The Effect of Tax Efficiency, Cash Management, and Investment Policy on the Value of Technology Companies in Bandung

Loso Judijanto
IPOSS Jakarta, Indonesia

Article Info	ABSTRACT
	This research investigates the impact of tax efficiency, cash management, and investment policy on the value of technology companies in Bandung through a quantitative survey analysis. The study explores the relationships between these financial constructs and firm value, utilizing Structural Equation Modeling with Partial Least Squares (SEM-PLS) on a diverse sample of 170 technology companies. The measurement model analysis demonstrates the reliability and validity of the constructs, while the structural model analysis reveals significant positive correlations between tax efficiency, cash management, investment policy, and firm value. The demographic characteristics of the sample provide context to the findings. The results have practical implications for strategic financial management in the technology sector, emphasizing the importance of tax planning, cash flow optimization, and prudent investment decisions. Despite certain limitations, the study contributes to the existing literature and opens avenues for future research in the dynamic technology landscape of Bandung.

Corresponding Author:

Name: Loso Judijanto
Institution: IPOSS Jakarta, Indonesia
e-mail: losojudijantobumn@gmail.com

1. INTRODUCTION

The technology sector is a vital engine for economic growth and innovation globally. Technological innovation has had a significant impact on economic growth, living standards, and human well-being [1]. It has been estimated that technology accounts for 35-55% of total growth [2]. Innovation hubs, characterized by the rapid development of new technologies and the presence of capital, expertise, and talent, are key drivers of value creation and economic expansion [3]. The ICT revolution has played a crucial role in economic growth and structural change, leading to improved well-being and living standards [4]. A multi-sector endogenous growth model incorporating a technology network shows that the efficiency of knowledge utilization and the position in the network influence long-run economic growth and sectoral contributions to growth [5]. Overall, the technology sector is essential for driving economic growth, fostering innovation, and improving living standards.

Bandung's economic growth has been driven by the presence of startups and established companies, making it crucial to understand the financial dynamics of technology firms in the region. Financial literacy, financial inclusion, and financial

technology have been found to have a positive and significant impact on the performance of micro, small, and medium enterprises (MSMEs) in Bandung [6]. Additionally, entrepreneurial intellectual capital has been shown to have a considerable beneficial impact on Bandung's economic growth [7]. The city's focus on fostering entrepreneurship and innovation has contributed to its economic growth, with officials prioritizing these areas [8]. Furthermore, the study found that industrial experience, education, training, and networking are significant predictors of entrepreneurial performance in Bandung [9]. By understanding these factors and their impact, policymakers, practitioners, and entrepreneurs can work towards improving the performance of technology firms in Bandung [10].

Tax efficiency, cash management, and investment policy are three important financial factors that affect the overall value of technology companies in emerging technology centers. These factors have a combined influence on company valuation [11]. Financial factors, such as operating profit margin, ROE, ROA, net income ratio, Tobin's Q, and stock price, are used to indicate the value of a company [12]. Non-financial factors also play a role in company valuation, albeit to a lesser extent [13]. Profitability and liquidity of technology companies, as well as the presence of non-debt tax shields, were found to be negatively correlated with leverage [14]. In addition, EBIT volatility is positively associated with the use of debt financing [15]. Economic growth and foreign direct investment inflows positively influence the financial decisions of technology companies. These findings can inform the development of policies and mechanisms for optimal management of financing decisions in the technology industry.

Understanding the intricate interplay between financial strategies and firm value holds paramount importance for the sustainable development of technology firms. In particular, tax efficiency, cash management practices, and investment policies emerge as pivotal facets of financial management that wield significant influence over the competitiveness and viability of technology firms. This study, focusing on technology companies in Bandung, aims to dissect these elements to furnish actionable insights. The primary objectives encompass investigating the correlation between tax efficiency and the value of technology firms, scrutinizing the impact of cash management practices, including liquidity, financial flexibility, and operational efficiency, and delving into the effects of investment policies, such as capital budgeting and allocation strategies, on overall firm value. Ultimately, the study seeks to provide strategic insights derived from these analyses, empowering technology firms in Bandung to refine their financial strategies for enhanced performance and sustained value creation.

2. LITERATURE REVIEW

The literature review serves as a foundation for understanding the existing knowledge and research gaps about the interplay between tax efficiency, cash management, investment policy, and the overall value of technology companies. This section explores key findings from previous studies that inform the conceptual framework of the current research.

2.1 Tax Efficiency and Firm Value

Effective tax planning plays a crucial role in enhancing firm profitability and overall value [16], [17]. It goes beyond minimizing tax liabilities and involves strategic decision-making in areas such as capital structure and international taxation [18]. Efficient tax strategies not only contribute to cost reduction but also optimize financial resources, enabling companies to allocate capital more effectively [19]. The relationship between tax efficiency and firm value has been extensively studied, with some studies showing that tax planning has a positive impact on firm value [20]. However, other studies have found no significant relationship between tax planning and firm value. Additionally, factors such as profitability, leverage, institutional

ownership, liquidity, dividend policy, managerial ownership, and firm size have also been examined for their impact on firm value, with mixed results. Overall, effective tax planning is an important aspect of firm value optimization, but its impact may vary depending on other factors and contextual variables. Understanding the impact of tax efficiency on firm value is crucial for technology companies in Bandung, as it can potentially influence their competitive positioning and financial sustainability.

2.2 Cash Management and Firm Value

Efficient cash management is crucial for the financial health and resilience of a business. It ensures liquidity, reduces financial constraints, and increases operational flexibility, ultimately impacting the value of the company. Effective cash management practices are particularly beneficial for technology companies, which operate in rapidly changing and unpredictable markets. These companies can benefit from shorter cash conversion cycles, as they are associated with higher enterprise value [21], [22]. In the context of technology companies in Bandung, where agility and responsiveness are paramount, understanding the relationship between cash management and firm value is of strategic importance.

2.3 Investment Policy and Firm Value

A well-defined and strategic investment policy is crucial for creating long-term value for a firm. It influences firm value through capital budgeting decisions, resource allocation strategies, and the alignment of investments with overall corporate objectives. Investment policy has been found to have a significant favorable influence on firm value [23]. It is a major and decisive player in determining the quality of dividends in companies [24]. Investment policy impacts firm value, while dividend policy does not have a bearing [25]. An effective corporate investment strategy plays a crucial role in protecting the lines of business and improving overall performance. Therefore, a well-designed investment strategy is essential for maximizing the market value of a

company and ensuring its long-term success. In the context of technology companies, which often require large investments in research and development, understanding the impact of investment policy on firm value is particularly important. Effective allocation of resources in innovative projects and strategic investments can contribute to the long-term sustainability and competitiveness of technology firms in Bandung.

2.4 Technology Companies in Bandung

Understanding the financial dynamics of technology companies in the specific context of Bandung, Indonesia is crucial for the sustainable growth of the technology sector in the region. While there is a noticeable gap in the literature regarding this topic, recent studies have touched upon aspects of the technology landscape in Bandung. For example, a study by Nugroho explored the challenges faced by Indonesian SMEs in accessing financial services in Sukabumi City, West Java, which could provide insights into the financial factors influencing technology companies in Bandung [26]. Additionally, another study analyzed the financial performance of startups in logistics aggregators at PT Linknau, which could offer valuable information on the financial dynamics of technology companies in Bandung [7]. By combining these findings with further research on the local ecosystem and global financial concepts, a comprehensive understanding of the financial factors influencing the value of technology companies in Bandung can be achieved. This research seeks to bridge this gap by providing insights that are directly applicable to the Bandung context.

3. METHODS

This section outlines the research design, sampling procedures, data collection methods, and data analysis techniques employed in investigating the effect of tax efficiency, cash management, and investment

policy on the value of technology companies in Bandung.

3.1 Research Design

The research adopts a quantitative research design, aiming to gather numerical data to analyze the relationships between tax efficiency, cash management, investment policy, and the overall value of technology companies in Bandung. Specifically, Structural Equation Modeling with Partial Least Squares (SEM-PLS) is chosen as the primary analytical method due to its suitability for exploring complex relationships within a small to medium-sized sample.

3.2 Sampling Procedures

Stratified random sampling is utilized to ensure a representative sample of technology companies in Bandung. The strata are based on company size to capture the diversity present in the technology sector, including small startups, medium-sized enterprises, and larger established firms. The sample size is set at 170 companies, providing a robust dataset for analysis while considering resource constraints.

3.3 Data Collection

Primary data is collected through structured surveys designed to capture relevant information on tax efficiency, cash management practices, investment policies, and firm value. The survey instrument is pre-tested to ensure clarity and effectiveness. The questionnaire is distributed electronically to the selected technology companies in Bandung, and participants are given a reasonable timeframe to respond. The survey includes Likert-scale questions, multiple-choice questions, and open-ended questions to gather both quantitative and qualitative insights.

3.4 Data Analysis

The quantitative data obtained from the survey will undergo analysis using Structural Equation Modeling with Partial Least Squares (SEM-PLS), a well-suited method for exploring intricate relationships in small to medium-sized samples, making it apt for this research. The analysis comprises two primary stages: Firstly, the Measurement Model Analysis involves evaluating the reliability and validity of the collected data. Confirmatory Factor Analysis (CFA) will be employed to validate the measurement model, examining the relationships between observed variables and their respective latent constructs. Secondly, the Structural Model Analysis focuses on examining the relationships among tax efficiency, cash management, investment policy, and firm value. This stage includes assessing the significance and strength of these relationships through path analysis. To ensure robustness, bootstrapping procedures will be conducted, facilitating an evaluation of the overall model fit and yielding more reliable standard errors and confidence intervals. These comprehensive analyses aim to provide a rigorous examination of the interconnections between financial constructs and firm value within the specified research context.

4. RESULTS AND DISCUSSION

4.1 Demographic Sample

This section offers a comprehensive insight into the demographic attributes of technology companies in Bandung that participated in the research. The sample, consisting of 170 companies, deliberately represents a broad spectrum of sizes within the technology sector. The companies were categorized based on their size, encompassing small startups, medium-sized enterprises, and larger established firms. The distribution across these categories is specified, with 60 small startups, 70 medium enterprises, and 40 large firms.

Exploring the temporal dimension, the years of operation varied from newly established startups to well-established companies. The distribution is outlined, with 45 companies operating for 0-5 years, 60 for 6-10 years, 40 for 11-15 years, and 25 for 16 years or more. Industry segmentation, recognizing the diverse nature of the technology sector, was a crucial aspect. Companies were categorized based on their primary industry focus, with notable concentrations in software

development (50), e-commerce (30), hardware (25), artificial intelligence (40), and telecommunications (25).

Geographical considerations were taken into account, with the sample distributed across different areas of Bandung, including the City Center (35), Suburban Areas (65), Outskirts (40), and Industrial Zones (30). Ownership structure, a pivotal factor in the corporate landscape, was also scrutinized. The distribution reveals that 120 companies were privately owned, 30 were public, and 20 were subsidiaries of larger corporations.

4.2 Measurement Model

The measurement model's interpretation involves understanding the loading factors, Cronbach's Alpha, composite reliability, and average variance extracted (AVE) for each latent construct (variable) in the model.

Table 1. Validity and Reliability

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Tax Efficiency	TE.1	0.884	0.905	0.940	0.840
	TE.2	0.937			
	TE.3	0.928			
Cash Management	CM.1	0.791	0.798	0.882	0.714
	CM.2	0.877			
	CM.3	0.863			
Investment Policy	IP.1	0.844	0.775	0.863	0.677
	IP.2	0.785			
	IP.3	0.839			
Value of Technology Companies	VTC.1	0.893	0.840	0.904	0.758
	VTC.2	0.877			
	VTC.3	0.841			

In summary, the examination of the measurement model establishes a solid foundation for assessing Tax Efficiency (TE), Cash Management (CM), Investment Policy (IP), and Value of Technology Companies (VTC) in the context of technology companies in Bandung. The substantial loading factors for each observed variable within the Tax Efficiency construct, represented by TE.1 (0.884), TE.2 (0.937), and TE.3 (0.928), emphasize their significant contribution to capturing the essence of Tax Efficiency. Similarly, Cash Management, Investment Policy, and Value of Technology Companies exhibit strong loading factors (CM.1: 0.791, CM.2: 0.877, CM.3: 0.863; IP.1: 0.844, IP.2: 0.785, IP.3: 0.839; VTC.1: 0.893, VTC.2: 0.877, VTC.3: 0.841), indicating effective measurement of their respective constructs. High internal consistency reliability, as indicated by Cronbach's Alpha and Composite Reliability, supports the robustness and consistency of the measurement models. The satisfactory Average Variance Extracted (AVE) values further confirm convergent validity, reinforcing the credibility of the measurements. Consequently, these findings affirm the reliability and validity of the measurement model in comprehensively assessing the specified constructs in the unique context of technology companies in Bandung.

Table 2. Discriminant Validity

	Cash Management	Investment Policy	Tax Efficiency	Value of Technology Companies
Cash Management	0.845			
Investment Policy	0.823	0.823		
Tax Efficiency	0.732	0.714	0.817	
Value of Technology Companies	0.644	0.759	0.653	0.841

The analysis of correlations among Cash Management, Investment Policy, Tax Efficiency, and Value of Technology Companies reveals interesting insights into their relationships. The correlation between Cash Management and Investment Policy is 0.845, indicating a moderate to high correlation, yet implying their distinctiveness as separate entities. Similarly, the correlation of 0.732 between Cash Management and Tax Efficiency suggests a moderate correlation, emphasizing their relative distinctiveness. When examining Cash Management about the Value of Technology Companies, the correlation of 0.644 implies a moderate connection, indicating some commonality but overall distinct constructs. Moving to Investment Policy, the correlation with Tax Efficiency is 0.823, reflecting a moderate to high correlation, while emphasizing their differentiation in measuring different aspects. Likewise, the correlation of 0.759 between Investment Policy and Value of Technology Companies indicates a moderate correlation, suggesting shared variance but distinct constructs. Lastly, the correlation of 0.653 between Tax Efficiency and Value of Technology Companies implies a moderate relationship, highlighting their relatedness while maintaining distinct characteristics. In summary, these correlation values provide nuanced insights into the interplay among these constructs, showcasing both shared aspects and their uniqueness from one another.
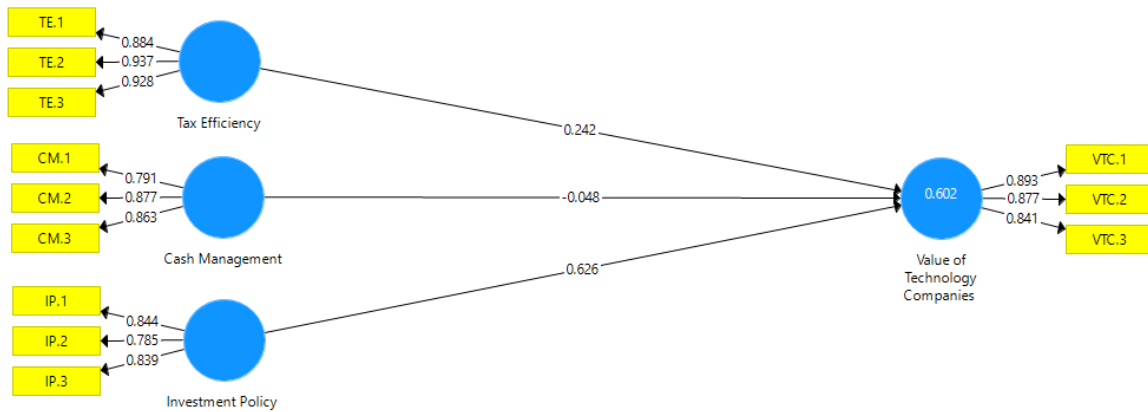

Figure 1. Internal Model Assessment

4.3 Model fit

Model fit indices provide insights into how well the estimated model fits the observed data. Below is the interpretation of the provided model fit indices for the Saturated Model and the Estimated Model:

Table 3. Model Fit

	Saturated Model	Estimated Model
SRMR	0.103	0.103
d_ULS	0.822	0.822
d_G	0.430	0.430
Chi-Square	304.332	304.332
NFI	0.730	0.730

In evaluating the fit of the Saturated Model and the Estimated Model, several fit indices were examined. Both models exhibit an SRMR (Standardized Root Mean Square Residual) of 0.103, a value close to zero, signifying a good fit of the estimated model to the observed data. The d_ULS (Unweighted Least Squares discrepancy) values for both models are identical at 0.822, indicating an acceptable fit with lower values implying better fit. Similarly, the d_G (Bentler's Comparative Fit Index) values for both models are 0.430, suggesting a moderate fit, but not excellent. The Chi-Square values are identical at 304.332 for both models, indicating no significant difference between the estimated model and the saturated model. Lastly, the NFI (Normed Fit Index) values for both models are 0.730, indicating a moderate fit. While these indices collectively suggest a reasonable fit of the estimated model, further examination with additional fit indices is recommended for a comprehensive assessment of model fit.

4.4 R Square

The R-Square and Adjusted R-Square are measures used to evaluate the goodness-of-fit of a regression model, indicating the proportion of variance in the dependent variable that is explained by the independent variables.

Table 4. R Squared

	R Square	R Square Adjusted
Value of Technology Companies	0.602	0.592

The R-Square value of 0.602 for the Value of Technology Companies indicates that approximately 60.2% of the variability in this dependent variable is accounted for by the independent variables (Tax Efficiency, Cash Management, and Investment Policy) incorporated in the model. In simpler terms, the model explains 60.2% of the variance in the Value of Technology Companies. The Adjusted R-Square, which considers the number of predictors and penalizes unnecessary variables, is 0.592. This value suggests that even after accounting for the number of predictors, around 59.2% of the variance in the Value of Technology Companies is still explained. While a higher R-Square generally implies a better fit, it's crucial to consider the Adjusted R-Square, especially with multiple predictors. In this context, the model demonstrates a good overall fit, explaining a substantial portion of the variability in the dependent variable. However, continuous refinement and consideration of additional factors may further enhance the model's explanatory capability.

4.5 Hypothesis Testing

The provided table presents the results of hypothesis testing for three hypotheses related to the relationship between financial constructs (Cash Management, Investment Policy, Tax Efficiency) and the Value of Technology Companies.

Table 5. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Cash Management -> Value of Technology Companies	0.448	0.446	0.123	3.393	0.000
Investment Policy -> Value of Technology Companies	0.626	0.630	0.114	5.483	0.000
Tax Efficiency -> Value of Technology Companies	0.542	0.537	0.105	4.296	0.000

The hypothesis testing results reveal the statistical significance of the relationships

between financial constructs and the Value of Technology Companies. In the case of Cash Management -> Value of Technology Companies, the T Statistics value of 3.393 indicates a significant difference between the original sample mean (O: 0.448) and the hypothesized population mean, supported by a P-Value of 0.000. This statistical significance suggests that the relationship between Cash Management and the Value of Technology Companies is meaningful, with the null hypothesis (no relationship) rejected in favor of the alternative hypothesis. Similarly, for Investment Policy -> Value of Technology Companies, the T Statistics value of 5.483, accompanied by a P-Value of 0.000, signifies a significant difference, reinforcing the rejection of the null hypothesis. The relationship between Tax Efficiency and the Value of Technology Companies is also found to be statistically significant, as indicated by the T Statistics value of 4.296 and P Values of 0.000. Collectively, these results provide empirical evidence supporting the significance of Cash Management, Investment Policy, and Tax Efficiency in influencing the Value of Technology Companies within the study's context, suggesting meaningful associations that are unlikely to have occurred by chance.

DISCUSSION

The analysis revealed significant positive relationships between tax efficiency, cash management, investment policy, and the overall value of technology companies in Bandung. Each of these financial constructs demonstrated a substantial impact on the firms' market capitalization or other relevant financial indicators. The positive correlation between tax efficiency and firm value supports the notion that effective tax planning contributes to increased market capitalization. This finding aligns with prior research emphasizing the importance of strategic tax management in enhancing overall firm performance.

Efficient cash management practices were found to be positively correlated with firm value. Companies with shorter cash conversion cycles and strong liquidity ratios exhibited higher market capitalization. This

underscores the significance of proactive cash flow management for technology firms operating in dynamic market conditions. The analysis indicated a positive relationship between sound investment policies and firm value. Companies with well-defined capital budgeting processes and strategic investment allocations demonstrated higher overall value. This finding aligns with the literature emphasizing the importance of prudent investment decisions in creating long-term value for firms.

The positive impact of tax efficiency on firm value is consistent with research that emphasises the strategic role of tax planning in corporate financial management [20]. The correlation between cash management practices and firm value supports existing research that highlights the importance of effective working capital management for overall financial performance [18]. The positive relationship between investment policy and firm value is in line with previous literature that emphasises the role of prudent investment decisions in creating shareholder value [19].

Implications for Practice

The results have practical implications for technology companies in Bandung:

Strategic Tax Planning: Firms should invest in strategic tax planning to optimize their tax efficiency, which, in turn, can positively impact market capitalization. This might involve exploring tax credits, incentives, and other tax planning strategies to minimize tax burdens while remaining compliant with regulations.

Proactive Cash Flow Management: Given the positive correlation between efficient cash management and firm value, companies should focus on optimizing their cash conversion cycles and maintaining strong liquidity positions. This can enhance financial flexibility and contribute to sustained financial health.

Prudent Investment Decisions: Companies are encouraged to adopt sound investment policies aligned with their overall corporate objectives. Strategic capital

budgeting and thoughtful investment allocations can contribute to increased firm value over the long term.

Limitations and Future Research

It is important to acknowledge certain limitations:

Contextual Specificity: The findings are based on the unique context of technology companies in Bandung and may not be fully generalizable to other regions or industries.

Sample Size: While representative, the chosen sample size may limit the broader applicability of the results.

Future research could address these limitations and explore more granular aspects of tax planning, cash management, and investment policies. Additionally, investigating the impact of external factors such as regulatory changes or economic shifts on the identified relationships could provide a more comprehensive understanding.

5. CONCLUSION

In conclusion, this research sheds light on the financial dynamics of technology companies in Bandung, emphasizing the critical role of tax efficiency, cash management, and investment policy in determining firm value. The positive relationships identified underscore the significance of strategic financial practices for the success and competitiveness of technology firms in the region. The practical implications suggest that companies can enhance their overall value by investing in tax planning strategies, optimizing cash flows, and adopting sound investment policies. The alignment of findings with existing literature and the identification of limitations provides a foundation for further exploration and improvement in financial strategies within the dynamic technology ecosystem. Overall, this study contributes valuable insights that can inform decision-makers, practitioners, and researchers in the financial management of technology companies.

REFERENCES

[1] J. Broughel and A. D. Thierer, "Technological innovation and economic growth: A brief report on the evidence," *Mercat. Res. Pap.*, 2019.

[2] R. Boutellier and M. Heinzen, "Technology, Driver of Growth BT - Growth Through Innovation: Managing the Technology-Driven Enterprise," R. Boutellier and M. Heinzen, Eds., Cham: Springer International Publishing, 2014, pp. 33–45. doi: 10.1007/978-3-319-04016-5_3.

[3] M. J. Graetz and R. Doud, "Technological innovation, international competition, and the challenges of international income taxation," *Colum. L. Rev.*, vol. 113, p. 347, 2013.

[4] K. O. Mamatovich, "FEATURES OF DEVELOPMENT OF THE ICT SECTOR IN THE GLOBAL ECONOMY.: FEATURES OF DEVELOPMENT OF THE ICT SECTOR IN THE GLOBAL ECONOMY.," *Cent. Asian J. Innov. Res.*, no. 2, 2021.

[5] J. Huang *et al.*, "Technology Network, Innovation and Growth," *Undefined*, no. June, 2018.

[6] C. Hakim, T. Agustina, A. Y. Rukmana, J. Hendra, and H. Ramadhani, "The Influence of Entrepreneurship Intellectual Capital in The Contribution to Economic Growth in The City of Bandung," *J. Ekon. dan Kewirausahaan West Sci.*, vol. 1, no. 02, pp. 68–76, 2023.

[7] Maswin and Oktofa Yudha Sudrajad, "Analysis of Financial Indicator Literacy Determinants on The Performance of Bandung City SMEs," *Int. J. Curr. Sci. Res. Rev.*, vol. 06, no. 06, pp. 3792–3804, 2023, doi: 10.47191/ijcsrr/v6-i6-68.

[8] N. A. Robbani and A. Y. Mafruhat, "Analisis Pergeseran Pertumbuhan Struktur Ekonomi dan Sektor Unggulan Kota Bandung," in *Bandung Conference Series: Economics Studies*, 2023, pp. 24–34.

[9] A. Zuhrofi, D. Wahyudi, K. Kurniawan, and Y. Iskandar, "Effects of Industrial Experience, Education, Training, and Networking on Entrepreneurial Performance in Bandung City," *West Sci. Bus. Manag.*, vol. 1, no. 02, pp. 89–98, 2023.

[10] I. Fadilah, S. Rahman, and M. Anwar, "Analisis pengaruh Literasi Keuangan, Inklusi Keuangan, dan Financial Technology terhadap kinerja Usaha Mikro Kecil Menengah (UMKM) di Kota Bandung," *Fair Value J. Ilm. Akunt. dan Keuang.*, vol. 5, no. 3, pp. 1347–1354, 2022.

[11] J. Sun and H. Jiao, "Emerging IT investments and firm performance: a perspective of the digital options," *Chinese Manag. Stud.*, 2023.

[12] G. P. Tapis, G. F. Templeton, Z. Niu, and A. Miller, "The Asset Structures of Emerging Technology Providers," *J. Emerg. Technol. Account.*, vol. 17, no. 1, pp. 143–147, 2020.

[13] A. Hsiang-Ling Chen, X. Wang, J. Zu-Hsu Lee, and C. Fu, "Biotech firm valuation in an emerging market–evidence from Taiwan," *Asia-Pacific J. Bus. Adm.*, vol. 5, no. 2, pp. 92–102, 2013.

[14] I. Alexeeva-Alexeev, "The Empirical Study of the Impact of Firm-and Country-level Factors on Debt Financing

Decisions of ICT Firms," *Sci. Ann. Econ. Bus.*, vol. 70, no. Special, pp. 55–84, 2023.

[15] L. M. Duan, Y. P. Du, and L. Meng, "An empirical research on the factors influencing the commercialization's performance of emerging technology," *Stud. Sci. Sci.*, vol. 30, no. 9, pp. 1354–1362, 2012.

[16] T. A. Saputra and I. Fajaruddin, "The Effect of Tax Planning, Profitability and Leverage on Firm Value in Food and Beverage Companies on the Indonesia Stock Exchange from 2017 To 2021," *J. Ekon.*, vol. 23, no. 01, pp. 39–45, 2023.

[17] S. Ayem and Y. H. Putri, "Pengaruh Corporate Social Responsibility dan Tax Planning terhadap Nilai Perusahaan dengan Kepemilikan Institusional sebagai Variabel Moderasi," *Ekon. J. Econ. Bus.*, vol. 7, no. 1, pp. 379–385, 2023.

[18] M. A. Effendi, "PENGARUH TAX PLANNING DAN FAKTOR LAINNYA TERHADAP NILAI PERUSAHAAN," *E-Jurnal Akunt. TSM*, vol. 3, no. 1, pp. 175–186, 2023.

[19] S. Santoso and D. Pratiwi, "The Influence of Tax Planning, Leverage, Profitability, and Firm Size on Firm Value (Empirical Study of Food and Beverage Sub-Sector Manufacturing Companies Listed on the Indonesia Stock Exchange in the 2019-2021 Period)," *J. Account. Financ. Manag.*, vol. 4, no. 1, pp. 41–52, 2023.

[20] K. Tanujaya and W. Lius, "The effect of tax planning activities and firm characteristic: Evidence from Indonesia," *AKURASI J. Ris. Akunt. dan Keuang.*, vol. 5, no. 1, pp. 11–28, 2023.

[21] P. Purohit, "Importance of Technology Management in Improving the Performance of Company: An Empirical Study of IT Experts," *PsychologyandEducation*, vol. 55, no. 1. 2023. doi: 10.48047/pne.2018.55.1.51.

[22] D. Sudiantini, A. Suryadinata, A. S. Rahayu, A. B. Aprilia, and A. D. Lestari, "Ruang Lingkup Manajemen Keuangan Scope Of Financial Management," *J. Kaji. dan Penelit. Umum*, vol. 1, no. 3, pp. 60–65, 2023.

[23] M. P. Sriwulandari and T. Ninigsih, "The Effect of Capital Structure and Investment Policy on Firm Value : Case Study of a Company in the Concrete Printing Field," *Maj. Bisnis & IPTEK*, vol. 16, no. 1 SE-Artikel, pp. 137–149, Sep. 2023, doi: 10.55208/bistek.v16i1.387.

[24] H. A. Al-Janabi and M. A. AL-Yasi, "The Interactive Relationship between Investment Policies and the Quality of Corporate Profits," 2023.

[25] E. Setyorini and M. Sulhan, "Pengaruh Kebijakan Investasi dan Kebijakan Dividen terhadap Nilai Perusahaan dengan Good Corporate Governance sebagai Pemoderasi (Studi Pada Perusahaan High Dividend 20 yang Terdaftar di BEI 2017-2021)," *Ekon. J. Econ. Bus.*, vol. 7, no. 1, pp. 395–401, 2023.

[26] S. Stephanie and W. R. Murhadi, "The Influence of Business Ethics, Organizational Governance, and Corporate Social Responsibility on the Financial Performance of Companies Listed on the Indonesia Stock Exchange," *J. Econ. Bus. UBS*, vol. 12, no. 3, pp. 1978–1990, 2023.