, Decisions, Framing, and Competences. IEEE Access, 13, 187042–187057. https://doi.org/10.1109/ACCESS.2025.3627113

Siswanto, L. Z., Nur, R., Tamuliko, I. V., Fadillah, B. F., & Wahyudi, M. F. (2025). Failure Factors of Early-Stage Digital Startups: A Literature Review. International Conference on Digital Business Innovation and Technology Management, 1(2). https://proceeding.unesa.ac.id/index.php/iconbit/article/view/5690

Sudaryana, S. H., Wirjodirdjo, B., & Windharto, A. (2024). Conceptual Model for Digital Startup Policy to Accelerate the Success Rate in Indonesia. In R. Hurriyati, L. A. Wibowo, S. Sulastri, & L. Lisnawati (Eds.), Proceedings of the 8th Global Conference on Business, Management, and Entrepreneurship (GCBME 2023) (Vol.

288, pp. 396–401). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-443-3_52

Suhartini, D., Tjahjadi, B., & Fayanni, Y. (2024). Impact of Sustainability Reporting and Governance on Firm Value: Insights from the Indonesian Manufacturing Sector. Cogent Business & Management, 11(1), 2381087. https://doi.org/10.1080/23311975.2024.2381087

Wernerfelt, B. (1984). A Resource-Based View of the Firm. Strategic Management Journal, 5(2), 171–180. https://doi.org/10.1002/smj.4250050207

Wira, V., Lukviarman, N., Rahim, R., & Yonnedi, E. (2025). Exploring the Influence of Intangible Resources on Firm Value Across Major Indonesian Industrial Sectors: An RBV Perspective. Uncertain Supply Chain Management, 13(3), 507–524. https://doi.org/10.5267/j.uscm.2024.8.016

Xiong, F., Xie, M., Zhao, L., Li, C., & Fan, X. (2022). Recognition and Evaluation of Data as Intangible Assets. Sage Open, 12(2), 21582440221094600. https://doi.org/10.1177/21582440221094600