# The Power of Digitalization: How Information Disclosure Shapes Company Value

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***Abstract*—This study aims to explore how business digitalization influences firm value within the Indonesia Stock Exchange (IDX). It seeks to offer a thorough examination of the effects of digital transformation on corporate valuation. The findings highlight a strong positive correlation between digitalization and firm valuation, supporting signaling theory, which asserts that a company's transparency in disclosing its digital transformation efforts serves as a strategic indicator for investors and consumers. Greater transparency and specificity in disclosing digitalization information improve perceptions of corporate stability and future growth prospects, ultimately increasing firm value. As Indonesia undergoes rapid digital transformation, this research gains heightened relevance by offering critical insights into how companies that proactively communicate their digitalization strategies can strengthen their market positioning and secure a competitive edge in the financial landscape. This study makes a significant contribution by providing empirical evidence on the role of business digitalization in shaping firm value, particularly in an emerging market context where digital adoption is accelerating. This investigation highlights the strategic importance of digitalization disclosure in the Indonesian market, offering novel insights into how transparency in digital initiatives can serve as a competitive advantage.**

***Keywords*—*Information; digitalization; business; firm value***

## I. INTRODUCTION

Company value reflects how investors perceive a company's achievements and future growth potential. A rise in company value strengthens market trust, indicating confidence not only in the firm's present performance but also in its long-term outlook [1]. Therefore, company value is a crucial factor that investors consider when selecting investment companies. By choosing high-value companies, investors are expected to achieve greater financial well-being. Company with a high value using Tobin's Q ratio tend to attract more investment because investors see it as an indication that the company has better growth potential compared to others [2]. Some investors are more likely to invest in companies with high value due to a perception of lower risk [3]. However, accurately estimating company value remains a challenge for investors due to the numerous factors that influence it. These determinants can be categorized into controllable (internal) factors, which a company can manage, and uncontrollable (external) factors, which are beyond the company's control. Consequently, companies focus more on internal aspects, as they are relatively easier to manage and optimize to enhance company value.

One such internal factor is business digitalization, which is part of intangible assets. Research has shown that intangible assets play a significant role in creating a competitive advantage, ultimately contributing to increased company value. Innovation, technology, and digitalization stand out as some of the most impactful elements within the broader spectrum of intangible assets [4]. Empirical research emphasizes the beneficial effects of investments in R&D and information and communication technology (ICT) on a company's overall [5], [6]. Similarly, [7] provide evidence that digitalization positively influences company performance.

As digitalization continues to gain significance, investors are increasingly considering information about digital processes when making investment decisions. Despite its growing importance, this information is often absent from financial disclosures due to the challenges in measuring it in monetary terms [8]. Similarly, non-financial disclosures do not always provide a comprehensive representation of a company's digitalization level. Integrated reporting offers only limited insights into digitalization, primarily emphasizing intellectual capital [9]. Both non-financial disclosures and integrated reporting generally categorize digitalization as a component of structural capital rather than recognizing it as a key independent factor.

Numerous prior studies have examined how digitalization contributes to improved financial performance. One key aspect is its ability to enhance products, services, and operational workflows, enabling more effective commercialization. Additionally, digitalization broadens communication channels through platforms like websites and social media, expands sales strategies via e-commerce, and reshapes business models to unlock new growth opportunities. This, in turn, strengthens relationships with stakeholders and optimizes company processes, ultimately boosting financial performance [7], [10], [11]. Second, digitalization enhances access to international markets, providing new business opportunities while reducing costs associated with acquiring new customers, partners, and suppliers worldwide [12], [13]. This process contributes to revenue growth and cost reduction, thereby improving financial performance [10]. Third, increased efficiency and productivity arise from automation, improved production unit control, and optimized human resource management through digital tools, leading to cost reductions and enhanced financial performance [8]. Finally, digitalization lowers communication, administrative, and commercial costs, while expanding financial accessibility, further driving performance improvements [10].

The adoption of digitalization is widespread across Asian countries. According to the "DBS Digital Treasurer 2020" survey, Indonesia ranks third in Southeast Asia for digitalization usage. Regarding digital readiness, approximately 26% of

Indonesian companies have a clear digitalization strategy, compared to 45% in Singapore and 32% in Thailand. Indonesia holds the seventh position in digital readiness within the Asia-Pacific (APAC) region, trailing behind Singapore (45%), Hong Kong (44%), Japan (41%), Taiwan (39%), South Korea (39%), and Thailand (32%).

Information disclosure policies play a crucial role in enhancing transparency for investors and stakeholders [14]. According to signaling Theory [15], companies use information as signals to attract investors and demonstrate their competitive advantage. Companies with strong performance are motivated to share more information, both explicitly and implicitly, to strengthen their market standing and attract investment. The assumption underlying signaling theory is that investors assess a company's value based on management's ability to anticipate and respond to external market changes [16].

Previous research conducted by study [17] explored how business digitalization information disclosure affects company value through websites. In contrast, this study examines the impact of business digitalization information disclosure on company value by analyzing corporate disclosures through both websites and social media. The previous study only disclosed information through websites, but this study also incorporates the identification of twelve additional items related to various aspects of company digitalization, assessed through the company's official social media accounts. The findings of this study are expected to assist companies in formulating policies regarding the types of digitalization-related information that should be disclosed and how such disclosures through different publication channels can influence investor confidence in the company.

The remaining of this article is structured as follows. Section II provides an overview of the relevant literature review and theoretical background, while Section III outlines the research methodology. Section IV presents the results and discussion. Finally, Section V draws conclusions.

## II. Literature Review

### A. Signaling Theory

Signaling theory addresses the challenges of asymmetric information in markets. This theory argues when there is an imbalance of information between two parties' individuals with higher qualifications or abilities can signal their value to other through observable indicators. In the context of corporate finance, signaling theory suggests that companies can use various signals to convey their quality to investors [18].

Signaling theory describes how companies convey information to financial statement users. It helps explain behaviors arising from differences in information access between two parties, whether individuals or organizations. Typically, the sender determines whether and how to communicate specific information, while the receiver evaluates and interprets the signal. Given its relevance, signaling theory plays a significant role in various management fields, including strategic management, entrepreneurship, and human resource management [16].

### B. Asymmetry Information

The research in [19] stated that Information asymmetry refers to a situation where one party in a relationship possesses greater or more accurate information than the other. This concept is extensively recognized in management research and serves as a fundamental premise in prominent organizational theories. Information plays a crucial role in shaping decision-making processes across households, businesses, and government entities. People rely on two types of information when making decisions: public information, which is openly accessible to everyone, and private information, which is restricted to a specific group within the public. The study in [15] explains that information asymmetry occurs when "different people know different things." Since some information is private, information asymmetry arises between those who possess that information and those who could potentially make better decisions if they had access to it.

Extensive research has been conducted on the influence of information on company value. With advancements in technology, information channels have expanded and evolved, leading to significant transformations in the way information is disseminated. Digitalization represents one of these key developments, revolutionizing the process of information delivery. Several studies have explored the role of digitalization in enhancing information flow. As highlighted by Rasouli et al., (2019), manufacturing companies benefit from adopting a service-oriented approach by developing mass-customized integrated solutions, where digitalization plays a vital role in supporting these business models [20]. However, companies can still transition from a product-based model to a service-driven strategy without heavily relying on digital elements in their offerings [21].

Despite the opportunities digitalization provides, it has not yet become an integral part of many small and medium-sized enterprises (SMEs). The study in [22] found that few Finnish SMEs have adopted digitalized production processes or implemented new product introduction models. However, even in such cases, digitalization has demonstrated a positive impact on company performance, particularly in business development. The research in [23] further highlights the role of digitalization in market orientation (MO) by transforming how market intelligence is generated, disseminated, and responded to. With digitalization, market intelligence is produced faster, more efficiently, and at a lower cost.

Previous studies have thoroughly investigated the influence of various types of information disclosure on company value. Research conducted by studies [24], [25], [26] indicates that voluntary corporate information disclosure has a positive impact on company value, as evidenced by analyses of company reports. Likewise, the study in [27] affirmed this positive correlation by assessing the information presented on company websites. Further validation came from [28], who examined integrated reports as a crucial source of corporate data.

Moreover, environmental information disclosure has also been found to contribute positively to company value, as demonstrated by studies [29], [30], [31] and [32]. Similarly, corporate social responsibility (CSR) disclosures have been linked to an increase in company value [33]. Additionally, the

study in [15] emphasized the beneficial effects of intellectual capital disclosure on firm value. Building on this, the study [17] discovered that the extent of business digitalization information disclosed through the International Integrated Reporting Council website plays a significant role in enhancing company value.

Likewise, information regarding the level of digitalization is considered valuable, even though it is not captured in financial disclosures due to the difficulty of quantifying it monetarily [34]. Additionally, non-financial disclosures pay relatively limited attention to the digitalization aspects of a company, often categorizing them merely as a subcategory of structural capital within the context of intangible asset information. Furthermore, non-financial information disclosure standards do not require the inclusion of digitalization-related information. This situation makes it difficult for investors to utilize the information, leading to significant information asymmetry. In this context, the dissemination of digitalization-related information can have a major impact on investor perception and contribute to increasing company value. Based on the literature review, the researchers propose a hypothesis as follows:

H1: Information disclosure regarding business digitalization positively influences company value.

## III. METHODS

### A. Variable Measurement

The criterion variable in this research is firm value, represented by Tobin's Q, while the predictor variable is digitalization-related information. Furthermore, this study integrates several control variables, namely firm size (SIZE), return on assets (ROA) as a measure of profitability, current ratio (CR) as a liquidity indicator, and financial leverage to assess the level of indebtedness. The research population encompasses all firms publicly traded on the Indonesia Stock Exchange (IDX) from 2022 to 2024. The sample selection follows a purposive sampling approach, restricting the inclusion of firms based on predefined criteria.

Within this study, firm value is represented by Tobin's Q, a sophisticated financial metric designed to evaluate a company's valuation by considering the aggregate worth of both tangible and intangible assets. Additionally, Tobin's Q functions as a pivotal benchmark for corporate performance, particularly in assessing firm valuation, as it encapsulates management's proficiency in deploying corporate assets efficiently [35].

Tobin's Q assessment ranges from 0 - 1, where the company's value is considered high if it has a value greater than one (>1) which shows that management is successful in managing the company's assets so that the potential for investment growth is also high. On the other hand, if Tobin's Q value is less than 1 (<1), it indicates that management has failed to manage the company's assets where the potential for investment growth is low. The value of the company is smaller than the value of the company's assets and the investment in assets is not attractive. In the research of [17], Tobin's Q Ratio was formulated as follows:

$$TQ = \frac{MVE + Debt}{TA}$$

The independent variable in this study is information on business digitalization (ID), which is disclosed directly or indirectly by companies through their websites and social media platforms. Digitalization is a multifaceted concept that cannot be captured by a single indicator, as it represents an ongoing transformation where companies leverage digital technologies to generate revenue, enhance business operations, modify or replace traditional business processes, and establish a digital-centric environment [36]. In this study, ID was assessed using manual content analysis, examining company websites and social media for relevant digitalization disclosures. According to [37], content analysis serves as an effective method for evaluating a company's website and the dissemination of corporate information, given its systematic approach to analyze textual and visual content.

Based on study [17], twenty-three items related to various aspects of company digitalization were identified. These twenty-three items were analyzed by categorizing the data into five macro-categories, which are as follows: (1) digital communication instruments, (2) e-commerce, (3) data management, (4) information on digitalization and related activities, and (5) investment in digitalization and related activities. The different macro categories and specific items are detailed in Table I. Each item is treated as a binary measure, assigned a value of 1 if it is present on the company's website and 0 if it is not. All items carry equal weight in the final score calculation. Based on the results, the overall score ranges from zero to twenty-three.

Furthermore, this study also incorporates the identification of twelve (12) additional items related to various aspects of company digitalization, assessed through the company's official social media accounts (Facebook and Instagram). These twelve items are classified into three macro categories, as follows: (1) digital communication instruments, (2) e-commerce, and (3) information on digitalization and related activities. The different macro categories and specific items are also described in Table I. Each item is similarly treated as a binary measure, assigned a value of 1 if it is present on the company's official social media platforms (Facebook/Instagram) and 0 if it is not. All items carry equal weight in the final score calculation. Based on the results, the overall score ranges from zero to twelve.

### B. Data Analysis

The data analysis method employed in this study is multiple linear regression analysis**,** which examines the relationship between the level of digitalization information and company value**.** A cross-sectional analysis was used, as the study focuses solely on data from 2023 and does not account for business digitalization information from other periods. The proposed model in this study is as follows:

$$TQ = \alpha + \beta_1 ID + \beta_2 SIZE + \beta_3 ROA + \beta_4 LIK + \beta_5 LEV + \epsilon_{it}$$

TQ : Tobin's Q
ID : Digitalization Information i in Year t
SIZE : Company size i in year t
ROA : Company profitability in year t
LIK : Company liquidity in year t
LEV : The level of corporate debt in year t
$\epsilon_{it}$ : *error term*

TABLE I. LEVEL OF DIGITALIZATION INFORMATION

| Category | Item | |
|---|---|---|
| | ***Website*** | ***Social media*** |
| Digital communication instruments | 1. E-mail<br>2. Access to restricted areas<br>3. Web application<br>4. *Document sharing* and cloud applications<br>5. Positioning on search engines<br>6. *Mobile version* of the website | 1. E-mail<br>2. Social Media Accounts<br>3. Positioning on search engines |
| *E-commerce* | 7. Online *product catalogue*<br>8. Online shopping<br>9. Online payments | 4. Online *product catalogue*<br>5. Online shopping<br>6. Online payments |
| Data management | 10. Data protection policy<br>11. *Privacy Policy* | |
| Information on digitalization and related activities | 12. *Inbound logistics*<br>13. Operation<br>14. *Outbound logistics*<br>15. Administration<br>16. Marketing and sales<br>17. After-sales service | 7. *Inbound logistics*<br>8. Operation<br>9. *Outbound logistics*<br>10. Administration<br>11. Marketing and sales<br>12. After-sales service |
| Investment in digitalization and related activities | 18. *Inbound logistics*<br>19. Operation<br>20. *Outbound logistics*<br>21. Administration<br>22. Marketing and sales<br>23. After-sales service | |

Source: [17].

## IV. RESULT AND DISCUSSION

### A. Samples

The total population comprises 729 companies that were either previously or are currently listed on the Indonesia Stock Exchange (IDX) in 2023. Based on the established purposive sampling criteria, data were collected from 589 companies.

TABLE II. SAMPLE DISTRIBUTION BY INDUSTRY SECTORS

| No | Sector | Number | Percentage |
|---|---|---|---|
| 1 | Energy | 55 | 9,34 |
| 2 | Raw materials | 72 | 12,22 |
| 3 | Industry | 34 | 5,77 |
| 4 | Primary consumer goods | 91 | 15,45 |
| 5 | Non-primary consumer goods | 77 | 13,07 |
| 6 | Health | 19 | 3,23 |
| 7 | Finance | 99 | 16,81 |
| 8 | Property and Real Estate | 57 | 9,68 |
| 9 | Technology | 16 | 2,72 |
| 10 | Infrastructure | 46 | 7,81 |
| 11 | Transport and logistics | 23 | 3,90 |
| 12 | Investment products recorded | 0 | 0 |
| | Total Amount | 589 | 100 |

The distribution of samples based on the classification of industrial sectors on the Indonesia Stock Exchange (IDX) is presented in Table II. Among the 589 companies classified into 12 industrial sectors, the financial sector had the highest representation, with 99 companies (16.81%). The primary consumer goods sector followed, comprising 91 companies (15.45%), while the non-primary consumer goods sector accounted for 77 companies (13.07%), and the raw materials sector included 72 companies (12.22%). Additionally, the data confirms that there are no companies listed in the investment product sector. The sector with the fewest companies was the technology sector, with only 16 companies (2.72%). Table III provides a summary of descriptive statistics, including the mean, median, maximum value, minimum value, and standard deviation.

TABLE III. DESCRIPTIVE STATISTICS OF THE ENTIRE SAMPLE

| | Tobin's Q | ID | Size | ROA | Leverage | Current Ratio |
|---|---|---|---|---|---|---|
| *Mean* | 2,211939 | 18,09847 | 28,51201 | 0,017303 | 0,613315 | 4,932209 |
| *Median* | 1,116190 | 18,00000 | 28,46679 | 0,007985 | 0,491759 | 1,470415 |
| *Max* | 136,2433 | 34,00000 | 34,95208 | 8,332658 | 36,69574 | 340,1692 |
| *Min* | 0,124526 | 6,000000 | 22,62331 | -2,485245 | 0,000160 | 0,000270 |
| *Std. Dev.* | 7,713862 | 6,462646 | 1,980518 | 0,516019 | 1,611423 | 22,75380 |

### B. Regression Test Results

Table IV depicts the regression test results examining the impact of business digitalization information level on company value, using the Robust Least Squares method with MM estimation. As shown in Table VI, three regression models are analyzed Model (1) represents a regression equation that evaluates the relationship between business digitalization information level and company value, incorporating control variables. This model includes all digitalization information items, covering both website disclosures (23 items) and social media disclosures (12 items). Meanwhile, Models (2) and (3) assess the same relationship but distinguish between different types of listed companies. Model (2) focuses on companies

listed on the main board, while Model (3) includes companies listed on the development board and acceleration board. The number of observations used in each model varies, with 589 companies in Model (1), 294 companies in Model (2), and 295 companies in Model (3).

TABLE IV. REGRESSION TEST RESULT WITH MM MODEL

| Variable Dependent: Tobin's Q | | | |
|---|---|---|---|
| | MM Model | | |
| | (1) | (2) | (3) |
| C | 2,426869*** (7,976962) | 1,109993*** (2,637678) | 4,370852*** (7,088055) |
| WEB_SOSMED | 0,007895** (2,341467) | 0,010215*** (2,686855) | 0,005434 (0,894533) |
| Control Variable | | | |
| SIZE | 0,062920*** (5,692714) | 0,014732 (0,995158) | 0,132242*** (5,908577) |
| ROA | 0,123172*** (3,066537) | 0,113425** (2,399652) | 0,332299*** (4,134368) |
| LEVERAGE | 0,646414*** (50,04888) | 0,303532*** (26,22369) | 0,790231*** (15,22988) |
| CURRENT RATIO | 0,000186 (0,203469) | 0,000156 (0,139607) | 0,000096 (0,065850) |
| Observation | 589 | 294 | 295 |
| *R-squared* | 0,035801 | 0,035426 | 0,062163 |
| *Adjusted R-squared* | 0,027532 | 0,018680 | 0,045937 |
| *Rn-squared statistic* | 2624,654 | 749,9737 | 473,9236 |
| *Prob (Rn-squared statistic)* | 0,000000 | 0,000000 | 0,000000 |

* Significance at the 10% level
** Significance at the 5% level
*** Significance at the 1% level

The results in Table IV indicate that the business digitalization information level variable in Model (1) has a positive coefficient of 0.007895 with a z-statistic of 2.341467, which is statistically significant at the 5% alpha level. In Model (2), where the sample consists of companies listed on the Main Board, the variable also shows a positive coefficient of 0.010215 with a z-statistic of 2.686855 and is statistically significant at the 1% alpha level. However, in Model (3), which includes companies listed on the Development Board and Acceleration Board, the results indicate that the business digitalization information level variable has no significant effect on company value. Based on these findings, it can be concluded that the hypothesis stating that business digitalization information influences company value is accepted in this study. These findings align with the research of study [17], which also supports the positive impact of business digitalization information on company value.

After conducting multiple tests, a robustness test was performed to evaluate the accuracy and reliability of the results obtained from the main regression analysis, specifically the MM model regression test. The findings from the robustness test of the M model, as presented in Table V, indicate results consistent with those of the MM model, demonstrating minimal variation. Regarding the independent variable, digitalization information (web_sosmed), the results remain unchanged, showing a significant positive effect on company value with a 1% confidence level in both the MM and M models. Similar consistency is observed in the control variables, where Size, ROA, and Leverage all maintain a 1% significance level across both models. However, the Current Ratio was found to be insignificant in both tests.

TABLE V. ROBUSTNESS TEST

| Dependent Variables: Tobin's Q | | |
|---|---|---|
| | MM Model | M Model |
| C | 2,426869*** (7,976962) | 2.798580*** (8.767928) |
| WEB_SOSMED | 0,007895** (2,341467) | 0.008666*** (2,449985) |
| Control Variables | | |
| SIZE | (0,062920) *** (5,692714) | (0,076607) *** (6,606480) |
| ROA | 0,123172*** (3,066537) | 0,393453*** (9,336795) |
| LEVERAGE | 0,646414*** (50,04888) | 0,715969*** (52,83798) |
| CURRENT RATIO | (0,000186) (0,203469) | (0,000147) (0,152940) |
| Observation | 589 | 589 |
| *R-squared* | 0,035801 | 0,030958 |
| *Adjusted R-squared* | 0,027532 | 0,022647 |
| *Rn-squared statistic* | 2624,654 | 2960,185 |
| *Prob (Rn-squared statistic)* | 0,000000 | 0,000000 |

* Significance at the 10% level
** Significance at the 5% level
*** Significance at the 1% level

## C. Discussion

This study demonstrates that digitalization information has a positive influence on company value, both directly and indirectly. First, disclosing information about a company's level of digitalization serves as an important signal to investors and consumers. Information shared through company websites and social media platforms enhances consumer accessibility to details about products or services offered. Moreover, when consumers place orders online, and the company effectively meets their expectations while providing prompt responses, customer satisfaction improves. This, in turn, strengthens consumer trust, leading to higher cash flow, increased sales, and greater profitability, ultimately enhancing company value.

Second, digitalization also contributes to revenue growth through e-commerce adoption and cost reduction by optimizing resources, implementing innovative business models, and enhancing automation services. Digitalization enables companies to adapt more effectively to an increasingly competitive business environment, providing a strategic edge over competitors. Furthermore, digitalization mitigates information asymmetry, allowing investors to gain deeper insights into a company's digital strategy, thereby reducing investment risks. The level of a company's digitalization efforts can influence future cash flow generation, ultimately leading to an increase in company value.

This study supports signaling theory, which explains how information related to a company's level of digitalization serves as a signal to investors, aiming to enhance profitability and

reduce costs, ultimately increasing company value [17]. In addition, this research is also supported by the Resource-Based View (RBV) Theory, which emphasizes that a company's competitive advantage depends on unique and difficult-to-imitate resources [17]. Digitalization can be considered a strategic resource that enhances efficiency, fosters innovation, and improves customer experience, thereby strengthening the company's competitiveness and long-term value.

The findings of this study are also supported by study [38] and [39], who asserted that digital transformation has a significant impact on enhancing company performance. Cost reduction, revenue growth, efficiency improvement, and innovation stimulation are key indicators of digital transformation that enable high-quality corporate development and drive corporate innovation. Similarly, [40] argued that digital transformation has a driving effect on the financial performance of renewable energy companies. When a renewable energy company adopts digital transformation, it demonstrates better green technology innovation, which ultimately improves its financial performance.

The findings of this study also have managerial implications for corporate decision-makers. Managers are expected to leverage company websites and social media platforms to disclose digitalization-related information, including strategies, processes, and outcomes, as a means of enhancing company value. These platforms should provide comprehensive and accessible information that is valuable to both investors and consumers, ensuring ease of access to details regarding products and services.

Additionally, managers must focus on developing well-structured and efficient web and social media applications to optimize operational efficiency, minimize service delays, and enable immediate responses to consumers. Furthermore, managers should pay particular attention to key aspects of digitalization, including privacy policies, consumer data protection, search engine positioning, and the development of mobile-friendly versions of company platforms, as these are increasingly accessed by consumers.

## V. CONCLUSION

The findings of this study confirm that digitalization information positively influences company value. The disclosure of digitalization-related information serves as an essential signal that companies send to investors and consumers. The more extensively a company discloses information about its business digitalization efforts, the stronger its market position and growth prospects, ultimately leading to an increase in company value.

However, this study has several limitations. First, it is limited to one-year data from companies listed on the Indonesia Stock Exchange (IDX). Future research could expand the scope by incorporating multi-country data, allowing for cross-country comparisons and potentially uncovering different findings. Second, this study only examines digitalization information and company value, without considering other factors that may moderate or mediate this relationship, such as company size or the level of innovation. Third, the measurement of digitalization information disclosure relies on corporate reports, which may contain biases or variations in the level of transparency among companies. Additionally, using a longer time frame could yield more consistent and robust results.

The results of this study imply that managers are expected to be able to use the company's website and social media to reveal information about the company's business digitalization both from the aspects of strategy, process, and results. Furthermore, managers should focus on developing more comprehensive, user-friendly digital platforms that enable transparent and detailed information disclosure. Beyond improving transparency, enhanced digital platforms can optimize efficiency, reduce service delays, and enable faster consumer responses, ultimately contributing to higher company value.

Although this study has provided insights into the relationship between digitalization and company value, several aspects remain to be further explored. Future research could compare the impact of digitalization on company value across different industries, such as manufacturing, financial services, and retail, to determine whether significant differences exist in the implementation and effectiveness of digitalization strategies. Additionally, investigating the role of moderating variables, such as company size, industry competition level, or the adoption of specific technologies, could provide a deeper understanding of how these factors strengthen or weaken the relationship between digitalization and company value. Furthermore, examining the role of mediating variables, such as product innovation or customer satisfaction, may offer valuable insights into how digitalization indirectly contributes to company value by enhancing customer experiences and fostering innovation.

## ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to Universitas Negeri Yogyakarta for providing the research grant that supported this research. We also extend our appreciation to the reviewer, Prof Tony Wijaya for their valuable advice, intellectual contributions, and academic assistance, as well as their support in refining and enhancing this article. His insights and feedback have been instrumental in improving the quality of this research.

## REFERENCES

[1] F. Ferial, S. Siti, and R. Handayani, “Pengaruh Good Corporate Governance Terhadap Kinerja Keuangan Dan Efeknya Terhadap Nilai Perusahaan,” 2016.

[2] C. W. Sun, Z. W. Chen, Z. G. He, P. J. Zhou, and S. J. Liu, “Investment and Tobin’s Q: Evidence from company panel data,” J Econom, vol. 51, no. 1–2, pp. 233–257, Apr. 1992, doi: 10.1007/s00792-002-0304-5.

[3] R. Aljifri, “Investor psychology in the stock market: An empirical study of the impact of overconfidence on firm valuation,” Borsa Istanbul Review, vol. 23, no. 1, pp. 93–112, Jan. 2023, doi: 10.1016/J.BIR.2022.09.010.

[4] F. Bertani, L. Ponta, M. Raberto, A. Teglio, and S. Cincotti, “The complexity of the intangible digital economy: an agent-based model,” 2019.

[5] A. Agrawal and C. R. Knoeber, “Firm Performance and Mechanism to control Agency Problems Between Managers and Shareholders,” 1996.

[6] V. Belvedere, A. Grando, and P. Bielli, “A quantitative investigation of the role of Information and Communication Technologies in the implementation of a product-service system,” Int J Prod Res, vol. 51, no. 2, pp. 410–426, 2013, doi: 10.1080/00207543.2011.648278.

[7] M. L. Martín-Peña, J. M. Sánchez-López, and E. Díaz-Garrido, "Servitization and digitalization in manufacturing: the influence on firm performance," Journal of Business and Industrial Marketing, vol. 35, no. 3, pp. 564–574, Mar. 2020, doi: 10.1108/JBIM-12-2018-0400.

[8] R. R. Gamayuni, "The Effect Of Intangible Asset, Financial Performance And Financial Policies On The Firm Value," International Journal of Scientific & Technology Research, vol. 4, p. 1, 2015, [Online]. Available: www.ijstr.org

[9] A. Salvi, F. Vitolla, A. Giakoumelou, N. Raimo, and M. Rubino, "Intellectual capital disclosure in integrated reports: The effect on firm value," Technol Forecast Soc Change, vol. 160, Nov. 2020, doi: 10.1016/j.techfore.2020.120228.

[10] R. Bellakhal, R. Ben, and A. Mouelhi, "Digitalisation and Firm Performance: Evidence from Tunisian SMEs," 2020. [Online]. Available: www.emnes.org

[11] N. Kryvinska, S. Kaczor, C. Strauss, and M. Greguš, "LNBIP 169 - Servitization - Its Raise through Information and Communication Technologies," 2014.

[12] E. Cassetta, U. Monarca, I. Dileo, C. Di Berardino, and M. Pini, "The relationship between digital technologies and internationalisation. Evidence from Italian SMEs," Ind Innov, vol. 27, no. 4, pp. 311–339, Apr. 2020, doi: 10.1080/13662716.2019.1696182.

[13] E. Olejnik and B. Swoboda, "SMEs' internationalisation patterns: Descriptives, dynamics and determinants," International Marketing Review, vol. 29, no. 5, pp. 466–495, Sep. 2012, doi: 10.1108/02651331211260340.

[14] E. Giacosa, A. Ferraris, and S. Bresciani, "Exploring voluntary external disclosure of intellectual capital in listed companies: An integrated intellectual capital disclosure conceptual model," Journal of Intellectual Capital, vol. 18, no. 1, pp. 149–169, 2017, doi: 10.1108/JIC-01-2016-0019.

[15] S. A. Ross, "The Determination of Financial Structure: The Incentive-Signalling Approach," 1977.

[16] J. Mc Guire, T. Schneeweis, and B. Branch, "Perception of Firm Quality: A Cause or Result of Firm Performance," 1990.

[17] A. Salvi, F. Vitolla, M. Rubino, A. Giakoumelou, and N. Raimo, "Online information on digitalisation processes and its impact on firm value," J Bus Res, vol. 124, pp. 437–444, Jan. 2021, doi: 10.1016/j.jbusres.2020.10.025.

[18] M. Spence, "Job Market Signaling," Q J Econ, vol. 87, no. 3, pp. 355–374, 1973, doi: 10.2307/1882010.

[19] D. D. Bergh, D. J. Ketchen, I. Orlandi, P. P. M. A. R. Heugens, and B. K. Boyd, "Information Asymmetry in Management Research: Past Accomplishments and Future Opportunities," J Manage, vol. 45, no. 1, pp. 122–158, Jan. 2019, doi: 10.1177/0149206318798026.

[20] H. R. Rasouli et al., "Outcomes of Crowding in Emergency Departments; a Sys-tematic Review," 2019. [Online]. Available: http://journals.sbmu.ac.ir/aaem

[21] F. Vendrell-Herrero, O. F. Bustinza, G. Parry, and N. Georgantzis, "Servitization, digitization and supply chain interdependency," Industrial Marketing Management, vol. 60, pp. 69–81, Jan. 2017, doi: 10.1016/j.indmarman.2016.06.013.

[22] S. Joensuu-Salo, K. Sorama, A. Viljamaa, and E. Varamäki, "Firm performance among internationalized smes: The interplay of market orientation, marketing capability and digitalization," Adm Sci, vol. 8, no. 3, Sep. 2018, doi: 10.3390/admsci8030031.

[23] A. K. Kohli and B. J. Jaworski, "Market Orientation: The Construct, Research Propositions, and Managerial Implications," 1990.

[24] M. Al-Akra and M. J. Ali, "The value relevance of corporate voluntary disclosure in the Middle-East: The case of Jordan," Journal of Accounting and Public Policy, vol. 31, no. 5, pp. 533–549, 2012, doi: 10.1016/j.jaccpubpol.2011.10.007.

[25] H. Chung, W. Q. Judge, and Y. H. Li, "Voluntary disclosure, excess executive compensation, and firm value," Journal of Corporate Finance, vol. 32, pp. 64–90, Jun. 2015, doi: 10.1016/j.jcorpfin.2015.04.001.

[26] A. Uyar and M. Kiliç, "Value relevance of voluntary disclosure: Evidence from Turkish firms," Journal of Intellectual Capital, vol. 13, no. 3, pp. 363–376, Jul. 2012, doi: 10.1108/14691931211248918.

[27] U. Garay, M. González, A. Guzmán, and M. A. Trujillo, "Internet-based corporate disclosure and market value: Evidence from Latin America," Emerging Markets Review, vol. 17, pp. 150–168, 2013, doi: 10.1016/j.ememar.2013.09.002.

[28] M. E. Barth, S. F. Cahan, L. Chen, and E. R. Venter, "The economic consequences associated with integrated report quality: Capital market and real effects," Accounting, Organizations and Society, vol. 62, pp. 43–64, Oct. 2017, doi: 10.1016/j.aos.2017.08.005.

[29] P. M. Clarkson, X. Fang, Y. Li, and G. Richardson, "The relevance of environmental disclosures: Are such disclosures incrementally informative?" Journal of Accounting and Public Policy, vol. 32, no. 5, pp. 410–431, Sep. 2013, doi: 10.1016/j.jaccpubpol.2013.06.008.

[30] S. Wang, H. Wang, J. Wang, and F. Yang, "Does environmental information disclosure contribute to improve firm financial performance? An examination of the underlying mechanism," Science of the Total Environment, vol. 714, Apr. 2020, doi: 10.1016/j.scitotenv.2020.136855.

[31] Y. Zhou, Z. Shi, F. Lei, W. Sun, and J. Zhang, "Effect of Environmental Information Disclosure on the Financing Efficiency of Enterprises—Evidence from China's Listed Energy Companies," Sustainability (Switzerland), vol. 14, no. 24, Dec. 2022, doi: 10.3390/su142416699.

[32] M. Plumlee, D. Brown, R. M. Hayes, and R. S. Marshall, "Voluntary environmental disclosure quality and firm value: Further evidence," Journal of Accounting and Public Policy, vol. 34, no. 4, pp. 336–361, Jul. 2015, doi: 10.1016/j.jaccpubpol.2015.04.004.

[33] S. C. Bidhari, S. Aisjah, and U. Salim, "Effect of Corporate Social Responsibility Information Disclosure on Financial Performance and Firm Value in Banking Industry Listed at Indonesia Stock Exchange," 2013. [Online]. Available: https://www.researchgate.net/publication/273135377

[34] R. Rika Gamayuni, "The Effect Of Intangible Asset, Financial Performance And Financial Policies On The Firm Value," INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH, vol. 4, p. 1, 2015, [Online]. Available: www.ijstr.org

[35] B. Sudiyatno and E. Puspitasari, "Tobin's Q and Altman Z-Score as Indicators of Performance Measurement Company," 2010.

[36] J. J. M. Ferreira, C. I. Fernandes, and F. A. F. Ferreira, "To be or not to be digital, that is the question: Firm innovation and performance," J Bus Res, vol. 101, pp. 583–590, Aug. 2019, doi: 10.1016/j.jbusres.2018.11.013.

[37] S. J. McMillan, "The microscope and the moving target: The challenge of applying content analysis to the World Wide Web," Journalism and Mass Communication Quaterly, vol. 77, no. 1, pp. 80–98, 2000, doi: 10.1177/107769900007700107.

[38] F. Vitolla, M. Rubino, A. Giakoumelou, F. Petruzzella, and N. Raimo, "Signaling digitalisation through corporate websites: The effect on firm value," in 2020 IEEE International Conference on Technology Management, Operations and Decisions, ICTMOD 2020, Institute of Electrical and Electronics Engineers Inc., Nov. 2020. doi: 10.1109/ICTMOD49425.2020.9380592.

[39] Y. Luo, H. Cui, H. Zhong, and C. Wei, "Business environment and enterprise digital transformation," Financ Res Lett, vol. 57, Nov. 2023, doi: 10.1016/j.frl.2023.104250.

[40] Y. Ren and B. Li, "Digital Transformation, Green Technology Innovation and Enterprise Financial Performance: Empirical Evidence from the Textual Analysis of the Annual Reports of Listed Renewable Energy Enterprises in China," Sustainability (Switzerland), vol. 15, no. 1, Jan. 2023, doi: 10.3390/su15010712.