International Journal of Economics, Commerce and Management
United Kingdom Vol. V, Issue 4, April 2017
http://ijecm.co.uk/ ISSN 2348 0386

THE EFFECTS OF FREE CASH FLOW, LIFE CYCLE, AND LEVERAGE ON DIVIDEND POLICY OF TECHNOLOGY, MEDIA, AND TELECOMMUNICATION COMPANIES LISTED IN THE INDONESIA STOCK EXCHANGE

A COMPARATIVE STUDY OF COMPANIES WITH AND WITHOUT GOVERNMENT OWNERSHIP AS OF 2006-2015

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Abstract

This research is aimed to understand the effect of Free Cash Flow, Life Cycle, and Leverage toward Dividend Policy. The data used in this research is financial statement of public companies in technology, media and telecommunication industry that are listed on Indonesia stock Exchange (IDX) during the period 2006 – 2014. According to IDX Fact Book 2015, there are twenty five technology, media, and telecommunication companies that are listed in IDX, sixteen of those pay dividend during the period 2006-2015. Moreover, this research uses panel data analysis method to divide the companies into two groups (companies with government ownership and companies without government ownership). The results of this research, both groups (indicate that Free Cash Flow, Life Cycle, dan Leverage simultaneously have significant effect on Dividend Policy. Partial effect result for companies with government ownership is Free Cash Flow and Life Cycle have positive significant effect on Dividend Policy while Leverage has negative significant effect on Dividend Policy. Partial effect result for Companies without government ownership is Free Cash Flow and Leverage has negative significant effect on Dividend Policy while Life Cycle has positive significant effect on Dividend.

Keywords: Dividend Policy, Free Cash Flow, Life Cycle, Leverage, Dividend

INTRODUCTION

Indonesia capital market share developed rapidly and plays a vital role in collecting funds from the people who wish to make an investment. Shares are highly volatile instrument offering a prospect of substantial capital gains if shares increase and, conversely, the risk of loss may also occur in the event of reduction in shares. Investors purchasing a company's shares generally intend to get a profit rate in the forms of dividends (profits after tax distributed) and capital gains (the differential resulting from the price of shares). It is such conditions that encourage investors to own shares. For issuers, decision-making of dividend policy is always theoretically intended to maximize shareholders' wealth reflected in the prices of shares listed in the capital market.

A survey in 2016 by the Boston Consulting Group in conjunction with Thomson Reuters (https://www.bcgperspectives.com retrieved on 15 November 2016) to more than 700 portfolio managers and buy-side and sell-side analysts revealed that 37% and 26% of the respondents expected increased dividends in 2009 to 2015 and in 2016, respectively. This means that investors' expectation of dividends remains quite high.

Technology, media, and telecommunication companies catch the interest of both foreign and domestic investors. According to the Investment Coordinating Board (BKPM), Malaysia ranks as the country making the largest investment at home in the first term of 2015. It was recorded to make a USD 2.6 billion investment. Singapore ranks second with an investment amounting to USD 2.3 billion. Then, Japan invested a total of USD 1.6 billion, followed by South Korea and the United States, each by USD 0.8 billion and USD 0.6 billion, respectively. As for realization of the FDI, it was equal to IDR 174.2 trillion or 67.1 percent higher, unlike the same period in the previous year, which was only IDR 150 trillion. Malaysia contributed 18.65 percent to the total foreign investment realized during the first term of 2015. (www.http://economy.okezone.com/ retrieved on 31 August 2016).

Viewed from the business perspective, technology, media, and telecommunication industries have developed rapidly and are among the main support for Indonesia economy. This is also reflected in the share market in the Indonesia stock exchange. The reason why these three areas are connected is because based on business and technological perspectives, the three industries have something in common and a tendency to end up in a synergy with each other. For investors, this constitutes an opportunity to invest their capital in Indonesia, particularly in these areas.

Among the Technology, Media, and Telecommunication Companies Listed in the Indonesia stock Exchange, there are two companies with government ownership. In both companies, the government own golden shares (*Dwiwarna*) that may affect the decision of the GMS. The government as the shareholder expect relatively high dividends as they constitute

non-tax revenue. In companies without government ownership, investors expect good returns from both capital gains and dividends. Based on the foregoing, the researcher classified those companies into two, namely the group of companies with government ownership and the group of companies without government ownership to examine possible differences in the effect of cross-sectional data.

LITERATURE REVIEW

Gitman (2003) defines dividend policy as a plan of measures that a company has to take dividend-related decisions must be made. The Dividend Payout Ratio is an indication of the percentage of the resulting revenue distributed to share owners or shareholders in cash (Gitman, 2003). This ratio is determined the company to pay dividends to shareholders every year based on the magnitude of profits after tax.Van Horne & Machowicz Jr. (1998:483) define this Dividend Payout Ratio as follows: *"Annual cash dividends divided by annual earnings; or alternatively Dividend per Share divided by Earning per Share. The ratio indicates the percentage of a company's earnings that's paid out to shareholder in cash."*

Theoretically the dividend policy has something to do with findings of the research by Miller and Modigliani (1961) which generated the theory of dividend policy irrelevance. They proved that under certain assumptions, including rational investors and perfect capital markets, a company's market value is not affected by its dividend policy. This theory is supported among others by Black and Scholes (1974) as well as Miller and Scholes (1978). According to Modigliani and Miller (MM), the dividend payout ratio does not affect companies' share price or cost of capital. According to the Modigliani-Miller Teorema (M&M), a company's market value is calculated using the earning power and the risk of its underlying assets and is independent of the way it finances investments or distributes dividends. There are three methods a firm can choose to finance: borrowing, spending profits/ (versus handing them out to shareholders in the form of dividends), and issuing shares. Modigliani and Miller (MM) state that in the event the dividend payout ratio is not relevant, the corporate value should be determined by the earning power of the company's assets.

A theory which rejects this dividend policy irrelevance theory of Miller and Modigliani (1961) is the bird-in-the-hand theory as the theory of the relevance of dividends to the corporate value coined by Lintner (1962). Results of the research by Lintner (1963) suggest that in the real market, the dividend policy affects a company's market value. In the view of Gordon and Lintner, investors believe that a bird in the hand is worth more than a thousand birds in the air. So far Modigliani and Miller (MM) argue that not all investors show concern to reinvest their dividends in the same company with the same risk, and therefore the risk level of their income in

the future is not determined by dividend policy, rather it is determined by the new investment risk level.

Corporate management aims to enhance the corporate value. It can be achieved by implementing financial functions, namely investments, financing, and dividends effectively and efficiently because each financial policy taken will affect other financial policy so as to lead to changes in the corporate value. On the one hand, the dividend policy is vital for meeting shareholders' expectation of dividends and reducing agency problems and on the other hand,it should be done without slowing down the growth of the company. Agency problems occur because decision makers or managers do not have to bear the risk as a result of a mistake in business-related decision-making or cannot enhance the corporate value. It is owners who have to take the whole risk. As managers neither have to take any risk nor come under pressure while they are attempting to secure investments of shareholders, they tend to approve any expenditure or accounts of costs which are consumptive and not productive in nature (Jensen and Meckling, 1976).

Agency problems can be traced from several conditions such as the use of free cash flow in unprofitable activities (Jensen, 1986). On the one hand, there are parties who tend to expect a greater dividend payment and on the other hand, there are parties who do not expect that. Let's make it simple, generally the management hold cash to pay off debts or increase investments. It means debt reduction will reduce cash outflow in the form of the interest expense or investments can provide returns in the form of the cash inflow for a company. On the other hand, shareholders expect cash dividends which are relatively high because they want to enjoy results of the investments they make in the company's shares. It is such conditions which the agency theory perceives as the principal-agent conflict (Jensen & Meckling, 1976). Findings of research by Thanatawee (2011) suggest that based on empirical evidence on companies listed in the Stock Exchange of Thailand as of 2002 to 2008, it was revealed that larger companies with a higher free cash flow tend to pay a higher dividend, thus the research supports the free cash flow and life cycle hypothesis

Among the theories relating to leverage is the pecking-order theory which states there is a hierarchy in funding, where companies prefer internal funding sources to external ones and in the even external funding sources are used, companies prefer the instrument of debts to equities. Research by Utami,S. (2011) examines the effect of free cash flow on dividends and leverage showed that free cash flow had a negative effect on dividends but it had a positive effect on leverage. Findings of the research by Vo and Nguyen (2014) revealed that based on empirical evidence on companies listed in the Stock Exchange of Vietnam, there was a negative

relationship between leverage and dividends, thus it is consistent with /supports the pecking-order theory.

As for research into life cycle, based on the research by Fama and French (2001) and De Angelo et al. (2006), there was a trade-off between the advantages and disadvantages of retained earnings which essentially may change the economic viability of a company. Companies in their early stage (i.e. the start-up stage) have a higher chance of making an investment rather than generating cash. The best decision a company at this stage can make is to generate enormous retained earnings so as to grow rapidly. On the other hand, companies which have reached their maturity stage have a steady flow and develop no faster than the economy as a whole. The right decision companies at this stage can make is to maintain a small proportion of retained earnings while most retained earnings are used for the prosperity of their shareholders by distributing dividends. Distribution of dividends is among the manifestations of companies' sustainable profitability (Coulton and Ruddock, 2011). It can be concluded that a different stage of company's life cycle has different dividend policy as well.

RESEARCH METHODOLOGY

Population and Sampling

The research population was technology, media, and telecommunication companies which were taken from the list of companies listed in the Stock Exchange in accordance with those recorded in the IDX Fact Book 2015. As for the sampling method, the research employed purposive sampling where the research sample was selected based on particular considerations. The 25 companies which had been selected as research sample were further selected based on the following criteria: 1. Financial statements of the sample year had been audited by an independent auditor (a public accounting firm) 2. According to the company's history, it distributed dividends in the course of the research (i.e. the last 10 years).

There were 16 (sixteen) technology, media, and telecommunication companies listed in the Indonesia stock Exchange which met those criteria. Among the 16 companies there are two companies with government ownership (PT Telekomunikasi Indonesia (Persero) Tbk and PT Indosat Tbk). For PT Telekomunikasi Indonesia, the government own the majority of it while for PT Indosat, the government own the minority of it. Nevertheless, in both companies the government own golden shares which may affect the decision of the GMS. For those considerations, both companies were put into a separate group in order to avoid a bias in the empirical analysis.

Operationalization of the Variables

In this research, the independent variables were comprised of Free Cash Flow (X1), Life Cycle (X2), and Leverage (X3). For more details, the operationalization of the research variables is described below.

Table 1. Operationalization of the Variables

Variable	Defining Variable	Formula	Scale
*Free cash flow (*X1)	A company's cash that can be distributed to creditors or shareholders which is not used as working capital or for investments in fixed assets	FCF= EBIT*(1-tax)+ depreciation – change in working capital – expenditure]/ (total assets).	Ratio
*Life Cycle (*X2)	a company at the stage/level of maturity with a huge accumulation of profits tends to pay higher dividends	Retained earnings to total assets =RE/TA	Ratio
Leverage *(X3)*	A company's ability to meet all its obligations indicated by the use of some of its own capital to pay debts.	DER =debt/equity	Ratio
Dividend Policy (Y)	The Dividend Payout Ratio (DPR) of the subsequent year. It indicates the percentage of earnings to be distributed in the form of dividends to shareholders.	DPR= Dividend/ Net Income	Ratio

Hypotheses

The Research Hypothesis for Companies with Government Ownership

H_{11} : Free cash flow, life cycle, and leverage simultaneously have a significant effect on the dividend policy of companies with government ownership.

H_{12} : Free cash flow has a significant effect on the dividend policy of companies with government ownership.

H_{13} : Life Cycle has a significant effect on the dividend policy of companies with government ownership.

H_{14} : Leverage has a significant effect on the dividend policy of companies with government ownership.

The Research Hypothesis for Companies without Government Ownership

H_{15} : Free cash flow, life cycle, and leverage simultaneously have a significant effect on the dividend policy of companies without government ownership.

H_{16} : Free cash flow has a significant effect on the dividend policy of companies without government ownership.

H_{17} : Life Cycle has a significant effect on the dividend policy of companies without government ownership.

H_{18} : Leverage has a significant effect on the dividend policy of companies without government ownership.

ANALYSIS AND FINDINGS

The analysis model employed in this research was panel data regression, which is an analysis that shows systematic relationships using panel data.The researcher had tested the panel data model (the Chow test and the Hausman test) and obtained the best model both for companies with government ownership, which was the Common Effect model, and for companies without government ownership, which was the Fixed Effect model. To both models, the classical assumption test had been carried out and all the assumptions had been made (the tests of normality, multicollinearity, autocorrelation, and heteroscedasticity).

Hypothesis Testing

Hypothesis testing has been conducted by EViews Version 7.0, with confidence level of 95% and the result can be seen in tables 2 and 3 below.

Table 2. F Test Result Simultaneously and Determination Coefficient

Hypothesis	Group of Companies	Independent Variable	Dependent Variable	P Value	R Square
H_{11}	With Government Ownership	*Free cash flow, life cycle* and *leverage Simultaneously*	*Dividend Policy*	0,0026	0.602074
H_{15}	Without Government Ownership	*Free cash flow, life cycle* dan *leverage Simulataneously*	*Dividend Policy*	0,0000	0.706675

Table 3. T Test Result Partially

Hypothesis	Independent Variable	Dependent Variable	Coefficient	P Value
Companies With Government Ownership				
H_{12}	Free Cash Flow	Dividend Policy	0.339918	0.0181
H_{13}	Life Cycle	Dividend Policy	0.499435	0.0008
H_{14}	Leverage	Dividend Policy	-0.349251	0.0005
Companies Without Government Ownership				
H_{16}	Free Cash Flow	Dividend Policy	-0.220845	0.0206
H_{17}	Life Cycle	Dividend Policy	0.049169	0.0070
H_{18}	Leverage	Dividend Policy	-0.349251	0.0036

DISCUSSION

Free cash flow, life cycle, and leverage simultaneously have a significant effect on the dividend policy of technology, media, and telecommunication companies listed in the Indonesia stock Exchange as of 2006 to 2015 both for companies with and without government ownership. In general, it shows that in both groups of companies, the dividend policy is influenced by the three variables. Results of testing to companies with government ownership generated a value of R^2 by 0.602074, meaning that 60.20% of the variation in the dividend policy could be explained by the three independent variables of the testing model, namely free cash flow, life cycle, and leverage while the remaining 39.80% was explained by other variables not included in the testing model. As for results of testing to companies without government ownership, they generated a value of R^2 by 0.706675, meaning that 70.67% of the variation in the dividend policy could be explained by the three independent variables of the testing model, namely free cash flow, life cycle, and leverage while the remaining 29.33% was explained by other variables not included in the testing model.

The partial test of the variable Free Cash Flow generated different results between technology, media, and telecommunication companies with government ownership and those without government ownership listed in the Indonesia stock Exchange as of 2006 to 2015. In companies with government ownership, the variable Free Cash Flow had a significantly positive effect on the dividend policy. Therefore, it provides empirical evidence to support the free cash flow hypothesis and the agency cost theory. Conversely, in companies without government ownership, the variable Free Cash Flow had a significantly negative effect on the dividend policy. In terms of characteristics, companies with government ownership tend to expect dividends and thus the existence of the agency problem is more evident in companies with government ownership. As for companies without government ownership, the management of the companies tend to look at investors' expectations who expect an increased corporate value through investments/capital expenditure, so that when the free cash flow is high, the dividend payout ratio decreases in order that the existing free cash flow can be used for investments/capital expenditure. Moreover, companies without government ownership can use their internal funds flexibly and do not have difficulties financing external funds so that they do not depend on the company's free cash flow. This is consistent with the findings of the previous research (Utami,S., 2011) which examined the effect of free cash flow on dividend policy and leverage. The research findings showed that free cash flow had a negative effect on dividends but it had a positive effect on leverage. The research revealed that companies with high free cash flow tend to use leverage to reduce their agency cost.

Results of hypothesis testing for technology, media, and telecommunication companies listed in the Indonesia stock Exchange as of 2006 to 2015 both with and without government ownership related to the partial test of the variable Life Cycle revealed that the variable significantly affected dividend policy. In companies with higher life cycle, their accumulated retained earnings are higher so that they had a greater ability to pay out dividends. This supports the life cycle hypothesis that applies in this research. Megginson (1997) states that companies in a mature industry tend to pay out more dividends than young and developing companies do.

Results of the hypothesis testing for technology, media, and telecommunication companies listed in the Indonesia stock Exchange as of 2006 to 2015 both with and without government ownership related to the partial test of the variable Leverage had something in common, where the variable had a significantly negative effect on dividend policy. This supports the pecking order theory which has something to do with leverage and argues that there is a hierarchy in funding, where companies prefer internal source of funding to external ones and in the event external sources of funding are used, they prefer the instrument of debts to equities.

CONCLUSIONS

1. Free cash flow, life cycle, and leverage simultaneously have a significant effect on the dividend policy of technology, media, and telecommunication companies with government ownership listed in the Indonesia stock Exchange as of 2006 to 2015. The coefficient of determination R^2 is equal to 0.602074, meaning that 60.20% of the variation in the dividend policy can be explained by the three independent variables of the testing model, namely Free Cash Flow, Life Cycle, and Leverage while the remaining 39.80% is explained by other variables not included in the testing model.
2. The partial effects of Free Cash Flow, Life Cycle, and Leverage on the Dividend Policy of Technology, Media, and Telecommunication Companies with Government Ownership listed in the Indonesia stock Exchange as of 2006 to 2015 are described as follows:
    a. Free Cash Flow had a significantly positive effect on Dividend Policy with a regression coefficient by 0.339918.
    b. Life Cycle had a significantly positive effect on Dividend Policy with a regression coefficient by 0.499435.
    c. Leverage had a significantly negative effect on Dividend Policy with a regression coefficient by -0.349251.
3. Free cash flow, life cycle, and leverage simultaneously have a significant effect on the dividend policy of technology, media, and telecommunication companies without government companies listed in the Indonesia stock Exchange as of 2006 to 2015. The

coefficient of determination R^2 is equal to 0.706675, meaning that 70.67% of the variation in the dividend policy can be explained by the three independent variables of the testing model, namely Free Cash Flow, Life Cycle, and Leverage while the remaining 29.33% is explained by other variables not included in the testing model.

4. The partial effects of Free Cash Flow, Life Cycle, and Leverage on the Dividend Policy of Technology, Media, and Telecommunication Companies without Government Ownership listed in the Indonesia stock Exchange as of 2006 to 2015 are described as follows:
   a. Free Cash Flow had a significantly negative effect on Dividend Policy with a regression coefficient by -0.220845.
   b. Life Cycle had a significantly positive effect on Dividend Policy with a regression coefficient by 0.049169.
   c. Leverage had a significantly negative effect on Dividend Policy with a regression coefficient by -0.140234.

SUGGESTIONS

Based on the research findings above, the author offers the following suggestions

1. For the management of technology, media, and telecommunication companies with government ownership, to make decision related to dividend policy, the government expect high dividends as state revenue. Thus, the company management need to maintain the dividend payout ratio and the cash flow to ensure the availability of funds to pay out dividends. As for technology, media, and telecommunication companies without government ownership, investors expect good returns from dividends and capital gains, and thus the management still need to consider the dividend policy to determine the appropriate dividend value.
2. For investors investing their funds in the market in technology, media, and telecommunication companies, if they expect relatively high dividends, the average dividend payout ratio is found in the group of companies with government ownership. However, companies without government ownership also provide relatively good dividends (a mean by 26.48%). Investors need to consider Free Cash Flow, Life Cycle, and Leverage as they affect dividends.
3. For future researchers, it is recommended that they examine other variables that may affect dividend policy. Furthermore, they can also conduct research which undertakes a comparative analysis of companies with government ownership and non-government ownership using an equal sample size in other industries.

LIMITATIONS OF THE RESEARCH

The current study is acknowledged to have the following limitations:

1. There are some factors that could influence Dividend Policy, but the current study focuses on free cash flow, life Cycle, and leverage.
2. Sample size / number of companies with government ownership is smaller than number of companies without government ownership, because there are only two companies with government ownership in this industry.

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