Empirical Trend On Factors That Influence The Institutional Investors Towards Investing In Malaysia Real Estate Investment Trusts: A Preliminary Study

Norashfah Hanim Yaakop Yahaya Al-Haj,
Universiti Teknologi MARA (UiTM)
Hairulnizam Hashim,
Universiti Teknologi MARA (UiTM)

ABSTRACT

This study main objective is to identify the empirical evidence on factors that influence the involvement of institutional investors towards Malaysia Real Estate Investment Trusts (M-REITs) over the period of 2002 – 2006. Firstly, the study examines the current level of institutional investors' participation in M-REITs over the period under studied. Secondly, the paper examines the preliminary pattern of institutional investors' participation and trading volume of M-REITs and consequently is to investigate the correlation between institutional investors' involvement in M-REITs with capital gains. Finally, the study considers whether institutional investors are influenced by the average annual returns fluctuation of M-REITs. Evidence is provided to support previous literature of which better to explain best the behavior of institutional investors' towards M-REITs. Nevertheless, the result in this study sparks new curiosity on confirming the direction of the market capitalization, returns, share turnover and level of institutional investors' participation in a causality testing and to look into bid-ask spread analysis in the future works. Another, potential implication to note is to consider longer period of study in respect to M-REITs performance.

Keywords: *Real estate investment trust (REIT), institutional investment participation*

Introduction

A real estate investment trust (REIT) is a trust that handles a pool of fund from numerous investors to be invested in real estate or real estate-related assets, beside distributes the dividends to the unit-holders on regular basis (James, 2006; Ling & Archer, 2005; Malaysian Securities Commission, 2005b). However, in some countries like Australia and formerly in Malaysia, they called it as Listed Property Trust (LPT). REITs are normally listed in the stock exchange and commonly there are three main types of REITs which are equity REITs, mortgage REITs and hybrid REITs (Ling & Archer, 2005). Nevertheless Malaysia had introduced a new type of REIT in the year 2005 which is called Islamic REIT as an alternative for Muslim investors (Abdi & Merchant, 2006; Malaysian Securities Commission, 2005a).

Historically in 1960, REITs was firstly formed in the United States (US) by the USA Congress. The initial establishment of REITs is to allow small investors to invest in income yielding commercial property which normally dominated by rich investors and big institutions (Imperiale, 2002). Furthermore, REITs offer better diversification of properties portfolio and are administered by qualified real estate professionals (Lawrence et al., 2004). Since REITs are exchange-traded, it is also more liquid than physical property which is hard to liquidate (James, 2006). Moreover, REITs provide high dividend distribution policy to their unit holders which commonly near to 90% of their taxable income (James, 2006; Jones Lang LaSalle, 2005/2006; Lawrence et al., 2004).

In 1989, Malaysia was the first Asian country in the region to develope REITs (formerly known as LPT) to activate the investment of excess funds in order to expand, diversify and intensify the capital market (Ting, 2001). Amanah Hartanah PNB (AHP) was the earliest property trust introduced in Malaysia as an unlisted property trust when it made an offer for sale of its units on 21st March 1989 (Ting, 2001). The triumphant establishment of AHP was followed by the earliest LPT which is the Arab Malaysian First Property Trust (AMFPT) with its listing first appearance on the Kuala Lumpur Stock Exchange (KLSE) on 28 September 1989 (CBRE, 2006). Particularly, Malaysia offers equity REITs since they do not offer credit facilities (Jones Lang LaSalle, 2005/2006; Malaysian Securities Commission, 2005b). Nevertheless, in August 3, 2005, Axis-REIT has been launched as the first REIT in Malaysia under the new Guidelines on Malaysia Real Estate Investment Trusts or better known as M-REITs. Other examples will be Starhill REITs, UOA REITs, Tower REITs, AL-'Aqar KPJ REITs, Hektar REITs, and Quill Capita REITs of which listed in Bursa Malaysia on 16th December 2005, 30th December 2005, 12th April 2006, 10th August 2006, 4th December 2006, and 8th January 2007 repectively. The most recent established REIT which is called Al-Hadharah Boustead REITs listed on 8th February 2007 (Bursa Malaysia).

Despite the emergence of new REITs in the Malaysian market, M-REITs experienced slow growth since its inception and far behind its counterparts like Japan and Singapore which established in the later years of 2001 and 2002 respectively (Jones Lang LaSalle, 2006; Yap, 2006). Even during the expansion of the Malaysian capital market and property market from 1991 to 2000, it was documented that most M-REITs experience underperformance and had greater risk than the general market (Newell, Ting, & Acheampong, 2002; Ting, Mary, & Newell, 1998). Plausibly, these are the reasons as to why there is low level of institutional investors' participation in M-REITs (S. H. Chan, Leung, & Wang, 1998; Ting, 2000; K. Wang, Erickson, Gau, & Chan, 1995). This is supported by the findings of previous study that discovered that REIT's performance is positively correlated with the level of institutional participation at 1% significant level (Below, Kiely, & McIntosh, 1995; K. Wang, Erickson, & Chan, 1995; K. Wang, Erickson, Gau, & Chan, 1995).

Issue of Real Estate Investment Trust in Malaysia

As mentioned, the development of M-REITs is sluggish and much slower than its counterparts. Evidently, as end of first quarter of 2006, it was reported that in Japan there were over 30 REITs listed with market capitalization more than JPY 3 trillion (Jones Lang LaSalle,

2006; Yap, 2006). Whereby in Singapore, there are 13 REITs worth US$ 12 billion. However, Malaysia has only eight (8) REITs that were listed with market capitalization about US$ 650 million. Therefore, it is crucial to work out the reasons of such an outcome considering the wide-ranging potential of REIT's market worldwide.

As stated earlier, the period of 1991 to 2000, most M-REITs were underperformed and had greater risk than the general market. Ironically, even during the expansion of the Malaysian capital market and property market from 1991 to 1996, M-REITs still perform poorly (Ting, Mary, & Newell, 1998). In contrast, during the economic downturn in 1997, it was found that the performance of M-REITs did less poorly than the overall Malaysian stock market. Particularly, over the month February to November 1997, M-REITs share prices dropped by 19% to 35% in contrast with the general Malaysian stock market that is 57% and 69% in the Malaysian property companies sector (Newell, Ting, & Acheampong, 2002; Ting, Mary, & Newell, 1998). This fact is consistent with the study by Smith and Schulman (1976) which discovered that US-REITs underperformed the closed-end funds during the expanding market over December 1963 to December 1968 and outperformed closed-end funds during the declining market over December 1968 to December 1974.

Based on previous literature, the issue of low level institutional investors' participation in M-REITs is also a factor causing to its sluggish growth. Particularly, the average annual unit holdings of institutional possession for the sample period of 1989 to 1997 were only 3.43% (Ting, 2000). In contrast, in the US the average percentages of institutional holdings of US-REITs were 22.3% over the period of 1989 to 1995 (S. H. Chan, Leung, & Wang, 1998; K. Wang, Erickson, Gau, & Chan, 1995). In addition, the past literature also states that REIT's performance is positively correlated with the level of institutional participation at 1% significant level (Below, Kiely, & McIntosh, 1995; K. Wang, Erickson, & Chan, 1995; K. Wang, Erickson, Gau, & Chan, 1995).

Objectives of the Study

The main objective of this study is to identify the empirical evidence on factors that influence the involvement of institutional investors towards REITs in Malaysia. The specific objectives are as below:

1. To examine the current level of institutional investors' participation in M-REITs over the period 2002-2005
2. To examine the preliminary pattern of institutional investors' participation and trading volume of Malaysian REITs over the period 2002-2005
3. To investigate the correlation between institutional investors' involvement in Malaysian REITs with capital gains over the period 2002-2005
4. To observe whether institutional investors' are influenced by the market capitalization of Malaysian REITs over the period 2002-2005
5. To inspect the relationship of institutional involvement with dividend yield of Malaysian REITs over the period 2002-2005

Literature review

The Performance of Real Estate Investment Trust

The early study on performance of REITs was done by Bailey (1966) and in his investigation out of the 13 US-REITs studied showed that the overall performance of the individual US-REITs did not perform favourably since the beginning of 1963 (Bailey, 1966).

In the study Smith and Schulman (1976) evaluated the performance of 16 US-REITs with the common stocks which represented by closed-end investment companies that invest only in common stocks for throughout the 1963 till 1974. Their study discovered that US-REITs underperformed the closed-end funds during the expanding market over December 1963 to December 1968. However, during the declining market over December 1968 to December 1974, their study found that US-REITs outperformed closed-end funds (Smith & Schulman, 1976).

Later, Titman and Warga (1986) examined the returns and risk-adjusted performance of a sample of 16 equity US-REITs and 20 mortgages US-REITs over the 1973 to 1982 periods. Their study uncovered that over the period of study the performance of REIT stocks is not significantly dissimilar as of the market portfolio (Titman & Warga, 1986).

Subsequently, Goebel & Kim (1989) in their research investigated the investment performance of real estate investment trusts, distinguishing the finite-life trusts (FREIT) with traditional REITs and stock returns for the period from December 1983 to December 1987. Their findings show that the FREITs performed poorer than the REITs, with both the FREITs and REITs underperforming the market index over the period examined (Goebel & Kim, 1989).

Sagalyn (1990) analyzed the ex-post performance of survivor US-REITs over 1973:Q3 to 1987:Q4 which involve a number of business cycles. Her study discovered that the survivor equity US-REITs outperform S&P 500 index over the sample period. It was found that the survivor equity US-REITs demonstrated higher returns, lower volatility and lower systematic risk which different with findings of previous studies. However according to the study, this probably was explained by high growth of real gross national product (GNP) in 1980s (Sagalyn, 1990).

The study by Chan, Hendershott and Sanders (1990) examined the monthly returns on an equally weighted index 18 to 23 equity (real property) REITs, of which that were transacted on major stock exchanges over the 1973 to 1987 period. Specifically, their study also check whether equity REIT returns are associated to alteration in the discount on closed-end stock funds which look like credible given the closed-end nature of REITs. So when a simple CAPM framework is used, they found proof of surplus real estate returns mainly in the 1980s.

However, when the multifactor model is used, the proofs disappear. Moreover, real estate as measured by the return performance of equity REITs is less uncertain than stocks in general, but does not propose a better risk-adjusted return K. C. Chan, Hendershott, & Sanders, 1990).

The study by Martin and Cook (1991) compare the returns received by investments in publicly traded limited partnerships (PTLP), finite life equity REITs, and traditional equity REITs with those resultant from investing in common stocks which closed-end mutual funds as the proxy. Thus, the findings of their study signify that the performance of the closed-end mutual funds was more favourable compared to the individual equity REITs (both traditional and finite life) and PTLP securities by a broad range of risk-averse investors. Furthermore, the finding was most prominent subsequent to the passage of the Tax Reform Act of 1986 which severely limited the tax deductibility of real estate losses. However, during the 1980 to 1985 period, when the equity REITs were mingled into portfolios, their performance conquered the mutual funds (Martin & Cook, 1991).

Subsequently, Han and Liang (1995) in assessment of the long-term (1970–1993) performance of US-REITs found that the performance of REIT portfolios was consistent with the security market line (SML) or inactively managed portfolio which contained of three-month Treasury bills and a stock market portfolio for the 1970 to 1993 periods. Yet, they found that not all REITs are identical where their findings show that equity REITs outperformed mortgage REITs. In addition, they discovered that survivor REITs performed better than the general REITs population. However, they argued that the employment of a survivors-only sample could lead to a misjudgement of REITs performance. In an industry that is recognized for its regular exits and entries, the performance of survivors-only samples may not be a good representation of the performance of the overall REIT industry Han & Liang, 1995).

Then, a study by Kim (2001) and Kim, Mattila, and Gu (2002) analyzed the risk-adjusted performance of hotel REITs. Moreover, his research inspected the risk-adjusted performance of hotel REITs distinguished with that of the overall market and other REITs sectors. Particularly, the sample of 183 REITs whose shares were transacted on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), or National Association of Securities Dealers Automated Quotations (NASDAQ) system over the period of 1993 to 1999 was gathered for data analysis. Furthermore, the sample of his study incorporated 19 hotel, 24 office, 18 industrial, 38 residential, 16 healthcare, 47 retail, and 21 diversified REITs. As a result, the findings of his study denoted that hotel REITs' risk-adjusted performance was alike to that of the market portfolio. However the study uncovered that as a portfolio, hotel REITs sector underperformed office, industrial, and diversified REIT sector. In addition, in term of individual stock performance, the average performance of hotel REITs was poorer than office, industrial, residential, and diversified REITs but comparable to healthcare and retail REITs for the period analyzed (Kim, 2001; Kim, Mattila, & Gu, 2002).

Meanwhile, in Malaysia, M-REITs as explained earlier have experienced slow growth since its inception. In addition, M-REITs are far behind its counterparts like Japan and Singapore which established REITs in later years of 2001 and 2002 respectively. As end of first quarter of 2006, Malaysia has only eight (8) REITs that were listed with market capitalization about US$ 650 million. The outcome of such led to the curiosity of examining the empirical evidence on factors that influence the development of REITs in Malaysia of which closely related to institutional investors' participation as among other factors.

Factors Affecting Performance of Malaysian REITs

There are few factors that may affect the performance of REITs among others such as market size, advisor type, tax rate, interest rate and inflation rate. However, institutional investors' participation is the most prominent factor in the context of Malaysian market. This is as demonstrated by the previous literatures and they are as below,

In Wang, Erickson and Chan (1995) discovered that the stock performance of each individual REITs is positively correlated with the number of security analysts tracking the REITs and with the level of institutional participation. In other terminology, REITs tend to perform better if there are more information (from security analysts) regarding the security and if there are more informed stockholders (institutional investors) observing the performance of their stocks (K. Wang, Erickson, Gau, & Chan, 1995a). Besides, Wang et al. (1995) also found that financial analysts tend to follow REITs with higher institutional holdings. Further analysis by Howe and Shilling (1990) proposed that firm size and property location may partially explain REITs performance. Furthermore, Below, Kiely, & McIntosh (1995) proposed that trading activity is less crucial as a determinant of REITs performance than the level of institutional ownership. Specifically, their empirical findings signified that the degree of uncertainty surrounding worth of equity REITs is diminished when the percentage of institutional ownership rises.

The study by Wang, Erickson, Gau and Chan (1995b) examined the level of institutional investor involvement in REITs from the market microstructure and its relationship to stock returns. They observed 100 US-REITs for the period of 1979 to 1990. They documented that US-REIT stocks have a lesser level of institutional investor involvement contrasted with the general stock market. Further, Ling and Ryngaert (1997) pointed out in the US that equity REIT IPOs in the 1990s have been underpriced, on average by 3.6% and have somewhat outperformed seasoned equity REITs in the 100 trading days after issuance, contrast to equity REIT IPOs in the 1970s and 1980s. They found that greater underpricing is associated with greater institutional holdings and issues with institutional holdings is greater than 30% and have significant 100-trading-day abnormal return.

In contrast, the study by S. H. Chan, Leung, & Wang, (1998) who investigated on institutional holding of REITs for the period of 1984 to 1995, found a reversal trend of institutional investors' preference for investing in REITs compare to other stocks after 1990, where more funds from institutional investors were invested in REITs after 1990. They also discovered that institutional investors invest more in equity REITs and mortgage REITs compared to hybrid REITs since 1989.

Meanwhile, a study by Downs (1998) inspected a relaxation in the REITs ownership qualifications that is commonly referred to as the five-or-fewer rule amendment. According to the study, the incentive for this rule alteration direct to an analogy between the ownership change procedure and an industry-wide investor targeting strategy. The results show a considerable wealth effect based on the targeting strategy. However, there is no verification to propose this heterogeneous consequence was planned. Besides, the targeted investors' ex-post

transaction performance is associated directly to the targeting strategy. The results of the study hold up the value-based strategy of targeting institutional investors where, in this situation, value creation is linked with the escalated focus of a dispersed base of sophisticated investors.

The study in M. L. Lee & Lee, (2003) investigated the time-series effect of institutional holdings to differentiate the tax-loss-selling hypothesis and the window-dressing hypothesis for REITs. Coherent with the tax-loss-selling hypothesis, there is verification that the January premiums diminished with the high degree of institutional involvement for REITs. However, the January premiums declined significantly for equity REITs and not for mortgage REITs. The study also suggested that institutional involvement decreased the January premiums for REITs after the Revenue Reconciliation Act of 1993 (RRA). Generally the findings recommend that dealing strategies to profit the higher January profits might succeed while institutional investors leave and avoid the market.

In Malaysia, M-REITs have low level of institutional investors' participation. Particularly, the average annual unit holdings of institutional possession for the sample period of 1989 to 1997 were 3.43% (Ting, 2000). In contrast, in US the average percentages of institutional holdings of US-REITs were 6.7%, 16.2%, 17%, 26% and 30% in 1979, 1989, 1993, 1994 and 1995 respectively (S. H. Chan, Leung, & Wang, 1998; K. Wang, Erickson, Gau, & Chan, 1995).

A study by Craft, (2001) discovered that in 1993, institutions exhibit a weak inclination for liquid REIT stocks. However, by 1998 all institutional types demonstrate a strong fondness for REITs with high market capitalizations, high trading volume, and higher stock prices. Some facts are also presented that REITs with high market capitalizations and trading volume, experience extra returns between 1993 and 1998. Moreover, Ciochetti, Craft, & Shilling (2002) whom found that institutional investors have dissimilar preferences for REIT stocks compared to other investors, discovered that institutional investors commonly choose larger and more liquid REIT stocks.

Nevertheless, the Institutional Investor Preferences in Malaysian REITs identified there are several preferences in REITs such as market size, property type, REIT type, return and risk. However in Malaysia, trading volume was found as the top most important factor for lack of interest in M-REITs. The literature supporting this is as follows;

A study conducted by Lee, Hishamuddin and Lee (2005) inspect the basis of half-hearted reaction from institutional investors in REITs. The study investigated the basis of half-hearted reaction from institutional investors in LPTs and their looked-for investment situation for taking part in the new Malaysian REITs. The study surveyed 21 of 57 senior fund managers which 10% are from insurance companies, 24% from asset management and 66% from unit trusts.

According to Lee, Hishamuddin and Lee (2005), the mainly vital bases for lack of interest in LPTs which ranked in downward order of significance are thin volume of trading, too small market capitalization of LPT in Malaysia, slow of capital appreciation, poor historical returns of LPTs, low dividend yield compared to other investment options, low fluctuation in returns, lack of portfolio management expertise in LPTs and nonperforming of the property sector. The first three factors are rated as most important, the next two factors considered as important while the last three factors evaluated as moderately important. Further, he pointed out that the unattractiveness of M-REITs caused low transaction volume. Consequently, it lessens the liquidity level of M-REITs market wide. Generally most investors wish for an average daily trading volume of at least 250,000 units as verification of liquidity in the REITs market J. Y. M. Lee, Hishamuddin, & Lee, (2005).

On the other hand, an analysis by Ting (2000) of the annual stock turnover ratio which calculated by the number of shares traded in each year divided by the number of shares outstanding at the end of the year demonstrates that the transactional activities of REITs are low. The mean annual stock turnover ratio was 0.33 for over 1990 to 1997 period contrast poorly against ratio of more than one for the property sector of Bursa Malaysia. This show poor demand and interest from Malaysian investors on REIT stock.

In addition, found that investors think that the small market capitalization of about RM239.5 million in 2004 hold back effective development of LPTs market where investors rationalize that small market capitalization together with rigid gearing limit inhibit LPTs from purchasing more profitable prime properties. They stated that the majority of investors consider in the Malaysian framework, market capitalization of at least RM500 million per fund is more appropriate. Further, in their study they found that investors discovered that LPTs returns were unpleasant and lesser than other investment alternatives. Investigation by using means of price fluctuations discovered that LPTs documented were lower than the average annual returns of Bursa Malaysia Composite Index (KLCI) when contrasted against Fixed Deposit (FD), Treasury Bills (TB) and Malaysian Government Securities (MGS) within 1995 to 2004 period with the exclusion of 1998 and 2002.

Lee, Hishamuddin and Lee (2005) discovered that historical price returns and average risk of LPTs from 1995 to 2004 showed that LPTs were substantially unpredictable investment and were also lower in their average annual returns contrasted to identical instruments abroad such as REITs in the U.S. and 'Fiscale Beleggingsinstelling (FBI)' in Netherlands. Thus, in order to encourage investors' participation in REITs, factors that influence the involvement of institutional investors towards REITs need to be uncovered empirically. This is to ensure that the policy makers are especially putting the right measures to ensure the development of REITs in Malaysia objectively. This is one of the effort the study endeavours to uncover that is factors that influence the involvement of institutional investors towards REITs in Malaysia.

Research methodology

Scope of Study

This study focuses on the participation of institutional investors in all stocks under REITs sector of Bursa Malaysia (formerly known as Kuala Lumpur Stock Exchange). The period of study covered the data over the period of 2002 to 2005.

Data

For the institutional investors' participation, the percentage of institutional investors holding the ownership of Malaysian REITs relative to total investors along the period of study will be gathered. Institutional investor participation will acquired from regulatory bodies such as Bursa Malaysia library or from annual report of REITs.

Other data included in the study are trading volume, market capitalization, share price, dividend yield and share price return of all Malaysian REITs for period of 2002 to 2005 and are collected through 'Datastream' provided by library of Universiti Teknologi MARA, Malaysia.

Findings and Analysis

Descriptive Statistics

Table 1a and 1b summarizes the descriptive statistics for AHP1 and AHP2 daily data over the period 2002 to 2005. The Table 1a and 1b exhibits zero mean of daily return and daily share turnover for the period of study. Meanwhile, the mean daily dividend yield and daily market capitalization of AHP1 are higher that is around 7.63% and RM69,988,942 respectively when compared to AHP2 which only about 4.75% and the daily market capitalization is RM50, 578,712 respectively.

Standard deviation in the fifth row of Table 1a and 1b shows a relatively small dispersion or spread for AHP1 and AHP2 daily return and daily share turnover which ranges from about 0 % to about 3%. However, daily dividend yield and daily market capitalization have higher dispersion for both REITs that is 76.55% to 108.60% and RM4, 358,747 to RM7, 419,035 respectively. The higher dispersion comes from AHP2 and this is because of the deteriorating performance of REITs over this period under study.

Further, the results of skewness, kurtosis and Jarque-Bera testing show that all the series of daily data in AHP1 and AHP2 are non-normal distribution. These results are exemplified in the zero probability (p-value = 0.000) which lead to the rejection of the null hypothesis of a normal distribution at 1% significance level. The results show positive skewness for majority daily series except for the daily dividend yield of AHP2 which implies that the distribution has a long right tail except for the daily dividend yield of AHP2. This reflects the underperformance of AHP2 REITs as early mentioned above. Meanwhile, the kurtosis which exceeds 3 for daily return and daily share turnover for AHP1 and AHP2 demonstrate that the distribution of the data is peaked which explain the financial time series data of which leptokurtic in nature. Whilst, the kurtosis below than 3 for daily dividend yield and daily market capitalization for both AHP1 and AHP2 show the distribution is flat (platykurtic) relative to the normal due to the underlying nature of the property market that is relatively stable.

Table 2a and 2b shows the descriptive statistic for AHP1 and AHP2 annual data over the period 2002 to 2005. The findings for annualized data are mostly similar with the daily data especially the mean of dividend yield, market capitalization and return series. Nevertheless, AHP2 have higher mean of annual institutional investors' participation and annual share turnover compared to AHP1. This result supports the findings by Lee, Hishamuddin and Lee (2005) which found that trading volume is the most important factor that attracts institutional investors to invest in REITs. Therefore this finding confirms the previous literature empirically. Nevertheless, the result sparks new curiosity on confirming the direction of the market capitalization, returns, share turnover and level of institutional investors' participation in a causality testing and to look into bid-ask spread analysis in the future works.

Standard deviation in the Table 2a and 2b shows a relatively small spread for AHP1 and AHP2 institutional investor participation, share turnover, dividend yield and return, which ranges from about 0% to about 5%. However, market capitalizations have higher dispersion for both AHP1 and AHP2 which explains the movement of price in REITs. Again, AHP2 have higher spread for all series compare to AHP1 except for institutional investors' participation due to the underlying properties of AHP1 which located mostly in prime areas.

For the Jarque-Bera normality test in Table 2a and 2b shows that the results fail to reject the null hypothesis of a normal distribution. Furthermore, all kurtosis outcomes is less than 3 for both AHP1 and AHP2 which show the distribution is flat (platykurtic) relative to the normal indicating the nature of REITs market of which less inconsistent.

The Pattern of Time Series Properties

Figure 1a and 1b show the pattern of the time series properties for AHP1 daily and annually respectively over the period 2002 to 2005. In both Figure 1a and 1b, the dividend yield data of AHP1 show a declining pattern towards 2005. However, in figure 1b, the institutional investor participation, market capitalization and return exhibit an increasing pattern. This can be verified in Table 3b, where dividend yield have strongly negative correlation with annual institutional investor participation and return which about -0.965 and -0.915 respectively. The declining figure of net income distribution to unit holders from 2001 till 2004 with a relatively stable variation in the return or market price during the period of study explains the declining pattern of dividend yield. The results is further supported by the lower share turnover that range from 0.000 to 0.004 as illustrated in Figure 1 which indicate low demand of investors in AHP1. Moreover, in Figure 1b, the pattern for annual institutional investor participation of AHP1 look similar to the pattern of its annual return. This is supported by the strong positive correlation between annual institutional investor participation with return, which the correlation is about 0.796.

Meanwhile, Figure 2a and 2b shows the pattern of the time series properties for AHP2 daily and annually respectively over the period 2002 to 2005. In Figure 2a and 2b, the dividend yield data of AHP2 show an increasing pattern towards 2005 even though the net income distribution to unit holders was declining from 2002 till 2004. This might be explained from the substantial decline of market capitalization since 2003 and its large dispersion over the period of study. The pattern of dividend yield is the opposite from the market capitalization. The Table 4b shows that correlation of annual market capitalization and annual dividend yield does have strong negative correlation which is about -0.904.

Furthermore, in Figure 2b, the pattern for annual institutional investor participation, annual share turnover and return of AHP2 was similar among them. This verified by Table 4b that shows institutional investors' participation has strongly positive correlation with share turnover which is about 0.813 and also positive correlation with return which is about 0.491. The share turnover also has strongly positive correlation with return which is about 0.779.

Conclusion

This study main objective is to identify the empirical evidence on factors that influence the involvement of institutional investors towards Malaysia Real Estate Investment Trusts (M-REITs) over the period of 2002 – 2005. The current level of institutional investor participation, market capitalization and return exhibit an increasing pattern. This preliminary pattern supports a strong positive correlation between annual institutional investor participation with return of institutional investors' participation and trading volume of M-REITs.

The findings for annualized data are mostly similar with the daily data especially the mean of dividend yield, market capitalization and return series. Nevertheless, AHP2 have higher mean of annual institutional investors' participation and annual share turnover compared to AHP1. This result supports the findings by Lee, Hishamuddin and Lee (2005) which found that trading volume is the most important factor that attracts institutional investors to invest in REITs. Therefore this finding confirms the previous literature empirically. The pattern for annual institutional investor participation, annual share turnover and return of AHP2 shows institutional investors' participation has strongly positive correlation with share turnover and also positive correlation with return. Meanwhile, share turnover also has strongly positive correlation with return. AHP2 have higher spread for all series compare to AHP1 except for institutional investors' participation due to the underlying properties of AHP1 which located mostly in prime areas.

Evidence is provided to support previous literature of which better to explain best the behavior of institutional investors' towards M-REITs. Nevertheless, the result in this study sparks new curiosity on confirming the direction of the market capitalization, returns, share turnover and level of institutional investors' participation in a causality testing and to look into bid-ask spread analysis in the future works. Another, potential implication to note is to consider longer period of study in respect to M-REITs performance.

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Table 1a: The summary of the descriptive statistics for AHP1 daily data over the period 2002 – 2005

	Dividend Yield	Market Capitalization	Return	Share Turnover
Mean	7.634	RM69,988,942	0.000	0.000
Median	7.460	RM68,500,000	0.000	0.000
Maximum	9.370	RM82,500,000	0.159	0.003
Minimum	6.060	RM60,000,000	-0.113	0.000
Std. Dev.	0.766	4,358,747	0.015	0.000
Skewness	0.262	0.693	0.602	3.885
Kurtosis	2.185	2.878	23.535	23.062
Jarque-Bera	40.674	83.834	18,335.930	20,057.530
Probability	0.000	0.000	0.000	0.000
Observations	1,040	1,040	1,040	1,040

Table 1b: The summary of the descriptive statistics for AHP2 daily data over the period 2002 - 2005

	Dividend Yield	Market Capitalization	Return	Share Turnover
Mean	4.753	RM50, 578, 712	0.000	0.000
Median	4.850	RM48, 780, 000	0.000	0.000
Maximum	6.670	RM72, 110, 000	0.172	0.006
Minimum	2.260	RM40, 290, 000	-0.126	0.000
Std. Dev.	1.086	7, 419, 035	0.026	0.001
Skewness	-0.516	0.775	0.247	5.342
Kurtosis	2.120	2.518	9.558	39.832
Jarque-Bera	79.610	114.093	1,874.343	63,732.170
Probability	0.000	0.000	0.000	0.000
Observations	1,040	1,040	1,040	1,040

Table 2a: The summary of the descriptive statistics for AHP1 annual data over the period 2002 - 2005

	Institutional Investor Participation	Share Turnover Ratio	Dividend Yield	Market Capitalization	Return
Mean	0.082	0.055	0.076	RM69, 992, 900	0.000
Median	0.085	0.053	0.077	RM69, 450, 298	0.000
Maximum	0.110	0.084	0.084	RM74, 532, 692	0.000
Minimum	0.046	0.031	0.067	RM66, 538, 314	-0.000
Std. Dev.	0.027	0.023	0.007	3, 704, 857	0.000
Skewness	-0.331	0.263	-0.282	0.294587	0.216
Kurtosis	1.766	1.631	1.641	1.448278	1.530
Jarque-Bera	0.327	0.358	0.361	0.459161	0.391
Probability	0.849	0.836	0.835	0.794867	0.822

Table 2b: The summary of the descriptive statistics for AHP2 annual data over the period 2002 - 2005

	Institutional Investor Participation	Share Turnover Ratio	Dividend Yield	Market Capitalization	Return
Mean	0.235	0.071	0.048	50, 555, 121	-0.000
Median	0.227	0.060	0.048	49, 428, 226	0.000
Maximum	0.269	0.129	0.058	59, 091, 724	0.000
Minimum	0.215	0.034	0.037	44, 272, 308	-0.002
Std. Dev.	0.024	0.042	0.009	6, 338, 197	0.001
Skewness	0.893	0.690	-0.096	0.532	-0.904
Kurtosis	2.142	1.928	1.869	1.909	2.157
Jarque-Bera	0.654	0.509	0.219	0.387	0.664
Probability	0.721	0.775	0.896	0.823	0.718

Table 3a: The summary of correlation matrix for AHP1 daily data series over the period 2002-2005

	Dividend Yield	Market Capitalization	Return	Share Turnover
Dividend Yield	1.000	-0.595	-0.085	-0.128
Market Capitalization	-0.595	1.000	0.123	0.017
Return	-0.085	0.123	1.000	0.110
Share Turnover	-0.128	0.017	0.110	1.000

Table 3b: The summary of correlation matrix for AHP1 annual data series over the period 2002-2005

	Institutional Investor Participation	Share Turnover	Dividend Yield	Market Capitalization	Return
Inst Investor Part	1.000	0.389	-0.965	0.227	0.796
Share Turnover	0.389	1.000	-0.226	-0.280	-0.174
Dividend Yield	-0.965	-0.226	1.000	-0.466	-0.915
Mkt Capitalization	0.227	-0.280	-0.466	1.000	0.658
Return	0.796	-0.174	-0.915	0.658	1.000

Table 4a: The summary of correlation matrix for AHP2 daily data series over the period 2002-2005

	Dividend Yield	Market Capitalization	Return	Share Turnover
Dividend Yield	1.000	-0.296	-0.085	-0.073
Market Capitalization	-0.296	1.000	0.098	0.155
Return	-0.085	0.098	1.000	0.240
Share Turnover	-0.073	0.155	0.240	1.000

Table 4b: The summary of correlation matrix for AHP2 annual data series over the period 2002-2005

	Institutional Investor Participation	Share Turnover	Dividend Yield	Market Capitalization	Return
Inst Investor Part	1.000	0.813	0.148	-0.549	0.491
Share Turnover	0.813	1.000	-0.412	-0.015	0.779
Dividend Yield	0.148	-0.412	1.000	-0.904	-0.303
Mkt Capitalization	-0.549	-0.015	-0.904	1.000	-0.011
Return	0.491	0.779	-0.303	-0.011	1.000

Figure 1a: The pattern of daily time series properties for AHP1 over the period 2002 - 2005

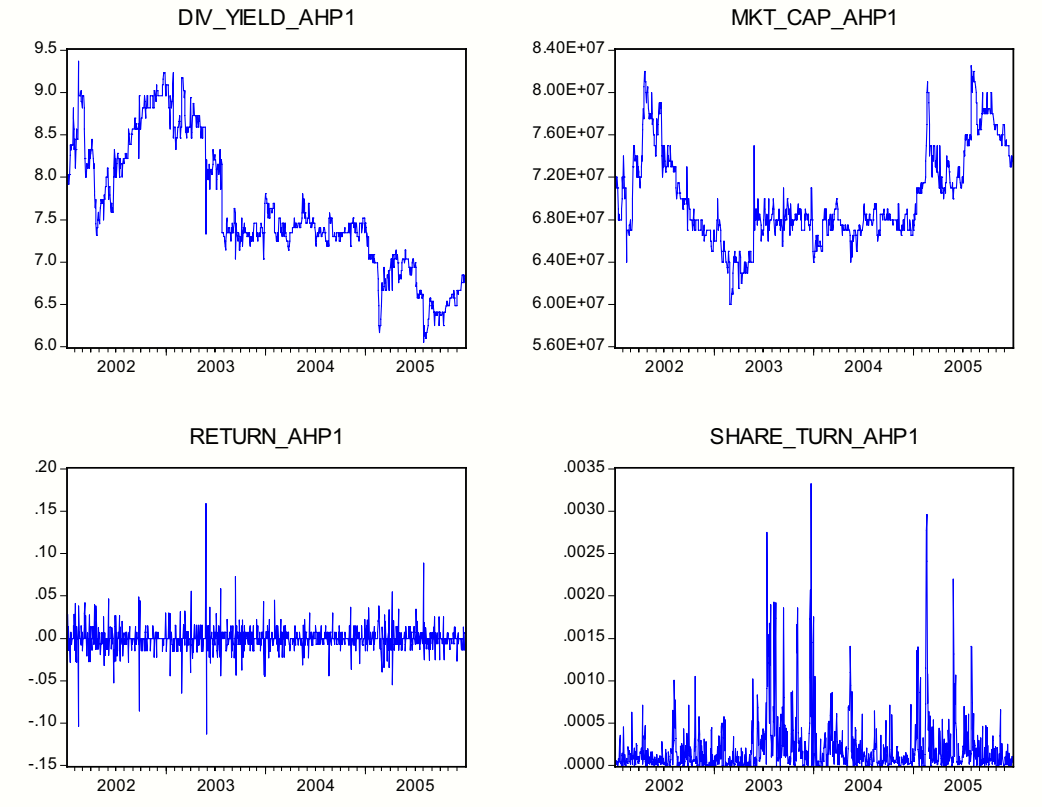

Figure 1b: The pattern of annual time series properties for AHP1 over the period 2002 - 2005

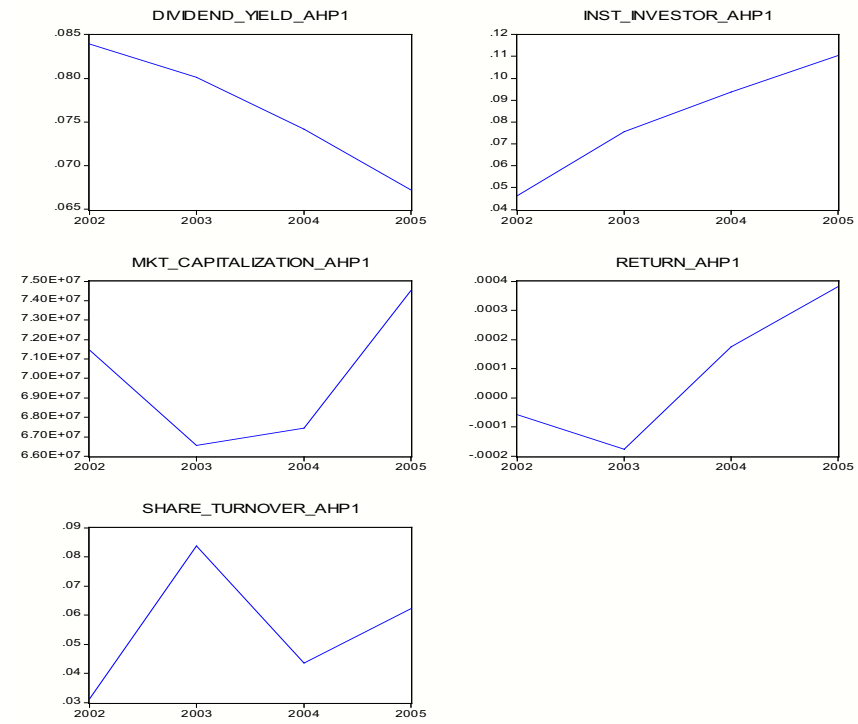

Figure 2a: The pattern of daily time series properties for AHP2 over the period 2002 - 2005

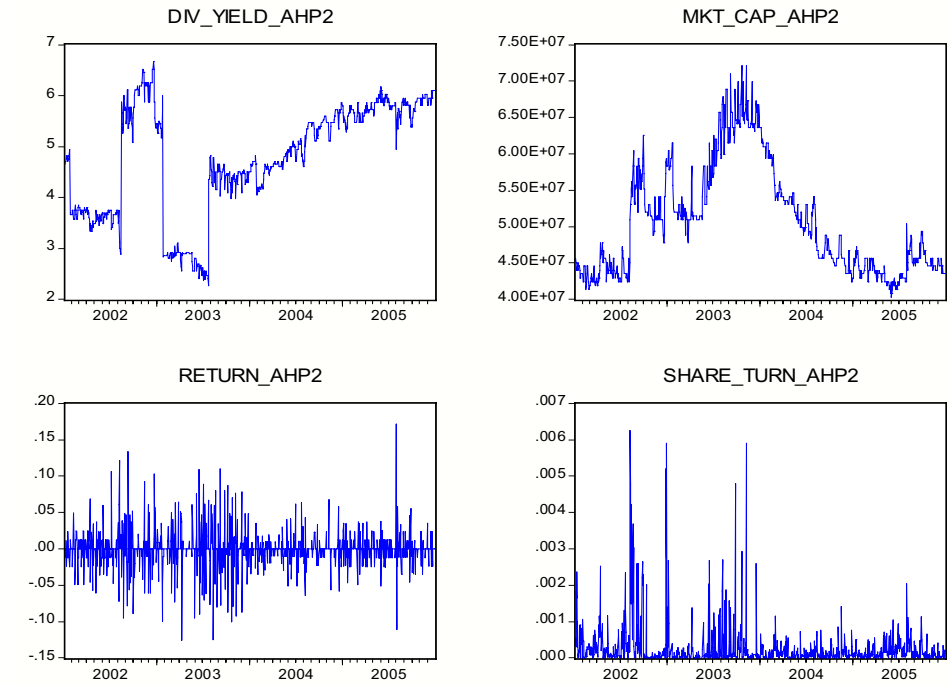

Figure 2b: The pattern of annual time series properties for AHP2 over the period 2002 - 2005