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# A Preliminary Analysis of Islamic Real Estate Investment Trust (I-REIT) Volatility as a Potential Waqf Development

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#### Abstract

The development of waqf institutions is a significant attribution to ensure a sustainable and progressive prosperity to the Muslim socio-economic. The aspiration of the waqf development is to preserve the benefits of the beneficiaries and to all the human kind. However, the issues of the fund shortage are one of the tough issues that need to be solved. I-REIT (Islamic Real Estate Investment Trust) is one of a suggestion of diversification as an alternative solution to the aspect of fund constraint. Therefore, this paper attempts to examine the level of I-REIT volatility in comparison to typical REIT as a preliminary experiment. By using a conventional standard deviation or variance analysis of selected I-REIT and REIT counter, a preliminary result shows that I-REIT has a lower volatility impact than the REIT. This less-impact I-REIT to the market exploitation justifies that the Islamic capital market instruments of Islamic real estate investment trust (I-REIT) is an alternative potential waqf mechanism in developing and advancing waqf property in Malaysia. Thus, this study proposes the initiation of the alternative waqf of I-REIT in enhancing the dynamism of waqf practice in Malaysia.

Keywords: Waqf; I-REIT; Volatility; Malaysia

#### Abstrak

Perkembangan institusi waqaf adalah penting bagi memastikan kesejahteraan yang mampan dan progresif kepada sosio-ekonomi Islam. Aspirasi perkembangan waqaf adalah untuk memelihara manfaat para penerima manfaat dan seluruh manusia secara umumnya. Walau bagaimanapun, masalah kekurangan dana adalah salah satu isu yang sukar dan perlu diselesaikan. I-REIT (Amanah Pelaburan Hartanah Islam) adalah cadangan penyelesaian alternatif kepada aspek kekangan dana ini. Oleh itu, kertas kerja ini cuba untuk menilai tahap ketidaktentuan kemeruapan I-REIT berbanding REIT konvensional sebagai satu kajian rintis. Dengan menggunakan sisihan piawai konvensional atau analisis varians ke atas kaunter I-REIT dan REIT terpilih, keputusan awal menunjukkan bahawa I-REIT mempunyai kesan turun naik yang lebih rendah berbanding REIT. Impak rendah I-REIT memberi justifikasi bahawa instrumen pasaran modal ini adalah instrumen alternatif yang berpotensi dalam membangunkan pelaburan hartanah Islam (I-REIT) dan salah satu cara memajukan harta waqaf di Malaysia. Oleh itu, kajian ini mencadangkan inisiatif waqaf alternatif I-REIT dalam meningkatkan dinamika waqaf di Malaysia sebagai satu praktik.

Kata kunci: Waqaf; I-REIT; Pemeruapan; Malaysia

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#### **1.0 INTRODUCTION**

For decades, the area of Islamic finance has created a positive attention of many researchers. However, discussion on waqf development has less been entertained in the Islamic financial environment. Malaysia, as a becoming developed country has led the world societies to be the Islamic financial role initiator in mobilizing a dynamic international financial landscape (Bank Negara Malaysia, 2010). Nonetheless, in terms of waqf development, there is a need to be rejuvenated. This illustrates the imbalance development between the waqf institutions with the other Islamic financial instruments. However lately, it has been seen an improvement. There is an effort for waqf to be reviewed in terms of its perspective of development, thereby a new-window initiative has been adapted to fit the current situation such as from NGOs, corporate bodies and government agencies (Ihsan & Adnan, 2009; Nahar, & Yaacob, 2011; Syahnaz, Aznan, & Ahmad, 2014).

In line with the rapid development of the Islamic financial system, the waqf assets should be dynamically developed to suit the rapid growth of Islamic financial system. Therefore, one of the approaches to develop the waqf assets in a creative and innovative way that based on its current reality is by the application of Islamic real estate investment trust instruments (I-REIT) which is also an Islamic capital market instrument (Syahnaz et al., 2014).

I-REIT applies as similar as a conventional REIT as both are the investment tools by pooling money from investors and utilize it in the form of buying, managing and selling the real estate (Lembaga Hasil Dalam Negeri Malaysia, 2012). The only difference lies in its legal requirements, which includes the sharīah board of committee or advisor in a certain implementation of professional functions (Mahjom, Mohd. Hussin, Mohamad, & Yusuf, 2013). I-REIT returns are generated from the rent revenue and capital markup issued from the asset property holders in the period of the investment. Those who gain the unit will receive a return in the form of income distribution and capital gains (Securities Commission Malaysia, 2005).

I-REITs are one of the investment instruments which at least 50 percent of the total assets are invested in real estate, either through a direct ownership or a special purpose company (Securities Commission Malaysia, 2005). In other words, I-REITs are only allowed to invest in real estate, special purpose company (SPC), property-related assets, non-real estate assets and cash, deposits and money market instruments.

From these exclusive investments activities, there could be a measurement regarding the robustness of its volatility (I-REIT) compared to the REIT in the capital market. This is imperative for the evaluation purpose of the investor level of assurance. Therefore, this study has put a significant question in guiding the analysis. The questions are as follows:

- 1. Does I-REIT has less volatility than REIT?
- 2. Does I-REIT more stable than REIT?

The discussion has been organized as follows. The following part will be the literature review. Then, the analysis will take part onwards including the model, the estimation technique, and the result and discussion. The final part will conclude and resume the analysis in the study.

#### **2.0 LITERATURE REVIEW**

The study regarding the Real Estate Investment Trust (REIT) performance on capital market development has an extensive exploration, particularly in the United States. However, there is limited studies in Malaysia especially in the Islamic property investment aspect. This is probably due to its new-introduction investment instrument created in the Islamic Capital Market.

Hamzah, Rozali and Tahir (2010) who review the REITs in Malaysia by using the Sharpe Index, Treynor Index, and Jensen Index has proven a stable performance of REIT during the financial crisis in 1997 to 1998. However, it is began to disrupt in the pasca-crisis period of 1998 to 2005. It shows the average systematic risk for REIT is higher than the current and during market portfolio crisis. Meanwhile, Lian and Kim (1986) asserts that the systematic risks inherent in listed property trust has increased after the speculative period of January 1994 to April 1995. It exposes that the speculative effect in the period of 1995 is huge. But, it returns to mild during the post-crisis periods.

An analysis on the returns of REITs in Malaysia in the current economic conditions posits that REITs dividend contributed significantly to the total returns of REITs (Hwa & Abdul Rahman, 2007). Whereas, Brooks and Tsolacos (1999) who utilizing the VAR model on REITs and its relationship to macroeconomic factors reveal that inflation and interest rates have a significant influence on REITs.

Furthermore, there is also a case study of four property trusts registered performance, namely Maybank Property Trust Fund One, Amanah Treasury PNB, First Malaysia Property Trust and Arab Malaysian First Property Trust. The measurement of the standard deviation of the proxy reveals that the variance of the Maybank Property Trust Fund One, Amanah Treasury PNB, and First Malaysia Property Trust is higher than market risk (Newell, Yue, Kwongwing, & Siukei, 2010).

Another analysis on the performance of Malaysian listed property companies that based on the conditions of economic performance by Abdullah and Wan Zahari (2008) disclose that the listed property companies significantly out-performed the market portfolio. From the aspect of risk-adjusted performance and portfolio diversification between the I-REITs and REIT in Malaysia, indicate that the I-REITs has a lower risk level features than REITs (Newell & Osmadi, 2010). Moreover, a study on the aspect of transparency, disclosure, share liquidity, depth of management and corporate democracy affirms that the Malaysian REITs have satisfied all the component specification (Ong, Teh, & Chong, 2011).

Therefore, due to the gap from the above discussions, the study draws a hypothesis such as follows;

*H*<sub>1</sub>: I-REIT has a lower volatility than REIT.

*H*<sub>2</sub>: I-REIT is more stable than REIT

Accordingly, a further investigation could bring a clearer justification regarding the I-REITs as a knowledge enhancement for a starting proposal of the waqf potential development in Malaysia.

# **3.0 ESTIMATION TECHNIQUE**

This study uses a simple technique to measure the volatility between the I-REITs and the REIT. The variance measurement will be used in order to achieve the aim of the study. Therefore, the general formula will be specified as:

### $\sigma^2 = \sum (X - \mu)^2) / N$

Where,  $\sigma^2$  denotes a variance, X denotes I-REIT/REIT price,  $\mu$  denotes mean and N represents the total estimation. From this estimation approach, the hypothesis will be measured.

# **4.0 METHODOLOGY**

This is a quantitative research design. It employs a monthly data of the selected I-REITs and REITs companies of their closing prices since listed on the Bursa Malaysia. The participated companies are Al Salam REIT, Al 'Aqar Healthcare REIT and Axis REIT that are representing I-REIT. While, the Yeoh Tiong Lay (YTL) REIT, United Ostomy Association (UOA) REIT and Ipoh Garden Berhad (IGB) REIT are representing the conventional REIT. Nonetheless, due to non-uniform data from the companies, therefore the study will justify based on only the available data.

Stock market including the REIT and I-REIT volatility is important because an exact expectations in its volatility enable investors to make efficient decisions (Hussin, 2003). By assessing the economic determinant involved, it could be predicted that a high volatility rarely occurs during the economic slowdown and financial crisis.

Constant			Year		
Counters	2012	2013	2014	2015	2016
Al 'Agar	0.006687	0.000384*	0.000644*	0.001824	0.003487
Al Salam	-	-	-	0.000866*	0.001340*
AXIS	-	-	-	0.003050	0.005135
YTL	0.006090	0.001696	0.002590	0.001202	0.002675
UOA	0.001442	0.002881	0.000935	0.001590	0.002769
IGB	0.000430*	0.006669	0.004725	0.001815	0.004706

Table 1 Variance analysis of I-REIT and REIT counters

Notes: \* indicates a low variance or standard variation in that particular year. (-) indicates the data not available. An Italic font indicates the I-REIT counters.

Accordingly, the result of the variance analysis on Table 1 explains that in most of the counters assessed from 2012 to 2016, the I-REIT counter has a lower variance than the REIT counter. On 2013, Al 'Aqar shows the lowest among others, followed by 2014, 2015 and 2016 where the I-REIT counter is the lowest compared to other REIT counters. Only on 2012, the IGB which represents the REIT counter is at around 0.0004 compared to the I-REIT counter. This indicates the REIT counter is more volatile than the I-REIT. In other words, REIT is fragile to the economic downturn, while the I-REIT is stable.

Therefore, from this analysis, it suggests that the I-REIT is very compatible to be a potential waqf alternative of development due to its low volatility among other REIT counter. It also has a potential to be one of the long term investment instruments that can attract foreign and domestic investors as being suggested by Mahjom et al. (2013) and Mohd Yahya, Yusni, Fidlizan, Azila & Fatimah (2014).

This variance analysis of I-REIT posits that they have vast potential and is a completely unexplored market. With a more comprehensive legislative framework and a more dynamic market environment in the future, I-REIT is expected to benefit Malaysia to attract more foreign investors from Asia and the Middle East to set up I-REIT in the country. This could increase the size of Syariah compliant real estate investment funds (Syahnaz et al., 2014).

#### 6.0 CONCLUSION

This study examines the volatility comparison by using a conventional analysis between the I-REIT and the REIT counters in Malaysia. The preliminary results of the analysis suggests that there is a significant finding of the I-REIT and it confirms the hypothesis of the previous research regarding the low volatility effect of the I-REIT counters compared to the REIT counter. It also indicates that the I-REIT is more stable than the REIT.

Therefore, from this preliminary study, we suggest the authority of waqf institutions or the government to take a proactive action in boosting the waqf promotion for the purpose of the nation development in the future. This finding also keen to suggest that this analysis (waqf volatility analysis) could be extended to the Autoregressive Conditional Heteroskedasticity (ARCH) and Generalised Autoregressive Conditional Heteroskedasticity (GARCH) analysis due to the validity and efficiency of its finding.

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# Appendix

# Al 'Aqar REIT

2012		2013		2014		2015		2016	
Mean	1.341667	Mean	1.3375	Mean	1.394167	Mean	1.353333	Mean	1.561667
Standard I	0.023608	Standard I	0.005658	Standard I	0.00733	Standard I	0.01233	Standard I	0.017049
Median	1.355	Median	1.33	Median	1.4	Median	1.33	Median	1.555
Mode	1.31	Mode	1.33	Mode	1.4	Mode	1.32	Mode	1.56
Standard I	0.081779	Standard I	0.019598	Standard I	0.025391	Standard [	0.042711	Standard I	0.059058
Sample Va	0.006688	Sample Va	0.000384	Sample Va	0.000645	Sample Va	0.001824	Sample Va	0.003488
Kurtosis	-0.48295	Kurtosis	4.767835	Kurtosis	2.986564	Kurtosis	-1.75535	Kurtosis	1.922747
Skewness	-0.47749	Skewness	1.809727	Skewness	0.076547	Skewness	0.412879	Skewness	1.2372
Range	0.25	Range	0.08	Range	0.11	Range	0.12	Range	0.22
Minimum	1.2	Minimum	1.31	Minimum	1.34	Minimum	1.3	Minimum	1.48
Maximum	1.45	Maximum	1.39	Maximum	1.45	Maximum	1.42	Maximum	1.7
Sum	16.1	Sum	16.05	Sum	16.73	Sum	16.24	Sum	18.74
Count	12								

#### Al Salam REIT

2015		2016	
Mean	0.96	Mean	1.025
Standard Error	0.01472	Standard I	0.010571
Median	0.955	Median	1.04
Mode	#N/A	Mode	1.04
Standard Deviatio	0.029439	Standard I	0.036618
Sample Variance	0.000867	Sample Va	0.001341
Kurtosis	1.5	Kurtosis	-0.54043
Skewness	0.940661	Skewness	-0.67152
Range	0.07	Range	0.115
Minimum	0.93	Minimum	0.955
Maximum	1	Maximum	1.07
Sum	3.84	Sum	12.3
Count	4	Count	12

## Axis REIT

2015		2016	
Mean	1.63	Mean	1.685833
Standard Error	0.024698178	Standard Error	0.020687
Median	1.64	Median	1.69
Mode	#N/A	Mode	1.61
Standard Deviation	0.055226805	Standard Deviation	0.071663
Sample Variance	0.00305	Sample Variance	0.005136
Kurtosis	0.774522978	Kurtosis	-0.17686
Skewness	-0.415573916	Skewness	-0.297
Range	0.15	Range	0.25
Minimum	1.55	Minimum	1.55
Maximum	1.7	Maximum	1.8
Sum	8.15	Sum	20.23
Count	5	Count	12

2012		2013		2014		2015		2016	
Mean	1.01	Mean	1.053333	Mean	0.960833	Mean	1.0425	Mean	1.1025
Standard I	0.022529	Standard I	0.011892	Standard I	0.014692	Standard I	0.004106	Standard I	0.01493
Median	1.025	Median	1.045	Median	0.955	Median	1.04	Median	1.08
Mode	1.11	Mode	1.01	Mode	1	Mode	1.03	Mode	1.07
Standard I	0.078044	Standard I	0.041194	Standard I	0.050894	Standard [	0.014222	Standard [	0.05172
Sample Va	0.006091	Sample Va	0.001697	Sample Va	0.00259	Sample Va	0.000202	Sample Va	0.002675
Kurtosis	-1.72452	Kurtosis	-0.84015	Kurtosis	-1.77933	Kurtosis	-0.62548	Kurtosis	0.817172
Skewness	-0.08262	Skewness	0.575669	Skewness	0.150421	Skewness	0.839008	Skewness	1.171813
Range	0.21	Range	0.12	Range	0.13	Range	0.04	Range	0.17
Minimum	0.9	Minimum	1.01	Minimum	0.9	Minimum	1.03	Minimum	1.05
Maximum	1.11	Maximum	1.13	Maximum	1.03	Maximum	1.07	Maximum	1.22
Sum	12.12	Sum	12.64	Sum	11.53	Sum	12.51	Sum	13.23
Count	12								

# UOA REIT

2012		2013		2014		2015		2016	
Mean	1.386667	Mean	1.444167	Mean	1.414167	Mean	1.585	Mean	1.676667
Standard I	0.010964	Standard I	0.015495	Standard I	0.00883	Standard I	0.011514	Standard I	0.015192
Median	1.37	Median	1.45	Median	1.41	Median	1.59	Median	1.665
Mode	1.37	Mode	1.45	Mode	1.45	Mode	1.6	Mode	1.64
Standard I	0.037979	Standard (	0.053676	Standard (	0.030588	Standard [	0.039886	Standard I	0.052628
Sample Va	0.001442	Sample Va	0.002881	Sample Va	0.000936	Sample Va	0.001591	Sample Va	0.00277
Kurtosis	-1.05168	Kurtosis	-0.98189	Kurtosis	-0.75178	Kurtosis	0.672631	Kurtosis	-1.49851
Skewness	0.368622	Skewness	0.028208	Skewness	-0.08582	Skewness	-0.62922	Skewness	0.301693
Range	0.12	Range	0.17	Range	0.1	Range	0.14	Range	0.15
Minimum	1.33	Minimum	1.36	Minimum	1.36	Minimum	1.5	Minimum	1.61
Maximum	1.45	Maximum	1.53	Maximum	1.46	Maximum	1.64	Maximum	1.76
Sum	16.64	Sum	17.33	Sum	16.97	Sum	19.02	Sum	20.12
Count	12								

# IGB REIT

2012		2013		2014		2015		2016	
Mean	1.344	Mean	1.278333	Mean	1.253636	Mean	1.338333	Mean	1.608333
Standard I	0.009274	Standard I	0.023576	Standard I	0.020726	Standard I	0.012299	Standard I	0.019803
Median	1.34	Median	1.25	Median	1.27	Median	1.345	Median	1.61
Mode	#N/A	Mode	1.36	Mode	1.2	Mode	1.35	Mode	1.61
Standard I	0.020736	Standard I	0.081668	Standard I	0.068742	Standard [	0.042605	Standard [	0.068601
Sample Va	0.00043	Sample Va	0.00667	Sample Va	0.004725	Sample Va	0.001815	Sample Va	0.004706
Kurtosis	-1.96322	Kurtosis	-1.68728	Kurtosis	-1.26004	Kurtosis	2.076897	Kurtosis	0.405494
Skewness	0.235514	Skewness	0.368686	Skewness	-0.47485	Skewness	0.984477	Skewness	0.382816
Range	0.05	Range	0.22	Range	0.19	Range	0.16	Range	0.24
Minimum	1.32	Minimum	1.19	Minimum	1.14	Minimum	1.28	Minimum	1.51
Maximum	1.37	Maximum	1.41	Maximum	1.33	Maximum	1.44	Maximum	1.75
Sum	6.72	Sum	15.34	Sum	13.79	Sum	16.06	Sum	19.3
Count	5	Count	12	Count	11	Count	12	Count	12