

## **FINANCIAL PERFORMANCE OF REAL ESTATE INVESTMENT TRUST (REITs): EVIDENCE FROM ASIAN REITS**

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**Abstract:** *We analyse the financial performance proxy by sustainable growth rate, dividend yield and return on asset of Asian Real Estate Investment Trust (A-REITs) over the period of 2007 to 2016. The sample consist of 75 listed A-REITs from four countries which are Malaysia, Singapore, Japan and Hong Kong. Our analysis shows that the distributions of the financial performance for A-REITs are not equal for Malaysia, Singapore, Japan and Hong Kong using Independent Sample Kruskal-Wallis test. Represents by unbalance data retrieved from Bloomberg’s database, Hong Kong is rank highest in term of sustainable growth performance than the others three countries. We also found Malaysia REITs provide more stable dividend yield and return on asset among the four countries. Generally, Japan REITS has the lowest mean rank for all the three indicators of financial performance. The findings of the study will have important implications for investors who intend to use Asian REITs as an alternative for international diversification purpose by diversify the property type and geographical risks in their portfolios.*

**Keywords:** *Real Estate Investment Trust, Asian, Financial Performance*

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### **Introduction**

The growing presence of the Real Estate Investment trust (henceforth REITs, pronounced “reets”) particularly in the Asian capital markets geared tremendous attraction among the investors. Accommodate as an alternative investment against its underlying assets for varieties of real estate class enticed its distinctive investment characteristics. Consequently, nearly its two decades of establishment in Asia had offers institutional and individual investors exposure towards a liquid income generating in real estate encompassed with diversification benefits to a multi assets class portfolio (Atchison, and Yeung, 2014). Essentially, REITs financial performance gauging from specific features such as return enhancement, above average and secure dividend stream, inflation hedging and tax efficient cash flows generation (Morri & Romito, 2017) induced its promising and attractive investment option. Likewise, the change of

regulatory structures, availability of the Islamic REITs, and accessibility to domestic and pan-Asia commercial real estate portfolios are the salient features towards the strong growth of the Asian REIT (henceforth A-REITs) (Newell, 2012).

In looking at the Asian market, a growing number of literatures had highlight diverse issues across REITs portfolio performance, across different market context. (See; Myer and Webb (1993); Han and Liang (1995); Oppenheimer and Grissom (1998); Lizieri, Satchell, Worzala, and Dacco' (1998); Newell, Adair and Nguyen, (2013) ;Brounen and De Koning (2014); Haslam, Tsitsianis, Andersson, and Gleadle,(2016); and Daniaand and Dutta(2017) to name few). Specified with unlimited justifications proposed in the literature towards the A-REITs investment given different markets context, there is still an existence of literature gaps. Given REITs in Asia initiated by Japan, Singapore and Hong Kong in which had marked themselves as renowned A-REITs centres. Consequently, literature on A-REITs having dominated by these three country since there are considered as the backbone of A-REITs (see, Ma & Michayluk, (2010); Lim, (2014); Vithessonthi & Kumarasinghe, (2016)). In view of the inadequacy of A-REITs literature despite a decades of existence this study was highlighted to fill the gaps by identifying the different of financial performance across the selected A-REIT. Thus the attractiveness of REITs investment by integrating this financial performance analysis from Asian perspective is expected to provide a meaningful insight.

### **Overview of Asian REITs**

Historically, REITs emerged in US in the 1960s followed by Australia in the early 1970s, yet, REITs reforms in Asian markets particularly in the early 2000s (Atchison and Yeung, 2014). Over a decades of its establishment in Asian, a remarkable transformation had marks Asian REITs as a choice of investments across investors. In particularly, enhance the efficiency of the real estate markets and bring international capital to Asia. The first Asian REIT was established in Japan in 2001 followed by South Korea and Singapore in 2002, Thailand in 2003, and Taiwan, Malaysia and Hong Kong in 2005. After a decade of development, Japan and Singapore have become the two largest REIT markets in this region with market capitalization of approximately US\$38 billion and US\$ 30 billion as of 31 Dec 2012 respectively while other REIT markets in this region account for about 10 percent of the total in Asia (Bloomberg, 2014). The excellent performance of Japan(J-REITs) and Singapore (S-REITs) REITs should be highlighted. For the year ended 2012, the one-year rate of return is 17.4% and 21.8% respectively in Japan and Singapore which is higher than 15.3% in the U.S. The dividend yield for J-REITs and S-REITs of 5.8% and 6.8% are also higher than that for the U.S. REITs of 3.7%. Most REITs in Asia are proven to be externally managed in order to avoid potential conflicts of interest between the REIT managers and shareholders (Ma & Michayluk, 2012). Additionally, the prominence of Asian REITs is further reinforced by Japan which rank number 4 globally, and closely followed by Singapore and Hong Kong that marks its own significant establishment of Asian REIT markets across the globe (Newell,2012). Consequently, the rapid growth of Asian REITs was further enhanced given its accounts for US\$7 trillion in investable real estate, being 25% of the global market. This was further expected to growth by 2020 significantly to US\$17 trillion which increased its composition to 35% of the global market; largely driven by the strong growth in the Asian emerging real estate markets (Newell,2012). The total market capitalisation of 7 A-REITs was recapitulated as in Figure 1 below based on authors own calculation grounded on Bloomberg's data.

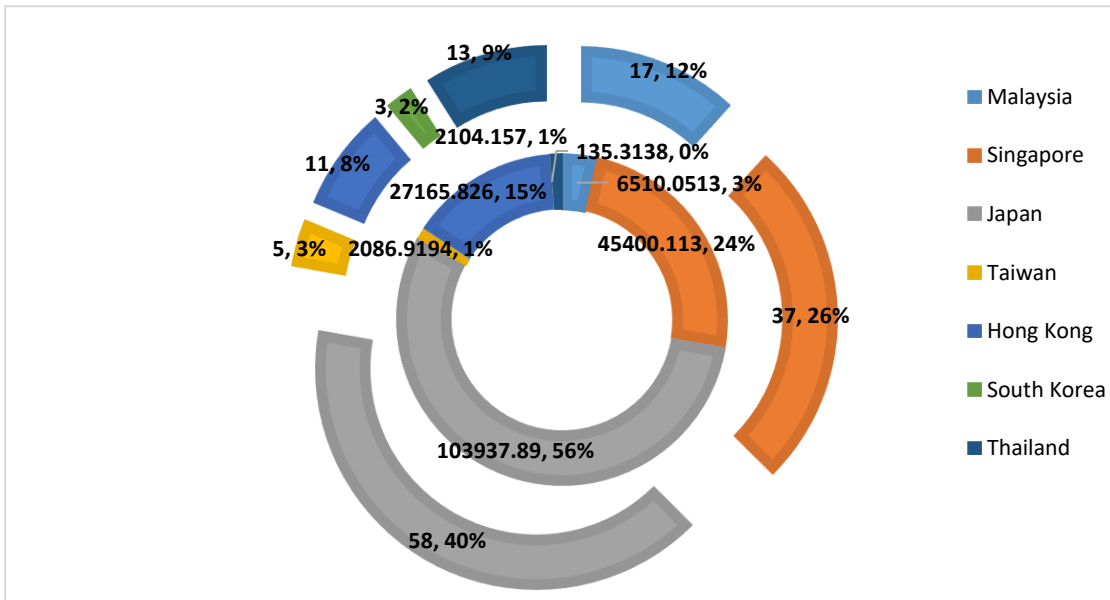


Figure 1. Market capitalisation and number of Listed REITs by each country as at December 2016  
Sources: Authors compilation based on Bloomberg's database

## Literature Review

Even though a growing body of academic studies investigates on REITs performance in many countries around the globe, however there are quite limited literature devotes from Asian perspective. Recent study by Loo, Ahmad Anuar and Ramakrishnan (2016), analysed the impact of macroeconomics variable towards REIT performance across Japan, Hong Kong, Singapore, Malaysia, Thailand, Taiwan and South Korea. Their study showed that certain of the emerging REIT markets show a higher degree of integration with macroeconomic variables in the long run. Additionally their study evidence the sensitivity of emerging REIT markets towards the change in macroeconomic environment compared to the developed REIT markets. While Hung, Kei Joinkey and Sin (2008), analysed REIT returns against stock, bond and direct property returns for the REIT markets of the USA, Australia, Japan and Singapore REIT. Their study evidenced differences in the returns and other financial and real assets across countries inter-temporally and also it's the diversification benefits to a multi-asset investment portfolio. While, Ooi, Newell, and Foo Sing (2006), examines the background of macroeconomic, financial market and real estate market development in Asia. Their study discuss on the driving forces for REIT development on the supply and demand sides, government initiatives and market obstacles. They also do some review on the initial performance of Asia REITs will be compared to the common stocks in the respective markets .

Additionally, Yu, (2009) review on the well-developed REITs markets in Japan, Singapore and Hong Kong and indicate that the performance and diversification effect of Asian REITs cannot be neglected even though Asia are still in the infant stage. The study also recommended that Asian REITs has the advantage to be added in the portfolio considering the low correlation with other assets which enhance diversification with high dividend yield. While, Ong, (2011) examine the performance of Malaysia REIT based on the Net Asset Value approach (NAV). His study categorizes the NAV into NAV premium and NAV discounts by indicating that REITs which trades in NAV premiums has superior historical and future earning capabilities, organizational and operation efficiencies and quality of management. Whereas NAV discounts

when its trade below the current stock prices which reflect a poor current and future prospects for firm earnings and mistakes in financing and operations decision.

Anh Khoi (2012) examines the dynamics of return and volatility spillovers across the REIT markets of Japan, Singapore, Hong Kong, Malaysia, Taiwan, Thailand, and South Korea from June 2006 to May 2011. The study evidence that emerging markets offer lower returns than the developed markets but lower risk as well. Additionally, Yunus (2012) study confirm on the influenced by GDP, inflation, money supply and long term government bond both in the long and short run perspectives towards Japan property stocks being. While Liow and Yang (2005) for cross study in Japan, Hong Kong, Singapore, and Malaysia indicates co-integrated with GDP, inflation, short term interest rate, long term interest rate and money supply from the long run perspective. Study by Brounen and Koning (2014) indicates that the systematic REIT risk is highest among Asian REITs and is mainly a reflection of firm leverage in recent years, While, Fuerst (2015) stressed that investing comprehensively in sustainability able to enhance the operational performance together with lowering risk exposure and volatility. He suggest that real estate owners need to invest in measures that improve their sustainability in maintaining their competitive positioning.

## **Research Method**

This study focuses on financial performance analysis of listed A-REITs from year 2007 to year 2016. This study utilised sample of 131 of listed REITs from seven Asian country are chosen based on the list obtained from Bloomberg's database. However only a final of 75 listed A-REITs from 4 countries was available for analysis which are Malaysia (M), Singapore(S), Japan (J) and Hong Kong (H) with full information within 10 years of observation. All listed REITs from South Korea, Taiwan and Thailand was excluded due to lack of data. The data were retrieved from their own respective board of trading and the currency was change to USD for standardization purposes.

There are several alternative in measuring the financial performance of a REITs such as in terms of profitability, dividend growth, sales turnover, asset base, and capital employed among others. One of the most important measure used in accounting to proxy for firm performance and value is Return on Asset (ROA) (Feng, Price & Sirmans, 2011) since it measures the efficiency of assets in producing income (Stanwick and Stanwick, 2000; Clarkson et al., 2008). In addition, the sustainable growth rate (SGR) was used as it represents the company's growth strategy and its resources to facilitate it (Hartono & Utami, 2016). Rahim (2017) defines SGR as a maximum firm growth without borrowing more money and selling new equity. While, Higgins (2003) indicates that SGR represents the maximum rate at which a firm can expand its sales or revenues without depleting its financial resources The attribute of SGR as the percentage of the maximum growth in sales composed with the target of the operation, debt, and the dividend ratio (Van Horne, 1998) signify the indicators for A-REITs financial performance. The SGR model itself does able to determine the coherent of REIT's sales growth in consistent with the operating characteristics and financial goals. Rahim & Mohd Saad (2014) indicates that firm's profitability is positively influence by sustainable growth rate. They evidence the tendency of higher level of profitability was drove by an increase in the sustainable growth. Another indicator used to represents A-REITs financial performance are dividend yield (DY) (Michael, Sumner & Packer, 2006; Mohamad & Zolkifli, 2014) which could be denotes as indicators towards investors interest towards REITs investment. The DY of a REITs stock can be consider as a good indicator REITs value and performance since it could also be a sign of the stability

of a REITs company in providing relatively stable positive returns in uncertain and stagnating markets (Henne, Ostrowski, & Reichling,2009). The selected variables to proxy A-REITs financial performance was presented in Table 1.

Table 1  
*A-REITs Financial Performance Measurement*

Variables	Measures	Nomenclature
Sustainable Growth Rate <sup>a</sup>	ROE (1 – DPR) ROE = Return on equity, DPR = Dividend payout ratio	SGR
Return on Asset <sup>b</sup>	Net income / Total assets	ROA
Dividend Yield <sup>c</sup>	Annualised Dividend/Stock Price	DY

<sup>a</sup>*Pandit, & Tejani,(2011), Rahim and Mohd Saad (2014),Rahim (2017), Hartono & Utami,( 2016)*

<sup>b</sup>*Stanwick and Stanwick, (2000), Clarkson et al., (2008), (Feng, Price & Sirmans,(2011)*

<sup>c</sup>*Michael, Sumner & Packer, (2006); (Henne, Ostrowski, & Reichling,2009; Mohamad & Zolkifli,(2014)*

Then, the analysis of data applied using an Independent Sample Kruskal-Wallis test (KWt) using Statistical Package for the Social Sciences (SPSS) was used to identify the significant difference of A-REITs financial performance across country. However, to run the KWt, the four assumptions of this test must be met. The first three assumption was related to the choice of study design, whilst the fourth reflects the nature of the data. Given this study used continuous dependent variable that consists of four categorical group with independence of observations, the assumption one, two and three for Independent Sample Kruskal-Wallis test was hold for this current study. Acknowledged the KWt as a test for stochastic equality (Vargha & Delaney, 1998), thus the null and alternative hypotheses for assumption four of KWt as per below:

*H0: the distribution of financial performance for the A-REITs are equal.*

*HA: the distribution of financial performance for the A-REITs are not equal.*

## Findings

The results of the KWt in determining the existence of significant differences in financial performance between the A-REITs was presented in Table 2 and Table 3 between each country with observation of : M(n=129),S (n=176), J (n=307), H (n=75). Distributions of DY,SGR, and ROA were not similar for all groups, and results for the assumption four of similarly shaped distributions was met in the KWt test based on the Table 1. The significant results of KWt support the hypothesis HA indicates the distributions of the financial performance for A-REITs are not equal for Malaysia (M), Singapore(S), Japan (J) and Hong Kong (H) . The distribution of KWt for DY,SGR, and ROA were statistically significantly different between groups,  $\chi^2(3) = 175.318, p = 0.000$ ;  $\chi^2(3) = 564.428, p = 0.000$ ; and  $\chi^2(3) = 267.290, p = 0.000$  respectively.

Table 2

*Results Summary*

	<b>Null Hypothesis</b>	<b>Test</b>	<b>Sig</b>	<b>Decision</b>	<b>Test Statistic</b>	<b>Degree of Freedom</b>
<b>1</b>	The distribution of DY is the same across categories of A-REITs	Independent Sample Kruskal-Wallis Test	0.000***	Reject the null hypothesis	175.318	3
<b>2</b>	The distribution of SGR is the same across categories of A-REITs	Independent Sample Kruskal-Wallis Test	0.000***	Reject the null hypothesis	564.428	3
<b>3</b>	The distribution of ROA is the same across categories of A-REITs	Independent Sample Kruskal-Wallis Test	0.000***	Reject the null hypothesis	267.290	3

Notes: The symbols of ‘\*’ represent the significant level, where \*\*\* Significant at 1%, \*\* significant at 5% and \* significant at 10%.

Table 3

*Statistic for A-REITs across Country*

Variables	Country	N	Mean Rank	Median
DY	Malaysia	129	459.5	7.2603
	Singapore	176	422.82	6.6893
	Japan	307	233.6	4.6068
	Hong Kong	75	412.27	6.6682
	Total	687		
SGR	Malaysia	129	433.32	1.9872
	Singapore	176	420.95	2.90595
	Japan	307	221.65	0
	Hong Kong	75	510.59	7.88105
	Total	687		
ROA	Malaysia	129	471.54	5.9043
	Singapore	176	437.78	5.6412
	Japan	307	206.9	2.473
	Hong Kong	75	465.75	7.0726
	Total	687		

Considering the KWT’s mean rank of DY ( $M\mu=459.50$ ;  $S\mu=422.8$ ;  $J\mu=233.6$ ; and  $H\mu=412.27$ ). The mean rank value indicating that Malaysia REITs generally has higher mean rank value with highest median value of 7.2603 while Japan REITs has the lowest rank value with a median of 4.6068. Thus it shows that Malaysia REITs has highest DY among the four country while Japan is the lowest rank among all in term of DY analysis. The DY of each REITs provide a better comparative term for investors in judging the value of the dividends in each investment since it indicates the ability in generating dividend income as a percent of investment. Typically higher dividend yields are associated with more stable and mature firms (Henne, Ostrowski, & Reichling, 2009) which could indicate a better financial performance of REITs firm. Moreover, from investors viewpoints DY can be considered as return for an investment for a

stock in the absence of any capital gains. Investors who wish to maximize the income return especially those who depend on income from their investments might prefer higher dividend yield REITs.

The mean rank analysis for SG indicates ( $M\mu=433.32$ ;  $S\mu=420.95$ ;  $J\mu=221.65$ ; and  $H\mu=510.59$ ) that Hong Kong REITs has the highest ROA with a median of 7.88105 while Japan is the least with median of 0.000 compared to the others. Given that the sustainable growth rate is one of the valuable financial tools used to gauge financial and operating decision (Rahim, 2017), the results evidenced Hong Kong REITs are more attractive for investors looking at sustainable growth performance. The Sustainable growth rate model can provide an excellent structure to describe the growth path of REITs firm (Pandit, & Tejani, 2011). Thus support by long standing definition of SGR model by Higgins (1977) that SGR was used in mainstream finance to analyze the maximum growth rate in sales achieved by firms while maintaining a relatively stable set of financial policies.

The mean rank analysis for ROA indicates ( $M\mu=471.54$ ;  $S\mu=437.78$ ;  $J\mu=206.9$ ; and  $H\mu=465.75$ ) Malaysia has the highest mean rank for ROA while Japan is the least among others country. The ROA explicitly takes into account the assets used to support REITs business activities which denotes management's effectiveness in utilizing all available assets to create profit (Tang & Jang, 2008). It's important in determining REITs firm ability in generating adequate return on assets. REITs could be considered as an asset-heavy companies thus its need higher level of net income to support their operation. Thus the maximum utilization of assets thus able to recapitulate the strong financial performance of REITs that might influence investor's investment decision.

## **Conclusions**

The main driving force for this research is to assess the financial performance of REITs in Asia market since 2007. The study investigated the sustainable growth, dividend yield and return on asset differences based on listed REITs across four selected Asia country namely Malaysia, Singapore, Japan and Hong Kong. The KWt analysis indicates that for all the three selected variable proxy for financial performance are having a statistically significant distribution of mean. The significant results of KWt support the hypothesis  $H_A$  indicates the distributions of the financial performance for A-REITs are not equal for Malaysia, Singapore, Japan and Hong Kong. Surprisingly, the results indicate that Japan REITs has the lowest mean rank for all the three indicators of financial performance. While Malaysia REITs provide more stable dividend yield and return on asset performance among the four countries and Hong Kong is the highest in term of sustainable growth performance. The findings of the study will have important implications for investors who intend to use Asian REITs to diversify property type and geographical risks in portfolios. The financial performance analysis by integrating sustainable growth indicator of REITs is still can lead to undiscovered areas in which left for future research to be further explore.

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