The impact of the free cash flow and the firm's life cycle on dividend policy: Evidence from Vietnam's listed firms

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Article info.	ABSTRACT
	The decision on dividend policy is one of the most important decisions in the financial sector which still has inconsistent results leading to various debates among researchers. This study aims to examine the impact of the factor of the free cash flow (FCF) and the firm's life cycle (RE/TE) on the dividend payout ratio. A panel data of 110 listed firms from the period 2014 - 2020 on Ho Chi Minh stock exchange (HOSE) are used to test the hypothesis. The estimators used to analyze the data are fixed effect model (FEM), random effect model (REM), and then generalized method of moments (GMM) applied to remedy the common errors of panel data. The finding shows that firms in the growth stage will use the free cash flow to invest in a profitable project instead of paying dividends to shareholders. In the meantime, other firm characteristics such as firm size, return on assets, and debt have a positive impact on the dividend payout ratio.

1. INTRODUCTION

Dividend policy is one of the top 10 financial issues attracting numerous arguments from scholars until now because the result of many recent studies is inconsistent (Brealey and Myers, 2002, as cited in Loc & Tien, 2015). In a perfect capital market, there are no taxes and bankruptcy, Miller and Modigliani (1961) stated that dividend policy is irrelevant to the firm's value, and also it does not affect the stock price or capital structure. However, the perfect capital market does not exist, so Miller and Modigliani's statement cannot apply to the capital market. The dividend policy is very important, and make an effect on the firm's value, and shareholders do not want to face the risk which means they like to receive dividends because dividends can reduce the risk for shareholders as Gordon (1963). Several studies relating to numerous facets of dividend policy have been published such as the agency theory proposed by Jensen and Meckling (1976) announces that a firm's managers and shareholders

have a beneficial conflict. Specifically, the ownership rate of the managers has influenced on dividend policy. Miller and Scholes (1978) state that the difference in income tax between dividends and capital gains lead to various dividend policies. The bird-in-hand theory assumes that investors prefer a certain number of dividends at the current rather than a promise of higher future capital gains by Liner (1956), Gordon (1959), and Walter (1963). Based on these fundamental theories, there is a vast literature dedicates to finding the factors that impact on dividend policy all over the world from the developed market to the emerging market including Viet Nam. Denis and Osobov (2008) conduct a study in the market of Japan, the US, Canada, the UK, Germany, and France. The finding shows that the more profitable firms, bigger firms, and firms with a higher fraction of retained earnings to total equity tend to pay cash dividends to their shareholder. Thanatawee (2011) in Thai Lan finds that firms with many growth opportunities have a lower dividend payout ratio. Besides that, the larger

and more profitable firms with higher free cash flows, higher fraction of retained earnings to equity tend to pay higher dividends by cash. Lestari (2018) in Indonesia, the result shows that earnings, cash flow, free cash flow, firm size, and lagged dividends have a significant effect on dividend policy.

In Viet Nam, dividends have been attracting various researchers. They also find that the factors of firm size, earnings on equity, return on assets, and return on equity that impact on dividend policy by Ngoc and Cuong (2014), Loc and Tien (2015), Huong et al. (2015), Hung et al. (2018) and Hoang (2021). However, there are very few studies to determine the relationship between the free cash flow, the firm's life cycle, and dividend policy. Although, these factors are considered as key factors that impact on dividend policy in the developed market proposed by Denis and Osobov (2008). In addition, researchers from many other emerging markets in Asia like Thai Lan, Taiwan, and Indonesia have recognized the role of corporate life cycle in deciding dividend policy which leads to some publications released by Thanatawee (2011), Wang et al. (2011), Dwiyanti and Rahadian (2017). Otherwise, Viet Nam stock market still is in the group of frontier markets with an unstable dividend policy and information asymmetry that is risky for investors. Hence, these gaps motivate the author to conduct this study and the findings shall contribute to both the practical and theoretical aspect. This study will focus on determining the impact of the factors of the free cash flow and the firm's life cycle on dividend policy to answer the research question is whether the factors of the free cash flow and the firm's life cycle impact on dividend payout ratio. The results shall enrich dividend policy. Particularly, for the factors that impact dividend policy in Viet Nam. Besides that, the results also provide some recommendations for investors and the firm's board of management who need more details before they decide to invest their money. In the theoretical aspect, this research raises a concern about the firms in the different developing stages will have different dividend policies.

2. LITERATURE REVIEW

2.1. The firm's life cycle

The life cycle theory has been advanced by Fama and French (2001), Grullon et al. (2002), and DeAngelo et al. (2006). DeAngelo et al. (2006), propose to use two indexes that are RE/TA (retained earnings/total assets) or RE/TE (retained earning/total equity) to represent the factor of firm's life cycle. The result shows that firms with a high fraction of retained earnings on total assets tend to pay dividends.

Thanatawee (2011) examines the factor of the life cycle impact on dividend policy of firms listed on Thai stock market in the period 2002 - 2008 from 287 non-financial firms. This research uses ordinary least squares (OLS) for panel data. The author uses the dividend payout ratio (DPR) to represent dividend policy, also known as the dependent variable, RE/TE is the independent variable representing the firm's life cycle. The research concludes that firms with high RE/TE tend to pay high cash dividends.

Wang et al. (2011) selects 149 listed firms on Taiwan stock exchange from 1992 to 2007. This research aims to examine whether firms' dividend policy is consistent with the prediction of the life cycle hypothesis on dividend policy. Ordinary least squares estimates (OLS) is used. The dependent variable (Y = 1) is a dummy variable for dividend payers (cash only, stock only, or both cash and stock), and Y=0 for non-payers. The explanatory variable RE/TE (retained earnings to equity ratio) is employed to represent the firm's life cycle. The result shows that the firms in the growth stage with more growth opportunities but having low profitability tend to distribute stock dividends more than cash dividends. On the contrary, when the firms in the mature stage with fewer investment opportunities but having higher profitability tend to distribute cash dividends.

Dwiyanti and Rahadian (2017) test the impact of the firm's life cycle on dividend policy of firms in the media, technology, and telecommunications sectors listed in Indonesia. Data is collected from 41 listed firms in the period from 2006 to 2015. A fixed-effects regression model with panel data is used for data analysis. In order to measure the dependent variable (dividend policy) the authors used dividend payout ratio (DPR), and to measure the firm's life cycle, they used the RE/TA ratio (retained earnings/total assets). The research finds that the RE/TA has a positive impact on the dividend payout ratio.

Bayat and Nodhahr (2018) use the systematic elimination sampling method with 130 listed firms in the Tehran stock exchange from 2012 – 2016. A regression with panel data on the Stata program is used to test the effect of the firm's life cycle on

corporate policy. Dividing a firm's life cycle into 4 stages: birth, growth, maturity, and decline. Dependent variables are holding cash, net equity, capital expenditures, and net long-term debt. The research announced that the firm's life cycle is not related to corporate finance.

Ntungufhadzeni et al. (2021) use the panel data of 119 listed firms on JSE (Johannesburg Stock Exchange) from 2006 – 2015 and use a combination of ordinary least squares (OLS), the difference generalized methods of the moment (Diff GMM), and system generalized methods of the moment (Sys GMM) for data regression. Data analysis is generated on the Stata program. The research aims to test the relationship between the firm's life cycle (RE/TE) and dividend per share. Thus, examines other factors such as ROA, firm size, the growth rate in assets (ΔTA), and economic value added (EVA) with dividend per share. The main finding of the research supports the life cycle hypothesis. Specifically, firms pursuing growth objectives seem to pay lower dividends. In addition, the study also finds that the factors of firm size, ROA, and EVA have a significantly positive influence on firms, which is the propensity to pay dividends. Besides that, growth in assets (ΔTA) shows an insignificant negative correlation with dividend payout.

2.2. The free cash flow and agency cost theory

Free cash flow is the amount of cash that a business generates from its operation after the capital expenditures such as construction or equipment costs have been calculated. This amount can be used for business expansion, dividend payment, debt payment, and many other purposes (Vinh & Chi, 2014). Management board prefers to allocate resources based on their interest according to Jensen and Meckling (1976). As the agency cost theory proposed by Jensen (1986) argues that managers do not want to use free cash flow to pay dividends to shareholders. They use free cash flow to invest in the project even though the average return is less than the cost of capital. The purpose of using free cash flow leads to raising the conflict between managers and shareholders, called agency problems. Shareholders wish that managers should use free cash flow to pay them. However, this payment will decrease the firm's resources under the manager's supervision and then reduce the manager's power. Therefore, managers tend to spend, invest, expand, and let firms grow beyond their optimal size, this growth not only increases their power but also increases their wages according

to Murphy (1985). The free cash flow theory is built on the basis of the beneficial conflict between managers and shareholders in using free cash flow. The main content of the free cash flow theory and agency cost theory is that managers should use free cash flow to pay dividends to solve the agency problems following Easterbrook (1984) and Jensen (1986). There are several empirical studies show that firms with high free cash flow tend to pay cash dividends to shareholders such as Thanatawee (2011), Hejazi and Mostaghin (2014), Lestari (2018). These findings also support the free cash flow theory.

3. ATERIALS AND METHOD

3.1. Data

In order to determine the size of the samples (N), the author applied the formula Tabachnik & Fidell (2007, as cited in Canh & Thuy, 2014): $N > 50 + 8m$ (m = the quantity of the independent variables). In this case, the sample size is $N > 50 + 8*7 = 106$. Following this result, the author decides the sample size for this study is 110 samples (firms).

In this study, just the non-financial firms are selected because of the different financial report forms between the non-financial firms and the financial firms according to the accounting standard.

In addition, the firms have to publicize enough financial statements and have clear dividend policy announcements through the period 2014 – 2020.

The total has 378 listed firms that adopt these conditions. Finally, the author uses the systematic sampling method to select 110 firms from the list of 378 firms.

3.2. Methodology

In order to estimate the impact of the free cash flow and the firm's life cycle on dividend policy, the author uses the fixed effect model (FEM) and random effect model (REM). Then, Hausman (1978) is applied to test whether FEM or REM should be selected for more reasonable in this research. Specifically, FEM and REM have the form below:

$$\text{Dividend policy}_{it} = \alpha + \beta_1 \text{FCF} + \beta_2 \text{RE/TE} + \beta_3 \text{SIZE} + \beta_4 \text{ROA} + \beta_5 \text{ROE} + \beta_6 \text{EPS} + \beta_7 \text{LEV} + V_i + \varepsilon_{it}$$

Whereas:

V_i: Represent unobservable factors that are unchanged following the time

ε_{it}: Represent unobservable factors that are fluctuated following the time

In addition, in order to remedy the common errors, such as multicollinearity, autocorrelation, and heteroskedasticity in panel data. The advanced estimator is a generalized method of moments (GMM) that will be employed following Munzhelele et al. (2021).

3.2.1. Dependent variable

To represent dividend policy, the author uses the measure called dividend payout ratio (DPR) same as DeAngelo et al. (2006), Thanatawee (2011), and Wang et al. (2011).

3.2.2. Independent variable

Free cash flow (FCF): Following the free cash flow theory, the firm's managers should use free cash flow to pay dividends as Jensen (1986), Thanatawee (2011), and Lestari (2018). According to agency cost theory by Jensen (1986) advised that the management board should distribute a part of free cash flow to shareholders to reduce the conflict between managers and shareholders. For this purpose, the author proposes that firms with high free cash flow listed in HOSE will pay dividends to shareholders and vice versa. Therefore, a positive sign for the impact of the free cash flow on dividend policy is expected.

Table 1. Variable measurement and expected sign

Variable		Measurement	Expected sign	Previous empirical result
Life cycle	RE/TE	Retained earnings on total equity	+	DeAngelo et al. (2006), Thanatawee (2011), Wang et al. (2011), Ntungufhadzeni et al. (2021)
Free cash flow	FCF	EBIT*(1 - Corporate income tax) + Depreciation – Change in working capital – Capital expenditure) on total assets	+	Thanatawee (2011), Hejazi and Mostaghin (2014), Lestari (2018)
Firm size	SIZE	Ln (Total assets)	+	Thanatawee (2011); Huong et al. (2015), Lestari (2018), Hung et al. (2018), Hoang (2021)
Return on asset	ROA	Net income on total assets	+	Thanatawee (2011), Ngoc and Cuong (2014), Hung et al. (2018)
Return on equity	ROE	Net income on equity	+	Huong at el. (2015), Hung (2015)
Earnings per share	EPS	(Net income – Preferred dividends) on average outstanding common shares		Issa (2015), Loc and Tien (2015)
Debt ratio	LEV	Total debt on total equity	+/-	Thanatawee (2011), Dwiyanti and Rahadian (2017), Hoang (2021)

Life cycle (RE/TE): As the life cycle hypothesis, Denis & Osobov (2008) find that firms in the mature stage tend to pay dividends. Wang et al. (2011), Thanatawee (2011), and Dwiyanti and Rahadian (2017), Ntungufhadzeni et al. (2021) also supported this hypothesis that firms with high fraction of RE/TE express that firms are in a mature stage with fewer investment opportunities and high free cash flow. Thereby, they tend to pay cash dividends. Based on that, the author expects the factor of the firm's life cycle to have a positive impact on dividend policy for the listed firm in HOSE.

Firm size (SIZE): Based on the free cash flow theory, and life cycle theory that large firms often are in the mature stage leading to having high free cash flow. Therefore, they tend to pay cash dividends same as Thanatawee (2011), Hejazi & Mostaghin (2014), and Hoang (2021). As a result, this factor is expected to have a positive impact on dividend policy.

Return on assets (ROA): Firms with high profitability will generate high free cash flows. Therefore, they tend to pay dividends as Thanatawee (2011), Ngoc and Cuong (2014), Hung

et al. (2018). Hence, ROA will have a positive influence on dividend policy.

Return on equity (ROE): is one of the factors that have a positive effect on dividend policy same as Huong et al. (2015), and Hung (2015). Therefore, this factor is expected to have a positively affected on dividend policy.

Earnings per share (EPS): Firms with high earnings per share tend to pay dividends as Issa (2015), Loc and Tien (2015). Thereby, this factor is expected to have a positive impact on the dividend policy.

Debt ratio (LEV): According to the free cash flow theory, firms with high debt ratios are not a good signal for dividend payment policy. For firms with high debt ratios that seem to restrict dividend

payments, Dwiyanti and Rahadian (2017) supported this theory. However, Thanatawee (2011) shows the opposite finding that the debt ratio has a positive impact on dividend payments for listed firms in the Thai Lan stock market. An assumption for that is the listed firms in Thai Lan finance their dividend policy by debt. Based on that, the author expects that the debt ratio will have a negative or positive impact on dividend policy for listed firms in HOSE.

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

In order to express the characteristics of the sample, the author conducted the descriptive statistics and the detailed description in the following Table.

Table 2. Descriptive statistics of variables

Variables	Unit	Average	Max	Min	Std.Dev	Obs
DPR	%	7.19	89.6	-68.6	17.6	770
FCF	%	5.50	86.0	-71.6	17.5	770
RE/TE	%	11.1	61.9	-87.3	19.9	770
LEV	%	47.6	167	0.0019	22.2	770
ROA	%	46.3	49.6	-53.1	8.89	770
ROE	%	22.6	45.0	0	12.9	770
EPS	VND	7,475	15,191	20.0	4,315	770
SIZE		26.6	30.3	23.0	2.09	770

According to the above table, the DPR of listed firms in HOSE has significantly fluctuated. Particularly, the maximum DPR is 89.6%, and the minimum DPR is -68.6%. This figure shows the amount used to pay dividends through the period 2014 – 2020 is not only financed by the firm's profit but also funded by other sources because numerous firms lost money but paid cash dividends to shareholders. FCF and RE/TE also have a large volatility which illustrates that many firms have high free cash flow, high retained earnings on equity, and vice versa. Following the free cash flow theory and the life cycle theory, firms with high free cash flow and high retained earnings tend to pay cash dividends. Besides that, the two indexes ROA and ROE have a small standard deviation (Std.Dev) presenting the firms which collected in this study that do not have numerous differences in profitability. Finally, the debt ratio (LEV) with large Std.Dev and the average debt rate is 47.6% assumes that most of the firms collected in this study have a high debt ratio.

4.2. Correlation Analysis

Pearson's correlation coefficient is employed to measure the statistical relationship between variables used in the study and the sign of the relationship is provided in the below table.

The result shows the sign of correlation coefficients between the dependent variable and independent variable which are consistent with the expectation proposed in table 1. Particularly, RE/TE, SIZE, ROA, ROE, EPS, and LEV have effects on the dividend payout ratio (DPR) with a significance is 5%. The correlation coefficients between the dependent variable and the independent variable are just from 0.073 to 0.162. Therefore, the factors in the model have an insignificant impact on DPR. However, among the independent factors, they have a close correlation. For instance, the correlation coefficient of ROA and RE/TE is 0.393. The author believes that the model faces the risk of autocorrelation errors that cause unreliable results for this research. In order to resolve this trouble, GMM is a suitable solution.

Table 3. Correlation matrix

	FCF	RE_TE	SIZE	ROA	ROE	EPS	LEV	DPR
FCF	1							
RE_TE	0.093** 0.010	1						
SIZE	-0.025 0.486	-0.066 0.065	1					
ROA	-0.040 0.265	0.393*** 0.000	-0.032 0.376	1				
ROE	-0.026 0.471	-0.021 0.570	-0.021 0.568	-0.032 0.373	1			
EPS	-0.028 0.433	0.043 0.238	0.020 0.581	0.031 0.390	0.022 0.541	1		
LEV	-0.224*** 0.000	-0.182*** 0.000	0.036 0.318	-0.026 0.480	-0.042 0.248	0.031 0.392	1	
DPR	0.052 0.150	0.133*** 0.000	0.081** 0.024	0.162*** 0.000	0.073** 0.043	0.125*** 0.000	0.076** 0.035	1

*Noted: ***,** is significant at the 1%, 5% respectively*

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4.3. Regression analysis

In this section, the author conducts a regression analysis to examine the impact of the factors of free cash flow, the firm's life cycle, and other characteristics on the dividend payout ratio by using REM and FEM models. Table 4 contains the related information.

Based on table 4, in order to select the suitable model either REM or FEM for this study. The author uses the Hausman test same as Vinh and Chi (2014), Loc and Tien (2015), Huong et al. (2015). Then, the result shows that REM is the suitable model. In addition, the author also tests the model reliability level by using multicollinearity, autocorrelation,

and heteroskedasticity test. The result is shown in table 5, table 6, and table 7 respectively.

Table 4. The regression results with the REM & FEM model

Index	Model	
	FEM	REM
R^2 (%)	8.70	9.33
Adjusted R^2 (%)	7.17	7.38
P value (prob)	0.000	0.000
FCF	0.0789** (2.18)	0.0802** (2.32)
RE/TE	0.1033** (2.43)	0.0922** (2.52)
SIZE	0.0050* (1.68)	0.0061** (2.14)
ROA	0.3123*** (3.81)	0.2867*** (3.80)
ROE	0.0977** (2.09)	0.1057** (2.34)
EPS	0.0000*** (2.87)	0.0000*** (3.14)
LEV	0.1118** (1.99)	0.0953*** (2.62)
C	-0.1989 (-2.26)	-0.2220 (-2.73)

*Noted: ***, **, * is significant at the 1%, 5%, and 10% respectively. (t-value or z-value).*

4.3.1. The multicollinearity test

To test the multicollinearity phenomenon, the author uses the variance inflation factor (VIF) and the details are following.

Table 5. The result of the multicollinearity test

Variables	VIF
FCF	1.06
RE/TE	1.24
SIZE	1.01
ROA	1.19
ROE	1.01
EPS	1.01
LEV	1.09
Mean VIF	1.09

Based on the above table, VIF < 10 for all variables in the model. Tho (2008, as cited in Dong & Minh, 2015) states that VIF < 10 means the model is not facing the multicollinearity problem.

4.3.2. The autocorrelation test

Based on Dong & Minh (2015), the author tests the autocorrelation phenomenon by the Breusch-Godfrey test with the following hypothesis (H):

(H_0): Prob, Chi^2 < 5% => The model has the autocorrelation problem

(H_1): Prob, Chi^2 > 5% => The model does not have the autocorrelation problem

Table 6. The result of the Breusch-Godfrey test

Index	Outcome
Chi^2	82.2
Prob, Chi^2	0.0000

It is clear that Prob, Chi^2 = 0.0000 < 5% as the hypothesis H_0. Therefore, the author states the model has an autocorrelation error.

4.3.3. The heteroskedasticity test

Following Dong & Minh (2015), the author tests this phenomenon by using xttest3 for FEM models and xttest for REM models with the below hypothesis (H):

(H_0): Prob, Chi^2 < 5% => The model has the heteroskedasticity problem

(H_1): Prob, Chi^2 > 5% => The model does not have the heteroskedasticity problem

Table 7. The result of xttest 3 and xttest 0

Test	Model	Prob, Chi^2
xttest 3	FEM	0.0000
xttest 0	REM	0.0000

According to the hypothesis and the outcome of xttest 3 and xttest 0. It is therefore concluded that the model has a heteroskedasticity error.

4.3.4. Remedy the statistical errors

According to the above test, the author concludes that the model faces some statistical errors such as heteroskedasticity and autocorrelation phenomenon. Therefore, the author uses the model GMM to remedy these phenomenon as Munzhelele et al. (2021) and the result is shown in Table 8. The discussion of this study will rely on the regression results with the GMM model.

Table 8. The regression results with the GMM model

Index	GMM
Pvalue (prob)	0.000
AR(1)	0.000
AR(2)	0.5343
FCF	0.0979***
	(2.61)
RE/TE	0.1239**
	(2.41)
SIZE	0.0061**
	(1.96)
ROA	0.2742***
	(3.06)
ROE	0.0685
	(1.44)
EPS	0.0000***
	(3.11)
LEV	0.2095***
	(2.81)

Noted: ***, **, * is significant at the 1%, 5%, and 10% respectively. (t-value). Besides T-value is 1.44, ROE has P-value is 0.1475 >10% so it has meaningless statistical significance in this study.

4.4. Result and discussion

The regression result in table 8 reveals that:

Free cash flow (FCF) has a positive impact on the dividend payout ratio with a statistical significance of 1%. This result is similar to several studies published by Thanatawee (2011), Hejazi and Moshtaghin (2014), Suhartono (2015). Following the free cash flow theory, firms that have high free

cash flow tend to pay dividends by cash and vice versa. Vinh and Chi (2014) assumed that free cash flow is used for multiple purposes, such as investment or debt payment and dividend payment. With using free cash flow to pay dividends to satisfy the shareholders need and that is a signal to attract more new investors. However, this situation can put pressure on the board of management to control cash flow to pay dividends and cash flow to ensure the ability of the firm's payment. Therefore, to have a high free cash flow requires the board of management to work effectively in doing business and investing activities. In addition, they need to manage well expenditure to generate high free cash flow. Besides that, Jensen (1986) supposed the management board should distribute free cash flow to shareholders, which aims to reduce the conflict between managers and shareholders. In summary, dividend requirements by shareholders are reasonable for their investment amount. Therefore, the management board should use a part of the free cash flow paid to them.

The firm's life cycle (RE/TE) has a positive effect on the dividend payout ratio at the significance of 5% same as Denis and Osobov (2008), Thanatawee (2011), and Wang et al. (2011). This finding also supports the life cycle theory that firms in the developing stages with many investment opportunities, tend to spend their cash flow on the project so they decide not to pay dividends. Whereas, firms in the mature stage with high profitability and high free cash flow but few investment opportunities can lead them to use this free cash flow to pay dividends. This finding is a signal for investors that when they expect a stable return like annual cash dividends for their investment amount, they could find and invest in firms that are in the mature stage.

Firm size (SIZE) at the significance of 5%, the result shows that the larger firms tend to pay dividends more than the smaller firms. This finding has similar to the previous publication by Hejazi and Moshtaghin (2014), and Huong et al. (2015), Hung et al. (2018), Hoang (2021).

Return on assets (ROA), and earnings per share (EPS) have a positive impact on the dividend payout ratio. However, EPS has an insignificant effect on DPR as Ngoc and Cuong (2014), Loc and Tien (2015). Both factors ROA, and EPS are presentative of the firm's profitability, following the free cash flow theory, firms with high profitability will have high free cash flow. Therefore, they tend to pay dividends in cash. In addition, the ROE of the listed firm on HOSE from 2014 to 2020 has meaningless statistical significance. This result is inconsistent with several previous research, such as Hung et al. (2018).

Leverage (LEV) also has a positive impact on the dividend payout ratio at a significance of 1%. This finding has the same result as Thanatawee (2011). However, this has the opposite result from Dwiyanti and Rahadian (2017). In the theoretical aspect, firms with high debt levels will constrain the firm's financial situation. Following the free cash flow theory, firms with high debt ratios will restrict from paying dividends by Dwiyanti and Rahadian (2017). However, this study has the opposite result with the theory that could lead to the assumption the firms listed on HOSE from the period 2014 to 2020 use debt to pay dividends. However, if the management board overuses this tool to pay dividends, that will put a financial burden on firms. Instead, they should use the debt to invest in business expansion with the aim is to create high free cash flow in the future and use the free cash flow to pay dividends.

5. CONCLUSION

In conclusion, this study examines the dividend payout ratio of 110 listed firms on HOSE from the period 2014 to 2020 in order to test the impact of the free cash flow and the firm's life cycle on dividend policy. The result also supports the free cash flow theory and the life cycle hypotheses. In particular, the free cash flow and the life cycle (RE/TE) are the main factors in this study, showing that they have a positive effect on the dividend payout ratio. This finding is consistent with those of DeAngelo et al. (2006), Denis and Osobov (2008), and Thanatawee (2011). The firms in the mature stage tend to pay dividends to shareholders. This is a signal for investors who expect to receive dividends for their investment amount when they choose the firms to disburse. Besides that, the management board should do business effectively to create high free cash flow and distribute a part of this cash flow to shareholders, aims to ease the conflict between managers and shareholders.

Another outstanding finding in this study that the positive relationship between financial leverage and dividend payout ratio which casts doubt on whether the firms finance their dividend payments by debt.

Besides the achievements, this study also remains some limitations such as the sample size should be wider to ensure the result of the study can represent

for all firms in the market. For instance, not only collecting the firms listed on HOSE but also selecting the firms listed on HNX (Ha Noi Stock exchange market). For future research, this

limitation should be considered. In addition, the factor of the firm's life cycle requires further in-depth study.

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