# MANAGERIAL CONFIDENCE LEVEL AND DIVIDEND POLICY: EVIDENCE FROM ASEAN DEVELOPING COUNTRIES

BY

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We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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#### LIST OF ABBREVIATIONS

ADX Abu Dhabi Securities Exchange

AG Asset Growth

ASE Amman Stock Exchange

ASEAN Association of Southeast Asian Nations

BLUE Best Linear Unbiased Estimator

BSE Beirut Stock Exchange

CEO Chief Executive Officer

CFO Chief Financial Officer

COO Chief Operation Officer

CTA Cash and Cash Equivalent to Net Total Assets

DIV\_SALES Dividend to Sales

DR Debt Ratio

DY Dividend Yield

ELR Empirical Likelihood Ratio

EPS Earning Per Share

FCF Free Cash Flow

FCF\_TA Free Cash Flow to Total Asset

FEM Fixed Effect Model

FMCG Fast Moving Consumer Goods

GDP Gross Domestic Product

GSE Ghana Stock Exchange

HIGHMC High Managerial Confidence Level

HOSE Ho Chi Minh Stock Exchange

KLCI Kuala Lumpur Composite Index

LOG\_TA Log of Total Asset

LOWMC Low Managerial Confidence Level

M&M Modigliani and Miller

MENA Middle East and North Africa

MKTR Stock Market Return

OLS Ordinary Least Square

PD Past Dividend

QR Quick Ratio

REM Random Effect Model

ROE Return on Equity

S&P Standard & Poor's

UK United Kingdom

US United States

USD United States Dollar

VIF Variance Inflation Factor

YPO Young Presidents' Organisation

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#### **PREFACE**

This research project is submitted as partly to fulfill the requirement of the course of Bachelor of Finance (HONS) having Mr. Chee Chong Meng as the project supervisor. The topic chosen was "managerial confidence level and dividend policy, evidence from ASEAN developing countries". This project was written solely by the authors with supporting facts from research by others which are quoted with reference.

There are many research on the factors affecting a dividend payout policy yet minimal in depth research on managerial confidence level and dividend policy being done. This topic that was chosen was due to the fact that so little research have been done on the topic and significance has yet to be proven. Hence, the purpose of this options was to bring the specific research another step closer to a clear result.

This research was considered a success and it was all because this research could help and contribute to future studies on this topic. New knowledge about managerial confidence could very much allow researchers to better understand how it affect dividend policy of each company and since managerial confidence level is a qualitative variable and it is very much based on the character and personality of each managers, this was also one of the reasons was what drove this research.

#### Abstract

The aim of this study was to learn the relationship between managerial confidence level and dividend payout policy from 2011 to 2015. In addition, the research was also to study the effects of certain variables on dividend payout policy and that includes firm size, leverage, growth, profitability, past dividend, liquidity, free cash flow as well as market return. Secondary data was taken from previous research on related dividend topics and the total number of companies chosen was 245 from 5 different ASEAN countries which are Indonesia, Malaysia, Thailand, Vietnam and also Philippines. Managerial confidence level was divided into two variables which is high managerial confidence level and low managerial confidence level. Results were obtained by using E-Views 9, showing an insignificant relationship for both high and low managerial confidence level with dividend payout policy. While firm growth and leverage showed significance, free cash flow recorded an insignificant relationship with dividend payout policy. The market return also did not record a significant result, same goes for past dividends as well as liquidity. Finally, profitability did show significance when measured with dividend payout policy.

# **CHAPTER 1: RESEARCH OVERVIEW**

# 1.0 Introduction

This research investigates the effect of managerial confidence level on their dividend policy in ASEAN developing countries. The objective of this study is to find out the determinants of dividend payout policy such as managerial confidence level, firm size, leverage, and profitability, firm's growth, past dividend, free cash flow, liquidity, and stock market return. Research background will give an understanding of managerial confidence level and dividend trend. This chapter also covers problem statement, research objectives, research questions, hypotheses of the study, significance of the study and conclusion.

# 1.1 Research Background

#### 1.1.1 Managerial Confidence Level

Managerial confidence is also called as CEO optimism in Campbell, Gallmeyer, Johnson, Rutherford and Stanley (2011). Optimism is defined as "Hopefulness and confidence about the future or the success of something" ("Optimism", 2016). When managers or CEO are overconfidence or high optimism, they see their firms' securities are undervalued because they have high belief in their firms' future value. It will cause them to make bias or irrational decision (Campbell et al., 2011). In their study, CEO optimism and overconfidence have been studied and it shows evidence that it influence important corporate decisions, such as investment, financing, dividends, and mergers.

Managerial confidence level is shown in CEO Confidence Index. CEO Confidence Index data is from surveying the CEO. Conference Board CEO Confidence Index, Vistage CEO Confidence Index, YPO Global Pulse Confidence Index are the examples of CEO Confidence Index (The Conference Board, 2013; Vintage, 2016; YPO, 2016). The survey is conducted, analysed and reported by each organization but the result is in general.

#### 1.1.1.1 Managerial Confidence Level in Developed Countries

The Conference Board is a U.S non-profit, non-advocacy and tax-exempt organization. Its primary mission is to provide practical knowledge for performance improvement by the world's leading organizations and better serve society. It is an international, independent business membership and research association working in the public interest.

The CEO Confidence Survey, for example, for the second quarter 2013 survey showed about 100 CEOs attitudes and expectations regarding the overall state of the economy as well as their own industry covering a wide variety of industries (The Conference Board, 2013).

The Conference Board Measure of CEO Confidence stated that there was an increase in CEOs confidence for the second quarter in 2016. The CEOs' outlook for U.S. is neutral as compared to those developing countries such as Japan, China, and Brazil which were still negative, but in fact, there was an improvement from the last quarter. Lynn Franco who is currently the Director of Economic Indicators at The Conference Board commented that Europe and India are unlike the aforementioned countries since their prospects were fairly positive despite the approval of the Brexit referendum in June tends to influence the sentiment. Due to a reduction in cost and demand growth in the market, about 75 percent of CEOs expect profits will rise in the following year (The Conference Board, 2016).

Another example which according to Chief Executive's July CEO Confidence Index in U.S., for a scale from 1 to 10 which 1 is the lowest and 10 is the highest rating, a 5.67 was rated by CEOs as an indication of their confidence in business conditions. There were an 8.2% declines from a year ago. Due to several global issues such as UK's Brexit vote, the upcoming U.S. presidential election, ongoing terrorism attacks, CEOs began to worry about the business conditions in the future (Whylly, 2016).

#### 1.1.1.2 Managerial Confidence Level in Developing Countries

YPO stand for the Young Presidents' Organisation. YPO is a non-profit organization, premier chief executive leadership organization in the world to the shared mission of becoming Better Leaders through Education and Idea Exchange. YPO fosters lifelong relationships, empower each member's personal leaderships and providing members with access to confidential forums.

The YPO stated that the marginal confidence level of China among business leaders in the region have been increasing. The average confidence level of China have improved by 2.0 to 64.0 in the first quarter of 2016, its represent that the improvement has higher than the average confidence level (Mers, 2016). The economy of India have growth and become a major exporter of outsourcing services. The managerial confidence level of India has to surge 5.6 points from 60.8 in last quarter of 2015 to 66.4 in the first quarter of 2016. Based on the YPO report, India and China have increased the confidence level while ASEAN countries have dramatically declined in confidence level. The overall of confidence level has been the drop more than three points compare with the last quarter of 2015 (Mers, 2016).

YPO stated that the Asian CEO Confidence level has declined but remain strong in the year 2015. According to the Terry O'Connor, the decline of

CEO confidence in Asian countries because of the collapse of the China's Shanghai composite Index during of the month of June. The most significant decline in confidence among the Asian countries are Indonesia, Malaysia, and Vietnam (Mers, 2015)

According to the quarterly report of YPO, the confidence rallied within the ASEAN countries during the second quarter of the year, on the back of a modest weakening of the dollar and slowdown in Chinese economy, and the measure of CEO confidence among the ASEAN countries is in optimistic territory as the region's score increase 3.6 points to 60.5 in the first quarter of 2015 (Canivel, 2016).

# 1.1.2 Dividend Policy and Return on Equity in ASEAN Developing Countries

As general, return on equity (ROE) measures a corporation's profitability by revealing how much profit of a company generated with the money invested by the shareholders. According to the Amidu (2007), there has positive significant relationship between return on equity and dividend policy. The profitability was influenced if the firm has the policy to pay the dividend (Murekefu & Ouma, 2012). Besides that, there have results shows that the higher dividend will lead to the higher return on equity for all the firms. Which means that companies return their retained cash to their shareholder, their profitable increase and the return on equity will improve (Smithie, Kerschner, Mo & Agarwal, 2015).

<u>Table 1.1: The Return on Equity (ROE) and Dividend Yield (DY) of</u>
ASEAN Countries

Countries	ROE (%)		DY (%)	
	2015	2016	2015	2016
Malaysia	10.87	10	3.15	3.24
Vietnam	13.44	13.24	3.49	2.65
Thailand	11.13	9.7	3.39	2.99
Philippines	11.44	11.82	1.96	1.87
Indonesia	16.84	17.43	2.2	1.94

Source: Bloomberg

Table 1.1 will show that the positive relationship between return on equity and dividend yield in ASEAN developing countries. The result proved that the positive relationship between ROE and dividend yield and significant effect on ROE and dividend yield (Darman, 2012).

# 1.1.3 Dividend Policy and Managerial Confidence Level in ASEAN Developing Countries

Basically, most of the ASEAN country is the developing countries and those countries are ready to transform them from agriculture sector to industry sector and from industry sector to service sector due to increasing the GDP from year to years. High GDP countries try to pay a high dividend, it is because high GDP of the countries means that higher growth of the business, and company able to pay a higher dividend. Besides, the theory said that lower managerial confidence intends to pay more dividend compare to the managerial that has the higher confidence level. Higher GDP and lower managerial confidence level can pay a high dividend. However this theoretical is no match with the reality. In 2015, CEO confidence index of the ASEAN is the lowest compared to the India, China, and Japan.

78 YPO Global Pulse Confidence Index 76 74 72 India 70 68 **ASEAN** 66 64 62 China 60 Japan 58 56 54 52 Jan-14 Apr-14 Jul-14 Oct-14 Jan-15

Figure 1.1: YPO Global Pulse Confidence Index

Source: YPO (2015)

On the other hand, the dividend for the main index in each of the ASEAN country have a different trend. Highest dividend pay-out is choosing in order to show the picture between confidence index and dividend in 2015. Using the Malaysia KLCI 30 listed best dividend stock to analyse the reality of the relationship between managerial confidence and dividend policy.

<u>Table 1.2: KLCI 30 Companies and Dividend Payout Ratio with Dividend</u>
<u>Payout Ratio Range in Year 2015 and 2016</u>

Dividend Payout Ratio (%)		
66 percent and above		
69		
74		
75		
79		
81		
90		
98		
100		
105		
108		
3 percent to 65 percent		
33		
34		
37		
38		
39		
42		
47		
52		
52		
55		
60		
ow 32 percent and below		
-250		
-126		
0		
15		
21		
21		
25		
28		
29		

Source: TopYield.nl (2016)

Table 1.2 shows the KLCI 30 Companies and Dividend Payout Ratio with Dividend Payout Ratio Range in year 2015 and 2016. From the table, there was 10 companies (Petronas Dagangan, Axiata Group, Malayan Banking, Maxis, Telekom Malaysia, Bat Malaysia, Digi.com, Astro Malaysia Holdings and Ytl Corp) pay higher dividend to the stockholder and this can explain by the theory which when the managerial confidence level is lower and the payout ratio is higher. The highest dividend payout in 2015 and 2016 is Ytl Corp which recorded as 108 percent.

While there were 9 companies (Felda Global Ventures, Umw Holdings, Sapurakencana Petroleum, Genting, IOI Properties, RHB Capital, IHH Healthcare, Ppb Group and Hong Leong Financial) do not support the theory which stated lower managerial confidence level will cause higher dividend payout ratio. This group of companies indicates that when lower confidence level of the manager will lead to having lower dividend payout ratio. Felda Global Ventures has recorded the lowest dividend payout ratio, which is -250 percent.

Most of the bank was in the moderate dividend payout ratio (Dividend payout ratio 33 percent to 65 percent), which is Hong Leong bank, Public bank CIMB group included bank and Am bank. This group of companies indicated that when the managerial confidence index is lower dividend payout ratio in moderate level.

#### 1.2 Problem Statement

Recently, income of the dividend is much concern by the investor. In developing country, the dividend payout ratio is quite high compared to the developed country company. Dividend is made by the top level of management. According to Deshmukh, Goel and Howe (2013), overconfidence of the manager will lead to decreasing the dividend pay-out ratio. So that it may lead to affect the wealth of the company. Instead on this managerial overconfidence also bring the high risk to

that the high confidence level manager will intend to increase the investment level instead of paying dividend to the shareholder. The agency problem will arise when manager do this by their confidence into their investment decision such increasing the leverage of the company. Manager of the company is the decision maker in the company. In company top management with chief executive officer (CEO), chief financial officer (CFO) and chief operation manager (COO), those people will significantly affect the company. So the behaviour or style of the top management will directly affect the company, according to the Agency theory, manager and shareholder always have the conflict and the agency cost is try to solve this problem in time to time. If they make the wrong decision, the consequences of the company is unpredictable.

According to the Han, Laib and Hoc (2015), they stated that overconfidence of the manager is the risk for the company. It may affect the company performance, they found that overconfidence of the manager and the performance of the company is significant of the return by taking the risky project. Besides that, CEO optimism is meant agent committed in the risky project. In this statement implied that managerial confidence level will influence the earnings of the company.

Hribar and Yang (2010) reported that overconfidence managerial will increase the forecast of the management earnings, in other words meaning that overestimate the future earning, it may indicate that overconfidence managerial only bring the good news to the shareholders and always believe that stock price of the company will increase from year by year. In the real cases, the Nokia top manager as the one of the example in our study. The overconfidence of the manager has believed that their products are the best of the best in the phone industry. They might always compare the competitor's outdated products with their future development and always put them in the top place. However the new competitors enter the market with the new technology will lead the Nokia failure in the phone industry (Vuori & Huy, 2015).

In the previous part, stated that firm's financial decision depends on its managerial confidence level, therefore dividend policy will significantly change once the new CEO take a turn in the company. In now the measure of the confidence level still inconclusive (only can get the overall picture – CEO confidence index) and only have evidence proved in the developed country and not emerging country. Developing countries have highly potential to gain the wealth when investing into their company so that CEO confidence level may consider into the determinants of the dividend policy in emerging country.

Besides that, according to the Malmendier and Tate (2005b), the managerial confidence level is measured by the execution of the stock option while also have researchers using the press-based measure. This all measure in not reliable in some countries, for example, developing countries due to rarely using the option for their company such as Malaysia only started to apply the option in 2012 and also faced the problem of lacking option data in the study. To investigate the relationship between managerial confidence levels, another method of measuring confidence level is used. In the previous of the research, evidence of this topic in developing country not yet be discovered and the researchers only focus their study in the developed countries and certain countries, such as the firms were listed in United States, Tunisian republic and Pakistan.

# 1.3 Research Objectives

The objectives of the research are based on the problems stated in problem statement.

# 1.3.1 General Objective

To investigate the determinants of firm's dividend payout policy in ASEAN developing countries.

### 1.3.2 Specific Objectives

- i. To investigate the relationship between managerial confidence level and firm's dividend payout.
- ii. To investigate the relationship between firm size and firm's dividend payout.
- iii. To investigate the relationship between leverage and firm's dividend payout.
- iv. To investigate the relationship between firm's growth and firm's dividend payout.
- v. To investigate the relationship between profitability and firm's dividend payout.
- vi. To investigate the relationship between past dividends and firm's dividend payout.
- vii. To investigate the relationship between liquidity and firm's dividend payout.
- viii. To investigate the relationship between free cash flow and firm's dividend payout.
- ix. To investigate the relationship between stock market return and firm's dividend payout.

# 1.4 Research Questions

- i. Is there any significant relationship between managerial confidence level and firm's dividend payout?
- ii. Is there any significant relationship between firm size and firm's dividend payout?
- iii. Is there any significant relationship between leverage and firm's dividend payout?
- iv. Is there any significant relationship between firm's growth and firm's dividend payout?

- v. Is there any significant relationship between profitability and firm's dividend payout?
- vi. Is there any significant relationship between past dividend and firm's dividend payout?
- vii. Is there any significant relationship between liquidity and firm's dividend payout?
- viii. Is there any significant relationship between free cash flow and firm's dividend payout?
- ix. Is there any significant relationship between stock market return and firm's dividend payout?

# 1.5 Hypotheses of the Study

- **H**<sub>1</sub>: There is a negative relationship between managerial confidence level and dividend payout policy.
- $H_2$ : There is a relationship between firm size and dividend payout policy.
- **H**<sub>3</sub>. There is a negative relationship between leverage and dividend payout policy.
- **H<sub>4</sub>:** There is a negative relationship between firm's growth and dividend payout policy.
- **H**<sub>5</sub>: There is a positive relationship between profitability and dividend payout policy.
- **H<sub>6</sub>:** There is a positive relationship between past dividend and dividend payout policy.
- **H**<sub>7</sub>: There is a positive relationship between liquidity and dividend payout policy.
- **H<sub>8</sub>:** There is a positive relationship between free cash flow and dividend payout policy.
- **H<sub>9</sub>:** There is a negative relationship between stock market return and dividend payout policy.

# 1.6 Significance of the Study

This study gives a better understanding of the effect of managerial confidence level in dividend policy of the non-financial sectors in ASEAN developing countries. The countries chosen are Malaysia, Vietnam, Indonesia, Thailand, and the Philippines. This study investigates the main determinants of dividend policy in ASEAN developing countries to extend the study in developing countries which is recommended by Amidu (2007) and Jabbouri (2016). This study is planned to provide some evidence to the developing countries on the determinants of dividend policy.

Firstly, this study serves as a guideline to policy makers. The determinants of dividend policy such as firm size, leverage, profitability, growth, past dividend, free cash flow, liquidity, and stock market return, the managerial confidence level can be identified by policy makers in ASEAN developing countries for them to decide a better dividend payout policy. This study allows them to identify the managerial confidence level to avoid selection bias of the managers.

In addition, this study helps the investors who prefer the current income (dividend) to make an investment decision. They can have a better picture on how the dividend policy is decided by the firms' management and how much they are compensated. Investors can use this study as a guideline to decide their required return from the stock or the portfolio using the information in the financial report. They will also know the pattern of dividend payout when the firms' CEO is over confident or under confident.

Besides that, this study can contribute knowledge and idea to academicians. They can further investigate managerial confidence affecting dividend policy or use managerial confidence to investigate another topic since the managerial confidence research is very limited. It is good for them to explore the topic using this study as a guideline. They can have an idea of managerial confidence level and also other determinants of dividend policy of company.

# 1.7 Chapter Layout

#### Chapter 1

In Chapter 1, the overview of the managerial confidence level and dividend policy is discussed. In this chapter, the introduction of this chapter, research background, problem statement, research objectives, research questions, hypotheses of the study, significance of the study and conclusion of this chapter are presented.

#### Chapter 2

In Chapter 2, the relationship between independent variables and dependent variables of previous studies are discussed. In this chapter, the introduction of this chapter, review of the literature, review of relevant theoretical models, proposed theoretical framework, hypotheses development and conclusion of this chapter are presented.

#### **Chapter 3**

In Chapter 3, method to collect and analysis the data in this research is discussed. In this chapter, the introduction of this chapter, research design, data collection methods, sampling design, research instrument, constructs measurement, data processing, data analysis, the conclusion of this chapter is presented.

#### Chapter 4

In Chapter 4, the introduction of this chapter, descriptive analysis, scale measurement, inferential analysis and conclusion of this chapter is discussed and presented.

#### Chapter 5

In Chapter 5, the introduction of this chapter, summary of statistical analyses, discussions of major findings, implications of the study, limitations of the study, recommendations for future research and conclusion of this chapter is discussed and presented.

# 1.8 Conclusion

An overview of managerial confidence level and dividend policy is presented in research background. The problem statement, research objectives, research questions, hypotheses of the study, significance of the study are discussed. The answer for research questions is answered by reviewing the literature which is presented in Chapter 2 and the hypotheses of the study which is also developed in Chapter 2.

# **CHAPTER 2: LITERATURE REVIEW**

# 2.0 Introduction

In chapter two, this study has discussed on the literature review which included the study from previous researchers. In this section, it includes the dividend policy and independent variable like managerial confidence level. Besides that, it also includes the control variables such as firm size, leverage, profitability, growth, past dividend, free cash flow, liquidity, and stock market return. Moreover, this chapter also discusses theoretical model, empirical review, proposed theoretical framework, hypothesis development, and conclusion.

#### 2.1 Review of the Literature

The dependent variable in this study is dividend payout while the independent variable is managerial confidence level. The control variables are size, leverage, growth, profitability, past dividend, liquidity, free cash flow and stock market return.

# 2.1.1 Independent Variable

#### 2.1.1.1 Managerial Confidence Level and Dividend Policy

Deshmukh et al. (2013) explain that in controlling of dividend payout policy, the significant role is played by managerial confidence level. Dividend policy will increase when post long holder is increased as well. According to Lin, Hu and Chen (2005), they found that in more financing constrained firms, optimistic managers will invest more cash than lower

confidence level of managers. Which means that firms will pay less dividend when manager overconfidence. They also find that financial ability is related to the dividend payout ratio.

Cordeiro (2009) reported that there are several determinants which influence the dividend payout policy, but author stronger believe that overconfident managers will affect the financial decision of the firm. The study further explains that there is some variable such as profitability, market-to-book ratio, asset growth, market capitalization, retained earnings to book equity ratio which will influence the U.S. corporations regarding dividend policy. Malmendier and Tate (2005b) reported that managerial confidence able to explain shareholder value will reduce in merger deals. The study introduces that corporate investment model which is consist of cash flow, market value of asset over book value of assets, and variable of the managerial confidence is dummy variable. This study proves that overconfidence able to affect the managerial decision.

According to Ben-David, Graham and Harvey (2007), suggested that overconfidence able to affect the corporate policies. This study using S&P 500 and the own firm expected return to testing the relationship. Besides that, the result shows that investment and overconfidence are negatively related to the dividend policies. They stated that when manager overconfidence might using the high level of debt leverage, it might causes company paying a lower dividend to the investor.

#### 2.1.2 Control Variables

#### 2.1.2.1 Firm Size and Dividend Policy

The relationship of firm size and dividend policy is not consistent. Most of the articles stated that there is a positive relationship between firm size and dividend payout (Abreu & Gulamhussen, 2013; Akhigbe & Whyte, 2012;

Al-Khasawneh, Shariff & Al-Zubi, 2012; Amoako-Adu, Baulkaran & Smith, 2014; Athari, Adaoglu & Bektas, 2016; Brockman and Unlu, 2009; Denis & Osobov, 2008; Esqueda, 2016; Forti & Schiozer, 2015; Imran, Usman & Nishat, 2013; Jabbouri, 2016; Su, Fung, Huang & Shen, 2014). However, there is give a negative relationship between the size of the firm and the dividend payout. Firth, Gao, Shen and Zhang (2016) carried out research on dividend policy on Chinese firm between 2003 and 2010. They used firm size as a control variable in their regression and all the regression shows that firm size and dividend payout have significant and negative relationship.

Jabbouri (2016) had carried out a study on dividend policy's determinants in emerging market. He used the sample of 533 firms of ten Middle East and North Africa (MENA) countries between 2004 and 2013 and found that there is a positive relationship between firm size and dividend payout. He explained it resulted from large firms are trying to show their management's effort to the stockholders by paying high dividends. Besides that, he gave another reason for his result that is high dividend payout will show the firm financing are more rely on the capital market that will show a better governance level.

Abreu and Gulamhussen (2013) studied the dividend policy on 462 U.S. bank holding companies between 2004 and 2009. They wished to find out the effect of the year 2007 to 2009 financial crisis to the dividend policy. The study shows the larger firms will pay higher dividends before and during the financial crisis. Imran et al. (2013) did a research on 16 Pakistan banks between the year of 2000 and 2010 and their dividend policy. They found firm size and dividends are positively related in the study but did not state the reason behind.

Brockman and Unlu (2009) studied on a sample of firms of 52 counties between 1990 and 2006 on their dividend policy and found out there is the positive relationship of the firm size and dividend payout. Denis and

Osobov (2008) studied on 6 counties with the year between 1994 and 2002. They found that larger firm tends to pay the dividends than the smaller firm.

Athari et al. (2016) had carried out a study on dividend policy of Islamic and conventional banks in Arab markets in 2003–2012 periods. They use firm size as controlled variable and they found out in both Islamic and conventional banks have the same positive relationship between firm size and dividend payout. Forti and Schiozer (2015) had done a research on dividend payout policy on 168 Brazillian banks between 2001 and 2009. They found that larger firm size of the banks will have higher dividend payout and it is constant with signaling theory.

Firm size was also used in Esqueda (2016)'s research as the control variable. The sample is all the emerging countries' firms from 1990 to 2010 that able to get from the DataStream. The result shows that size is positively influencing the dividends payout. Akhigbe and Whyte (2012) carried out their study on dividend policy of financial institution for period 1992-2007. They stated that larger firm give higher dividend due to its stable cash flow in and higher information availability gives them a cheap cost of financing.

Al-Khasawneh et al. (2012) studied on dividend policy on 759 commercial banks between 1993 and 2000. They use dividend dummy as the dependent variable and the firm size shows a positive relationship with the dividend dummy. It means larger firms are more likely to pay dividends than smaller firms. Amoako-Adu et al. (2014) used a sample of S&P 1500 firms between 2001 and 2007 to study cash dividend policy. The size of the firm is used as the control variable and it is positively related with dividend payout ratio which is same as the results of researchers above.

Su et al. (2014) studied on cash dividend payout of 1383 Chinese firms from 2004 to 2008 and used firm size as one of the control variables.

Dividend per share will increase when firm size is larger. DeAngelo et al. (2006) investigated the dividend policy using the sample of 823 firms from 1973 to 2002. The result showed larger firm will give more dividends than the smaller firm.

## 2.1.2.2 Leverage and Dividend Policy

A firm with high leverage is likely to make a low dividend payment to shareholders because this can lower the external capital transaction costs. For highly leveraged firm, higher interest expense reduces firm's earning and therefore less earning are distributed to shareholders. According to Gugler and Yurtoglu (2003), there was a negative relationship between leverage and dividend payout policy. The study was based on 266 major German companies contained in the Standard & Poors' Global Vantage over a 7 years period (1992-1998).

Similarly, Alzomaia and Al-Khadhiri (2013) also found that there was a negative relationship between leverage and dividend payout policy. The research was based on 105 public non-financial companies listed in Saudi Arabia stock exchanges for the period between 2004 and 2010. The results concluded that highly leveraged firms have high transaction costs and very unlikely to pay higher dividends to avoid the cost of external financing.

Vo and Nguyen (2014) investigate the relationship between leverage and dividend payout policy on the data of 81 firms (all financial firms excluded) listed on Ho Chi Minh Stock Exchange (HOSE) over the period from 2007 to 2012. The results showed that there was a negative relationship between leverage and dividend payout policy.

According to Jabbouri (2016), there was a negative relationship between leverage and dividend payout policy by using 533 firms listed in eleven stock markets of ten MENA countries (Bahrain, Jordan, Egypt, Kuwait,

Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and United Arab Emirates) covering the period from 2004 to 2013. The author explained firms' leverage ratios and credit worthiness will be improved as that equity amount on the balance sheet increases due to low dividend payments.

## 2.1.2.3 Firm Growth and Dividend Policy

The previous study that uses growth and dividend policy show there is the negative relationship between them (Abreu & Gulamhussen, 2013; Amoako-Adu et al., 2014; DeAngelo, DeAngelo & Stulz, 2006; Jabbouri, 2016; Zheng and Ashraf, 2014). Abreu and Gulamhussen (2013) used growth as the control variable to study the dividend policy on 462 U.S. bank holding companies from 2004 to 2009. The result showed that low growth firm will have higher dividends payout. Zheng and Ashraf (2014) used a sample of 7913 banks from 51 countries between 1998 and 2007 to study dividend policy. They also found out that higher growth banks will pay lower dividends.

Jabbouri (2016) did a study of dividend policy of MENA market from 2004 to 2013. His study showed a negative relationship between growth and dividend payout. It was due to the cash from the firm was used for investment instead of paying the dividend. He also explained that reducing dividend is to maintain the companies' growth and decrease the depending on expensive external financing.

Amoako-Adu et al. (2014) had used the sample of the dual and single class of U.S. firm to study their dividend policy. The period they used was 2001 to 2007. The higher growth rate firms have a lower dividend payout due to firms retained their earning for their growth. It can reduce the financing costs because internal financing was cheaper. DeAngelo et al. (2006) investigated the dividend policy using the sample of 823 firms from 1973

to 2002. The result was same as above that is growth and dividend payout have a negative relationship.

## 2.1.2.4 Profitability and Dividend Policy

The decision to pay dividends begins with firms profits. Hence, it is logical to think that profitability as threshold factor and profitability level as one of the most significant variables in explaining dividend payout policy. Manneh and Naser (2015) investigated on 70 companies listed on the Abu Dhabi Securities Exchange (ADX) over a 3 years period (2010-2012). They found that profitability showed significant and positive association with dividend payout policy.

Similarly, Nuhu, Musah and Senyo (2014) reported that there was the positive and significant relationship between profitability and dividend payout policy. This concluded that firms with higher profitability have the higher dividend payout. The research was based on 30 publicly traded companies on the Ghana Stock Exchange (GSE) with a 10 years period from 2000 to 2009 by using panel regression model.

According to Al-Malkawi (2007), there was the positive and significant relationship between profitability and dividend payout policy. The research was based on 160 publicly traded firms (industrial, service, insurance, and banks sectors) on the Amman Stock Exchange (ASE) between 1989 and 2000 by adopting Tobit regression model. This implies that profitability is a critical determinant of the level of dividends paid by Jordanian firms. However, profitability does not seem to have the large economic importance which is contrary to the expectation in their research.

However, Kaźmierska-Jóźwiak (2015) research revealed that there was the significant negative relationship between profitability and dividend payout policy. The study was based on Polish nonfinancial companies listed on

the Warsaw Stock Exchange in Poland covering the period from 2000 to 2012. The reason is the profitable Polish companies listed on Warsaw Stock Exchange use retain earnings as capital sources and are less likely to pay dividends. This is consistent with the pecking order theory.

Jabbouri (2016) also used profitability as one of the variables explaining dividend policy. He separated the profitability to current profit and future profit. Current profit and dividend payout are positively and significantly related with each other but future profit has no significant relationship with it.

## 2.1.2.5 Past Dividend and Dividend Policy

Maladjian and El Khoury (2014) study the relationship between past dividend and dividend payout policy based on the unbalanced panel of 4 Lebanese commercial banks listed on Beirut Stock Exchange (BSE) for the period from 2005 to 2011. The result highlighted that past dividend significantly affects the dividend payout policy. It is believed that firms would pay a steady stream of dividends because investors assumed that firms with stable dividends will become more valuable.

According to Alzomaia and Al-Khadhiri (2013), there was the significant relationship between past dividend and dividend payout policy. They discover that past dividend had the positive relationship with dividend payout policy by using 105 public non-financial companies listed in Saudi Arabia stock exchanges for the period between 2004 and 2010. Similarly, by examine the effect of past dividend on dividend payout policy using 15 companies from the Indian FMCG (Fast moving consumer goods) sector that trade on the National Stock Exchange for the period from 2000 to 2008, Kapoor, Anil and Misra (2010) found that past dividend significantly positive related to dividend payout policy.

Zameer, Rasool, Iqbal and Arshad (2013) investigated the relationship past dividend and dividend payout policy on the data of 27 foreign and domestic banks operating in Islamic and conventional banking in Pakistan listed at different stock exchanges. The coverage period was from 2003 to 2009. The results showed that there was a positive relationship between last year dividend and dividend payout policy. The authors explained that past dividend acts as a signal to the future dividend payment. If firms paid the high dividend, it is expected that such dividend payment behavior will be maintained in the future.

Eng, Yahya and Hadi (2013) also found that past dividend was positively related to the dividend payout policy by using panel data regression analysis. The study covered 17 Islamic banks and 48 conventional banks in Malaysia for the period of ten years, from 2001 to 2010. For Islamic banks, only past dividend had the significant positive relationship to dividend payout policy. This made most of the Islamic banks will pay the dividend based on last year dividend.

#### 2.1.2.6 Liquidity and Dividend Policy

Liquidity appears to be one of the very important aspects that will be taken into consideration before deciding on whether to distribute dividends. A firm's liquidity can be said as the capacity to fulfill short-term commitment by using the assets that the firm has which can be converted to cash quickly since the most liquid form of asset is in the form of cash (Bangkok Bank, 2008). According to Olang, Akenga and Mwangi (2015), liquidity management that is done properly is very important in every organization and it will show the ability of a business to meet their debt responsibilities by comparing the cash and near-cash with the debt responsibilities. One of the indications where a business might face problems in fulfilling its immediate financial responsibilities is when a company's current assets become less than their current liabilities. This

may then affect the company's business performance and effectiveness as well as its capacity in giving out dividends.

Dividends that are distributed to a company's stockholders are acquired from an allocation of a company's net profits. For each share being held, there will be a fixed amount of dividend paid. Even though the majority of companies make their payments quarterly by using cash which includes cheques, dividends can also be paid in other forms such as property, scrip, or share (Olang et al., 2015). Scott (2003) observed that a company's directors must vote on dividends before the dividends are being paid, which is unlike interest on a debt. The determinant that determines how much of the earnings are to be distributed to the shareholders and the amount the firm should retain is the dividend payout ratio. Since retained earnings are the most notable and inexpensive internal source of financing, Dividend pay-out is important in that it is a desirable yield on investment towards the shareholders (Olang et al., 2015).

Olang et al. (2015) found that there is the positive relationship between liquidity and dividend payout level in their study on 61 firms listed on the NSE from 2008 to 2012. The reason behind is firm having the high liquidity to lower financial distress and adopt best business practices using best liquidity management. It also shows that it is to pay the dividend by maintaining high liquidity. Su et al. (2014) studied on cash dividend payout of 1383 Chinese firms from 2004 to 2008. They had the same result with Olang et al. (2015). Jabourri (2016) also found the positive relationship between liquidity and dividend policy in his study on MENA stock market.

### 2.1.2.7 Free Cash Flow and Dividend Policy

When it comes to the consideration of a firm to pay or not to pay dividends, firm must be looking at is their cash flow as an important element. In some

cases, dividends are paid in terms of bonus shares, even so, this will have an impact on the individual shareholders' personal tax liability and the impact must be taken into account. Liquidity has become a constraint when it comes to cash flow. According to the Ghana's company's code, Section 71 of the Company Act 1963, (Act 179) Specifies that dividends cannot be paid to shareholders unless a firm is capable of paying all its debts when they are due, without any misappropriation. Section 30(1) of the Banking Act 2004, (Act 673) states that a bank will not pay dividends on their shares unless it has completed these few things which are: thoroughly clear all of its underwritten expenditure; made the mandatory allowance for non-performing loans and other corrosions in asset values; granted the least possible capital adequacy ratio; and thoroughly settled all of the accrued operating losses from its day-to-day operations. A firm's managers will get involve in inefficient activities whenever it has free cash flow even when the investors' protection improves (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000). According to La Porta et al. (2000), some studies have been carried out and have recommended that in order to lower the agency cost of free cash flow, firms that have higher cash flow have to pay more dividends. Following these researchers, a positive relationship between cash flow as well as the dividend payout is discovered.

Badu (2013) investigated the determinants of dividend payout policy of eleven listed financial institutions in Ghana over a five year period. Based on the empirical results, it was found that there were some results inconsistent with those of expectations. But one of the variables used to measure liquidity was Ratio of Cash and cash equivalent to Net Total Assets financial institutions "I" in time "t" (CTA) and it affects dividend payment positively. It was not only positive, the test showed a significant result. Although this result does not comply with the expectations in this investigation, but it is compatible with other empirical studies (Amidu & Abor, 2006). Therefore, it indicates that firms that have lower cash and

cash equivalent have the lower possibility of paying dividends (Badu, 2013).

## 2.1.2.8 Stock Market Return and Dividend Policy

Those journals find that there have the negative relationship between market conditions and also dividend policy, it means that if the investor will demand more dividend when the market condition is the downturn. (Farooq, Saoud & Agnaou, 2012; Lemmon & Lins, 2003; Jabbouri, 2016).

Jabbouri (2016) had carried out a study on dividend policy's determinants in emerging market. He found that there is a negative relationship between the stock market return and dividend payout. He explains that firm and the market condition will affect the dividend payout policy, CEO will decrease the dividend pay when the stock market on the upward trend.

Farooq et al. (2012) had used the data of the company from the Casablanca Stock Exchange from 2003 to 2007. They found that there are negative relationship between stock price volatility and dividend pay at stable growth period due to investor less concern the governance problem during high growth rate of company, this argument also supported by Mitton (2002) had studies the how financial crisis influence the corporate governance, He using 398 of company as a sample to conduct the research during 1997 to 1998. The firm had included several countries such as Indonesia, Korea, Malaysia, Philippines, and Thailand which has more effect during a financial crisis.

Lemmon and Lins (2003) figure out the negative relationship for the crisis and the investment opportunity in the firm. They do the research regarding the effect of the ownership structure of the firm when the financial crisis happen. With the 800 sample of the company and the period from 1996

July to 1997 of June and they find that during the crisis happens is time to use the dividend to controlling the shareholders.

## 2.2 Review of Relevant Theoretical Models

## 2.2.1 Signaling Theory

Dividend signaling theory is the theory shows that firm paying dividends to reveal their future growth opportunity to outsiders (Abreu & Gulamhussen, 2013; Ashraf, Bibi & Zheng, 2016; Baker, Dutta & Saadi, 2008; Forti & Schiozer, 2015; Jabbouri, 2016).

Baker et al. (2008) found that the financial firms are more preferring using dividend as signaling tool than non-financial firms. This shows that financial firms pay the regular dividend to show their performance and good information to the stakeholders. The multinational firms will more commonly use the dividend to signal than the domestic firms because there is always underestimate about the performance of multinational firms causing the stock price is undervalued. Paying dividend will increase information exposure giving confidence to investors.

Ashraf et al. (2016) stated that if the manager reduces the dividend, it will bring a bad image for his firm's future earnings. The results showed that the signaling performance of bank paying more dividend is better in developed stock markets. In those markets, the investors are more likely to follow the financial information, therefore, it is better in using dividend signaling.

Abreu and Gulamhussen (2013) stated that positive expected growth bank will pay higher dividends for signaling purpose and attract external financial. Their research also showed that US bank holding company

follows the signaling theory to signal their future growth during the 2007-09 financial crisis but not during non-crisis times.

Forti and Schiozer (2015) studies about the dividend signaling of the bank in Brazil. The results show that banks use the dividend to shows their asset quality and liquidity, especially during the financial crisis, the banks have to prove that they are still good in their financial parts. It is due to outsiders have less information about the bank and its assets so that they will see the dividend as a standard to judge the bank quality during the financial crisis. It is proved by Jabbouri (2016) saying that in the bad economic situation, managers will increase the dividend payout to attract investor and giving them confidence. Managers will keep some earning in the good times for them to pay the dividend at bad times because, during good times, managers do not need to comfort the investors.

Jabbouri (2016) said that larger firm will have more information available to the investor. Therefore the use of dividend as signaling tool is less efficient compared to the small firm because the less information they can get from big firm using dividend. Higher leverage firm will have more company's information available and it will reduce the usefulness of dividend signaling.

## 2.2.2 Market Timing Theory

Equity marketing refers to the issue in the higher price and repurchase in lower price. In M&M theory there is no benefit to the cost of capital when you switching the equity to debt. In the market is inefficient and asymmetric information arise, the market timing takes place for the shareholder to gain the opportunity. Instead of that, the manager will more concern the fluctuation of the stock price due to the wealth of the shareholder. Market timing is the theory that important to the financial policy. This is proved by the different types of the study. First of the study

is about the making decision whether manager uses choosing the equity financing or debt financing. This is due to the market book value was high, the manager with no intends to repurchase the equity. The second study is about the long-run return of the equity, through the analysis, researcher finds that equity timing is work during the analysis. Which is buy low and sell (issue) high? The overconfidence of the CEO believes that they might use this theory to gain from the equity market. Third, this paper is analysis the earning prediction and the reality of the earning and show that firm will issue the equity when an investor is a demand on the earning. Four is analysis the decision making for the manager is based on the market timing theory (Baker & Wurgler, 2002).

Based on this theory, undervalue or overvalue is more consideration of the manager. Besides that, this theory shows the evidence in the debt market, the manager will issue the debt when the market interest rate is low, and find that large firm likely timing the market. On the other hands, a short-term debt will issue when the interest rate is low compared to the long-term debt, and when the long-term debt has the lowest yield relative to the short-term debt (Graham & Harvey, 2001).

This theory also proved by (Huang & Ritter, 2005), when the cost of equity is lower and intent to issue debt, and the firm will raise fund externally. The manager will take their opportunity in the capital market when the market is undervalued or overvalue. Firms will finance through the equity market when the cost of equity is lower and more preferably of issuance of debt when the cost of the equity is more expensive.

Jenter (2005) stated that CEO is based on the disvalue of the market for the decision making. Financial decision is based on the proxy of the market value such as book-to-market, cash flow-to-price or EPS ratio. For equity market, the manager will like to issue the equity will the market price is high and repurchase when the market price is low. This is the issue that the manager always concerns the fluctuation of the price. So that, this theory is

the backbone for the manager issue the stock, repurchase the stock, merger, and acquisitions.

## 2.2.3 Agency Theory

According to the Manos (2003) the cost minimisation model and the agency theory are the rationale for dividend policy in economy India. Researcher have utilizes Rozeff's cost minimisation model to predicts that the target payout ratio is at the level that minimizes the sum of transaction costs associated with raising external finance on the one hand and agency costs on the other. The results shows that group affiliation has an important impact on the transaction cost structure as well as agency conflicts faced by Indian companies (Manos, 2003)

Eisenhardt (1989) stated that this paper began with two extreme positions on agency theory. One arguing that agency theory is revolutionary and a powerful foundation and another theory address that no clear problem, is narrow, lacks testable implication and dangerous. Agency theory provides a unique, realistic, and empirically testable perspective on problems of cooperative effort. The purpose of this paper is to clarify some of the confusion surrounding agency theory and to lead organizational scholars to use agency theory in their study of the board range of principal-agent issues facing firms (Eisenhardt, 1989).

According to the agency theory, this creates a dual principal problem for firm due to the goal incongruence between dominant and minority principals. Researchers stated that the goal incongruence between state controlling shareholder and non-state minority shareholders have continues play a significant role in many public firms have found that significantly affect the performance based on the dual principal theory (Song, Wang & Cavusgil, 2015).

Besides that, according to the Shleifer and Vishny (1997) when stock shares are more concentrated, it is more likely for shareholders to take concerted actions to improve the firm's performance. Based on the result, concentrated ownership affords nonstate shareholders enough voting power to improve firm market actions and outcome and helps a firm market orientation development (Shleifer & Vishny, 1997).

Based on the study of effect of institutional ownership on dividends payouts through the lens of agency theory, the researchers have found that there is positive relation between lagged long term- institutional ownership with a large stake and the dividend payout ratio, second is positive relation is more salient in firms with high agency costs and when external monitoring is weak. These findings support that concentrated and long-term institutional investors play a monitoring role and dividend payouts have used as a monitoring device (Chang, Kang & Li, 2016).

## 2.2.4 Pecking Order Theory

Vo and Nguyen (2014) explains about pecking order theory. They stated that when a company which getting profit will prefer use internal financing than external financing. The internal cash flow is most preferred by the firm, if it is not enough, the firm will finance with debt issuing, after that, they will use equity financing. It is because the external financing is expensive than internal financing, then it affects managers to reduce the dividend payout.

Firth et al. (2016) said that high growth firms will prefer to use low dividend policy. It is because they need the cash flow from earnings to finance the growth. The cash flow is used to finance the investment projects for future growth. Alzomaia and Al-Khadhiri (2013) also supported this theory by stating that firm will use earnings to internally finance investment and reduce dividend or pay no dividend. Therefore,

pecking order theory supported that growth and dividend have a negative relationship.

## 2.2.5 Dividend Smoothing Theory

Smooth dividend policy is the policy which known as stable paying dividend every financial year. Manager decision and dividend policy were highly related. It is because when the firm could not find out any investment opportunity, they will intend to pay the dividend to the shareholder (Guttman, Kadan & Kandel, 2007). They also find out that when the income of the manager increase smoothing it may leading the dividend increase smoothing. In the initially, a manager will set in the fixed dividend payout, only if any investment or project arise dividend payout might in different trend. The smooth dividend also occurs when the income smoothing happens, income smoothing is the process of changing the income in the "current" and "future" of the report. When earnings in current were relatively high so that the earnings of the manager will report the transfer to the "future". This will not affect the earnings of the manager in the long run. Income of the manager also determines the performance of the firm in the period. When performance is not good for the particular time, the income will be lesser and the amount of the different will credit in current and debit into the future period until the performance of the manager is considering good (Fudenberg, & Tirole, 1995).

Dividend smoothing theory held when firm using dividend income as manager earnings. This is because using the dividend smoothing to compensate the investor and reduce the agency problem. So that manager to be the pressure that should maintain the dividend payout level. Lower corporate governance also intends to pay more or stable dividend. It can conclude that corporate governance also acts as the important factor for pay dividend smoothly. The second factor held by dividend smoothing

policy is that percentage of government hold on the company also will paying a high or stable dividend to the investor. It is because they find that, government high ownership firm will have more agency problem occur because the owner was the residents of the country (Al-Yahyaee, Pham & Walter, 2011).

Linter model was using to determine the stability of the dividend policy. Finally, Linter model was concluded that due to the economic stable and business cyclical consistently was proved that US firm paying a stable dividend (Linter, 1956).

# 2.3 Proposed Theoretical/ Conceptual Framework

Abreu and Gulamhussen (2013) had developed the model to study dividend policy on bank-holding firms as follow:

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\begin{aligned} \text{Dividend payout} &= \delta_0 + \delta_1 \text{size} + \delta_2 \text{profitability} - \delta_3 \text{historical growth} \pm \delta_4 \text{expected growth} \\ &+ \delta_5 \text{independence} + \delta_8 \text{capitalization} - \delta_9 \text{regulatory pressure} - \delta_{10} \text{profitability} \\ &* \text{regulatory pressure} + \epsilon_{i,t} \end{aligned}
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They used size, profitability, historical growth and expected growth as control variables in their model.

Jabbouri (2016) developed his model to study dividend policy on emerging MENA market and his research is focusing on non-financial sector. His model as follow:

```
\begin{aligned} \textit{PoRit} &= \alpha_i + \beta_1 \textit{Size}_{it} + \beta_2 \textit{Leverage}_{it} + \beta_3 \textit{Growth}_{it} + \beta_4 \textit{Currentprofit}_{it} + \beta_5 \textit{Futureprofit}_{it} + \beta_6 \textit{PastDividend}_{it} \\ &+ \beta_7 \textit{Liquidity}_{it} + \beta_8 \textit{FCF}_{it} + \beta_9 \textit{MarketReturn}_{it} + \mu_{it} \end{aligned}
```

where, PoR means dividend payout ratio, FCF means free cash flow.

From his model, a new independent variable which is the managerial confidence level is added. Therefore the model in our study is:

 $DividendPolicy_{it}$ 

= 
$$\alpha_i + \beta_1 Size_{it} + \beta_2 Leverage_{it} + \beta_3 Growth_{it}$$

+ 
$$\beta_4$$
Profitability<sub>it</sub> +  $\beta_6$ PastDividend<sub>it</sub>

+ 
$$\beta_7 Liquidity_{it}$$
 +  $\beta_8 FCF_{it}$  +  $\beta_9 MarketReturn_{it}$ 

+  $\beta_{10}$  Managerial Confidence<sub>it</sub> +  $\mu_{it}$ 

Profitability

Past
Dividend

Liquidity

Free Cash
Flow

Market
Return

Payout
Policy

Managerial
Confidence
Level

Figure 2.1: Factors Affecting Dividend Policy

Source: Developed for the research

# 2.4 Hypotheses Development

# 2.4.1 Managerial Confidence Level and Dividend Policy

Managers who are overconfidence will invest more cash than managers with lower confidence level. In such case, firms will pay less dividend when manager overconfidence (Lin et al., 2005). This showed negative

relationship between managerial confidence level and dividend payout policy.

**H**<sub>1</sub>: There is a negative relationship between managerial confidence level and dividend payout policy.

## 2.4.2 Firm Size and Dividend Policy

According to Abreu and Gulamhussen (2013), their findings show that firm size affects the dividend payout policy positively. This indicated that large firms pay more dividends that small firms. Imran et al. (2013) and Athari et al. (2016) also acquired the same results in their findings but Firth et al. (2016) found a negative relationship between size and dividend payout.

**H<sub>2</sub>:** There is a relationship between firm size and dividend payout policy.

## 2.4.3 Leverage and Dividend Policy

Gugler and Yurtoglu (2003) and Vo and Nguyen (2014) study the relationship between leverage and dividend payout policy. The result indicated that leverage has a negative relationship with dividend payout policy.

**H**<sub>3</sub>: There is a negative relationship between leverage and dividend payout policy.

# 2.4.4 Growth and Dividend Policy

DeAngelo et al. (2006), Abreu and Gulamhussen (2013) and Amoako-Adu et al. (2014) investigated the relationship between firm's growth and

dividend payout policy. These authors found that there was negative association between firm's growth and dividend payout policy.

 $\mathbf{H_4}$ : There is a negative relationship between firm's growth and dividend payout policy.

## 2.4.5 Profitability and Dividend Policy

Kapoor et al. (2010) discovered that there was a positive relationship between firm's profitability and dividend payout policy. This signified that the higher the current, firms will increase their dividend payout.

Jabbouri (2016) said that cutting dividend will show the firm's future prospect about their earning. It also same with the signalling theory Ashraf et al. (2016). Therefore, when future profit is expected to increase, the dividend payout increases.

 $H_5$ : There is a positive relationship between profitability and dividend payout policy.

# 2.4.6 Past Dividends and Dividend Policy

According to Maladjian and El Khoury (2014), current dividend payout ratio was positively influenced by the previous year's dividends of a company. Findings by Alzomaia and Al-Khadhiri (2013) also show that past dividend as a more important benchmark for deciding the current dividend payment. Hence, this study also expects the positive relationship between past dividend and dividend payout policy.

 $\mathbf{H_6}$ : There is a positive relationship between past dividend and dividend payout policy.

## 2.4.7 Liquidity and Dividend Policy

Jabourri (2016), Olang et al. (2015), Su et al. (2014) have the same result of the higher the liquidity, the higher the dividend payout. Firms maintain higher liquidity to pay dividend.

**H**<sub>7</sub>: There is a positive relationship between liquidity and dividend payout policy.

## 2.4.8 Free Cash Flow and Dividend Policy

By examining the literature on the relationship between free cash flow and dividend payout policy, it can be said that there is positive relationship between free cash flow and dividend payout policy (Amidu & Abor, 2006).

 $H_8$ : There is a positive relationship between free cash flow and dividend payout policy.

# 2.4.9 Stock Market Return and Dividend Policy

Jabbouri (2016) had found that there was a negative relationship between stock market return and dividend payout policy. This signified that when stock market have negative returns, firms will increase their dividend payout.

 $H_9$ : There is a negative relationship between stock market return and dividend payout policy.

# 2.5 Conclusion

Chapter two consists of literature reviews from previous researchers on the variables employed in this study. Ten hypotheses are then developed and the expected sign of the variables had been shown based on the result from past researchers. This chapter also includes the review of relevant theoretical models which include signaling theory, agency theory, and market timing.

# **CHAPTER 3: METHODOLOGY**

## 3.0 Introduction

In this chapter, the methodology of this research used is presented. An independent variable: managerial confidence level and eight control variables are used to study the effect on dividend policy. The sample size is 245 companies. The period is from 2011 to 2015. Secondary data is used in this study. Research design, data collection methods, sampling design, research instrument, construct measurement, data processing, and data analysis is presented in this chapter.

# 3.1 Research Design

In this research, 245 sample are used to investigate our topic, which is the relationship between dividend payout policy and managerial confidence level. 245 sample is from 5 country which is Indonesia, Malaysia, Thailand, Vietnam and also the Philippines. Besides all the sample taking from 6 stock exchange in that country, which are Bursa Malaysia (Malaysia), Ho Chi Minh City Stock Exchange and Hanoi Stock Exchange (Vietnam), Indonesia stock exchange (Indonesia), Philippine stock exchange (Philippines), the stock exchange of Thailand (Thailand).

Studying period from this research is from 2011 to 2015, according to Ibrahim (2011), during 2008 financial crisis of US might affect the economics of ASEAN country and also affect the stock market as well. Besides, missing data in the period 2009 and 2010 causes targeted period becomes from 2011 to 2015. Therefore consist of 1230 observations in our raw data. This all data was collected from Bloomberg database.

To conduct this research, panel regression model was used to estimate the outcome. There was three model can use for estimation the output which is fixed effect model (FEM), random effect model (REM) and pooled ordinary least square (pooled OLS). To test whether which model suited for our study several tests was run such as poolability hypothesis test, Hausman test; and diagnostic test on normality, multicollinearity and autocorrelation. E-views was applied to estimate the data for this research.

## 3.2 Data Collection Methods

The study is to figure out the variables that will significantly affect dividend payout policy in targeted ASEAN country. The variables were used in this research are dividend/ sales, firm size, leverage, firm growth, profitability, past dividend, liquidity, free cash flow, stock market return, managerial confidence level. Secondary data was used to measure the variables. The data was collected from the Bloomberg database in a period of 2011 to 2015. Table 3.1 shows the data sources and method of collection of variables.

Table 3.1: Data Sources and Method of Collection of Variables

Type of Variables	Variables	Unit of measurement	Sources and method
Dependent Variables	Dividend to Sales	Percentage (%)	
Independent Variables	High managerial confidence level	1: High managerial confidence 0: moderate managerial confidence level	
	Low managerial confidence level	1: Low managerial confidence 0: moderate managerial confidence level	DI I
Control	Firm size	Natural Logarithm	Bloomberg
Variables	Leverage	Percentage (%)	
	Firm growth	Percentage (%)	
	Profitability	Percentage (%)	
	Past dividend	USD	
	Liquidity	Ratio	
	Free cash flow	Percentage (%)	
	Stock market return	Percentage (%)	

Source: Developed for the research

# 3.3 Sampling Design

As the previous topic data collection method stated that the period of the research is from 2011 to 2015. Balanced panel data was used to study this topic and final observation was 1225 observation.

In the study, the targeted population was selected is a country of Malaysia, Vietnam, Thailand, Philippines and also Indonesia. In those country consist of 6 stock exchange. There is two stock exchange in Vietnam which are Hanoi Stock Exchange and Ho Chi Minh City Stock exchange. A sample of listed company is from those six stock exchange. Due to missing data issue and make to balance panel data, finally, filter into 245 listed company. From 245 listed company was included all the sector of the company to represent all the sector of each country. 1255 observation was gained from the panel data in the period from 2011 to 2015 from Bloomberg database.

Sampling design was choosing the developing country as Jabbouri (2016), the researcher was using MENA emerging market as their sample. The author needs to prove the factor to influence the dividend policy by using developing country and less develop of the financial instrument such as option and futures. That country also lack the foreign investor to invest in that particular country and lack of international trade. According to Hohensee and Lee (2006), Malaysia, Philippines and Indonesia and Thailand was lower develop of the financial derivatives. Due to this properties, the five country as stated was chosen to become the targeted country in this research. Some researcher who studying the dividend policy topic also using the developing country such as Wang, Manry and Wandler (2011), they investigate China stock market from 1998 to 2008. Besides, Fairchild, Guney and Thanatawee (2014) investigate the dividend policy based on Thailand stock exchange market from 1996 to 2009. Baker and Powell (2012) using Indonesia listing firm as a sample to study the topic of dividend policy 2006 to 2009.

However, some researcher was using different sources to estimate the topic regarding the managerial confidence level and dividend payout policy. According to Best (2008), they using the sample based on US firm and data period is from 1992-2010 which country was highly development of financial derivatives. Moreover, researcher of first study relationship between managerial confidences was Malmendier and Tate (2005a), they using 477 United States listed firm as their research sample from 1984 to 1994.

## 3.4 Research Instrument

The earlier research is used as the research instrument since secondary data is used. The variables are chosen to be studied after reviewing the previous studies. After deciding which variables to explain the dividend policy, the data is collected using Bloomberg database that is available in the UTAR library. The relevant data is retrieved from the database after choosing the proxy for the variables. Several weeks are used to ensure the list of company and data that are needed for our research.

# 3.5 Constructs Measurement

Table 3.2: Variables, their proxies and the sources

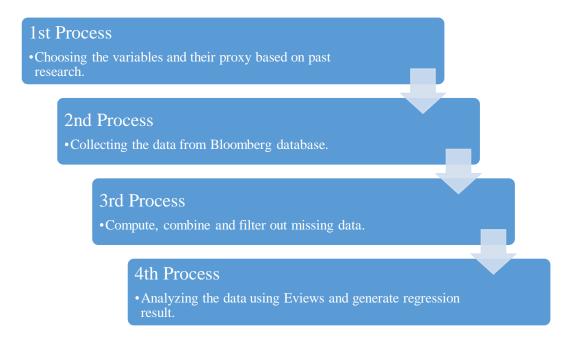
Variables	Proxy	Sources/ References
Dividend Policy	Dividend to sales	Jabbouri (2016), Brockman & Unlu (2009), Su et al. (2014), Vo & Nguyen (2014)
Managerial	Investment level	Boulton & Campbell (2016), Campbell et al. (2011)
Confidence Level		
Firm size	Natural logarithm of total asset	Abreu & Gulamhussen (2013), Akhigbe & Whyte (2012), Al-Khasawneh et al. (2012), Amidu
		(2007), Ashraf et al. (2016), Athari et al. (2016), Esqueda (2016), Firth et al.(2016), Forti &
		Schiozer (2015), Gugler & Yurtoglu (2003), Imran et al. (2013), Jabbouri (2016), Maladjian & El
		Khoury (2014), Mitton (2002), Musiega, Alala, Douglas, Christopher & Robert (2013), Rafique
		(2012), Su et al. (2014), Vo & Nguyen (2014), Zheng & Ashraf (2014)
Leverage	Total liability to total asset	Al-Khasawneh et al. (2012), Amidu (2007), Eng et al.(2013), Firth et al.(2016), Gugler & Yurtoglu
		(2003), Jabbouri (2016), Maladjian & El Khoury (2014), Su et al. (2014), Vo & Nguyen (2014)
Firm Growth	Asset growth	Abreu & Gulamhussen (2013), Amoako-Adu et al. (2014), Ashraf et al. (2016), Farooq et al. (2012),
		Firth et al.(2016), Jabbouri (2016), Zheng & Ashraf (2014)
Profitability	Return on equity (ROE)	Al-Khasawneh et al. (2012), Amidu (2007), Ashraf et al. (2016), Jabbouri (2016), Kapoor et al.
		(2010), Maladjian & El Khoury (2014), Olang et al. (2015), Rafique (2012), Zheng & Ashraf (2014)
Past Dividend	Last year dividend per share	Alzomaia & Al-Khadhiri (2013), Imran et al. (2013), Zameer et al. (2013)
Liquidity	Quick ratio	Jabbouri (2016), Kapoor et al. (2010),
Free Cash Flow	Free cash flow to book value of	Badu (2013), Firth et al.(2016), Jabbouri (2016), Vo & Nguyen (2014)
	total assets	
Stock Market	Yearly return on the main index	Jabbouri (2016)
Return	of firm's stock market	

Source: Developed for the research

# 3.6 Data Processing

Firstly, the variables and their proxy are chosen from past research. Then the data is collected from Bloomberg database. This research includes 1 independent variable and 9 control variables in order to determine the effect on dividend payout policy. After getting the data from Bloomberg database, the data is arranged and compute the value of variables. Then, the data is transferred to Eviews to generate the result.

Figure 3.1: Flow of Data Processing



Source: Developed for the research

# 3.6.1 Dependent Variable

## 3.6.1.1 Dividend Policy

Dividend-to-sales (%) = 
$$\frac{Total \ dividend \ in \ a \ year}{Total \ sales} \times 100\%$$

Dividend-to-sales is used to measure dividend policy in this research. Jabbouri (2016), Brockman and Unlu (2009) and Su et al. (2014) use

dividend-to-sales to measure the dividend payout policy. Jabbouri (2016) said that dividend-to-sales will be less affected by shock compared to dividend to earnings. The sales figure has less manipulated through accounting method compared to earnings. Brockman and Unlu (2009) use dividend-to-sales to prevent meaningless dividend payout ratio because of the negative earning value. Earning can be in negative value but sales will always be positive.

## 3.6.2 Independent Variable

## 3.6.2.1 Managerial Confidence Level

Managerial confidence level in this research is measured by investment level of the firm. This method is used in Boulton and Campbell (2016) and Campbell et al. (2011)'s research. This managerial confidence level proxy assumed that there is three type of confidence level, high confidence, moderate confidence, and low confidence. It assumes high managerial confidence will tend to invest more aggressively. The firm investment level determined by the firm investment rate. The formula of firm investment rate as below:

$$Investment \ rate = \frac{Capital \ expenditures}{Beginning \ of \ year \ property, \ plant \ and \ equipment}$$

The top 20% of the investment rate in a year will be given a dummy of high managerial confidence level. The bottom 20% will be given a dummy of low managerial confidence level. The others are considered moderate confidence level.

There are another proxies measuring managerial confidence level used by Malmendier and Tate (2005b) and Boulton and Campbell (2016). The first one is Longholder. Longholder explains that overconfident manager (CEO) will hold the in-the-money option until the last year of exercise. The

second proxy is Holder 67. Holder 67 assumes that overconfident manager will hold 67% in-the-money option without exercise it. The last one is Net Buyer. Net Buyer assumes that if the manager is high confident, he will buy additional company shares in the first five years of his job.

### 3.6.3 Control Variable

#### 3.6.3.1 Firm Size

Firm Size = Natural logarithm of total asset

Abreu and Gulamhussen (2013), Akhigbe and Whyte (2012), Al-Khasawneh et al. (2012), Amidu (2007), Ashraf et al. (2016), Athari et al. (2016), Esqueda (2016), Firth et al. (2016), Forti and Schiozer (2015), Gugler and Yurtoglu (2003), Imran et al. (2013), Jabbouri (2016), Maladjian and El Khoury (2014), Mitton (2002), Musiega et al. (2013), Rafique (2012), Su et al. (2014), Vo and Nguyen (2014), Zheng and Ashraf (2014) use natural logarithm of total asset as the proxy to measure the firm size.

#### **3.6.3.2** Leverage

$$Leverage = \frac{Total\ liability}{Total\ asset} \times 100\%$$

There are two popular proxies used in previous studies. In this study, total liability divided by total asset is used as the proxy of leverage. Al-Khasawneh et al. (2012), Amidu (2007), Eng et al.(2013), Firth et al.(2016), Gugler and Yurtoglu (2003), Jabbouri (2016), Maladjian and El Khoury (2014), Su et al. (2014), Vo and Nguyen (2014) used this proxy in their studies.

### 3.6.3.3 Firm Growth

$$Firm Growth = \frac{Total Asset_t}{Total Asset_{t-1}} \times 100\%$$

Abreu and Gulamhussen (2013), Amoako-Adu et al. (2014), Ashraf et al. (2016), Farooq et al. (2012), Firth et al. (2016), Jabbouri (2016), Zheng and Ashraf (2014) use assets growth as the proxy of firm growth opportunity.

## 3.6.3.4 Profitability

Profitability = Return on equity (ROE) = 
$$\frac{Net \ profit}{Total \ equity} \times 100\%$$

Al-Khasawneh et al. (2012), Amidu (2007), Ashraf et al. (2016), Jabbouri (2016), Kapoor et al. (2010), Maladjian and El Khoury (2014), Olang et al. (2015), Rafique (2012), Zheng and Ashraf (2014) use ROE as proxy of profitability to study dividend policy. Returns on Assets and Earnings per Share are another popular proxies of profitability.

### 3.6.3.5 Past Dividend

Past Dividend = Dividend per share<sub>t-1</sub>

Alzomaia and Al-Khadhiri (2013), Imran et al. (2013), Zameer et al. (2013) use last year dividend per share as proxy of past dividend. There this proxy is chosen as past dividend in our study.

## **3.6.3.6 Liquidity**

$$\label{eq:Liquidity} \text{Liquidity} = \text{Quick ratio} = \frac{\textit{Total current asset} - \textit{Inventory}}{\textit{Total current liability}}$$

Jabbouri (2016) and Kapoor et al. (2010) use quick ratio to measure liquidity. Quick ratio shows how the most liquid assets pay for current liability of the firm.

### 3.6.3.7 Free Cash Flow

Free Cash Flow = 
$$\frac{Free\ Cash\ Flow}{Book\ Value\ of\ Total\ Assets} \ge 100\%$$

Free cash flow adjusted by book value of total assets is used in several studies to measure the effect of free cash flow to the dividend policy (Badu, 2013; Firth et al., 2016; Jabbouri, 2016; Vo & Nguyen, 2014).

#### 3.6.3.8 Stock Market Return

Stock market return = Yearly return on the main index of firm's stock market

Yearly return on the main index of stock market is used to measure the stock market return. This proxy is used by Jabbouri (2016).

# 3.7 Data Analysis

Eviews is used for the data analysis. Since panel data is used in our research, three panel data, pooled OLS model, Fixed Effects Model and Random Effect Model will be tested by poolability hypothesis test and Hausman test to choose the best

model for this research. After that, diagnostic checking will be carried out such as normality test, multicollinearity and autocorrelation.

## 3.7.1 Descriptive Analysis

Descriptive analysis is applied to summarize the data in a study. All descriptive analysis methods involve the detection and the description of both the qualitative and quantitative sensory aspects of products. There cannot be assumed by any similarity outside the group and conclusion cannot be extended beyond this group. Descriptive analysis provides valuable information to researchers and reader to better understand about the analysis (Best & Kahn, 1998). Besides that, descriptive analysis helps to simplify the huge amount of data or transforming raw data into a more complex structure (Hair, Bush & Ortinau, 2002).

Descriptive analysis provides the reproducibility and statistical verifiability of all the results. Another that, there also consists the high probability that all perceivable sensory characteristic will be taken into the consideration (Piper & Scharf, 2004). These will bring advantage to the researchers and readers. However, the individual result in the descriptive analysis will be influenced by discussing and agreeing upon the nature, quantity, and description of sensory characteristics. When applied the descriptive analysis, it will consume more timing the costs of the analysis will become costly (Piper & Scharf, 2004).

#### 3.7.2 Scale Measurement

### 3.7.2.1 Pooled Ordinary Least Square (OLS)

The Pooled OLS estimators ignore the panel structure of the data (Schmidheiny, 2016), Pooled OLS estimators provides a traditional and

current approach to us which are treated explanatory variables as fixed and stochastic explanatory variables on random sampling. Another that, Pooled OLS estimator also act as the best cursory treatment in the first-semester text (Wooldridge, 2010). It's also considered as the basic estimator for all the researchers. The basic regression equation for pooled OLS as below:

Yit = 
$$\alpha$$
 + x 0 it $\beta$  +  $\epsilon$ it, i = 1, ..., n, t = 1, ..., Ti

Pooled OLS estimators will bring advantage to researchers. First, pooled OLS model gained popularity because this model combine space and time may rely upon the higher variability of data with respect to a simple time series and cross section design research (Janoski & Hicks, 1994). Another that, Pooled OLS model concerns the possibility to capture the variation of time and space simultaneously (Podestà, 2000). However, Pooled OLS also consist some problem in this estimations. One of them are the coefficient estimates of the observed variable may be biased when the unobserved time variant error term are correlated with the observed variables (Desilva, 2006).

#### 3.7.2.2 Fixed Effect Model

Fixed Effect Model is a statistical model to the manufacturing process that treats all variables as non-random values. It's also used to determine optimal values for inputs to business and detect not to have an effect on the process output. According to the researcher's assumptions, there is one true effect size that underlies all the studies and researches in the analysis, and that all differences in observed effects are due to the sampling error (Borenstein, Hedges, Higgins & Rothstein, 2010). Besides that, it will assume all the studies have a same true effect size (Borenstein, Hedges, Higgins & Rothstein, 2009). The regression equation as below:

$$Yit = \beta 0 + \beta 1X1it + \beta 2X2i + \beta 3X3t + \pounds i + \pounds it$$

Fixed Effect Model able to control all stable characteristics of the individuals in non-experimental research, its helps to eliminate the potentially large source of bias (Clark & Linzer, 2012). From the assumption of fixed effect model, the true effect size is identical. So, it can largely ignore the information in smaller studies and will get the better information in the larger studies (Borenstein et al., 2010). However, fixed effect model consists the high variance problem. For example, the estimators may produce estimates that highly sample dependent under certain conditions. Which means that that will over sensitive to the random error in any given dataset. Due to high variance problem, it will slightly affect the result of the fixed effect model (Clark & Linzer, 2012).

#### 3.7.2.3 Random Effect Model

Random effects model (REM), also called error components model (Gujarati & Porter, 2009) are used in the analysis of panel data when one assumes no fixed effects. The assumption of random effect model is that the individual specific effects are uncorrelated with the independent variables. Therefore, the random effect model is more efficient than the fixed effect model if the assumption holds. Conversely, the random effect model is not consistent. According to Hsiao (2003), the random effect model has the advantage of greater efficiency relative to the fixed effect model leading to smaller standard errors and higher statistical power to detect effects.

$$Y_{it} = \beta_{i1} + \beta_2 X_{it} + u_{it} Y_{it} = (\beta_1 + \beta_i \varepsilon_i) + \beta_2 X_{it} + u_{it} Y_{it} = \beta_1 + \beta_2 X_{it} + \varepsilon_i + u_{it}$$

 $\beta_1$  = Mean for intercept

 $\beta_2$  = Slope of independent variable X

 $X_{it}$  = Independent variable X

 $\varepsilon_i$  = Cross-section or individual-specific error component is random or not constant

 $u_{it}$  = Combination between time series and cross sectional error component

#### 3.7.2.4 Hausman Test

Hausman (1978) proposed a test based on the difference between the random effects and fixed effects estimates. Hill, Griffiths and Lim (2008) reported that the purpose of Hausman test is to differentiate between random effects model and fixed effects model in panel data. The hypothesis is:

 $H_0$ : Random effect model (REM) is better than fixed effect model (FEM)

 $H_1$ : Fixed effect model (FEM) is better than random effect model (REM)

The test use is H-test, the formula is:

$$H = (\hat{\beta}^{FE} - \hat{\beta}^{RE}) \left[ (\hat{\beta}^{FE}) - Var(\hat{\beta}^{RE}) \right] - 1(\hat{\beta}^{FE} - \hat{\beta}^{RE})$$

The decision rule is that if the probability value of H- test statistic is less than significant level, reject the null hypothesis. Otherwise, do not reject the null hypothesis. FEM is more appropriate than REM when the null hypothesis is rejected. This indicates that REM is correlated with any of the independent variables.

## 3.7.2.5 Poolability Test

The function of the poolability test (or Likelihood Ratio Test) is to examine whether which of the two empirical models, Pooled OLS and FEM is the most suitable model for estimating the equation. According to

Park (2011), it is used to examine either the panel data are poolable and the regressor's slopes are identical across time periods. The hypothesis is:

Ho: There is a common intercept on all the companies

H<sub>1</sub>: There is no common intercept on all the companies

The test statistics for poolability test is Restricted F test, the formula is:  $F = (R_{FEM2} - R_{POOL2}) \div (K_{FEM} - K_{POOL})/(1 - R_{FEM2}) \div [n - (K_{FEM} + 1)]$ 

The decision rule is that if the p-value of F-statistic is lower than significant level, reject the null hypothesis. Otherwise, do not reject the null hypothesis. The FEM is more suitable and the pooled OLS model is not valid if the null hypothesis is rejected.

## 3.7.2.6 Normality Test

According to Paul and Zhang (2008), it is one of the most important things when it comes to the data of a study or an experiment being normally distributed. But under most natural circumstances, that data collected does not distribute normally. As an example, the skewness sample, as well as the kurtosis sample, are not even close to 0 and 3 respectively which are considered good characteristics of normal distributions.

Dong and Giles (2004) carried out a research on normality testing and the empirical likelihood ratio (ELR) was used in that research. The reason they used this test is because it has strong qualities that can be used against different hypotheses.

Normality test, there are a few assumptions to be made before carrying out this test. Islam (2011) mentioned that the linear regression model basically assumes the error terms' normality. Most of the processes today which has inferences uses this assumption (Bartolucci & Scaccia, 2005). According

to a study done by Park (2004), the ratio Sharpiro-Wilk (W) statistic from 1965 is said to be the best estimator of the variance compared to the normally used corrected sum of squares estimator of the variance. It shows normality if the result is positive and less than one or equal to one while being closer to one shows it is more normal. This method requires the sample size to be within the range of 7-2000.

$$W = \frac{(\sum a_i x_i)^2}{\sum (x_i - \bar{x})^2}$$

where  $a' = (a^1, a^2, ..., a^n) = m'V^{-1}[m'V^{-1}V^{-1}m]^{-1/2}$ ,  $m' = (m_1, m_2, ..., m_n)$  being the vector of expected values of normal order statistics while V being the n by n covariance matrix,  $x' = (x_1, x_2, ..., x_n)$  is sample randomly picked and arranged in increasing order.

## 3.7.2.7 Multicollinearity

Multicollinearity is a problem that arises when the independent variables in a multiple regression models are not independent, which in other words, are interdependent with one another. According to Silvey (1969), multicollinearity is one of the many terms used in econometrics which explains the existence of the direct correlation between the independent variables. Yoo, Mayberry, Bae, Singh, He and Lillard (2014) states that the multicollinearity among the independent variables is major factors that affect the effectiveness of multiple regression models.

One way to detect whether a regression has multicollinearity is the VIF, which is the variance inflation factor. The VIF shows the inflated amount of the variance (Gujarati & Porter, 2009). Variance here means the variances of the estimated coefficients. The formula to calculate the variance inflation factor for each estimated coefficient is as follows:

$$VIF_k = \frac{1}{1 - R_k^2}$$

where  $R_k^2$  is the  $R^2$  value that can be found when the  $k^{th}$  predictor among the outstanding predictors is regressed. If the result of the VIF is around 1 means that there is no or minimal multicollinearity in the model. If it exceeds 10, the models contain serious multicollinearity.

#### 3.7.2.8 Autocorrelation

Autocorrelation is a problem that occurs whenever certain important variables are omitted from a model, and the effect of that particular variables are omitted includes as part of the error term (Babatunde, Ikughur, Ogunmola & Oguntunde, 2014). In any case, the omitted variables have positive or negative effects on the dependent variable, it will most likely cause positively or negatively related error terms. For this error, the cross section dependence test was used to test for autocorrelation. According to Sarafidis and Wansbeek (2010), separate variables being dependent on each other is one of the main problems that occurs in all researches on using panel data that has possible effects when estimating the independent variables as well as the inference. Pesaran (2004) carried out a research on cross section dependence mentioned that the normal assumption is that the errors in panel data models are said to be cross-sectional independent. This statement being correct when panels have the large sample size (N), which in this case, a huge sample data was used.

## 3.7.3 Inferential Analysis

#### 3.7.3.1 T-test

T-test is used to conduct hypothesis testing on each independent variable to identify the individual relationship between each independent and the dependent variable (Gujarati and Porter, 2009). There are several

assumptions to be made on t-test. The first assumption is that the data collected is from a random sample of the total population. Besides, the mean of the sample must be normally distributed. Lastly, the variances of the different group should be approximately equal. The hypothesis is:

$$H_0$$
:  $\beta_i = 0$ 

$$H_1: \beta_i \neq 0$$

Where 
$$\beta_i = 1, 2, 3, 4, 5, 6, 7, 8, 9$$

The null hypothesis  $(H_0)$  shows that there is an insignificant relationship between independent variable and the dependent variable, where the alternative hypothesis  $(H_1)$  shows a significant relationship between both variables. There are two methods to determine the significance of hypothesis testing which is t-statistic value and p-value. For t-statistic, if the value is more than upper critical value or less than lower critical value then the null hypothesis will be rejected. Otherwise, do not reject the null hypothesis. For p-value, if the value is lower than the significant level, then reject the null hypothesis. Therefore, there is a significant relationship between independent variable and dependent variable when the null hypothesis is rejected.

#### 3.7.3.2 F-test

The function of F-test is to examine the overall significance of the estimated Multiple Linear Regression model, in other words is the overall relationship between all independent variables and the dependent variable (Gujarati & Porter, 2009).

$$H_0$$
:  $\beta_1 = \beta_2 = \beta_3 = ... = \beta_i = 0$ 

 $H_1$ : At least one of the  $\beta i$  is not equal to zero

Where 
$$\beta_i = 1, 2, 3, 4, 5, 6, 7, 8, 9$$

The null hypothesis  $(H_0)$  shows the overall model is insignificant and the alternative hypothesis  $(H_1)$  shows the overall model is significant. There are two methods to determine the significance of hypothesis testing which are test statistic value and p-value. For test statistic, if F-statistic value is more than upper critical value or less than lower critical value then the null hypothesis will be rejected. Otherwise, do not reject null hypothesis. For p-value, if p-value less than the significant level, then reject the null hypothesis. Therefore, the overall model is significant when the null hypothesis is rejected.

## 3.8 Conclusion

The data for the variables is retrieved from Bloomberg for 245 companies from 2011 to 2015. Poolability hypothesis test and Hausman test is used to choose the best model for panel data analysis. Eviews is used to carry out the analysis for our study. The results will be presented in next chapter.

# **CHAPTER 4: DATA ANALYSIS**

## 4.0 Introduction

This chapter explains the data analysis for 245 public listed companies from 5 different countries from 2011 to 2015. In this chapter, the tests that were used include descriptive analysis, poolability test, hausman test, normality test, multicollinearity and autocorrelation, inferential analysis on the R-squared, F-test as well as the empirical result. The relationship between the dependent and independent variables is examined by using fixed effect model.

# 4.1 Descriptive Analysis

Table 4.1: Summary Descriptive Statistics for All Variables

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
DIV_SALES	6.560363	4.242300	91.98360	0.000000	8.069619
AG	14.63636	10.77180	1012.016	-46.50110	34.6277
DR	22.93515	22.63460	81.05500	0.000000	17.26345
FCF_TA	0.049168	0.042275	0.670846	-0.247182	0.110740
<b>HIGHMC</b> <sup>z</sup>	0.200000	0.000000	1.000000	0.000000	0.400163
LOG_TA	2.629932	2.688676	4.834922	0.320437	0.840161
<b>LOWMC</b> <sup>z</sup>	0.200000	0.000000	1.000000	0.000000	0.400163
MKTR	4.534054	2.842500	35.75570	-48.58190	16.15463
PD	0.178576	0.019700	31.25000	0.000000	1.742310
QR	1.597950	0.882400	76.08440	0.026900	4.328023
ROE	18.82986	15.99390	131.6876	-15.88130	15.18651

Notes: 1. <sup>z</sup> indicates dummy variable; 2. Data runs between year 2011 to 2015, N=245 from 5 countries; 3. DIV\_SALES = Dividend-to-sales, AG = Asset growth, DR = Debt ratio, FCF\_TA = Free cash flow/total asset, HIGHMC<sup>z</sup> = High managerial confidence, LOG\_TA = Log total asset, LOWMC<sup>z</sup> = Low managerial confidence, MKTR = Stock market return, PD = Past dividend, QR = Quick ratio, ROE = Return on equity.

Source: Developed for research.

Table 4.1 shows the summary of the descriptive statistics for each variable used in our research which are dividend policy, firm size, leverage, firm growth, profitability, past dividend, liquidity, free cash flow, stock market return and managerial confidence level.

For the dividend to sales (DIV\_SALES), it indicates a mean of 6.56% in the 245 companies among 5 countries. It also shows an average median of 4.24%. The maximum dividend to sales percentage is 91.98% while a minimum dividend to sales of 0.00%. This shows that some companies pay out a very high percentage of dividends as high as 91.98% and certain companies do not pay out any dividends, which resulted in a 0.00% minimum.

The other variable that was used in the analysis is asset growth (AG), which indicates the growth of the firm. Results show a mean value of 14.64%. The average asset growth for the companies chosen is 10.77%, which is decent. A tremendous maximum asset growth can be seen from the table, which is 1012.02% while recording a minimum asset growth of -46.50%.

Debt ratio (DR) is also one of the variables that were taken into account which represents the leverage of each company. The analysis shows an average mean of 22.94%, while recording a median debt ratio of 22.63%. This means that most of the companies owe relatively low-level debts. The maximum debt ratio according to our analysis recorded at 81.05% which means some companies do not record a very good leverage. There are also some companies that have no leverage as the minimum debt ratio from the results is 0.00%

Other than that, free cash flow (FCF\_TA) is also an independent variable that was tested and recorded an average of 0.049%. The results show a median cash flow of 0.042%. The low figure shows that most of the companies have a relatively low free cash flow. Maximum free cash flow percentage is 0.67%, which is considered very low. On the other hand, the minimum free cash flow value is -0.25%.

Total asset is measured by LOG\_TA, which is the log of total asset resulted in an average mean value of 2.63 as well as a median value of 2.69. The maximum value of log TA resulted at 4.83, while minimum value is 0.32.

In addition, stock market return (MKTR) is one variable taken to explain dividend policy. In our case, test results show an average stock market return of 4.53%, which is the mean, and a maximum market return of 35.76%. While some companies have very low market return, hence the low minimum market return value of -48.58%. Stock market return has a median of 2.84%.

Another variable that was also examined was past dividend (PD) per share of each company to see the effects towards dividend payout. The test results for past dividends show 0.18 USD as mean value with 0.02 USD as median value. Some of the companies among the 245 listed companies chosen pay decent dividend, hence resulting in a relatively high 31.25 USD and the minimum value of 0.00 USD shows that certain companies do not pay out the dividend.

For liquidity, the calculation method that was used is the quick ratio (QR). The mean value, which is the average value for the quick ratio is 1.60. 0.88 is the median value obtained from the test. The maximum quick ratio stood at 76.08, this is most probably because certain companies have very high liquidity. The minimum value of the test for the quick ratio is 0.027.

One more variable that was taken to the test is the profitability, which is measured by the return on equity (ROE). The average return on equity among all the companies is 18.83%, and median stood at 15.99%. The analysis shows 131.69% as the maximum return on equity percentage, which means to say one of the companies have a very high profitability. While on the other hand, the minimum return on equity is -15.88%, which means certain companies do not have profitability, but instead a loss.

#### 4.2 Scale Measurement

## 4.2.1 Poolability Test

Table 4.2: Result of Poolability Test

Models	<b>Cross-Section</b>	Chi	Decision
	Square		
Model	1475.819797	Pro	ceed to Hausman Test

Source: Developed for the research

The full data model's cross-section chi-square value of 1475.819797 is significant at 10% significance level. Also, the probability value is 0.0000 which is less than 10% significant level. This indicates that the null hypothesis  $H_0$  is rejected which showing FEM is better than pooled OLS in the regression model. The research then proceeds to Hausman test to test whether fixed effect model (FEM) or random effect model (REM) is the best model.

#### 4.2.2 Hausman Test

Table 4.3: Result of Hausman Test

Models	<b>Chi-Square Statistics</b>	Decision
Model	20.735519	Fixed Effect Model

Source: Developed for the research

The Hausman Test's result shows that the full data model's chi-square statistic value is which is 20.735519 which is less than the significance level of 10%. The probability of this study is 0.0230 which is also less than 10% significant level which implies that reject the null hypothesis ( $H_0$ ). This means that fixed effect model (FEM) which is consistent and efficient is the best model.

## **4.2.3** Normality Test

Table 4.4: Result of Normality Test

Models	Jarque-Bera	Decision
Model	213570.9	Non-Normality

Source: Developed for the research

Jarque-Bera test is used to test the normality of error term in the model. The Jarque-Bera value is 213570.9, which is significant at 10% significance level. Therefore, the null hypothesis  $(H_0)$  stating that the error term is normality distributed is rejected. This means the error term in the model is not normally distributed.

## 4.2.4 Multicollinearity

Table 4.5: Correlation Matrix for the Variables

	DIV_SALES	AG	DR	FCF_TA	HIGHMC	LOG_TA_	LOWMC	MKTR	PD	QR	ROE
DIV_SALES	1										
$\mathbf{AG}$	-0.0649	1									
DR	-0.1483	0.0864	1								
FCF_TA	0.3031	-0.2058	-0.3888	1							
<b>HIGHMC</b> <sup>a</sup>	-0.0875	0.2177	0.0615	-0.3235	1						
$LOG\_TA\_$	0.0609	0.0616	0.3372	-0.0545	0.0145	1					
LOWMC <sup>a</sup>	0.0507	-0.1085	-0.0546	0.1313	-0.2500	-0.2473	1				
MKTR	0.0138	0.0247	-0.0224	0.0629	-0.0211	0.0729	-0.0066	1			
PD	0.0275	-0.0011	-0.0140	0.0884	-0.0395	-0.0133	-0.0395	0.0037	1		
QR	0.0106	-0.0305	-0.2112	0.1171	-0.0624	-0.1107	0.1297	0.0232	-0.0107	1	
ROE	0.3038	0.1843	-0.1415	0.4929	0.0563	0.0723	-0.1605	0.0138	0.0896	-0.0527	1

Notes: 1. a represent dummy variables; 2. Data period within five years, from 2011 to 2015. N= 245 companies. Number of panel data for five years = 1225. DIV\_SALES = Dividend/ Sales, AG = Asset growth, DR = Debt Ratio, FCF\_TA = Free Cash Flow/Total Asset, HIGHMC = High Managerial Confidence Level, LOG\_TA = Log Total Assets, LOWMC = Low Managerial Confidence Level, MKTR = Stock Market Return, PD = Past Dividend; QR = Quick Ratio, ROE = Return on Equity.

Source: Developed for the research

$$VIF_{FCF_{TA},ROE} = \frac{1}{1 - R_i^2}$$

$$= \frac{1}{1 - 0.242945}$$

$$= 0.76$$

According to Jabbouri (2016), using correlation matrix table and variance inflation factors (VIF) is to estimate multicollinearity problem. Besides, the model does not have multicollinearity problem is there the VIF values do not more than 1.4 and do not consider the as high correlation between the variables when the correlations between two variables are lower than 0.8 or 80%. Based on Table 4.5, the highest pair wise coefficient was recorded at 49.29% or 0.4929, which is FCF\_TA and ROE. While the lowest pair wise coefficient of the table was -0.0011 or -0.11%, which is PD and AG. For FCF\_TA and ROE, VIF is used to estimate the multicollinearity between this two variables. VIF between FCF\_TA and ROE is 0.76. Thus, the output can be considered no serious multicollinearity problem since the highest pair wise coefficient was lower that 80% or 0.8 and do not exceed 1.4.

#### 4.2.5 Autocorrelation

Table 4.6: Result of Autocorrelation

Model Breusch-Pagan LM p-value		Decision	
Model	0.0000	Autocorrelation	

Source: Developed for the research

Residual Cross-Section Dependence Test is to identify the existence of autocorrelation in the model. Based on Table 4.6, a p-value of Breusch-Pagan LM was in the test and the p-value was used to compare with significant level. Autocorrelation exists in the model since p-value (0.0000) is less than the significant value which is 0.10. The null hypothesis was rejected.

## 4.3 Inferential Analyses

## 4.3.1 R-Squared

Table 4.7: Result of R-Squared and Adjusted R-Squared

Models	R-Squared	Adjusted R-Squared
Model	0.743180	0.675930

Source: Developed for the research

The coefficient of the determinant, R<sup>2</sup> is used for examining the degree of variation in the dependent variable can be explained by the independent variables. R-squared also was known as the statistical measure of how close the data fitted the regression line. If the R<sup>2</sup> equal to zero, it shows there are none of the variability of the response data around its means. Conversely, if the R<sup>2</sup> equal to 100%, it shows there the model explains all the variability of the response data around its means. The result in Table 4.7 shows that R<sup>2</sup> is 0.743180 which indicates that 74.32% of total variation in dividend policy is explained by variation in firm size, leverage, firm growth, profitability, past dividend, liquidity, free cash flow, stock market return, high managerial confidence and low managerial confidence.

Adjusted R<sup>2</sup> means that the percentage of variation explained by the only the independent variable actually affects the dependent variable. The result of Table 4.7 shows that there have 0.675930 for adjusted R-Squared. Which means that there have 67.59% of total variation in dividend policy is explained by variation in firm size, leverage, firm growth, profitability, past dividend, liquidity, free cash flow, stock market return, high managerial confidence and low managerial confidence.

#### 4.3.2 F-test

Table 4.8: Result of F-Test

Models	F-Test	P-Value
Model	11.05105	0.0000

Notes: significant level at 10%

Source: Developed for the research

F-test uses to compare the means of more than two groups simultaneously by comparing the two different measures of variance from the observations. The null hypothesis  $(H_0)$  shows the overall model is insignificant and the alternative hypothesis  $(H_1)$  shows the overall model is significant. From Table 4.8 result, the F-test equal to 11.05105 and p-value equal to 0.0000 at significant level 10%. The p-value 0.0000 is lower than the significant level at 10%, so the null hypothesis  $(H_0)$  are rejected. In other words, the overall model are significant to explain dividend policy from the ASEAN developing countries.

## 4.3.3 Empirical Result

Table 4.9: Regression results for FEM estimation

Variables	Dependent Variable: DIV_SALES			
	Coefficient			
Constant	0.677277			
	(0.155704)			
	Independent Variables			
HIGHMC <sup>a</sup>	-0.184021			
	(-0.383812)			
LOWMC <sup>a</sup>	0.024608			
	(0.049691)			
	Control Variables			
LOG_TA	2.711555			
	(1.575331)			
DR	-0.113437***			
	(-4.535748)			
AG	-0.009501**			
	(-1.971372)			
ROE	0.080760***			
	(4.071125)			
PD	-0.165762			
	(-0.220238)			
QR	-0.026068			
	(-0.180527)			
FCF_TA	1.840849			
	(0.830614)			
MKTR	-0.003405			
	(-0.401874)			
R-squared	0.743180			
Adjusted R-squared	0.675930			
F-statistic	11.05105***			
Poolability stat	1475.819797***			
Hausman stat	20.735519**			
Jarque-Bera stat	213570.9***			
Breusch-Pagan LM	44816.45***			

Notes: 1. a represent dummy variables; 2. The asterisks \*\*\*, \*\*\*, and \* shows significant at 1%, 5% and 10% significance level respectively; 3. Figures in parentheses are t-statistic; 4. Data period within five years, from 2011 to 2015. N= 245 companies. Number of panel data for five years = 1225. DIV\_SALES = Dividend/ Sales, HIGHMC = High Managerial Confidence Level, LOWMC = Low Managerial Confidence Level, LOG\_TA = Log Total Assets, DR = Debt Ratio, AG = Asset growth, ROE = Return on Equity, PD = Past Dividend, QR = Quick Ratio, FCF\_TA = Free Cash Flow/Total Asset, MKTR = Stock Market Return.

Source: Developed for the research

In our model, the firm growth (AG) and dividend payout (DIV\_SALES) is significant at significance level at 5%. It shows that there is the negative growth (AG) and relationship between firm dividend payout (DIV\_SALES). The coefficient of firm growth (AG) is equal to -0.009501. It indicates that the firm growth increase, the dividend payout will decrease and vice versa. If firm growth (AG) increases by 1 percentage point, on average, dividend payout will decrease by 0.009501 percentage point, holding other variable constant. The result is consistent with the hypothesis that there is a negative relationship between the firm growth and dividend payout.

Besides that, there has the negative relationship between leverage (DR) and dividend payout (DIV\_SALES). The leverage (DR) and dividend payout (DIV\_SALES) is significant at 1% significant level. The coefficient of leverage (DR) is equal to -0.113437. It indicates that the leverage increase, the dividend payout will decrease and vice versa. If the leverage (DR) increases by 1 percentage point, on average, the dividend payout will decrease by 0.113437 percentage point, holding other variable constant. The result is consistent with the hypothesis that there is a negative relationship between the leverage and dividend payout.

Profitability (ROE) and dividend payout (DIV\_SALES) is significant at the 1% significance level. There is a positive relationship between profitability (ROE) and dividend payout. The coefficient of the ROE is 0.080760. The higher the profitability is, the higher the dividend payout, vice versa. If ROE increases by 1 percentage point, in average, dividend payout will increase by 0.080760 percentage points, by holding other variables constant. The result is consistent with the hypothesis that there is a positive relationship between profitability and dividend payout.

Other than that, there has no relationship between the high managerial confidence level (HIGHMC) and dividend payout (DIV\_SALES). The relationship between high managerial confidence level (HIGHMC) and

dividend payout (DIV\_SALES) is insignificant. The result is inconsistent with the hypothesis that there is a negative relationship between the managerial confidence level and dividend payout.

Besides that, low managerial confident level (LOWMC) and dividend payout (DIV\_SALES) has no relationship and is insignificant. This result is inconsistent with the hypothesis that there is a negative relationship between managerial confident level and dividend payout.

Another that, there has no relationship between the firm sizes (LOG\_TA) and dividend payout (DIV\_SALES). The firm size is insignificant with the dividend payout. The result is inconsistent with the hypothesis that there is a relationship between the firm sizes and dividend payout.

In addition, past dividend (PD) and dividend payout (DIV\_SALES) has no relationship and is insignificant. This result is inconsistent with the hypothesis that there is a positive relationship between past dividend and dividend payout. Therefore, the hypothesis is rejected.

Furthermore, liquidity (QR) and dividend payout (DIV\_SALES) insignificant. This result is inconsistent with the hypothesis that there is a positive relationship between liquidity and dividend payout so that the hypothesis is rejected.

Moreover, there has no relationship between the free cash flow (FCF\_TA) and dividend payout (DIV\_SALES). The free cash flow is insignificant with dividend policy. The result is inconsistent with the hypothesis that there is a positive relationship between the free cash flow and dividend payout.

Lastly, stock market return (MKTR) and dividend payout (DIV\_SALES) is insignificant. This result is inconsistent with the hypothesis that there is a negative relationship between stock market return and dividend payout.

## 4.4 Conclusion

As a conclusion, the test results indicate that the model that is used for the test, which is fixed effect model (FEM) is distributed normally through the total number of observations 1225 with 245 listed companies from 5 countries, from the year 2011 to 2015. With only asset growth, leverage (DR) and the profitability (ROE) being significant, other variables showed their insignificance in affecting dividend payout.

# CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

## 5.0 Introduction

In Chapter 5, conclusions are made based on the objectives of the research, the research question and hypothesis from Chapter 1 as well as the literature review and other applicable theoretical models. The discussion on major findings and the summary for statistical analyses will be included in this chapter as well. At the same time, drawbacks and significance of the research was stated and also several recommendations for any research in time to come. Final conclusion for the whole research will also be made at the end of this chapter.

## 5.1 Summary of Statistical Analyses

Table 5.1 shows the result of the statistical result. Dividend payout is negative significant with the leverage and firm's growth, which are consistent with the hypothesis  $H_3$  and  $H_4$ . The decision is to reject the  $H_0$ . Besides that, dividend payout has a positive and significant relation with the profitability that consistent with the hypothesis  $H_5$  and rejects the  $H_0$ . However, dividend payout is negative insignificant with the past dividend, liquidity, stock market return, and managerial confidence level which are inconsistent with the expectation of  $H_6$ ,  $H_7$ ,  $H_9$  and  $H_1$ . So, the decisions do not reject the  $H_0$ . Moreover, dividend payout also positive insignificant with the free cash flow, which is inconsistent with the hypothesis  $H_8$ . The decision does not reject the  $H_0$  stating there is no relationship.

Table 5.1: Summary of Major Findings

Hypothesis of the study	Expectation	Results	Consistency	Decision
<b>H</b> <sub>1</sub> : There is a negative relationship between managerial	Negative	Negative	Inconsistent	Do not reject $H_0$
confidence level and dividend payout policy.	Significant	Insignificant		
$H_2$ : There is a relationship between firm size and dividend	Positive/Negative	Positive	Inconsistent	Do not reject $H_0$
payout policy.	Significant	Insignificant		
<b>H</b> <sub>3</sub> : There is a negative relationship between leverage and	Negative	Negative	Consistent	Reject $H_0$
dividend payout policy.	Significant	Significant		
<b>H4:</b> There is a negative relationship between firm's growth and	Negative	Negative	Consistent	Reject $H_0$
dividend payout policy.	Significant	Significant		
$H_5$ : There is a positive relationship between profitability and	Positive	Positive	Consistent	Reject $H_0$
dividend payout policy.	Significant	Significant		
$H_6$ : There is a positive relationship between past dividend and	Positive	Negative	Inconsistent	Do not reject $H_0$
dividend payout policy.	Significant	Insignificant		
$H_7$ : There is a positive relationship between liquidity and	Positive	Negative	Inconsistent	Do not reject $H_0$
dividend payout policy.	Significant	Insignificant		
$H_8$ : There is a positive relationship between free cash flow and	Positive	Positive	Inconsistent	Do not reject $H_0$
dividend payout policy.	Significant	Insignificant		
H <sub>9</sub> : There is a negative relationship between stock market	Negative	Negative	Inconsistent	Do not reject $H_0$
return and dividend payout policy.	Significant	Insignificant		

Source: Developed for research.

## 5.2 Discussions of Major Findings

## 5.2.1 Managerial Confidence Level and Dividend Policy

**H**<sub>0</sub>: There is no relationship between managerial confidence level and dividend payout policy.

**H**<sub>1</sub>: There is a negative relationship between managerial confidence level and dividend payout policy.

As the result, managerial confidence level has insignificant and no relationship with the dividend policy. This result brings inconsistent result with the previous researcher.

In previous research, Lin et al. (2005), Deshmukh et al. (2013), Cordeiro (2009) and Malmendier and Tate (2005b) stated that there was significantly negatively relationship between dividend policies and managerial confidence level.

According to Malmendier and Tate (2005b) and Lin et al. (2005), high confidence level with causes high cash flow sensitivity and intend to decrease the dividend payout. This statement can be explained by using agency theory and information asymmetry explanation. When managerial overconfidence will cause the agency problem and it may affect the investment decision and movement of cash flow. Deshmukh et al. (2013) found out the negative relationship because of when overconfidence manager will trust on the Net Value Asset should be profitable and believe lower the price of the dividend will make the profit. Cordeiro (2009) continue to state that overconfidence was significant with dividend policies. Cordeiro (2009) concluded that overconfidence managerial will assume the dividend-paying firms is the with the fewer investment opportunities and also higher the retaining profit level.

The insignificant result can be explained by smooth dividend policy. According to Adaoglu (2000), dividend policies of developing country was

different with developed country. Return of dividend of developing country is more stable than developed the country. As this study bringing inconsistent result with researchers including Lin et al. (2005), Deshmukh et al. (2013), Cordeiro (2009) and Malmendier and Tate (2005b) because they were using developed country to be their sample, for examples, Taiwan and US. Most of the company are practicing smooth dividend policy in order to attract investor buying the share or holding the company share. While ASEAN developing country was used in this study, and they are giving a stable cash dividend payout, it may also know as smooth dividend policies. When a company has good performance, they will pay not much dividend, while when company performance is in a bad time, they also pay a reasonable amount of dividend. The small size of the company, high-growing company and no so be mature company intend to pay stable policy (Leary & Michaely, 2008). In other words, dividend payout is following company policies but not based on managers. Besides, the managers are suspected as they are more disciplined, rational or no bias. Thus, manager intends to giving the dividend which fixed by their company. A sample of the study was using ASEAN country was developing country and most of the company is high growing so that managerial confidence level cannot explain that high managerial confidence level intends to pay lower dividend due to hold on smooth dividend payout policy. As a conclusion, the higher (lower) managerial confidence level doesn't mean dividend payout is lower (higher).

## 5.2.2 Firm Size and Dividend Policy

 $H_0$ : There is no relationship between firm size and dividend payout policy.

 $H_2$ : There is a relationship between firm size and dividend payout policy.

Based on the result, firm size has no relationship with dividend payout policy. The result are consistent with the null hypothesis and does not match the previous study of researcher.

Besides that, the insignificant result may due to conflict between the assumptions on the expected sign. Jabbouri (2016) states that larger firms are paying higher dividend to signal for their future prospects of the firm and reduce agency problems between firm and shareholders. In the other way, larger firms will have more information shows to the public hand. It reduces the ability of the dividend signalling power. It will reduce the willing of managers to use dividends as signalling tools. The smaller firms will also tend to use higher dividend to attract the investor.

According to Sterman (2013), some large companies did not paying the dividend to their investors. It is caused by several factor that make large companies not paying dividend. One of the reasons is large companies need to retain cash flow for acquiring other businesses. One of the examples of this situation is Warren Buffett's Berkshire Hathaway. The second reason of not paying dividend is technology companies invest their earnings for the future growth.

## **5.2.3** Leverage and Dividend Policy

 $H_0$ : There is no relationship between leverage and dividend payout policy.

**H<sub>3</sub>:** There is a negative relationship between leverage and dividend payout policy.

Based on the result, leverage has negative significant with the dividend payout policy. Highly leverage firm means that firms have higher debt then will affect their dividend payout to their shareholder. The result is inconsistent with the null hypothesis and match the previous study of a researcher.

According to Gugler and Yurtoglu (2003), there was a negative relationship between leverage and dividend payout policy. They stated that the high leverage firm will pay the low dividend to their shareholder. From their perspective, highly leverage will lead the higher interest expenses, these will

reduce the profitability of the firm and pay the low dividend to shareholders. However, this result matches with the previous research although use different database.

Besides that, according to the Alzomaia and Al-Khadhiri (2013), both of the also stated that leverage has negative and significant relationship with dividend payout policy. The companies in Saudi Arabia have the same result with the companies at ASEAN countries. There conclude that the highly leveraged firms will lead to low dividend payout.

In another research in Vietnam, Vo and Nguyen (2014) have found that there has same result with other researchers that there has negative relationship between dividend payout and leverage. From the previous research, they stated that the higher leverage has higher transaction cost which includes with the higher interest and has lower chance to pay the dividend to shareholder.

Last but not least, according to Jabbouri (2016), he have stated that there has negative relationship between leverage and dividend payout policy. Based on the research, he has stated that the capital structure of companies will affect the fund available to distribute to a shareholder. Which means that the low capital of companies due to the high leverage will get lower chances to pay the dividend to their shareholder. In conclude that, there is sufficient evident to prove that leverage has negative related with dividend payout policy. The higher debt ratio of companies will affect the position of companies to payout the dividend. Leverage of each company is significant affect the dividend payout policy.

## **5.2.4** Firm Growth and Dividend Policy

**H<sub>0</sub>:** There is no relationship between firm's growth and dividend payout policy.

**H<sub>4</sub>:** There is a negative relationship between firm's growth and dividend payout policy.

Based on the result, firm growth have negative significant with the dividend payout policy. The result are inconsistent with the null hypothesis and match the previous study of researcher.

Jabbouri (2016) have the same result with our findings. This negative relationship is due to the cash flow from the company is used for reinvest back into company. He also stated that the growth by reducing the amount of dividend can later help the company have less costly external financing. It is because the cash flow retained can use for internal financing.

According to Vo and Nguyen (2014), firms are more favour to use internal financing than external financing according to pecking order theory. Firms will reduce their dividend payout for investment. They use the cash flow to finance the investment projects for high growth opportunity. So that they do not depends on expensive external financing. They also say that, based on agency theory, low growth firms will have high free cash flow. They will pay dividend to reduce agency conflict.

## 5.2.5 Profitability and Dividend Policy

**H**<sub>0</sub>: There is no relationship between profitability and dividend payout policy.

**H**<sub>5</sub>: There is a positive relationship between profitability and dividend payout policy.

Based on research result, profitability have positive and significant relationship with the dividend payout policy. The result are inconsistent with the null hypothesis and match the previous study of researcher.

According to the Manneh and Naser (2015), they prove that profitability and dividend payout policy have positive relationship. They state that the fluctuation of corporate profit will totally affect the ability to distribute the earning to their shareholder. Corporates will choose to pay higher dividend when they achieve the huge profit in the previous financial year.

Similarly, Nuhu et al. (2014) also showed that profitability has a positive and significant relationship with dividend payout policy. From their research, they have state that the corporate past year and current year profit will affect their distribution to shareholder. When corporate have raise the enough profit, the dividend payout will increase as well. There is one important factor to affect the dividend payout.

Besides that, Jabbouri (2016) also prove that profitability will positive significant to affect the dividend payout policy. He stated that the high growth of companies have higher probability to get larger profit, there have higher chances to distribute dividend to their shareholders. Another that, he also have investigate that the strong profitable and continuous growth firm will pay the higher dividend to shareholder than other firms only generate the moderate profit. From this statement, it can prove that profitability are actually have positive relationship and significant affect the dividend payout.

Moreover, according to Al-Malkawi (2007), the profitability of corporate will significant affect the dividend payout. The higher profit will pay the higher dividend to them. There are positive relationship between profitability and dividend payout. Researcher state that they have use the internal fund to payout the dividend to shareholder, and generates sufficient fund and retained earnings. There have proven that profitability have negative relationship with leverage. Which means that, the high debt of firms will get less dividend payout or none of dividend payment. In contrast, the higher profit of company will more ability to payout the dividend to shareholders. Thus, our result is matched with the result of previous study that the profitability are positive and significant affect the dividend payout policy.

## 5.2.6 Past Dividend and Dividend Policy

 $\mathbf{H_0}$ : There is no relationship between past dividend and dividend payout policy.

**H<sub>6</sub>:** There is a positive relationship between past dividend and dividend payout policy.

The findings show that the past dividend has a no relationship with dividend payout policy. It is inconsistent with the early expectation and the  $H_6$  of there is a positive relationship between past dividend and dividend payout policy.

The insignificant relationship between past dividend and dividend payout is consistent with the study of Adaoglu (2000). They found that the company's past dividend has no effect on dividend payout policy. Adaoglu (2000) stated that dividend payout policy is no significant relationship with its historical pattern and has an unstable dividend payout policy which also consistent with our result. This is because the author highlighted that earnings from current year which is used to determine the dividend payout policy has no effect to the expected future profits in emerging markets. Another finding from Glen, Karmokolias, Miller and Shah (1995) also revealed that there is evidence that

the current dividend payout policy is independent from its historical pattern in developing markets. Dividend payout policy is said to be not stable from year to year because current dividend is primarily depends on profitability of company.

However, the result is inconsistent with the research done by Alzomaia and Al-Khadhiri (2013), Zameer et al. (2013) and Eng et al. (2013) that discovered significant relationship between both variables. They reported that if company pay high dividend, there is higher possibility that such dividend payment behavior will be maintain in the future. This is because the companies will always take consideration of the level of past dividends to decide how much dividends to be paid.

## 5.2.7 Liquidity and Dividend Policy

 $H_0$ : There is no relationship between liquidity and dividend payout policy.

**H**<sub>7</sub>: There is a positive relationship between liquidity and dividend payout policy.

The result of the study shows that the liquidity has no relationship with dividend payout policy. It is inconsistent with the early expectation and the  $H_7$  of there is a positive relationship between liquidity and dividend payout policy.

The negative result is consistent with study of Kania and Bacon (2005) which reported that company with high liquidity is tend to pay lower dividend, vice versa. Their findings met with the literature expectation which stated that increasing dividend payment reduces company's liquidity. However, the result of this study remained insignificant.

However, the result is inconsistent with the findings of Olang et al. (2015), Su et al. (2014) and Jabbouri (2016) which shows that there is positive relationship between liquidity and dividend payout. These authors said that

companies are having high liquidity to lower financial distress. Besides, companies implement the best liquidity management so that they can achieve the best business practices. Additionally, it also shows that it is to pay dividend by maintain high liquidity.

Signalling theory shows that firm paying dividends to reveal their future growth opportunity to outsiders. This study is inconsistent with the theory due to the negative relationship between both variables. According to Vo and Nguyen (2014), dividends are viewed as a positive signal to outsiders. The reason behind is that normally only companies with high profitability will pay dividends in the future. Consequently, the higher are dividends relative to retained earnings, the stronger is the expectation of managers on firm's future income as a means of maintaining the current dividend payout level.

#### **5.2.8** Free Cash Flow and Dividend Policy

 $\mathbf{H_0}$ : There is no relationship between free cash flow and dividend payout policy.

**H**<sub>8</sub>: There is a positive relationship between free cash flow and dividend payout policy.

It is found from the test that run on free cash flow that it is insignificant in affecting dividend. It is inconsistent with the hypothesis (H<sub>8</sub>), therefore it does not affect a company in whether it chooses to pay out dividend.

In a research done by Sindhu and Jinnah (2014), the results are consistent with this research results, which states that free cash flow is not one of the contribution towards the determination of dividend even though the result indicates these two variables has a positive relationship.

However, Parsian and Koloukhi (2014) investigated the relationship between free cash flow and dividend payout policy and have showed that both are significantly related. They mentioned that dividend payout ratio is one off importance in a company, hence the research on the determinants of dividend payout ratio as well as the dividend payout ratio and a company's earnings growth in the future.

Fairchild (2010) stated that a method to lessen the trouble of free cash flow is to pay out dividends and as a result of that, reducing the chances of executives misusing funds in unsuitable projects or investments. Hence Cheng, Cullinan and Zhang (2014) carried out their research on free cash flow and dividend payout policy. While dividend payout policy being one important factor that might contribute to future growth of companies, the significance of its determinants are very important.

## 5.2.9 Stock Market Return and Dividend Policy

**H**<sub>0</sub>: There is no relationship between the stock market return and dividend payout policy.

**H**<sub>9</sub>: There is a negative relationship between the stock market return and dividend payout policy.

The test statistics indicate that the stock market return has no relationship with dividend payout policy, which is inconsistent with what was speculated in the hypothesis H<sub>9</sub> and resulting in an insignificant outcome. The stock market return was estimated using market return.

Diamond (2000) in a study stated that when comes to consideration of investors' return on their invested stocks, dividends is one of the items that make up the return. This means that as dividends increase, market return will increase and the stock market return will be better. But dividends do not necessarily increase with the market return.

It is said that when the expected return increases, the price of a share of stock is also expected to increase, while the higher the stock price, the more likely that the dividend will be lower. In a study conducted by Campbell and Shiller (1988), they studied how earnings in the long run assist the prediction of the present value of future dividends. Even though the results did not show any positive or negative relationship between the two variables, but it stated that long term earnings can help to predict dividend payout in the future.

# 5.3 Implications of the Study

## **5.3.1 Policy Makers and Regulators**

The result shows that this research only three control variable are affected the dividend payout policy in ASEAN countries which are leverage, firm's growth and profitability. This research will provide the criterion to the policy maker for the further consider the topic regarding the managerial confidence level and dividend payout policy. From the research, other control variables are insignificant with the dividend payout policy, these will give convenient to policy maker to simplify their duties because can avoid those variable to apply the policy.

Besides that, policy maker can take these three significant variables into consideration to conduct the new policy to ensure that all firms in ASEAN countries have payout the reasonable dividend and maintain the dividend payout ratio from year to year. Policymakers can implement the policy to protect and encourage the economic growth. Due to the economic growth, the firms will expand their business and utilize their resources to enjoy the market share and will get the huge profit in every ASEAN countries, then all the firm have increased an ability to payout the dividend to shareholders (Fitri, Hosen & Muhari, 2016). Policy maker also helps to increase the revenue of countries due to the implement the appropriate policy.

Another that, policy maker can prepare a good and healthy trading environment for the company. It can help them to have a healthy competition and growth. Besides that, policy maker can prepare a good and well-regulated financial market for the investors so they can have better information disclosure to make the choice.

Hence, policy maker can revise the economic condition and set up the regulations to secure all-party wealth such as maximize shareholder wealth and make sure the firms and economic can sustainable growth. If policy makers decide to increase the interest rate, the firm's cost of debt will increase as well. The burden of firms will increase and affect the dividend policy. The debt will influence the profitability of firms in each country (Luvembe, Njangiru & Mungami, 2014). Thus, due to higher interest rate, firms cannot be sustainable to operate and will affect the economic growth if firms shut down their operation. The higher debt of firms, the lower probability to pay out the dividend. Leverage are significant affect the dividend payout policy. Policy makers set the higher interest rate can attract the foreign investor to invest in the own country, there will help the economic growth and increase the revenue of government. The higher interest rate also can benefit the country. So, policy makers can take consideration of different party to set up the regulations. Policy makers can set the interest rate in optimize level to confirm that all party wealth can be protected and economic can sustainable growth.

Therefore, the appropriate policies implementation will promote and lead the firms and ASEAN country succeed. So, policy makers will always revise the latest economic condition to setup the proper policies to suit the environment.

#### **5.3.2** Individual Investors and Shareholders

On the other hand, this findings provide guidelines to individual investors and shareholders to have better understanding and knowledge about the variables that affecting company's dividend payout in the 5 ASEAN developing

countries. Therefore, they would be able to make better investment decision when taking consideration on the variables.

Firm growth, leverage and profitability are found to be significantly influencing the company's dividend payout in the 5 ASEAN developing countries. This means that individual investors and shareholders can pay more attention on these independent variables in making their investment decision. For instance, they might consider more on the movement of firm growth, firm's leverage and profitability to decide which dividend-paying stocks to invest and choosing stocks with consistent dividends or increasing dividends based on their own preferences. In addition, individual investors and shareholders can also make comparison based on this result with the companies in other countries.

This study also shows that free cash flow, managerial confidence level, firm size, stock market return, past dividend and liquidity are insignificant to the dividend payout. These independent variables do not affect company's dividend payout in 5 ASEAN developing countries. In order to make better investment decision, individual investors and shareholders can use the result of this research as information. This will be useful for individual investors to achieve wealth maximization for their investment.

## 5.3.3 ASEAN Companies

From the results after running the tests, the only variables that have shown their significance in affecting dividend payout policy are firm growth, leverage, and profitability. Firm growth has a negative relationship with dividend payouts based theory. Since it is consistent with Jabbouri (2016), it, therefore, affects the dividend payout policy.

The countries of the ASEAN are mostly developing countries with only Malaysia and Singapore being more developed. In order to be able to pay

more dividends, managers can take into consideration on measures to reduce their total asset by reducing their risky investment and using that cash flow to pay dividend and improve their performance such as expand the sales and marketing department or increase the quality of the products to meet customer need. It is because expansion of a firm (increasing total asset) could result not only in paying out more dividend but more investment opportunities and more external investments that could be done. It also implied that high risk to the shareholder in terms of dividend payout.

Also for firms of the ASEAN countries, those that have low financial leverage are more likely to pay more dividends according to this research. Financial leverage is defined as the utilization of liabilities to obtain more assets. Financial leverage will reduce the cost of investment for a firm while taking control over an asset that cost more than the firm's initial cost. Javed (2012) have proven that financial leverage does significantly affect dividend payout policy. Since ASEAN countries are still in progress of developing, financial leverage is a very good tool to be able to reduce cost and invest more so that in the long run, the debt ratio will be minimal. This will allow firms to more effectively manage their cost as well as assets.

Of course, profitability is one of the significant variables that affects the dividend payout policy in ASEAN countries. As commonly assumed, the higher the profit, the higher the ability to pay out dividends. It can also be seen in Moradi, Salehi and Honarmand (2010) which made a hypothesis saying that there is the positive relationship between the profitability of a firm and dividend payout policy while being significant. For profitability, it relates to the firm's performance.

When a firm makes the profit or when profit is high, it shows that a firm is performing well and managers are able to pay out dividends. ASEAN countries even though are still in process of developing, they can still perform well and make higher profits more efficiently. One of the ways is to be more innovative in terms of products so that they could be more competitive in the

market and would one day reach monopoly status. Another way is financial leverage just as mentioned above, the cost can be reduced in the long run and profit will be rising.

#### **5.3.4** Academician and Future Researchers

The research contributes to future researchers with the better understanding and useful information about company's dividend payout policy in the 5 ASEAN developing countries. They would be able to understand those factors that influence dividend payout policy in theory and practical. This study would be useful guidelines for future researchers in conducting their future research.

# 5.4 Limitations of the Study

Some limitations are faced in this research. The first limitation is the data retrieved from Bloomberg are dated in the different financial period. Some of the data dated in June, some in December. It may due to different companies having the different financial period. This research combines those data according to the year. It may be some inefficiency in the data sampling.

Another limitation is the sample selection problem. Balanced panel data of 245 companies from 5 countries in 5 years is used in this research. In order to get balanced panel data, many companies were filtered away because there were many missing data in the dataset. It may be caused by the different level of regulation from different countries. The ASEAN developing countries was chosen to research target in this research, the regulation may be less efficient than developed countries because some information is not disclosed by the companies in developing countries causing missing data. In average, there are only 49 companies from a country. Relatively we are not taking enough company to represent the country.

Besides that, there is only a proxy for managerial confidence level used in this research. By the way, there are some other proxies to show whether the CEO is overconfident or not but the data for the proxies are not able to be retrieved from the database. Therefore only a proxy for it and this proxy did not show significance toward dividend policy. The other proxies of managerial confidence level are suspected of giving significant effect to dividend policy and having a better measure of the overconfidence.

#### 5.5 Recommendations for Future Research

This study advice future researcher can increase the sample size of the research. To increase the sample size of balanced panel data, a number of companies and years can be added to test the model. In this study, a small sample size was used to construct the balanced panel data. According to Stockwell and Peterson (2002), they explain increase sample size will lead to increase the accuracy of the model. It is because when data was elevated correctly, it might increase the various type of the species into the model. So that, the t-ratio will increase and might give significant result size. To so that there is a high chance to get Autocorrelation problems. However, using small sample size intend to have autocorrelation. According to DeCarlo and Tryon (1993), small sample size intends to be the bias of the disturbance.

In addition, future study can only concentrate to the one county or grouted testing the sample by the same company in the same country. Thus, researchers can get more companies on the stock exchange and the sampling model can explain the same population. Focusing on a country is able to maintain the same characteristic of the sample size. Different countries have different cultures and different government policies implied to the company within the same country. So that, when running the estimation of the model, the estimator in order to archive the Best Linear Unbiased Estimator (BLUE). To find the effect on the same population, companies within the same industry can be used. In short, future combative into the one sectors such as services sector, consumer goods industry, and industry sector and also manufacturing industry.

For independent variables of this research, the measurement of managerial confidence level also can be more than one proxy to measure. Based on the study of Purhanudin and Zakaria (2015), they are using various types of proxy to measure managerial confidence such as CEO age, CEO Tenure, CEO ownership, CEO education and CEO culture background. It may let the variables of managerial confidence level more persuasive.

In the example, this study suggested that future research can include dummy of the country into the model. The reason behind is it will show the different between each of the country in all the variables. It will make the estimated model more informative.

#### 5.6 Conclusion

The primary objective of this research is to estimate and find out the relationship between managerial confidences level and dividend policy for four developing countries from 2011 to 2015. In a conclusion, leverage, profitability and firm growth (control variables) are significant. However, the managerial confidence level (independent variable), firm size, past dividend, liquidity, free cash flow, the stock market return (control variables) are not significant. This research also suggested some implication for policy maker, company (manager) and investor. However, some limitation and recommendation also stated in this research for future research as references.

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#### **APPENDICES**

### **Appendix I: List of 245 ASEAN Developing Countries Companies**

- 1. Hanjaya Mandala Sampoerna Tbk PT
- 2. Unilever Indonesia Tbk PT
- 3. Gudang Garam Tbk PT
- 4. Indofood CBP Sukses Makmur Tbk PT
- 5. Kalbe Farma Tbk PT
- 6. Perusahaan Gas Negara Persero Tbk
- 7. Adaro Energy Tbk PT
- 8. Tambang Batubara Bukit Asam Persero Tbk PT
- 9. Indo Tambangraya Megah Tbk PT
- 10. Telekomunikasi Indonesia Persero Tbk PT
- 11. XL Axiata Tbk PT
- 12. Indosat Tbk PT
- 13. Astra International Tbk PT
- 14. United Tractors Tbk PT
- 15. Nippon Indosari Corpindo Tbk PT
- 16. Ramayana Lestari Sentosa Tbk PT
- 17. Pembangunan Perumahan Persero Tbk PT
- 18. Indofood Sukses Makmur Tbk PT
- 19. Semen Indonesia Persero Tbk PT
- 20. Bumi Serpong Damai Tbk PT
- 21. Ciputra Development Tbk PT
- 22. Arwana Citramulia Tbk PT
- 23. Wijaya Karya Persero Tbk PT
- 24. Lippo Karawaci Tbk PT
- 25. AKR Corporindo Tbk PT
- 26. Tower Bersama Infrastructure Tbk PT
- 27. Ace Hardware Indonesia Tbk PT
- 28. Japfa Comfeed Indonesia Tbk PT

- 29. Indocement Tunggal Prakarsa Tbk PT
- 30. Jasa Marga Persero Tbk PT
- 31. Mitra Adiperkasa Tbk PT
- 32. Mayora Indah Tbk PT
- 33. Summarecon Agung Tbk PT
- 34. Adhi Karya Persero Tbk PT
- 35. Selamat Sempurna Tbk PT
- 36. Tunas Baru Lampung Tbk PT
- 37. Sumber Alfaria Trijaya Tbk PT
- 38. Tiga Pilar Sejahtera Food Tbk
- 39. Ciputra Surya Tbk PT
- 40. Matahari Putra Prima Tbk PT
- 41. Total Bangun Persada Tbk PT
- 42. Alam Sutera Realty Tbk PT
- 43. Ciputra Property Tbk PT
- 44. Lippo Cikarang Tbk PT
- 45. Modernland Realty Tbk PT
- 46. Citra Marga Nusaphala Persada Tbk PT
- 47. Mandom Indonesia Tbk PT
- 48. BISI International Tbk PT
- 49. Kimia Farma Persero Tbk PT
- 50. Asahimas Flat Glass Tbk PT
- 51. Surya Toto Indonesia Tbk PT
- 52. Catur Sentosa Adiprana Tbk PT
- 53. CPL Group PCL
- 54. DSG International Thailand PCL
- 55. DTC Industries PCL
- 56. Advanced Info Service PCL
- 57. Advanced Information Technology PCL
- 58. Delta Electronics Thailand PCL
- 59. Total Access Communication PCL
- 60. Asian Insulators PCL
- 61. Bangkok Aviation Fuel Services PCL

- 62. Bangchak Petroleum PCL
- 63. Eastern Water Resources Development and Management PCL
- 64. Aikchol Hospital PCL
- 65. Bangkok Chain Hospital PCL
- 66. Bumrungrad Hospital PCL
- 67. Chiang Mai Ram Medical Business PCL
- 68. Mahachai Hospital PCL
- 69. Wattana Karnpaet PCL
- 70. Nonthavej Hospital PCL
- 71. Ramkhamhaeng Hospital PCL
- 72. Alucon PCL
- 73. City Steel PCL
- 74. CPR Gomu Industrial PCL
- 75. Crown Seal PCL
- 76. CP ALL PCL
- 77. PTT PCL
- 78. Airports of Thailand PCL
- 79. Charoen Pokphand Foods PCL
- 80. The Siam Cement Public Company Limited
- 81. Bangkok Dusit Medical Services PCL
- 82. Indorama Ventures PCL
- 83. Central Pattana PCL
- 84. Minor International PCL
- 85. Land & Houses PCL
- 86. Home Product Center PCL
- 87. Berli Jucker PCL
- 88. Thai Union Group PCL
- 89. Jasmine International PCL
- 90. KCE Electronics PCL
- 91. BEC World PCL
- 92. Supalai PCL
- 93. Hana Microelectronics PCL
- 94. Amata Corp PCL

- 95. Major Cineplex Group PCL
- 96. Glow Energy PCL
- 97. LPN Development PCL
- 98. Electricity Generating PCL
- 99. Khon Kaen Sugar Industry PCL
- 100. Siam City Cement PCL
- 101. Siam Global House PCL
- 102. Quality Houses PCL
- 103. Big C Supercenter PCL
- 104. Thai Vegetable Oil PCL
- 105. Ratchaburi Electricity Generating Holding PCL
- 106. Alsons Consolidated Resources Inc
- 107. ABS-CBN Corp
- 108. International Container Terminal Services Inc
- 109. Cebu Air Inc
- 110. Centro Escolar University
- 111. Universal Robina Corp
- 112. iPeople Inc
- 113. Globe Telecom Inc
- 114. PLDT Inc
- 115. Ayala Land Inc
- 116. Jollibee Foods Corp
- 117. Ayala Corp
- 118. Manila Electric Co
- 119. San Miguel Corp
- 120. Manila Water Co Inc
- 121. Robinsons Land Corp
- 122. DMCI Holdings Inc
- 123. Semirara Mining & Power Corp
- 124. First Gen Corp
- 125. Nickel Asia Corp
- 126. 8990 Holdings Inc
- 127. Aboitiz Equity Ventures Inc

- 128. Philippine Seven Corp
- 129. San Miguel Pure Foods Co Inc
- 130. Holcim Philippines Inc
- 131. Philweb Corp
- 132. First Philippine Holdings Corp
- 133. Sta Lucia Land Inc
- 134. GMA Network Inc
- 135. Filinvest Development Corp
- 136. Far Eastern University Inc
- 137. Araneta Properties Inc
- 138. Shang Properties Inc
- 139. Pacific Online Systems Corp
- 140. Splash Corp
- 141. Oriental Petroleum & Minerals Corp
- 142. Liberty Flour Mills Inc
- 143. Philodrill Corp/The
- 144. Cityland Development Corp
- 145. Anchor Land Holdings Inc
- 146. Manila Broadcasting Co
- 147. Song Da Someco JSC
- 148. Sai Son Cement JSC
- 149. Petrolimex Hanoi Transportation and Trading JSC
- 150. Petrolimex Petrochemical JSC
- 151. Petrolimex Saigon Transportation and Service JSC
- 152. Book and Educational Equipment JSC/Hochiminh
- 153. Saigon General Service Corp
- 154. Nam Mu Hydropower JSC
- 155. Investment Commerce Fisheries Corp
- 156. ButSon Cement Packing JSC
- 157. Tung Kuang Industrial JSC
- 158. Hai Duong Pump Manufacturing JSC
- 159. Vinacomin Nui Beo Coal JSC
- 160. PetroVietnam Technical Services Corp

- 161. VCS Advanced Quartz Stone JSC
- 162. Phu Thinh-Nha Be Garment JSC
- 163. Nhi Hiep Brick-Tile JSC
- 164. Refrigeration Electrical Engineering Corp
- 165. My Chau Printing and Packaging Holdings Co
- 166. Vegetable Oil Packing JSC
- 167. Cuu Long Fish JSC
- 168. Halong Canned Food JSC
- 169. Seafood JSC No 4
- 170. Vietnam Dairy Products JSC
- 171. Vietnam Petroleum Transport JSC
- 172. Saigon Fishing Net JSC
- 173. Imexpharm Pharmaceutical JSC
- 174. Khanh Hoa Power JSC
- 175. Pha Lai Thermal Power JSC
- 176. Can Don Hydro Power JSC
- 177. Vinh Son Song Hinh Hydropower JSC
- 178. Masan Group Corp
- 179. FPT Corp
- 180. Hoa Phat Group JSC
- 181. Petrovietnam Fertilizer & Chemicals JSC
- 182. Becamex Infrastructure Development JSC
- 183. Phu Nhuan Jewelry JSC
- 184. Hoa Sen Group
- 185. DHG Pharmaceutical JSC
- 186. Cotecons Construction JSC
- 187. Binh Minh Plastics JSC
- 188. Dat Xanh Real Estate Service & Construction JSC
- 189. Traphaco JSC
- 190. Vinh Hoan Corp
- 191. Gemadept Corp
- 192. Danang Rubber JSC
- 193. Vietnam Container Shipping JSC

- 194. Thien Long Group Corp
- 195. Petrovietnam Transportation Corp
- 196. Lix Detergent JSC
- 197. Dry Cell & Storage Battery JSC
- 198. Phuoc Hoa Rubber JSC
- 199. DABACO Corp
- 200. HAGL JSC
- 201. Dong Phu Rubber JSC
- 202. Apex Healthcare Bhd
- 203. Eng Kah Corp Bhd
- 204. Hup Seng Industries Bhd
- 205. Chemical Co of Malaysia Bhd
- 206. CYL Corp BHD
- 207. Top Glove Corp Bhd
- 208. VS Industry Bhd
- 209. Elsoft Research Bhd
- 210. OpenSys M Bhd
- 211. ViTrox Corp Bhd
- 212. Axiata Group Bhd
- 213. Maxis Bhd
- 214. Telekom Malaysia Bhd
- 215. Tenaga Nasional Bhd
- 216. SKP Resources Bhd
- 217. Kuala Lumpur Kepong Bhd
- 218. WCT Holdings Bhd
- 219. Dialog Group BHD
- 220. Genting Plantations Bhd
- 221. Cahya Mata Sarawak Bhd
- 222. YTL Corp Bhd
- 223. MISC Bhd
- 224. Media Prima Bhd
- 225. Nestle Malaysia Bhd
- 226. Lafarge Malaysia Bhd

- 227. Eastern & Oriental Bhd
- 228. Hartalega Holdings Bhd
- 229. Yinson Holdings Bhd
- 230. Bursa Malaysia Bhd
- 231. Berjaya Sports Toto Bhd
- 232. Paramount Corp Bhd
- 233. Ta Ann Holdings Bhd
- 234. Heineken Malaysia Bhd
- 235. QL Resources Bhd
- 236. YTL Power International Bhd
- 237. HeveaBoard Bhd
- 238. Fraser & Neave Holdings Bhd
- 239. KPJ Healthcare Bhd
- 240. UEM Sunrise Bhd
- 241. Petronas Dagangan Bhd
- 242. Carlsberg Brewery Malaysia Bhd
- 243. Kossan Rubber Industries
- 244. Lingkaran Trans Kota Holdings Bhd
- 245. MIDF Amanah Dynamic Fund

## **APPENDIX II:** Eviews Outputs

## Pool OLS model estimated output

Dependent Variable: DIV\_SALES Method: Panel Least Squares Date: 03/16/17 Time: 00:18

Sample: 2011 2015 Periods included: 5

Cross-sections included: 245

Variable	Variable Coefficient		t-Statistic	Prob.
AG	-0.016813	0.006754	-2.489383	0.0129
DR	-0.043554	0.014657	-2.971458	0.0030
FCF_TA	8.424354	2.784088	3.025894	0.0025
HIGHMC	-0.489484	0.600346	-0.815336	0.4150
LOG_TA	1.008376	0.283177	3.560942	0.0004
LOWMC	1.709362	0.588180	2.906188	0.0037
MKTR	-0.002304	0.013361	-0.172466	0.8631
PD	-0.015019	0.123956	-0.121164	0.9036
QR	-0.022827	0.051330	-0.444705	0.6566
ROE	0.134989	0.018260	7.392541	0.0000
C	2.002999	0.842175	2.378364	0.0175
R-squared	0.143268	Mean depende	ent var	6.560363
Adjusted R-squared	0.136210	S.D. dependen	t var	8.069619
S.E. of regression	7.499927	Akaike info crit	erion	6.876603
Sum squared resid	68286.16	Schwarz criteri	on	6.922495
Log likelihood	-4200.919	Hannan-Quinn	Hannan-Quinn criter.	
F-statistic	20.30118	Durbin-Watson	stat	0.686267
Prob(F-statistic)	0.000000			

## **Fixed Effect Model estimated output**

Dependent Variable: DIV\_SALES Method: Panel Least Squares Date: 02/17/17 Time: 15:04 Sample: 2011 2015

Periods included: 5

Cross-sections included: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AG	-0.009501	0.004820	-1.971372	0.0490
DR	-0.113437	0.025009	-4.535748	0.0000
FCF_TA	1.840849	2.216251	0.830614	0.4064
HIGHMC	-0.184021	0.479455	-0.383812	0.7012
LOG_TA	2.711555	1.721261	1.575331	0.1155
LOWMC	0.024608	0.495210	0.049691	0.9604
MKTR	-0.003405	0.008473	-0.401874	0.6879
PD	-0.165762	0.752647	-0.220238	0.8257
QR	-0.026068	0.144400	-0.180527	0.8568
ROE	0.080760	0.019837	4.071125	0.0001
С	0.677277	4.349777	0.155704	0.8763
	Effects Spec	cification		_

Cross-section		
CIUSS-SECIIUII		

R-squared	0.743180	Mean dependent var	6.560363
Adjusted R-squared	0.675930	S.D. dependent var	8.069619
S.E. of regression	4.593801	Akaike info criterion	6.070219
Sum squared resid	20469.92	Schwarz criterion	7.134078
Log likelihood	-3463.009	Hannan-Quinn criter.	6.470559
F-statistic	11.05105	Durbin-Watson stat	2.149160
Prob(F-statistic)	0.000000		

# **Descriptive Statistics**

	DIV_SALES	AG	DR	FCF_TA	HIGHMC	LOG_TA	LOWMC	MKTR	PD	QR	ROE
Mean	6.560363	14.63636	22.93515	0.049168	0.200000	2.629932	0.200000	4.534054	0.178576	1.597950	18.82986
Median	4.242300	10.77180	22.63460	0.042275	0.000000	2.688676	0.000000	2.842500	0.019700	0.882400	15.99390
Maximum	91.98360	1012.016	81.05500	0.670846	1.000000	4.834922	1.000000	35.75570	31.25000	76.08440	131.6876
Minimum	0.000000	-46.50110	0.000000	-0.247182	0.000000	0.320437	0.000000	-48.58190	0.000000	0.026900	-15.88130
Std. Dev.	8.069619	34.62777	17.26345	0.110740	0.400163	0.840161	0.400163	16.15463	1.742310	4.328023	15.18651
Skewness	3.567170	20.38320	0.338875	1.000485	1.500000	-0.190359	1.500000	-0.332292	15.38650	12.91154	3.014117
Kurtosis	24.53951	568.7576	2.223320	6.739997	3.250000	2.664829	3.250000	3.747714	243.9323	192.4472	17.44922
Jarque-Bera	26278.77	16422325	54.23564	918.3139	462.5651	13.13227	462.5651	51.07991	3011222.	1865934.	12511.31
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.001407	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	8036.445	17929.54	28095.56	60.23112	245.0000	3221.666	245.0000	5554.216	218.7552	1957.489	23066.57
Sum Sq. Dev.	79705.36	1467677.	364784.8	15.01033	196.0000	863.9858	196.0000	319429.9	3715.629	22927.71	282291.1
Observations	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225

## **Poolability Test**

Redundant Fixed Effects Tests

Equation: EQ01

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.	
Cross-section F Cross-section Chi-square	9.286271 1475.819797	(244,970) 244	0.0000	

Cross-section fixed effects test equation: Dependent Variable: DIV\_SALES Method: Panel Least Squares

Date: 03/16/17 Time: 00:32 Sample: 2011 2015

Periods included: 5

Cross-sections included: 245

Variable	Variable Coefficient		t-Statistic	Prob.	
AG	AG -0.016813		0.006754 -2.489383		
DR	-0.043554	0.014657	-2.971458	0.0030	
FCF_TA	8.424354	2.784088	3.025894	0.0025	
HIGHMC	-0.489484	0.600346	-0.815336	0.4150	
LOG_TA_	1.008376	0.283177	3.560942	0.0004	
LOWMC	1.709362	0.588180	2.906188	0.0037	
MKTR	-0.002304	0.013361	-0.172466	0.8631	
PD	-0.015019	0.123956	-0.121164	0.9036	
QR	-0.022827	0.051330	-0.444705	0.6566	
ROE	0.134989	0.018260	7.392541	0.0000	
C	2.002999	0.842175	2.378364	0.0175	
R-squared	0.143268	Mean depende	ent var	6.560363	
Adjusted R-squared	0.136210	S.D. dependen	it var	8.069619	
S.E. of regression	7.499927	Akaike info crit	erion	6.876603	
Sum squared resid	68286.16	Schwarz criteri	on	6.922495	
Log likelihood	-4200.919	Hannan-Quinn	criter.	6.893872	
F-statistic	20.30118	Durbin-Watson	Durbin-Watson stat		
Prob(F-statistic)	0.000000				

Correlated Random Effects - Hausman Test

Equation: EQ01

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f. Prob		
Cross-section random	20.735519	10	0.0230	

### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
AG	-0.009501	-0.011830	0.000001	0.0303
DR	-0.113437	-0.080110	0.000286	0.0488
FCF_TA	1.840849	3.482637	0.434035	0.0127
HIGHMC	-0.184021	-0.179225	0.018543	0.9719
LOG_TA_	2.711555	1.173827	2.725153	0.3516
LOWMC	0.024608	0.317109	0.022886	0.0532
MKTR	-0.003405	-0.003095	0.000001	0.7648
PD	-0.165762	0.010537	0.517363	0.8064
QR	-0.026068	-0.019479	0.014329	0.9561
ROE	0.080760	0.101812	0.000092	0.0281

Cross-section random effects test equation:

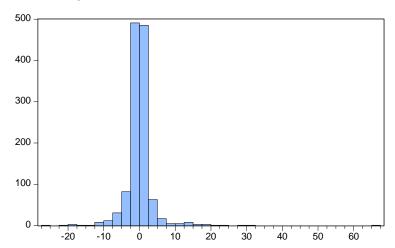
Dependent Variable: DIV\_SALES Method: Panel Least Squares Date: 03/16/17 Time: 00:35

Sample: 2011 2015 Periods included: 5

Cross-sections included: 245

Variable	Variable Coefficient		t-Statistic	Prob.
С	0.677277	4.349777	0.155704	0.8763
AG	-0.009501	0.004820	-1.971372	0.0490
DR	-0.113437	0.025009	-4.535748	0.0000
FCF_TA	1.840849	2.216251	0.830614	0.4064
HIGHMC	-0.184021	0.479455	-0.383812	0.7012
LOG_TA_	2.711555	1.721261	1.575331	0.1155
LOWMC	0.024608	0.495210	0.049691	0.9604
MKTR	-0.003405	0.008473	-0.401874	0.6879
PD	-0.165762	0.752647	-0.220238	0.8257
QR	-0.026068	0.144400	-0.180527	0.8568
ROE	0.080760	0.019837	4.071125	0.0001
	Effects Sp	ecification		
Cross-section fixed (dum	my variables)			
R-squared	0.743180	Mean depende	ent var	6.560363
Adjusted R-squared	0.675930	S.D. dependen		8.069619
S.E. of regression	4.593801	Akaike info crit	erion	6.070219
Sum squared resid	20469.92	Schwarz criteri	on	7.134078
Log likelihood	-3463.009	Hannan-Quinn	criter.	6.470559
F-statistic	11.05105	Durbin-Watson	stat	2.149160
Prob(F-statistic)	0.000000			

## **Normality Test**



Series: Standardized Residuals Sample 2011 2015 Observations 1225						
Mean	-3.04e-17					
Median	-0.046106					
Maximum	65.53606					
Minimum	-25.00726					
Std. Dev.	4.089473					
Skewness	4.145771					
Kurtosis	67.15214					
Jarque-Bera	213570.9					
Probability	0.000000					

# **Correlation Matrix for the Variables**

	DIV_SALES	AG	DR	FCF_TA	HIGHMC	LOG_TA_	LOWMC	MKTR	PD	QR	ROE
DIV_SALES	1.000000	-0.064897	-0.148291	0.303140	-0.087485	0.060943	0.050746	0.013802	0.027454	0.010589	0.303819
AG	-0.064897	1.000000	0.086414	-0.205757	0.217672	0.061622	-0.108451	0.024707	-0.001121	-0.030497	0.184348
DR	-0.148291	0.086414	1.000000	-0.388775	0.061475	0.337176	-0.054564	-0.022412	-0.014010	-0.211187	-0.141522
FCF_TA	0.303140	-0.205757	-0.388775	1.000000	-0.323453	-0.054469	0.131257	0.062945	0.088373	0.117104	0.492894
HIGHMC	-0.087485	0.217672	0.061475	-0.323453	1.000000	0.014455	-0.250000	-0.021107	-0.039481	-0.062419	0.056282
LOG_TA_	0.060943	0.061622	0.337176	-0.054469	0.014455	1.000000	-0.247309	0.072916	-0.013315	-0.110662	0.072307
LOWMC	0.050746	-0.108451	-0.054564	0.131257	-0.250000	-0.247309	1.000000	-0.006563	-0.039466	0.129652	-0.160515
MKTR	0.013802	0.024707	-0.022412	0.062945	-0.021107	0.072916	-0.006563	1.000000	0.003697	0.023244	0.013848
PD	0.027454	-0.001121	-0.014010	0.088373	-0.039481	-0.013315	-0.039466	0.003697	1.000000	-0.010704	0.089612
QR	0.010589	-0.030497	-0.211187	0.117104	-0.062419	-0.110662	0.129652	0.023244	-0.010704	1.000000	-0.052744
ROE	0.303819	0.184348	-0.141522	0.492894	0.056282	0.072307	-0.160515	0.013848	0.089612	-0.052744	1.000000

## **Autocorrelation Test**

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: EQ01 Periods included: 5

Cross-sections included: 245 Total panel observations: 1225

Cross-section effects were removed during estimation

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM Pesaran scaled LM Bias-corrected scaled LM Pesaran CD	44816.45 60.04697 29.42197 1.952578	29890	0.0000 0.0000 0.0000 0.0509