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Digital Transformation and Corporate Valuation: Unveiling the Influence of Digital Maturity in Stocks Return in Indonesian FMCG Industry

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ABSTRACT: This research investigates the impact of digital transformation on corporate valuation in the Indonesian FMCG industry, focusing on the influence of digital maturity on stock returns. The study examines how technologies like AI, IoT, and data analytics affect financial performance and market perception. Using a quantitative approach, digital activity disclosed in annual reports from 2019 to 2023 for companies listed on the Indonesia Stock Exchange is analyzed. Key variables include digital maturity, profitability, sales growth, and stock return data. Findings reveal a negative and insignificant correlation between digital maturity and stock returns, suggesting higher digital maturity does not lead to better stock performance. The relationship is mediated by non-significant changes in financial performance metrics, indicating digital transformation may not enhance operational efficiency and market competitiveness. Data analytics and process automation showed less significant effects on performance. The study offers insights for corporate managers, investors, and policymakers on the strategic and cautious application of digital technologies.

KEYWORDS: Corporate Valuation, Digital Transformation, Digital Maturity, FMCG Industry, Stock Returns.

INTRODUCTION

The fast-moving consumer goods (FMCG) industry, also known as consumer packaged goods, involves the production of items such as packaged food, cosmetics, and household goods. These products are characterized by frequent purchases, high inventory turnover, and short shelf lives. The FMCG industry is deemed non-cyclical, meaning its products are essential and consistently in demand, regardless of economic fluctuations. Indonesia's FMCG sector is notably significant and continues to grow. In Q3 2020, the market value increased by 8.8%, followed by a 5.9% increase in Q3 2021 (Tanayastri, 2021). The sector's growth rate has surpassed global and regional averages, showcasing its resilience and potential for investment (Team, 2023). However, the industry faces challenges such as shifting consumer preferences, logistical issues, and heightened competition, necessitating constant adaptation and innovation (Udokporo et al., 2020).

Industry 4.0, characterized by digital technologies like artificial intelligence, the Internet of Things (IoT), and data analytics, has driven many FMCG companies toward digital transformation. This transformation is essential for improving operational efficiency and maintaining competitiveness in a rapidly evolving market landscape (CHRISTENSON JR., 2023, 58-67). Agarwal et al., (2021), project that embracing digital trends could significantly boost Indonesia's economy by 2030. The COVID-19 pandemic further accelerated digital transformation in the FMCG industry, compelling companies to adopt digital technologies to ensure operational continuity and meet evolving consumer demands (Skha Management Consultant, 2022). E-commerce platforms, mobile applications, and data analytics tools have fundamentally reshaped how FMCG companies operate, interact with consumers, and manage supply chains.

Despite the significant role of the FMCG industry in Indonesia's economy and its increasing digital transformation, there is a lack of academic research on how digital maturity, profitability, and sales growth affect stock returns in this sector. 1
This gap in research creates uncertainty for investors looking to understand the impacts of these factors on financial outcomes and investment appeal. Therefore, this study focuses on the intersection of digital transformation and corporate valuation in the Indonesian FMCG industry. It aims to provide insights into how digital strategies, technological advancements, and financial performance affect stock returns. The findings could guide investors in making informed decisions and encourage companies to enhance their digital initiatives to boost financial performance and shareholder value.

The objectives of this research are fourfold. Firstly, it aims to analyze the impact of digital maturity on stock returns, determining how digital strategies and technological advancements affect financial performance and investor returns in the

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Indonesian FMCG industry. Secondly, it seeks to evaluate the relationship between profitability and stock returns, identifying the correlation between profitability metrics and market performance in Indonesian FMCG companies. Thirdly, the study investigates the effect of sales growth on stock returns, assessing the significance of sales performance as a predictor of market returns and investor interest in Indonesian FMCG companies. Lastly, it examines the implications of these relationships for corporate valuation practices and investment strategies, developing insights on how these factors can be integrated into valuation models and investment decision-making processes to enhance corporate performance and investor outcomes.

This study investigates the influence of digital maturity, profitability, and sales growth on stock returns in Indonesia's FMCG sector. It aims to fill the research gap and provide valuable insights for investors and corporate managers. The findings could help companies refine their digital strategies to improve financial performance and competitiveness in the market.

METHODOLOGY

This study employs a quantitative research design to investigate the impact of digital maturity, profitability, and sales growth on stock returns in the Indonesian FMCG industry. The research is structured to address the identified problem, define the research objectives, and test the formulated hypotheses using empirical data.

Research Objects, Population, and Samples

The research encompasses all fast-moving consumer goods (FMCG) firms listed on the Indonesian Stock Exchange (IDX) that integrate digital technology into their operations and provide accessible disclosure information for evaluating digital maturity. The study spans from 2019 to 2023, focusing on companies listed in the KOMPAS100 Index. The purposive sampling method is used, selecting FMCG companies based on specific criteria, including high transactional value, strong fundamentals, and consistent listing in the KOMPAS100 Index (Renaldo et al., 2021).

Data Collection Technique

The study collects two categories of data: textual data and financial data. Textual data, used to gauge digital maturity, is extracted from annual reports of companies listed on the IDX. Financial data, used to assess performance, includes profitability ratios, sales growth, and stock performance metrics.

1. Textual Data: Text mining techniques, employing NVIVO 14, are used to extract relevant data from annual reports. The digital maturity score is determined by the number of digital terms mentioned in these reports, quantified using a tercile-based method to avoid bias and noise (Eremina et al., 2019; Chen & Srinivasan, 2020).
2. Financial Data: Financial performance data is gathered from annual consolidated financial statements within the annual reports of the selected companies. This includes dependent variables like profitability ratios and sales growth, as well as control variables.

Operational Definition of Variables

The model tests three types of independent variables: digital maturity, profitability, and sales growth. 2

1. **Digital Maturity**: Measured by the number of digital terms in annual reports, classified into terciles to provide a quantifiable index (Eremina et al., 2019).
2. **Profitability**: Assessed using the Earnings per Share (EPS) ratio, calculated by dividing net income by the number of outstanding shares (Januar et al., 2022).
3. **Sales Growth**: Calculated by comparing total revenue from one year to the next, reflecting the company's ability to increase sales over time (Tarmidi & Sormin, 2020)

The dependent variable, stock return, is calculated by measuring the appreciation or return value of a company's stock relative to its initial value over a specific period (Jogiyanto, 2013). Several control variables are included in the regression model to improve its robustness:

1. **Firm Size**: Measured by the naturallogarithm of the company's total assets (Pervan et al., 2017; Chen &Srinivasan, 2020).
2. **Firm Age**: Calculated by the number of years since the company was founded (Wijaya & Kim, 2023).
3. **Leverage**: Measured by the debt ratio (Rahmawati et al., 2023).
4. **Price to Earnings Ratio (P/E)**: Evaluates a company's share price relative to its earnings per share (Fernando, 2024).

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Panel Data Regression Model Analysis

The hypotheses are tested using panel data regression analysis, conducted with the EViews 14 application. The analysis includes estimation model tests (Chow Test, Hausman Test, Lagrange Multiplier Test) to determine the most suitable model (Fixed, Common, or Random Effects). Classical assumption tests (normality, autocorrelation, multicollinearity, heteroscedasticity) are performed to ensure the validity of the regression model.

The final model is formulated to examine the impact of digital maturity, profitability, and sales growth on stock returns, incorporating control variables to enhance the model's explanatory power. The findings are analyzed in relation to the research hypotheses and compared with previous studies to reconcile any discrepancies (Chen & Srinivasan, 2020; Eremina et al., 2019).

$SRit=\beta 0+\beta 1Digitalit+\beta 2EPSit+\beta 3SGit+\beta 4SIZEit+\beta 5LEVit+\beta 6AGEit+\beta 7PEit$

SRit is the dependent variable for stock return, which in the formula includes the independent variable of Digitalit represents digital maturity, EPSit represents earning per share, SGit is sales growth. Followed by control variables, which are SIZEit represents firm size, LEVit represents leverage, AGEit represents firm age, EPit represents earnings to price.

RESULT AND DISCUSSION

List of the Company

This study examines 45 observations involving nine companies over a five-year period, from 2019 to 2023. The selected companies are major players in the Indonesian FMCG sector, listed on the main board of the Indonesia Stock Exchange (IDX). The companies included in this study are Astra Agro Lestari Tbk. (AALI), Charoen Pokphand Indonesia Tbk. (CPIN), Gudang Garam Tbk. (GGRM), H.M. Sampoerna Tbk. (HMSP), Indofood CBP Sukses Makmur Tbk. (ICBP), Indofood Sukses Makmur Tbk. (INDF), Japfa Comfeed Indonesia Tbk. (JPFA), PP London Sumatra Indonesia Tbk. (LSIP), and Unilever Indonesia Tbk. (UNVR). These companies were chosen for their significant impact on the FMCG industry and their consistent performance on the IDX's main board.

Hypothesis Testing Results

Table 1. Hypothesis Testing Results using Panel Data Regression in EViews14

Variables	Stock Return (SR)		
	Coefficient	t-statistic	Prob
Constant	-0.022038	-0.019126	0.9848
Independent Variable			
DIGITAL MATURITY	-0.038264	-1.103953	0.2767
EARNING PER SHARE	-5.59E-05	-2.084371	0.0441
SALES GROWTH	0.507228	2.111044	0.0416
Control Variable			
FIRM SIZE	0.008018	0.226867	0.8218
LEVERAGE	-0.031592	-0.125540	0.9008
FIRM AGE	-0.057347	-1.124467	0.2681
PRICE TO EARNINGS	-0.000394	-0.296594	0.7684

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Statistic	
R Squared	0.289469
Adjusted R-Squared	0.155044
F-Statistic	2.153386
Prob (F-Statistic)	0.061699

After completing the panel data regression, a discussion of the results regarding the impact of Digital Maturity, Profitability, and Sales Growth on stock returns follows. The analysis results are summarized in the accompanying table. Additionally, a detailed explanation will be provided about the influence of digital maturity, profitability, and sales growth on stock returns. According to the above table, the following are the results of the model's panel data regression equation:

SR = -0.0220377217714 - 0.0382640286368*DIGITALit - 5.58953164858e-05*EPSit + 0.507228030898*SGit - 0.0573470075794*AGEit - 0.0315924355609*LEVit - 0.000394246647139*PEit + 0.00801833672933*SIZEit+ εi 4

Table 2. Summary of Result Discussion

Independent Variables	Expected Effect on Stock Return	Result of This Study
Digital Maturity (*Digital*)	Significant Positive	Insignificant
Profitability (*EPS*)	Significant Positive	Significantly Negative
Sales Growth (*SG*)	Significant Positive	Significantly Positive

The results discussion section integrates the findings of the study and compares them with previous research. It provides an in-depth analysis of how digital maturity, profitability, and sales growth impact stock returns in the Indonesian FMCG sector. The section highlights the significant relationships identified through panel data regression analysis, detailing how these factors influence financial performance and market valuation (Chen & Srinivasan, 2020; Eremina et al., 2019).

The analysis reveals that digital maturity has a negative and insignificant impact on stock returns in the Indonesian FMCG industry. This indicates that higher digital maturity does not necessarily translate into better stock performance. The lack of significant correlation suggests that while companies are investing in digital technologies, these investments have not yet yielded substantial financial returns or market advantages. The study suggests that digital transformation efforts need to be better aligned with overall business strategies to realize their full potential (Eremina et al., 2019).

Profitability, measured by Earnings Per Share (EPS), shows a positive but not significant effect on stock returns. This finding indicates that although profitability is a critical factor for financial performance, its direct impact on stock returns in the FMCG sector is not as pronounced. The result aligns with the notion that investors consider various other factors, beyond profitability, when evaluating stock performance. Companies may need to emphasize holistic performance indicators that encompass both financial and operational metrics to attract investor interest (Januar et al., 2022).

Sales growth has a positive and significant impact on stock returns in the Indonesian FMCG industry. This relationship underscores the importance of robust sales performance as a predictor of market success and investor confidence. The significant correlation suggests that companies demonstrating consistent sales growth are more likely to achieve favorable stock performance. This finding emphasizes the need for FMCG firms to focus on strategies that drive sales growth, such as expanding market reach and enhancing product offerings (Tarmidi & Sormin, 2020).

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CONCLUSION

This study focuses on FMCG (Fast-Moving Consumer Goods) companies, examining how digital maturity, financial performance measured by EPS (Earnings Per Share), and sales growth from 2019 to 2023 influence their stock returns. Descriptive analysis indicates that FMCG companies exhibit diverse conditions and risks regarding stock returns. Incorporating elements from previous research techniques, such as Eremina et al. (2019) and a noise minimization method in digital activity coding using the tercile-based approach developed by Chen & Srinivasan (2020) to measure the digital maturity index, the data analysis using panel data regression reveals that the disclosure of digital activities in annual reports does not significantly affect stock returns. This insignificance is attributed to the delayed impact of digital activity disclosure, which does not yield immediate results. On the other hand, sales growth shows a significant and positive influence, as it is a fundamental basis for a company's operations geared towards revenue generation and profitability. However, profitability measured by EPS yields mixed results, showing a significant but negative impact, which contrasts with some previous studies. This divergence may stem from varying investment behaviors across industries, timeframes, and other distinct factors (Statman, 1995).

RESEARCH IMPLICATIONS

This study highlights important implications for corporate managers and investors in the Indonesian FMCG sector. It finds that digital maturity does not significantly impact stock returns, indicating that digital investments may not yield immediate financial benefits. Companies should align digital transformation efforts with overall business strategies to maximize benefits. The positive impact of sales growth on stock returns underscores the need for robust sales performance, while mixed results for profitability suggest that EPS impacts stock performance variably due to external factors.

For corporate managers, aligning digital transformation with business strategies is crucial for financial success. Strategies to drive sales growth, such as market expansion, product enhancement, and supply chain optimization, are essential. Monitoring profitability metrics carefully and developing comprehensive performance indicators will provide a better measure of company performance. Investors should focus on sales growth and profitability when evaluating FMCG stocks and be cautious with the significance of digital maturity. Policymakers should support digital innovation by providing incentives and encouraging transparency in digital activity disclosures in annual reports.

Future research can address the limitations of this study by expanding the scope and enhancing the robustness of the analysis. Increasing the number of observations by including a larger sample size that encompasses FMCG companies beyond those listed in the KOMPAS100 Index can provide a more comprehensive understanding of the impact of digital maturity, profitability, and sales growth on stock returns. Extending the study to include companies from neighboring countries in Southeast Asia can offer comparisons across different market environments and regulatory landscapes. Utilizing diverse data sources such as social media, press releases, and news articles can capture a broader range of digital activities and strategies, providing a more holistic view of companies' digital maturity and its impact on financial performance. Longitudinal studies exploring the long-term effects of digital transformation on financial performance and stock returns can reveal how digital investments materialize over time. Additionally, investigating sector-specific factors, such as consumer behavior, market dynamics, and technological advancements, can further elucidate the relationship between digital maturity, financial performance, and stock returns in the FMCG industry. By addressing these areas, future research can provide deeper insights into the dynamics of digital transformation and its implications for corporate valuation and investment strategies in the FMCG sector.

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