

Performance Determinants of Malaysian Real Estate Investment Trusts

Rohaya Abdul Jalil*, Hishamuddin Mohd Ali

Centre of Real Estate Studies, Faculty of Geoinformation & Real Estate, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia

*Corresponding author: rohaya@utm.my

Article history

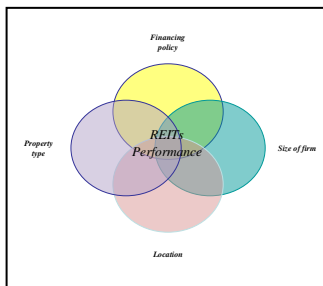
Received :6 February 2014

Received in revised form :

21 December 2014

Accepted :26 February 2015

Graphical abstract



Abstract

The aim of this paper is to identify determinants of Malaysian real estate investment trust (REITs). By identifying the correct combination of these determinants, it able to assist the REITs companies to construct their property allocation strategy (PAS). However, studies on REITs' performance in Malaysia showed few arguments on Malaysian REITs. Despite the evidence on potential for diversification, Malaysian REITs received inadequate response from institutional investors. Meanwhile the development of REITs in United States (US) started in early 1960s and it underwent significant cyclical performance and structure changes. Therefore, understanding of the literature review on the weaknesses and strengths of US REITs industry is essential. Furthermore, the lack of local study on these determinants, it is a research gap which can be explored in Malaysian REITs. The correct combination of determinants component contribute toward superior performance on REITs. Based on these reasons, REITs determinants that trigger the performance of Malaysian REITs warrant special attention and investigation. Through the literature review done on REITs determinants, this study manage to design the property allocation strategy for Malaysian. This beneficial for both REITs firm to construct their own PAS to maximize distribution as well as institutional investor to evaluate REITs investment. All in all, ramification of Malaysian REITs determinants helps to improve Malaysian REITs industry.

Keywords: REITs; determinants; property allocation strategy

Abstrak

Tujuan kertas kerja ini adalah untuk mengenal pasti penentu kepada unit amanah pelaburan hartanah(REITs) di Malaysia. Dengan mengenal pasti kombinasi penentu yang tepat, ia dapat membantu syarikat-syarikat REITs untuk membina strategi peruntukan harta(PAS). Walau bagaimanapun, kajian prestasi REITs di Malaysia menunjukkan beberapa hujah REITs Malaysia. Walaupun terdapat bukti mengenai potensi REITs bagi kepelbagaian portfolio, REITs Malaysia kurang mendapat sambutan daripada pelabur institusi. Sementara itu, pembangunan REITs di Amerika Syarikat (AS) bermula pada awal 1960-an dan ia telah melalui kitaran prestasi dan struktur perubahan ketara yang ketara. Oleh itu, pemahaman tentang kajian literatur mengenai kelemahan dan kekuatan industri AS REITs adalah penting. Kekurangan kajian tempatan terhadap penentu REITs ini, ia adalah satu jurang penyelidikan yang boleh diterokai bagi REITs Malaysia. Gabungan betul komponen penentu menyumbang ke arah prestasi yang unggul REITs. Berdasarkan alasan ini, penentu REITs merupakan faktor kepada prestasi REITs Malaysia memerlukan perhatian khas dan penyiasatan. Melalui kajian literatur yang dilakukan bagi penentu REITs, kajian ini berjaya merekabentuk strategi peruntukan harta untuk REITs Malaysia. Ini memberi manfaat kepada REITs firma untuk membina strategy peruntukan hartanya sendiri bagi memaksimumkan pulangan dan memberi manfaat kepada pelabur institusi dalam menilai pelaburan REITs. Secara keseluruhan, penentu REITs Malaysia memberi kesan untuk membantu meningkatkan industri REITs Malaysia.

Keywords: REITs; penentu; strategi peruntukan harta

© 2015 Penerbit UTM Press. All rights reserved.

1.0 INTRODUCTION

The development of real estate investment trust (REITs) in Malaysia started aggressively in 2006 since the establishment of the REIT Guideline by Malaysian Securities Commission (SC) in 2005. Studies on REITs' performance in Malaysia showed few arguments on Malaysian REITs correspond to the age of REITs [1,2,3,4,5,6,7,14]. The REITs are able to provide a wider

diversification opportunity for the investor, provide greater liquidity, feasibility of operation, and the ability to diversify at any level investment [11].

However, in Malaysia, REITs received inadequate responses from both local and non-resident investors. Based on the trend analysis of Malaysian REITs price quotes in Bursa Malaysia (BM), there was evidence that Malaysian REITs was underperforming [5]. This was due to several factors including the unique characteristics

of the Malaysian REITs such as different property allocation, location, size of firm and REITs capital structure made it difficult for the investors to make any judgment upon Malaysian REITs. Other than that, the institutional investors' participation, dividend policy and management style were also influencing the performance of Malaysian REITs. Meanwhile the development of REITs in United States (US) started in early 1960s and it underwent significant cyclical performance and structure changes [8, 9,10,11,12,13]. The understanding of the weaknesses and strengths of US REITs industry is essential, since literature review highlighted few determinants influence the REITs performance. These determinants are recognized as property allocation strategy (PAS). Thus, through the above ramifications, this study has identified that at least six characteristics of REITs which are the determinant of Malaysian REITs. These characteristics are discussed in detail through Table 1.

Furthermore, the lack of local study on these determinants, it is a research gap which can be explored in Malaysian REITs. Based on these reasons, it is felt that determinants that trigger the performance of Malaysian REITs warrant special attention and investigation. The PAS will able to assist i) the Malaysian REITs in establish their own PAS; ii) the investors in decision making on REITs investment; and iii) the Malaysian government in evaluating the development of REITs. Therefore understanding REITs determinants is essential for the well being of Malaysian REITs

Table 1 REITs Characteristics that Influence performance

Characteristics	Example
<ul style="list-style-type: none"> Diversification in term of property type and concentration 	<u>Type & concentration</u> Amanah Raya REIT - mixed real estate allocation (office, mall, factory, college building and hotel) <ul style="list-style-type: none"> Axis REIT- focus on office building and space Al-Aqar KPJ - Islamic REITs focus on healthcare REITs Al-Hadharah Boustead – Islamic plantation REIT
<ul style="list-style-type: none"> Diversification in term of location 	<u>Location</u> <ul style="list-style-type: none"> Market analysis of demographic information indicated that different state government might have a different initiatives on business area, regulations and restrictions, political atmosphere and sociological impact of rent and occupancy rates Location diversification can reduce risk and maximize shareholders benefit - either diversified by holding REITs that are already diversified through location in other countries or diversified by holding a specialized property types in different countries in order to reduce geographical concentration [11].
<ul style="list-style-type: none"> REITs' firm size 	<ul style="list-style-type: none"> Larger REITs are likely to have higher profit margins, higher rental revenue ratio, lower implied capitalization rates and lower cost of capital [13].
<ul style="list-style-type: none"> Cost of capital of REITs 	<ul style="list-style-type: none"> Limitation of REITs to benefit tax shelter and legal requirement to distribute at least 90% of earning to shareholder limit REITs potential to expansion. Therefore, financing policy either new issuance or debt is essential

■2.0 REAL ESTATE INVESTMENT TRUST DETERMINANTS

There are significant studies that discussed in depth the US REITs performance, diversification, structure and other factors which are essential to be learnt by Malaysia [11,12]. Similarly the study on REITs show mixed result on performance as well as return. Although REITs is known as best investment instrument to hedged inflation and potential to provide diversification but Malaysian REITs do not received good acceptance from the institutional investor [2,7]. Therefore, this study ramified determinants that are important to influence the Malaysian REITs performance. The determinants are categorized into i) diversification on property type differences and property type concentration; ii) diversification on location of property; iii) size of REITs firm; iv) financing policy adopted by REITs; v) management style of REITs; and vi) institutional investors' participation.

2.1 Diversification on Property Type Differences and Property Type Concentration

The benefits of using diversification strategy to reduce risk were well understood but the empirical results on these issues were mixed. Before the early 1990s, US REITs maintaining steady income streams under different market condition and REITs portfolios should be diversified in both location and property type [11]. Focusing on a particular type and location will produce specialized strategy for REITs and avoids increased management cost. However, the disadvantages of having specialized strategy is that REITs has less risk reduction, not offering the investor to have better property diversity and multiple geographic location choices. Besides that, REITs also have a greater exposure to larger fluctuation in income stream. Therefore, investors can either invest in REITs companies which already have diversified property portfolio or to pick up REITs companies focused on a specific property type and establish their own portfolio. This can be done by adapting Benefield's [15] study which classified property type into specialized and diversified according to percentage of a particular property type holding.

Property Type Differences

Differences in property type provide REITs a wider diversification opportunity. This is because the differences in property type caused different effect upon net asset value of underlying REITs. For example retail REITs trade at a significant premium on the net asset value than the average REITs and warehouse /industrial REITs trade at discount [16]. Besides, they noted that location is important to apartment REITs and small REITs are more focused by property type. Moreover different property type had difference performance depending on the nature of the property. Study on property type specializing on healthcare found that there was a relationship between the construction of hospital, rising of the vacancy rate of hospital and nursing home beds with the excess demand of medical services and the excess supply by hospital and nursing providers [17].

The REITs that focus their investment activities within a single property type sector enjoy large liquidity and ease of valuation [18]. The non-traditional real estate sectors REITs such as healthcare REITs, self storage REITs and specialty REITs increase diversification benefit within REITs sector portfolio compared to the traditional REITs sector [19]. They also found that there were more diversification opportunities from within the non-traditional real estate sector REITs than from within traditional sector REITs. Prior to that, [20] highlighted that emergence of property sector such as self-storage, healthcare, retirement facilities and

leisure/entertainment property have increased in Australian listed property trust (LPT). Surprisingly, this emerging property sector LPTs not only shows superior risk-adjustment performance compared to other LPT sector but are also able to provide diversification benefit in portfolio. The correlation between REIT property-type sector increases does not signal that correlation among individual securities within sector is also increased, instead individual securities behave differently from one another so alert investors can benefit from these differences [21].

Furthermore, REITs performance is differed based on different type of property owned. For example study on hotel REITs, retail REITs, office, residential REITs. Factors such as finance structure, location and economic condition and qualitative factor such as operational management of hotel were recognized as important influences in the hotel decision making [22]. Meanwhile the higher revenue growth, the higher per available room (REVPAR) growth and higher occupancy-rate growth has affected the performance of REITs hotel [23]. The hotel REITs has the highest market risk as compared to other REITs sectors yet its risk-adjusted return is similar to the overall market [24].

The performance of each REITs sector reveals that hotel REITs sector was inferior to office, industrial and diversified REITs sector in term of portfolio as well as individual stock performance. The study on retail has identified that there are ten factors which influence the level of rent per square foot [25]. These factors are subdivided into two groups namely income related factors and population related factors.

The study on office space, showed the office rent in metro area declined due to overbuild in the 1980s much more than the decline of office rental in suburban market [26]. Suburban office market more demand due to factors such as better quality of transportation, higher suburban school quality, less congestion and crime, lower rent offer, improvement in technology and communication. The residential REITs are more leveraged with long term debt and earning less volatility, due to the nature of residential that have specific features and have high collateral value that are able to provide wide availability of different financing sources [8].

There are mixed arguments on the potential of property type difference and performance. The property type difference brought about different performance to REITs suitable to provide diversification benefit on property portfolio [27]. Meanwhile [28,29] argued that diversification in terms of property type can possibly cause disadvantages as REITs need to employ sufficient experts to supervise different property type with different nature and risk. This resulted in an adversely value affected by REITs. Therefore, this study assess property type concentration to evaluate the benefit of focus on a particular property type.

Property Type Concentration

It is agreed that property type specialized benefited REITs more than diversified. Diversified REITs seem to be riskier and less levered due to its low collateral value of assets and less attractiveness [29]. The determination of REITs property type concentration need to first understand the Life Cycle Model conceptualization, because the stage of property growth, maturity and economic environment variation on each stage [30].

A study on Singapore REITs Hypothetical Property Trust (HPT) found that three sector-specific HPT (retail, office and industrial) and diversified HPT have superior performance compared to local stock and bond [31]. There are low correlations of office HPT and industrial HPT with stock which indicate that these HPT deserve to be included in mixed asset portfolio. There was significant influence of diversification in terms of property type in property portfolio as a strategy to reduce risk and maximize REITs performance. The specialized REITs had higher market risk

than diversified REITs [32]. There is no significant proof of specialized REITs in a single property type outperforming the diversified REITs but, diversified REITs performance was superior to specialized REITs in terms of non-statistically significant margin.

The classification of property type allocation between specialized and diversified recognized that there were significant differences in performance of REITs. [15] classified property types as “specialized REITs” if a REIT had 75 percent or more of its portfolio invested in one particular property type and “diversified REITs” if a REIT does not have at least 75 percent of its portfolio invested in one particular property type. Benefield found diversified REITs that were often traded at a discount performed better than specialized REITs. However, in their study [33] did not reject that when overall market condition were not as favorable, property types specialized REITs were the better performers. They also argued that there is failure on financial and accounting to register any significant difference that was believed to be identifiable differences in performance. Property type—diversified REITs seem to have significantly higher percentage of portfolio devoted to office property on average and less likely interested in investment in apartment and retail properties.

2.2 Diversification on Location of REITs' Properties

On location perspectives on REITs, it was agreed that diversification across different location, minimize risk, improve REITs performance and was considered as an important portfolio strategy [34,35,36,37,38]. The real estate strategy of location concentration was suitable for portfolio strategy, as diversification across large MSAs was less effective than across all MSAs [34]. The different types of properties showed different effectiveness in location diversification. Apartment known to be less attractive to institutional investors, performed more effectively for location diversification to traditional institutional investors compared to office and industrial sector. The location of properties has been classified according to state and districts, where they found that investment in REITs properties located in western US has positive effect on risk-adjusted return [36]. Meanwhile, it was found that 73 percent of pension fund real estate manager will consider location diversification at regional level and 23.9 percent of them consider metropolitan for diversification [35]. The location distribution of REITs property in US showed REITs also favored to invest in smaller cities (example given 159 smaller markets) as well as large metropolitan areas (example 83 percent of largest metropolitan areas) [37]. Over 90 percent of investors decide to diversify varying the location of property investment [38].

There were many REITs individually tended to focus in location region or property type. The largest REITs focus more on retail REITs property type and small group invests in office and industrial REITs property type. In terms of the location concentration, the largest REITs have the highest investment concentration in the Mideast, Southeast, Southwest and Mountain division and pay less attention in Midwest region.

This study has also identified the usefulness of location for the performance of property stock, rents and price. These scholars used market segmentation and indexed the location for weighted location [39,40,41,42]. Meanwhile market segmentation study on County Stockholm, described that there were different sub market recognized which resulted in five different price indexes as an output [39]. There was importance in the manufacturing output and the gross domestic product in explaining movements in real rents and property price in UK [40]. A model to forecast the regional real industrial rents as a set of output and employment variables used industrial rents in southern region, London and northern region, Yorkshire and Humberside as UK geographical regions. The real estate securities may provide international diversification

opportunity if there was a substantial amount of variation in mean real estate return and standard deviation across countries [41]. The return performance of public traded real estate companies over 1984 to 1999 period included return data on over 600 companies in 28 countries, also found out that standard *Treynor ratio* reveals substantial variation across countries in excess real estate return per unit of systematic risk. The effect of location on residential house prices used integrated spatial data had developed a hybrid predictive model via MRA technique [42].

The economic activities at the location of properties have also weighted the location. The assessment of economic location factor has been discussed through STEP which highlighted economy as a variable [43,44]. The economic location should be used instead of geographic locations [44]. The economic region has been derived by using a set of fundamental economic variables at the MSA level that should capture the differences between market demographic, employment structure, economic growth pattern and space distribution by property sector of a market. [44], noted that sensitivity analysis was used to test the validity of the grouping and to identify the core and fringe members (MSAs) of each economic cluster. They used the top 100 MSA in the United States, six clusters of MSAs have been identified namely, manufacturing center, financial center, government/education, regional/distribution, high-growth/retirement and small MSAs. Their study showed that high-growth market performed well on a risk-adjusted based on the sample period of 1995 to 2000. The economic clusters were well specified as the return correlation between groups was low, which suggest that it was significant to diversify across economic region. The important information that had the correlations cross economic location was small, which indicated that the fundamental economic differences in the regions do indeed translate into substantial return differences. The low correlation suggests that diversification across locations was beneficial to construct an asset portfolio. There were benefits of diversifying cross economic region because economic clusters were well specified and return correlation between groups were low.

The high quality of location had relationships depending on the activities which weighted these locations [45,46]. The private pension fund investor and REITs tend to hold real estate portfolio that were heavily concentrated in high quality location [45].

This explained that REITs investors should not necessarily hold a broad based market portfolio provided they can diversify on their own. Individual REITs investor may be better off allocating their capital where they can get the most operating scale of economic and synergies with existing properties, where their superior information told them timing was the best opportunity. Earlier, [46] stated that collective private real estate portfolio strategy were more focused geographical concentration than collective public real estate portfolio. Yet, if public real estate were examined according to property type the implication upon geographical concentration was the same as private real estate except for retail and industrial which were more diversified. They further revealed that MSA location correlation differences of industrial and office graded gave greater differences compared to retail and apartment. All property types of public real estate over weighted in the market with superior population growth except for retail property type.

All these benefits of location were important factors for PAS [47,48]. The excess return upon properties portfolio acquisition resulted from the wealth benefit received when company reconfirmed their geographical focus in the acquisition as discussed earlier in the determinants through property type, diversification and location [47]. The relocation trends of business operators suggest that the low cost regions were now improving the business environment [48]. This offers companies to shift the business

activities from well-developed and high cost area to low cost location offering cost reduction and acceptable quality.

2.3 Size of REITs Firm

The firm size perspectives are found to be an important criteria being judged by the investor on REITs and REITs best performed if the firm size was larger. Therefore, it should increase return to scale [49]. Larger REITs were likely to have higher profit margins, higher rental revenue ratio, lower implied capitalization rates and lower cost of capital [13]. The larger firms have higher profit margins and rental revenue ratios and lower capitalization rates. Meanwhile [50] noted that the total number of REITs in the stock market decreased the risk as a result of enlarged size of REITs that dominated the REITs industry.

The retail REITs traded at significant premiums relative to the average REITs while warehouse/industrial REITs traded at discounts and small REITs traded at significant discounts while large REITs traded at premiums [16]. Although larger, REITs might enjoy informational advantages which allow them to enter the right market, but there was no empirical evidence that REITs has allocated significant amount of expenses to study different property market. Small REITs can also acquire expertise to study property market if it believes that it is possible to increase the profitability of their investment. This seem to parallel on the REITs' optimal size and diseconomies of return conjure up with mixed argument upon size of REITs. There was evidence of scale of economies but disregard REITs risk [51]. REITs were able to operate in the range of increasing return to scale and advantage from expansion when risk was incorporated into efficiency. However, when the size of REITs firm became large enough and had reached an optimal point, diseconomies of scale will take place [52]. REITs size has implication according to management type of REITs.

Size of REITs also has significant effect on all expenditure cost categories except interest expenses. General and administrative (G&A) expenses and management fees demonstrated the largest economies of scale but operating expenses showed only modest effect [53,54]. The economies of scale in REITs were found to increase the efficiency of operations in one way which may be helpful to improving the performance of REITs [55]. At a certain size, REITs firm might decrease in terms of economies of scale due to cost function of REITs that is quadratic to the size of REITs firm [56].

The size of firm also has significant relationship on institutional investors' involvement in REITs. Size of firm has the ability to attract institutional investors [57]. The size was the most important factor that attracted REITs investment because larger REITs were owned by financial institutions. The market risks were likely to play a significant role in REITs institutional ownership. Larger REITs incurred higher ownership levels based on financial ratios and size was the most dominant factor across institutions [58]. They found that the unique preferences for each ownership type and institutional owners have driven REIT growth in US REITs since 1992.

The size of Malaysian REITs

There were local study on Malaysian Listed Property Trust (LPT) suggested that firm size was essential to give more choice for investors to consider LPT in their portfolio [6,7]. The LPTs' size effect towards performance showed that big capitalization on real estate share had superior performance with higher return and lower risk in the allocation with mixed asset. There was a negative relationship found between size and unsystematic risk. Meanwhile, the study on institutional investors' participation in LPTs found that poor participation was due to small trading volume of LPTs, small

market size of LPT market and slow capital appreciation. This study also reviewed the Malaysian REITs market capitalization as at 31 December 2008 and as at 31 December 2013. Please refer to Table 2 of the following.

The Malaysian REITs market capitalization as at 31 December 2008 is amounted RM4,221,762,903, while market capitalization as at 31 December 2013 is amounted RM32,512,644,393. It indicated a tremendous increase of 6.7 times in market capitalization from 2008 to 2014 of Malaysian REITs. At the end year 2013, show that five new REITs companies traded in BM, which each of them have a significant amount of market capitalization such as Capital Malls Trust, IGB, KLCC, Pavillion and Sunway with market capitalization amount of RM2,500,000,000, RM4,072,918,000, RM10,561,198,535, RM3,852,396,000 and RM4,496,000,000 respectively. Meanwhile, the other existing REITs companies also indicated a significant increase of market capitalization in year 2013 compare in year 2008 such Al-Aqar Healthcare (increase 148 percent), Al- Hadharah Boustead (increase 100 percent), Amanah Harta Tanah PNB (increase 67 percent), AmFirst (increase 100 percent), AmFirst (increase 82 percent), Atrium (increase 113 percent), Axis (increase 372 percent), Hektar (increase 146 percent), Starhills (increase 40 percent), Tower (increase 71 percent) and UOA (Increase 120 percent).

Meanwhile Figure 1 shows Malaysian REITs market capitalization and its property type diversification strategy. It show that generally Malaysian REITs prefers to be specialized property type that is 64 percent compare to year 2008.

Table 2 Market capitalization of REIT as at 31 December 2008 and as at 31 December 2013

No	Name of REITs	31 Dec 2008		31 Dec 2013	
		Market Cap	Type	Market Cap	Type
1.	Al-Aqar Healthcare	372,987,270	S	926,000,000	S
2	Al- Hadharah Boustead	551,430,990	S	1,100,000,000	S
3	Amanah Harta Tanah PNB	73,000,000	D	122,000,000	D
4	Amanah Harta Tanah PNB 2	57,790,165	S	-	-
5	AmFirst	373,230,870	S	741,300,000	D
6	Amanah Raya REIT	315,033,829	D	573,219,858	D
7	Atrium	74,298,610	S	158,341,000	D
8	Axis	286,609,120	D	1,351,431,000	D
9	Capital Malls Trust	-	-	2,500,000,000	S
10	Hektar	246,400,770	S	604,960,000	S
11	IGB	-	-	4,072,918,000	S
12	KLCC	-	-	10,561,198,535	S
13	Pavillion	-	-	3,852,396,000	D
14	Quill Capita Trust	358,920,520	D	452,550,000	D
15	Starhill	1,002,055,650	D	1,398,000,00	D
16	Sunway	-	-	4,496,000,000	D
17	Tower	246,840,000	S	421,000,000	S
18	UOA	263,165,109	S	579,330,000	S
Total		4,221,762,903		32,512,644,393	

S - Specialized Property Type
D - Diversified Property Type

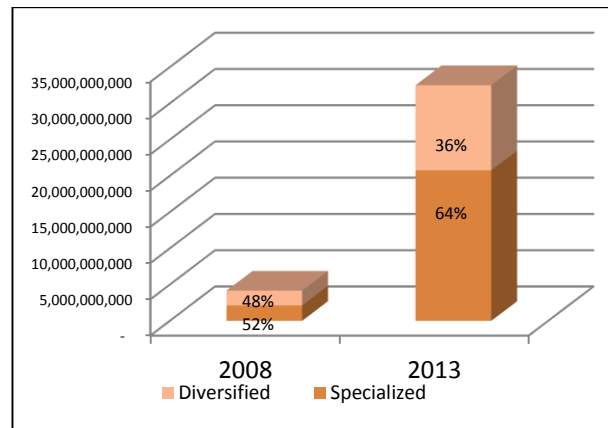


Figure 1 Malaysian REITs market capitalization and property type diversification strategy for year 2008 and year 2013

2.2 Financing Policy of REITs

The financing policy perspective was very important to both REITs firm and investors as this signals the amount REITs payout to the investors. The tax regulation has restricted the REITs to expand through available reserves (after distribution). REITs can either project the expansion through debt financing or new issuance of REITs unit/share. However, each of this options has a set back upon REITs. The debt policy has resulted in an increase in expense and did not benefit the tax shelter compared to other companies. While additional issuance of unit/share has depressed the investors as distribution need to be shared with merrier amount of investors than before the additional issuance of units share. Please refer to Figure 2.

Non-REITs companies shall benefit the tax shelter, but not to REITs companies because the tax restriction only allowed the tax to be waived provided that the REITs distribution was 95 percent of total income. However, the larger amount of Net Profit After Interest and Tax (NPAIT) on REITs that adopted additional issuance of units share as strategy shall be compensated with additional number of new issuance which resulted in lower dividend per share (DPS) which is 8.98 sen compared to REITs that adopt debt financing which is 9.5 sen. Although Figure 2 shows that adopting debt financing is superior to additional issuance of unit share this estimation is made based on interest at 8 percent yearly. Lower dividend offered was an indicator to investors that this consequently will result in a lower valuation of REITs unit as investors will tend to make their exit. However, if higher interest rate was practiced, additional issuance of unit share will be able to declare higher dividend than debt financing strategy. Yet, additional issuance of new unit/share in another way may depress the investors in case the new projected investment did not bring enough profit and result in lower dividend distribution.

The debt financing strategy has affected REITs performances as it has been observed by investors as an investment signal [10,60,61]. The REITs investment was financed through equity and long term debt with little dependency on retained earnings [10]. REITs achieved returns over and above their cost of capital, as new-REITs era (REITs began around 1992 – 1993) by newer firm projected most of the value-added investment. Meanwhile there was evidence that REITs debt announcement has generated negative return on REITs Initial Public Offering (IPO) as a function of agency costs [59,60]. manager may make inappropriate investment decision and operate at less than maximum profitability if they do not have reasonably accurate idea of their composite cost of financing [61]. Through the best estimation of upper and lower

bound for the WACC, REITs manager have a better idea of what was a more objective mechanism to estimate the WACC. The alternative weighting schemes depended on the greater difference between cost of debt and cost of equity. The investor perceptions of the risk of the REITs as it took on more debt. A decrease in equity proportion will result in a decrease on WACC, which suggests that WACC is not highly sensitive to changes in weights employed. Therefore, the increase in the proportion of debt in the capital structure will increase the risk of the REITs and simultaneously raise both the cost of debt and the cost of equity which in turn will reduce the rate and cause an increase in the WACC for increasing debt proportions.

	Non REIT (RM'000)	REIT (RM'000)	
		Adopt Debt Financing	Adopt Additional New Issuance of Unit/ share
Net Profit Before Interest & Tax (NPBIT)	130	130	130
Less: Interest	<u>30</u>	<u>30</u>	<u>-</u>
	100	100	130
Less: Tax(28%)	<u>28</u>	<u>-</u>	<u>-</u>
Net Profit After Interest & Tax (NPAIT) (for distribution)	<u>72</u>	<u>100</u>	<u>130</u>
Less: Dividend Distribution		95	123.5
- REIT Tax regulation at REIT 95%	<u>43.2</u>	<u>-</u>	<u>-</u>
- Non REIT company at 60% (assumption)	<u>-</u>	<u>-</u>	<u>-</u>
RESERVES (transfer to Balance Sheet)	28.8	5	6.5
Therefore, dividend per share(DPS)	<u>43,200</u> per 1,000,000	<u>95,000</u> 1,000,000	<u>123,500</u> 1,375,000
	= <u>4.32 sen</u>	= <u>9.5 sen</u>	= <u>8.98 sen</u>
Assumption			
i. Additional capital investment need is RM 375,000.00.			
ii. The existing the number of unit/share is 1,000,000 with face value RM1.00 each.			
iii. New Issuance of Unit/Share for RM375,000 for capital investment result in additional number of 375,000 unit/share.			
iv. Debt financing is at 8% interest yearly.			

Figure 2 Comparison of Non REIT, REIT and Implication of Debt or New Issuance of Unit/Share REITs

Adoption of debt used has also faced up with challenges since they needed to compete with other firm for debt financing despite of not having any advantage on the tax shelter of interest payment [8,9,62]. The non-REITs were significantly more leverage than REITs. There was negative relationship between operating risk and

leverage proving that the managers of riskier firms tend to reduce the overall company's uncertainty by taking up a more careful capital structure to have alternative to leverage [8]. The company's asset size was able to directly influence the amount of debt issued which proved the assumption that debt was cheaper for bigger firm and its issue has been influenced by the economies of scales in terms of REITs tangibility opportunity. The REITs issued equity when its price to Net Asset Value (NAV) ratio was high and less likely to issue debt if it surrogated riskier bankruptcy cost [9]. Therefore it was better to adopt the optimal level of debt financing when there was a positive leverage as positive Net Present Value (NPV).

The optimal loan-to-value ratio increases as the marginal tax rate of the investor increased and the optimal loan-to-value ratio increases as the holding period increased when there was a relatively short holding period [62]. The capability of real properties which is known to prove a high degree of capacity due to its tangibility made REITs superior than other firm which can only offer intangibility asset for debt financing. But smaller size of REITs firm preferred to use debt financing than issuance of new equity when it cost for them seem to be larger than the cost of debt financing. It is unreasonable for REITs to not use debt (due to its disadvantages of tax), if return from property acquired using debt was higher than the cost of debt. Given return of asset (ROA) was higher than debt interest rate, REITs will gain on the differences and still take advantage of debt as long as these two elements remain constant. However, there disadvantage on the use of debt for REITs. The REIT's property segments volatility was an important determinant for leverage ratio [63]. The REITs had comparative disadvantage because they had to pay the interest rate and not having tax savings [60]. The possibility of REITs getting into liquidation was higher if using debt as real estate market depended on property life cycle.

3.0 DESIGNING MALAYSIAN REITs PROPERTY ALLOCATION STRATEGY

The literature review was essential to ensure that this study can identify the relevant determinants to be included in designing the PAS for Malaysian REITs. It is recognized that a few determinants seem to support each other. For example, [47], stressed that property type diversification and the REITs reconfirmation on location is essential to signal the institutional investors about the reputation of investment made by REITs. As well as the positive specific private debt used to influence the institutional investor which has been described through increase in price appreciation of REITs stocks. Therefore, it showed that sometime institutional investors used factors such as diversification of property type and location and also capital structure to evaluate the performance but at the same time REITs with larger institutional investors' participation result in better performance of REITs' mean. Other examples include studies by [11,12] which discussed the factors such as dividend policy of REITs affecting the approach of cost of capital, as well as, the size of firm was affected by the type of REITs advisory. Therefore, these showed that there were relationships that exist upon each determinant that affect one and another. The relationship of determinants to influence each other is pictured in Figure 3 below.

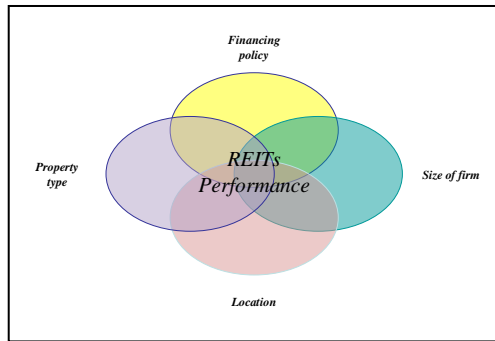


Figure 3 Relationship of determinants to influence REITs performance

The outcome of literature reviews on the determinants result in an establishment of Malaysian REITs PAS shown in Figure 4. The PAS need to specify the exact amount and size value, range of percentage suggested as well as the qualitative factors that Malaysian REITs should be focused on.

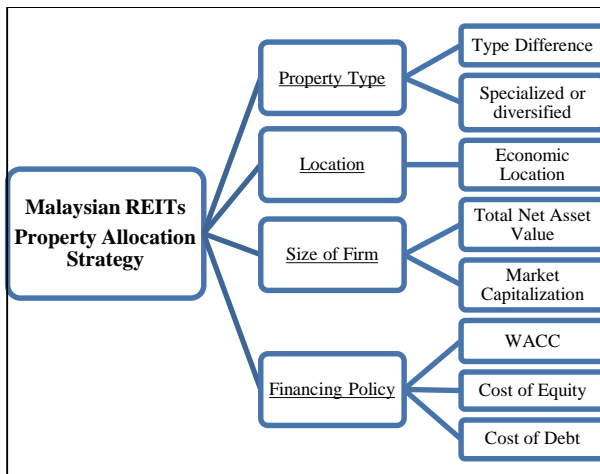


Figure 4 The Property Allocation Strategy for Malaysian REITs

Therefore, for the benefit of REITs development in Europe, US REITs model should not be adopted unmodified in Europe as all structural option have implications which needed to be considered carefully [80]. Problem such as international taxation may occur and it is suggested for European countries to develop its own kind of REITs based on its unique pan-European REITs structure. Although US REITs showed that the REITs were able to improve liquidity in real estate market, promoted efficient allocation of capital and reduced cost of capital, yet tax rule which has restricted corporate structure created limitation on REITs potential. The pan-European REITs structure should be developed to cater local need and suitability as well as to consider the advantages and disadvantages upon REITs.

4.0 CONCLUSIONS

The discussion made in paragraphs above on the determinants such property type, location, firm size, financial policy, management style and institutional investors' participation were important in examining the influence of those determinants on REITs performance [11,12]. Although institutional investors' participation

was an uncontrollable by REITs, but its involvement is essential to determine the value of Malaysian REITs in the stock market [7]. Similarly, the management style of REITs that had also intervened the influence of PAS toward REITs performance [13]. Identifying the correct combination of these determinants is important to established property allocation strategy for Malaysian REITs. This beneficial for both REITs firm to construct their own PAS as well as institutional investor to evaluate REITs investment. All in all, ramification of Malaysian REITs determinants helps to improve Malaysian REITs industry.

Abbreviation

REITs	- Real Estate Investment Trusts
BM	- Bursa Malaysia

References

- Lee, Chyi Lin and Ting, Kien Hwa. 2009. The Role of Malaysian Securitized Real Estate in a Mixed-asset Portfolio. *Journal of Financial Management of Property and Construction*. 14(3): 208–230.
- Newell, Graeme, Ting, Kien Hwa and Acheampong Peter. 2002. Listed Property Trust in Malaysia. *Journal of Real Estate Literature*. 10(1): 109–18.
- Sing, Tien F., Ho, K. H. D. and Mak, Mei F. 2002. Real Estate Market Reaction to Public Listings and Acquisition News of Malaysian REITs. *Journal of Real Estate Portfolio Management*. 8(3): 209–227.
- Ting, K. H. 2002. Listed Property Companies in Malaysia: A Comparative Performance Analysis. *Paper presented at the 7th Pacific Rim Real Estate Society Conference*. Christchurch.
- Abdul J., Rohaya and Hishamuddin Mohd Ali. 2008. The Impact of Malaysian Real Estate Investment Trust in Portfolio Diversification. *Working paper presented at International Real Estate Research Symposium, (IRERS) 2008*. Kuala Lumpur, Malaysia, April.
- Hishamuddin Mohd Ali. 2006. Size Effect on the Performance of Listed Real Estate Companies. *Working paper presented at International Real Estate Research Symposium, (IRERS) 2006*. Kuala Lumpur, Malaysia.
- Lee, Yim Mei Janice and Mohd Ali, Dr. Hishamuddin and Lee, Chyi Lin, 2005. The New Real Estate Investment Trusts in Malaysia: Lessons From Listed Property Trusts. *First Real Estate Educators and Researchers Malaysia (REER) Seminar*, UTM, City Campus Kuala Lumpur (unpublished), Sept.
- Morri, Giacomo and Cristanziani, Fabio. 2009. What Determines the Capital Structure of Real Estate Companies? An Analysis of the EPRA/NAREIT Europe Index. *Journal of Property Investment & Finance*. 27(4): 318–372.
- Boudry, Walter I., Kallberg, Jarl, G. and Liu, Crocker, H. 2007. *An Analysis of REIT Security Issuance Decisions*. University of North Carolina. U.S.
- Ott, Steven, H. Riddiough, Timothy, J. and Yi, Ha-Chin. 2005. Finance, Investment and Investment Performance: Evidence from the REIT Sector. *Real Estate Economic*. 33(1): 203–235.
- Chan, Su Han, Erickson, John, and Wang Ko. 2003. *Real Estate Investment Trusts: Structure, Performance, and Investment Opportunities*. New York, Oxford University Press.
- Zietz, Emily N., Sirmans, G. Stacy and Friday, H. Swint. 2003. The Environment and Performance of Real Estate Investment Trust. *Journal of Real Estate Portfolio Management*. 9(2): 127–165.
- Ambrose, Brent W. and Linneman, Peter. 2001. REIT organizational Structure and Operating Characteristics. *The Journal of Real Estate Research*. 21(3): ABI/INFORM Global pg. 141, May/June.
- Ting, K. H. 1999. The Listed Property Trust Industry in Malaysia: Factors Constraining its Growth and Development. *Proceeding of International Real Estate Society Conference*, Kuala Lumpur.
- Benefield, Justin. D. 2006. Performance Differences in Property-Type Diversified Versus Specialized Real Estate Investment Trusts: A Portfolio Approach. *Thesis Dissertation*. The University of Alabama, Tuscaloosa Alabama. UMI Number: 3223290.
- Capozza, D. R., Lee, S. 1995. Property Type, Size and REIT Value. *Journal of Real Estate Research*. 10(4): 363–79.
- Anikeeff, Michael A., Benjamin, John D., Chinloy, Peter and Megbolugbe, Isaac F. 2003. Healthcare Real Estate: Excess Capacity and Growing Costs. *Journal of Real Estate Literature*. 15(3): 355–382.

- [18] Danielsen, Bartley R. and Harrison, David M. 2007. The Impact of Property Type Diversification on REIT Liquidity. *Journal of Real Estate Portfolio Management*. 13(4).
- [19] Newell, Graeme and Peng, Hsu Wen. 2006. The Role of Non Traditional Real Estate Sectors in REIT Portfolios. *Journal of Real Estate Portfolio Management*. 12(2): 155–166.
- [20] Newell, Graeme and Peng, Hsu Wen. 2005. The Significance of Emerging Property Sectors in Property Portfolios. *Pacific Rim Property Research Journal*. 12(2): 177–197.
- [21] Young, Michael S. 2000. REIT Property-type Sector Integration. *Journal of Real Estate Research*. 19(½):3–21.
- [22] Newell, Graeme and Seabrook, Ross. 2006. Factors Influencing Hotel Investment Decision Making. *Journal of Property Investment and Finance*. 24(4): 279–294. DOI 10.1108/1435780610674499.
- [23] Brady, Peter J. and Conlin, Michael E. 2004. The Performance of REIT-Owned Properties and the Impact of REIT Market Power. *Journal of Real Estate Finance and Economics*. 28(1): 81–95.
- [24] Kim Hyunjoon, Mattila Anna. S and Gu Zheng. 2002. Performance of Hotel Real Estate Investment Trusts: A Comparative Analysis of Jensen Indexes. *International Journal of Hospitality Management*. 21: 85–97.
- [25] Nikamp P., Klamer P and Gorter C. 2002. Retail Investment by Real Estate Investment Trusts: A Comparative Analysis of Local Retail Returns for the United States. *Journal of Housing and Built Environment*. 17: 109–125.
- [26] Brueggeman, William B. 1996. The Relative Attraction of CBD Versus Suburban Locations in Major Office Markets. *Real Estate Finance*. 13(3): 15–21.
- [27] Myer, F. C. Neil and Webb, James R. 2000. Management Styles of REIT Funds. *Journal of Real Estate Portfolio Management*. 6(4): 339–348.
- [28] Capozza, Dennis R. and Seguin, Paul J., Focus. 1999. Transparency and Value: The REIT Evidence. *Real Estate Economics*. 27(4): 587–619.
- [29] Morri, Giacomo and Beretta, Christian. 2008. The Capital Structure Determinants of REITs. Is it a Peculiar Industry? *Journal of European Real Estate Research*. 1(1): 6–57.
- [30] Mueller, Glenn R. and Anikeeff, Michael A. 2001. Real Estate Ownership and Operating Businesses: Does Combining Them Make Sense for REITs? *Journal of Real Estate Portfolio Management*. 7(1): 55–65.
- [31] Sing, Tien F. and Ling, Sze C. 2003. The Role of Singapore REITs in a Downside Risk Asset Allocation Framework. *Journal of Real Estate Portfolio Management*. 9(3): 219–235.
- [32] Ro, SeungHan and Ziobrowski, Alan J. 2009. Does Focus Really Matter? Specialized vs Diversified REITs. *Journal of Real Estate Finance Economic*. DOI.10.1007/s11146-009-9189-8.
- [33] Benefield, Justin D., Anderson Randy I. and Zumpano Leonard V. 2008. Performance Differences in Property Type Diversified Versus Specialized Real Estate Investment Trusts (REITs). *Review of Financial Economics*. DOI: 10.1016/j.rfe.2008.04.001.
- [34] Cheng, Ping and Roulac, Stephen E. 2007. Measuring the Effectiveness of Geographical Diversification. *Journal of Real Estate Portfolio Management*. 13(1): 29–44.
- [35] Worzala, E and V. Bajtelsmit. 1997. Real Estate Asset Allocation and Decision Making Framework Used by Pension Fund Managers. *Journal of Real Estate Portfolio Management*. 3(1): 47–56.
- [36] Redman, Arnold L. and Manakyan, Herman. 1995. A Multivariate Analysis of REIT Performance by Financial and Real Asset Portfolio Characteristics. *Journal of Real Estate Finance and Economics*. 10: 169–175.
- [37] Holden, Meg Parker and Redding, Kim. G. 1994. The Geographic Distribution of REIT Properties. *Real Estate Review*. 24(1): Spring.
- [38] Webb, R. B. and W. McIntosh. 1986. Real Estate Acquisition Rules for REITs: A Survey. *Journal of Real Estate Research*. 1(1): 77–98.
- [39] Wilhelmsson, Mats. 2009. Construction and Updating of Property of Property Price Index Series: The Case of Segmented Markets in Stockholm. *Property Management*. 27(2): 119–137.
- [40] Tsolacos, Sotiris, McGough, Tony and Thompson, Bob. 2005. Affordability and Performance in the Industrial Property Market. *Journal of Property Investment & Finance*. 23(4): 311–328.
- [41] Ling, David C. and Naranjo, Andy. 2002. Commercial Real Estate Return Performance: A Cross-Country Analysis. *Journal of Real Estate Finance and Economics*. 24(½): 119–142.
- [42] McCluskey, W. J., Deddis, W. G., Lamont, I. G and Borst, R. A. 2000. The Application of Surface Generated Interpolation Models for the Prediction of Residential Property Values. *Journal of Property Investment & Finance*. 18(2): 162–176.
- [43] Abdul Hamid Mar Iman. 2006. *Basic Aspects of Property Market Research*. Penerbit UTM.
- [44] Anderson, Randy I., Liang Y. and Shain J. R. 2001. Deriving REIT Returns by Economic Location. *Real Estate Finance*. 18(3): 14–19.
- [45] Mahoney, Joseph, Malpezzi, S. and Shilling, J. D. 2000. Implications of Income Property Stock Data for Real Estate Investment Portfolio Location. *Real Estate Finance*. 16(4): 53–66.
- [46] Mahoney, Joseph, McCarron, Shelley, Miles, Mike and Sirmans, C. F. 1996. Location Differences in Private and Public Real Estate Investment. *Real Estate Finance*. 13(2): 52–64.
- [47] Campbell, Robert, D., Petrova, Milena, Sirmans, C. F. 2003. Wealth Effects of Diversification and Financial Deal Structuring: Evidence from REIT Property Portfolio Acquisitions. *Real Estate Economics*. 31(3): 347–366.
- [48] Spee, Roel and Douw, Wim. 2003. Cost Reduction Location Strategies. *Journal of Corporate Real Estate*. 6(1): 30–38.
- [49] Anderson, Randy I., Fok, Robert, Springer, Thomas and Webb, James. 2002. Technical Efficiency and Economies of Scale: A Non-parametric Analysis of REIT Operating Efficiency. *European Journal of Operational Research*. 139: 598–612.
- [50] Linneman, Peter. 1997. Forces Changing the Real Estate Industry Forever. *Wharton Real Estate Review*. 1: 1–12.
- [51] Devaney, Michael and Weber, William L. 2005. Efficiency, Scale Economies, and the Risk/ Return Performance of Real Estate Investment Trusts. *The Journal of Real Estate Finance and Economics*. 31(3): 301–317.
- [52] Yang, Shiawee. 2001. Is Bigger Better? Reexamining the Scale Economies of REITs. *Journal of Real Estate Portfolio Management*. 7: 67–78.
- [53] Bers, Martina and Thomas Springer. 1998. Sources of Scale Economies for REITs. *Real Estate Finance*. 14(Winter): 47–56.
- [54] Bers, Martina and Thomas, Springer. 1998. Differences in Scale of Economies Among Real Estate Investment Trusts: More Evidence. *Real Estate Finance*. 15: 37–44.
- [55] Bers, Martina and Thomas Springer. M. 1997. Economic of Scale for Real Estate Investment Trust. *Journal of Real Estate Research*. 14(3): 275–290.
- [56] Vogel, John. 1997. Why the New Conventional Wisdom about REITs is Wrong. *Real Estate Finance*. 14(2): 7–12.
- [57] Below, Scott D., Stansell, Stanley R. and Coffin, Mark. 2000a. The Determinants of REITs Institutional Ownership: Test of the CAPM. *Journal of Real Estate Finance and Economics*. 21(3): 263–278.
- [58] Below, Scott D., Stansell, Stanley R. and Coffin, Mark. 2000b. Institutional Investment in REIT Common Stocks; an Examination of the Prudent Man Investment Hypotheses. *Journal of Real Estate Finance Portfolio Management*. 6(2): 113–30.
- [59] Kilpatrick, John A. 2002. Agency Costs and the Determinants of the Capital Structure of REITs. Degree of Doctor of Philosophy Dissertation, Moore School of Business, University of South Carolina.
- [60] Howe, John S. and Shilling, James D. 1988. Capital Structure Theory and REIT Security Offerings. *The Journal of Finance*. 43(4): 983–993, Sept.
- [61] Erickson, John R. and Fredman, Albert J. 1988. Estimating the Cost of Capital for a REIT: A Case Study. *Real Estate Appraiser and Analyst*. 53(3): 39–47.
- [62] Cannaday, Roger E. and Yang, Tyler T. 1996. Optimal Leverage and Strategy: Capital Structure in Real Estate Investments. *Journal of Real Estate Finance and Economics*. 13: 263–271.
- [63] Ertugrul, Mine and Giambona, Erasmo. 2010. Property Segment and REIT Capital Structure. *Journal Real Estate Finance Economic*. DOI 10.1007/s11146-009-9229-4.
- [64] Young, Philip J. and Elayan, Fayeza A. An Investigation into the Shareholder Wealth Effects of REIT Acquisitions. *Real Estate Finance*. 19(4): 27–32.
- [65] Capozza, Dennis, R. and Seguin, Paul, J. 2000. Debt, Agency, Management Contracts in REITs: The External Advisory Puzzle. *Journal of Real Estate Finance and Economic*. 20(2): 91–116.
- [66] Capozza, Dennis R. and Seguin, Paul J. 1998. Managerial Style and Firm Value. *Real Estate Economic*. 26(1): 131–150.
- [67] Benefield, Justin, D. and Pyles, Mark, K. 2009. Internally versus Externally Advised Non-Brokerage Real Estate Firms. *The Journal of Alternative Investments*. 12(1): 39.
- [68] Lee, Chyi Lin, Robinson, Jon and Reed, Richard. 2007. Downside Systematic Risk in Australian Listed Property Trusts. *Conference paper at 13th Pacific Rim Real Estate Society Conference, Fremantle, Western Australia*, 21–24 January.
- [69] Friday, H. Swint and Sirmans, G. Stacy. 1998. Board of Director Monitor and Firma Value in REITs. *Journal of Real Estate Research*. 16(3): 411–427.
- [70] Miller, Stephen, M. and Springer, Thomas, M. 2007. Cost Improvements, Returns to Scale, and Cost Inefficiencies for Real Estate Investment Trusts. *University of Connecticut, Department of Economics Working Paper Series 2007-05*, RePEc, <http://repec.org/>, February.
- [71] Miller, Stephen, M., Claurette, Terrence, M. and Springer, Thomas, M. 2005. Economies of Scale and Cost Efficiencies: A Panel-data Stochastic-Frontier Analysis of Real Estate Investment Trusts. *University of Connecticut, Department of Economics Working Paper Series 2001-21, July 2005*. Paper presented at the Money Macro and Finance Research Group conference Efficiency Analysis in Macroeconomics and Finance at the University of Essex, United Kingdom.

- [72] Goetzmann, William N. and Kumar, Alok. 2008. Equity Portfolio Diversification. *Review of Finance*. DOI:10.1093/rof/rfn005. 1–31.
- [73] Lee, Ming-Long, Lee, Ming-Tee and Chiang, Kevin C. H. 2008. Real Estate Risk Exposure of Equity Real Estate Investment Trusts. *Journal of Real Estate Finance and Economic*. 36: 165–181.
- [74] Casey, K. Michael, Summer, G. and Packer, J. 2006. REIT Capital Structure: is it Market Imposed? *Managerial Finance*. 32(12): 981–987.
- [75] Ciochetti, Brian A., Craft, Timothy M. and Shilling, James D. 2002. Institutional Investors' Preferences for REIT Stocks. *Real Estate Economics*. 30(4): 567–593.
- [76] Craft, Timothy Michael. 2001. Institutional Investment in the Real Estate Investment Trust Market. *Doctorate Thesis Dissertation*, University of Wisconsin–Madison, UMI Number: 3020726.
- [77] Chan S. Han, Leung W. Kin and Wang Ko. 1998. Institutional Investment in REITs: Evidence and Implications. *The Journal of Real Estate Research*. 16(3): 357–374.
- [78] Lin, C. Y, Rahman, H and Yung, K. 2009. Investor Sentiment and REIT Returns. *Journal Real Estate Finance Economic*. 39: 450–471.
- [79] Lee, Yim Mei Janice, Mohd Ali, Hishamuddin and Lee, Chyi Lin. 2006. The new real estate investment trusts in Malaysia: Lessons from Listed Property Trusts. *Research Working Paper*. CRES, UTM.
- [80] Campbell, Robert, D. and Sirman, C. F. 2002. Policy Implication of Structural Options in the Development of Real Estate Investment Trusts in Europe: Lessons from the American Experience. *Journal of Property Investment and Finance*. 20(4): 388–405.