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DOES THE MARKET REACT TO THE REPUTATION OF CAPITAL EXPENDITURE?

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ABSTRACT

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A phenomenon found in several case studies shows that investors are more interested in the projection of firm value than in periodic financial performance. Therefore, this study aims to determine whether the reputation of capital expenditure is an indication of a promising future for a company, so that it responds positively to the market. The research samples used were companies that had the highest increase in shares in their sectors during the Q1 2017 to Q2 2019 period. We used Tobin's Q (TQ) and cumulative abnormal return (CAR) as proxies for market response. The findings of this study are, first, that the market responded positively to the reputation of corporate capital expenditure, as seen from asset growth. Second, in the sample group with positive asset growth trends in the last five years, the reputation of capital expenditure, proxied by total assets and total fixed assets, consistently received positive responses from investors. Third, the market responded negatively, or had no response, to capital expenditure made by companies that had a negative growth trend. The results of this study invalidate the findings of previous studies that good financial performance responds positively. This study proves that the capital expenditure of a company is more of a concern to investors than its current performance.

Contribution/Originality: This study is one of the few studies that investigates the impact of capital expenditure on long-term performance. Furthermore, this study strengthens the argument that investors are more interested in a company's future projections than just its short-term performance, as found in previous studies.

1. INTRODUCTION

The existence of a product life cycle or trend in society forces companies to keep investing (Hasan & Habib, 2017), and this condition requires continuous new investments. The need for new investment drives companies to manage cash flow efficiently, especially for investment, so that the companies do not lose their ability to maintain growth and increase market share in accordance with the business world's development trend.

For new investment projects with fixed assets and R&D costs, project expenditure in general does not have an impact on financial performance, because during the installation period of fixed assets or R&D, assets and research results are not able to support the company's revenue. At the same time, the need for cash flow from investment (CFI) increases and affects the company's overall cash flow. This phenomenon is quite surprising because companies that have capital expenditure are appreciated by investors. For example, regarding the AMFG (PT. Asahimas Flat Glass Industry) shares, it was noted that its share price rose by 86% on July 1, 2019, even though its financial performance was only 3.4%, and its return on assets (ROA) was below the average ROA for the industry at that time (see Figure 1). At the same time, AMFG's capital expenditure increased. This indicates that investors read an increase in the value of capital expenditure above average in the basic industrial sector on the Indonesia Stock Exchange (IDX), as a good signal for AMFG stock prices Figure 1.

The stock price rises before the company's performance shows improvement, because the indication of the increase in capital expenditure gives investors hope of a better future for the company.



In the case of Astra Agro Lestari Tbk. (AALI), the chart shows that its fixed assets are stagnant, its total assets increased, and its debt to equity ratio (DER) decreased; however, the Tobin's Q(TQ) fell. This means that even though the risk of the business decreased, the share price will still decrease. The decline in share price when the cost of debt decreases indicates that investors are worried about a company's future because there is no new investment in the form of fixed assets, and therefore no hope that the company's performance will improve in the future.

Capital spending is a way for companies to improve their performance and competitiveness by investing in fixed assets and R&D costs (Zhao, Qu, & Luo, 2019). Capital spending is important for creating a company

growth cycle (S-curve, see Figure 2) that is continuous and overlapping in order to reduce the negative effect of products in the decline phase (Catalini & Tucker, 2016).



Figure 2. S-Curve.

The reputation of firms that undertake capital spending from an investor's perspective is an area that has the potential for further study. The phenomenon highlighted by preliminary studies indicates that investors appreciate companies that undertake capital spending, even though their current financial performance is not always good. This is because capital spending indicates the future of a company (Chan, Martin, & Kensinger, 1990). This is in contrast to previous studies (Anilowski, Feng, & Skinner, 2007; Bali, Demirtas, & Tehranian, 2008; Ball & Brown, 1968; Ball, Sadka, & Sadka, 2009) which generally associate the current year's performance with changes in stock prices. This study aims to prove that capital spending whose results cannot be realized in the short term will be appreciated by investors.

This research is important because resources are limited, and misallocation of resources will impact not only investors but also society at large. To obtain a comprehensive conclusion, this study uses long-term data in quarterly frequencies to prove that stock value is related to a company's future, and not just its current performance, let alone past performance. A company's future is marked by growth in capital spending. Growth serves as a signal for investors regarding a company's future value. Investors' enthusiasm for a company's future invalidates the belief that has been built on the results of previous research which suggests that companies with poor financial performance receive negative responses. The phenomenon found in the above case examples shows that investors are more interested in the projected value of the firm. Investors will continue to positively assess companies whose periodic performance is below expectations when they know that a company is making capital expenditure to maintain future growth.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Signaling Theory

Signaling theory has been widely applied in the context of information disparity between two parties (Spence, 2002; Stiglitz, 2002; Taj, 2016). Management takes certain actions in the hope of receiving a response from other parties (investors). According to the signaling model (Engers, 1987), one of the objectives of carrying

out external funding is to finance expansion and signal to investors that the company's fundamentals are strong, because only very strong companies run the risk of experiencing financial difficulties when the proportion of debt is relatively high. In their agency theory, Jensen & Meckling (1976) proposed increasing debt as a mechanism to reduce agency problems. The greater the company's debt, the smaller the idle funds that managers can use for unnecessary expenses.

A good company distinguishes itself from a bad company by sending a quality signal that a bad company is unlikely to imitate (Spence, 1973). Similarly, from the perspective of signaling theory, capital spending aims to send a message to outsiders, especially investors, that a company has the potential to continue to provide returns for investors in the future (Diamond, 1989).

2.2. Reputation of Companies' Capital Spending and Growth

The main driver of the modern economy is the use of new technology and production processes that are more capital-intensive. To achieve this, the company needs adequate financial, technical, and human resources. Companies need to undertake capital spending to optimize these new investment opportunities. Expenditure for the purchase of fixed assets include capital spending and R&D spending.

According to signaling theory, capital investment is a signal that managers want to show that the company has high performance prospects. This signal is important in the capital market, which is characterized by information asymmetry between the internal and external parties of the company (Ambarish, John, & William, 1987; John & Nachman, 1985; Miller & Rock, 1985). The investment spending by management can provide a reliable signal regarding a company's cash flow.

A significant increase in share price occurs when a company announces that it will increase its capital expenditure, including spending on R&D, and conversely, the stock price will react negatively when there is a reduction in capital expenditure (Rajan & Zingales, 1995). Companies that issue new shares to fund the development of the company receive a smaller negative response than an established company that announces that it will issue new shares (Pillote, 1992). Capital expenditure produces information about future earnings that cannot be captured in the current period income (Kerstein & Kim, 1995).

In the real world, capital expenditure is not a single action in a single stage, but a series of capital expenditures in every stage of the life cycle. Each stage of the life cycle requires capital expenditure to connect the stages of the life cycle so that it does not fall in the middle (Shahzad, Lu, & Fareed, 2019).

Company life cycles can be identified using indicators such as cash flow from operating (CFO), cash flow from financing (CFF), or cash flow from investing (CFI). The life cycle begins at the introduction stages, leading to growth, maturity, and finally decline. The introduction phase is marked by negative CFO and CFI, while CFF is positive (Miller & Friesen, 1984). In this phase, fixed costs often impede a company's turnover. A company needs more cash to make an initial investment to develop its market position.

The crucial phase is the decline phase, which is indicated by a decline in sales and negative earnings. This is due to the cessation of innovation. The decrease in liquidity of company assets affects the continuation of business and expenses (e.g., paying creditors); therefore, the CFI will not be zero.

Dickinson (2011) found that a falling CFF could be either greater than or less than zero. At this stage, it becomes a challenge for management to produce the S-curve so that the company remains sustainable. Capital expenditure will prop up a company in this difficult situation to help it to get through this situation and recover.

In this study, the reputation of capital expenditure is indicated by the growth of fixed assets and the addition of a company's total assets per quarter. Companies that continuously invest in capital expenditure promise a continuous increase in value in the future.

2.3. Hypothesis Development

The growth in capital expenditure over the years shows the reputation of the company's capital expenditure, which in turn is a signal of a company's growth opportunity (Diamond, 1989; Masulis, 1980; McConnell & Muscarella, 1985). Capital expenditure growth is indicated by an increase in fixed or total assets. The increase in fixed assets indicates that the company's future productivity will be better, and the growth in these expenditures means innovation and an increase the quality of output. The increase in capital expenditure also provides an expectation that potential financial performance (ROA) will increase (Kerstein & Kim, 1995). Increased capital expenditure, in contrast, has an impact on increased risk; however, the capital expenditure for the company. If a company has declining or stagnant capital expenditure, this is a worry for investors because it signals a less promising future.

Investment decisions made by companies are considered to be value-enhancing actions by the market. In their research, Moser, Isaksson, Okwir, & Seifert, (2021) used annual fixed asset expenditure and found that capital expenditure responded negatively in the short term but positively in the long term. A number of other studies document investors' appreciation of investment decisions made by companies (Akbar, Ali Shah, & Saadi, 2008; Chan et al., 1990; Jones, Danbolt, & Hirst, 2004; Jung, Kim, & Stulz, 1996; McConnell & Muscarella, 1985). Chan et al. (1990) found that announcements related to a company's decision to relocate its head office, subsidiary, factory, or business unit were seen as decisions that had implications for the company's prospects. The market does not necessarily assess a company's performance as being poor when its investment takes a long time to realize results (Jones et al., 2004). Research findings by Akbar et al. (2008) show a significant relationship between capital expenditure announcements and stock market prices. McConnell & Muscarella (1985) found that, in general, an increase or decrease in capital expenditure is followed by a corresponding increase or decrease in stock prices.

Investor responses in this study were measured using two proxies: Tobin's Q (TQ) and cumulative abnormal return (CAR). These two proxies are often used interchangeably in previous studies to represent market responses (Akbar et al., 2008; Brailsford & Yeoh, 2004; Woolridge & Snow, 1990). TQ is the total value of a company's assets from an investor's point of view, where TQ is a combination of the market value of equity and the book value of debt (Chung, Wright, & Charoenwong, 1998). Investors' responses to a company's capital expenditure will be comprehensively reflected in the company's value. At the same time, investors' appreciation of a company's capital expenditure decisions can also be indicated directly by changes in share prices (Brailsford & Yeoh, 2004). To prove the consistency of the effect of corporate capital spending, capital expenditure growth, and capital expenditure growth trends, this study uses both proxies.

Based on the description above, the following hypothesis was developed:

Hypothesis 1: Fixed asset growth affects firm value.

The capital expenditure growth trend is a signal to investors regarding a company's future; companies that have a growth trend indicate that they have promising business prospects. Meanwhile, companies whose capital expenditure growth trend is negative indicates that they are heading for a decline, which threatens the future of investors; therefore, the market will respond negatively. Hence, the next set of hypotheses was developed. When the trend of capital expenditure increases, it is hypothesized as follows:

Hypothesis 2A: Total assets have a positive effect on firm value.

Hypothesis 2B: Total fixed assets have a positive effect on firm value.

When the trend of capital expenditure falls, it is hypothesized as follows:

Hypothesis 3A: Total assets have a negative effect on firm value.

Hypothesis 3B: Total fixed assets have a negative effect on firm value.

3. RESEARCH METHOD

3.1. Sample

The research sample comprised publicly traded companies listed on the Indonesia Stock Exchange. Companies were selected based on the following criteria:

- 1. Issuers listed on the IDX during the Q1 2017 to Q2 2019 period.
- 2. Research objects were excluded for the financial and service sectors.
- 3. Issuers with incomplete data were ignored because this is related to information disclosure; the more incomplete the information disclosed by the company, the more difficult it is for investors to assess the company's future.
- 4. Firms undertook capital expenditure during the study period.
- 5. Ten companies with the highest increase in shares in each sector during the study period were selected as samples. The selection of the companies with the highest increases was due to the fact that we found a significant difference in the characteristics of financial performance between companies that experienced the highest increase in stock prices and those that experienced the lowest increase in stock prices. Some companies that were at the lower limit did not have significant capital expenditure activities. To avoid bias, we only included companies with the highest share increments.

3.2. Analysis Model

Hypothesis testing was carried out in stages. First, we tested hypothesis 1 to prove that the reputation of capital expenditure, measured by the growth in total fixed assets, affects firm value (see Equation 1). After that, the sample was divided into two sample groups based on the trend of capital expenditure growth over the last five years. Companies experiencing a positive growth trend were separated from those that had a negative growth trend. Then, each sample group was tested separately to prove hypotheses 2A and 2B (see Equation 2), and 3A and 3B (see Equation 3). The analysis model for each hypothesis is as follows: Hypothesis 1

$$MR \ all_{i,t} = \beta_0 + \beta_1 GFA_{i,t-1} + \beta_2 LOGTA_{i,t-1} + \beta_3 FATA_{i,t-1} + \beta_4 ROA_{i,t-1} + \beta_5 DER_{i,t-1} + \varepsilon_t$$
(1)

Hypotheses 2A and 2B

$$MR growth_{i,t} = \gamma_0 + \gamma_1 LOGTA_{i,t-1} + \gamma_2 FATA_{i,t-1} + \gamma_3 ROA_{i,t-1} + \gamma_4 DER_{i,t-1} + \varepsilon_t \quad (2)$$

Hypotheses 3A and 3B

$$MR not - growth_{i,t} = \phi_0 + \phi_1 LOGTA_{i,t-1} + \phi_2 FATA_{i,t-1} + \phi_3 ROA_{i,t-1} + \phi_4 DER_{i,t-1} + \varepsilon_t (3)$$

Where:

MR all_{it} is the market response of firm i for period t for all samples.

MR growth, is the market response of firm i for period t for the growth sample.

MR not-growthat is the market response of firm i for period t for the non-growth sample.

 $GFA_{i,t-1}$ is the growth of total assets for firm i for the t-1 period.

 $LOGTA_{i,t-1}$ is the log of total assets for firm i for the t-1 period.

 $FATA_{i,t-1}$ is the proportion of fixed assets to total assets of firm i in period t-1.

 $ROA_{i,t-1}$ is the return on assets for firm i for the t-1 period.

 $DER_{i,t-1}$ is the debt to equity ratio for firm i for the t-1 period.

3.3. Operationalization of Variables

The operationalization of the variables used in this study is described below.

- 1. Capital spending is proxied by the expenditure of total assets quarterly and total fixed assets quarterly. Total assets are measured by the logarithm of total assets (LOGTA), while total fixed assets are measured by total fixed assets scaled by total assets (FATA).
- 2. Capital spending growth (GFA) is measured by calculating the current total fixed assets divided by the previous period's total fixed assets.
- 3. ROA is a measure of financial performance, which in this case is calculated by dividing net income by total assets.
- 4. DER is a measure of a company's risk, obtained from total liabilities divided by total assets.
- 5. Market response (MR) in this study is proxied by TQ and CAR. TQ combines the total value of the company's assets from an investor's perspective, where TQ is calculated from the market value of equity shares plus the book value of total liabilities.
- 6. CAR is calculated using a market model with an estimated period of 60 days before the date of publication of the quarterly report, and the event period for calculating CAR is ten days before the day of publication, the day of publication, and ten days after the publication day of the quarterly financial statements. After calculating stock returns and market returns during the estimation period, the next step is to estimate \Box by regressing stock returns and market returns by using Equation 4 as follows:

$$R_{it} = \alpha + \beta_i R_{mt} + \varepsilon_{it} \qquad (4)$$

The next step was to calculate the expected return (Equation 5) and abnormal return (Equation 6) as follows:

$$\mathbf{E}(R_{it}) = \alpha + \beta_i R_{mt} \qquad (5)$$
$$AR_{it} = R_{it} - \mathbf{E}(R_{it}) \qquad (6)$$

Next, the CAR during the event window period for -10, 0, + 10 was calculated using Equation 7, as follows:

$$CAR_i = \sum_{t=10}^{t+10} AR_{it}$$
⁽⁷⁾

4. RESULTS

4.1. Sample Profile

The number of companies registered on the IDX during the Q1 2017 to Q2 2019 research period was 644 companies, 324 of which did not have complete financial data and came from the financial sector, leaving 320 companies. Based on the criteria of ten companies per sector with the highest increase in shares, 35 companies were selected out of 320, with a total of 280 firm years during the study period. Of these, 71 did not have stock price data for the past 60 days, so they were excluded from the sample, which gave us a final total sample of 209 firm years.

The sample profiles of the research variables are presented in Table 1. Panel A is the sample group that has positive capital expenditure growth throughout the study period, Panel B shows the sample profile with negative growth, and Panel C shows the profile of all samples.

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Panel A					Panel B			
Positive Growth (155)					Negative Growth (54)			
	Min.	Max.	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.
FATA	0.18	0.96	0.63	0.18	0.30	0.65	0.50	0.10
LOGTA	7.83	13.46	10.77	1.81	8.12	12.54	10.82	1.78
ROA	-0.09	0.15	0.02	0.031	- 0.02	0.08	0.025	0.022
DER	0.33	4.03	1.49	0.78	0.07	1.84	0.69	0.60
ТQ	0.01	4.32	0.75	1.03	0.30	0.82	0.51	0.16

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Table 1. Continue.

Panel C								
All samples (209)								
	Min.	Max.	Mean	Std. Dev.				
FATA	0.18	0.96	0.59	0.17				
LOGTA	7.83	13.46	10.82	1.78				
ROA	-0.09	0.15	0.02	0.03				
DER	0.07	4.03	1.25	0.82				
TQ	0.00	4.32	0.69	0.88				

Companies that were growing had a higher average TQ (0.75) than companies that had negative growth, which only had an average TQ of 0.5. This shows that investors appreciated companies that were growing compared to companies that were not growing or had negative growth. The average capital expenditure of growing companies (FATA) was 0.80, which is higher than that of companies in the negative growth group, whose FATA value was only 0.50. Interestingly, the ROA of companies with positive growth was not better than that of companies with negative growth. This shows that growth in capital expenditure is not directly related to short-term financial performance. Judging from the capital structure, growing companies have a capital posture that is mostly funded by debt, as can be seen from the average DER value of 1.49; thus, from the risk side, companies that are growing have a higher risk than companies that are not growing.

4.2. Hypothesis Testing

The first hypothesis aims to prove that a company's investment in capital expenditure signals growth, and that this will be responded positively by investors. The test results for Hypothesis 1 are presented in Table 2. The GFA had a positive and significant coefficient at the 0.01 level, and investors responded positively to growth signals, proxied by growth in capital expenditure. In addition, capital expenditure, proxied by LOGTA and FATA, both had a positive and significant coefficient at the 0.01 level. Investors appreciated the capital expenditures made by companies because they indicated future expectations. These results were fairly consistent across both proxies of market response (TQ and CAR). The test results supported Hypothesis 1—that the market responds positively to companies that show signals of capital expenditure growth.

Financial performance in the form of ROA had a significant negative effect, which means that investors responded otherwise. Growth signals dominate, so periodic performance, such as ROA, is less of a concern for investors, who respond negatively to corporate risk (DER) because the debt-dominated capital structure will increase the company's risk in the future.

The trend of capital expenditure growth over time indicates a company's commitment to continue to strive to maintain and increase value to shareholders. Hypothesis 2 (see Table 3) examines investors' responses to capital expenditure by companies in the sample group, which have a positive growth trend. Companies over the past five years that had positive capital expenditure growth trends were tested separately. The results

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consistently showed that in this sample group, capital expenditure, which is proxied by LOGTA and FATA, had a positive response from investors. For companies that have positive growth, investors understand that debt increases as a source of capital expenditure and DER does not affect investors' responses.

	Tobin's Q			CAR			
Variable	Coefficient	T-value	Sig.	Coefficient	T-value	Sig.	
GFA	0.701	2.026	**	0.364	5.995	***	
FATA	2.392	7.083	***	-25.534	-6.118	***	
LOGTA	25.139	6.013	***	1.992	5.793	***	
ROA	-0.159	-2.644	***	-0.010	-1.78		
DER	-0.157	-2.116	***	-0.219	-3.657	***	
Constant	-9.514	-5.723	***	-7.148	-4.921	***	
R²/Adj R²	0.371			0.436			
F	18.582		***	25.610		***	

Table 2. Hypothesis 1.

Companies that have a positive capital expenditure growth trends are able to provide added value and significant competitiveness so that the company will be able to control a larger market share in the future, which in turn will enable investors to enjoy good financial performance. The test results for Hypothesis 2 prove that the market responds positively to capital expenditure made by growing companies, and this result is consistent with both TQ and CAR proxies.

	Т	obin's Q		CAR		
Variable	Coefficient	T-value	Sig.	Coefficient	T-value	Sig.
FATA	2.448	5.506	***	1.264	2.109	**
LOGTA	25.386	4.644	***	16.043	2.223	**
ROA	-0.198	-2.755	***	-0.113	-1.151	
DER	-0.106	-1.278		-0.103	-0.952	
Constant	-9.261	-4.190	***	-2.508	-1.691	*
R²/Adj R²	0.405			0.224		
F	17.209		***	10.181		***

Table 3. Hypotheses 2A and 2B.

The results of Hypothesis 3 (see Table 4) indicate that for the sample group that has a negative growth trend, the results are indeed different, and tend to be inconsistent for each of the proxies for capital expenditure, namely FATA and LOGTA. Capital expenditure, which is proxied by total assets, has a negative response because in companies with a negative growth trend, continuity of capital expenditure cannot be expected. Investors doubt a company's ability to update its assets. Meanwhile, the market still believes more in capital expenditure, which is proxied by FATA, even though a company has a negative growth trend. The addition of fixed assets will support these companies to continue operating and will signal their ability to survive in the future.

In the cases where companies experience negative capital expenditure growth, investors refocus their attention on periodic financial performance, and it is evident that ROA responds positively to the market, although this result is inconsistent when market reactions are measured by CAR. In the CAR model, ROA does not affect the market reactions.

4.3. Discussion

Capital expenditure is a signal sent by a company to the market that it has a high value (Trueman, 1986), and that the company is well prepared to anticipate various changes in the future. The phenomenon of AMFG and AALI stocks discussed in the background section has strong empirical support; investors pay more attention

to company prospects rather than periodic performance. Companies that have good performance but are not growing respond negatively to the market.

	Tobin's Q			CAR		
Variable	Coefficient	T-value	Sig.	Coefficient	T-value	Sig.
FATA	0.259	1.749	*	0.304	1.814	*
LOGTA	-0.318	-1.973	*	0.048	0.262	
ROA	0.497	3.552	***	-0.113	-1.151	
DER	0.019	0.100		0.165	1.080	
Constant	0.481	2.500	**	0.310	1.475	
R²/Adj R²				0.036		
F	3.797		***	1.823		*

Table 4. Hypotheses 3A and 3B.

Our findings prove that capital expenditure is a function of stock price and firm value, where capital expenditure explains changes in firm value more strongly than periodic financial performance, such as ROA. This is in line with the findings of previous studies (e.g., Trueman, 1986), which suggest that capital expenditure may be able to perfectly reveal management information with a higher level of signaling with more favorable information. Other studies (Jones et al., 2004; Moser et al., 2021), although in a slightly different setting, found that capital expenditure signals a better future, and therefore has a positive response from the market. In all hypotheses, ROA was not proven to be a variable of concern for investors as the market pays more attention to a company's capital expenditure variables. This proof simultaneously invalidates previous findings regarding the market response to financial performance (Anilowski et al., 2007; Bali et al., 2008; Ball & Brown, 1968; Ball et al., 2009). Market response shifts when it is related to the capital expenditure variable. The role of ROA is less significant when it is added to the capital expenditure aspect.

This study also found that asset growth and the amount of annual or periodic asset expenditure or fixed assets are good proxies for capital expenditure. Previous studies used capital expenditure announcements as a proxy for capital spending; however, we must choose another proxy, because not all companies announce their capital expenditure actions, especially if capital expenditure is strategic (Jones et al., 2004). The findings of this study contribute to existing research related to the proxies for capital expenditure, which can be proxied by the growth of fixed assets, addition of total assets, or fixed assets. These three proxies for capital expenditure consistently influence market responses.

Another important finding is that the market focuses on trends in corporate capital expenditure. The trend of capital expenditure growth shows a company's commitment to continue to maintain its existence. Companies have their own life cycles; each stage of the cycle requires capital investment so that the company can continue to grow and survive, especially companies that are in a stage of decline. Capital expenditure plays a role in preventing a company from declining and allows it to grow and reach the next life cycle stage. Research has not yet been conducted to prove whether capital expenditure provides a shield that prevents companies from leaving the market and leads them to enter the next phase of the life cycle. This provides further research opportunities to address this issue.

From a risk perspective, companies that make capital expenditures have the potential to increase their DER. The market responds to this risk realistically, so the higher the risk, the more negative the investor's response and big risks generate negative responses. However, investors still see the positive side of these risks because companies that have high risks but positive asset growth receive a positive response from the market. A high DER also indicates a great deal of confidence in a company to be able to finance capital expenditure needs from debt, and this further increases a company's market confidence. The results of this study have several implications for management. The market response describes the market appreciation of company performance. Companies that get a good assessment from the market will certainly benefit as the company's value increases. Therefore, management needs to manage capital expenditure appropriately, and the accuracy of capital expenditure will be proven through the achievement of good financial performance in the subsequent periods according to market expectations. This is why investors maintain their investments, as they appreciate companies' capital expenditure actions. Capital expenditure will also help management to save companies that are in the decline phase, and it is hoped that with the right capital expenditure management they will survive this phase and continue to exist in the market.

This study had several limitations. First, given the limited data available, we did not differentiate between the types of capital expenditure made by companies, whether it is internal investment in the form of production machinery, acquisitions, mergers, or business diversification. Second, there were not many companies that could be sampled, because some companies that met the criteria did not have a significant increase in shares during the study period, so to avoid biased results, these companies were excluded from the study sample. The results of this study can be refined by expanding the research period, and specifically focus on companies that disclose their expenditure to the public, and is not solely based on the addition of total assets or fixed assets.

5. CONCLUSIONS

Companies need new investments to be sustainable, and they periodically need to adjust the assets used for current production so that they can continue to be competitive in the future. It is as if companies are being forced to increase investment so that they do not lose momentum following the development of existing market trends. The size of new investments determines the future of the company.

In the capital market, investors consider the stock prices to be directly proportional to the prospects of a company's future financial performance. From the perspective of investors, the reputation of companies that carry out capital spending is important for further study. The results support the hypothesis that the reputation of asset expenditure, measured by asset growth and periodic expenditure on fixed assets, has a significant influence on market response, as proxied by TQ and CAR. Growth trends differentiate the market response to a company's reputation for capital expenditure. Companies that have a positive growth trend receive a positive response to their capital expenditure, and vice versa. Periodic capital expenditure signals that a company is committed to maintaining its presence in the market, and such companies promise good returns in the future. Proxies for capital expenditure, both measured by asset growth and periodic expenditure on assets and fixed assets, show consistent results in explaining investor responses. This study adds to the evidence that investors respond more to capital expenditure than to periodic financial performance. Investment is a matter of the future; therefore, investors look for companies that promise a good future, and capital expenditure is one of the indicators of prosperity. The findings of this study also provide a number of managerial implications, including that managers need to pay attention to the management of asset expenditure for two reasons. First, the market appreciates capital expenditure, which will increase the value of a company. Second, capital expenditure that is carried out from time to time will help to bring a company out of a decline phase and into the next life cycle phase, so that it will continue to be sustainable.

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REFERENCES

- Akbar, S., Ali Shah, S. Z., & Saadi, I. (2008). Stock market reaction to capital expenditure announcements by UK firms. *Applied Financial Economics*, 18(8), 617-627. Available at: https://doi.org/10.1080/09603100701222234.
- Ambarish, R., John, K., & William, J. (1987). Efficient signaling with dividends and investments. Journal of Finance 42(2), 321-343. Available at: https://doi.org/10.1111/j.1540-6261.1987.tb02570.x.
- Anilowski, C., Feng, M., & Skinner, D. J. (2007). Does earnings guidance affect market returns? The nature and information content of aggregate earnings guidance. *Journal of Accounting and Economics*, 44(1-2), 36-63. Available at: https://doi.org/10.1016/j.jacceco.2006.09.002.
- Bali, T. G., Demirtas, K. O., & Tehranian, H. (2008). Aggregate earnings, firm-level earnings, and expected stock returns. Journal of Financial and Quantitative Analysis, 43(3), 657-684. Available at: https://doi.org/10.1017/s0022109000004245.
- Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. Journal of Accounting Research, 6(2), 159– 178. Available at: https://doi.org/10.2307/2490232.
- Ball, R., Sadka, G., & Sadka, R. (2009). Aggregate earnings and asset prices. Journal of Accounting Research, 47, 1097–1134. Available at: https://doi.org/10.1111/j.1475-679x.2009.00351.x.
- Brailsford, J. T., & Yeoh, D. (2004). Agency problems and capital expenditure announcements. *The Journal of Business*, 77(2), 223-256. Available at: https://doi.org/10.1086/381274.
- Catalini, C., & Tucker, C. (2016). Seeding the s-curve? The role of early adopters in Diffusion (Vol. 16). NBER Working Papers No 22596, National Bureau of Economic Research, Inc.
- Chan, S. H., Martin, J. D., & Kensinger, J. W. (1990). Corporate research and development expenditures and share value. *Journal of Financial Economics*, 26(2), 255–276. Available at: https://doi.org/10.1016/0304-405x(90)90005-k.
- Chung, K. H., Wright, P., & Charoenwong, C. (1998). Investment opportunities and market reaction to capital expenditure decisions. *Journal of Banking & Finance*, 22(1), 41-60. Available at: https://doi.org/10.1016/s0378-4266(97)00021-6.
- Diamond, D. W. (1989). Reputation acquisition in debt markets. *The Journal of Political Economy*, 97(4), 828-862. Available at: https://doi.org/10.1086/261630.
- Dickinson, V. (2011). Cash flow patterns as a proxy for firm life cycle. *The Accounting Review*, 86(6), 1969-1994. Available at: https://doi.org/10.2308/accr-10130.
- Engers, M. (1987). Signaling with many signals. Econometrica, 55(3), 663-674. Available at: https://doi.org/10.2307/1913605.
- Hasan, M. M., & Habib, A. (2017). Corporate life cycle, organizational financial resources and corporate social responsibility. Journal of Contemporary Accounting and Economics, 13(1), 20-36. Available at: https://doi.org/10.1016/j.jcae.2017.01.002.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Finance and Economics, 3(4), 305-360. Available at: https://doi.org/10.1016/0304-405x(76)90026-x.
- John, K., & Nachman, D. C. (1985). Risk Debt, Investment incentives, and reputation in a sequential equilibrium. The Journal of Finance, 40(3), 863-978. Available at: https://doi.org/10.2307/2327813.
- Jones, E. J., Danbolt, J., & Hirst, I. (2004). Company investment announcements and the market value of the firm. *European Journal of Finance*, 10(5), 437-452. Available at: https://doi.org/10.1080/1351847032000168696.
- Jung, K., Kim, Y.-C., & Stulz, R. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. Journal of Financial Economics, 42(5), 159–185. Available at: https://doi.org/10.1016/0304-405x(96)00881-1.
- Kerstein, J., & Kim, S. (1995). The incremental information content of capital expenditures. *The Accounting Review*, 70(3), 513-526.
- Masulis, R. W. (1980). The effects of capital structure change on security prices: A study of exchange offers. *Journal of Financial Economics*, 8(2), 139-178. Available at: https://doi.org/10.1016/0304-405x(80)90015-x.
- McConnell, J. J., & Muscarella, C. J. (1985). Corporate capital expenditure decisions and the market value of the firm. *Journal of Financial Economics*, 14, 399-422. Available at: https://doi.org/10.1016/0304-405x(85)90006-6.

- Miller, D., & Friesen, P. H. (1984). A longitudinal study of the corporate life cycle *Management Science*, 30(10), 1161–1183. Available at: https://doi.org/10.1287/mnsc.30.10.1161.
- Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031–1051. Available at: https://doi.org/10.1111/j.1540-6261.1985.tb02362.x.
- Moser, P., Isaksson, O., Okwir, S., & Seifert, R.W. (2021). Manufacturing management in process industries: The impact of market conditions and capital expenditure on firm performance. *IEEE Transactions on Engineering Management*, 68(3), 810-822. Available at: https://doi.org/10.1109/tem.2019.2914995.
- Pillote, E. (1992). Growth opportunities and the stock price response to new financing. The Journal of Business, 65(3), 371-394. Available at: https://doi.org/10.1086/296576.
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. The Journal of Finance, 50(5), 1421–1460. Available at: https://doi.org/10.1111/j.1540-6261.1995.tb05184.x.
- Shahzad, F., Lu, J., & Fareed, Z. (2019). Does firm life cycle impact corporate risk taking and performance? Journal of Multinational Financial Management, 51, 23-44. Available at: https://doi.org/10.1016/j.mulfin.2019.05.001.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355-374. Available at: https://doi.org/10.2307/1882010.
- Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review*, 92(3), 434–459. Available at: https://doi.org/10.1257/00028280260136200.
- Stiglitz, J. E. (2002). Information and the change in the paradigm in economics. *American Economic Review*, 92(3), 460-501. Available at: https://doi.org/10.1257/00028280260136363.
- Taj, S. A. (2016). Application of signaling theory in management research: Addressing major gaps in theory. European Management Journal, 34(4), 338-348. Available at: https://doi.org/10.1016/j.emj.2016.02.001.
- Trueman, B. (1986). The Relationship between the level of capital expenditures and firm value. *The Journal of Financial and Quantitative Analysis*, 21(2), 115-129. Available at: https://doi.org/10.2307/2330732.
- Woolridge, J. R., & Snow, C. C. (1990). Stock market reaction to strategic investment decisions. Strategic Management Journal, 11(5), 353-363. Available at: https://doi.org/10.1002/smj.4250110503.
- Zhao, C., Qu, X., & Luo, S. (2019). Impact of the Inno Com program on corporate innovation performance in China: Evidence from Shanghai. *Technological Forecasting and Social Change*, 146(C), 103-118. Available at: https://doi.org/10.1016/j.techfore.2019.05.024.

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