



DIVIDEND POLICY BY USING LIFE CYCLE APPROACH TO PUBLIC COMPANIES IN INDONESIA

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Abstract. This study examined the effect of life cycle stages on dividend policy with life cycle theory approach. How companies determine dividend policy generally refer to the company life cycle theory. Dividend policy in the context of the company life cycle is an evolution of the trade-off theory. The stages of the company life cycle used in this research were pioneering, early expansion, late expansion, stabilization, and decline. This study used 126 non-financial companies on the Indonesia Stock Exchange which have complete data for the period 2011-2019. Data analysis in this study was carried out by using multiple linear regression method. The results showed that the pioneering and early expansion stages had significant negative effect on dividend policy, the decline stage had significant positive effect on dividend policy, while late expansion and stabilization stages had no significant effect on dividend policy.

Keywords: dividend policy, company life cycle.

JEL CLASSIFICATION: J13, O41

Introduction

The dividend payment policy is an important decision because it involves two parties with different interests: shareholders and parties related to the company. This is related to the company's funding decisions where dividend payments are determined by the amount of retained earnings. The greater the retained earnings, the less the amount of profit allocated to pay dividends. Determination of earnings as retained earnings and dividend payments are key aspects of dividend policy. In 2013 the IDX proposed to impose stricter regulations on dividend payments, which include: (1) The minimum frequency to pay dividends within a certain period of positive net income reported, (2) the minimum amount of net profit to be distributed as dividends, and (3) sanctions for non-compliance (Wardhana & Tandelilin, 2018). Forcing companies to pay dividends can undermine a company's investment plans, especially when the company faces high growth opportunities. Maintaining profits to finance investment opportunities becomes a better alternative for the benefit of all shareholders (DeAngelo et al., 2006). Finally, investors cannot expect companies with positive earnings to pay dividends, as in the proposed regulation, because this could deter the company from realizing its growth opportunities. Dividend payments are used by the company to protect the interests of minority shareholders. However, if the company pays dividends, the company's growth opportunities are reduced (Martins & Novaes, 2012).

The determinants of dividend policy have been investigated for decades, but the dividend puzzle remains unsolved. This is in accordance with the dividend puzzle theory (Black, 1996; Bhattacharyya, 2007; Shamki & Alulis, 2016). There is no universal factor that fits all companies because dividend policy is sensitive to many factors including company characteristics and market characteristics. The issue of corporate dividend policy will be a puzzle, because there are many perspectives on dividend policy, and there is no consensus on which factors dominantly affect dividend payout policy (Baker et al., 2019; Baker & Powell, 2012; Baker & Weigand, 2015; Dewasiri et al., 2019; Dewasiri & Banda, 2016). This study used dividend life cycle theory because according to Miller & Modigliani, (1961), Dividend policy is related to the assumptions of rational investors, perfect capital markets and the market value of a company. A new chapter of dividend policy research in financial science is being spearheaded by research Mueller, (1972). In 1972, Mueller, (1972) introduced the company life cycle theory in dividend policy. Dividend policy research conducted by Mueller, (1972) consider dividend policy from company life cycle perspective. The old view states that companies tend to ignore the company life cycle in dividend policy, while the new view of dividend policy can be seen from the perspective of the company life cycle. This is because investors expect optimal returns on their stock investments through dividends, capital gains, or both. The company life cycle supports the regular development of the company, where the company development process is segmented into stages over time periods. Companies pay dividends when they reach a certain stage or meet the specified characteristics, according to the stage or characteristics of the company life cycle so as to increase the value of the company. The research result by Mueller, (1972) showed that companies that are in the stabilization stage have sales growth at peak levels. Shareholders of companies that are in the stabilization stage prefer dividends to retained earnings. Research on the determinants of dividend policy involving the company life cycle has also been confirmed by several researchers, namely (Banyi & Kahle, 2014; Bhattacharya et al., 2019; DeAngelo et al., 2006; Fama, 2001; Gup & Agrrawal, 1996). The research result found that dividends have become the main payment method for companies that are in the stabilization stage. Dividend policy has a positive relationship with the company life cycle. In addition, companies in the United States paying dividends have decreased substantially over time. Denis & Osobov, (2008) studied dividend policies of companies in the United States, Canada, United Kingdom, Germany, France, and Japan, followed by studies in Thailand (Fairchild et al., 2014), Korea (Kim & Seo, 2014), India (Kaur, 2019; Rajesh Kumar & Sujit, 2018), and companies in Indonesia (Baker & Powell, 2012; Budiarso et al., 2019; Wardhana & Tandelilin, 2018). The research result showed that companies in determining dividend policy generally refer to the company life cycle theory. Although there are differences regarding the determinants of dividend policy, these studies describe the same research result, namely dividend policy in the context of the company life cycle is an evolution of the trade-off theory. On the other hand, it turns out that the company life cycle theory has weaknesses. The weakness of the company life cycle theory is that there is no precise definition of each stage or standard methodology of how to identify the stages of the company life cycle (Yan & Street, 2006). Even the number of stages of the company life cycle of each researcher is also different. There is no precise definition of when one stage of the life cycle begins and

ends. Therefore, this study considers the opinion of Gup & Agrrawal, (1996) which uses sales growth in determining the company life cycle.

This paper concerned with a case in dividend policy. The paper is structured as follows, the first section is the introduction. The second section of the paper presents the conceptual framework which explains the theoretical foundations of dividend policy and dividend life cycle theory. The third section describes the research methodology and data used. Research results are presented and discussed in the fourth section, while the conclusions derived from the results are presented in the final, fifth section.

Conceptual Framework

Mueller, (1972) explain the company life cycle theory. This theory forms the basis of the company life cycle theory of dividends. Gup & Agrrawal, (1996) explained that at the start-up stage or pioneering stage, companies can have very high sales growth if the market responds positively to the products offered by the company. However, the possibility that the products offered get less demand and unpopular are also very high. In other words, the risk of companies at the pioneering stage is still very high. This is because the company does not have business record (track record).

Companies at the pioneering stage, in addition to have high sales growth, the company also has high marketing costs, and high product development costs, so the company has the potential to experience losses resulting in the unavailability of more funds (free cash flow) within the company. This causes the company not to pay dividends. In the pioneering stage, companies generally invest all available sources of funds to innovate and increase sales. In the pioneering stage, the company has many opportunities for profitable investment. In addition, companies are more pursuing growth and pursuing profit. The company's growth at the pioneering stage is likely to be high and the company has the potential to pay low dividends, even be able to not pay dividends at all. Pashley & Philippatos, (1990) explained that companies that are in the start-up stage or pioneering stage have the potential not to distribute dividends. Thus, it can be said that when a company has high investment opportunities and the company is at the pioneering stage, the company has the potential to not pay dividends (Okpara & Chigozie, 2010). Based on the description above, a hypothesis is proposed:

H₁: The pioneering life cycle has negative effect on the company's dividend payment policy.

Companies that are in the early expansion stage have low retained earnings. The company will need additional funds, maintain profits and potentially not distribute dividends (DeAngelo *et al.*, 2006). DeAngelo *et al.*, (2006); Fama, (2001) stated that there is a trade-off between the advantages and disadvantages of retained earnings that can actually change the economic viability of a company. Companies that are in the early expansion stage, have more opportunities to invest than the ability to generate cash. The best decision of the company is to establish large retained earnings in order to achieve rapid growth of the company. Retained earning is one of the sources of internal costs used to finance the company's needs. Companies should prioritize investment rather than distributing profits as dividends. Pouraghajan & Gholami, (2013) found that companies with high growth opportunities have the potential to

pay less dividends. The company is in the early expansion stage, requiring large amounts of cash to expand capital. Low dividend payouts can be attributed to the early expansion stage, as the company needs funds to expand its market share and fund its investments. Based on this description above, a hypothesis is proposed:

H₂: The life cycle of the early expansion stage has negative effect on the company's dividend payment policy.

In the late expansion stage, the company's focus on investing has begun to decrease compared to the early expansion stage. The company's opportunity to pay cash dividends is getting bigger. The company's funding allocation is no longer focused on company expansion but there is an allocation for cash dividends distributed to shareholders. Companies consider cash flow uncertainty as a major contributor to dividend payment decisions (Brav et al., 2005; Chay & Suh, 2009; Lintner, 1956). The distribution of dividends, especially cash dividends, is highly dependent on the available cash position, the company's sales volume and the company life cycle. Companies that are in the late expansion stage have high sales volume and have more opportunities to generate cash. The best decision of the company is to pay an increasingly large cash dividend. In the late expansion stage, the company experiences an increase in sales, profits, liquidity and an increase in the ratio of equity to debt, and has the potential to pay dividends. Companies that experience slow growth have the potential to pay higher dividends to overcome the problem of over investment. In the late expansion stage, the company starts paying dividends (DeAngelo et al., 2006). Based on the description above, a hypothesis is proposed:

H₃: The life cycle of the late expansion stage has positive effect on the company's dividend payment policy.

2.4.4.

Companies that are in the stabilization stage have low investment opportunities or do not require funds to make new investments, so the company has the potential to have high free cash flow. This means that the company can pay dividends due to the high free cash flow. At the stabilization stage, the company's growth is at its maximum point, the company's investment activity for fixed asset capital has begun to decrease and the company is able to generate profits from assets invested in the previous life cycle period, so the company has the potential to pay dividends. This is consistent with the theory stated by Bulan & Subramanian, (2009) which states that companies in the pioneering and early expansion stages have great investment opportunities, but the profits have not been able to meet their internal cash funding. While in the stabilization stage, the company's investment opportunities begin to decrease, profitability and growth are the same, systematically, the risk decreases and the company's internal cash income increases. During the stabilization stage, companies are more likely to pay dividends than growing companies because they have fewer investment opportunities than growing company (Al-Ajmi & Hussain, 2011; DeAngelo et al., 2006; Denis & Osobov, 2008b; Fama, 2001). Stacescu, (2006); Fargher & Weigand, (2014) concludes that companies are more likely to pay dividends if they have high profits and cash levels. Companies at the stabilization stage or have developed steadily are considered better for distributing dividends, because they have unlimited resources and are more stable than companies at other stages. Growing companies usually have limited resources and prefer to hold profits rather than pay dividends (DeAngelo et al., 2006). Based on the description above, a hypothesis is proposed:

H₄: Life cycle stabilization stage has negative effect on the company's dividend payment policy.

Companies in the decline stage have limited growth opportunities, face increasingly fierce competition, the potential market share is getting narrower, and the company's expansion is not profitable. The decline stage is a stage that indicates the company's decline where the company experienced a drastic decline in sales and profits. This causes the company to have unstable cash flow. The company no longer has investment opportunities and is in a declining stage, so the company has the potential to distribute existing cash flows to shareholders because the cash flows can no longer be used to fund investment activities and the company loses the trust of creditors because the company does not have good prospects in the future (Dickinson, 2011).

Companies in the decline stage will experience a decline in sales and profits. The investments that have been made may continue to generate cash flow, but are starting to decline and the company has few new investment opportunities. According to Miller & Friesen, (1980), Companies in the decline stage experience decrease in sales, growth, investment, efficiency, and innovation levels. The company reduces operating cash flow because the company experiences uncertainty about future cash flows, profits, innovation, investment and profit margins. This causes the company at the decline stage to only distribute dividends in small amounts. Then the hypothesis is proposed:

H₅: Life cycle decline stage has positive effect on the company's dividend payment policy.

Applied Methodologi

The number of companies listed on the Indonesia Stock Exchange in 2019 was 669 companies and non-financial companies were 466 companies. The number of non-financial companies that published complete annual reports during the 2011 - 2019 period was 126 companies and that was the research observation data. The model used to examine the effect of the company's life cycle with control variables of profitability, company size, and earning growth on dividend payment policy is:

Divit = α + β 1Pioneeringit + β 2Early Expansionit + β 3Late Expansionit + β 4Stabilizationit + β 5Declineit + β 6ROAit + β 7SIZEit + β 8EGit + ϵ i

The dependent variable in this study was the dividend payment policy. The measurement of dividend payment policy in this study was Dividend Payout Ratio (DPR). Charitou et al., (2011); Rock & Miller, (1985); Skinner & Soltes, (2011); dan Bhattacharya, (1979) stated that the Dividend Payout Ratio (DPR) is dividend per share divided by profit per share. The independent variable in this study was the company life cycle. The company life cycle testing used opinions from (Gup & Agrrawal, 1996). Gup & Agrrawal, (1996) uses sales growth to measure a company life cycle. The five stages of the company life cycle are the first stage of establishment (pioneering) with an average sales growth for 5 years is greater than 50%, the second stage is early expansion with an average sales growth for 5 years ranging between 20% - 49.9%, the third stage is late expansion with an average sales growth for 5 years ranging from 10%-19.9%, then the fourth stage is maturity (stabilization), with an average

sales growth for 5 years ranging between 0%-9.9%, and the last stage is the decline stage with the average sales growth for 5 years is less than 0%. The control variables in this study were profitability, size, and earning growth. In this study, researchers used Return On Assets (ROA) as a measure of company profitability, namely net income divided by total assets. Gizelle et al., (2013); Li et al., (2020) stated that the size of the company describes the scale of a company. The size of the company in this study was estimated based on the number of workers written in the company's annual report. To get a better and more valid result of the number of workers, the raw data was transformed into data in the form of logarithms (Ln. number of workers) (Becker-Blease et al., 2010; Geuna et al., 2003; Yasuda, 2005). According to Gordon, (1959) and Zhou & Ruland, (2006) profit growth is the rate of change in total profit from year to year.

Result and Discussion

To provide an overview of the conclusions from the results of the data that have been observed, here are the conclusions from descriptive analysis based on the company life cycle:

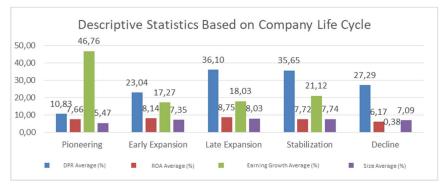


Figure 1. Descriptive Statistical Test Results Based on the Company Life Cycle

Based on Figure 1, it can be seen that companies in Indonesia tend to pay dividends in all company life cycles. This is not in accordance with the dividend policy based on the dividend life cycle theory. Dividend life cycle theory stated by Gup & Agrrawal, (1996) a company at the pioneering stage does not distribute dividends, in the early expansion and late expansion stages it distributes a small amount of dividends, at the stabilization stage it increases the amount of dividends and at the decline stage the company tends to have large dividends but if the company suffers a loss then the dividend payment stops (Gup & Agrrawal, 1996). The results showed that the highest average Dividend Payout Ratio (DPR) was in companies at the late expansion cycle, then followed by company at the stabilization cycle, decline cycle, early expansion cycle, and pioneering cycle.

A. Hypothesis Testing

The first step is to test the life cycle stages of dividend policy:

Table 1. Test results of life cycle stages of dividend policy

Variable	Model 1	Model 2
	11,722	
С	(0,000***)	0,901 (0,368)

	1	
	-2,662	
PIONEERING	(0,008***)	-2,458 (0,014**)
EARLY_EXPANSI	-3,540	
ON	(0,000***)	-4,076 (0,000***)
LATE_EXPANSIO		
N	-0,519 (0,604)	-1,382 (0,168)
STABILIZATION	-0,286 (0,775)	-1,020 (0,308)
DECLINE	3,416 (0,001***)	3,625 (0,000***)
EG		-2,235 (0,026**)
ROA		5,156 (0,000***)
SIZE		3,032 (0,002***)
R-squared	0,049	0,103
F-Statistic	6,418	8,873
Adjusted R-squared	0,041	0,091
Prob(F-statistic)	0,000	0,000

Source: Output Eviews 9 in 2022

Note: Robust standard errors are presented in the parentheses. ***, **, and * denote coefficients significant at 1%, 5%, and 10% significance levels, respectively.

Model 1 showed the coefficient values of pioneering, early expansion, late expansion, and stabilization stages were negative. It means that the stages of pioneering, early expansion, late expansion, and stabilization were negatively related to dividend policy. Beside, the company had high growth opportunities at the pioneering, early expansion, late expansion, and stabilization stages, thus causing the company to have the potential to pay lower dividend while the decline coefficient was positive. The company no longer had investment opportunities and was in a declining stage, so the company had the potential to distribute existing dividends to shareholders (Dickinson, 2011). Based on the test results in model 2, it can be seen that the coefficients of pioneering, early expansion, late expansion, stabilization and earning growth were negative. It means that pioneering, early expansion, late expansion, stabilization, and earning growth variables were negatively related to dividend policy. While the coefficients of decline, ROA, and Size were positive. It means that the variables of decline, ROA, and Size were positively related to dividend policy.

Discussion

1. The effect of the pioneering stage on dividend policy

The test results showed that the pioneering stage had significant negative effect on dividend policy. This research is in line with Miller & Modigliani, (1961) which stated that the company's dividend policy is influenced by the stage of the company's life cycle. The start-up stage or pioneering stage is the basic stage, marked by a high growth rate and intense competition. Companies that were in the start-up stage or pioneering stage in this study, have high profit growth and have high growth opportunities as well, this causes the company to have the potential to pay lower dividends. In this study, it can be seen that companies that were at the pioneering stage had positive earnings. However, the company spent a lot of cash

on product development, market development, and expansion of production capacity. Cash flow from the company's operating activities is estimated to be low and even negative because the company is still looking for market share and may not be able to generate cash inflows from operating activities that are greater than cash outflows. Cash flow from investing activities in the pioneering stage is estimated to be negative because the company requires very large investment expenditure in developing and maintaining market share, as well as creating a competitive advantage. The large investment expenditure causes the retained earnings to be low, so the best decision at the pioneering stage is not to distribute dividends (Anthony & Ramesh, 1992). Companies that are at the pioneering stage with their ability to pay dividends, of course get a good appreciation from investors, so the company will improve its performance to give confidence that the company's financial condition is in a good position. Brush et al., (2000) proves that companies with excess cash available during the pioneering period are prioritized to increase the company's performance, so dividend distribution at the pioneering stage is still relatively low. In the capital market, which is characterized by asymmetric information between shareholders and company insiders (managers), dividend payments can be a reliable signal or transmitter of information and are difficult for companies with weak performance to imitate. Each dividend policy can be used as an assessment material by investors (parties who do not have complete information about the company) about the company's performance. When the company pays dividends, investors interpret that currently managers believe that the company's profitability is not only sufficient to finance investment opportunities but also to be able to pay dividends.

2. The effect of the early expansion stage on dividend policy

The test results showed that the early expansion stage had significant negative effect on dividend policy. Gup & Agrrawal, (1996) explained that companies that are in the early expansion stage are classified as having an increased sales growth rate, but a low dividend payout rate. This condition indicates that the company has a low amount of free cash flow, this has an impact on low dividend payments. Even in this study, the early expansion stage had significant negative effect on dividend policy. Companies that are in the early expansion stage have low retained earnings. The company will need additional funds, maintain profits and potentially pay low dividends (DeAngelo et al., 2006). DeAngelo et al., (2006); dan Fama, (2001), stated that there is a trade-off between the advantages and disadvantages of retained earnings that can actually change the economic viability of a company. Companies that are in the early expansion stage, have more opportunities to invest than the ability to generate cash. The best decision of the company is to establish large retained earnings in order to achieve rapid growth of the company. Retained earnings are one of the sources of internal costs used to finance the company's needs. Companies should prioritize investment rather than distributing profits as dividends. Based on the research results, companies in the early expansion stage pay dividends. This is because dividends are needed to provide positive information from well-informed managers to poorly-informed shareholders. As long as the company in the early expansion stage runs all projects that have a positive Net Present Value, the company can pay dividends at various levels of the company life cycle.

3. The effect of the late expansion stage on dividend policy

The test results showed that the late expansion stage had no significant effect on dividend policy. The results of this study indicated that companies in paying dividends were not influenced by the company life cycle, especially in the late expansion stage. DeAngelo et al. (2006) emphasized that dividends tend to be paid by companies in developed countries, where growth opportunities are low and profits are high. Meanwhile, companies in developing countries with high investment opportunities tend to retain their earnings to finance investments rather than pay dividends. The results of this study indicated that companies that were in the late expansion stage distributed dividends. The company had high investment opportunities and payed dividends. This study showed that the company life cycle could not be developed in developing countries, but the company life cycle theory could be developed in capital markets in developed countries, such as the United States, United Kingdom, and Korea (Shin, 2010); (DeAngelo et al., 2006). Companies in the late expansion stage have a low growth rate while the amount of free cash flow is high. Managers tend to spend the free cash flow under the pretext of investing and not distributing it to shareholders. Companies with excess cash available and are in the late expansion stage are prioritized to invest to improve company performance, so companies distribute low dividends and don't even pay dividends at all (Brush et al., 2000). Companies in Indonesia are suspected of applying the Residual Dividend theory by considering more profitable investment opportunities so dividend policies will vary in line with available investment opportunities. It is certain that investment opportunities will differ from year to year, so the application of a residual policy will result in very unstable dividends. As long as there are profitable investments, the funds obtained from the company's operations will be used for these investments. If there is a remainder then the remainder is distributed as dividends. If observed, it will be seen that a company distributes dividends more because there are no profitable investments, when all the funds are used for investment the company does not distribute dividends at all (Baker & Smith, 2006; Smith, 2009).

4. The effect of stabilization stage on dividend policy

The test results showed that the stabilization stage had no significant effect on dividend policy. The results showed that the company life cycle was not an important factor in determining dividend policy, so the company did not use the stabilization stage in determining the amount of dividends to be paid to shareholders. The company used dividend payments as a signal or conveyed information to investors. Investors and managers know that when dividends are paid, it is very rare that the amount of dividends will be reduced, so investors will also consider the initiation of dividends as a manager's belief that the company's future profits will be able to support new investment opportunities. There is a lot of empirical evidence that supports the opinion that dividends are a conveyer of information, starting with the classic article initiated by Lintner, (1956) which documents that managers set dividend payments very carefully. This is because the determined dividend rate will be a fixed burden for the company in the future. In the stabilization stage, the company is described as an adult. The company is entering a stage where its managers are starting to become professional but the company's life is not long anymore and leads to the final stage in the company life cycle. There are some companies that remain in the stabilization stage for a long period of time but there are also those that lead to bankruptcy. In the stabilization stage, market supply is quite high, but market absorption is weak, sales increase is not significant, product sales tend to be stable, new competitors appear and substitute products with new technology are more efficient, resulting in a narrower potential market share. This limited market share will result in a decrease in the company's sales and earnings as well as a decrease in cash flow from operating activities, which is even estimated to have a negative value. Companies must find solutions so their products remain established in the market by making products that have unique characteristics and are different from competing products. Several things that need to be done are to integrate production, marketing, research, and other activities. These activities cost a lot of money. Currently, companies in Indonesia tend to protect and maintain the viability of the company by maintaining the profits generated rather than paying dividends to shareholders.

5. The effect of the decline stage on dividend policy

The test results showed that the decline stage had significant positive effect on dividend policy. There was positive influence between the decline stage and the dividend policy because the company was in the decline stage, sales decline with the emergence of new substitute products, new investment in the decline stage was not possible. Companies at the decline stage have limited growth opportunities, because they face increasingly fierce competition, emerging competitors and substitute products with new, more efficient technologies, resulting in a narrower potential market share. The company experienced a significant decline in sales and losses and dividend payments stopped (Pashley & Philippatos, 1990). The results showed that the company at the decline stage adhered to the dividend signaling model theory. The signaling model was built as an effort to maximize company value through dividend payments assuming asymmetric information between managers and shareholders. The company provides information about good company prospects in the future. This is because dividends are something that is burdensome for companies that pay them because the company must always provide a relatively permanent amount of cash to pay dividends in the future. Companies that perform poorly will not be able to imitate by paying large dividends because the company does not have sufficient cash, or if the company continues to pay dividends, then funds for investment development will not not enough and this will worsen the company's performance. A good company will give a signal and the stock price will increase, while a bad company will not give a signal. Based on this, investors can know which companies are good and which are bad.

6. The effect of Control Variables on Dividend Policy

This study used 2 research models, the first model was to see the effect of the company life cycle on dividend policy without control variables, the second model was to see the effect of the company life cycle on dividend policy by including control variables. The first model had an Adjusted R-squared value of 4.1%, meaning that the pioneering, early expansion, late expansion, stabilization, and decline stages could explain the dividend policy variable of 4.1%. This means that the first model is only able to represent the dividend policy variable of 4.1%. In second model, after entering the control variables, the Adjusted R-squared value was 9.1%. It means that the pioneering, early expansion, late expansion, stabilization, decline, Return on Assets (ROA), Size, and Earning Growth (EG) stages can explain the

variables dividend policy of 9.1% which means that this second model is able to represent the dividend policy variable of 9.1% while the rest is explained by other variables that not examined. Based on the test results, it can be seen that in the first model, before entering the control variable into the research model, the Adjusted R-squared value was 4.1%, while in the second model, after entering the control variable, there was an increase in the Adjusted R-squared value, namely 9.1%. The change in the value of the determinant coefficient of Adjusted R-squared is due to the control variable being able to explain the dependent variable, namely the dividend payment policy. The coefficient value of the effect of life cycle stages on dividend policy between the first and second models showed an increase. This means that the effect of life cycle stages on dividend policy is higher in the second model than the first model.

Based on statistical results, the control variables in this research model indicated that Earning Growth (EG), profitability (ROA), and company size (Size) were factors that influence a company's dividend policy. In this study, Size had significant effect on dividend policy which showed a positive effect. This means that any decrease in Size will decrease the dividend policy. This strengthens the research finding that large companies with better market access should pay higher dividends to their shareholders, so there is a positive relationship between company size and dividends. A large, well-established company will have easy access to the capital market, while new and small companies will experience many difficulties to have access to the capital market, because the ease of access to the capital market is significant enough for flexibility and the ability to obtain larger funds, so companies are able to have a higher dividend payout ratio than small companies (Fama, 2001; Huang et al., 2020; Smith & Watts, 1992; Wu & Wu, 2020).

The results of the Return on Assets test on the Dividend Payout Ratio stated that the Return on Assets had significant positive effect on the Dividend Payout Ratio. A high level of company profitability would increase the opportunity for dividend distribution in a company (Amidu & Abor, 2006). This will certainly make investors interested in investing in the company because in bird-in-the-hand theory, investors are more interested in the investment benefits obtained from dividends. Profits in the form of dividends by investors are considered to be more certain than the investment returns obtained from capital gains because the gains tend to be speculative. Research on the positive relationship between profitability and dividend payments is also evidenced by (Jensen et al., 1992). Evidence from emerging markets also supports the proposition that profitability is one of the most important factors that determine dividend policy (Adaoglu, 2000; Aivazian et al., 2003; Pandey, 2001). So it is evident that the higher the profitability of a company and the larger the size of the company, the more likely the company is to pay dividends. This is simply because large companies have greater flexibility in using their available resources to pay dividends.

In addition to ROA and Size, earning growth (EG) is also an important factor in making dividend decisions, but in this study an increase in EG would make dividend policy decline. Earning Growth had significant negative effect on Dividend Policy. This means that if there is an increase in earnings growth, it will be accompanied by a decrease in dividend payment policy. This is related to the need for funds when a company experiences growth, as stated in the life cycle concept developed by Senchack Jr & Lee, (1980) Companies that have high growth tend to hold their profits to finance company expansion rather than distribute them as

dividends. Research findings by Amidu & Abor, (2006) stated that a growing company needs more funds to finance the growth so it tends to withhold earnings and pay dividends low. Earning growth had significant negative effect on dividend policy caused by the increasing need for corporate funding for future growth so companies tend to withhold earnings.

Conclusions

The pioneering stage had significant negative effect on dividend policy. Companies that were at the pioneering stage with their ability to pay dividends, certainly got good appreciation from investors, so the company improved its performance to get the trust from investors that the company's financial condition is in a good position. The early expansion stage had significant negative effect on dividend policy. In the early expansion stage, the company spent a very large investment to develop the company, maintained market share, and mastered technology. Companies in the early expansion stage saved money and paid low dividends. The late expansion stage had no significant effect on dividend policy. The results of this study indicated that companies in paying dividends were not influenced by the company life cycle, especially in the late expansion stage. The stabilization stage had no significant effect on dividend policy. The results showed that the company life cycle was not an important factor in determining dividend policy, so the company did not use the stabilization stage in determining the amount of dividends to be paid to shareholders. The decline stage had significant positive effect on dividend policy. Companies at the decline stage no longer had investment opportunities and were in the decline stage, so the company had the potential to distribute existing cash flows to shareholders in the form of dividends because the cash flows could no longer be used to fund investment activities. The results of the study proved that companies in Indonesia used life cycle theory to determine dividend payment policies. Not all life cycles affected dividend payout policy, ividend payments should still be made as an obligation of the company and was the right of shareholders for their investments. The company used dividend payments as a transmitter of information. When the company payed dividends, investors could interpret that currently managers believed that the company's profitability was not only sufficient to finance investment opportunities but could also pay dividends. Companies in Indonesia also used the dividend signaling model theory which the company provided information to investors about good company prospects in the future through dividend policy. Paying dividends could be a reliable transmitter of information and difficult for companies with weak performance to imitate. Each dividend policy could be used as an assessment material by investors, especially for those who do not have complete information about the company, especially about the company's performance.

References

Adaoglu, C. (2000). Instability in the dividend policy of the Istanbul Stock Exchange (ISE) corporations: Evidence from an emerging market. *Emerging Markets Review*, *1*(3), 252–270. Aivazian, V., Booth, L., & Cleary, S. (2003). Do Emerging Market Firms Follow Different Dividend Policies From U.S. Firms? *Journal of Financial Research*, *26*(3), 371–387. https://doi.org/10.1111/1475-6803.00064

Al-Ajmi, J., & Abo Hussain, H. (2011). Corporate dividends decisions: Evidence from Saudi

Arabia. *Journal of Risk Finance*, 12(1), 41–56. https://doi.org/10.1108/15265941111100067 Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *The Journal of Risk Finance*.

Anthony, J. H., & Ramesh, K. (1992). Association between accounting performance measures and stock prices. *Journal of Accounting and Economics*, *15*(2–3), 203–227. https://doi.org/10.1016/0165-4101(92)90018-W

Baker, H. K., Dewasiri, N. J., Yatiwelle Koralalage, W. B., & Azeez, A. A. (2019). Dividend policy determinants of Sri Lankan firms: A triangulation approach. *Managerial Finance*, 45(1), 2–20. https://doi.org/10.1108/MF-03-2018-0096

Baker, H. K., & Powell, G. E. (2012). Dividend policy in Indonesia: Survey evidence from executives. *Journal of Asia Business Studies*, 6(1), 79–92. https://doi.org/10.1108/15587891211191399

Baker, H. K., & Weigand, R. (2015). Corporate Payout Policy Revisited Introduction. *Managerial Finance*, *Vol.* 41(Iss 2 pp.). http://dx.doi.org/10.1108/MF-03-2014-0077 Downloaded

Banyi, M. L., & Kahle, K. M. (2014). Declining propensity to pay? A re-examination of the lifecycle theory. *Journal of Corporate Finance*, 27, 345–366. https://doi.org/10.1016/j.jcorpfin.2014.06.001

Becker-Blease, J. R., Kaen, F. R., Etebari, A., & Baumann, H. (2010). Employees, firm size and profitability of US manufacturing industries. *Investment Management and Financial Innovations*.

Bhattacharya, D., Chang, C. W., & Li, W. H. (2019). Stages of firm life cycle, transition, and dividend policy. *Finance Research Letters*, *June*, 1–12. https://doi.org/10.1016/j.frl.2019.06.024

Bogdan Stacescu. (2006). Dividend policy in Switzerland. *Financial Markets and Portfolio Management*, 20, 153–183. https://doi.org/10.1007/s11408-006-0013-7

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, 77(3), 483–527. https://doi.org/10.1016/j.jfineco.2004.07.004

Brush, T. H., Bromiley, P., & Hendrickx, M. (2000). The free cash flow hypothesis for sales growth and firm performance. *Strategic Management Journal*, 21(4), 455–472.

Budiarso, N. S., Subroto, B., Sutrisno, T., & Pontoh, W. (2019). Dividend catering, life-cycle, and policy: Evidence from Indonesia. *Cogent Economics and Finance*, 7(1), 1–15. https://doi.org/10.1080/23322039.2019.1594505

Bulan, L. T., & Subramanian, N. (2009). The firm life cycle theory of dividends. *Dividends and Dividend Policy*, 201–213.

Charitou, A., Lambertides, N., & Theodoulou, G. (2011). Losses, dividend reductions, and market reaction associated with past earnings and dividends patterns. In *Journal of Accounting, Auditing and Finance* (Vol. 26, Issue 2). https://doi.org/10.1177/0148558X11401220

Chay, J. B., & Suh, J. (2009). Payout policy and cash-flow uncertainty. *Journal of Financial Economics*, 93(1), 88–107. https://doi.org/10.1016/j.jfineco.2008.12.001

DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006a). Dividend policy and the

earned/contributed capital mix: A test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227–254. https://doi.org/10.1016/j.jfineco.2005.07.005

DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006b). Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory\$. *Journal of Financial Economics*, 28.

Denis, D. J., & Osobov, I. (2008a). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, 89(1), 62–82. https://doi.org/10.1016/j.jfineco.2007.06.006

Denis, D. J., & Osobov, I. (2008b). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, 89(1), 62–82.

Dewasiri, N. J., & Weerakoon Banda, Y. K. (2016). Why do companies pay dividends?: A comment. *Corporate Ownership and Control*, 13(2CONT2), 443–453. https://doi.org/10.22495/cocv13i2c2p5

Dewasiri, N. J., Yatiwelle Koralalage, W. B., Abdul Azeez, A., Jayarathne, P. G. S. A., Kuruppuarachchi, D., & Weerasinghe, V. A. (2019). Determinants of dividend policy: Evidence from an emerging and developing market. *Managerial Finance*, *45*(3), 413–429. https://doi.org/10.1108/MF-09-2017-0331

Dickinson, V. (2011). Cash flow patterns as a proxy for firm life cycle. *Accounting Review*, 86(6), 1969–1994. https://doi.org/10.2308/accr-10130

Eugene F. Fama, K. R. F. (2001). Disappearing dividends: Changing "rm characteristics or lower propensity to pay? *Journal of Financial Economics*, 60, 3–43. https://doi.org/10.4172/1948-593X.1000037

Fairchild, R., Guney, Y., & Thanatawee, Y. (2014). Corporate dividend policy in thailand: Theory and evidence. *International Review of Financial Analysis*, 31(January), 129–151. https://doi.org/10.1016/j.irfa.2013.10.006

Fargher, N. L., & Weigand, R. A. (2014). Why Firms Begin Paying Dividends: Value, Growth and Life Cycle Effects.

Fischer Black. (1996). The Dividend Puzzle. Journal of Portfolio Management.

Geuna, A., Fontana, R., & Matt, M. (2003). Firm size and openness: The driving forces of university-industry collaboration.

Gizelle F. Perretti Marcus T. Allen H. Shelton Weeks. (2013). Determinants of dividend policies for ADR firms. *Managerial Finance*, 39(12), 1155–1168.

Gordon, M. J. (1959). Dividends, earnings, and stock prices. *The Review of Economics and Statistics*, 99–105.

Gup, & Agrrawal. (1996a). The Product Life Cycle: A Paradigm for Understanding Financial Management. *Financial Practice and Education*, *6*(2), 41–48.

Gup, B. E., & Agrrawal, P. (1996b). *The Product Life Cycle: A Paradigm for Understanding Financial Management*. 9.

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J., Gu, X., Cheng, Z., Yu, T., Xia, J., Wei, Y., Wu, W., Xie, X., Yin, W., Li, H., Liu, M., ... Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*, 395(10223), 497–506. https://doi.org/10.1016/S0140-6736(20)30183-5

Jensen, G. R., Solberg, D. P., & Zorn, T. S. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative Analysis*, 27(2), 247–263.

Kaur, J. (2019). Firm's Life Cycle Spurs the Dividend Payments: A Fallacy or an Actuality? *Paradigm*, 23(1), 36–52. https://doi.org/10.1177/0971890719835630

Kim, S., & Seo, J. Y. (2014). A study on dividend determinants for Korea's information technology firms. *Asian Academy of Management Journal of Accounting and Finance*, 10(2), 1–12.

Li, W., Zhou, J., Yan, Z., & Zhang, H. (2020). Controlling shareholder share pledging and firm cash dividends. *Emerging Markets Review*, 42(November 2019), 100671. https://doi.org/10.1016/j.ememar.2019.100671

Lintner J. (1956). Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes. *The American Economic Review*, 46(2), 97–113.

Martins, T. C., & Novaes, W. (2012). Mandatory dividend rules: Do they make it harder for firms to invest? *Journal of Corporate Finance*, 18(4), 953–967. https://doi.org/10.1016/j.jcorpfin.2012.05.002

Miller, D., & Friesen, P. H. (1980). A longitudinal study of the corporate life cycle. *Management Science*, 23(4), 1161–1183. https://doi.org/10.1287/mnsc.30.10.1161

Miller, M. H., & Modigliani, F. (1961a). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, *34*(4), 411–433.

Miller, M. H., & Modigliani, F. (1961b). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, *34*(4), 411–433.

Mueller, D. C. (1972). A Life Cycle Theory of the Firm. *The Journal of Industrial Economics*, 20(3), 199–219.

N. Bhattacharyya. (2007). Dividend policy: A review. Managerial Finance, Unit 07, 1–5.

Okpara, G. C., & Chigozie, G. (2010). A diagnosis of the determinant of dividend pay-out policy in Nigeria: A factor analytical approach. *American Journal of Scientific Research*, 8(1), 57–67.

Pandey, I. M. (2001). Corporate dividend policy and behaviour: The Malaysian experience.

Pashley, M. M., & Philippatos, G. C. (1990). Voluntary divestitures and corporate life-cycle: Some empirical evidence. *Applied Economics*, 22(9), 1181–1196. https://doi.org/10.1080/00036849000000038

Pouraghajan, A., & Gholami, K. (2013). Effects Of Lifecycle And Free Cash Flow On Dividend Policy In Industries (Case Study: Steel, Automotive And Pharmaceutic Industries).

Rajesh Kumar, B., & Sujit, K. S. (2018). Determinants of dividends among Indian firms—An empirical study. *Cogent Economics and Finance*, 6(1), 1–18. https://doi.org/10.1080/23322039.2018.1423895

Rock, K., & Miller, M. H. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance*, 40(4), 1031–1051.

Senchack Jr, A. J., & Lee, W. Y. (1980). Comparative dynamics in a life cycle theory of the firm. *Journal of Business Research*, 8(2), 159–185.

Shamki, D., & Alulis, I. K. (2016). Company's Characteristics and Accounting Information Relevance. *Universal Journal of Accounting and Finance*, 4(3), 107–116. https://doi.org/10.13189/ujaf.2016.040302

Skinner, D. J., & Soltes, E. (2011). What do dividends tell us about earnings quality? *Review of Accounting Studies*, 16(1), 1–28. https://doi.org/10.1007/s11142-009-9113-8

Smith, C. W., & Watts, R. L. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics*, 32(3), 263–292. https://doi.org/10.1016/0304-405X(92)90029-W

Sudipto Bhattacharya. (1979). Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *The Bell Journal of Economics*, 10(1), 259–270.

Wardhana, L. I., & Tandelilin, E. (2018). Do we need a mandatory dividend regulation? The case of the Indonesian capital market. *Gadjah Mada International Journal of Business*, 20(1), 33–58. https://doi.org/10.22146/gamaijb.25055

Wu, R. S., & Wu, Y. R. (2020). Payout policy decisions: The effect of compensation structures. *Asia-Pacific Journal of Accounting and Economics*, 27(1), 71–92. https://doi.org/10.1080/16081625.2020.1686816

Yan, Z., & Street, S. (2006). A New Methodology of Measuring Corporate Life-cycle Stages. *Waltham: Brandeis University*.

Yasuda, T. (2005). Firm Growth, Size, Age and Behavior in Japanese Manufacturing. *Small Business Economics*, 24(1), 1–15. https://doi.org/10.1007/s11187-005-7568-y

Zhou, P., & Ruland, W. (2006). Dividend payout and future earnings growth. *Financial Analysts Journal*, 62(3), 58–69.