THE INVESTMENT RETURN OF REAL ESTATE INDUSTRY TO INVESTORS: A STUDY BASED IN MALAYSIA

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A research project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF FINANCE (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
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AUGUST 2016

DECLARATION

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.

(4) The word count of this research report is 29,650.

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ACKNOWLEDGEMENT

We would like to extend our utmost gratitude to the following parties who have contributed in every way possible towards the completion of this research project. This completion would deem impossible without each of their insights, participation, useful advice and above all, support.

We would like to express our heartfelt appreciation to our research project supervisor, Pn. Noor Azizah binti Shaari for always imparting her vast knowledge on this research. Indeed, she has been there in times of needs and to support with the development of this project since commencement. Without her ultimate patience, guidance and supervision, we would not have managed to conduct let alone complete this research. On top of that, we also extend our sincere gratitude for her suggestion thus introducing this topic to be conducted; the Real Estate Investment Trust industry in Malaysia. We would also like to thank her for readily providing us with helpful research materials regarding on this industry.

We would also like to express our gratitude towards two lecturers who in one way or another, has contributed towards the completion of this project. Firstly, is to Mr. Chee Chong Meng, second examiner of our oral presentation. We are grateful for your insights, especially coming from a reader's point of view. Next is to Cik Nurfadhilah Binti Abu Hasan, our research coordinator. We appreciate your hard work and efforts in managing and coordinating the researches in this department of finance. Next, we would like to thank our closest friends and family who has been there to support us throughout the research period, whether directly or indirectly. Your moral support and words of encouragement has helped us through this period.

DEDICATION

We would like to dedicate this research project to every group member, Chye Kean Yee, How Han Yen, Liew Sin Yen, Lim Han Khun and Sarah Anne Pragasam for the time, effort and hard work contributed towards the completion of this project. We believe our collective dedication and cohesiveness has kept us in line with mutual understanding that each of us plays a vital role respectively. On top of that, we understand that being proactive group members will beget good work and outcome.

Next, our sincere dedication of this project goes to our supervisor Pn. Noor Azizah binti Shaari whose constant guidance and support has kept this project going from the start till the end. From initiating the scope of our research, guiding us closely with the necessary contents, to providing us with useful insights of this research, this research is especially dedicated to Pn. Noor Azizah binti Shaari.

Furthermore, this research is also dedicated to our second examiner, Mr. Chee Chong Meng for being the party that evaluated our oral presentation thus providing valuable feedback regarding our research. Hence, this project is also dedicated to Mr. Chee Chong Meng.

Last but not least, we would also like to dedicate this project to each and every external party like our friends and family for the unwavering moral support and motivation that has kept us going.

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LIST OF ABBREVIATION

AHP	Amanah Harta Tanah PNB
ALAQAR	Al-Aqar Healthcare REIT
ALSREIT	Al-Salam Real Estate Investment
AMFIRST	Amfirst REIT
ARCH	Autoregressive Conditional Heteroskedasticity
ARREIT	Amanahraya REIT
ATRIUM	Atrium REIT
AXIS	Axis REIT
BSE 500	Bombay-Stock Exchange 500
CACEPS	Cash and Cash Equivalents Per Share
CEO	Chief Executive Officer Working Experience
CF	Cash Flows
CLRM	Classical Linear Regression Model
CMMT	Capitalland Malaysia Mall Trust
CNLRM	Classical Normal Linear Regression Model
CR	Current Ratio
DER	Debt to Equity Ratio
DPS	Dividend Per Share
DR	Debt Ratio
FEM	Fixed Effect Model
FS	Firm Size
GLS	Generalized Least Squares
HEKTAR	Hektar REIT
IGB	IGB REIT
IPO	Initial Public Offering
JB	Jacque-Bera
KLCC	KLCC Property & REIT-Stapled SEC
LEV	Financial Leverage
LIQ	Liquidity

LOGDR	Log of Debt Ratio
LOGTAPS	Log of Total Asset Per Share
LPT	Listed Property Trust
MQREIT	MRCB-Quill REIT
M-REITs	Malaysian Real Estate Investme
N	Sample Size
OLS	Ordinary Least Square
PAVREIT	Pavilion REIT
POOLED OLD	Pooled Ordinary Least Square
PRO	Profitability
REITs	Real Estate Investment Trusts
REM	Random Effect Model
ROA	Return on Asset
ROE	Return on Equity
SC	Security Commission
SUNREIT	Sunway REIT
t	Time Period
TAPS	Total Asset Per Share
TOL	Tolerance
TWREIT	Tower REIT
UAE	United Arab Emirates
UK	United Kingdom
UOA	UOA REIT
US	United States
VIF	Variance Inflation Factor
WLS	Weighted Least Squares
YTLREIT	YTL Hospitality REIT

PREFACE

This research is submitted as partial requirement upon completion of study as Bachelor of Finance (Hons) graduates. The title for this research is "The Investor Return of Real Estate Industry to Investors: A Study based in Malaysia." This topic is chosen for several reasons, one being there are limited current research on the Real Estate Investment Trust (REIT) industry to date. Furthermore, this research also aims to raise awareness of this industry among students and the general public alike for further growth and development of REITs in Malaysia.

The Security of Commission Malaysia defines REIT as an 'investment vehicle that aims to invest at least 50% of its total assets in real estate, whether via direct ownership or through a single purpose company whose principal assets compromise real assets.' Using dividend per share as a measure of investor return, several firm specific characteristics were formulated to study the significance of the variables with the dependent variables. Among the independent variables are financial leverage, profitability, liquidity, firm size, cash flows and CEO working experience.

The main objective of this research is to ascertain if this REIT industry is still worth an investment due to the problem statement encountered. A total population of 17 publicly listed REITs across the time span of 6 years ending 2016 makes up the total observations 102.

ABSTRACT

This research chronicles the investment return of Malaysian Real Estate Industry (M-REIT) companies across the span of 6 years ending 2015 in the form of dividend per share. The objective of this research is to conclude if the M-REIT industry still has its worth to invest thus attaining returns in the form of dividend. Explanatory variables like financial leverage, profitability, liquidity, cash flows, firm size and CEO working experience are derived to explain the relationship. Debt ratio, debt-to-equity ratio, return on asset, return on equity, current ratio, total asset per share and cash and cash equivalent per share are the proxies for the respective independent variables. The Fixed Effects Model (FEM) and Random Effects Model (REM) are used to obtain comparative panel data results. Two models were formed but the second model with logarithm transformation is chosen thereafter as it displays more reliable results that are in line with previous researches. The major findings concluded that debt ratio, return on asset, cash and cash equivalents of the population firms has a negative insignificant relationship with dividend payment. However, CEO working experience has a positive insignificant relationship, which contradicts with previous researches. The other variables; i.e. debt-to-equity ratio, return on asset, current ratio and total asset per share has a significant relationship with dividend per share.

CHAPTER 1: INTRODUCTION

1.0 Introduction

This chapter discusses the research background of the study in order to provide better understanding regarding the real estate investment trusts in Malaysia (M-REITs). Also, problem statement and research objectives will be discussed under this chapter. Subsequently, research questions and expected hypothesis for all the independent variables and proxies are to be presented for the purpose of giving a general view of this study. The significance of study will be further elaborated in this chapter and chapter layout for each chapter will be clearly explained as well.

1.1 Research Background

This section contains the background and details of the real estate investment trusts (REITs) industry in Malaysia.

1.1.1 Details about Study

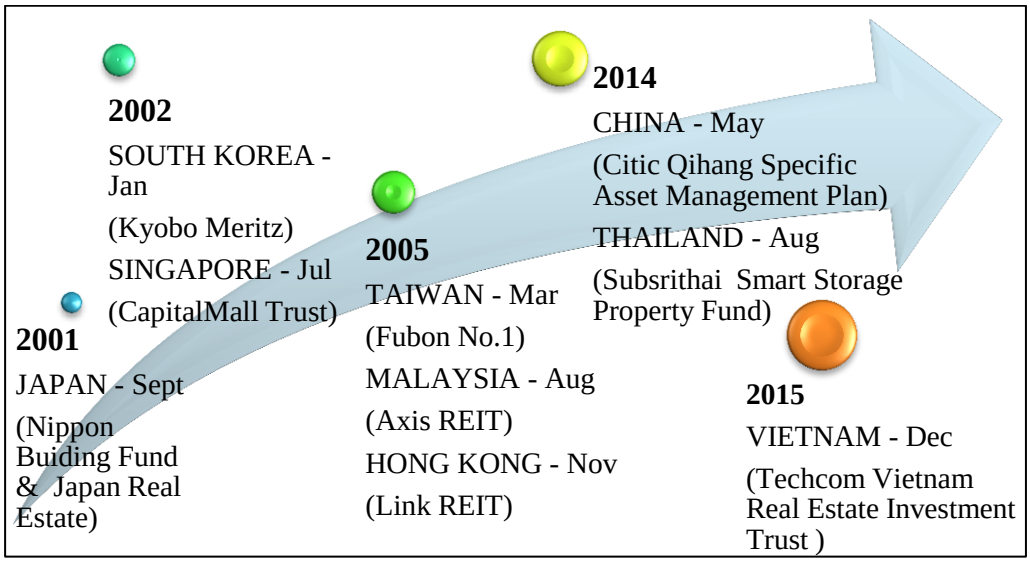
Malaysia, in realizing the 2020 vision implemented by the fourth prime minister Tun Dato' Seri Mahathir bin Mohamad back in 1991 to achieve a developed nation status has prosecuted many collective economy-friendly efforts, one being the introduction of real estate investment trusts in Malaysia (M-REITs). The Malaysian government, through the Securities Commission of Malaysia (SC) emphasizes greatly on the importance of REITs establishment in the Malaysian economy. As at 2016, REITs have been established for 11 years, a proud achievement to mark the economy of Malaysia. Newell (2012) defines REITs as a legal body that is bound by regulation to possess and rigorously manage a portfolio of funds generated from the real estate mass market. Bursa Malaysia further defines that REITs are funds or a trust that owns as well as manages income-generating commercial real estate like shopping malls, hospitals, plantations, industrial properties, hotels, office blocks and so on. The real estate or the property is the ultimate asset in the investment portfolio.

Several individualistic firm specific factors are formulated in this study of dividend payments from the M-REITs industry. These factors that effectuate dividend declaration are firm leverage, profitability, liquidity, firm size, cash flow and CEO working experience. A comparison will be made to conclude those if those factors are positively or negatively related to dividend payments.

1.1.2 Global development of REITs

Real estate investment trusts (REITs) is slowly penetrating into economies worldwide, prominently in the Asian and European financial markets with Unites States being the first region to have implemented REITs for over 50 years ago (Stevenson, 2013). A past study on REITs by Goddard and Marcum (2012) traced back the first appearance of REITs was at early of the 19th century in United States, where in those days it was called Massachusetts Trust. However, the modernized REITs did not establish up till 1961. The U.S. REITs market has grown tremendously after the implementation of the Tax Reform Act 1986 (Stevenson, 2013; Goddard & Marcum, 2012). Following the footsteps on United States, many other developed nations after observing advantages of REIT market, they started to develop REITs in their respective countries. Australia, Japan and United Kingdom introduced REITs into their nations in 1971, 2001 and 2007 respectively (Ooi, Newell, Sing, 2006; Wong, 2015).

Figure 1.1: Asian REIT Developments over the Years



Source: Wong, 2015

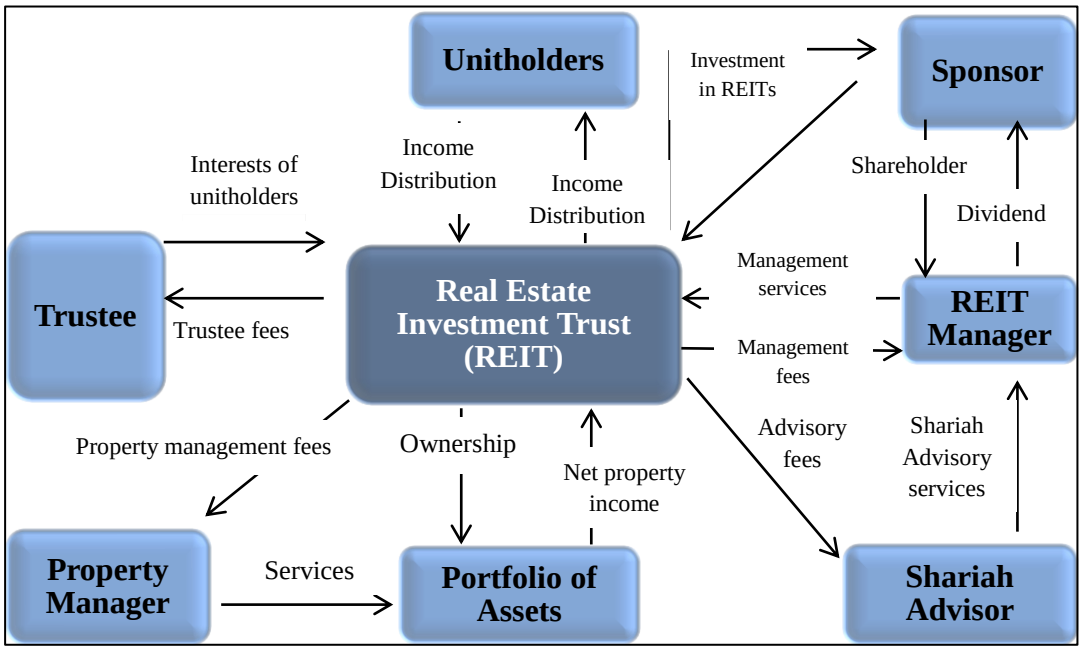
Figure 1.1 displays the listings of each Asian country that has regulated REITs into their financial market respectively. REITs in the Asian market started off with Japan in the new millennium in year 2001. China, astoundingly recently listed their first REIT in 2014 and quickly bounced into the REIT global market by issuing assets based in China into different domination like Singapore, and Hong Kong. One of Hong Kong's REITs in fact, is the world's first Chinese yuan denomination REIT to ever be listed and is the largest REIT initial public offering (IPO) globally with an outstanding US$2.6 billion. Ooi et. al. (2006) stated that what influenced the booming growth of REITs in the Asian economy is the force of supply and demand factors. The study of Newell (2012) identified that the returns and dividend yields are sky-rocketing and attractive. Since the Asian Financial Crisis in 1997, LaSalle (2004) studied the maturity and transparency in the Asian real estate market and concluded that the industry has blossomed outstandingly. In fact, international real estate investors can enjoy long term returns from the diversification in the Asian real estate market (Bond, Karolyi & Sanders, 2003). The latest addition to the Asian REIT is Vietnam's TCREIT.

1.1.3 Emergence and development of REITs in Malaysia.

M-REITs made its first appearance as a listed property trust (LPT) that is traded in Bursa Saham Malaysia. In 1989, Malaysia marked history as the very first Asian property-based trust that was publicly traded (Newell & Osmadi, 2009; Ooi et al., 2006). Due to poor policies and regulation like limited tax shield and unappealing characteristics, the LPT was stagnant and did not grow in a long term (Newell, Ting, & Acheampong, 2002). All in all, there were only three listed and active LPTs with a total market capitalization of RM239.5 million in 2004 (Wong, 2015).

The turning point for M-REIT took place when the Securities Commission of Malaysia (SC) introduced a newly remodelled Guidelines on REITs in August 2005. Unlike the LPT, this Guidelines portrayed a more tax friendly approach, greater gearing bounds, flexibility on acquisitions, improved governance with ownership mitigation for the REIT and its management company (Newell & Osmadi, 2009). A unit trust scheme that invests or proposes to invest primarily in income-generating real estate was the new definition made by the SC in the Guidelines.

Figure 1.2 Mechanism of REIT in Malaysia



Source: Wong, 2015

Depicted in Figure 1.2 above, an appointed trustee is the legal owner that holds the underlying real estate asset for the unit holder. Contrasting with United States and Australian REITs, an external manager manages the Asian REITs by performing day-to-day activities as well as long term propositions for the REIT. This REIT manager is owned by a Sponsor.

The Sponsors are the real estate organizations where its core business activity is property development. These sponsors are the backbone of the REIT industry where its presence is vital in the development of the REIT industry (Lecomte & Ooi, 2013). What signifies a Malaysian REIT with other REITS is that the Sponsors company receives ownership for the REIT, which is an excellent capital-recycling vehicle. Furthermore, the fund manager for the REIT is not allowed to manage the property for the underlying asset in the real estate in Malaysia. The role of the fund manager is therefore outsourced to another property management company

that usually is a subsidiary or an independent of the property management company. As Malaysia also incorporates Islamic REIT, following the rules of Shariah, experts in the Shariah field is elected to ensure compliance of the REITs with Shariah.

The very first Malaysian REIT, Axis REIT, company was established as soon as the Guidelines was made known in 2005. Within close to a decade, following the outstanding achievement of Axis REIT, many players entered the industry which totaled up 18 M-REITs by the end of 2013. Within the first quarter of 2014, unfortunately, Al-Hadharah Boustead REIT was privatized, and the total amount of REIT dropped to 17 now in 2016. Wong (2015) suggests the interest of major market leaders to be established as a REIT such as Sime Darby Berhad, WTC Holdings Berhad, Malaysian Resource Corporation Berhad and Mah Sing Group Berhad. In the capital city of Kuala Lumpur, several landmarks like PETRONAS Twin Towers, Mid Valley Megamall, Pavilion Kuala Lumpur to name a few are held under a M-REIT.

The M-REITs market faces certain drawbacks like captivating large foreign capital due to the predominating control of capital attainability (Wong, 2015). To offset this drawback, Al-Aqar KPJ REIT became the first Islamic REITs to be publicly listed in 2006 and in 2013, KLCC REIT became the largest stapled Islamic REIT, both globally. Newell and Osmadi (2009) in their study marked that Islamic REIT did not sway in the midst of the global financial crisis which qualified Islamic REITs as the portfolio to watch.

Conclusively, Bursa Malaysia has made a statement of the benefits of investing in REITs such as affordability, liquidity, stable income stream, exposure to large-scale real estate and professional management. In terms

of affordability, investing will cost a portion of the cost of direct investment in real estate, which is minimal. REITs are more liquid as compared to physical properties and are readily convertible to cash in the stock exchange market. REITs offer a more stable income in the form of dividend, and the source of funds is from rental payment by the tenants for the properties owned by the M-REITs. Furthermore, an affordable quality investment can be derived from the many benefits from REITs and only experts in the REIT field are appointed to manage the underlying asset, which promises a higher yield of return.

1.2 Problem Statement

M-REITs have been established in Malaysia since 1989 but the performance was not so optimistic before 2005 when the new set of regulation implemented by Malaysian Security Commission (SC). Due to the new regulations, M-REITs have become a popular investment vehicle, an alternative to ordinary company shares, in Malaysia. According to Mokhtar and Masih (2014) and Olanrele, Said and Daud (2014), the major new established rules are 28% tax exemption for at 90% of taxable income for dividend distribution, exemption of stamp duty for property acquisition by REIT companies and exemption of tax from the gain of properties disposal. Hence, M-REITs have been recognized as an income stock that provides high dividend yield for long-term investors (Leong & Abdul, 2015).

Being well aware of the benefits from the new regulations, many REITs have been listed in Malaysia since 2005 and reaching a total of 17 companies in 2015. Based on the data extracted in annual reports of each company from 2005 to 2015, it has been found that the total assets, mainly properties owned by M-REITs, are growing steadily from RM11.4 billion in 2010 to RM37.6 billion in 2015. It

indicates that the revaluation of properties or the properties' value in Malaysia has approximately increased by 230% within 6 years from 2010 to 2015. According to Boon, Chin and Yat (2012), the main source of income of REIT companies are from the rental of commercial real-estates, those properties or buildings owned by the companies. Therefore, with the increment in the value of properties, higher profit and income are expected to be made by REIT companies in the coming years.

Although the total net income generated by REIT in Malaysia first increased from RM559.7 million in 2010 to RM 5,473 million 2013, increasing about 881% within the 4 years, the total net income started to decline in 2014 to only RM2,597.2 million and reaching lower extent at RM2,172 million in 2015. As mentioned above, higher total assets owned by the REIT companies are expected to generate higher net income. However, the net income approaches the opposite way where more assets owned by M-REITs lead to lower net profit being earned.

From the dividend perspective, the sum of total dividend paid by M-REITs has been increasing gradually and always reaching higher extent in the new financial year. Based on the data extracted from the annual reports of all M-REIT companies, the sum of total dividend has been increased from merely RM391.8 million in 2010 to RM1,674.7 million in 2015, increased approximately by 327%. Linking the relationship between net profit and dividend, it is assumed that companies will only pay higher dividend when they are generating higher net profit. However, it is not the case as in M-REIT industry where the net profit has been declined about 60% from RM5,473 million in 2013 to RM2,171.8 million in 2015 and the dividend has been increased by about 8.90% from 2013 to 2015.

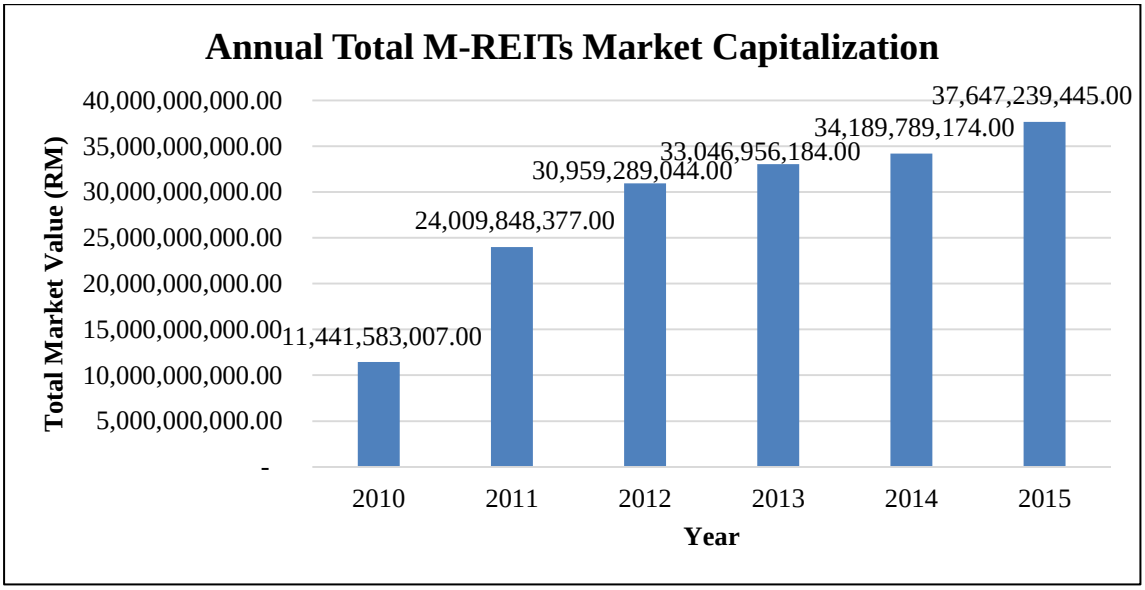
If the situation persists (higher dividend and lower profit) continues in the M-REIT industry, the similar case as happened in Al-Hadharah Boustead REIT is highly suspected to happen again. The case of Al-Hadharah Boustead REIT is in

such a way where this company was delisted from Bursa Malaysia in 2014 due to difficulty in maintaining high dividend yield despite having little trading and revenue which caused them to have limited fund for investment purposes.

Furthermore, having lesser and lesser net profit from year to year, the share price of company will be decreased as well. Although investors receive high dividend in term of 90% of quarterly or annually net profit, the loss capital loss is much higher compared with the dividend received. Once the company is declared delisted, the company will buy back shares at the lower market price and not the original purchased price by investors.

This is then worth to have a study in M-REIT industry to determine what has happened in M-REIT industry with higher assets, lesser profit and higher dividend, why this happened and how investors may decide on their investment in REIT companies.

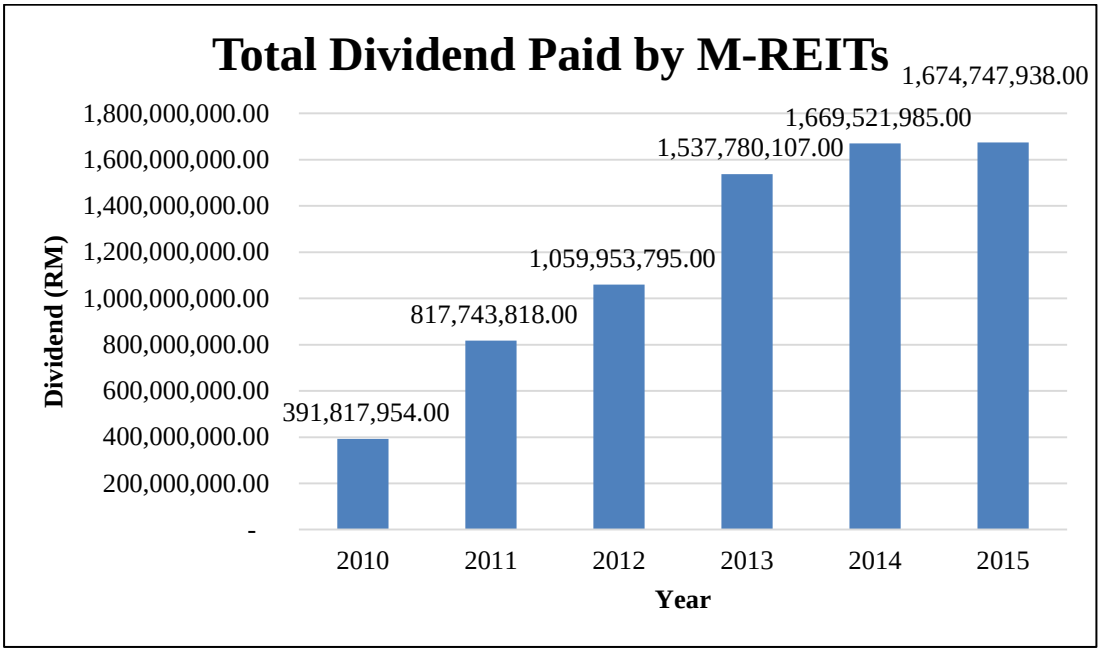
Figure 1.3: Annual value of All M-REITs in Malaysian Market



Source: Developed from the research

In relation to the growth of total value of all M-REITs, the dividend has also been increased gradually to a higher extent annually. However, in line with the slowing growth sign in total assets of M-REITs, the growth sign of total dividend payout has also been slowing down from 2013 to 2015 compared with previous financial years from which there was at least 20% growth in total dividend paid from 2010 to 2013.

Figure 1.4: Annual Dividend Paid by All M-REITs in Malaysian Market

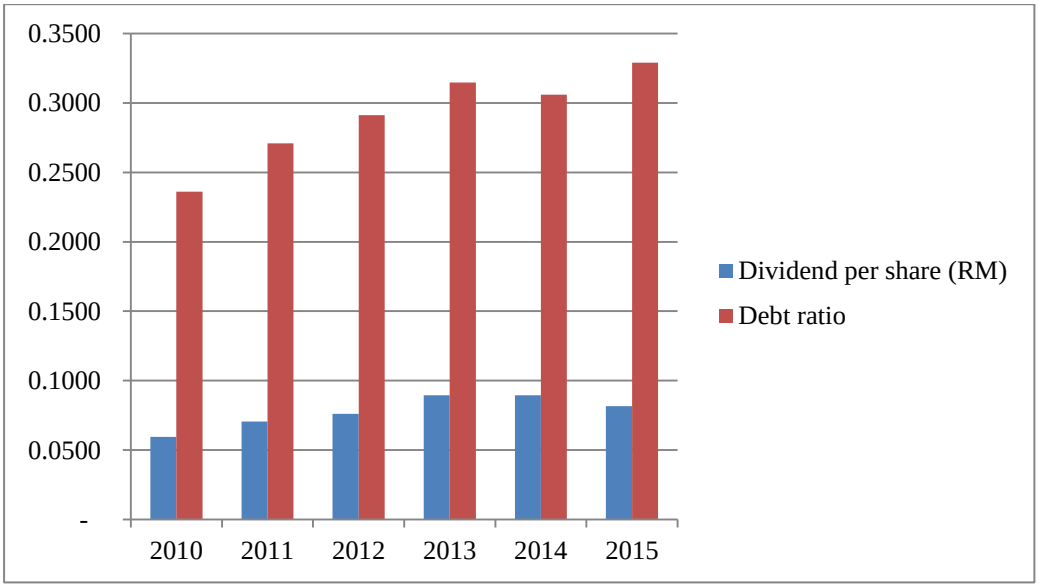


Source: Developed from the research

Dividend can be taken as the indicator for profitability of M-REITs since they are mandated to pay 90% of their net income as dividend for shareholders. To explain it in relation with dividend, it implies that the profitability of M-REITs is in a slowing growth trend which then affects the return for unitholders/ shareholders.

Looking forward to future trend, based on life-cycle theory, it can probably be expected that downtrend may present in the short coming future. Hence, given M-REITs are supposedly down trending, it is worth to conduct an investigation in all 17 M-REITs. In addition, no study has been found to have conducted investigation in M-REITs until year 2014 and 2015. Therefore, conducting this study can offer the latest information in Malaysian REIT industry.

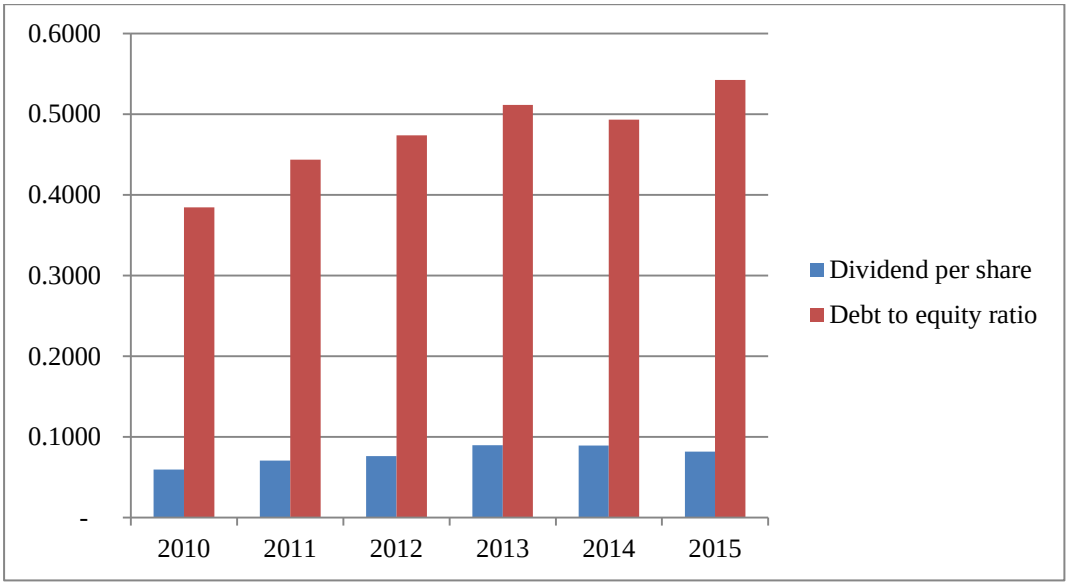
Figure 1.5: The relationship between dividend per share and debt ratio of overall 17 M-REITs.



Source: M-REITs' annual reports

The figure 1.5 obviously show that there is a positively relationship between dividend per share paid by the 17 M-REITs and debt ratio. It can be proved from the figure as the dividend per share was on increasing trend from year 2010 to 2013 when the debt ratio increasing. Besides, the dividend per share paid by M-REITs reduced as their debt ratio drop too. However, M-REITs still reducing their dividend that paid to each share even though the debt ratio recovers back to increasing trend in year 2015. It is because the number of share of M-REITs is increasing lead to the lesser dividend paid to each share but the average total dividend of 17 M-REITs is increasing in that particular year.

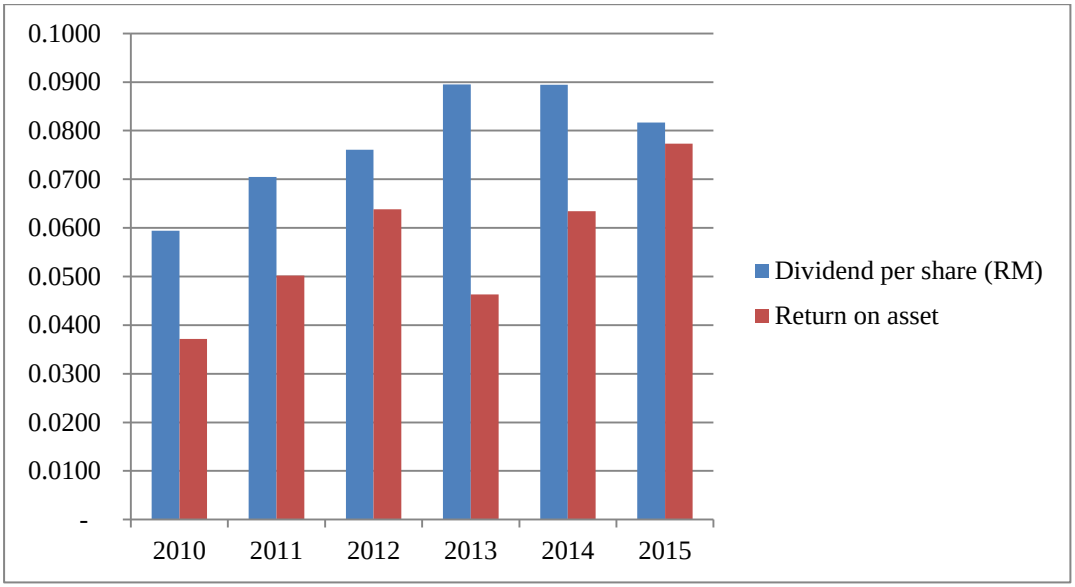
Figure 1.6: The relationship between dividend per share and debt to equity ratio of overall 17 M-REITs.



Source: M-REITs' annual reports

From the figure 1.6, the debt to equity ratio is on increasing trend as well as for the dividend per share paid by the 17 M-REITs from year 2010 to 2013. Besides, the dividend per share paid had decrease a small amount as the debt to equity ratio drop in year 2014. Therefore, dividend per share and debt to equity ratio has same relationship as dividend per share and debt ratio which is positively related.

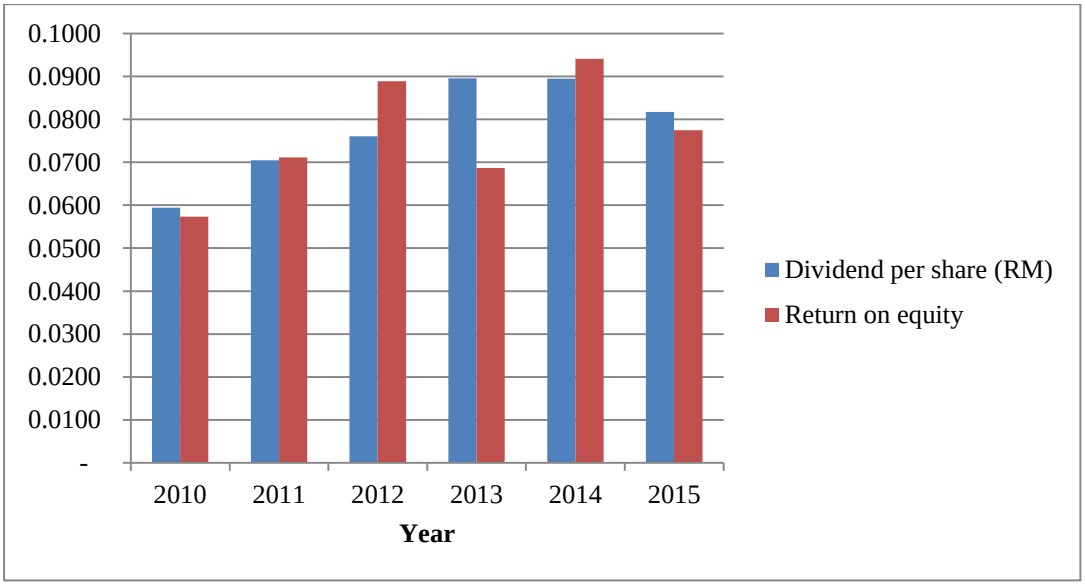
Figure 1.7: The relationship between dividend per share and return on asset of overall 17 M-REITs.



Source: M-REITs' annual reports

Figure 1.7 shows the return on assets is increasing from year 2010 to 2012 then had reduced in year 2013 and continually rise after year 2013. While in year 2013, the M-REITs still increase their dividend per share paid even the return on asset have a huge drop. It can be justified by Bradley, Capozza and Seguin, (1998), REITs are owning major assets in buildings, the depreciation expenses of these buildings lead to net income in their income statement reduced but it does not mean that REITs have no enough cash and cash equivalents to pay the dividend. M-REITs could also pay a high dividend as the low return on asset they have as long as they have enough cash and cash equivalent.

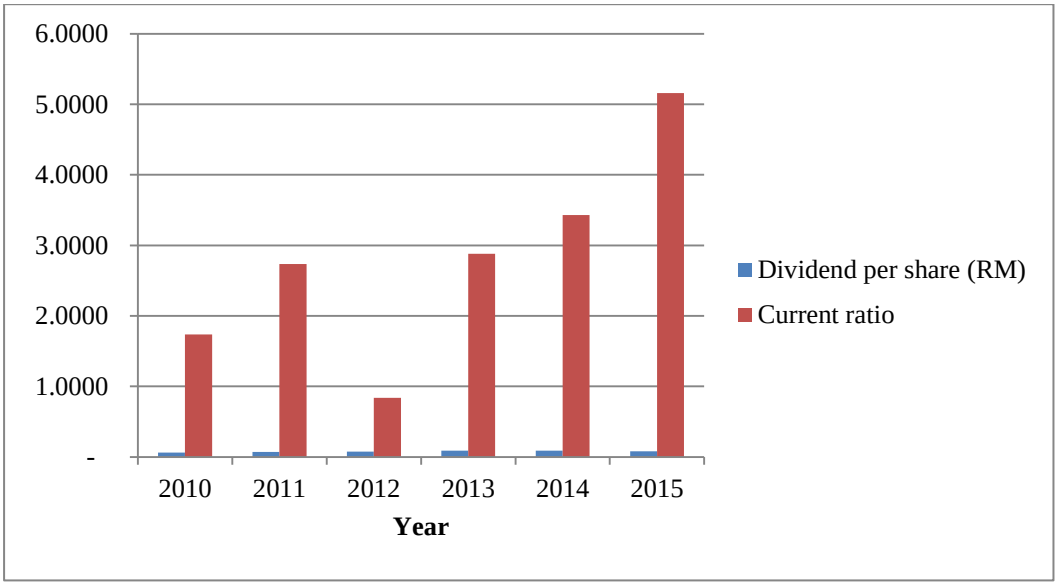
Figure 1.8: The relationship between dividend per share and return on equity of overall 17 M-REITs.



Source: M-REITs' annual reports

Figure 1.8 shows the return on equity for the average 17 M-REITs has a fluctuating trend from year 2010 to year 2015. However, the dividend paid by M-REITs will not be affected and still continually increased even the return on equity in reducing in year 2013. It is because the same reason that justified in figure 1.7, if M-REITs having enough cash and cash equivalent they still can increasing their dividend.

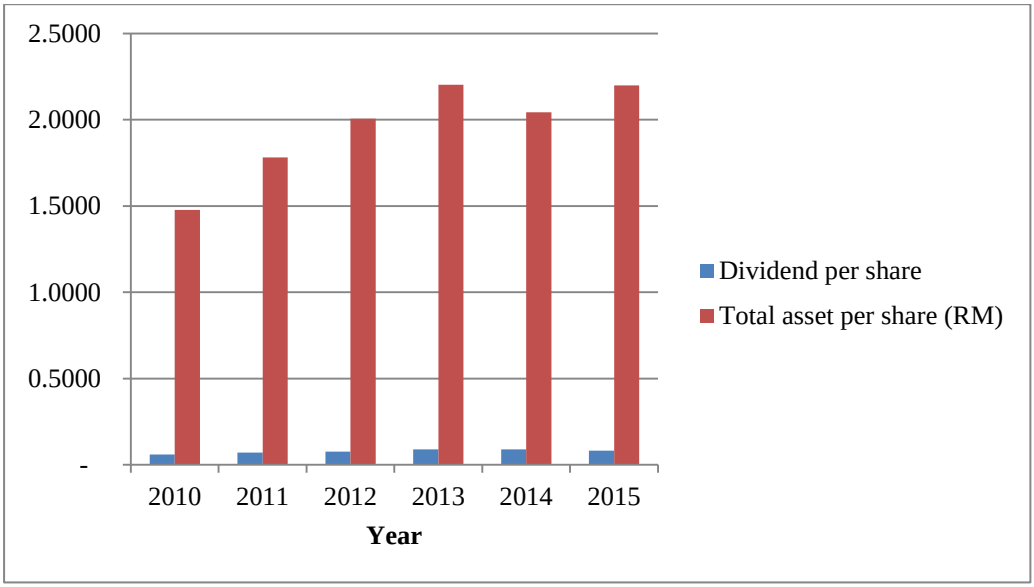
Figure 1.9: The relationship between dividend per share and current ratio of overall 17 M-REITs.



Source: M-REITs' annual reports

Figure 1.9 shows the average current ratio of 17 M-REITs increasing over the six years but only in between year 2012, it has a significant drop in its current ratio. However, the 17 M-REITs still increasing their dividend paid as the current ratio had huge reduced in year 2012. It is because REITs are mandated to pay 90% of taxable income to their shareholders (Ghosh & Sun, 2014). Therefore, although the current ratio reduces M-REITs still need to pay higher dividend if their net income increased.

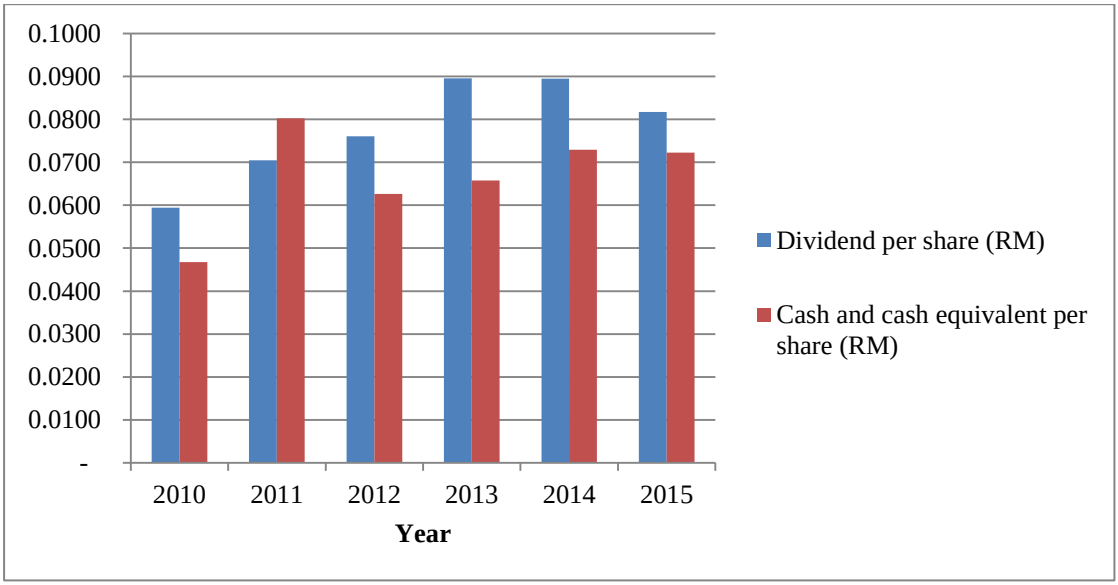
Figure 1.10: The relationship between dividend per share and total asset per share of overall 17 M-REITs.



Source: M-REITs' annual reports

The figure 1.10 shows that dividend per share paid by 17 M-REITs and the total assets per share that the M-REITs hold are positively related with each other. It is because the total dividend paid increase as more assets the M-REITs hold from year 2010 to year 2013 while the dividend paid reduced as the total asset reduced in year 2014.

Figure 1.11: The relationship between dividend per share and cash and cash equivalent per share of overall 17 M-REITs.



Source: M-REITs' annual reports

Figure 1.11 shows the cash and cash equivalent per share have fluctuating trend from year 2010 to 2015 with a double up amount in year 2011and reducing in little amount in year 2015. As compared to dividend per share paid by M-REITs, the dividend paid increase as the cash and cash equivalent increase or vice versa. However, the cash and cash equivalent per share reduced in year 2012 but the M-REITs still increase with only a little percentage in their dividend paid due to the rule of REITs should distribute at least 90% of net income as dividend. Therefore, M-REITs still can have increase in dividend with larger proportion from their net income even they have lesser cash and cash equivalent.

1.3 Research Objectives

1.3.1 General Objective

This study aims to examine the impact of financial leverage, profitability, liquidity, firm size, cash flow, and CEO working experience on the performance of M-REITs, which indicated by dividend per share in order to assess the worthiness of M-REITs.

1.3.2 Specific Objectives

There are 8 specific objectives in this study. This study aims:

i. To investigate the significance of debt ratio to dividend per share.
ii. To investigate the significance of debt-to-equity ratio to dividend per share.
iii. To investigate the significance of return on equity to dividend per share.
iv. To investigate the significance of return on assets and dividend per share.
v. To investigate the significance of liquidity to dividend per share.
vi. To investigate the significance of firm size to dividend per share.
vii. To investigate the significance of firm's cash and cash equivalent per share to dividend per share.
viii. To investigate the significance of CEO working experience to dividend per share.

1.4 Research Questions

The general research question of this study is: does the financial leverage, profitability, liquidity, firm size, liquidity, and CEO working experience are significant to dividend per share?

There are 8 specific research questions in this study. The questions are shown below:

i. Is debt ratio significant to dividend per share?
ii. Is debt-to-equity ratio significant to dividend per share?
iii. Is return on asset significant to dividend per share?
iv. Is return on equity significant to dividend per share?
v. Is liquidity significant to dividend per share?
vi. Is firm size significant to the dividend per share?
vii. Is cash and cash equivalent per share significant to dividend per share?
viii. Is CEO working experience significance to dividend per share?

1.5 Hypotheses of Study

1.5.1 Financial Leverage

1.5.1.1 Debt Ratio

Debt ratio is calculated by dividing the total debts with the total assets of the firm to determine the proportion of debts used by the

firm. Generally, firms with high debt ratio tend to have more burdens as higher interest needs to be paid. Hence, it reduces the cash flow of the company and subsequently lesser cash is available to declare dividend. Moreover, firms with higher debt ratio are exposed to higher interest rate risk. Thus, firms are required to have more cash available to diversify the risk and there are chances for the firms to forgo profitable investment opportunities.

H_0: The debt ratio is not significant in explaining dividend per share.

H_1: The debt ratio is significant in explaining dividend per share.

1.5.1.2 Debt-to-Equity Ratio

Debt-to-equity ratio is calculated by dividing the total debts by the firm's total shareholders' equity. The ratio is used to determine the value of stocks relative to its firm debts. Some firms use debt to finance their operation and potential growth. However, if the increasing debt is use for paying interest instead, it will increase the firm default risk and harm the investors. Hence, it is suspected that the increase of debt-to-equity ratio will have unfavorable effect to dividend.

H_0: The debt-to-equity ratio is not significant in explaining dividend per share.

H_1: The debt-to-equity ratio is significant in explaining dividend per share.

1.5.2 Profitability

1.5.2.1 Return on Asset Ratio (ROA)

Return on asset is calculated by dividing the net income by the total assets. It indicates how well the firm management utilizes their assets to generate return. Indirectly, a higher return on asset shows that the firm can allocate their resources efficiently for better performance. Hence, when the firm is able to use the assets to generate higher returns, it is more likely for the firm to distribute dividends as higher return generates more cash available.

H_0: The return on asset ratio is not significant in explaining dividend per share.

H_1: The return on asset ratio is significant in explaining dividend per share.

1.5.2.2 Return on Equity Ratio (ROE)

Return on equity is calculated by dividing the net income by the total shareholder's equity. When the return on equity increases, shareholders' values will increase as it indicates that the firm is able to generate more earnings through the use of shareholders 'equity. Hence, firm will be more likely to pay dividend to shareholders due to appreciation for their investment. There is positive relationship between return on equity and dividend.

H_0: The return on equity ratio is not significant in explaining dividend per share.

H_1: The return on equity ratio is significant in explaining dividend per share.

1.5.3 Liquidity

1.5.3.1 Current Ratio

A firm will distribute more dividends if they have high liquidity. A high liquidity indicates that firm has more cash on hand or more cash available for their business operation. In addition, higher liquidity enables firm to involve in more investment opportunities and expose to lower risks. Hence, higher liquidity makes the firm stocks stable and has higher chance to receive dividend. There is favorable relationship between liquidity and dividend.

H_0: The current ratio is not significant in explaining dividend per share.

H_1: The current asset ratio is significant in explaining dividend per share.

1.5.4 Firm size

1.5.4.1 Total Asset per Share

A firm with large firm size is more likely to distribute more dividend than small firm as larger firms tend to be more stable and they have more properties which allow them to generate net profit. Generally, small firms will choose to retain their earnings for growing purposes and use the funds available to invest in other investments to generate higher profits. As compared to large firms, small firms need to use more cash to increase their capital and labour to develop their business. Also, small firms need more cash to manage the potential risks such as default and liquidity risk. Hence, the larger the firm size, the higher the possibility the firm can distribute more dividend.

H_0: The total asset per share is not significant in explaining dividend per share.

H_1: The total asset per share is significant in explaining dividend per share.

1.5.5 Cash Flow

1.5.5.1 Cash and Cash Equivalent per Share

Generally, a firm with lesser cash on hand will not be able to distribute dividend due to liquidity and financial problems if so distributing. When a firm in a growing stage, there is less likely a dividend will be distributed as a company will have lesser cash on hand due to high investment opportunity the firm is exposed. In other words, lesser cash firms will not pay dividend. Therefore, more cash is used to invest in investment opportunity. Similarly, a larger or mature firm will have more cash on hand which allows the firm to distribute more dividend as they have reached mature business stage. In other words, larger firms will be able to distribute higher dividend as compared with smaller firms. Hence, there is a positive relationship between the cash and cash equivalent per share and dividend per share.

H_0: There is no relationship between cash and cash equivalent per share and dividend per share.

H_1: There is negative relationship between cash and cash equivalent per share and dividend per share.

1.5.6 CEO Working experiences

A CEO with many years of working experience can make a better decision for a firm as he or she has better understanding about the business environment and they are able to predict the possible outcomes for the particular decision. Besides, an experienced CEO will have more ideas on what strategies the firm should apply in order to achieve better performance. A better performance may increase the chance of firm declares dividend to shareholders. Hence, firms having experienced CEO tend to distribute dividend.

H_0: The CEO working experience is not significant in explaining dividend per share.

H_1: The CEO working experience is significant in explaining dividend per share.

1.6 Significance of study

1.6.1 Investors

The findings of this study will be a cornerstone for all potential investors and non-investing individuals by providing a deeper understanding and knowledge on nature and development of current M-REITs market as well as what M-REITs could offer as an investment instrument. Besides, this research would also provide useful information on the performance of M-

REITs by using dividend per share as an indicator in order to determine whether M-REITs are still worth to invest. Therefore, the main advantage from this study is for investors because they are able to make more accurate decision on their investments by having some ideas and knowledge about M-REITs from this study. From this study, investors could determine M-REITs are worthwhile investment to be included in their portfolios by investigating M-REITs companies' financial leverage, profitability, liquidity, firm sizes, cash flows, and CEO working experience to determine their performance which are indicated by dividend per share.

1.6.2 M-REITs companies

Moreover, this study also creates opportunity for M-REITs to provide optimal dividend per share by well managing their financial leverage, profitability, liquidity, firm sizes, cash flows, and CEO working experience as means of attracting more investors. For example, if liquidity level and cash and cash equivalents per share are found to be significant variables which highly affect the dividend per share for M-REITs in this study, they will strike to create optimal liquidity level and take advantage of any growth opportunity in order to improve the performance for their companies and aims to fascinate more investors.

1.6.3 Future researchers

Last but not least, this study could also provide some references and guidelines about continuous extension and expansion of every existing literature on this topic for future researchers and academicians who wish to continue investigate on any areas related to REITs. Future researchers may base on this research to add new or modify the independent variables for further study of this research area. For instance, they may use other accounting ratios as proxy for the independent variables or other dependent variables to measure the performance of M-REITs such as company stock prices and company growth rates.

1.7 Chapter Layout

1.7.1 Chapter 1

This study consists of five chapters and it is arranged accordingly with the contents that Chapter 1 is the introduction of this study. It presents an overview and background about the M-REITs. It also provides the trends of the dividend payout and also its determinants that used in this study. The research problem, research objectives, research questions and hypotheses are also included in this chapter. Lastly, the significance and contribution of this study to future researchers will also be discussed.

1.7.2 Chapter 2

Next, Chapter 2 will present the literature review where past relevant studies and researchers are applied to strengthen this study. Review of each variables, theoretical framework, and hypotheses development are further discussed in the particular chapter. A chart framework for every variable is also introduced to show a clearer picture on the relationships between the determinant variables and also the dependent variable.

1.7.3 Chapter 3

In addition, the following Chapter 3 will show the research methodology and will be introduced in doing this study. Furthermore, the ways to collect the data, sample, time period and also the model that are used to examine the effect of dividend per share will be discussed in the chapter. It will also state the proxies and expected sign for each determinant variable to the dividend per share.

1.7.4 Chapter 4

Then, the Chapter 4 will display the empirical analysis result such as the descriptive statistics and the interpretation for the analysis. A few tests will be conducted to examine the relationship and significance for each explanatory variable by using the hypotheses stated in Chapter 1.

1.7.5 Chapter 5

Lastly, Chapter 5 would be the conclusion and policy implication for this study. Limitations and recommendations of the study for future researchers will also be discussed detailed in the Chapter. Moreover, this chapter is also to summarize the findings from Chapter 4 and see whether it is consistent with previous study and also the hypotheses.

1.8 Conclusion

M-REITs are basically becoming popular after Security Commission commenced new regulation of REIT industry on August 2005, which is very much beneficial for M-REITs. In line with the life-cycle theory, with the growing performance of property market five years ago since 2009 to beginning of 2014, together with the downtrend in property market due to high inflation of properties price, M-REITs will be greatly affected if the incident in 2008 happened again in future. To indicate and conclude the result, internal factors are generally used in this study instead of working in the same way by using external economic factors as in other studies examining in M-REITs.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This literature review summarizes and discusses the result of other researches that relate to the following components. The review of the dependent variable; the independent variables and their proxy variables will be discussed first. Then the theoretical framework and the hypothesis development will be reviewed from the study of related studies.

2.1 Dependent Variable - Dividend per Share

Dividend is the cash distribution of the company's earnings to their existing shareholders in accordance to the proportion of shares being held (Ehsan, Khalid and Akhtar, 2014). Contrary to popular belief that dividend payment is a form of return to investors, dividend payment to shareholders leads to unfavorable effects to the company performance (Hossain, Rashel, & Akhtaruzzaman, 2013). Some studies including Hossain et al. (2013), Brounen, Mahieu, and Veld (2013), Vermeulen and Smit (2011), Jabbouri (2016), Vaidean and Moza (2015) and Edgerton (2010) stated that dividend payment affects several financial aspects of the dividend-distributing company, that includes firm leverage, retained earnings of company for future investment opportunities, market value of company, available cash balances, uncertainties of future firm cash flows and etc. According to Ehsan et al. (2014), although numerous studies have refuted that the declaration of dividend are perceived as a positive signal to the financial growth; contradictly

dividend payment is also a bad signal to financial growth that can cause financial distress. For instance, Jabbouri (2016) investigated the main determinants of dividend policy of emerging markets in Middle East and North Africa from year 2004 to 2013 and eventually found negative relationship between the future growth of company and the company's dividend policy.

Based on the positive perspective, investors generally wish to receive dividend as a return from their investment in a company. According to Vermeulen and Smit (2011), an empirical research has been done in United States saying that companies with high dividend declaration generally report higher future growth of earning. Furthermore, Ghosh and Sun (2013) had also concluded that dividend distribution will improve the information transmission, reduce agency costs and thus increasing the firm value by increasing the investors' confidence. This positive perspective has also been supported by studies done in the United States and Singapore by Arnott and Asness (2003) and Lee (2010), respectively. Similarly, a positive correlation between dividend payout and future earnings in both countries is concluded by these studies.

Furthermore, the dividend payment also reflects the financial position of a company in terms of capital strength, which is valuable information to potential investors (Vermeulen & Smit, 2011). The authors added, companies that pay dividend are more likely to have a sound and better financial position thus enabling them to pay high dividend without facing short term cash flow problems. Since dividend is the return of investment to shareholders, according to Gordon (1959), investors are assumed to be risk adverse. Therefore, in high risk situation, investors expect higher returns. Investors prefer to have sustainable and secured returns than that of uncertain returns because a decrease in dividend payment may indicate to the investors that the invested company is not performing well and is suffering from a reduction in earnings which could affect their return on investment (Lintner, 1956).

Unlike companies in other industries, Real Estate Investment Trusts (REITs) are mandated to pay 90% of their taxable income to their shareholders in order to maintain the status of "REIT" (Ghosh & Sun, 2014). In fact, some REITs are even paying more than 100% of their taxable income which might indirectly indicate that the internal financing of company is greatly reduced. However, according to agency theory, the payment of high dividend by REITs reflects positively in terms of agency costs and the cost of external financing. Higher agency costs arise when there are agency conflicts and lack of transparency; this will then lead to shareholders demanding higher return and therefore higher agency costs (Khurana, Pereira & Martin, 2006). Since REIT companies have been paying at least 90% or at an average of 150% of their taxable profit as dividend (Ghosh & Sun, 2014), according to Wang, Erickson and Gau (1993), consistent evidence has been found in this study, that the cost of agency will be reduced when high dividend is paid. Moreover, based on study Wang et al. (1993) in REIT industry concludes that high dividend payment are used by shareholders to monitor and decide investment decision in capital markets and therefore are preferred by shareholders.

Hence, dividend per share is the dependent variable of this study to evaluate the worthiness of investing in real estate listed companies as the REIT industry provides regular investment return to investors. This is further supported by Vermeulen and Smit (2011) in which the authors targeted sample firms in South Africa and concluded that dividend payment should be taken into consideration when evaluating the growth prospects of companies. In addition to the supporting statement by Vermeulen and Smit (2011), Ghosh and Sun (2014) conducted a relevant research in the U.S real estate industry in which the authors investigated the relationship between the dividend payment and the growth of REIT industry and concluded a positive relationship between dividend payment and growth in the industry. That is, high dividend payment is associated with high growth in REIT industry. Kania and Bacon (2005) suggested that dividend payment serves as the indicator in determining the present and future performance of the firm. The authors further mentioned that the consistency and stability in dividend payment is important to companies because the increment and reduction in the amount of

dividend is generally associated with the uncertainties of investors' prediction about the company's dividend payment and thus, it will eventually lead to poor market valuation. A study by Garba (2014) on the relationship of dividend per share and stock returns in 10 publicly traded manufacturing firms listed in Nigerian Stock Exchange has its similarities with this study. Garba (2014) opted that the actual dividend per share as the independent variable that was extracted and calculated from annual reports and official income statements of the sample manufacturing firms.

2.2 Explanatory Variables

2.2.1 Financial Leverage

Financial leverage plays a vital role in financing an organization, and especially so for the real estate industry, particularly those that are publicly listed. By being a public listed company, the company is expected, although not mandated, to pay dividend to its shareholders, the owners of the company, as dividend payment is associated with the compensation for investors' investment. Hence, two hypotheses are to be developed relevant to the relationship between company's leverage and dividend payment in the form of ratio analysis.

Financial leverage is the point where a company utilizes their borrowed money (Gill & Mathur, 2011). Financial leverage can also be defined as financing a company's assets with securities holding a fixed rate of return, aligning the outmost return to shareholders (Peacock, Martin, Burrow, Petty, Keown, Scott Jr, Martin, 2003). Firms would rather pay interest rate

as it is tax deductible, which will increase the amount of debts henceforth decreasing equity. Contradictory, a unfavourable (low) equity or, in other words, high level of debt, also suggests that the firm would rather go bankrupt than to fulfil their debt obligations. Therefore, Ozdagli (2009) concluded that the firm should set a debt limit to secure the equity market value and bankruptcy is out. Afza and Mirza (2010) verified this statement as failure to fulfil its principal and interest payment will liquidate the firm. Hence, to avoid liquidation, a healthy cash flow is vital and this negatively affects the dividend per share.

Previous studies have shown both positive and negative arguments regarding the relationship between financial leverage and firms' performance. This has also been supported by Pandey (2006) in which financial leverage serves either good or bad towards a company's performance. Results from studies by Berger and Bonaccorsi (2006); Hadlock and James (2002); Roden and Lewellen (1995) showed a positive relationship between financial leverage and firm performance while other studies showed an adverse relationship between the two factors (Simerly & Li, 2000; Zeitun & Tian, 2007; Mule & Mukras, 2015). As mentioned above, since dividend payment reflects a company's performance, more specific results regarding leverage and dividend payout were conducted.

From a layman's perspective, a higher leverage indicates a seemingly negative relationship with dividend payment. However, a study by Myers and Frank (2004) concluded that leverage and dividend has a positive relationship. Based on the study by Myers and Frank (2004), a sample of 483 investment companies from Multex Investor Database was analyzed. The authors found positive relationship between the two variables because debt-to-equity ratio and dividend payout magnify the company's reputation and also to sustain seizure in the capital market. This study is also supported by Abor (2005) which also recorded a positive dividend-

leverage relationship of public firms in Ghana. That is, by using debts to fund dividend payments, proves the firm has a respectable reputation with a large access to capital as compared to the competitors. Arguably, leverage is negatively related to dividend payout, as proven in many other previous researches compared to very little stating a positive relationship.

Numerous other researchers refute the conclusion made by Abor (2005) and Myers and Frank (2004). A research by Afza and Mirza (2010) regarding influences of dividend policy in 100 listed firms in Pakistan concluded that comparatively, heavily leveraged large firms are more hesitant to declare dividend payments than slightly leveraged firms. Firms with high leverage have to decrease their transaction costs to avoid inevitable risks (Zhang & Jia, 2014). Payments of dividends require the firm to issue securities or borrow loans from the capital markets to obtain more funds. On top of that, floatation costs will be incurred (Barclay, Smith & Watts, 1995). Firms that borrow funds from the public or financial institutions are burdened with the obligation to interest charges and repayment of principals; hence, dividend payment is the second priority after the legal obligation of debts (Vo & Nguyen, 2014). In fact, the result from this empirical study also recorded a negative relationship with dividend payments.

2.2.1.1 Proxy -Debt Ratio

Jin, Yang and Yin (2015) conducted a study on optimal dividend payment for insurance companies using debt ratio. The objective of this study was to ascertain the precise dividend payment until financing is not readily available anymore. A study on debt ratio on the effect of financial leverage on operating liquidity was also

conducted in India by Goel, Chadha and Sharma (2015). Here, they sampled 151 machinery firms. The result from this study showed a significant relationship between the ratio and operating performance. Since dividend payment is highly correlated with operating liquidity, debt ratio is suitable for our study regarding dividend payment for REITs in Malaysia. Furthermore, Gill and Mathur (2011) researched the specific and individualistic determinants of financial leverage in Canadian firms using debt ratio. In fact, a high debt ratio is an indicator for negative net present value, which can warn the firm to not invest in the underlying asset, as asset is a component of debt ratio. (Mule & Mukras, 2015)

2.2.1.2 Proxy – Debt-to-Equity Ratio

Zhang and Jia (2014) tested the leverage and dividend declaration of Hong Kong public listed firms using the debt-to-equity ratio, emphasizing that costs from issuance of shares will reduce dividend payment. Javed (2012) on his research regarding dividend payment and financial leverage of firms in Pakistan stated that one of the ways to measure a firm's leverage is by implementing the debt-to-equity ratio. From his study, it was concluded that the firms have too much debts, which prohibits dividend payment. Gupta and Gupta (2014) conducted a study on the influences of capital structure in Indian construction companies using the debt-to-equity ratio as one of the explanatory variable, fully stressing on that debts compromises long term loans and debentures while equity comprises of paid-up capital, reserves, premium shares and positive retained earnings.

2.2.2 Profitability

Profitability is a crucial indicator of a firm's capability to pay dividends. The dividend payment pattern of a firm depends on current year's earning and previous year's dividend, thus the higher the profit the firm earns, and there is a chance for higher dividend payout (Ahmed, 2009; Amidu & Abor, 2006).

Khan and Ashraf (2014) examined that the firms with more stable earnings will pay out a higher proportion of its earnings as dividend as compared to the firms with variable earnings. In order to measure the profitability, return on shareholder's equity (ROE) and the return on asset (ROA) are often used as the proxy variables (Gupta & Banga, 2010).

2.2.2.1 Proxy - Return on Assets (ROA)

Return on assets (ROA) is an asset utilization ratio that indicates how effectively or efficiently a firm uses its assets to generate profit (Liow, 2010). It is formulated by the net profit after tax and preference dividend divided by total assets of the firm.

Alam and Hossain (2012) has examined the influence of profitability on the dividend rate in the UK and Bangladesh based enterprises which are listed in London Stock Exchange by using correlation analysis and multiple linear regression analysis. It shows a different result of return on assets. It positively affects the

dividend payout in UK based enterprises while negatively affects dividend payout in Bangladesh based enterprises.

Mehta (2012) studied the determinants of the dividend payout for 149 UAE firms in all areas except for bank and investment sector whereas Ahmed (2015) has studied the impact of profitability on dividend payout ratio in the 18 national bank in UAE. Both researchers use the same methodology of correlation analysis and multiple linear regression analysis and both focuses on UAE firms. Both have the similar result of negative impacts but insignificant relationship between return on assets and dividend payout.

A study conducted by Moradi, Salehi, and Honarmand (2010) in Iran stated that there is a positive and significant relationship between return on asset and dividend distribution percentage. The author examined the effects of dividend in relation to profitability which measure by its proxy of return on assets of 73 listed corporations in Tehran Stock exchange over the period of 2000 and 2008 by using multiple regression model. Banerjee and De (2015) also concluded with the same result of return on assets having a positive influence on payout ratio of the firms which belongs to BSE500 in India during the pre- and post- period of recession but using different methodology of binary logistic regression. The dependent variable is dividend performance of a firm which can be "Good" or "Poor" which is dependent on the dividend per share.

Ooi (2001) examined the dividend policy characteristic of U.K. property companies listed on London Stock Exchange and the author seeks to identify the determinants of dividend payouts over the period of 1986 and 1998 by using classical least squares (OLS)

model. The result showed the dividend payout of real estate firms positively but not statistically significant to its future profitability level which is measured by its proxy of return on assets. This suggested that there is still a weak relationship if proxy substituted by contemporaneous profitability level because management's expectations are more critical on uncertainty of future cash flows rather than the level of expected earnings when real estate corporations decide on their dividend payout.

2.2.2.2 Proxy - Return on Equity (ROE)

The earnings generated by the company can measure the firm performance in terms of return on equity (ROE). Moreover, dividends serve as an indicator for shareholders by reflecting present and predicting future earnings that the firm can or may generate. The healthier and more consistent the dividend payouts that reflects stability and growth, indicates that the firms are generating real and sustainable earnings rather than portraying an attractive financial statement. Return on equity is formulated by the net profit after tax and preference dividend divided by total shareholders' equity. The ROE also indicates the profitability of investment from the perspectives of shareholders (Liow, 2010).

Controversies exist among many studies and researches in which they have conducted empirical research on the relationship between dividend payment and the return on equity of firms. Mehta (2012) has studied the determinants of the dividend payout for sample size of 149 UAE firms in areas of real estate, energy sector,

construction sector, telecommunication sector as well as healthcare and industrial sector which are listed on the Abu Dhabi Stock exchange by using correlation and backward multiple linear regressions models. The study concluded that return on equity has significant and negative relationship with dividend payout. When firms want to increase its future earnings, retain earnings are the only sources for further investments. Hence, the profitable and growing firms will reduce the dividend payout in order to have more future earning from other investment. Besides, Kania and Bacon (2005) examined the impact of profitability on dividend decision of a corporation by analyzing financial data of over 10,000 publicly traded firms by using Ordinary Least Square method. The result maintained that the higher the return on equity, that is used to measure the profitability, the greater the firms' retained earning use for reinvestment lead to the lower the dividend payout.

Ahmed (2015) has studied the impact of profitability on dividend payout ratio in the 18 national bank in UAE by using correlation analysis and multiple linear regression analysis to run the research hypothesis. However, the result of regression model showed the return on equity is negatively but insignificantly correlated with dividend payout ratio by explaining that the reliance of UAE banks on profits to finance their continuous expansion. It is supported by his previous study mentioning that the firms that do not pay dividend not necessarily indicate that they are operating without profit but they use it for growth opportunity by reinvesting into the businesses instead of investment opportunity available to shareholders. But the firms' successful growth of the earnings would be a pay-off for the shareholders by higher share prices (Ahmed, 2013).

Rafique (2012) concluded with the same result of insignificant relationship between return on equity and dividend payout from 53 listed non-financial firms in the Karachi Stock exchange by using the correlation analysis and multiple linear regression analysis. However, Malik, Gul, Khan, Rehman, and Khan (2013) also studied the determinants of dividend payout of 100 financial or nonfinancial firms listed on Karachi Stock exchange by using the same methodology but having different result of return on equity as it positively and significantly affects the probability of paying dividend. Waswa, Ndede, and Jagongo (2014) analyzed the determinants of dividend payout of Kenya Agricultural sector and examined the effects of the firm's profitability on dividend payout of seven agricultural firms listed on Nairobi Security Exchange. The result agreed that return on equity has a positive and significant effect on dividend in Kenya agricultural sector. Thus, government should support more on agricultural firms in order to distribute more dividends to shareholders (farmers).

2.2.3 Liquidity

Liquidity is one of the significant determinants that have positive impact on dividend payout policy (Mehta, 2012; Botoc & Pirtea, 2014; Ahmed, 2014; Okpara, 2010; Kania & Bacon, 2005). It is a very important aspect to a firm as it measures how quickly a firm can convert its assets into cash when it needed to repay its debt and to meet its obligations. Liquidity can be measured by current ratio and quick ratio (also known as acid-test ratio) to apply in liquidity management. According to Ahmed (2014), liquidity dividends are referring to the available funds that can be used as payment for cash dividends to shareholders in the short-term period.

Managers or directors of a firm will need to decide whether to pay dividend or they do not. If they decide to pay cash dividend, the amount of dividend is also depending on the availability of their cash-in-hand; if they choose not to pay dividend, they will use the available cash for a more profitable investment. According to Ross, Westerfield, and Jordan (2015), they stated that firms that are young and less profitable will tend to pay low cash dividend due to low level of liquidity. Younger firms may utilize their available cash for profitable investment to expand their business. They further stated that firms will start to generate more cash flows beyond that needed for investment as they come to mature stage. Then these firms must distribute the cash surplus as dividends to avoid agency problems.

2.2.3.1 Proxy - Current Ratio

In this research, current ratio is used as the measurement for the liquidity of firms. Current ratio is computed by using total current assets divided by the total current liabilities of the firm. By using this ratio, it helps to determine how many percent that the firm can cover its current liabilities with the available cash (current asset) to its shareholders. Therefore, it is expected that the higher the liquidity, the more likely that the firm will able to pay dividend and this is supported by Botoc and Pirtea (2014); Ahmed (2015). A lower liquidity means the firm will pay lesser dividend due to shortage of cash (Vaidean & Moza, 2015). In short, the liquidity position of a firm strengthens its ability to pay dividend. Furthermore, Malik et. al. (2013) examine the determinants of dividend policy of 100 financial and non-financial firms listed on Karachi stock Exchange over the period 2007 to 2009 supports this same result that a high current ratio has positive impact on

dividend paid. However, Metha (2012) had conducted a study of examining the determinations of dividend payout for 149 firms except bank and investment sectors which are listed on the Abu Dhabi Stock exchange from 2005 to 2009. Its' result show that liquidity measured by current ratio was insignificant in influencing the dividend payout.

2.2.4 Firm Size

There are many researches stated that firm's size plays a significant role in dividend policy of Malaysian property firms that lead to an upward trend up till the property market burst in 1997 (Ameer, 2015). Lee (1997) studied the model of how investors choose which stocks to be invest based on dividend payment and also the decision of whether to declare dividends can be affected by firm size. Many financial analysts empirically proved and explained the positive association between the level of dividends and the size of the company. In addition, most of the financial analysts claimed that large firms are more likely to distribute dividends as compared to small firms, based on the life-cycle models (Kouser, Luqman, Yaseen, & Azeem, 2015). These were further emphasized by other researchers such as Gentry, Kemsley, and Mayer (2003), Ameer (2015), Sahin and Nasseh (2013) and Lee (1997) concluded the same result; large firms possess higher possibility to pay out dividends with different explanations and evidences.

From the research, it had both significant results from statistical and economic viewpoints. In addition, the researcher also found that the cross section of dividend policy can be found from many firms in various types of industry as it matches the preferences of most shareholders. It means

that, the fraction of firms decides to declare dividend is equivalent to the fraction of shareholders wishing to receive dividends and thus reaching an equilibrium of demand and supply of the portfolio and resulting in a lower cost of equity capital. Conclusively, there is a positive relationship between the firm size and the dividend per share.

Moreover, Hossain et. al. (2013) studied the impact of firm specific factors on cash dividend and discussed various countries will have different determinants to affect the firm's dividend payout especially firm size which is one of the crucial factors. Researchers claimed that large firms have reached a stable performance and lower growth expansion for the business opportunity as firms fully utilized the resources. Hence, stable performance brings less volatile of cash flow and sustainable earnings and makes the firms declare dividend more likely to happen.

Furthermore, paying high dividend from large firms can avoid some issues such as jeopardizing the firm’s potential sizeable earnings from the perquisites of investments (Hossain et. al., 2013). Meanwhile, large firms will provide more information to public in order to finance capital structure as compared to small firms. Furthermore, Sahin and Nasseh (2013) examined the consequences of dividend payment on Real Estate Investment Trusts by mentioned that dividend payment can solve the issues of agency problem as the institutional ownership will reduce with greater insider ownership when the firms’ sizes increases which valued by total revenue. Thus, real estate firms will pay dividend to compensate the shareholders and enhance their preferences. Thus, there is positive relationship between the firm size and the dividend per share of a firm. However, Sing (2004) investigated whether there is relationship between dividend policies of Real Estate Investment Trusts adopted by US firms and previous researchers and suggested that there is negative association of firm dividend and its firm size.

2.2.4.1 Proxy - Total Asset per Share

Total assets have been used as proxy for firm size for many past researches in the field of business and finance (Barbara & Marquardt, 2004; Al-Khazali & Zoubi, 2005). As firm size broadly defines a firm's characteristics and in empirical studies regarding sizes of a firm, total asset is a popular proxy (Dang & Li, 2015). There are numerous other measures for firm size like market capitalization, number of workforce, and total sales that has played its role in signifying firm size, but total assets serve a clearer picture. As assets are acquired and bought for the production or daily business activities, a higher total asset exposits a healthy income statement and cash flows. To further emphasize, in a study of choosing accounting approaches, Shehata (1991) applied total assets in explaining firm size. The value derived is then used to evaluate research and development charges. Similarly, Salamon and Dhaliwal (1980) tested for the correlation among financial disclosure with firm size, proxied by total asset. In other words, a mature or larger firm will be able to distribute more dividends as compared with smaller firms because larger firms are able to generate higher profits with their higher total assets.

2.2.5 Cash Flows

According to Jensen (1986), cash and cash equivalents can be defined as the cash flows after deduction of all monetary funds required by positive net present value projects held by a particular firm. The basic argument of agency cost theory, primarily created by Jensen (1986), stated that

shareholders generally prefer receiving high cash dividend or high dividend payout rather than letting company holding more cash. The reason being is because managers of a company may not be fully acting in the best interest of shareholders. With the excess cash held by a company, it may lead to overinvestment problem from which managers tend to invest in negative net present value projects and eventually leading to decrease in the shareholders' wealth; this is also known as conflict of interest between shareholders and manager (Jabbouri, 2016).

In addition, Jensen (1986) stated that payouts to shareholders reduce the financial resources under the control of managers and hence they would be indirectly compelled to manage company's structure when new capital is needed to be raised for funding new profitable projects. Generally, company with different stage in term of growth will have different usage of their cash flows (Duong, Le & Niem, 2014; Jensen, 1986; Subramaniam, Shaiban & Suppiah, 2014; Vermeulen & Smit, 2011).

2.2.5.1 Proxy- Cash and Cash Equivalent per Share

Firms in a growing stage tend to pay low dividend due to lower cash and cash equivalent being held in the firm as a result of strong investment opportunities or high growth opportunities these firms have (Duong et. al., 2014; Jabbouri, 2016; Hossain et. al., 2013; Bradley et. al., 1998). In other words, this indicates that there is positive relationship between cash and cash equivalent and dividend payout. This viewpoint is also empirically supported by Jensen (1986), Alonso, Iturriaga and Sanz (2005), Chiou, Chen and Huang (2010) and Jabbouri (2016) saying that growing firms tend to hold cash for the purpose of supporting investment opportunities.

The author added, it would be expensive if growing firms are to raise funds through external financing due to high degree of information asymmetry surrounding of these firms.

In contrast, firms in mature stage with a stable profitable income or low-growth firms tend to pay high dividend for shareholders for the purpose of overcoming the cash and cash equivalent problem which may possibly lead to overinvestment problem or investment in inefficient projects (Vermeulen & Smit, 2011). Overcoming cash and cash equivalent problem is meant to reduce the wasteful expenditures of managers while the company is holding more cash, in case where the interest of manager and shareholders is conflicted (Hossain et. al., 2013). Therefore, higher cash and cash equivalents a company has will indicate that higher dividends will be distributed. There is hence a positive relationship between cash and cash equivalent per share and dividend per share.

Real Estate Investment Trusts (REITs) are indifferent from the conventional companies listed in Bursa Malaysia. In Malaysia, according to Mokhtar and Masih (2014) and Olanrele et. al. (2014), M-REIT are mandated to distribute at least 90% of their net income as dividend to shareholders in order to be exempted from paying 28% corporate income tax charged by Malaysian government (Mokhtar & Masih, 2014; Olanrele et. al. 2014). In the case where M-REITs are having lesser expected cash flow volatility (lesser leverage), this type of REITs tend to pay higher dividend per share. That is, the effect of 90% restriction on the dividend payout is less impacted than it appears. Because these REITs own major assets in buildings, the depreciation expenses of these buildings – non-cash items on their income statement enable them to have higher cash and cash equivalents (Bradley et. al., 1998). According to Bradley

et al. (1998), in the case where a REIT is having large leverage, this type of company tends to pay lower dividend due to the payment of interest for the leveraged amount which eventually decreases the net income.

In line with the above studies, many studies discussed above have also shown that there is a positive relationship between dividend per share and cash and cash equivalents per share (Duong et. al., 2014; (Jabbouri, 2016; Hossain et. al., 2013; Bradley et. al., 1998).

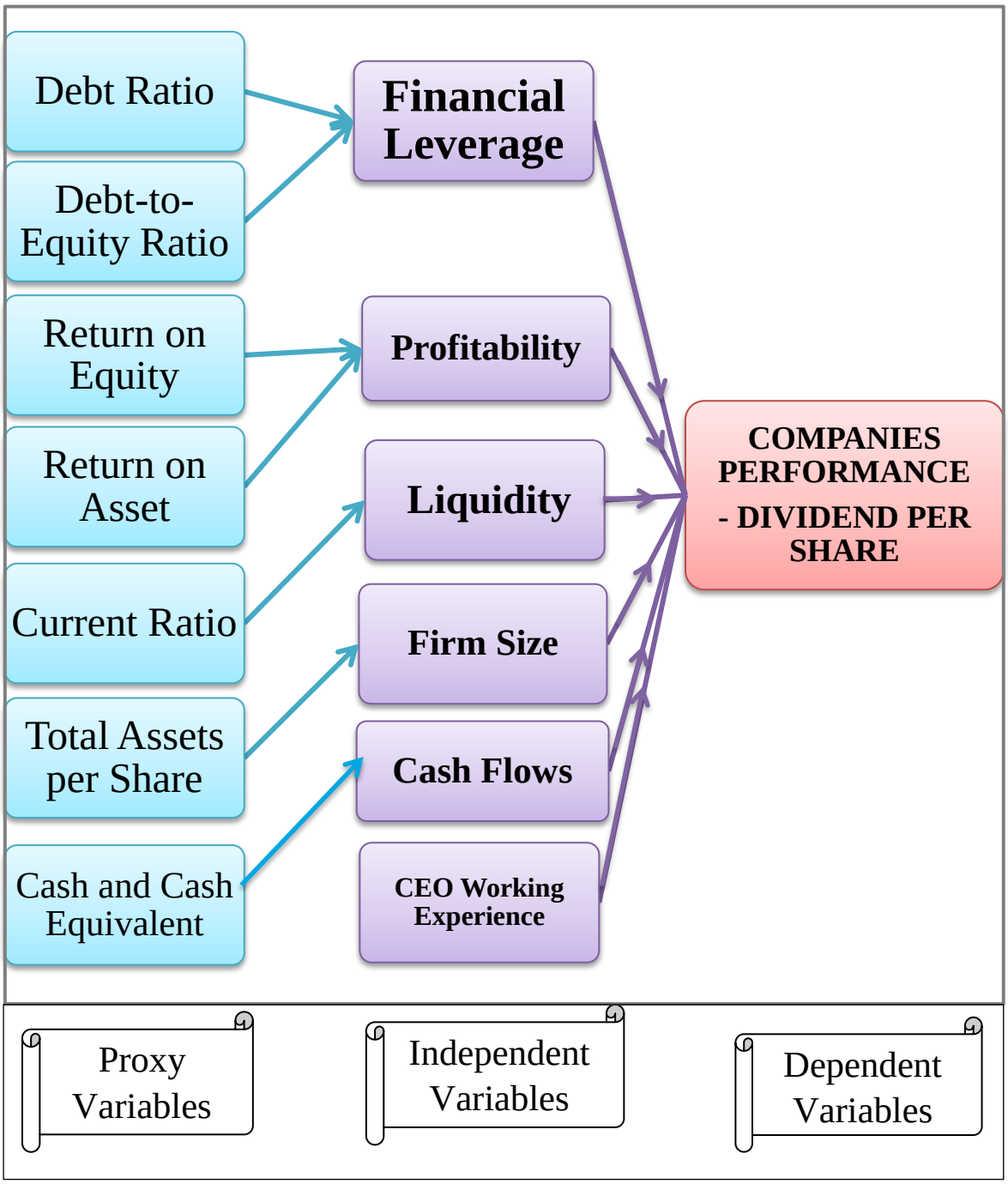
2.2.6 Dummy Variable – CEO Working Experience

Chief Executive Officer (CEO) is a top manager in a company; according to Jiang, Zhu and Huang (2013) and Custodio and Metzger (2013), the past working experience of CEO is important and is having some influences on the strategic choices of firm. Talking about the strategic choices, in the earlier study by Dearborn and Simon (1958), different CEOs from different functional areas with different working experience will solve and choose the method for problems according to their perception relating to the goal and tasks in their respective functional areas. Therefore, the working experience they have is vital in deciding the solution of problems they are facing. According to Matsunaga and Yeung (2008), they investigate whether the quality of a firm's financial reporting and disclosure policies are associated with the financial experience of a company's CEO. They used 2004 data from ExecuComp database and concluded that CEOs having financial experience than those without provide a more precise and qualified financial information disclosure.

In addition, Cimerova (2012) provided a stronger and reliable study by making hypothesis that the younger CEOs are more likely to take higher risk than those experienced CEOs. That is, in other words, companies with a younger CEO tend to have higher growth, inconsistency of performance and financial leverage. In contrast, companies with experienced CEO tend to have a more conservative strategy by taking lesser risks (Cimerova, 2012). Finding of Ting, Azizan and Kweh (2015) is in line with Cimerova (2012). Ting et al. (2015) investigated the financial leverage decision of companies by taking data of 793 listed companies in Bursa Malaysia. Subsequently, the authors concluded that the CEO previous working experience is significant and has a negative relationship with the leverage of companies but positive relationship with dividend they paid. That is, the longer the working experiences of CEOs, the lower the leverage of the companies mean lesser interest need to paid. Thus, more dividend the firms can paid.

Furthermore, Cimerova (2012) empirically concluded with their study by saying that the influence of working experience compared to education level is much more significant on the company performance, organizational strategy and investment and financing policies of companies. Therefore, an experienced CEO seems better to maintain a long term optimal performance of company. What can be indirectly linked with the performance of companies is the dividend payout for investors. That is, with an experienced CEO, it seems that the dividend payments to investors are more regular and continuous.

Figure 2.1: Framework of all the variables



Source: Developed from the research

2.3 Theoretical Framework

This section will discuss the related theories that introduced by previous researchers for each and every variable in this study.

2.3.1 Modigliani and Miller Theory

Miller and Modigliani (1958) is a very popular theory in dividend policy. According to Sing (2004), Ameer (2015), Brounen et. al., (2013) and Kouser et al. (2015) based on the review of Modigliani and Miller theory, the dividend policy of the firm is irrelevant to the firm value in the assumption of no taxes, no transaction costs, and no information asymmetry between the shareholders and managers. Besides that, most of the researchers concluded that there is irrelevant proposition which means it does not matter on how the firms manage their earnings according to retained earnings and dividend distribution to investors in a perfect market. In addition, Kouser et al. (2015) suggested that all participants in the market are price takers and available to access equal information. Kouser et al. (2015) mentioned that firms' cost of capital will not be affected by the dividend policy unless there are changes in financial or management decisions and subsequently affects the firms' performance. However, Brounen et. al., (2013) found that there are few imperfections for Miller and Modigliani (1961) which included taxes, asymmetric information, incomplete contracts, institutional constraints, and transaction costs. According to Mburu (2013), this theory mentioned that both dividend payment and capital gains are equivalent in the investors' viewpoint and thus the value of firm is depending on firms' earnings. Since there is no difference between capital gain and dividend payment, M&M theory holds

that investors will only rely on firm earnings to make decision for an investment.

2.3.2 Bird in the Hand Theory

Once again, this theory refutes the MM theory. The MM theory is highly debatable as the bird in the hand theory objects one of MM's theory, that is, dividend payment has no effect on firm value (Afza & Mirza, 2010). Black (1976) opposed by saying dividend payment reflects the firm value greatly. In addition, Thirumagal, Vasantha and Suresh (2015) and Ahmed and Javid (2008), based on the findings by Gordon and Walter (1985), stated that investors would rather receive dividends now than capital gain in the future due to minimizing risk, which is the core of this theory. Furthermore, Rafique (2012) says that investors are more certain to receive dividends than to wait for an uncertain dividend payment. Hence, for the REITs companies in Malaysia, if the firm adheres with this theory, they should declare dividend despite operating on a loss or profit, to keep the shareholder's good perception towards the company at hand.

2.3.3 Financial Distress Theory

The term of Financial Distress Theory has once been mentioned in Ehsan, et. al. (2014). The authors formed the term based on the empirical result found by Alonso et. al. (2005) in which the authors argued companies facing financial problems or constraints tend to reduce or eliminate the dividend payments to shareholders. The reason being is due to the prior

payment to the obligations of debts before distribution of dividend to shareholders. That is, obligations of leverage are having a priority compared to dividend payment. Ehsan et al. (2014) has also explained in another way where the companies facing financial distress cut the dividend payment so that they have enough financial resources for positive net present value investments. In relation to the financial distress problem, it would be common to see in growth oriented companies, especially those with financial issues. They do not and have never paid dividend until they reach mature business stage because the distribution of dividend to shareholders will significantly affect their profitable investment projects.

2.3.4 Signaling Theory

According to Ameer (2015), managers are not allowed to pass insider news to public that will be resulting public or investors to have imperfect information regarding the firms' value. Hence, dividend policy is one of the signals to reflect firms expected cash flow and its value. Brounen et. al., (2013) and Sing (2004), have further supported that dividend policy reflects the firm current conditions and capacity as it provides insider information about the firm prospects and hence reducing the asymmetric information. Research by Kouser et al. (2015) stated there is positive signal if firm pays out divided and negative signal if firm does not pay out dividend. Furthermore, signaling theory also concluded that dividend policy is a good indicator to measure the firm's profitable and growth opportunities. Besides that, signaling theory also states that the most cost-effective way to reduce the investor's uncertainty about the firm cash flow and value is by paying corporate dividends. Based on the findings of Sing (2004) mentioned that changes of the dividend may convey a mean that firm cash flow is volatile. Moreover, it has the connections between cash

flow shocks, dividend policy and stock returns. However, the signaling effect theory is not consistent across the firms which between under-investing and over-investing firms. Besides that, the researchers suggest firms which tend to reduce free-cash flows that are available to managers by paying out dividend to shareholders.

2.3.5 Pecking Order Theory

The Pecking Order model developed by Myers (1984) explained that firms will prefer internal funding over external funding to finance its activities because retained earnings have no adverse selection problem. However, in case the firms require external funding, they will prefer debts over the equity due to the lower information costs association with debt issues (Frank & Goyal, 2003). The assumption of pecking order theory is that the firms do have no a target debt ratio.

Chen (2011) studied that corporate performance is a potential determinant of capital structure. According to pecking order theory in the presence of asymmetric information, the firms' internal finance is their priority. This is followed by debt. If the firms' internal and external finances are exhausted, then only they as a last alternative will resort to equity. Myers (1984) states that profitable firms are likely to have more retained earnings, thus they need not depend so much on external finance. However, dividend paid to firms' shareholders will be affected if firms using most of their internal financing to finance their activities because a portion of retained earnings of a firm is for the dividend payout for shareholders. Therefore, the more retained earnings reserved for firms' financing

activities or business expansion, the less the dividend payout for their shareholders.

Ahmed (2015) and Mehta (2012) studied that as per the pecking order theory, the firms will prefer to rely on the internal funds to finance firm's activities instead of external funds. It will result the firms having a tendency to pay lesser or zero dividend in order to have more retained earnings. Hence, some high profitable firms still prefer lower dividend payout by following pecking order theory.

Banerjee and De (2015) argued that profitability is positively associated with dividend payout ratio which obviously means more profitable firms will have more internal financing which allows them to declare more dividends. Therefore, it is in line with the perking order theory that firms prefer to finance its activities by internal financing first followed by debt and equity.

2.3.6 Liquidity Preference Theory

According to studies of Ahmed (2015) and Ahmed (2014), the literatures stated that investors will prefer to purchase stocks that are paying dividend if they have liquidity needs. It also further stated that more liquid stocks can trade at a premium thus having lower expected returns. This kind of case has reflected the need for liquidity from investors, which relates us to the liquidity preference theory.

The liquidity preference theory is described in the Chapter 13 of "The General Theory of Employment, Interest and Money" by economist John Maynard Keynes. The idea of this theory is that investors would prefer to hold more cash on hand for precaution which carry lesser risk rather than invest in a longer maturity security which results in less liquid position. For illustration, investors would choose to invest in a 3-years maturity treasury note (short-term security) with 1% interests than a 10-years maturity treasury note with 3% interest and 30-years maturity bond with 4% interest, this is because investors can access to money more quickly. If they choose the 10-years Treasury note or 30-years bond, this will result in more profitable return but less liquidity position as mentioned earlier.

Moreover, Keynes also stated people hold cash on hand for 3 reasons: (1) people hold cash for daily transactions such as bills, rent, and so on; (2) it can be used for precaution for unforeseen expenses, and (3) it also can be used for speculation. This means that they can purchase securities when the interest rate is favorable. The amount of money that investor hold in hand is inversely related to the interest rates of the security, which means that when the interest rate is low, they will prefer to hold more cash in their hand and wait until the interest rate to increase then invest.

2.4 Hypothesis Development

2.4.1 Financial Leverage

2.4.1.1 Proxy Variable: Debt Ratio

A study from Goel et. al. (2015) concluded that debt ratio is significant in determining the operating performance of a firm, while Gill and Mathur (2011) measured the firm's financial leverage in their study using debt ratio. As dividend per share is highly related to firm operating performance, the debt ratio will be used to as a measure for the amount of debt that is financed by assets.

H_1: There is a significant relationship between debt ratio and dividend per share.

2.4.1.2 Proxy Variable: Debt-to-Equity Ratio

Zhang and Jia (2014), Javed (2012) and Gupta and Gupta (2014) were past studies that measured a firm's leverage using the debt-to-equity ratio as an explanatory variable to evaluate dividend per share for their respective sample firms. As debt-to-equity ratio takes the total equity into consideration, for the REITs sample companies in Malaysia to satisfy their shareholder's needs, a high debt-to-equity ratio would indicate that the firm has numerous

shareholders but dividends are not declared due to the high debt. Hence, a high debt-to-equity ratio leads to a lower dividend per share.

H_2: There is a significant relationship between debt-to-equity ratio and dividend per share.

2.4.2 Profitability

2.4.2.1 Proxy Variable: Return on Asset (ROA)

According to Ooi (2001), the dividend payout of real estate firms in UK is influenced by their firm size, the firms' total asset holding and their capital structure. Therefore, the expected sign for the relationship between dividend per share and return on assets is significant and positive. It is because the more assets holding by real estate firms, the more return on their holding asset, thus they will pay more dividends. According to Banerjee and De (2015), they were expected positive and significant relationship exists between dividend per share and return on assets in their study because the higher the profitability of the firm mean that the firm are more stable and their net earnings allowed to larger free cash flow. In the result, the firm pay larger dividend to its shareholders.

H_4: There is significant relationship between the return on assets and dividend per share.

2.4.2.2 Proxy Variable: Return on Equity (ROE)

Profitability which measured by Return on Equity was found as one of the most essential determinants of dividend per share (Lintner, 1956; Pruitt & Gitman, 1991; DeAngelo et al. 2004; Amidu & Abor, 2006). According to the signaling theory of dividend policy, profitable firms are willing to pay higher amounts of dividends in order to convey their good financial performance (Bhattacharya, 1979; Chang & Rhee, 1990; Ho, 2003; Aivazian, Booth, & Cleary, 2003). Therefore, a positive relationship is expected between firm's profitability and its dividend payments. According to Malik et. al. (2013) and Waswa et. al. (2014), the firms which have higher return on equity usually have more incentive to pay more dividends to its shareholder due to higher retained earnings they have.

H_3: There is a significant relationship between return on equity and dividend per share.

2.4.3 Liquidity

2.4.3.1 Current Ratio

Liquidity is a very important determinant for a firm. Therefore, there are various researchers that have examined the significance of the liquidity to firms' performance in which is measured by dividend per share in this study. Most of the researchers such as Mehta (2012), Botoc and Pirtea (2014), Ahmed (2014), Okpara (2010), Kania and Bacon (2005) have pointed out that the liquidity is a significant determinant and it has a positive impact on firm's dividend per share. Hence, a positive and significant relationship is expected between liquidity and dividend per share in this study (Ahmed, 2015; Mehta, 2012). In other words, it means that the liquidity will affect the firm's dividend per share: the higher the liquidity level of the firm, the more likely it will pay high dividend (Botoc & Pirtea, 2014).

H_5: There is a significant relationship between current ratio and the dividend per share.

2.4.4 Firm Size

2.4.4.1 Total Asset per Share

Base on many researchers such as Ameer (2015), Lee (1997), Kouser et. al. (2015), and Gentry et. al. (2003) which studied the relationship between the dividend payout of the company and its firm size, it has indicated that there is a positive relationship between these two variables. In other words, the dividend payout is more likely to increase when the company firm size increase. This relationship can be explained by various reasons such as larger firm size will have higher liquidity (Lee, 1997) and larger firm size paying out dividend will solve the agency issue (Hossain et. al. 2013). Hence, this study expects that there is a positive relationship between the dividend per share of the company and its total asset per share.

H_6: There is a significant relationship between total asset per share and dividend per share.

2.4.5 Cash Flows

2.4.5.1 Cash and Cash Equivalent per Share

A company with higher cash flows at the end of the accounting period has a higher chance of declaring higher dividend in the next period. Duong et. al. (2014), Jabbouri (2016), Hossain et. al. (2013) and Bradley et. al. (1998) all support the hypothesis developed for this variable that cash flows has a positive relationship with dividend per share.

H_7: There is a significant relationship between cash and cash equivalent and dividend per share.

2.4.6 CEO Working Experience

Cimerova (2012) studied the effect of CEO working experience and education towards the performance, financing policies and investment of a company. The author found that the CEOs with more working experience are more likely to undertake stable strategies. The same result has also been found in Matsunaga and Yeung (2008) in which companies that have CEO with longer working experience tend to have more decreasing income due to their conservative or stable strategy in doing business. Decreasing in income indicates that the company with experienced CEO may have lower net profit causing low dividend or no dividend payout.

Therefore, a negative relationship is projected between dividend payout and CEO working experience. That is, higher working experience leads to lower dividend payout.

H_8: There is a significant relationship between CEO working experience and dividend per share.

2.5 Conclusion

Numerous previous studies were conducted by researches to support this study regarding dividend payment measured as dividend payout ratio with several explanatory variables like financial leverage, growth opportunities, liquidity, firm size, profitability and CEO working experience with the sample firms, which are REITs firms in Malaysia. There are seven proxy variables that further explain the respective independent variables in relations to the dependent variable. Six theories that are well implemented in previous similar studies are also explained, to help strengthen this study. Lastly, after this literature review, hypotheses were formed to show either a positive or negative relationship with dividend payout ratio.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter contains the research design, the source of data, data collection method, proxies for variables, sampling design, data processing as well as data analysis. The primary objective will be achieved when the process is run through, that is to investigate the significance of the explanatory variables (financial leverage, profitability, liquidity, firm size, cash flow, and CEO working experience) to the dependent variable (dividend per share).

The data analysis results for diagnostic checking and hypothesis testing are obtained by using EViews 7 to investigate the significance of variables and detect econometric problems such as multicollinearity, heteroskedasticity and autocorrelation. Furthermore, Ordinary Least Square (OLS) method is applied in this study, in order to determine the biasness, efficiency, and consistency of the parameters by referring to the 10 assumptions of classical linear regression model.

3.1 Research Design

Research design can be in the form qualitative or quantitative based research. This study is carried out based on secondary data which consists of annually quantitative data and it is obtained from annual reports of the respective company retrieved from Bursa Malaysia website and Bloomberg for CEO experience, information. This study applies panel data which comprises of 17 listed M-REITs over six years from 2010 to 2015.

Quantitative data is extracted from annual reports is used to measure the relationship between and among the explanatory variables and the dependent variables. Furthermore, quantifiable data can make this study easier to conduct and it is less complicated than qualitative data. The study is mainly to determine the impact of financial leverage, profitability, liquidity, firm size, cash flow and CEO working experiences which are represented by various proxies on the performance of M-REITs that is denoted by dividend per share. Therefore, using quantitative research would be more suitable for this study.

This study primarily attempts to investigate how the performance of M-REITs indicated by dividend per share will be affected by the financial leverage; which proxied by debt ratio (DR) and debt-to-equity ratio (DER), profitability; proxied by return on asset (ROA) and return on equity (ROE), liquidity; proxied by current ratio (CR), firm size; proxied by total asset per share (TAPS), cash flows; proxied cash and cash equivalent per share (CACEPS), and CEO working experience (CEO). In this chapter, the research methodology will be developed and explained on how this study is being conducted to provide useful information for readers.

3.2 Data collection method

Since all the research data for the dependent and independent variables are quantitative-measure, they are available to be extracted from the annual reports of each M-REIT from year 2010 to 2015.On the other hand, because the information regarding the CEO working experience is not used to be stated in every annual report of M-REIT, therefore, Bloomberg will be used to obtain this data, that is, to determine number of years the CEO has work.

3.2.1 Annual Reports of Each M-REIT

17 M-REITs' annual reports from the year listed public to 2015 are used to get data information about each and every variable. For every annual report of the M-REIT, data of total debts, total income, total assets, total equities, cash and cash equivalent, number of shares outstanding among other figures of every listed M-REITs are collected. Besides that, working experience of CEO for the M-REITs is also obtained from annual report if available on Bloomberg if not available in annual report. However, there are some M-REITs having only few annual reports as they are only listed in recent years and hence making some information inconsistent.

3.2.2 Mathematical Models

After data are obtained from the annual reports, mathematical models have been formed to calculate the various ratios including debt ratio, debt-to-equity ratio, return on assets, return on equity, current ratio, total assets per share and cash and cash equivalents per share. All the ratios are crucial as they are used to determine the effect towards the dividend per share.

Table 3.1: Description of variables and proxies.

Variable	**Proxy**	**Description**	**Unit measurement**
Dividend per share (DPS)	-	Dividend per share is the dividend divided by the total number of shares of the firm. The ratio provides information to investors about the value of share worth in return as dividend and how much the firm would use its income to reinvest.	Dividend payout ratio is computed in a Ringgit Malaysia (RM) per share basis.
Financial leverage	Debt ratio (DR)	Debt ratio is calculated by dividing total leverage with total assets of the firms. The ratio indicates the proportion of assets issued by the leverage of the firm.	Debt ratio is calculated based on ratio (%) basis.

	Debt-to-equity ratio (DER)	Debt-to-equity ratio is the total leverage of the firm divided by firm's shareholders' equity. It is used to determine the proportion of financial leverage as compared to the proportion of total equities.	Debt-to-equity ratio is calculated based on ratio (%) basis.
Profitability	Return on assets (ROA)	Return on assets is computed by dividing the income with the total assets. The ratio is used to determine how efficient the firm's management uses its total assets to earn more income.	Return on asset ratio is computed in a percentage (%) basis
	Return on equity (ROE)	Return on equity is net income divided by total shareholders' equity. The ratio is used to determine the amount of profit the firm able to generate by using shareholders 'equity.	Return on equity ratio is computed in a percentage (%) basis
Liquidity	Current ratio (CR)	Current ratio is computed by dividing current assets with the current liabilities. Current ratio is used to determine how efficient the company in using their current assets to cover their current liabilities.	Current ratio is computed in a ratio (%) basis.
Firm size	Total asset per share (TAPS)	The variable of firm size is measured by the total assets of the firm. The value of total	The variable of firm size is measured in

		assets per share of the company can be used to determine its size and investment opportunities.	Ringgit Malaysia (RM) per share basis.
Cash Flow	Cash and cash equivalent per share (CACEPS)	Cash and cash equivalent per share is the ending CACE balance in the cash flow statement divided by the number of shares outstanding in the financial year. It is crucial to determine how much cash flow the firm is available for their activities especially dividend distribution.	The variable is measured based on Ringgit Malaysia (RM) per share basis.
CEO working experience	-	CEO working experience is the dummy variable in the model. It equals to 1 if the firm's CEO working experience has more than 20 years working experiences and 0 otherwise.	CEO working experience is calculated in year basis.

Source: Developed from the research

3.3 Sampling Design

The trend to invest in M-REITs becomes popular only since 2005 after the new implementation of regulations by Malaysian Security Commission on real estate industry. Despite with many advantages being offered to REITs, only 17 M-REITs are apparently listed on Bursa Malaysia. To capture the whole picture of the historical and current trend of M-REITs performance, this study attempts to include all REIT companies available in current Malaysian market. Because every company is listed on Bursa Malaysia differently in terms of financial year or date, their information available such as annual report will be vary depending on the dates in which these companies are listed. There is hence incomplete information in some financial years for certain companies that were not listed in 2010 to 2015. This can be solved by using Fixed Effect Model (FEM) or Random Effect Model (REM) that could capture the individual characteristics of each M-REIT although there is missing information. Hence, all 17 M-REITs are chosen from year 2010 to 2015 regardless of the listing financial year.

3.3.1 Target Population

This study attempts to examine the performance of M-REITs based on the annual dividend per share of M-REITs to their shareholders. Therefore, the target population of this study is all the M-REITs listed in Bursa Malaysia, both conventional and Islamic, listed on Bursa Malaysia. M-REITs are Amanah Harta Tanah PNB (AHP), Al-Aqar Healthcare REIT (ALAQAR), Al-Salam Real Estate Investment (ALSREIT), Amfirst REITS (AMFIRST), Amanahraya REITs (ARREIT), Atrium REITs (ATRIUM), Axis REITs (AXREIT), Capitalland Malaysia Mall Trust (CMMT), Hektar REITs (HEKTAR), IGB REITs (IGBREIT), KLCC Property & REITs-

Stapled SEC (KLCC), MRCB-Quill REIT (MQREIT), Pavilion REITs (PAVREIT), Sunway REITs (SUNREIT), Tower REITS (TWREIT), UOA REITS (UOAREIT) and YTL Hospitality REIT (YTLREIT). This study is conducted for the following reasons:

(i) Declining profit and dividend payout

The total profit of real estate industry reached peak at RM5.4 billion in year 2013. However, it dropped about 50% reaching RM2.5 billion in 2014 and RM2.1 billion in 2015. This declining trend is detrimental to the M-REITs shareholders since the total dividend payout is based on the net income of M-REITs. Therefore, dropping in the net income could theoretically indicate to shareholders that they will be offered lesser current return or income for their investment. Hence, this study serves a purpose to access whether M-REITs are worth investing and the significant of the independent variables to the dividend per share.

(ii) Potential delisting

Undoubtedly, the requirement of 90% of net income dividend payout provides investors a greater current income return compared to other investment assets or other shares issued by non-REIT companies. However, this will somehow restrict the company to purchase properties for expansion or to invest in positive net present value projects that will provide greater future profits and company value. Al-Hadharah Boustead REIT was a listed M-REIT on Bursa Malaysia. It was however delisted in 2014 due to difficulty in maintaining high dividend yield despite having little trading and revenue which caused them to have limited fund for investment purposes. Declining total dividend payout will lead to decrease in the company share price as a result of information asymmetry. When

the company is delisted, shares of that particular company are repurchased at lower prices from which shareholders will incur potential losses. Hence, this study serves to determine the trend, either increasing or decreasing, of total dividend payout in REIT industry to evaluate the performance of M-REIT industry.

3.3.2 Sampling Techniques

Information extracted from Bursa Malaysia website shows that there is a total of 17 M-REITs listed in Malaysian market. For the purpose of capturing the whole picture of M-REIT industry and due to small number of M-REITs in this industry, all 17 M-REITs are selected and taken as population of this study. Furthermore, the time period that will be taken into this study purpose is ranged from year 2010 to 2015. That is, population (n) is 17 and time period (t) is 6.

All the data of dependent and independent variables will be obtained from the annual reports of these companies; annual reports are available in the database of Bursa Malaysia. As mentioned in the earlier part, not all M-REITs are listed on the same financial year or date, the availability of data or annual reports is vary depending on the financial year or date these companies are listed. Also, it is noteworthy to mention that the number of years and number of companies are imbalanced or inconsistent. Because this study is conducted using panel data, due to the reason above, this panel data is considered unbalanced panel in the sense that it is short panel data where the number of company (n) is greater than the number of year (t). That is, the total number of observation basically would have 102. It is computed by taking number of company (n) equivalent to 16 to multiply

with number of year (t) equivalent to 6, the total number of observation will be 102.

On the other hand, EViews 7 is to be used to compute the result analysis for the purpose of evaluating the M-REIT industry with various hypothesis testings. There are two general tests can be implemented to test panel data, that is, Fixed Effect Model (FEM) and Random Effect Model (REM). To determine which test is more appropriate, in next chapter, Hausman test will be conducted for deciding which test is most appropriate for this study to explain the purpose of this study.

3.3.3 Sampling Size

Real estate unit trust has been started in Malaysia since year 1989 and the number of M-REIT was increasing only since 2005 after the new regulation has been implemented by Malaysian Security Commission. As in year 2013, there are 17 M-REITs in Malaysia which including conventional and Islamic companies. However, Al-Hadharah Bousted REIT was privatized in the year 2014. On the other hand, Al-Salam Real Estate Investment Trust which is a diversified Islamic (REIT) has been listed in the year 2015. Hence, there is still 17 REITs in Malaysia currently.

Since the number of M-REITs is small in Malaysia, this research will use panel data to include all the M-REITs and data are collected from the year 2010 until 2015. Hence, there is estimation of 102 (17x6) observations for the research.

Table 3.2: Annual reports of all M-REITs

Firms	2015	2014	2013	2012	2011	2010
Al-'Aqar Healthcare REIT	√	√	√	√	√	√
Amanah Harta Tanah PNB	√	√	√	√	√	√
Al-Salam Real Estate Investment Trust	√	X	X	X	X	X
AmFirst Real Estate Investment Trust	√	√	√	√	√	√
AmanahRaya Real Estate Investment Trust	√	√	√	√	√	√
Atrium Real Estate Investment Trust	√	√	√	√	√	√
Axis Real Estate Investment Trust	√	√	√	√	√	√
CapitaLand Malaysia Mall Trust	√	√	√	√	√	√
Hektar Real Estate Investment Trust	√	√	√	√	√	√
IGB Real Estate Investment Trust	√	√	√	√	X	X
KLCC Real Estate Investment Trust	√	√	√	√	X	X

MRCB-Quill REIT	√	√	√	√	√	√
Pavilion Real Estate Investment Trust	√	√	√	√	√	X
Sunway Real Estate Investment Trust	√	√	√	√	√	X
Tower Real Estate Investment Trust	√	√	√	√	√	√
UOA Real Estate Investment Trust	√	√	√	√	√	√
YTL Hospitality REIT	√	√	√	√	√	√

Source: Developed for this research

√ indicates annual report is available in the year.
X indicates annual report is not available in the year.

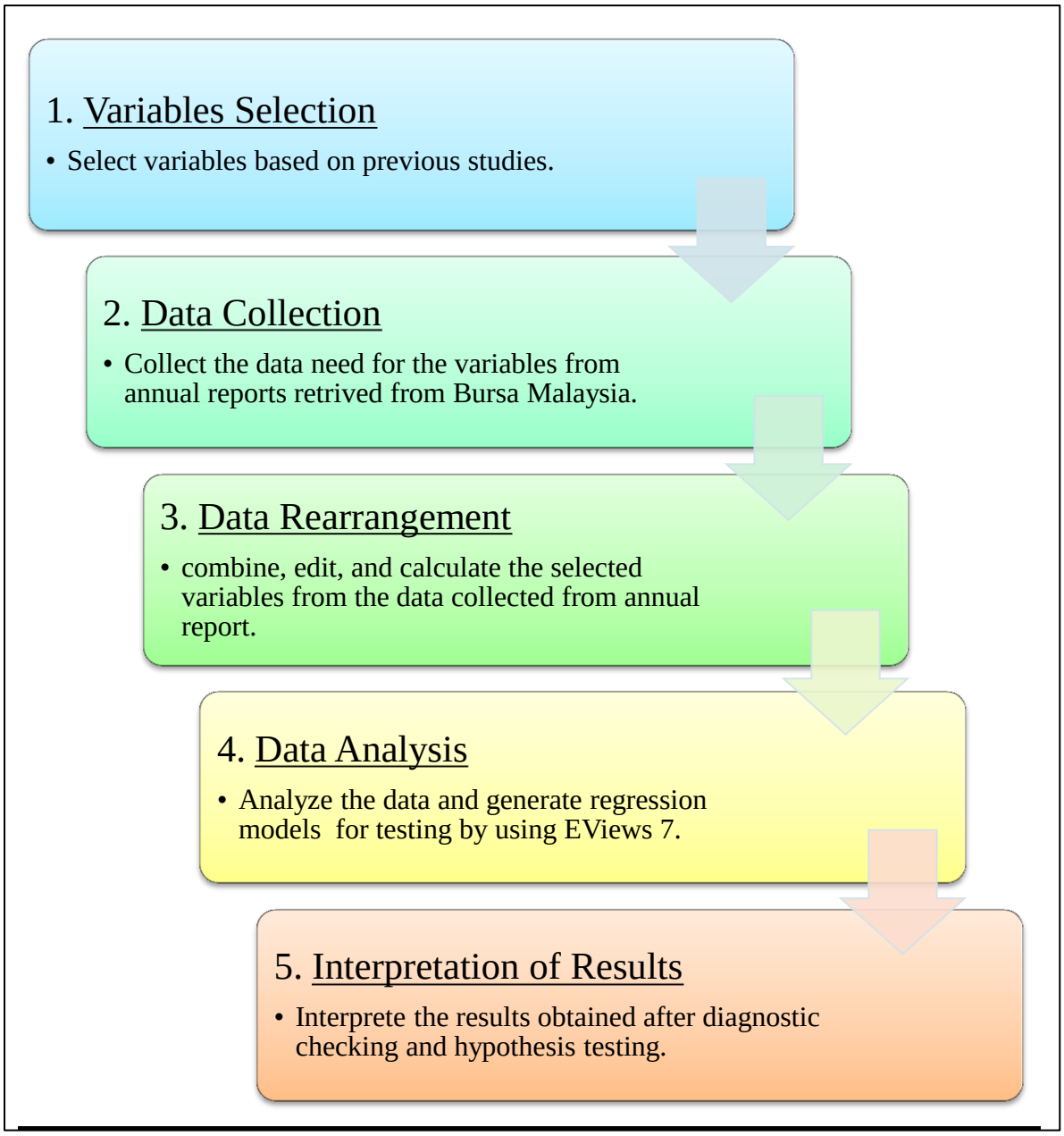
Based on Table 3.2, there are total 102 observations in this research. Since some companies are only listed in recent years, data beforehand is valued as zero.

3.4 Data Processing

In this research, 8 independent variables (including proxy variables) which affect dividend per share of 17 M-REITs are included. Furthermore, secondary data are

extracted from financial statements of respective companies from year 2010 to 2015. The variables are financial leverage, profitability, liquidity, firm size and cash and cash equivalent CEO working experience.

Figure 3.1: Data Processing Flows



Source: Developed from the research

3.4.1 Dividend per share

Dependent variable for this research is dividend per share for 17 M-REITs and it measures the return of shareholders on every invested shares. Hence, it allows investors to determine whether or not the stock is worth to invest.

Dividend per Share = Total Dividend Paid / No. of Shares Outstanding

3.4.2 Financial Leverage

Debt ratio and Debt-to-equity ratio are used as the proxies of financial leverage. Debt ratio is the division of total liabilities suffered by the companies over total assets the companies hold while debt-to-equity ratio is the division of total liabilities over total shareholders' equity.

Debt Ratio = Total Debt / Total Asset

Debt-to-equity Ratio = Total Debt / Total Shareholder's Equity

3.4.3 Profitability

Return on assets (ROA) and Return on equity (ROE) are adopting ratio (%) units of measurement. ROE is the division of net income by total equities while ROA is the division of net income by total assets.

Return on Asset Ratio = Net Income / Total Assets

Return on Equity Ratio = Net Income / Total Equities

3.4.4 Liquidity

Current ratio is used to measure M-REITs' liquidity level. It is the division of current assets by deducting all illiquid assets over total liquid liabilities of REITs.

Current Ratio = Current Assets / Current Liabilities

3.4.5 Firm Size

Total asset per share of M-REITs is an appropriate proxy to determine its firm size.

Total Asset per Share = Total Assets / No. of Shares Outstanding

3.4.6 Cash Flows

Cash and cash equivalent of M-REITs for this research is determined by using ending CACE to be divided by the number of outstanding shares.

Cash and Cash Equivalent per Share = Cash and Cash equivalent / No. of Shares Outstanding

3.4.7 Dummy Variable

3.4.7.1 CEO Working Experience

CEO working experience is the only one independent variable that using dummy to determine in this research. If CEO of the M-REITs has more than 20 years working experiences, it categorizes with number of 1; otherwise, it categorizes with number of 0.

3.5 Data Analysis

This study chronicles investors return in the form of dividend payout for M-REITs. A set of firm-specific variables such as leverage, profitability, liquidity, firm size, cash and cash equivalent per share and CEO working experience are employed to derive the sample firm's investor return. Upon calculating the values of the respective ratios, EViews 7 will be used to investigate the investor return for M-REITs. Since this research has the same cross sectional unit (17 companies) and is surveyed over time, it is a panel data. Under this section, panel data econometrics model, inferential analysis and diagnostic checking will be thoroughly discussed.

3.5.1 Econometric Model

3.5.1.1 Multiple Regression Analysis

A multiple regression analysis is an extension from the two-variable model, with more than two explanatory variables and a dependent variable. In this study, there are 8 independent variables (explained further by separated proxies) that explain the dependent variable. Hence, a multiple regression model is applied to study the interrelationship between the regress and regressors. A general and complete model will be derived in this study.

The general model takes only the independent variable into account. The following is the general equation:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \mu_{it}$$

$$DPS_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 PRO_{it} + \beta_3 LIQ_{it} + \beta_4 FS_{it} + \beta_5 CF_{it} + \beta_6 CEO_{it} + \mu_{it}$$

Where;

DPS_{it}	= Dividend per Share
LEV_{it}	= Financial leverage, proxy by Debt Ratio and Debt-To-Equity Ratio
PRO_{it}	= Profitability, proxy by Return on Asset and Return on Equity
LIQ_{it}	= Liquidity, proxy by Current Ratio
FS_{it}	= Firm size, proxy by Total Assets per Share
CF_{it}	= Cash Flows
CEO_{it}	= CEO Working Experience, where 1 = more than 20 years and 0 otherwise
β_0	= Intercept
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$	= Partial regression coefficients
μ_{it}	= Error term

The complete model, however, takes into account each proxy. The following is the complete model:

Model 1:

$$DPS_{it} = \beta_0 + \beta_1 DR_{it} + \beta_2 DER_{it} + \beta_3 ROA_{it} + \beta_4 ROE_{it} + \beta_5 CR_{it} + \beta_6 TAPS_{it} + \beta_7 CACEPS_{it} + \beta_8 CEO_{it} + \mu_{it}$$

Where;

DPS_{it}	= Dividend per Share
DR_{it}	= Debt Ratio
DER_{it}	= Debt-to-Equity Ratio
ROA_{it}	= Return on Asset
ROE_{it}	= Return on Equity
CR_{it}	= Current Ratio
$TAPS_{it}$	= Total Assets per Share
$CACEPS_{it}$	= Cash And Cash Equivalent per Share
CEO_{it}	= CEO Working Experience, where 1 = more than 20 years and 0 = otherwise
β_0	= Intercept
$\beta_1, \beta_2, \beta_3, \dots, \beta_8$	= Partial regression coefficients
μ_{it}	= Error term

The following is the complete model with log transformation.

Model 2:

$$DPS_{it} = \beta_0 + \beta_1 LOGDRit + \beta_2 DER_{it} + \beta_3 ROA_{it} + \beta_4 ROE_{it} + \beta_5 CR_{it} + \beta_6 LOGTAPSit + \beta_7 CACEPS_{it} + \beta_8 CEO_{it} + \mu_{it}$$

Where;

DPS_{it}	= Dividend per Share
$LOGDR_{it}$	= Log of Debt Ratio
DER_{it}	= Debt-to-equity ratio
ROA_{it}	= Return on Asset
ROE_{it}	= Return on Equity
CR_{it}	= Current Ratio
$LOGTAPS_{it}$	= Log of Total Assets per Share
$CACEPS_{it}$	= Cash And Cash Equivalent Per Share
CEO_{it}	= CEO Working Experience, where 1 = more than 20 years and 0 = otherwise
β_0	= Intercept
$\beta_1, \beta_2, \beta_3, \dots, \beta_8$	= Partial regression coefficients
μ_{it}	= Error term

3.5.1.2 Panel Data

Since panel data is a combination of time series and cross-section data, it compasses both space and time dimensions, thus granting the researcher benefits beyond by what is originally limited to pure time series or pure cross-sectional data. Gujarati and Porter (2009) listed the advantages of panel data such as explicitly allowing heterogeneity and the unique diversity among the 17 M-REITs through firm specific variables. Furthermore, panel data is more informational, flexible, less interrelationship among the regressors, more degree of freedom, and more efficiency.

For this research, there will be a total of 102 observations comprising each variable and proxy. 102 are derived from 17 publicly listed M-REITs across a span of 6 years (2010-2015) as shown in Table 3.2.

(i) Pooled OLS Model

Advantages of Pooled OLS Model

One of the advantages of pooled OLS model is that this model is simple to estimate by fitting a linear regression to full dataset as long as the model fulfilling all the assumptions of classical normal linear regression model (CNLRM). Besides, pooled OLS model assumes all the observations are homogeneous by ignoring the

information about how they are grouped into units. However, pooled OLS model will not produce bias in estimates of coefficient as long as the unit effects uncorrelated with independent variables even though they are vary (Clark & Linzer, 2015).

Disadvantages of Pooled OLS Model

Firstly, Pooled OLS model assumes the unit and time periods effects are homogeneous within the group and fail to allow the possibility of disturbance vary in units may lead to biased estimated of coefficient (Clark & Linzer., 2015). In other words, it defines as heterogeneity bias. Hicks (1994) also supported by saying that panel data which estimated by OLS regression estimates are likely to be biased, inefficient and inconsistent due to the disturbance for regression equations estimated using OLS procedure. Lastly, errors in pooled OLS model tend to be heteroskedastic due to different variances across ranges or subsets of nations. Therefore, all these differences may capture in error term instead of using dummy variable or others method to estimate it (Podesta, 2000).

(ii) Fixed effect model (FEM)

Advantages of FEM

According to Borenstein (2010), fixed effects model suitable to use when there is enough evidence to prove that there are having features in all the studies. Other than that, other conditions to calculate combined effect size should be met before fixed effects model can be used. The advantage of using fixed effects model instead of pooled OLS model is that it involves the specification a series of indicator variables for each unit by using dummy variables. Besides, fixed effects model is preferred over random effect model due to the involvement of the latent time invariant variables associated with time-varying covariates in the fixed effects model. However, it will be more efficient and have a better understanding of the potential for time invariant variables if fixed effects model reported the correlation between the sizes of the realization (Bollen & Brand, 2008).

Disadvantages of FEM

Fixed effects model requires the estimation of a parameter for each individual (the coefficient on dummy variable). It may impose consequence of increasing standard error of the estimated coefficient which leads to loss of statistical power to investigate effect in the model (Clark & Linzer, 2015). Besides, if the model includes too much of dummy variables in estimate the unit effect

might lead to loss of degree of freedom as well as impose multicollinearity problem. Gujarati (2003) stated the more additional regressors (dummy) include into fixed effects model will be more complicated to estimate due to the possibility of the regressors highly correlated. Furthermore, it will lead to further worsen in estimation if the variables in the model are the same within the group as well as parameter estimation. Yet, it may be country-specific, no constant in variance and also autocorrelation with the passage of time although the error tern in the model assumed to be normally distributed (Yaffee, 2003). Other than the disadvantages mentioned above, time-invariant variables like race or gender are limited to perform fixed effects estimators (Bollen et al., 2008).

(iii) Random Effect Model (REM)

Advantages of REM

Random effect model gain advantages of saving many degrees of freedom by only involve mean and standard deviation of the distribution of unit effects rather than estimate a set of dummy variables like fixed effects model (Clark & Linzer., 2015). Because of this advantage, random effect model has higher statistical power of model parameter and minimum standard error as compared to fixed effects model. Besides, random effect model enables coefficient estimation with lower sample-to-sample variability by partially pooling information across units. In estimation of variances parameters, random effect estimators forming a compromise between pooled model and fixed effect, thus the

disturbance may move closer to its mean as grouping the outlying unit effects (Gelman & Hill, 2007). Lastly, random effect model solved the limitation of fixed effects model by allowing the estimation of the impact of time invariant variables (Bolllen et. al., 2008).

Disadvantages of REM

Nevertheless, there are some disadvantages for random effect model. Gelman and Hill (2007) stated that the problem of bias can be introduced in estimation of coefficient by partially pooling information across units. This problem of bias can be avoided if there is no correlation between covariate of interest and unit effects. Besides, when the effect estimates in several studies and their variances are highly correlated which means that the results in small studies are systematically vary from that of larger studies, it will be associated with publication bias. Thus, the researchers may be misleading if assumption of random distribution for the effect no longer hold (Borenstein et al., 2010).

3.5.2 Descriptive Analysis

Descriptive analysis will be conducted to determine the mean, median, standard deviation and so on of all M-REITs for every variable from 2010 to 2015. There are total 9 variables including the dependent variable and

explanatory variables to view the descriptive statistic of the data in this study.

3.5.3 Scale Measurement

3.5.3.1 Hausman Test

Hausman Test will be conducted to see that whether the models are suitable for Fixed Effect Model (FEM) or Random Effect Model (REM). After concluding the models, all the tests are conducted according to its respective model. The null and alternative hypothesis can be set as:

H_0: Random Effect Model is consistent and efficient (REM is preferable).

H_1: Random Effect Model is inconsistent and inefficient (FEM is preferable).

The decision rule of this test is to reject the null hypothesis if the probability test statistic is less than 1% level of significance. Otherwise, do not reject the null hypothesis. Rejecting the null hypothesis means Fixed Effect Model (FEM) is preferable than the Random Effect Model (REM).

3.5.3.2 Normality Test

All the hypothesis testing requires error term to be normally distributed if the sample size of the research is small or finite ($n < 100$), thus it is vital to determine whether there is error dispersal among the error terms. All the hypothesis testing procedures will be invalid if the error terms are found to be not normally distributed. But if the sample size of the research is large enough ($n \geq 100$), the t and F statistics have approximately t and F probability distributions. Therefore, the hypothesis testing procedures are still valid although there is error dispersal among the error terms (Gujarati & Porter, 2009).

EViews 7 is used to run Jarque-Bera (JB) test in order to determine normality of the error team. Besides, P-value approach with significance level of 1% is applied to check the existence of normality assumption in this model. The decision rule is reject H_0 if p-value is less than significance level of 1% Otherwise, do not reject H_0.

H_0: The error term is normally distributed.

H_1: The error term is not normally distributed.

3.5.3.3 Multicollinearity

According to Gujarati and Porter (2009), Multicollinearity occurs when some or all the independent variables are highly correlated with each other. It is difficult for the regression model to explain which independent variable influence the dependent variable if Multicollinearity. Besides, there has no formal testing procedure to detect multicollinearity but some rules of thumbs are available.

Firstly, the model with high R^2 but few significant t-ratios are suspected consist of multicollinearity. If the model has high R^2, P-value approach is used to determine whether each of the independent variables is significant to affect dependent variable. Second, there are high pair-wise correlation coefficients among two independent variables. Correlation coefficients among two independent variables can be determined by EViews 7 in absolute value, if correlation coefficient between two independent variables exceeds 0.8, it may be suspected serious multicollinearity. Lastly, there has high tendency of committing multicollinearity if variance inflation factor (VIF) approximate to 10 and tolerance (TOL) nearly to zero.

$$VIF = 1 / (1-R_j^2)$$

$$TOL = 1 / (VIF)$$

There are three remedial measures to overcome the multicollinearity such as increase the observation, transform the

variables by first difference form or ratio transformation method and drop one or more collinear variables. However, dropping variables are not suggested to overcome multicollinearity due to it may lead to specification bias.

3.5.3.4 Heteroskedasticity

Heteroskedasticity occurs when the error terms have non-constant variances or distributions of error term are different. It may occur because people may learn from mistake they did before, thus the error may become less and less over the period. Besides, if the result consists of outliers may lead to heteroskedasticity problem. Other than that, omitted important variables in the model may result in residuals obtained from regression gives impression that its variances are not constantly distributed.

Heteroskedasticity can be detected by Park Test, Breusch-Pagan-Godfrey Test, Autoregressive Conditional Heteroskedasticity (ARCH) Test, and White Test. However, Eviews does not provide any built-in heteroskedasticity test which allows the detection of heteroskedasticity problem in panel data either pooled, fixed or random effect model. Therefore, under this research with the use of panel data, no heteroskedasticity can actually be detected by using Eviews. In order to avoid heteroskedasticity problem, according to Ong, Lim, Lim, Ow and Tan (2014), one can implement generalized least squares (GLS) and weighted least squares (WLS) method in case there is heteroskedasticity problem. Therefore, under this study, panel model including FEM and REM will be

controlled by GLS method which is in line with the ease of Eviews. Ong et. al. (2014) added, by using GLS, the dispersion of error term for each observation in the sample being studied will become constant in which the value is equal to one. Similarly, Ong et. al. has also implemented the same method to avoid heteroskedasticity problem in panel data.

3.5.3.5 Autocorrelation

According to Gujarati and Porter (2009), autocorrelation exists when there is an association between error terms in the model. It is easier for model that consists of time series data committing to autocorrelation problem due to correlation among members of a series of number with time order.

There are two types of serial correlation which are pure and impure. Pure serial correlation exists when error term in present is as function of error term in the past by holding the model well specified. In contrast, impure serial correlation is caused by external factors such as omitting important variables, included irrelevant variables and incorrect functional form of model.

Durbin-Watson d test, will be used in this study to detect autocorrelation problem at 1% level of significance. The decision rule of Durbin-Watson test is to reject H_0 if the probability test statistics result is smaller than the 1% level of significance; otherwise, do not reject H_0.

H_0: This model has no autocorrelation problem.

H_1: This model has autocorrelation problem.

3.5.4 Inferential Statistics

Several tests such as R-squared, F-test and t-test for Model 1 and Model 2 will be conducted to determine the significance for the models in explaining Dividend per share (DPS) and also the each and every explanatory variable.

3.5.4.1 R-squared (R^2)

R^2 is the easiest, non-calculative measure of the variables if they are significantly related to the dependent variable. With 1 being perfect significant relationship, an R^2 of 0 records no significant relationship whatsoever with the dependent variable. Hence, the possible range of R^2 R^2 is between 0 and 1. ($0 \leq R^2 \leq 1$) Gujarati and Porter (2009) however states limitations of R^2 as a measure of significance such as the temptation for the researcher to merely add variables to achieve a higher R^2 but not taking into consideration the effects upon the error term. Hence, adjusted R^2 is a more reliable measure. As this research have 8 regressors in total, the adjusted R^2 is appropriate as the degree of freedom is provided for.

3.5.4.2 F-test

F test also test the significance of the model in explaining the dependent variable, with the application of Model 1 and Model 2, even if any of the variable is statistically insignificant. It tests the entire model as whole, rather than any of the independent variables as a single unit by explaining dividend payout in the real estate industry. By carrying out the hypothesis testing for this research, the null and alternative hypothesis are defined as:

$$H_0 : \beta_1 = \beta_2 = \beta_3 = \cdots = \beta_8 = 0$$

H_1: At least one of the coefficients is no equals to zero.

Where rejecting H_0 indicates that the model is insignificant.

The R^2 and *F* test statistics are closely related in the analysis of variance. R^2 is a component in the computation of the *F* test statistics.

$$F = \left[\frac{\left[\frac{R^2}{(k-1)}\right]}{\frac{(1-R^2)}{(n-k)}}\right]$$

Where n = number of observation and k = number of independent variables.

3.5.4.3 t-test

The *t* test is to test each independent variable if they are able to explain the dependent variables individually at a preferred level of significance. For this research, the 8 stated independent variables are to be tested individually if their roles are significant to dividend per share of the REIT industry. The null and alternative hypothesis can be postulated as:

$H_0 : \beta_k = 0$

$H_1 : \beta_k \neq 0$

Where k = each the partial regression coefficient for each variable. The *t* test statistics is to be compared with the 1% level of significance in accepting or rejecting the hypothesis. The *t* test statistics can be obtained from the EViews 7 output or the following computation:

$$t = \frac{\widehat{\beta_k} - \beta_k}{Se\,(\widehat{\beta_k})}$$

Where $\widehat{\beta_k}$ = the estimated beta coefficient and $Se\,(\widehat{\beta_k})$ is the standard error for the beta coefficient.

3.6 Conclusion

In a nutshell, this chapter covers the research design in 3.1; data sources and data collection method 3.2; sampling design in 3.3; data process in 3.4; and lastly, the data analysis in 3.5. All of the introduction and methodology for this research has been discussed thoroughly in the sections above. Ordinary Least Square (OLS) method is applied in this study in order to carry out the research. Furthermore, hypothesis testing and diagnostic checking are also applied to test the significance of variables and model and also to detect whether there are any econometrics problems. Lastly, this study is carried out based on EViews 7.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter shows the panel data analysis on 17 M-REIT firms over the years from 2010 to 2015. Models with and without logarithm for variables have been carried out to obtain the result of estimation and better analysis of the data. Several tests have been run before choosing the best model, including normality test, Breusch-Pagan-Godfrey test, Serial Correlation test and Ramsey Reset test for diagnosis checking purpose. Furthermore, Hausman test is uses to determine whether Fixed Effect Model or Ramsey Reset Model is preferable. In addition, R-square, F-statistic and T-statistics are also carried out to determine the relationship of all independent variables to dividend per share of (REITs) to examine the objectives which have stated in Chapter 1.

4.1 Descriptive Analysis

4.1.1 Dividends per Share

Dividends per share is the dependent variable in this study, it is calculated by using the total dividend paid divided by the total number of outstanding share in circulation for each company. The mean and standard deviation of dividends per share for M-REITs are 0.0778 and 0.0391 respectively and

the maximum is 0.1925 and 0 for minimum. This indicates that the dispersion in dividends per share is small for 17 M-REITs.

4.1.2 Financial Leverage

4.1.2.1 Debt Ratio

Debt ratio is one of the proxy variables for financial leverage. It is computed by using total liabilities divided by total assets for M-REIT. The mean of debt ratio is 0.2913 and it indicates the average debt ratio of 17 M-REITs is 29.13%. The standard deviation of 0.1558 also shows that the dispersion of debt ratio among 17 M-REITs is not large. Due to the multicollinearity between debt ratio and debt-to-equity, logarithm of debt ratio is applied in this study. After logarithm, the mean and standard deviation are reported -1.2314 and 1.0620 respectively. The skewness still remains as negatively skewed.

4.1.2.2 Debt-to-Equity Ratio

Another proxy variable of financial leverage is the debt-to-equity ratio. It is calculated with total liabilities over total equity for each company. The mean and standard deviation are 0.4748 and 0.2955 respectively. The results show that the dispersion of debt-to-equity ratio is slightly higher than the debt ratio. Furthermore, the

skewness of both debt ratio and debt-to-equity ratio show a negative value which indicates that both of them are skewed to the left.

4.1.3 Profitability

4.1.3.1 Return on Asset

In term of profitability, return on asset is one of the proxy variables. It measures how much return a M-REIT can generate with its total assets. It is calculated by using the net profit divided by the total assets. The mean of 0.0763 shows the average of return on asset for the 17 M-REITs is 7.63% over 6 years. The standard deviation of 0.0508 also shows that the dispersion is not large for return on asset. Furthermore, the skewness of 4.8011 indicates that the return on asset is positively skewed or skewed to the right.

4.1.3.2 Return on Equity

Return on equity is another proxy variable for profitability. The concept is similar to return on asset, it measures how much return a company can generate with its total equity and it is computed by using net profit divided by total equity of respective companies. The mean and standard deviation are reported in table 4.1, which

are 0.0763 and 0.0451 respectively. It is also skewed to the right same as return on asset since its skewness is positive (0.1584).

4.1.4 Liquidity

4.1.4.1 Current Ratio

Current ratio is the only proxy variable for liquidity components. It is computed by using the current asset divided by the current liabilities. Table 4.1 shows that the maximum and minimum of current ratio are recorded as 59.7669 and 0 respectively. However, the average of current ratio is recorded as 2.7958 and the median falls on 0.4265 and the standard deviation of 7.7533 has shown the dispersion of the large difference between the maximum and minimum values. The significant difference of the maximum and minimum of current ratio is due to one of the company (KLCC) has settled large proportion of the current liabilities and thus result in high current ratio for year 2014 and 2015.

4.1.5 Firm Size

4.1.5.1 Total Asset per Share

This study also includes company's firm size that is presented by total assets per share. Generally, the firm size of every company would be different, therefore the total asset owned would also can be large different, thus this study applies per-share basis for comparison purposes over all companies. In Model 1, the total assets per share reported mean of 1.9517 and standard deviation of 0.9368. In model 2, the logarithm is applied on total assets per share to solve the normality problem and to reduce the spread of data. The results for log of total assets per share reported mean of 0.6554 and standard deviation of 0.3536, indicating that the dispersion is reduced from 0.9368 to 0.3536.

4.1.6 Cash Flows

4.1.6.1 Cash and Cash Equivalent per Share

Similar to total assets, the per-share basis is also applied for cash and cash equivalent to reduce the spread of data. Cash and cash equivalent is used to capture the ability of M-REITs for paying dividend to unitholders for with their available cash flows. By referring to Table 4.1, the mean and standard deviation are reported as 0.0668 and 0.0767 respectively, thus implies that there is little

dispersion of data in cash and cash equivalent per share. The positive value of skewness indicates that the data is skewed to the right.

4.1.7 CEO Working Experience

CEO working experience is the dummy variable in both models. The benchmark category is the company's CEO working experience of less than or equal to 20 years. If the working experience of CEO is greater than 20 years, then it will be 1, otherwise 0. The mean and standard deviation are 0.6373 and 0.4832 respectively.

Table 4.1: Descriptive Statistics for variables from 2010 to 2015

Model 1							
Variable	**Mean**	**Median**	**Max**	**Min**	**Std. Dev.**	**Skew-ness**	**Kurtosis**
DPS	0.0778	0.0815	0.1925	0.0000	0.0391	-0.2808	3.6352
DR	0.2913	0.3384	0.5402	0.0000	0.1558	-0.7043	2.3190
DER	0.4748	0.5115	1.1750	0.0000	0.2955	-0.0926	2.1413
ROA	0.0564	0.0507	0.4540	-0.0072	0.0508	4.8011	38.1867
ROE	0.0763	0.0765	0.1914	-0.0156	0.0451	0.1584	3.0642
CR	2.7958	0.4265	59.7669	0.0000	7.7533	5.3461	35.1863
TAPS	1.9517	1.9272	5.2574	0.0000	0.9368	0.1998	5.2357
CACEPS	0.0668	0.0573	0.5744	0.0000	0.0767	3.5169	21.6150
CEO	0.6373	1.0000	1.0000	0.0000	0.4832	-0.5710	1.3260
Model 2							
Variable	**Mean**	**Median**	**Max**	**Min**	**Std. Dev.**	**Skew-ness**	**Kurtosis**
DPS	0.0778	0.0815	0.1925	0.0000	0.0391	-0.2808	3.6352
LOG DR	-1.2314	-0.9870	0.0000	-6.2146	1.0620	-2.9191	13.1358
DER	0.4748	0.5115	1.1750	0.0000	0.2955	-0.0926	2.1413
ROA	0.0564	0.0507	0.4540	-0.0072	0.0508	4.8011	38.1867
ROE	0.0763	0.0765	0.1914	-0.0156	0.0451	0.1584	3.0642
CR	2.7958	0.4265	59.7669	0.0000	7.7533	5.3461	35.1863
LOG TAPS	0.6554	0.6560	1.6596	0.0000	0.3536	0.0227	3.2157
CACEPS	0.0668	0.0573	0.5744	0.0000	0.0767	3.5169	21.6150
CEO	0.6373	1.0000	1.0000	0.0000	0.4832	-0.5710	1.3260

Source: Developed from the research

4.2 Scale Measurement

4.2.1 Hausman Test

Table 4.2: Hausman Test results for Model 1 and Model 2

	Model 1	**Model 2**
Chi-Sq. Statistic	24.280927	15.466195
Probability (p-value)	0.0021	0.0507

Source: Developed from the research

Using the hypothesis testing, the null and alternative hypothesis can be defined as:

H_0: Random Effect Model is consistent and efficient. (REM is preferable)

H_1: Random Effect Model is inconsistent and inefficient (FEM is preferable)

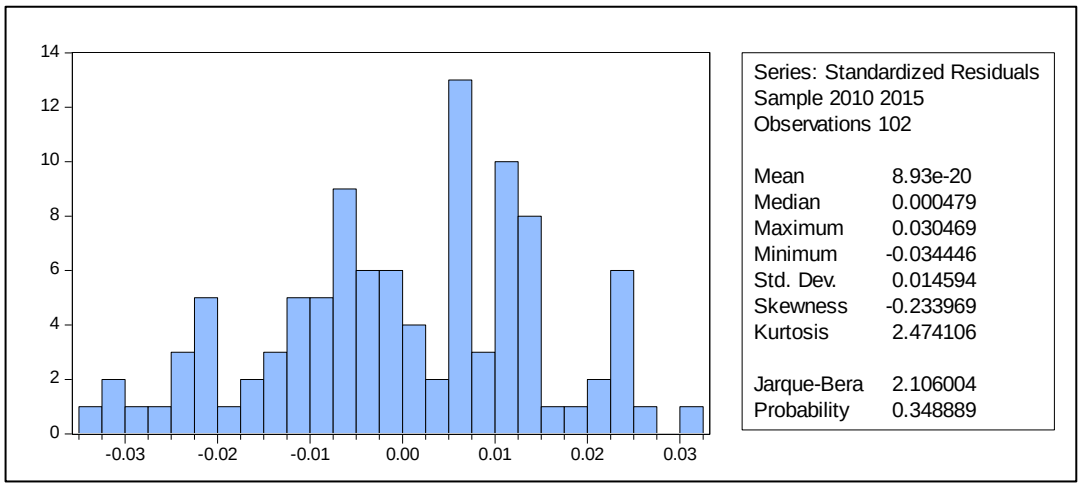
By using 1% level of significance, null hypothesis will be rejected when the p-value is less than 0.01. According to Table 4.2, the p-value of Hausman test in Model 1 is 0.0021, which is lesser than the significance level of 1%. This indicates that null hypothesis will be rejected and therefore Fixed Effect Model (FEM) is preferable.

On the other hand, the p-value of Hausman test of Model 2 is 0.0507, which is greater than the significant level of 1%. This implies that the null hypothesis is not to be rejected and it can be concluded that the Random Effect Model is consistent and efficient (REM is preferable).

4.2.2 Normality Test

Jarque-Bera Normality Test will be conducted to see that whether the error term in Model 1 and Model 2 is normally distributed. If the error term is not normally distributed, all the diagnostic checking will be invalid and the output will be misleading and biased according to Classical Normal Linear Regression (CNLRM) assumptions.

Figure 4.1: Normality Test results for Model 1(FEM)



Source: Developed from the research.

Using hypothesis testing, the null and alternative hypothesis can be defined as;

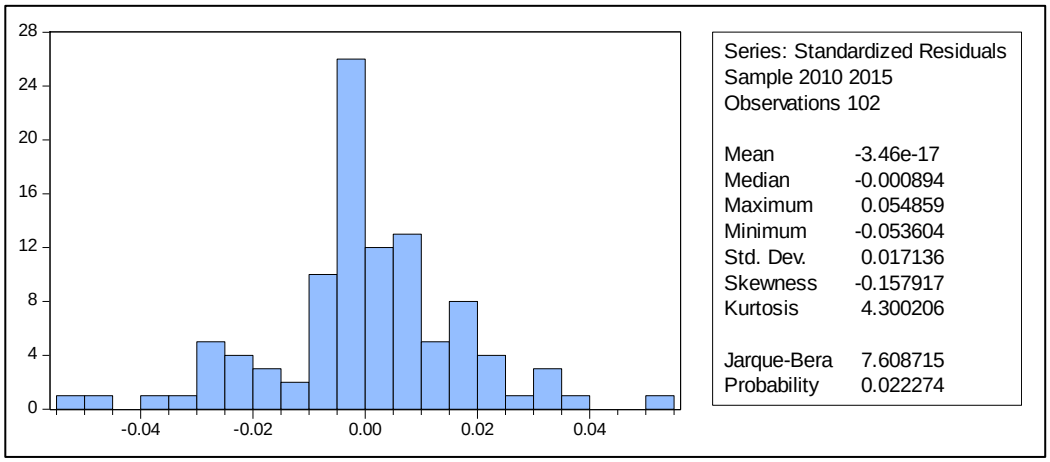
H_o: The error term is normally distributed.

H_1: The error term is not normally distributed.

With 1% level of significance, the null hypothesis is not rejected as the decision rule is to reject only if p-value is less than the significance level. With a p-value of 0.348889 and Jarque-Bera statistics of 8.029852, it can

be concluded that the error term of Model 1 is normally distributed at 1% level of significance.

Figure 4.2: Normality Test results for Model 2 (REM)



Source: Developed from the research.

Using the hypothesis testing, the null and alternative hypothesis can be defined as:

H_0: The error term is normally distributed.

H_1: The error term is not normally distributed.

By using significant level of 1%, null hypothesis will be rejected when the p-value is less than 0.01. Based on the Figure 4.2, the p-value of Jarque-Bera is 0.022274, which greater than the significant level of 0.01. Therefore, this indicates that null hypothesis is not to be rejected and the error term meets the requirement of normally distribution.

4.2.3 Multicollinearity Tests

Multicollinearity is the linear relationship among the independent variables. If multicollinearity exists, the regression model fails to explain which particular variable is influencing the dependent variable. Although currently there is no specific test to detect multicollinearity in a model, several rules of thumb indicators like high R^2 but a few significant t-ratio, Variance Inflation Factor (VIF) and Tolerance (TOL) are the general ways to detect multicollinearity in a model. Both informal test and formal test will be carried out to detect multicollinearity using EViews 7.

4.2.3.1 High R^2 and Few Significant Explanatory Variables

Table 4.3: T-statistics results for Model 1(FEM)

Independent Variables	t-statistic	P-value	Significance
DR	-1.681416	0.0967	Insignificant
DER	1.112233	0.2695	Insignificant
ROA	-1.743851	0.0852	Insignificant
ROE	3.429356	0.0010	**Significant***
CR	2.995332	0.0037	**Significant***
TAPS	6.884644	0.0000	**Significant***
CACEPS	-0.964331	0.3379	Insignificant
CEO	1.939092	0.0562	Insignificant

Source: Developed from the research

**Significant at 1% level of significance*

Based on Table 4.3, Model 1 records 3 significant variables, which are ROE, CR and TAPS and it has R^2 0.876831. It means there is 87.68% of total variation in dividend per share (DPS) can be explained by the total variation in all the explanatory variables. However, this model has only 3 significant explanatory variables out of 8 at 1% level of significance, therefore Model 1 is suspected to have multicollinearity.

Table 4.4: T-statistics results for Model 2 (REM)

Independent Variables	t-statistic	P-value	Significance
LOGDR	-1.873026	0.0642	Insignificant
DER	-3.537970	0.0006	**Significant***
ROA	-2.176499	0.0321	Insignificant
ROE	4.457301	0.0000	**Significant***
CR	3.416258	0.0009	**Significant***
LOGTAPS	11.28627	0.0000	**Significant***
CACEPS	-0.953580	0.3428	Insignificant
CEO	1.799867	0.0751	Insignificant

Source: Developed from the research

**Significant at 1% level of significance.*

Based on the testing conducted on Model 2 with Random Effect Model method, the R^2 is 0.774439, which means there is 77.44% of total variation in dividend per share (DPS) can be explained by the total variation in all the explanatory variables. Besides, DER initially was insignificant in Model 1, it is however significant in Model 2 when it has been made to log form. Although there is an additional significant explanatory variable, Model 2 is still cautiously suspected to have multicollinearity problem.

4.2.3.2 Pair-wise Correlation

Table 4.5: Pair-wise correlation output for Model 1

Pair-wise correlation	DR	DER	ROA	ROE	CR	TAPS	CACEPS	CEO
DR	1.0000							
DER	0.9781	1.0000						
ROA	-0.0579	-0.0862	1.0000					
ROE	0.4323	0.3625	0.4990	1.0000				
CR	-0.1610	-0.1206	0.1770	0.1571	1.0000			
TAPS	0.6592	0.6134	0.1773	0.4100	-0.1246	1.0000		
CACEPS	-0.1116	-0.1244	0.1557	0.1699	0.5991	0.1198	1.0000	
CEO	0.2733	0.2477	0.0620	0.2273	0.2053	0.2027	0.1595	1.0000

Source: Developed from the research

For pair-wise correlation, a negative correlation value indicates that there is a low correlation relationship between the stated two variables. However, the variables record a highly correlated relationship when the value of correlation approaches 1. For Model 1, correlation between DER and DR records a pair-wise correlation of 0.9781, indicating a highly correlated relationship. Accordingly, several negatively correlation like ROA and DR, ROA and DER, hence forth indicates a low correlation relationship among the variables.

Table 4.6: Pair-wise correlation output for Model 2

Pair-wise correlation	LOG DR	DER	ROA	ROE	CR	LOG TAPS	CACEPS	CEO
LOGDR	1.0000							
DER	0.3596	1.0000						
ROA	-0.4611	-0.0862	1.0000					
ROE	-0.1101	0.3625	0.4990	1.0000				
CR	-0.4800	-0.1206	0.1770	0.1571	1.0000			
LOGTAPS	0.0827	0.6623	0.1364	0.3816	-0.2314	1.0000		
CACEPS	-0.4688	-0.1244	0.1567	0.1699	0.5990	0.0006	1.0000	
CEO	-0.2066	0.2477	0.0620	0.2273	0.2052	0.1391	0.1595	1.0000

Source: Developed from the research

After logarithm has been applied, Pair-wise correlation is constructed again for Model 2 to see the correlation between variables. Surprisingly, the correlation between DR and DER has been greatly reduced to 0.3596. This indicates that the correlation between the two variables is weak, no strong correlation is present. Also, by comparing the correlation between Model 1 and Model 2, overall correlation relating to the log variables has been reduced. In short, based on this pair-wise correlation, no serious multicollinearity problem is suspected in Model 2.

4.2.3.3 Variance Inflation Factor (VIF) and Tolerance (TOL)

Variance Inflation Factor (VIF) is a tool to describe whether multicollinearity exists in a multiple regression model. Multicollinearity is problematic because it can increase the variance of the regression coefficients, making them unstable and difficult to interpret. Auxiliary regressions will be conducted for every explanatory variable to compute the VIF. The formula of VIF is: $VIF_i = \frac{1}{1-R_i^2}$. If the VIF is exceeding 10 means that it is the sign of serious mulitcollinearity; if the VIF=1, means that multicollinearity between independent variables is not so seriously correlated.

TOL is also a measure of multicollinearity in view of its intimate connection with VIF. The formula of TOL is as: $TOL_i = \frac{1}{VIF}$. The closer TOL is to zero, the greater the degree of collinearity of that variable with the other regressors.

Table 4.7: VIF results for Model 1

VIF	DR	DER	ROA	ROE	CR	TAPS	CACEPS	CEO
DR	1.0000							
DER	23.0659	1.0000						
ROA	1.0034	1.0075	1.0000					
ROE	1.2298	1.1513	1.3316	1.0000				
CR	1.0266	1.0148	1.0323	1.0253	1.0000			
TAPS	1.7685	1.6032	1.0325	1.2021	1.0158	1.0000		
CACEPS	1.0126	1.0157	1.0252	1.0297	1.5598	1.0146	1.0000	
CEO	1.0807	1.0654	1.0039	1.0545	1.0440	1.0428	1.0261	1.0000

Source: Developed from the research

Table 4.8: TOL results for Model 1

TOL	DR	DER	ROA	ROE	CR	TAPS	CACEPS	CEO
DR	1.0000							
DER	0.0434	1.0000						
ROA	0.9966	0.9926	1.0000					
ROE	0.8131	0.8686	0.7510	1.0000				
CR	0.9741	0.9855	0.9687	0.9753	1.0000			
TAPS	0.5655	0.6238	0.9686	0.8319	0.9845	1.0000		
CACEPS	0.9875	0.9845	0.9754	0.9711	0.6411	0.9857	1.0000	
CEO	0.9253	0.9386	0.9962	0.9483	0.9579	0.9589	0.9746	1.0000

Source: Developed from the research

From Table 4.7 and Table 4.8, it shows that the all the explanatory variables are not highly correlated except debt ratio (DR) and debt-to-equity ratio (DER) since its VIF of 23.0659 has exceeded the minimum level of 10. The TOL has generated a consistent conclusion because the TOL of DR and DER is 0.0434 and it is close to zero. Therefore, Model 1 might have suffered multicollinearity problem due to the correlation between debt ratio and debt-to-equity ratio.

Table 4.9: VIF results for Model 2

VIF	LOG DR	DER	ROA	ROE	CR	LOG TAPS	CACEPS	CEO
LOGDR	1.0000							
DER	1.1485	1.0000						
ROA	1.2701	1.0075	1.0000					
ROE	1.0123	1.1513	1.3316	1.0000				
CR	1.2994	1.0148	1.0323	1.0009	1.0000			
LOGTAPS	1.0069	1.7814	1.0190	1.1705	1.0566	1.0000		
CACEPS	1.2816	1.0157	1.0252	1.1111	1.5598	1.0000	1.0000	
CEO	1.0446	1.0654	1.0039	1.0545	1.0440	1.0197	1.0261	1.0000

Source: Developed from the research

Table 4.10: TOL results for Model 2

TOL	LOG DR	DER	ROA	ROE	CR	LOG TAPS	CACEPS	CEO
LOGDR	1.0000							
DER	0.8707	1.0000						
ROA	0.7873	0.9926	1.0000					
ROE	0.9879	0.8686	0.7510	1.0000				
CR	0.7696	0.9854	0.9687	0.9991	1.0000			
LOGTAPS	0.9932	0.5613	0.9814	0.8543	0.9464	1.0000		
CACEPS	0.7803	0.9845	0.9754	0.9000	0.6411	1.0000	1.0000	
CEO	0.9573	0.9386	0.9962	0.9483	0.9579	0.9807	0.9746	1.0000

Source: Developed from the research

Based on Table 4.9 and Table 4.10, both VIF and TOL have indicated that there is no multicollinearity problem in Model 2 after the transformation of debt ratio (DR) to log of debt ratio (LOGDR), the VIF has greatly reduced from 23.0659 to 1.1485 and the TOL has increased from 0.0434 to 0.8707. It indicates that the correlation between debt ratio and debt-to-equity ratio has been greatly reduced. Since both pair-wise correlation and formal testing have indicated the same result, it can be concluded that Model 2 does not suffer from serious multicollinearity problem because no explanatory variables are highly correlated to one another.

4.2.4 Autocorrelation Test

Autocorrelation is present when the error terms between two periods are correlated. Under Classical Linear Regression Model (CLRM) assumptions, autocorrelation should not be present in a model so that the estimators are best linear unbiased estimators. In case where there is autocorrelation problem, the model is still unbiased and consistent. However, it is inefficient as the correlated error term causes the variance to be underestimated. Eventually, larger *t*-statistic will be produced due to small variance and standard error, leading insignificant variables to be significant. For this section, Durbin-Watson test will be carried out to test whether there is presence of autocorrelation problem in Model 1 and Model 2.

H_0: There is no autocorrelation problem.

H_1: There is autocorrelation problem.

Figure 4.3: Durbin-Watson Test decision rule area

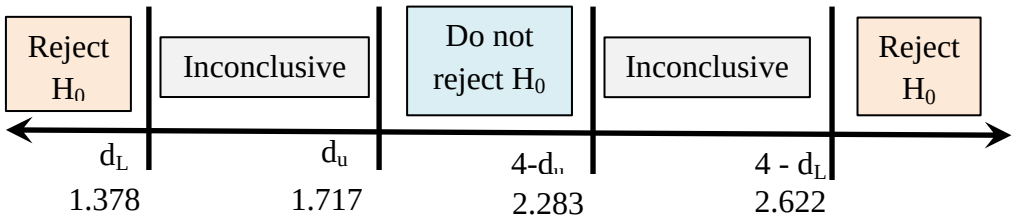


Table 4.11: Durbin-Watson Statistics from FEM output for Model 1 and Model 2

	Model 1 (FEM)	**Model 2 (REM)**
Durbin-Watson statistic	1.704325	1.862249

Source: Developed from the research

By using significance level of 1%, the d_L and d_u is 1.378 and 1.717, respectively. Hence, 4 - d_u and 4 - d_L are 2.283 and 2.622 respectively. Thus, the H_o is rejected when the Durbin-Watson statistics is less than 1.378 or more than 2.622. Alternatively, H_o is not rejected if the Durbin-Watson statistics falls in between 1.717 and 2.283. Otherwise, it is inconclusive. Based on the regression output generated by EViews 7 (refer to Appendix 6 and 7), it shows Durbin-Watson statistics from Model 1 (from FEM) and Model 2 (from REM) are equivalent to 1.704325 and 1.862249 respectively. Therefore, there is inconclusive result for Model 1 since the Durbin-Watson statistics is between 1.378 and 1.717. On the other hand, there is no autocorrelation problem in Model 2 (REM) because the Durbin-Watson statistic of 1.862249 falls between 1.717 and 2.283 thus the null hypothesis is not rejected at 1% level of significance.

4.2.5 Summary of Scale Measurement

In short, the Hausman Test suggests that Fixed Effect Model is suitable for Model 1 while Random Effect Model would be appropriate for Model 2. Furthermore, the normality Jarque-Bera Test concluded that the error term of both models is normally distributed and it fulfills the Classical Normal Linear Regression Model (CNLRM). The multicollinearity test of Variance Inflation Factor (VIF) and Tolerance (TOL) suggest that Model 1

might suffer from multicollinearity due to the high VIF and relatively low TOL between debt ratio (DR) and debt-to-equity ratio (DER). On the other hand, the test shows that Model 2 does not suffer from serious multicollinearity problem after applying logarithm method to debt ratio (DR) and total asset per share (TAPS). Last but not least, the Durbin-Watson Test concluded that Model 1 is inconclusive for detecting the autocorrelation problem while Model 2 does not suffer from autocorrelation problem.

4.3 Inferential Analysis

In this section, several tests such as R-squared, F-test and t-test of Model 1 (FEM) and Model 2 (REM) will be conducted to determine the significance for the models in explaining Dividend per share (DPS) and also the each and every explanatory variable. Result of FEM and REM will be used for Model 1 and Model 2 respectively since the Hausman Test has concluded the FEM is preferable for Model 1 and REM is preferable in Model 2. The details of the estimation output will be shown in Appendix.

4.3.1 R-squared (R^2)

Table 4.12: R^2 for Model 1 and Model 2

	Model 1 (FEM)	Model 2 (REM)
R-squared (R^2)	0.876831	0.774439

Source: Developed from research

R-squared, also known as coefficient of determination, it is used to measure goodness of the regression and how close the data are fitted on the regression line. The R^2 also measures how well the regression represents the real data. The range of R^2 is in between $0 \leq R^2 \leq 1$ and a higher R^2 indicates that dependent variables can be explained by high percentage of independent variables in the model. Meanwhile, if R^2 is zero, it indicates that none of the independent variables can be used to explain the dependent variable.

From Table 4.12, it shows that the R^2 for Model 1 is higher than Model 2 but it is not comparable since they are different models. For Model 1, the R^2 of 0.876831 implies that 87.68% of total variation in dividends per share of M-REITs can be explained by debt ratio, debt-to-equity ratio, return on assets ratio, return on equity ratio, current ratio, total asset per share, cash and cash equivalent and CEO working experience. On the other hand, 77.44% of total variation in dividends per share can be explained log of debt ratio, debt-to-equity ratio, return on assets ratio, return on equity ratio, current ratio, log of total asset per share, cash and cash equivalent and CEO working experience in Model 2.

4.3.2 F-test

F-test is a formal testing for R-squared to examine the strength of the relationship of dividends per share with all the explanatory variables. Thus, the testing is carried out to determine whether the model is statically significant. Unlike t-test, that can only access to a specific coefficient of independent variable, F-test can use for multiple coefficient of independent variable at the same time.

Table 4.13: F-statistic results for Model 1 and Model 2

	Model 1 (FEM)	**Model 2 (REM)**
F-statistic	22.83991	39.91327
Prob(F-statistic)	0.000000*	0.000000*

Source: Developed from research

**Significant at 1% level of significance.*

H_0: All the explanatory variables are insignificant in affecting the dividends per share.

H_1: At least one of the explanatory variables is significant in affecting the dividends per share.

The null hypothesis will be rejected if p-value is less than significant value of 1% and shows that the model is statistically significant in explaining dividend per share of REITs. Otherwise, there is insufficient evidence to conclude that the model is significant in explaining dividends per share.

From Table 4.13, both Model 1 and Model 2 show a favorable result with p-value equals to zero, which is less than significant level of 1%. Hence, the null hypothesis is rejected and thus indicating the model is statistically significant in explaining the dividends per share of 17 M-REITs at 1% level of significance. In shorts, both models are significant in explaining dividends per share with its explanatory variables.

4.3.3 t-test

H_0: $\beta_k = 0$ (The variable is insignificant in affecting dividends per share.)

H_1: $\beta_k \neq 0$ (The variable is significant in affecting dividends per share.)

Table 4.14 reports all the t-statistics and coefficient of every explanatory variable for Model 1 and Model 2. The results for Model 1 are from Fixed Effect Model (FEM) while results for Model 2 are from Random Effect Model (REM). T-test is used to test the significance of individual variable in affecting the dividends per share over 17 M-REITs from 2010 to 2015. A 1% level of significance is applied to do the testing and null hypothesis will be rejected if the p-value of the variable is less than the significant level of 1%, otherwise do not reject the null hypothesis.

4.3.3.1 Financial Leverage

There are two proxy variables for financial leverage in this study, which are the debt ratio (DR) and debt-to-equity ratio (DER). From Table 4.14, it shows that both debt ratio and debt-to-equity ratio in Model 1 are insignificant in affecting the dividends per share of 17 M-REITs since the p-values of both variables are greater than significant level of 1%.

In Model 2, debt ratio (DR) has been applied with logarithm method to solve the multicollinearity problem with debt-to-equity ratio and the debt-to-equity ratio (DER) appears to be significant in explaining dividend per share (DPS) by using Random Effect Model (REM) method with p-value lesser than 1% level of significance. The coefficient of -0.034836 for DER indicates that when the debt-to-equity ratio increases by 1 percentage point, on average, the dividend per share for all 17 M-REITs from 2010 to 2015 will decrease by RM0.034836, holding other variables constant.

4.3.3.2 Profitability

Return on assets ratio (ROA) and return on equity ratio (ROE) are the proxies for profitability component. The result from Table 4.14 has reported that the return on asset is not significant in affecting the dividends per share since the p-value for both models is greater than the significant level of 1%. However, the return on equity

ratio appears to be significant in the 1% level of significance because its p-values are lesser than the significant level and the result is similar for both models.

The coefficient of return on equity in Model 1 and Model 2 are 0.158337 and 0.204556 respectively, it shows a positive relationship with dividends per share for both models. It also indicates that when the return on equity increases by 1 percentage point, on average, the dividends per share of 17 M-REITs from 2010 to 2015 will increase by RM0.158337 for Model 1 and RM0.204556 for Model 2, holding other variables constant.

4.3.3.3 Liquidity

Current ratio (CR) is the sole proxy variable for liquidity. Both Model 1 and Model 2 shows a similar result in which it is significant in affecting the dividends per share of 17 M-REITs from 2010 to 2015 because the p-values in Model 1 and Model 2 reported as 0.0037 and 0.0009 respectively. It fulfills the decision rule that the p-value is less than 1% level of significance, therefore null hypothesis is rejected.

The coefficients are 0.001025 and 0.001277 for Model 1 and Model 2 respectively. Current ratio shows a positive relationship with dividends per share in both models. The coefficient implies that holding other variables constant, when the current ratio increases by 1 percentage point, on average, the dividends per

share of 17 M-REITs from 2010 to 2015 will increase by RM0.001025 in Model 1 and RM0.001277 in Model 2.

4.3.3.4 Firm Size

Firm size is represented by the total asset per share. Per-share basis is applied for comparison among all the M-REITs because total assets would be different for every company and it will be difficult to compare which one has a greater firm size. From Table 4.14, the total asset per share appears to be significant in 1% level of significance for Model 1. The coefficient of 0.024573 implies that there is a positive relationship with dividends per share. It also indicates that when the total asset per share increases by RM1, on average, the dividends per share will increase by RM0.024573, holding other variables constant.

Logarithm method is applied for total asset per share in Model 2 to reduce the spread of data and also to solve the multicollinearity problem in Model 1 have suffered from. After log of total asset per share (LOGTAPS) is applied, the result also shows a consistent result with Model 1 that it is significant in 1% level of significance. The coefficient is 0.099799 and it also shows a positive relationship with dividends per share. Holding other variables constant, when the log of total asset per share increases by 1%, on average the dividends per share will increase by RM0.00099799

4.3.3.5 Cash Flows

The proxy variable for cash flow is the cash and cash equivalent per share. The reason that using per-share basis for cash and cash equivalent is also similar to total asset per share, which are to reduce the spread of data and to compare the size among all the M-REITs. Model 1 and Model 2 show a consistent result that the cash and cash equivalent per share is insignificant in affecting dividends per share at 1% level of significance since its p-values are greater than 0.01 in both models.

4.3.3.6 CEO Working Experience

CEO working experience is the dummy variable in this study, the benchmark category of the variable is when the company's CEO working experience is less than or equal to 20 years. It means that if the company's CEO working experience is greater than 20 years, it will be 1, otherwise 0. From Table 4.14, both models report that CEO working experience is insignificant in affecting dividends per share of 17 M-REITs from 2010 to 2015.

Table 4.14: t-statistic results for Model 1 and Model 2

Model 1 (FEM)				
	Coefficient	**t-statistic**	**Probability (t-statistic)**	**Significance (1%)**
DR	-0.116391	-1.681416	0.0967	Insignificant
DER	0.033717	1.112233	0.2695	Insignificant
ROA	-0.066464	-1.743851	0.0852	Insignificant
ROE	0.158337	3.429356	0.0010	**Significant***
CR	0.001025	2.995332	0.0037	**Significant***
TAPS	0.024573	6.884644	0.0000	**Significant***
CACEPS	-0.019601	-0.964331	0.3379	Insignificant
CEO	0.010718	1.939092	0.0562	Insignificant
Model 2 (REM)				
	Coefficient	**t-statistic**	**Probability (t-statistic)**	**Significance (1%)**
LOGDR	-0.005764	-1.873026	0.0642	Insignificant
DER	-0.034836	-3.537970	0.0006	**Significant***
ROA	-0.080860	-2.176499	0.0321	Insignificant
ROE	0.204556	4.457301	0.0000	**Significant***
CR	0.001277	3.416258	0.0009	**Significant***
LOGTAPS	0.099799	11.28627	0.0000	**Significant***
CACEPS	-0.018323	-0.953580	0.3428	Insignificant*
CEO	0.007151	1.799867	0.0751	Insignificant

Source: Developed from research

**Significant at 1% level of significance.*

4.3.4 Summary of Inferential Analysis

In short, all the hypothesis testing is conducted with significance level of 1%. The Fixed Effect Model (FEM) and Random Effect Model (REM) estimation output for respective models are used for this section as well based on the conclusion by the Hausman Test and 1% level of significance is used for all the hypothesis testing. The R^2 for Model 1 and Model 2 are 87.6831% and 77.4439% respectively. Furthermore, F-test has concluded that both models are significant in which at least one of the explanatory variables is significant in affecting dividends per share of 17 M-REITs from 2010 to 2015. For t-test, both Model 1 and Model 2 reported similar result that return on equity ratio (ROE), current ratio (CR), and total asset per share (TAPS) in Model 1 or LOGTAPS in Model 2 are significant in affecting dividends per share at 1% level of significance but Model 2 has an additional significant variable, which is the debt-to-equity ratio (DER).

4.4 Conclusion

In a nutshell, descriptive analysis, scale measurement, and inferential analysis are conducted in this chapter. Due to imperfections in Model 1, logarithm transformation is applied to improve the result as in Model 2. After transformation, the multicollinearity problem between debt ratio (DR) and debt-to-equity ratio (DER) in Model 1 is solved. Furthermore, there is an additional significant explanatory variable for Model 2. Therefore, Model 2 with Random Effect Model (REM) is more outstanding than Model 1 after logarithm-transformation. The next chapter (Chapter 5) will further discuss the findings, implications, limitations, recommendations and so on that found in this study.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATION

5.0 Introduction

After all the data analysis conducted in Chapter 4, this chapter is to summarize the major findings and discussion that has been conducted earlier. Furthermore, implications, limitations, and recommendations for this study will also be identified and suggested.

5.1 Summary of Statistical Analysis

In Chapter 4, two models, one with logarithm and one without logarithm, have been tested by using EViews 7 and it has been found that both models have different significant variables and number of significant variables. Under this part, summary of the result will be conducted based on the result shown in EViews.

Table 5.1: Summary of Output for Model 1 (FEM)

R^2= 0.876831

Independent Variables	Coefficient	Significance	t-statistics
DR	β_1	Insignificant	-1.226196
DER	β_2	Insignificant	0.479101
ROA	β_3	Insignificant	-1.228088
ROE	β_4	**Significant***	3.008940
CR	β_5	**Significant***	3.074631
TAPS	β_6	**Significant***	6.172414
CACEPS	β_7	Insignificant	-0.578368
CEO	β_8	Insignificant	2.631869

Source: Developed from the research

**Significant at 1% level of significance*

Table 5.2: Summary of Output for Model 2 (REM)

R^2= 0.774439

Independent Variables	Coefficient	Significance	t-statistics
LOGDR	β_1	Insignificant	-2.346516
DER	β_2	**Significant***	-3.414663
ROA	β_3	Insignificant	-1.778004
ROE	β_4	**Significant***	4.014659
CR	β_5	**Significant***	3.963281
LOGTAPS	β_6	**Significant ***	12.48344
CACEPS	β_7	Insignificant	-0.593727
CEO	β_8	Insignificant	1.705153

Source: Developed from the research

**Significant at 1% level of significance.*

Due to the transformation of logarithm for two independent variables as shown in Table 5.2, DER has become an additional significant variable to the dependent variable (dividend per share) in real estate trust industry. Similarly, no changes in significance level has been made, with R^2 equals to 77.4439%, a total of 4 significant variables have been determined in Model 2. For summary purpose, 4 significant independent variables in Model 2 are DER, ROE, CR and LOGTAPS.

On the other hand, it is important to take note that 2 models are conducted using different panel analysis. For Model 1, Fixed Effect Model (FEM) has been implemented while in Model 2, Random Effect Model (REM) has been implemented. The reason being of doing this is mainly due to the first test conducted in Chapter 4, Hausman test suggests that FEM is better for Model 1 and REM is better for Model 2. Therefore, the interpretation for each of the variable will be different according to the type of model (REM or FEM) that have been used.

5.2 Discussion of Major Findings

Under this part, discussion and comparison of the result between this research and those being cited in literature review under Chapter 2 will be carried out. The result in Chapter 4 may be similar or contradict to the result done by earlier researchers. Also, summary of the results including the validity of hypotheses and research will be conducted under this part as a whole.

5.2.1 Financial Leverage

Based on the result in Table 5.1 and Table 5.2 for Model 1 and Model 2 respectively, under the variable of financial leverage, debt ratio (DR) is indicated as insignificant to the dependent variable (dividend per share) and has negative relationship in both models although logarithm transformation has been made to DR. On the other hand, debt-to-equity ratio (DER), under Model 1, is an insignificant variable with positive relationship; however, after transforming DR in to log form (LOGDR), DER becomes a significant variable and has negative relationship to the dependent variable.

5.2.1.1 Debt Ratio (DR)

Referring to the output in Table 5.1, using significance level of 1%, DR is an insignificant variable and has negative relationship to the dependent variable. Due to the problem of multicollinearity in Model 1, DR has been made to LOGDR using logarithm transformation in Model 2. Similarly, the result shown in Model 2 with LOGDR shows that LOGDR is an insignificant variable and has negative relationship to the dependent variable, which is consistent to the result as determined under Model 1.

Based on the literature review in Chapter 2, the result is contradicted with previous studies such as Jin et. al. (2015), Gill and Mathur (2011) and Mule and Mukras (2015), in which they concluded that there is a negatively significant relationship

between DR and dividend payout. Jin et. al. (2015) implied that DR is a negatively significant variable to the optimal dividend payment for insurance companies and not REITs. In other words, the higher the debts insurance companies have, the lower the dividend payout. Debt is a significant factor to insurance sector, it is however insignificant in REIT industry. The main difference between insurance and REIT companies is the usage of debt, one is for financing and one is mainly for investing.

Referring to the hypothesis stated in Chapter 2, the result found is contradicted to the hypothesis for DR.

5.2.1.2 Debt-to-Equity ratio (DER)

Based on Table 5.1, DER is a positive insignificant variable to the dependent variable, dividend per share in Model 1. However, the result has been empirically improved in Model 2 after DR has been transformed into log form. DER, in Model 2 now, has become significant negative variable to the dividend per share in REIT industry. That is, the higher the debt-to-equity ratio in a REIT firm, the lower the dividend per share distributed by the REIT firm. Because of the presence of multicollinearity problem between DR and DER in Model 1, it could not specifically indicate which variable is in fact affecting the dependent variable. However, after the multicollinearity problem is solved in Model 2, it shows that DER is actually significant and has negative relationship in affecting the dependent variable.

The result in Model 1 is also consistent with the results of Myers and Frank (2004) in which the authors concluded, higher DER will magnify the company's reputation in term of long term performance and it sustains seizure in capital market and hence eventually lead to higher dividend payout. However, due to multicollinearity problem in Model 1, it could not clearly tell whether the result is in fact justifiable by Myers and Frank 92004).

Numerous studies as cited in literature review have found result refuting to that of Myers and Frank (2004) and these studies coincidentally support the result as in Model 2. These studies are Afza and Mirza (2010), Barclay et. al. (1995) and Vo and Nguyen (2014). Afza and Mirza (2010) concluded that highly leveraged firms take longer time to hesitate the distribution of dividend as compared to lightly leveraged firms. This has indirectly indicated that highly leveraged firms are not willing to pay higher dividend; high debts, low dividend. Barclay et. al. (1995) concluded that due to the floatation costs and interest payments incurred as a result of share issuance and loan borrowings for the purpose of dividend distribution, firms generally take higher leverage and distribute lesser dividend after deduction of all costs involved. Vo and Nguyen (2014) concluded that dividend is the second priority after all legal obligations have been satisficed and therefore, lower dividend can be distributed if firms are taking high legal obligation such as loans and short term borrowings. Other than this, it can be seen that REIT investors are concerned with the net earning to the proportion of their invested capital in which DER in Model 2 has shown significant relationship to DPS.

Conclusively, the result in Model 2 is in line with the hypothesis developed in Chapter 2. Also, result of DER in Model 2 is also

consistent with the financial distress theory whereby higher liabilities lead to lower dividend payout.

5.2.2 Profitability

Under the independent variable of profitability, return on assets (ROA) and return on equity (ROE) have been included as the proxy for each other. Referring to the result obtained based on Model 1 and Model2, which has been stated in Table 5.1 and Table 5.2 respectively, ROA is an insignificant negative variable and ROE is a significant positive variable. Therefore, it can be concluded that ROE is an important proxy for profitability.

5.2.2.1 Return on Asset (ROA)

Based on the result in Table 5.1 and Tables 5.2, ROA for both Model 1 and Model 2 indicate that it is a negatively insignificant variable to the dividend per share under this study. The result of this study is contradict with majority of the previous studies discussed in literature review, including Moradi et. al. (2010), Banerjee and De (2015), Ooi (2001).

Ooi (2001) concluded that there is a positively significant relationship between ROA and dividend distribution. Ooi (2001) implied that future profitability measured by ROA can be

substituted by another related proxy and the main thing to be focused is the sufficiency of the cash flow of a property company because uncertainty of cash flow is more crucial than the profitability level under management's expectation.

Ooi (2001) and Banerjee and De (2015) found a positive significant relationship between ROA and dividend payout. The reason being is due to the higher assets being held by a property company enabling them to generate higher profit and thus paying higher dividend. However, the scope of property companies to REIT companies has very much difference in which REIT is required to hold at 50% of tangible properties for income-generating purpose and is mandated to pay 90% of net income as dividend. Property companies generate income from sale of properties, which is very different from REIT companies.

The hypothesis for ROA is contradict to the result found, whereby result shows insignificant and negative relationship but hypothesis states a significant and positive relationship.

5.2.2.2 Return on Equity (ROE)

Based on the result as in Table 5.1, ROE is positively significant variable to the dividend payout in this research. After transforming two variables into logarithm, ROE has no changes in term of its significance and relationship. Under Model 2, based on Table 5.2, ROE is still a positively significant variable. Referring to literature

review in Chapter 2, the result is against the viewpoints of many previous studies which include Mehta (2012), Kania and Bacon (2005), Ahmed (2015), Rafique (2012), and Ahmed (2013).

According to Mehta (2012) and Kania and Bacon (2005), because profitable and growing firms intend to increase their future earnings, they tend to retain excess cash flows in retained earnings for future investments. However, this result may not be applied in this study because Malaysian government makes it mandatory for a REIT company to distribute 90% of taxable income. If it were the case as discussed by Mehta (2012) and Kania and Bacon (2005), REIT companies would have paid high income tax to the government. Therefore, contradiction of result occurs. Also, this can be explained in another way where investors or unitholders tend to have higher ROE because they prefer return in relation to their capital provided.

The result found is also consistent with the signaling theory of dividend policy in which a profitable firm is willing to distribute higher dividend to convey their good financial performance. Also, result is consistent with the hypothesis.

5.2.3 Liquidity

5.2.3.1 Current Ratio (CR)

Based on Table 5.1 and Table 5.2 for Model 1 and Model 2 respectively, both the results do not show much difference for the variable of liquidity with CR as the proxy. CR is indicated as a positively significant variable under Model 1 and after transformation of logarithm in Model 2. This is also supported with the result by Botoc and Pirtea (2014), Ahmed (2015), Vaidean and Moza (2015) and Mehta (2012) in which higher CR of a company is said to be able to pay higher dividend and vice versa.

According to Ahmed (2015), dividends are paid out by the available cash retained by a company. Cash as a part of current assets, with lesser current assets might also be meant that the company has lesser cash in hand; therefore, current ratio indeed contributes significant to the dividend payout by a company. In line with Botoc and Pirtea (2014) and Mehta (2012), higher liquidity indicates a firm has ability to face every liquidity situation; therefore, high dividend is more likely to be distributed.

Conclusively, the result is in line with the hypothesis in Chapter 2 where there is positive and significant relationship. Also, this is consistent with the liquidity preference theory.

5.2.4 Firm size

5.2.4.1 Total Asset per Share (TAPS)

Referring to Table 5.1, where TAPS is entered without logarithm, it is found that TAPS is a positively significant variable. After transforming it into log form becoming LOGTAPS, it is still having positive relationship with dividend per share and is statistically significant in Model 2. The result for both models is coincidentally consistent with many previous studies such as Gentry et. al. (2003), Ameer (2015), Sahin and Nasseh (2013) and Lee (1997). Because of the multicollinearity problem between DR and DER in Model 1, log of DR is good to solve the problem of multicollinearity. By doing so, it will cause the data to be not normally distributed and therefore, log of TAPS is necessary to ensure normality of data.

According to Kouser et.al. (2015), large firms are claimed by many financial analysts that they will be able to distribute dividends comparing to small firms. In other words, higher total assets per share will be able to receive higher dividend. Hossain et. al. (2013) also implied that large firms with high total assets are most likely reaching stable performance and have lower business growth expansion; therefore, stable performance brings lesser volatility for cash inflows and makes firms to declare dividend. Linking it to REITs industry, a M-REIT is profitable with higher total assets on hand especially fixed assets in properties. With higher TAPS can also be meant that the company has more properties that help generating revenue and profits. Furthermore, Sahin and Nasseh

(2013) and Hossain et. al. (2013) also implied that distributing dividend by large firms will also eliminate issue of agency problem especially in REITs.

Coincidentally, result obtained is consistent with the hypothesis stated in the earlier chapter.

5.2.5 Cash Flows

5.2.5.1 Cash and Cash Equivalents per Share (CACEPS)

The result for Model 1 and Model 2 are shown in Table 5.1 and Table 5.2 respectively indicating that CACEPS is a statistically insignificant variable and has negative relationship with dividend per share in this study. Even after the transformation of logarithm in DR and TAPS, the result for CACEPS is about similar and has no changes. Referring back to literature review in Chapter 2, no past researches are found to have similar result with this study.

Where all studies found that higher cash and cash equivalents companies will distribute higher dividend, this study however determines an opposite result. Cash and cash equivalents in non-REIT companies may be a significant and positive variable in determining dividend payout. However, M-REITs are, as mentioned earlier, mandatory to distribute 90% of the net income.

Cash on hand in this cash will not be the main issue because cash in hand is used by companies in purchasing assets for profit-generating purpose, indicating it as insignificant. In other words, M-REITs can have more cash due to high non-cash expenses (e.g: depreciation of properties). They will then purchase more assets for future earnings making them having less cash and cash equivalents but higher amount assets as well as depreciation caused by high assets being held. This could eventually reduce the overall net income and therefore making the 90% dividend distribution to be less impact as it appears.

In short, the result of this research is contradict to previous studies cited in the part of literature review and hypothesis in Chapter 2. One of the reasons may due to the difference of studied industry compared to previous studies.

5.2.6 CEO working experience (CEO)

Both Model 1 and Model 2 have indicated that CEO is an insignificant variable and it is positively related to the dividend per share. Similarly, no changes in term of sign and significance have been determined after transforming DR and TAPS into logarithm. The result found in this study shows that there is contradiction with previous researches such as Ting et. al. (2015) and Cimevora (2012).

According to Ting et. al. (2015) and Cimerova (2012), the higher the age of a CEO or the more experience a CEO has, the lower the dividend payout will be made. They justified this by stating that elder CEO tends to

go for conservative strategy whereby they tend to take lesser leverage and distribute lower dividend to sustain a longer, regular and continuous cycle.

Conclusively, the result obtained is contradict to the result of studiess found in Chapter 2.

5.3 Implication of the Study

This research offers the information on how several independent variables proposed have affected the performance of M-REITs to investors, M-REITs companies and future researchers or academicians. Empirical results show that return on equity (ROE), current ratio as well as total assets per share are the significant variables which could influence the dividend per share the companies paid. However, debt-to-equity ratio becomes a significant variable upon the transformation of the model (Model 2).

5.3.1 Investors

Investors undoubtedly desire the return (dividend) from their investment to be as much as possible. Therefore, they are concerned on the performance of M-REITs as they have invested capital in the shares of M-REITs to receive high dividend. Besides, this study is also useful for the non-M-REITs investors who have confusion whether M-REITs are worth to invest. The performance of the M-REITs could not only be judged by dividend

paid by the M-REITs but the other factors that may influence the M-REITs to declare dividend as well.

As the empirical results from Chapter 4 reported profitability, liquidity and size of M-REITs are significantly in affecting their dividends per share. Therefore, investors should aware of the ROE, current ratio and total assets figure in M-REITs' annual report instead of only emphasizing on the dividend the companies paid before they invest it. For example, a particular company declared high dividend in these few years but the ROE of that company is on reducing trend, it might be having high chances for that company to have lowered down their dividend payment in the future.

5.3.2 M-REITs

Dividend is an attractive figure in annual report to fascinate the investor to invest in their companies. This research offers M-REITs the ideas on how the variables influence their dividend paid to shareholder that will reflect their performance to investors. The elements in the M-REITs' annual reports had been analyzed to determine which variables are vital in determining performance of M-REITs.

Return on equity (ROE) indicates M-REITs' profitability level and current ratio indicates their liquidity level and total assets held by M-REITs proved positive and significant influence their dividend paid from empirical result in Chapter 4. Positive relationship between ROE and dividend per share implied that the M-REITs should strike to push their ROE in order to have additional amount paid as dividend. Method of using more financial leverage could increase ROE and also increase the current

ratio. M-REITs suggested to carry out their financing activities by liabilities instead of equity capital could increase the figure of liabilities and reduce the amount of equity capital.

Other than that, assets like property and land are the most important sources for a real estate companies to generate income. The larger firm size of M-REITs, more assets the M-REITs hold or own can generate more profit as compared to that of small size. Therefore, M-REITs are suggested to fully utilize their assets to increase profit to declare dividends to shareholder.

5.3.3 Future Researchers

There are a lot of researches investigating the performance of REIT in foreign countries but not in Malaysia. Since Malaysia has only 17 listed REIT companies and REITs in Malaysia are not famous comparing to other well-developed nations, thus the research related to this subject matter in Malaysia is very scarce. This research provides references and guidelines for future researchers and academicians who would like to carry out research on the same subject matter. As this research impossible to include all variables that may affect the performance of the companies, future researchers could include other important variables that significantly influence their performance to enhance this research. Apart from real estate sector in Malaysia, future researchers could explore new information by studying in this subject matter in different countries as well. Besides, the performance of companies in other industries could also be studied to compare the result of this research.

5.4 Limitations of the Study

As things do not go as smoothly as planned, there is always imperfection in research. There are some limitations in this research as well.

Firstly, the data research is not consistent throughout six years as there are some firms only listed on recent years such as Al-Salam REIT only listed in the year 2015, IGV REIT and KLCC REIT listed in the year 2013 and so on. Hence, data before these firms listed is not available for the earlier years of research and making the information for all M-REITs not consistent. In addition, there is also a firm has privatized in year 2014 which is Al-Hadharah Boustead REIT. Thus, data for this firm is no longer available in Bursa Malaysia and this is one of the reasons of total number of sample is reduced.

Furthermore, this research is using dividend per share as dependent variable and thus investors could not have a complete idea about their investors' total return as their total returns consists of both dividend and capital gain. So, this research may only attract investors who focus on dividend return. In addition, investors might not able to make wise decision solely based on this research as it does not show a clear picture of the investors returns.

Moreover, this research only focuses on listed real estate investment trusts REITs and do not include private REITs. According to Farb (2005), there are various differences between public and private REITs such as the liquidity issues, cost incurred and legal compliance. Such differences will result to different outcome of dividend payment from the company. However, this research is unable to show the differences between these two types of REITs. In other words, this result does not reflect the performance of industry as whole in the market. By reviewing this research, investors may only get the analysis of listed REITs and it may not

suitable to use as reference for private REITs. Hence, the research may only beneficial one side of the investors. Therefore, more researches and justifications need to be carried when considering invest in public or private REITs.

Besides, this research is taking both conventional and Islamic M-REITs as overall sample data. It makes this research unable to compare the performance of conventional and Islamic REITs in Malaysia as it does not run the econometric model separately for the purpose of comparison. Due to different characteristic and rules and regulations, conventional and Islamic M-REITS may provide different outcomes to the research. Hence, throughout this research, readers do not able to specify which independent variables are significantly affect conventional and Islamic M-REITs.

Last but not least, this research is carried out based on all the REITs in Malaysia only. It is not comparable with other countries as each country has their own rules and regulations as well as guidelines in various criteria (PwC, 2013). Among all countries, there are different tax requirement, capital requirement, restriction on foreign investment and investors, listing requirements and so on. For instance, Malaysia REITs is required to pay 90% of taxable income and will not subject to corporate income tax if the firm can meet the requirement of 90% income distribution. Otherwise, a 25% of income tax is subjected to the firm. Besides that, Malaysia REITs are required to have at least 50% of total assets are required to invest in real estate. However, there are some differences in other countries. In Hong Kong and Singapore, the percentages of total assets to be invested in real estate are different which are 90% and 75%, respectively. Thus, comparing results with one country to another is not reliable due to certain differences on government policy and rules and regulations.

5.5 Recommendations for Future Research

First and foremost, future researchers are recommended to obtain a consistent data for coming research years. As stated in limitations of the study, there is inconsistent data in the research due to several reasons and it lead to unbalanced panel data. Besides, it has making the research sample becomes lower. For future research study, the chance of getting more samples is higher as M-REITs industry is still developing. Hence, researchers are recommended to include more sample data in order to obtain a balance panel data. By doing so, the research outcome is more reliable and able to fully reflect the whole industry performance.

Since the research is using dividend per share as dependent variable to determine the performance M-REITs, future researchers are recommended to use other factor as dependent variable such monthly or annual stock price of the company. This is because stock price also reflects the performance of company and provide information to stakeholders whether or not the company is worth to invest. By using stock price as dependent variable, the research can provide a new outcome and investors who focus on capital gain can make decision based on the research for their investment. Furthermore, future researches also use earning per share as dependent variable to determine the performance of the company. Hence, investors will able to know how much they can earn for every share they have invested to the company. Besides, future researchers also can improve the independent variable of the model. For instance, sales per total assets and net income per total assets are the financial accounting ratios listed in the research of (Vintila & Nenu, 2015). Based on sales per total assets, the research will provide the information about how much the sales value can be generated by total assets of the company whereas net income per total assets provides information of how much new income the company can earn by using its total assets. Hence, the independent variable is become more useful and powerful as compared to total assets.

Moreover, current research only includes public listed M-REITs while private companies are not included. Thus, future researchers are recommended to include both public and private REITs to show a clearer picture of the whole industry. For private REITs, there is chance that the company will distribute their earnings as well. Besides that, there are also some differences between public listed and private REITs in terms of liquidity, transaction cost, disclosure requirements and so on. Throughout the research, investors can have better reference and hence more capable to make better decision on whether public or private REITs to invest.

As mentioned in limitation earlier, this research making the result of conventional and Islamic M-REITs incomparable. Future researchers may run the economic models for both conventional and Islamic M-REITs separately to examine the significant effects of all independent variables on dividend per share. Hence, the study of M-REITs will be more precise and accurate as justifications can be done through more complete information. Moreover, readers are able to justify which independent variables are significantly affecting the conventional and Islamic REITs. Thus, it will be more beneficial to readers especially for investors to make investment decision on choosing conventional or Islamic M-REITs.

Last but not least, future researchers also can improve the research by comparing local REITs with other countries as current research only focus on Malaysia REITs. There are differences between local and foreign REITs such as proportion of assets should invest in the business and its tax rules. For instance, Malaysia REITs are required to invest at least 50% of their total assets value to the business and distribute 90% of the taxable income to investors, whereas in Singapore, the REITs is required to invest 75% of its deposited property to the business and does not require to distribute up to 90% of the taxable income even though investors can enjoy tax transparency in this investment. These criteria affect the earnings of the REITs significantly. Hence, future researches can provide the possible outcomes of how these characteristics affect the company performance and how its benefit investors.

5.6 Conclusion

This study mainly is to investigate the effect of financial leverage (proxy by debt ratio and debt-to-equity ratio), profitability (proxy by return on asset and return on equity), liquidity (proxy by current ratio), firm size (proxy by total asset per share), cash flow (proxy by cash and cash equivalent per share), and CEO working experience on the performance of 17 M-REITs from 2010 to 2015 and it is indicated by dividend per share in order to assess the worthiness of investing for M-REITs based on the data from 2010 to 2015.

Several analyses such as descriptive analysis, scale measurement, and inferential analysis have been conducted to investigate the significance of the models, significance of explanatory variables in explaining the dependent variable – dividend per share. Random Effect Model (REM) is applied for Model 2 in this study and it reported that the debt-to-equity ratio shows a negatively significant impact while return on equity, current ratio, log of total asset per share show positively significant impact in explaining dividend per share for 17 REITs in Malaysia from 2010 to 2015.

Conclusively, under this research, it can be concluded that REIT industry is still worth to be invested. The reason being is because of the increasing non-cash expenses as a result of increasing total assets of M-REITs. The increasing in depreciation of buildings for M-REITs does not really impact the profitability of M-REIT itself because it helps the company to save from taxes. On the other hand, 90% of the taxable income distributed for shareholders will also be lesser. This can be justified based on accounting perspective in which depreciation is categorized as an operating expense and it reduces the net income of company and therefore the tax of company that will be paid. 90% of the less net income then will be lesser as well.

Moreover, based on the result determined in this research, DER, ROE TAPS in Model 1 or LOGTAPS in Model 2 are all related to equities of M-REITs. Equities are those funds contributed by shareholders to finance the operation of companies. This indicates that Malaysian shareholders are concern about the components that relate to their invested amount. DER shows that increasing in debt per share will reduce the dividend per share. What can be concluded is that the debt related costs such as interest rate or flotation costs, according to Barclay et. al. (1995), will cause the company reduce in net profit as well as the actual available cash flows of company. Return on equity (ROE) is indicated by Warren Buffett as one of the approach to determine whether a company is consistently performing their performance instead of solely looking at the single amount of net profit. The return on equity indicates that return to each unit of share, therefore, higher return on each share also implies higher dividend for shareholders (Do remember return is the net profit after all costs including interest, tax and depreciation). Consistent with the above justification, TAPS is found to have significant positive to dividend per share of each M-REIT holder. Based on the chart as shown in Figure 1.3, the total assets of REIT industry have been increased to higher amount totaling RM37,647,239,445 at 2015. Compared to that in 2010, the total assets in REIT industry have been increased about 3.29 times. Because M-REITs have assets mainly in fixed assets especially buildings and properties, the total depreciation is undoubtedly increasing by about 3.29 times also. Since depreciation is a non-cash item, it does not affect the cash flows of company, the company with lesser net profit can still pay dividend as long as they have sufficient cash flows for the income distribution.

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Appendix 1: List of Malaysian Real Estate Investment Trusts (M-REITs)

1. Al-'Aqar Healthcare Real Estate Investment Trust
2. Amanah Harta Tanah PNB
3. Al-Salam Real Estate Investment Trust
4. AmFirst Real Estate Investment Trust
5. AmanahRaya Real Estate Investment Trust
6. Atrium Real Estate Investment Trust
7. Axis Real Estate Investment Trust
8. CapitalLand Malaysia Mall Trust
9. Hektar Real Estate Investment Trust
10. IGB Real Estate Investment Trust
11. KLCC Real Estate Investment Trust
12. MRCB-Quill Real Estate Investment Trust
13. Pavilion Real Estate Investment Trust
14. Sunway Real Estate Investment Trust
15. Tower Real Estate Investment Trust
16. UOA Real Estate Investment Trust
17. YTL Hospitality Real Estate Investment Trust

Appendix 2: Descriptive Statistics for Model 1

	DPS	DR	DER	ROA	ROE	CR	TAPS	CACEPS	CEO
Mean	0.077768	0.291297	0.474814	0.056382	0.076269	2.795832	1.951683	0.066751	0.637255
Median	0.081500	0.338400	0.511500	0.050700	0.076500	0.426500	1.927150	0.057300	1.000000
Maximum	0.192500	0.540200	1.175000	0.454000	0.191400	59.76690	5.257400	0.574400	1.000000
Minimum	0.000000	0.000000	0.000000	-0.007200	-0.015600	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.039108	0.155842	0.295482	0.050759	0.045120	7.753279	0.936799	0.076678	0.483166
Skewness	-0.280780	-0.704306	-0.092635	4.801066	0.158405	5.346094	0.199799	3.516883	-0.570953
Kurtosis	3.635189	2.318995	2.141287	38.18669	3.064207	35.18629	5.235714	21.61503	1.325988
Jarque-Bera	3.054960	10.40381	3.279780	5653.793	0.444089	4888.691	21.92191	1682.970	17.45164
Probability	0.217082	0.005506	0.194001	0.000000	0.800880	0.000000	0.000017	0.000000	0.000162
Sum	7.932300	29.71230	48.43100	5.751000	7.779400	285.1749	199.0717	6.808600	65.00000
Sum Sq. Dev.	0.154474	2.452957	8.818261	0.260219	0.205619	6071.447	88.63682	0.593826	23.57843
Observations	102	102	102	102	102	102	102	102	102

Appendix 3: Descriptive Statistics for Model 2

	DPS	LOGDR	DER	ROA	ROE	CR	LOGTAPS	CACEPS	CEO
Mean	0.077768	-1.231396	0.474814	0.056382	0.076269	2.795832	0.655444	0.066751	0.637255
Median	0.081500	-0.987006	0.511500	0.050700	0.076500	0.426500	0.656038	0.057300	1.000000
Maximum	0.192500	0.000000	1.175000	0.454000	0.191400	59.76690	1.659637	0.574400	1.000000
Minimum	0.000000	-6.214608	0.000000	-0.007200	-0.015600	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.039108	1.062006	0.295482	0.050759	0.045120	7.753279	0.353577	0.076678	0.483166
Skewness	-0.280780	-2.919087	-0.092635	4.801066	0.158405	5.346094	0.022684	3.516883	-0.570953
Kurtosis	3.635189	13.13583	2.141287	38.18669	3.064207	35.18629	3.215727	21.61503	1.325988
Jarque-Bera	3.054960	581.4817	3.279780	5653.793	0.444089	4888.691	0.206536	1682.970	17.45164
Probability	0.217082	0.000000	0.194001	0.000000	0.800880	0.000000	0.901885	0.000000	0.000162
Sum	7.932300	-125.6024	48.43100	5.751000	7.779400	285.1749	66.85530	6.808600	65.00000
Sum Sq. Dev.	0.154474	113.9134	8.818261	0.260219	0.205619	6071.447	12.62668	0.593826	23.57843
Observations	102	102	102	102	102	102	102	102	102

Appendix 4: Hausman Test Result for Model 1

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	24.280927	8	0.0021

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
DR	-0.121636	-0.031837	0.004678	0.1892
DER	0.022503	-0.015411	0.000997	0.2299
ROA	-0.058241	-0.039801	0.000281	0.2711
ROE	0.179217	0.198093	0.000236	0.2187
CR	0.001166	0.001119	0.000000	0.8022
TAPS	0.027078	0.035093	0.000010	0.0102
CACEPS	-0.023630	-0.025702	0.000582	0.9315
CEO	0.017086	0.006904	0.000023	0.0335

Cross-section random effects test equation:
Dependent Variable: DPS
Method: Panel Least Squares
Date: 07/16/16 Time: 22:32
Sample: 2010 2015
Periods included: 6
Cross-sections included: 17
Total panel (balanced) observations: 102

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.026713	0.007366	3.626411	0.0005
DR	-0.121636	0.099198	-1.226196	0.2239
DER	0.022503	0.046970	0.479101	0.6332
ROA	-0.058241	0.047424	-1.228088	0.2232
ROE	0.179217	0.059561	3.008940	0.0035
CR	0.001166	0.000379	3.074631	0.0029
TAPS	0.027078	0.004387	6.172414	0.0000
CACEPS	-0.023630	0.040856	-0.578368	0.5647
CEO	0.017086	0.006492	2.631869	0.0103

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.851661	Mean dependent var	0.077768
Adjusted R-squared	0.805425	S.D. dependent var	0.039108
S.E. of regression	0.017251	Akaike info criterion	-5.072881
Sum squared resid	0.022915	Schwarz criterion	-4.429506
Log likelihood	283.7170	Hannan-Quinn criter.	-4.812357
F-statistic	18.42006	Durbin-Watson stat	1.916753
Prob(F-statistic)	0.000000		

Appendix 5: Hausman Test Result for Model 2

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	15.466195	8	0.0507

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGDR	-0.007100	-0.005764	0.000004	0.4793
DER	-0.040195	-0.034836	0.000134	0.6435
ROA	-0.089994	-0.080860	0.000394	0.6455
ROE	0.165997	0.204556	0.000471	0.0756
CR	0.001458	0.001277	0.000000	0.3728
LOGTAPS	0.084786	0.099799	0.000087	0.1080
CACEPS	-0.036948	-0.018323	0.000553	0.4283
CEO	0.010135	0.007151	0.000018	0.4869

Cross-section random effects test equation:
Dependent Variable: DPS
Method: Panel Least Squares
Date: 07/16/16 Time: 22:36
Sample: 2010 2015
Periods included: 6
Cross-sections included: 17
Total panel (balanced) observations: 102

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.016882	0.007163	2.356968	0.0210
LOGDR	-0.007100	0.003098	-2.291586	0.0247
DER	-0.040195	0.015432	-2.604672	0.0110
ROA	-0.089994	0.049622	-1.813577	0.0736
ROE	0.165997	0.055380	2.997421	0.0037
CR	0.001458	0.000381	3.827657	0.0003
LOGTAPS	0.084786	0.012295	6.896213	0.0000
CACEPS	-0.036948	0.038796	-0.952349	0.3439
CEO	0.010135	0.006000	1.689067	0.0953

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.864079	Mean dependent var	0.077768
Adjusted R-squared	0.821714	S.D. dependent var	0.039108
S.E. of regression	0.016513	Akaike info criterion	-5.160308
Sum squared resid	0.020996	Schwarz criterion	-4.516932
Log likelihood	288.1757	Hannan-Quinn criter.	-4.899783
F-statistic	20.39607	Durbin-Watson stat	1.961349
Prob(F-statistic)	0.000000		

Appendix 6: Regression Output for Model 1 (FEM)

Dependent Variable: DPS
Method: Panel EGLS (Cross-section weights)
Date: 07/16/16 Time: 22:42
Sample: 2010 2015
Periods included: 6
Cross-sections included: 17
Total panel (balanced) observations: 102
Linear estimation after one-step weighting matrix
Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.030989	0.008435	3.674055	0.0004
DR	-0.116391	0.069222	-1.681416	0.0967
DER	0.033717	0.030314	1.112233	0.2695
ROA	-0.066464	0.038113	-1.743851	0.0852
ROE	0.158337	0.046171	3.429356	0.0010
CR	0.001025	0.000342	2.995332	0.0037
TAPS	0.024573	0.003569	6.884644	0.0000
CACEPS	-0.019601	0.020326	-0.964331	0.3379
CEO	0.010718	0.005527	1.939092	0.0562

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.876831	Mean dependent var	0.101192
Adjusted R-squared	0.838441	S.D. dependent var	0.059824
S.E. of regression	0.016715	Sum squared resid	0.021512
F-statistic	22.83991	Durbin-Watson stat	1.704325
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.845729	Mean dependent var	0.077768
Sum squared resid	0.023831	Durbin-Watson stat	1.753247

Appendix 7: Regression Output for Model 2 (REM)

Dependent Variable: DPS
Method: Panel EGLS (Cross-section random effects)
Date: 07/16/16 Time: 22:44
Sample: 2010 2015
Periods included: 6
Cross-sections included: 17
Total panel (balanced) observations: 102
Swamy and Arora estimator of component variances
Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003850	0.005737	0.671047	0.5039
LOGDR	-0.005764	0.003077	-1.873026	0.0642
DER	-0.034836	0.009846	-3.537970	0.0006
ROA	-0.080860	0.037151	-2.176499	0.0321
ROE	0.204556	0.045892	4.457301	0.0000
CR	0.001277	0.000374	3.416258	0.0009
LOGTAPS	0.099799	0.008843	11.28627	0.0000
CACEPS	-0.018323	0.019215	-0.953580	0.3428
CEO	0.007151	0.003973	1.799867	0.0751

Effects Specification	S.D.	Rho
Cross-section random	0.004810	0.0782
Idiosyncratic random	0.016513	0.9218

Weighted Statistics			
R-squared	0.774439	Mean dependent var	0.063307
Adjusted R-squared	0.755036	S.D. dependent var	0.034677
S.E. of regression	0.017163	Sum squared resid	0.027395
F-statistic	39.91327	Durbin-Watson stat	1.862249
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.808007	Mean dependent var	0.077768
Sum squared resid	0.029658	Durbin-Watson stat	1.720154

Appendix 8: Auxiliary Regression for Debt Ratio (DR) and Debt-to-Equity Ratio (DER)

Dependent Variable: DR
Method: Panel Least Squares
Date: 07/16/16 Time: 22:53
Sample: 2010 2015
Periods included: 6
Cross-sections included: 17
Total panel (balanced) observations: 102

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER	0.515857	0.010982	46.97457	0.0000
C	0.046361	0.006133	7.559251	0.0000

R-squared	0.956646	Mean dependent var	0.291297
Adjusted R-squared	0.956213	S.D. dependent var	0.155842
S.E. of regression	0.032611	Akaike info criterion	-3.988950
Sum squared resid	0.106345	Schwarz criterion	-3.937480
Log likelihood	205.4364	Hannan-Quinn criter.	-3.968108
F-statistic	2206.610	Durbin-Watson stat	0.774018
Prob(F-statistic)	0.000000		