

THE SIGNIFICANCE OF PROPERTY TYPE STRATEGY OF MALAYSIAN
REAL ESTATE INVESTMENT TRUST

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DEDICATION

“To my beloved family and friends”

ACKNOWLEDGEMENT

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ABSTRACT

The performance of Malaysian Real Estate Investment Trust (M-REIT) companies is linked to the property type strategy adopted by each individual company. M-REIT was established a decade ago, yet the outcome in performance difference between the property type strategies of focused and diversified M-REIT is still largely unexplored, thus presenting investment information gap for M-REIT managers and investors. The main aim of this study is to identify the property type strategy adopted by M-REIT companies and the performance difference between focused and diversified M-REIT in a mixed asset portfolio. Investment data from 2010 to 2016 of fourteen M-REIT companies were examined. Multiple regression analysis (MRA) was employed to investigate the significant relationship between the financial performance of focused and diversified M-REIT and REIT determinants. The property type strategy was categorized according to the market value of underlying property in the M-REIT property portfolio. The performance of focused and diversified M-REIT was assessed by employing risk-adjusted performance analysis, portfolio diversification analysis, correlation analysis, efficient frontier analysis, and portfolio optimization analysis. The results indicate there were ten focused M-REIT and four diversified M-REIT companies. The findings on risk-adjusted performance analysis revealed the superior performance of the diversified M-REIT over the focused M-REIT. However, the diversification analysis showed that both focused and diversified M-REIT offered diversification benefit in a mixed-asset portfolio, with the latter contributed higher returns in the mixed asset portfolio than their focused M-REIT counterparts. The results of MRA indicate that for the focused M-REIT, total return and net asset value (NAV) were significantly related to property market value, while total return was significantly related to total property net income. Conversely, for the diversified M-REIT, total return showed no significant relationship with all the determinant factors. However, NAV for diversified M-REIT exhibited a significant relationship with dividend yield and annual risk. Overall, these findings suggest that property type strategy impacts M-REIT performance, while property market value and property net income only exhibit a significant relationship with the financial performance of focused M-REIT.

ABSTRAK

Prestasi syarikat amanah pengurusan harta tanah Malaysia (M-REIT) dikaitkan dengan jenis strategi pelaburan harta tanah yang diterima oleh setiap syarikat. M-REIT telah ditubuhkan pada sedekad yang lalu, namun perbezaan prestasi antara strategi fokus dan strategi kepelbagaian M-REIT masih belum diselidiki, oleh itu, memberi jurang maklumat pelaburan kepada pengurus dan pelabur M-REIT. Tujuan utama kajian ini adalah untuk mengenal pasti jenis strategi pelaburan harta tanah yang diterima pakai oleh syarikat M-REIT dan perbezaan prestasi antara M-REIT dengan strategi fokus dan kepelbagaian harta tanah dalam portfolio aset bercampur. Data pelaburan dari tahun 2010 hingga 2016 daripada empat belas syarikat M-REIT telah dikaji. Analisis regresi berganda (MRA) digunakan untuk mengkaji hubungan yang ketara antara prestasi kewangan antara portfolio fokus dan kepelbagaian M-REIT dengan penentu M-REIT. Jenis strategi pelaburan harta tanah dikategorikan mengikut nilai pasaran harta tanah dalam portfolio harta tanah M-REIT. Prestasi portfolio fokus dan kepelbagaian M-REIT dinilai dengan menggunakan analisis prestasi terlaras risiko, analisis kepelbagaian portfolio, analisis korelasi, analisis sempadan yang cekap dan analisis optimasi portfolio. Hasil kajian menunjukkan terdapat sepuluh fokus M-REIT dan empat syarikat M-REIT yang pelbagai. Dapatan daripada analisis prestasi terlaras risiko menunjukkan kepelbagaian M-REIT mempunyai prestasi yang unggul berbanding fokus M-REIT. Walau bagaimanapun, analisis kepelbagaian portfolio menunjukkan bahawa kedua-dua fokus dan kepelbagaian M-REIT menawarkan faedah kepelbagaian dalam portfolio aset bercampur dengan yang kedua menyumbang pulangan yang lebih tinggi dalam portfolio aset bercampur berbanding dengan fokus M-REIT. Keputusan MRA menunjukkan bahawa untuk fokus M-REIT, jumlah pulangan dan nilai aset bersih (NAV) berkait rapat dengan nilai pasaran harta tanah, manakala jumlah pulangan mempunyai hubungan ketara dengan peredaran bersih harta tanah. Sebaliknya, bagi kepelbagaian M-REIT, jumlah pulangan menunjukkan tiada hubungan yang signifikan dengan semua faktor penentu. Walau bagaimanapun, NAV bagi kepelbagaian M-REIT menunjukkan hubungan yang signifikan dengan hasil dividen dan risiko tahunan. Keseluruhannya, hasil kajian ini mencadangkan strategi pelaburan harta tanah membawa kesan terhadap prestasi M-REIT, manakala nilai pasaran harta tanah dan pendapatan bersih harta tanah hanya mempunyai hubungan yang signifikan dengan prestasi kewangan bagi fokus M-REIT.

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LIST OF ABBREVIATIONS

AR	-	Annual Return
DY	-	Dividend Yield
DPS	-	Dividend Per Share
KLCI	-	Kuala Lumpur Composite Index
MPS	-	Market Per Share
MPT	-	Modern Portfolio Theory
MRA	-	Multiple Regression Analysis
M-REIT	-	Malaysian Real Estate Investment Trust
NAV	-	Net Asset Value
NAREIT	-	National Association of Real Estate Investment Trust
REIT	-	Real Estate Investment Trust
TPMV	-	Total Property Market Value
TPNI	-	Total Property Net Income
TR	-	Total Return
U.S.	-	United States
USD	-	United States Dollar
SC	-	Securities Commission

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This study aims to identify the property-type strategy adopted by M-REIT property portfolios, and assesses their performance in order to examine the strategy that yields better performance for a M-REIT property portfolio.

As the M-REIT regulatory structure requires M-REIT companies to invest 75% of their total asset value in real estate, it is therefore important to examine the effect of property concentration strategy on M-REIT performance. Besides that, REITs have emerged as a topic of considerable interest to investors, the academic community, and the public at large, particularly with their recent development in the Asian market and Malaysian market, so the performance of M-REITs is an important topic to explore.

1.2 Background of Study

Real Estate Investment Trust (REIT) is an indirect property investment instrument introduced by the U.S. congress in the 1960s in order to expand the universe of investment instruments beyond other securities as well as to satisfy the investor appetite for a new investment vehicle (Graff, 2001). The REIT pools funds from individual and institutional investors, and then acquires and operates different property types with high quality, high rental yield, and high value property portfolio for greater

return (Wong, 2015; Chan *et al.* 2003). Furthermore, REITs have various benefits such as liquidity, high stable return, having professional management to manage the property, transparency diversification, and high dividend payouts (Newell, 2012).

Investors that invest in REIT mainly aim for high and long-term growth income and are also concerned about the risk associated with the investment. Besides that, the higher dividend payouts of REITs also encourage investors to invest in them (Ghosh & Sirmans, 2006). Thus, investors usually observe the financial performance of REITs from three perspectives, which are total return (Waggle & Moon, 2006; Brinson *et al.*, 1995), systematic risk or beta coefficient (Breidenbach *et al.* 2006; Clayton & Mckinnon, 2003), and dividend yield distribution (Ghosh & Shirman, 2006). Basically, total return, systematic risk, and dividend distribution are the best evaluators for evaluating M-REIT financial performance. Similar to stocks, REITs are also traded in the financial market on a daily basis; thus, the daily performance of REITs is generally evaluated through total return and systematic risk. Furthermore, REITs have a special tax regulation, which require that 90% of their taxable income is paid out as dividend distribution to shareholders (REIT Guideline, 2012). Additionally, the dividend distribution of REITs has a negative relationship with expected cash-flow volatility of REIT firms measured from the REIT firm property level diversification (Bardley, Capozza & Seguin, 1998).

Generally, the underlying property type of REITs is one of the important characteristics in a REIT portfolio, which needs to be considered when examining the performance of REITs (Jalil & Hishamuddin, 2015; Florida & Roulac, 2007; Worzala & Bajtelsmit, 1997). The primary source of income for REITs comes from the rental income of their underlying property; thus, the quality of property is vital to REIT companies. In Malaysia, the REIT portfolio consists of office space, retail malls, industrial buildings, hotel properties, healthcare centers, and educational-purpose buildings. Different property types in a REIT portfolio may result in different REIT performance and this will dictate the REIT's capacity to pay out dividend yields to shareholders. Portfolio diversification across underlying property types in a REIT

portfolio would minimize risk and improve REIT performance, and can be considered as an effective portfolio investment strategy (Hartzell *et al.*, 1986; Florida & Roulac, 2007; Worzala & Bajtelsmit, 1997). Thus, the type of property that REIT companies invest in—whether focusing on single or various types—may influence the performance of REITs.

Moreover, the classification of property type in a REIT portfolio, which determines its property-type strategy of either focused REIT or diversified REIT, can assist REIT fund managers and investors to examine the performance of each REIT company based on the property-type strategy adopted (Ong *et al.*, 2011; Newell & Tan, 2003; Eichholtz & Hoesli, 1995). In the U.S. REIT industry, beginning in the early 1990s, the REIT property-type strategy (focused or diversified) emerged to become an important issue for fund managers (Chan *et al.* 2003). A previous study found that focused REITs that emphasize on a particular property type and geographic location could experience increase in stock value compared to diversified REITs due to the increased liquidity provided by the increase in focus. It has also been suggested that focused REITs have a lower average expense ratio compared to diversified REITs. Thus, studies have suggested that the focused REIT strategy is better than the diversified REIT strategy (Capozza & Seguin, 1999; Capozza & Lee, 1995).

On the contrary, other previous studies have suggested a diversification strategy for a REIT portfolio because a diversified REIT portfolio could result in a certain level of risk reduction. The study of Avidon (1995) and Kistner (1996) cited the opinions of REIT managers and revealed that the key to having a successful portfolio is implementing a portfolio spread throughout different property markets, made up of a diverse tenant base, and diversified in terms of geographic location. In addition, when REIT uses a diversification strategy, the income streams at the corporate level will be more stable than if a focused strategy were adopted, as the income depends on the performance of the underlying property; when one type of property has poor performance, other properties in the portfolio may perform well to compensate the loss (Chan *et al.*, 2003). Previous literature has clearly shown that the underlying property

type of REIT is one of the determinants of the REIT property portfolio strategy. However, there is a lack of studies that have examined the performance of property-type strategy (focused and diversified) on the diversification potential in mixed asset M-REIT portfolios.

REITs entered the Malaysian financial market in the year 2005 and have become one of the important property investment instruments in Malaysia (Newell & Osmadi, 2010). Since the revision of the M-REIT guideline by the Securities Commission in 2005 and the introduction of an Islamic REIT structure in 2006, M-REITs have experienced steady growth over the past ten-year period compared to its predecessor, the Property Trust Fund (PTF), established in 1989 (Olanrele *et al.*, 2014; Ong *et al.*, 2012; Newell & Osmadi, 2010; Ooi *et al.*, 2006). The growth and development of M-REITs is further supported by the favorable changes in regulatory structures that the Securities Commission affected in 2008 and 2009 (Newell & Osmadi, 2010; Securities Commission of Malaysia, 2008).

In the past 10 years, M-REITs have grown from four listed companies in the time of PTF to eighteen listed REIT companies today. By the year 2017, M-REIT companies had gained a market capitalization of RM45 Billion (Bursa Malaysia, 2017). The property portfolio of M-REITs is invested across a wide range of property types including office space, retail malls, hotel sectors, industrial properties, healthcare, as well as educational buildings, spread across different locations in Malaysia (Annual Report of Malaysia REIT company, 2010-2016). Thus, M-REITs offer investors the opportunity to invest in various property types and locations. Table 1 below shows a list of Malaysia REIT companies and their respective property portfolios.

Table 1.1 List of Malaysia Real Estate Investment Trust property portfolio (Annual reports of Malaysia Real Estate Investment Trust from 2010 to 2016)

No	REIT	Property Portfolio
1	Amanah Harta Tanah PNB	Retail, Office
2	Al-Aqar Healthcare	Hospital, Nursing College, Hotel
3	AmFirst	Retail, Office, Hotel
4	Amanah Raya	Retail, Office, Hotel, Industrial, Educational Purpose Building
5	Atrium	Office, Industrial
6	Axis	Office, Industrial
7	Al-Salam	Retail
8	CapitalMall Malaysia Trust	Retail
9	Hektar	Retail
10	IGB	Retail
11	KIP	Retail
12	KLCC	Retail, Office
13	Pavillion	Retail, Office
14	Quill Capital	Office, Industrial, Commercial Car park
15	YTL/Starhill	Hotel
16	Sunway	Retail, Office, Hotel
17	Tower	Office
18	UOA	Office

In the REIT portfolio, the property type invested in and property-type strategy (either focused or diversified) are among the portfolio characteristics that influence REIT performance (Jalil & Hishamuddin, 2015; Florida & Roulac, 2007; Benefield *et al.* 2007; Gyourko & Neilling, 1996; Capozza & Lee, 1995). In a survey report by Johnson (1999), it was noted that the property type of REITs indeed affects the REIT value and thus has implications on the REIT property-type strategy (focused or diversified).

Furthermore, some previous studies on the performance of M-REITs showed the significance of property type invested and its impact on portfolio and strategy adopted. For instance, a survey done by Newell and Osmadi (2010) with industry experts suggested that the quality of property type is a significant factor influencing the performance of a REIT portfolio. They further stated that investment in different property types in a M-REIT portfolio would result in an enhanced portfolio. In addition, the study of Ting and Choi (2011), which examined the effects of property portfolio characteristics on risks of M-REITs, found that property type diversification is a significant factor that influences the risk inherent in a M-REIT property portfolio.

An M-REIT portfolio could result in extensively different risks and return performance (Lee & Ting, 2009). The difference in risk and return characteristics of REITs may be due to the significantly different property types invested in the REIT portfolio. Additionally, the property portfolio strategy (focused or diversified) that the M-REIT portfolio adopts in terms of different property types also results in different impacts and is driven by different economic factors (Jalil & Hishamuddin, 2015; Zietz *et al.*, 2003; Eichholtz *et al.*, 1995). Therefore, it is essential to examine the performance difference between focused and diversified property portfolios, so as to add to the body of knowledge already available on the Malaysia REIT market.

1.3 Problem Statement

Real Estate Investment Trust (REIT) in Malaysia is one of the newer investment instruments, so their market capitalization is relatively small compared to regional peers such as that of Singapore and Hong Kong's REIT market. Given the short period of establishment of the REIT market in Malaysia, there is a lack of previous studies examining the impact of property-type strategy on REIT. As for M-REITs, only limited research has been conducted regarding the performance and diversification potential of M-REITs among major investment asset classes compared to more developed REIT

markets such as in the United States and Australian markets. Past researches on M-REITs include Lee and Ting (2009), Hamzah and Razali (2010), Newell and Osmadi (2010), Ong *et al.* (2011; 2012), Ting and Choi (2011), and Olanrele *et al.* (2014), with the majority concentrating on the development of M-REITs, and examining M-REIT performance through comparison or benchmarking with Kuala Lumpur Composite Index (KLCI), study on net asset value (NAV), and through comparative analyses such as via the Sharpe Ratio, Treynor Ratio, and Jensen Ratio.

Furthermore, the data included in previous studies only considered REIT share price movement in the stock exchange, which is unable to reflect the influence of the heterogenic characteristics of real estate assets, which are the dominant determinant of REIT financial performance, such as property types. Newell and Osmadi (2009) examined the portfolio diversification benefits of Islamic M-REITs in a mixed asset portfolio over 2006 to 2008; however, this is the only study that examined the portfolio diversification potential of M-REITs, albeit involving only Islamic M-REITs rather than all types of M-REITs.

Despite the significant growth of M-REITs in recent years, there seems to be a low participation rate of investors, either local or institutional, in M-REITs, compared to others Asian REIT markets such as that of Japan, Singapore, and Hong Kong (Ong *et al.*, 2011). Among the fourteen M-REITs examined in this study, some focused on single type properties, while others invested in several types of property in their portfolio. As such, the investors' low awareness of, and low attraction to M-REITs may be linked to the unique characteristics of each individual M-REIT, which consists of different property types. This makes it difficult for investors to make the right investment decision when M-REITs are concerned (Jalil & Hishamuddin, 2015).

Furthermore, based on a property industry survey done by Newell and Osmadi (2010), the results show that the quality of property type is one of the significant factors influencing the development of M-REITs. Moreover, REIT property-type strategy

(focused or diversified) is also an important issue in examining the performance of REITs (Chan *et al.*, 2003). In short, there is a lack of studies on M-REITs that focus on the property portfolio determinants such as property type and property-type strategy (focused or diversified), which could likely influence the financial performance of M-REITs (Jalil & Ali, 2015; Glascock & Kelly, 2007; Campbell *et al.*, 2003). However, in matured REIT markets such as the U.S. REITs, beginning in the early 1990s, the REIT property-type strategy (focused or diversified) has become an important issue for fund managers (Chan *et al.*, 2003). From a previous study on the performance of U.S. REITs property-type strategy, mixed arguments on the performance of focused and diversified REITs could be observed, as stated in Section 1.2 above.

On the other hand, based on the general observation of the M-REIT annual report, the majority of M-REIT sponsor companies acquired their own company's property and also managed it themselves for the purpose of "unlocking" or monetizing the value of the property. In fact, the sponsor company should acquire the property that qualifies and is able to generate a stable rental income after an industry expert has performed a property evaluation. Therefore, this leads to the issue of whether or not the property acquired by certain REIT companies in Malaysia will perform well and will be able to generate income since they acquired the property of their own parent company.

Given the issues discussed above, there is a lack of a comprehensive study on the performance of property type especially property-type strategy involving M-REITs. Thus, this study aims to address this gap by determining the property-type strategy (focused or diversified property portfolio) adopted by each M-REIT property company and identifying the property-type strategy adopted by the majority M-REIT companies. Will there be any performance difference between focused M-REITs and diversified M-REITs? Is there a significant relationship between the financial performances of focused M-REITs and diversified M-REITs and REIT determinants, and will they exhibit other significant relationships with similar REIT determinants?

1.4 Research Questions

Based on the problem statements and discussion above, this study focuses on the study of property concentration strategy adopted by M-REIT companies and the performance difference between focused and diversified M-REITs. Hence, a few research questions are highlighted below:

- i. What is the property concentration strategy adopted by M-REIT companies?
- ii. What is the performance difference between focused M-REITs and diversified M-REITs? What is their diversification potential in a mixed asset portfolio?
- iii. Is there a significant relationship between the financial performance of focused M-REITs and diversified M-REITs with that of REIT determinants?

1.5 Research Objectives

Based on the problem statements and research questions above, three research objectives are outlined:

- i. To identify the property concentration strategy adopted by M-REIT companies.
- ii. To examine the performance difference between focused M-REITs and diversified M-REITs.
- iii. To identify whether or not there is a significant relationship between the financial performance of focused M-REITs and diversified M-REITs with that of REIT determinants.

1.6 Scope of Study

This study focuses on fourteen Malaysia REIT listed companies. The Malaysia REIT companies included in this study are Amanah Harta Tanah PNB, Al-Aqar Healthcare REIT, AmFirst REIT, Amanah Raya REIT, Atrium REIT, Axis REIT, Capital Malls Malaysia Trust, Hektar REIT, IGB REIT, Pavillion REIT, Quill Capital Trust, Sunway REIT, Tower REIT, and UOA REIT. The period examined in this study is 2010 to 2016. Furthermore, the market value of underlying properties in the M-REIT portfolio, total annual property net income, annual dividend yield, annual net asset value (NAV) per share, and monthly total return index for M-REIT companies, market shares, market bonds, and the Malaysia Treasury Bill were also assessed over the study period. Market shares and market bonds are used as investment assets and as a benchmark to examine the performance of the focused and diversified M-REITs in a mixed asset portfolio. Moreover, the total property market value, total property net income, yearly dividend yield, and annual risk of the M-REITs, were chosen as the REIT determinants for this study. Meanwhile, monthly total return index and NAV per share were the chosen financial performance indicators for the focused and diversified M-REITs. Based on the M-REIT annual report over the study period, the M-REIT portfolio was observed to invest in several types of properties including office space, retail malls, the hotel industry, industrial properties, healthcare centers, and educational-purpose buildings. Subsequently, this study categorized all these underlying properties into five property categories, which are office space, retail mall, hotel industry, industrial property, and specialized property (healthcare centers and educational-purpose buildings).

1.7 Significance of Study

This study focuses on the property-type strategy adopted by M-REIT companies and the performance difference between focused and diversified M-REIT property portfolios. M-REITs started to actively develop in Malaysia in 2006 and is still

considered a new type of investment vehicle for investors. Basically, in Malaysia, there is a lack of study focusing on the property-type strategy of REIT companies and their performance. Thus, this study is significant and will add new knowledge to the body of work on the M-REIT market. Particularly, this study will be of great benefit to:

i. Real Estate Investment Trust Consultants/Managers

Through the findings of this study, real estate investment trust consultants or fund managers can increase their existing knowledge by recognizing the performance of focused M-REITs and diversified M-REITs. Besides that, through this analysis on the diversification potential of focused and diversified M-REITs, as well as the analysis of their financial performance against REIT determinants, REIT fund managers could gain knowledge of the implication of these determinants on both focused and diversified M-REIT portfolio investments, and increase their awareness of these investments when making investment decisions.

ii. Investors

The findings of this study will provide more untestable and valuable information about the performance difference between different M-REIT property type strategies. The findings of this study can help investors, especially potential REIT investors, to redefine their investment strategies and make wise decisions when investing in M-REIT. In addition, this study can also help the allocation analysis of investors of REIT portfolios, so a better portfolio diversification on M-REIT investment can be achieved.

iii. Academician

Besides providing additional information on M-REIT investment strategy to REIT consultants or fund managers and REIT investors, this study will also be beneficial to academician who study REIT investment and will help them gain more knowledge pertaining to M-REIT investments. Furthermore, this study could be serve as a guideline for real estate students or future researchers who would like to further study REIT investment, especially M-REIT property type strategies.

1.8 Thesis Organization

This thesis consists of five chapters. Chapter 1 presents the introduction, research background, problem statement of the study, research questions, research objective, scope of study, and significance of study.

Chapter 2 presents a comprehensive literature overview of the global REIT market and Malaysia REIT market. Generally, the main part of this chapter provides the theoretical aspects of Malaysia REITs, which include the performance of Malaysia REITs from previous studies. Besides that, a review of literature related to diversification potential and the performance of REITs in a mixed asset portfolio is also presented in this chapter. Then, the Modern Portfolio Theory (MPT), which is used as a portfolio theory to guide this study, is discussed. The REIT performance determinants used in previous studies is also outlined in this chapter.

Subsequently, Chapter 3 describes the research design, research technique, and data collection for this study. This chapter presents all the data employed in this study, data sources, and description of financial indicators of M-REITs and REIT determinants. Basically, this chapter focuses on the discussion of method and techniques employed to

achieve the objectives of this study. Thus, each research method used is described thoroughly in this chapter.

Chapter 4 reports the findings of this study as well as provides an interpretation of the results. The property concentration strategy of M-REIT companies is identified and the market value of the M-REIT companies based on property type reported. Then, the result of performance difference between focused and diversified M-REIT property portfolios is presented and their diversification potential revealed. Next, the findings of a significant relationship between focused M-REITs and diversified M-REITs with that of REIT determinants are identified. The findings from each objective in this study are discussed and supported from previous studies.

Lastly, Chapter 5 sums up the study with a conclusion. This chapter summarizes all the main findings on property-type strategy for M-REITs. Besides that, it further records the contributions provided from the outcomes of this study and limitations of this study over the study period. This chapter ends with some recommendations for future study on the property-type strategy of REITs.

1.9 Summary

This chapter outlined the general aims of this study. The problem identified in this study was the lack of studies on the performance of property type strategies in Malaysia REITs. Overall, the main aim of this study is to identify the property-type strategy adopted by M-REIT companies and to determine the performance difference between focused and diversified M-REIT property portfolios and their performance in a mixed asset portfolio. Besides that, this study also aims to identify whether or not there is a significant relationship between focused and diversified M-REITs property portfolio with that of REIT determinants. Three research questions regarding the property-type strategy adopted in M-REIT companies and their performance were developed.

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