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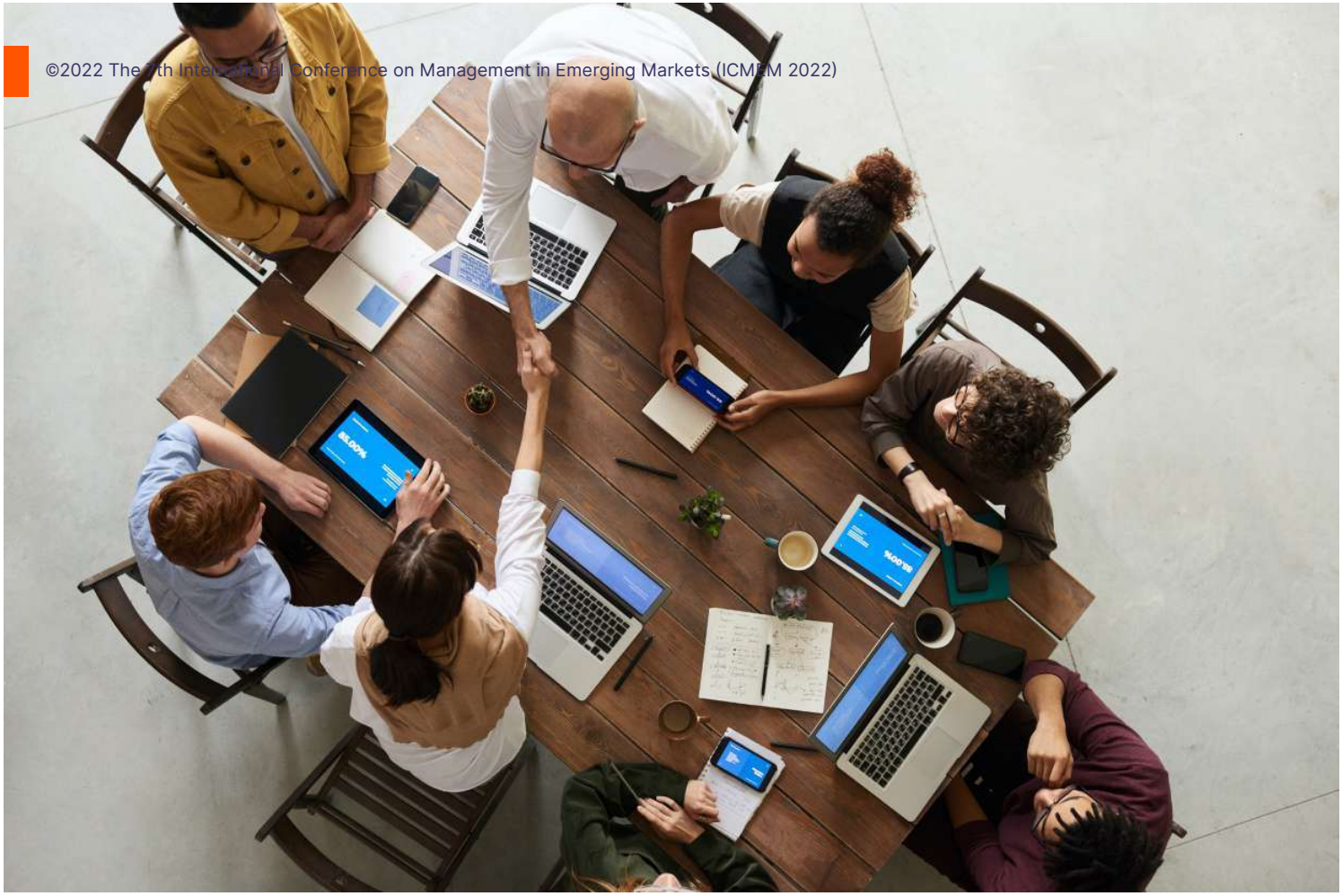

Paper 32

The Effects Of Digital Maturity And Financial Performance On Stock Return: Evidence From Indonesian Tech Public Companies

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Abstract - **As part of the digital technology trend, many companies disclose their digital activity to measure the firm's digital maturity to welcome new wave of data-driven digital technologies. In Indonesia, the technology sector has significant growth. Although digital technology trends are new, the technology sector is categorized as a good performer, measured by the vast stock return. Therefore, this study uses technology companies that have a high digital maturity index recorded from 2016 to 2020 with a total sample of 10 companies. Digital maturity measurement using textual quantification method or text query in the annual report. The number of digital activities mentioned is quantified using a tercile-based to avoid noise. Panel data regression is used with a Common Effect Model as well as the robustness test. The results show that digital maturity and profitability, as measured by Return-on-Asset (ROA), have no significant effect on stock returns. On the other hand, Sales Growth has a significant positive effect on stock returns. Therefore, investors and managers can consider aspects of sales growth to get a good stock return performance in technology companies. However, sales growth is susceptible to the company's external factors, so managers must focus on variables that affect sales growth.**

Keywords - **Technology Companies, Digital Maturity, Profitability, Sales Growth, Stock Return**

I. INTRODUCTION

The fourth era revolution is also called the fourth digital wave as the new wave of data-driven digital technologies that change how companies organize, invest, and operate the business with the elements of data-driven technologies such as big data, data analytics, artificial intelligence, machine learning [1]. The acceleration of data-driven era industries is getting faster, marked by the emergence of new business models and the disruption that shifts all industries worldwide [2]. As the business landscape changes to digital, many companies apply new business strategies to create a better position in the market. The leader of companies tends to succeed in their company through digital business and become digitally mature. The organization needs to improve its digital strategy to create strategic options and flexibility that rapidly affects digital maturity environments [3]. Digital maturity implies the factors motivating the organization's digital transformation [4]. The firm that seeks to adopt digital technology has to invest in digital infrastructure technologies. As a result, it would improve the management's decision-making, create better products or services, and perform better firm value creation [5].

Adopting a digital ecosystem for companies is essential to creating new business options and opportunities for the company's future. Digitalization offers opportunities to leverage the number of customers and sales [6]. The use of technology and digital ecosystems is concentrated in technology companies, especially cloud computing [1]. This digital ecosystem implies that technology companies have the opportunity to boost the number of customers significantly, especially if these companies have investments in technology infrastructure and create a digital ecosystem. In addition, data is the most valuable resource that companies have and is categorized as a form of capital that significantly benefits by unlocking markets, locking people in their platforms, and leveraging data sources [7]. As a result, digitalization in a company will increase business performance as indicated by enhancing the financial performance and having a positive correlation with business model innovations that will leverage the number of customers [6], [8], [9] .

Indonesia has a scalable opportunity in terms of digital technology by transforming and reshaping the key accelerators as a solid foundation, such as mobile internet, cloud technology, IoT, and big data. As a result, Indonesia may become a prominent position in the economy by 2025 by implementing a holistic digital strategy and winning the digital era to accelerate economic growth to the next level [1], [10]. In addition, one of the critical issues in the G20 Presidency of Indonesia 2022 is digital transformation, which focuses on preparing the digital age as a new landscape to welcome the rapid digitalization of the new global economy. These phenomena indicate that digital transformation will affect almost all businesses in Indonesia and globally because they acknowledge that digital technology exists as an essential resource to face future business and will soon become a changing business trend.

In Indonesia alone, the technology companies are still growing. Although digital technology trends are new, the technology sector is categorized as a good performing sector in 2021, shown by the high return of the sectoral technology index. Apart from technology companies, other sectors also apply the same thing that adopts

digital technology to benefit and welcome the digital revolution age, for example, the telecommunication sector. These phenomena indicate that digital transformation in Indonesia has already affected the landscape of businesses. They acknowledge that digital technology exists as an essential resource to face future business and will soon become a changing business trend. Apart from adopting digital technology, financial performance is also one indicator that investors should consider because the firm likely tends to improve its financial performance to get the best result in the bottom line and attract investors. However, the technology companies are not aiming for profitability because they focus on growth rather than monetization in the early stage. For example, Amazon has not been profitable in many years and has become the largest US company [11].

In other words, it implies that the technology company is not valued at how much profit they make now but also for what they build in the future because most cases reveal that the tech companies' financial performance still has a negative value in the bottom line. Investors tend to invest their money in companies that fully adopt digital technology and implement the digital transformation with the expectation that it will give the best performance result [1], [12]. There is a lack of academic studies on this subject around the world. Previous studies have shown that the presence of digital technology or digital maturity needs to be done because the growth is uncertain, especially to welcome the new digital economy [13]. Thus, this is the opportunity to find out the most significant factor influencing the stock return in the technology sector and the sector that adopts digital technology for the operational basis, especially in Indonesia, because there has never been any study to research these problems before. Conducting an empirical study would matter to many investors in Indonesia to more wisely pick their sector to invest in and give an overview of how the digital maturity and financial performance affect the stock return in the technology companies.

II. THEORETICAL FOUNDATION AND HYPHOTESIS DEVELOPMENT

A. Digital Maturity

The advent of new business models and the technology disruption that shifts all industries worldwide are signs of the data-driven era industries are speeding up [2]. Digital refers to the basis for the existing disruption, which can improve the data collection process to become reliable information useful to increase human beings' well-being. As a result of new technologies that have replaced the old ones to become more digital, the business landscape has changed, namely implementing new strategies, models, and even operating models to run their business. Adopting a digital ecosystem for companies is essential to creating new business options and opportunities for the company's future because digitalization offers opportunities to leverage the number of customers and sales [6]. In addition, the implementation of new technology becomes more strategic due to the adoption of the digital ecosystem, especially to transform and attract customers. These radical changes that have enabled businesses to find new ways to operate and produce new products or services are called digital disruptions [13].

The definition of digital disruption is the concept of environmental turbulence caused by technological innovation. It has been defined by several experts in their studies [6]. Still, digital disruption can act as a link between various resources and is not confined to the company's past fundamental changes [14]. The digital ecosystem and digital innovation are two essential variables in explaining aspects of digital disruption. However, further digital disruption on a wider scale is called digital transformation. In addition, digital transformation also adapts digital technology frequently and would affect the quicker product cycle and business process that would impact the new value creation for the firm [5]. Therefore, the firm's success in implementing the new technology and digital transformation would improve all customer experiences by improving the products and services [15].

When an organization undergoes a digital transformation, it may see significant changes in its business models and key business activities. As a result of the firm's development and adoption of digital technologies, the firm's stakeholders, including society, will likewise experience significant changes [16]. Digital maturity refers to the factors that motivate an organization's digital transformation. Digital maturity is also defined as a company's capacity to respond appropriately and systematically to the digital environment [4]. Digital transformation is a process of adapting to the digital environment in order to achieve a steady transformation [3]. In spite of this, digital maturity can predict a company's ability to comprehend and adapt to changing customer needs resulting from digital transformation. On the other hand, digital maturity can also be quantified to assess the level of maturity in an effort to create industry-leading competitiveness

B. Element To Measure Digital Maturity

The firm that seeks to adopt digital technology has to invest in digital infrastructure technologies. As a result, it would improve the management's decision-making, create better products or services, and perform better firm value creation [5]. In order to improve the organization's adaptability to the current environment, it is crucial to measure the digital maturity of various elements. Mobile,

analytics, the cloud, and big data are a few of the various elements used to evaluate digital maturity. However, online technology is the most prevalent component in business activities. This is consistent with the evaluation of digital technology to measure digital maturity with six elements of the approach, namely general technology (computer, programming, wireless, server), the internet of things, data science, process automation, artificial intelligence, and online technology [17]. This elements can be used as a basis for measuring digital maturity, specifically by analyzing the digital activities conducted by a company to increase its level of digital maturity.

C. Financial Performance

Financial performance indicates the information on a company's performance that reflects the management processes and the firm's results to generate profit. Financial performance is usually used to know how effective and efficient the organization is in achieving specific goals in a certain period. In order to increase the financial performance of a company, it becomes a requirement to attract investors. If a business has designed and implemented effective financial management, it will benefit the business by maximizing shareholders' wealth and contributing to the firm's value creation . There are a variety of ratios used to measure a company's financial performance, particularly to determine financial health-based decision making [18]. In addition, financial performance is typically used to evaluate a company's health based on several studies, including profitability and sales growth [1], [17], [19].

It appears that each business seeks to generate profits. Profitability refers to a company's ability to generate income, so the more significant the profitability, the greater the company's likelihood of growing [20]. Consequently, this profitability ratio can demonstrate how effectively the firm generates profits to maximize shareholder wealth. A company is considered to be growing if it is able to increase its top line or revenue in order to generate profits in the future. Sales growth is a metric that measures an organization's ability to increase sales over time. It can also be interpreted as a gradual condition of a company to increase sales through the process of developing internal conditions and enhancing the external quality of business expansion [21].

D. Stock Return

The simplest term of stock return is the return made or lost on stock investment in some period of time. In addition, stock returns have an impact on the capital side of a business. Consequently, stock returns are determined by the performance of a company and its industry, as well as the macroeconomy. Stock return can also be interpreted as the increase or appreciation value an investor receives from a company relative to the stock's initial value over a specified time period. Typically, investors evaluate stock returns using fundamental and technical analysis. Moreover, investors also speculate to earn high returns by purchasing a stock at a low price and selling it at a higher price . To calculate a stock return, subtract the current value from the stock's value at the beginning of the investment, and then divide by the stock's value at the beginning of the investment. As a result, an investor will buy and sell shares with the expectation of receiving a capital gain as well as dividend payments from an investment in shares that have been made .

E. Value Corporate Disclosure and Digital Maturity Measurement

The obligation to publish a report containing management information and financial statements is one of the most important things when a company is already listed on a stock exchange. Not only for the shareholders, the information is needed also for the stakeholders, public, and government. There is value relevance listed in the company's published annual report information to determine the value of metrics such as growth and market penetration [22]. Moreover, textual analysis is one method for determining the value relevance of corporate information disclosure . Therefore, non-financial company information such as annual reports and corporate governance can have significant value relevance and provide value benefits. The textual analysis in question varies; a qualitative textual analysis was conducted in a previous study, using a text query to determine the digital value of maturity in information disclosure [17]. Furthermore, another study found that textual analysis contributes to the decision-making and earnings and return prediction of investors [23].

Corporate disclosure information that has available information for its stakeholders is possible to determine its digital maturity. This is supported by research indicating that the disclosure of a technology-related term can be considered a relevant value when determining a stock's price [24]. The organization needs to improve its digital strategy to create strategic options and flexibility that rapidly affects digital maturity environments [3]. It implies that the leaders must catch up with the digital investment plan and implement digital business strategies to create competitiveness and increase their digital maturity level. However, there is a delay in disclosing these digital activities to stakeholders. Consequently, the current measurement of digital activity is based on an analysis of digital activities conducted in the past [1].

Several previous studies measuring digital activity through text analysis methods with annual reports to determine a

company's value relevance have been evaluated [1], [17], [25]. Some studies used a quantitative digital keyword measurement method based on annual reports as a proxy indicator of digital transformation in their study of the effect of digital transformation on the stock prices of publicly-traded companies in China. The study concludes that digital transformation significantly reduces the risk of stock price crashes [5]. In addition, there is a textual proxy to measure digital activities and accomplished reliable analysis by dividing digital maturity into four parts or classifying it using terciles. Code 0 indicates that no digital activity is displayed, followed by 1, 2, and 3 in order from lowest to highest during a year [1]. This terciles-based measurement will eliminate the noisy raw word count when included as a predictor in panel data regression. It has been demonstrated that this method gives reliable results.

F. Conceptual Framework and Hypotheses Development

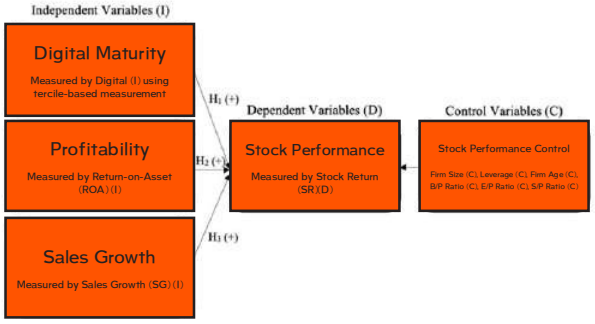

Figure 1 - Conceptual Framework

Previous research indicates that firms who utilize digital technology would have more public support since they provide superior products and services than their rivals [13], [15]. Moreover, customers have a high demand for technology firms since they give a great deal of transactional convenience; from a good viewpoint, it is evident that raising the value of consumers would increase the value of the company, resulting in favorable returns for shareholders [26]. Therefore, technology businesses will benefit from positively influencing stock returns resulting from a high degree level of digital maturity. Nevertheless, the relationship between digital maturity and stock returns is ambiguous [13], [17]. However, there are indications that investment in technology will positively affect stock values. Therefore, it can be predicted that enterprises with a high degree of digital maturity indicators of the characteristics above would have a beneficial influence on stock price returns.

H1: Digital maturity affects the stock return in the Indonesian technology companies positively.

Profitability ratios can be viewed as an indicator of a company's growth. Although profitability demonstrated the most essential performance indicator for businesses. As an investor, it is natural to compute this ratio in order to estimate the company's ability to make profits. Consequently, this profitability ratio can demonstrate how well the company creates profits in order to maximize shareholder wealth. In the case of technology businesses, it is assumed that they will generate a profit following monetization, but few are currently doing so [19]. However, it is believed that the tech company's profitability would generate positive stock returns.

H2: Profitability affects the stock return in the Indonesian technology companies positively.

As technology organizations increasingly rely on digital technology in their daily operations, it will be easier for the company to grow if it produces revenue quickly and benefits the company by increasing its market value. Previous research demonstrates that sales growth positively impacts stock price variations [27]. However, the research is not limited to industries with technology-based business models. Some studies discovered a significant association between the announcement of substantial revenue growth in financial statements that will lead to high stock price swings [28]. Therefore, it can be expected that firms with a high level of digital maturity or technological companies will have a beneficial impact on the stock price returns of the organization.

H3: Sales growth affects the stock return in the Indonesian technology companies positively.

III. METHODOLOGY

A. Resarch Sample

This study employs the purposive sampling method, which is a technique for selecting companies based on a set of predetermined selection criteria. The company must adopt technology as its operational foundation and be listed on the Indonesian stock exchange to meet the criteria. This company must also be involved in capital market transactions and be listed on the sector's primary board. This criterion ensures that the sample firms have good financial metrics that are not influenced by the characteristics in environmental factors in order to provide reliable information for the analysis. In addition, the company must provide a textual disclosure report or annual report from 2016 to 2020 for digital maturity measurement analysis needs.

The telecommunications industry has the highest level of digital maturity in Indonesia [29]. For optimal results, this sample includes all technology companies and all

telecommunications companies that have been listed on the Indonesian stock exchange that have a high level of digital maturity. Using these criteria, 10 companies have been selected as sample size, including 5 companies in the technology sector from 30 companies and 5 selected companies in the telecommunications sector from 10 companies that were listed on the Indonesian stock exchange between 2016 and 2020.

Table 1 - Sample Firms

No.	IDX Ticker	Company Name	Sector
1	ATIC	Anabatic Technologies Tbk.	Technology
2	EMTK	Elang Mahkota Teknologi Tbk.	
3	MLPT	Multipolar Technology Tbk.	
4	MTDL	Metrodata Electronics Tbk.	
5	PTSN	Sat Nusapersada Tbk	
6	FREN	Smartfren Telecom Tbk.	Telecommunication
7	EXCL	XL Axiata Tbk.	
8	ISAT	Indosat Tbk.	
9	LINK	Link Net Tbk.	
10	TLKM	Telkom Indonesia (Persero) Tbk	

Source: www.idx.co.id

B. Data Collection

The annual report is used to measure the digital activities that take place in the company. This technique is done to see how digitally mature a company is from one year to the next, from 2016 to 2020, the information available on the Indonesia Stock Exchange (IDX). The annual report is the primary source for looking at digital activities because it gives an overview of everything in the company over a certain period. This technique is an excellent way to measure data because it gives accurate results. Moreover, annual reports have been used to measure the company's digital activity. This method has relevance to the importance of a company's digital activities based on the report being made to the public. As a result, it will give valid data to be processed [1], [17], [30]. In order to measure digital activity in a company, this study uses an application that can analyze the text of a report. This analysis is an analysis of text queries using NVIVO 12. This app is able to summarize the number of words mentioned in the annual report regarding elements of digital maturity. Therefore, using this application provides complete data and minimal bias because it can capture words similar to the primary word.

To measure financial performance as measured by profitability and sales growth, as well as the dependent variable, namely stock returns, and control variables using reliable sources of information provided by the Indonesia Stock Exchange (IDX) from 2016 to 2020, namely the company's annual consolidated financial statements.

C. Independent Variables

The digital maturity score variable, which is labeled Digital, is used as an independent variable. This score is determined by the number of digital words that reflect a company's digital activities. This word calculation utilizes a query text model containing digital maturity measurement elements. The digital maturity element to evaluate the digital activities has been developed to measure digital maturity of Baltic State businesses [17]. It has been demonstrated that this method is reliable for measuring the company's digital activities by analyzing the number of words in the annual report. These components include general and online technology, big data and data science, IoT, artificial intelligence, and process automation. After obtaining the number of words from digital activities that have been measured by using NVIVO text queries for each annual report on information disclosure, the data must then be quantified using the tercile-based method developed by Chen & Srinivasan [1]. It seeks to avoid anomalous characteristics like bias and noise for each digital activity mentioned. Therefore, the obtained data can be quantified with a tercile-based index to provide a more accurate and measurable depiction of digital activity within an organization. The classification of the index is as follows.

Table 2 - Digital Maturity Tercile Codes

Index	Description
0	Company disclosures don't mention digital activity.
1	The company's digital words are in the bottom tercile of the year.
2	The company's digital words are in the middle tercile of the year.
3	The company's digital words are among in the most top tercile of the year.

This index is represented by the characteristics that have been extracted from text queries over a specific time period. This coding has demonstrated its efficacy and validity in avoiding noise and bias in digital activity measurements [1].

Return on Asset (ROA) is used to measure the profitability of a company's financial performance. Return on assets represents profit or return divided by total assets, which describes the amount of return a company earns by utilizing a number of its assets over a one-year period. The greater the ROA, the greater the asset utilization efficiency, allowing the company's profits to be used to acquire additional assets. Moreover, a number of prior studies used return on assets as an independent variable when calculating the effects on stock returns and found significant positive effects on stock returns [27]. This ratio is calculated by the formula below (F1).

$$ROA = \frac{Annual\ Net\ Income}{Total\ Assets} \qquad (F1)$$

Sales Growth (SG) is the total increase in sales over a specified period. Although sales growth is sensitive to external factors [31]. Nevertheless, several studies have found a positive correlation between sales growth and stock returns [27]. This ratio is calculated by the formula below (F2)

$$Sales\ Growth = \frac{Total\ Revenue_t - Total\ Revenue_{t-1}}{Total\ Revenue_{t-1}} \quad (F2)$$

D. Dependent Variable

The stock return (SR) serves as the dependent variable for hypothesis testing. This metric is based on research examining the impact of digital maturity and financial performance on stock returns [1], [29].

$$Stock\ Return = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (F3)$$

E. Control Variables

Several previous studies have demonstrated an increase in the model of stock return. Therefore, the control variables adhere to several previously conducted studies. The control variables are Company Size (SIZE), Leverage (LEV), Company Age (AGE), Book-to-Price Ratio (BP), Earnings-to-Price Ratio (EP), and Sales-to-Price Ratio (SP), so that the control of this variable can influence the regression model and enhance the study's findings [1], [5], [32].

Table 3 - Control Variables

Variable	Symbol	Formula
Firm Size	*SIZE*	$\ln Total\ Assets$
Leverage	*LEV*	$\frac{Total\ Debt}{Total\ Assets}$
Firm Age	*AGE*	$\ln\left(\frac{Number\ of\ Years}{Since\ Founded}\right)$
Book-to-Price Ratio	*BP*	$\frac{Book\ Value\ per\ Share}{Market\ Price\ per\ Share}$
Earnings-to-Price Ratio	*EP*	$\frac{Earnings\ per\ Share}{Market\ Price\ per\ Share}$
Sales-to-Price Ratio	*SP*	$\frac{Sales\ Revenue\ per\ Share}{Market\ Price\ per\ Share}$

F. Data Analysis and Research Model

To test the hypothesis, this study employs a panel data regression analysis to examine the data. In the panel data regression test, an Estimation Model Test is required to determine whether the data are suitable for the intended model. This estimation determines whether the model is appropriate for Fixed, Common, or Random Effects. After the model estimation is complete, the Classical Assumption Test or Best Linear Unbiased Estimation (BLUE) is performed to test for normality, autocorrelation, multicollinearity, and heteroscedasticity for giving the best fit output for the model to run test the effect of digital maturity and financial performance to the stock return.

The research model is required to answer all research questions by running the panel data regression. This study aims to determine the impact of digital maturity on stock return, profitability, and sales growth on stock return. The data analysis uses panel data regression with ordinary least squares due to the cross-sectional and time-series analyses. To run all of these models using the EViews 12 application. It can be concluded from the estimation test that the Random Effect Model is the best choice for the model. As a result, there is only one model to test the effect of several independent variables to the stock returns. The model is built around a single formula, which is as follows:

$$SR_{it} = \beta_0 + \beta_1 Digital_{it} + \beta_2 ROA_{it} + \beta_3 SG_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \beta_6 AGE_{it} + \beta_7 BP_{it} + \beta_8 EP_{it} + \beta_9 SP_{it} + \varepsilon_{it} \quad (F4)$$

IV. DATA ANALYSIS

A. Descriptive Statistics

Table 4 - Descriptive Statistics

List of Variables	N	Mean	Median	Max	Min	SD
SR	50	0.28	0.03	8.39	-0.69	1.27
DIGITAL	50	2.12	2.00	3.00	1.00	0.80
ROA	50	-0.24	0.02	0.17	-13.63	1.93
SG	50	0.12	0.09	3.48	-1.00	0.53
SIZE	50	30.20	30.09	33.14	27.51	1.57
LEV	50	0.22	0.18	0.55	0.01	0.17
AGE	50	3.32	3.35	4.01	2.64	0.43
BP	50	1.43	0.69	7.63	0.23	1.65
SP	50	1.41	0.91	3.75	0.12	1.15
EP	50	0.04	0.05	0.84	-0.84	0.29

The table displays the calculated mean, median, maximum value, minimum value, and standard deviation for all variables utilized in the regression analysis. These results are based on information gathered from 10 sample companies from 2016-2020.

This result suggests that tech companies have implemented their digital activities by submitting annual disclosure reports with an average index of Digital greater than 1. Moreover, nothing is indicated on an index of less than 1 or 0, because digital companies should carry out digital activities. The negative ROA profitability index of -0.24 or -24% indicates that the average technology company is still incurring losses. Sales Growth indicates that technology companies experience an average sales growth of 12%, with a maximum of 348%.

B. Estimation Model Test

The Chow test determines whether the fixed effect model or the common effect model is more suitable for the model. Suppose Cross-section F is more significant than 0.05.

Table 5 - Chow Test

Cross-section F	Statistic	d.f.	Prob.	Alpha	Decision
Stock Return	1.435410	(9,31)	0.2161	0.05	Common Effect

According to the table above, the Chow test indicates that the panel data regression model has a probability (p-value) of Cross-section F that is greater than the 5% significance level (0.05). Based on these data, it is possible to conclude the common effect model is superior to the fixed effect model. Following the completion of the chow test, the Hausman test was conducted to compare the fixed effect and random effect methods

Secondly, the Hausman test is used to determine whether a fixed effect or random effect model will be employed for the model to be used in the regression data panel. The following information was obtained from the test results based on the Hausman test:

Table 6 - Hausman Test

Cross-section random	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	Alpha	Decision
Stock Return	12.918686	9	0.1663	0.05	Random Effect

According to the preceding table, the probability value (p-value) of the random cross-section for the panel data regression model exceeds the 5% significance level (0.05). Based on these data, the random effect model is superior to the fixed effect model. After the Hausman test has been completed, the Lagrange Multiplier test is performed to compare the common effect and random effect methods.

Lastly, the Lagrange Multiplier test is used to determine whether a random effect or common effect model will be employed for the model to be used in the regression data panel. The following information was obtained from the test results based on the Lagrange Multiplier test :

Table 7 - The Lagrange Multiplier Test

Breusch-Pagan Both	Chi-Sq. Statistic	Prob.	Alpha	Decision
Stock Return	0.894973	0.3441	0.05	Common Effect

According to the table above the Lagrange Multiplier test results, the Breusch-Pagan probability value from the regression model is greater than a significance level of 5%, indicating that the Breusch-Pagan has a probability value (p-value) greater than a significance level of 5% (0.05. It can be concluded from these data that the common effect model is superior to the random effect model. Therefore, based on the three estimation results for the Chow test, Hausman test, and Lagrange multiplier test, it has been determined that the common effects method is preferable for the panel data regression model.

C. Classical Assumption Test

The normality test using the Jarque-Bera method on the model with a probability value less than alpha 5% (0.05) shows that the residual data is not normally distributed. As the data consist of panel data, the requirement for normality has been met. This result is consistent with the Central Limit Theorem (CLT), which states that if the number of observations (n) is greater than 30, it tends to have a normal distribution [33]. On this basis, additional testing can be conducted.

Table 8 - Jarque-Bera Normality Test

Panel Data	Jarque-Bera	Prob.	Alpha	Decision
Stock Return	27.72959	0.0001	0.05	Non Normal

Using the Breusch and normality tests, the autocorrelation test was conducted. The probability discussed in the previous chapter can serve as the foundation for making decisions.

Table 9 - Breusch-Godfrey Test

Breusch-Godfrey Serial Correlation LM Test	Obs*R-squared	Prob. Chi-Square	Decision
Stock Return	6.726801	0.0811	No Autocorrelation

Based on the Eviews output presented in the table above, the autocorrelation test value obtained using the Breusch and Godfrey method on a model with a probability value greater than 5% alpha (0.05), which indicates that the model does not contain autocorrelation. On this basis, additional testing can be conducted.

To check that there was no link between independent factors in testing stock returns or the dependent variable, a Multicollinearity test was performed on all independent and control variables utilized in the model data panel.

Table 10 - Multicollinearity Test

	Digital	ROA	SG	Size	LEV	AGE	BP	SP	EP	VIF
DIGITAL	1									1.83
ROA	0.17	1								2.64
SG	-0.26	-0.01	1							1.13
SIZE	0.35	-0.1	0	1						3.56
LEV	0.18	-0.49	-0.06	0.35	1					2.13
AGE	0.31	0.2	-0.01	0.6	-0.09	1				2.8
BP	-0.35	-0.12	-0.02	-0.38	-0.42	0.1	1			2.71
SP	0.14	-0.19	-0.11	-0.38	0.05	-0.17	0.3	1		1.76
EP	0.04	0.52	0.01	-0.27	-0.45	0.18	0.36	0.19	1	2.04

Based on the testing results for multicollinearity, there is no correlation evidence of multicollinearity in any of the variables, as measured by the VIF index, which indicates that the correlation is greater than 0.80 and the VIF is greater than 10. Therefore, in this instance, the model contains no indications of multicollinearity, indicating that the current model is reliable without multicollinearity; heteroscedasticity analysis can proceed.

The Breusch-Pagan-Godfrey test is used in the heteroscedasticity test to find out whether the panel data regression model has problems in heteroscedasticity or not.

Table 11 - Heteroscedasticity LR Test

Breusch-Pagan-Godfrey	Obs*R-squared	Prob. Chi-Square	Decision
Model 1	13.18184	0.1545	There is no heteroscedasticity

Based on the results of the heteroscedasticity test presented in the table above, the probability value of Obs*R-squared in each model is greater than 0.05, indicating that there is no heteroscedasticity problem. Therefore, it can be concluded that the heteroscedasticity assumption of the multiple regression model has not been violated. Furthermore, based on the classical assumption test, it is possible to test the panel of regression data because the conducted test is error-free and reliable for data analysis

D. Panel Data Regression

Table 12 - Panel Data Regressions

Variables	Stock Return (*SR*)	
	Coefficient	Prob.
Constant	8.066887	0.0028***
Independent Variable		
DIGITAL	0.103737	0.4907
ROA	-0.010004	0.5983
SG	2.022459	0.0000***
Control Variable		
SIZE	-0.337904	0.0028***
LEV	-0.496094	0.5068
AGE	0.748281	0.0363**
BP	-0.103975	0.2423
SP	-0.173479	0.0943*
EP	0.006045	0.9891
Statistics		
R Squared	0.807610	
Adjusted R-Squared	0.764323	
F-Statistic	18.65684	
Prob (F-Statistic)	0.000000***	
The table shows panel regression result where p <0.1*, < 0.05**, < 0.01***		

According to the above equation, Digital has a positive effect on Stock Return (SR), which indicates that when Digital increases, Stock Return (SR) will also increase. However, this effect is not significant. However, ROA is not statistically significant because it has a greater probability value at a significance level. Additionally, Sales Growth (SG) has a positive effect of 2.022459 on Stock Return (SR), meaning that when SG increases, so does Stock Return. The effect is statistically significant at the 1% level.

D. Robustness Test

Table 13 - Robustness Test Result

Variables	Robustness Check A		Robustness Check B		Robustness Check C	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
Constant	7.347480	0.0003***	7.177714	0.0004***	7.219297	0.0006***
Independent Variable						
DIGITAL	-0.064763	0.6424	0.001484	0.9896	-0.018436	0.8997
ROA	-0.022125	0.1460	-0.030394	0.0273**	-0.029497	0.0371**
SG	2.163525	0.0000***	2.120813	0.0000***	2.115995	0.0000***
Control Variable						
SIZE	-0.327343	0.0001***	-0.331289	0.0001***	-0.333165	0.0001***
LEV	-0.224855	0.7390	-0.228018	0.6731	-0.247060	0.6962
AGE	0.966955	0.0011***	0.980895	0.0001***	1.003801	0.0006***
BP	-0.113023	0.1086	-0.157327	0.0139**	-0.154863	0.0177**
SP	-0.178409	0.0507*	-0.287330	0.0004***	-0.277997	0.0057***
EP	0.336090	0.3502	0.104629	0.7837	0.092388	0.8128
ATQ	-	-	0.306315	0.0673	0.296958	0.1139
LIQ	-0.063025	0.5066	-	-	-0.019338	0.8412
Statistics						
R Squared	0.927733		0.951299		0.950298	
Adjusted R-Squared	0.914062		0.939870		0.938921	
Prob (F-Statistic)	0.000000***		0.000000***		0.000000***	
The table shows panel regression result where p <0.1*, < 0.05**, < 0.01***.						

V. RESULT AND DISCUSSION

A. Result and Discussion

The relationship between Digital Maturity and stock returns is not statistically significant, as indicated by the panel data regression results and robustness test. Therefore, these results do not support the study's hypothesis because the insignificant effect is a result of the disclosure of digital activities, which may be due to be delayed and not produce immediate results, this is supported by previous studies indicating that the disclosure of digital activities is relatively slow and delays the company's performance results [1]. In addition, this result is not supported by several studies that suggest that high digital maturity will affect company performance because it increases efficiency, profitability, and stock returns [1], [26]. However, this study's findings support earlier research that finds no clear correlation between digitization and stock returns [13], [17]. Furthermore, these technology firms with a high level of digital maturity may have no impact on firm value as measured by stock returns because they not prioritize company's disclosure for digital activity and focusing on company's growth [11], [19]. Moreover, it is too early to observe this topic because the results of the companies studied are still quite limited, so the results provided are not optimal.

As measured by the ROA ratio, profitability exhibits a situation similar to Digital Maturity. The regression analysis results of panel data indicate that ROA has no significant effect on the stock returns of technology companies. However, on the robustness test the result is significant. This result is also influenced by the tendency of companies that are slow in publishing their financial reports, which has an impact on investors' delay in assessing the company's performance as measured by the ROA ratio to provide stock return projections and resulting in investors being paid less attention to this variable. This insignificant impact is due the fact that the company's management is unable to utilize total assets (current assets and fixed assets) effectively, and therefore cannot increase stock return. This decreases the allure of investing in the company for potential investors, as the return on shares decreases. This researcher agrees with previous research that there is no ROA effect on stock returns [35]. However, this result does not support previous studies with a positive correlation between ROA and stock returns [36]

In addition, Sales Growth (SG) generates different results. It has a positive effect with a significance level of 1%, indicating that increased sales growth will have a significant positive effect on stock returns in technology companies. In line with previous research, technology companies continue to prioritize growth, which is measured by sales growth [11], [19]. This result also confirms the findings of previous studies that a substantial increase in sales will have an impact on the rise in stock prices [28] It also indicates the investor are likely to invest the company that have robust sales. However, this result also requires further discussion because sales growth is a sensitive variable that can be affected by internal and external company factors [37].

B. Research Implication

Disclosure of digital activities in the annual report and profitability does not have a significant effect on returns for shareholders, this may be because the insignificant effect is a result of the disclosure of digital activities in annual report and profitability in the financial statement, which may be due to be delayed and not produce immediate results. In addition, ROA does not affect stock returns due to pay less attention from the investor in terms of the company's ability to generate assets. However, Because sales growth is the baseline that substantially impacts the company's return, the company's management can more effectively consider sales-sensitive factors. Numerous internal and external factors can influence the growth of a business. Furthermore, because growth is gradual, there will be numerous challenges to overcome at each stage [37]. External factors include economic, sociocultural, regulatory, political, and demographic conditions. Therefore, exploiting opportunities necessitates the correct strategy, as internal factors are influenced by external ones [31]. This consideration is required because sales growth is essential in increasing a company's stock value, measured by stock returns.

In addition, investors can use the results of this study as a benchmark for obtaining returns in the technology sector because when a company indicates an increase in the number of sales, it will be sensitive and have a significant positive effect on stock returns due to the positive effect of the results of this analysis. However, investors need to understand that while sales growth positively affects company returns, company profitability does not affect stock returns. Therefore, this result suggests that investors can be wiser when selecting technology stocks, particularly companies with high growth that will also provide high returns in the future.

V. CONCLUSION

This study focuses on technology companies whose impact on stock returns is a result of measuring digital activity disclosure as a proxy to measure the digital maturity or digital maturity, financial performance as measured by profitability, and sales growth from 2016 to 2020. This study's descriptive analysis reveals that technology companies tend to have a relatively high risk of stock returns, as indicated by the relatively large standard deviation. Combining elements from previous research techniques with a noise minimization method in digital activity codes using the tercile-based method developed by previous researchers to measure digital activity [1], [17]. The results of the data analysis using panel data regression and robustness test indicate the insignificant effects of the use digital activities disclosure on stock return, the result may be due to be delayed and not produce immediate results. On the other hand, profitability as measured by the ROA also insignificant to the stock return, the coefficient is even negative. This negative effect on digital companies is still in its infancy because it is too early to observe its effects. Moreover the investor is paid less attention to the ROA variable on increasing the stock return. However, sales growth has the most significant positive impact on stock returns for technology companies. Because it is align with the fundamental aspect of valuing the company based on sales growth. However, the manager need to focus on the Sales Growth variable because it is highly susceptible to external company influences.

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