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COMPARATIVE PERFORMANCE ANALYSIS OF ETFS AND UNIT TRUST FUNDS: A MALAYSIAN CASE

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ABSTRACT

Exchange-traded funds (ETFs) and unit trusts provide a convenient and cost-effective way for investors to invest in various securities. Frequently mistakenly identified as the same entity, these two investment products are different, although they share some similarities. This study analyses the performance of a Malaysian ETF alongside three unit trust funds, using data from three and five-year periods. The performance of these funds is assessed using the Sharpe and Treynor ratios, with the FTSE Bursa Malaysia KLCI serving as the benchmark. The results indicate that unit trusts outperform the ETFs during the examined periods. Nevertheless, ETFs must not be excluded entirely just by judging based on this performance disparity. The primary justification for their inclusion is based on the lower expenses, more flexibility, and transparency they possess compared to unit trusts. Therefore, incorporating ETFs into an investment portfolio can contribute to long-term growth and stability. The results of this study are crucial for investors and fund managers, providing them with valuable insights to make better decisions and improve portfolio results.

Keywords: Equity, exchange traded fund, unit trust, Treynor ratio, Sharpe ratio.

INTRODUCTION

In today's complicated financial market, making an investment decision is challenging due to the diversity of investment products available. Each investor has different risk tolerance, personal preferences, and circumstances, which shape their investment objectives and time horizons. Some sophisticated products require more skills and knowledge for investors to make informed decisions. In

this case, professional managers' service is often a great help, especially those new to investing, with limited capital, or possessing limited knowledge and expertise. Two investment products often recommended for this kind of investor are exchange-traded funds (ETFs) and unit trust funds. Although both share some similarities and ETFs are frequently mistaken for unit trusts, they are different products. This study examines the performance of a Malaysian ETF and three comparable unit trust funds.

An ETF is a passively managed fund that mirrors the performance of an index. Because ETFs comprise multiple securities that mimic their benchmark index, investors in ETF units gain the advantage of diversification. However, not all ETFs are passively managed ETFs. There are also actively managed ETFs as the market advances to fulfil various investors' demands. Unlike passively managed ETFs, which attempt to track their benchmarks, actively managed ETFs intend to outperform them. Nevertheless, passively managed ETFs are more well-known to many, especially retail investors. Furthermore, in Malaysia, the Securities Commission's (SC) guidelines on ETFs do not permit active ETFs to be listed on Bursa. The fact that passive ETFs' strategy is only trying to match the market has become their primary weakness. As an illustration, an increase in the benchmark index's price corresponds to a rise in the associated ETF, and vice versa. Also, due to its passive management style, an ETF typically does not take temporary defensive measures, even during adverse market conditions. Instead of beating the market or delivering the best possible output, they focus on tracking the benchmark's performance.

An exchange-traded fund (ETF) is a hybrid investment product. It has the features of a unit trust and a stock. While it functions like an open-ended fund, it is traded on a stock exchange like a common stock with at least one market maker involved. Its prices fluctuate based on supply and demand. The existence of the market makers provides higher liquidity to the ETFs by offering competitive bid and ask prices. Offered by professional fund managers and generally well-diversified, ETFs usually present low overall risk. Through a single transaction, investors can gain exposure to various securities without needing extensive investing knowledge and skills. Returns from an ETF come from capital appreciation and depend on the fund's underlying securities. For instance, dividends from stocks or interest from fixed-income securities.

Unit trusts, also known as mutual funds in some regions, are a form of collective investment that enables investors to pool their funds. These pooled funds are then invested across a diversified range of assets. Instead of directly purchasing the individual securities, investors receive ownership through units of entitlement. The value of each unit is directly linked to the fund's overall value. Like ETFs, unit trusts are accessible, cost-effective, and professionally managed. Hence, they are suitable for those new to investing. Returns on investments in unit trusts are generated in two ways: through income distribution and capital appreciation. Many types of unit trusts are available to cater to different investors with different risk tolerance levels. For example, equity, fixed-income, balanced, and money market funds. Each fund has its own investment objective and strategy so investors can choose appropriate funds for their portfolio (Khairuddin et al., 2021).

The equity unit trust, which primarily invests in listed companies' equities, is one of the most popular types of unit trust. Unlike ETFs, unit trust funds are designed to outperform their benchmark index. This feature can be particularly appealing to potential investors. Although the performance of the funds may vary significantly based on the types of funds, this focus on outperformance often puts unit trust funds in the spotlight. A study by Abdullah and Shari (2019) showed that the performance of equity and fixed-income funds differs significantly. While it is true that an exceptional unit trust fund

may surpass the market, it is important to note that this potential for higher returns also comes with higher associated risks.

Although both ETFs and unit trust funds offer diversification benefits, in terms of cost, ETFs tend to be more advantageous than unit trusts. The management fees for ETFs are generally lower, typically under 1%, compared to those of unit trust funds (FAQs on Exchange Traded Funds (ETFs), n.d.). On top of that, ETF transactions do not incur sales charges like investing in a unit trust fund. The upfront sales fee for unit trusts typically ranges from 3% to 5% of the total investment value. The difference in fees is primarily because ETFs are traded on an exchange, whereas unit trusts are not. ETF transactions are conducted through a broker, while unit trust transactions are carried out by an agent. However, it is important to note that broker and securities trading fees may still apply. Investors should carefully consider these costs, as they can significantly impact overall returns. In short, ETFs are often viewed as more cost-effective than unit trust funds due to their lower fee structure (Armour, 2024).

The primary objective of this study is to compare the performance of a Malaysian ETF and unit trusts. Are there any significant differences between these two types of investment products? Should investors be concerned about choosing between them? Which option yields higher returns? The performances of these funds are assessed using the Sharpe and Treynor measures. To the best of the authors' knowledge, no previous study has compared Malaysian ETFs and unit trusts. This research aims to fill that gap with the hypothesis that these funds will yield different results in terms of risk and return.

LITERATURE REVIEW

Modern Portfolio Theory (MPT) posits that diversification is the key to mitigating risk by investing in various assets (Markowitz in 1952). It is a strategy to form a portfolio comprised of securities that give the highest returns for a given level of risk. In other words, Modern Portfolio Theory (MPT) emphasizes the significance of asset correlation in achieving the best portfolio outcomes. A well-diversified portfolio can provide lower risk than individual assets for a given return level (Bodie, Kane, & Marcus, 2019; Markowitz, 1959; Markowitz, 1952). MPT is not just a theoretical concept but a practical method for investors. In line with that, the efficient frontier concept emerges in helping investors form an optimal portfolio (Markowitz, 1959; Markowitz, 1952). Efficient frontiers represent investment combinations that offer the optimal balance between risk and return. Investors typically prefer a less risky portfolio for a given expected return level. Following the principles of MPT, Exchange-Traded Funds (ETFs) and unit trusts provide investors with an easy way to achieve diversification by offering exposure to a broad range of assets.

There are quite a few studies that examine the performance of ETFs worldwide. For example, Stefanus and Robiyanto (2020) examined the performance of twelve exchange-traded funds in Indonesia. They used Treynor ratio, Sharpe ratio, Sortino ratio, Jensen Alpha, information ratio, and Omega ratio to measure performance. They found that only two exchange-traded funds perform better than risk-free investments using Sharpe ratio, Sortino ratio, information ratio, and Omega ratio. Meanwhile, the Treynor ratio and Jensen Alpha values were either negative or worse than risk-free investments.

In relation to that, Alamelu and Goyal (2023) examined how well 27 Indian equity ETFs traded on the National Stock Exchange of India from 2015 to 2019 replicated the performance of their benchmark indices. They found that most ETFs in the sample outperformed their underlying indices during the study period. However, significant tracking errors were observed. Additionally, the study revealed that returns from the ETFs in the sample showed a strong positive correlation with index returns while demonstrating an inverse relationship with risk levels and management fees.

Prior to that, a significant study by Kunjal et al. (2021) investigated the performance of South African ETFs in varying market conditions. The results indicated that, on average, ETFs were more responsive to changes in the underlying index during bullish markets but exhibited more significant tracking errors during bearish periods. These findings underscore the importance of understanding ETF performance in different market conditions, as it can help investors assess their risk exposure when making investment decisions. Due to the popularity and growth of ETFs as investment alternatives, Sharifzadeh and Hojat (2012) investigated whether their outperformance can explain the high demand for ETFs compared with other passive index mutual funds. However, the study's results indicate no statistically significant difference in performance between these two types of funds. The results also revealed that product characteristics and tax benefits influence investors' selection.

Other studies assessed ETF performance based on tracking errors. The studies' findings revealed that ETFs did not track their benchmarks perfectly (see for example, Shin and Soydemir, 2010; Chu, 2013; Chen et al., 2017; Dorocáková, 2017). Shin and Soydemir (2010) asserted that the tracking errors of 26 ETFs from Asia, Europe, and the United States are persistent and significantly different from zero. In addition, they found that ETFs in Asian markets show more consistent tracking errors, suggesting these markets are less efficient at processing information and more affected by noise in returns. Likewise, Chu (2013) revealed that tracking errors of Hong Kong ETFs were comparatively more significant than those of American and Australian ETFs. The findings indicated that the funds cannot easily replicate the performance of the underlying indices, thus implying that ETF investors may face additional risks as a result of investing in ETFs.

Similarly, Chen et al. (2017) found that New Zealand ETFs had substantial price deviation from their underlying indices based on daily and monthly data. Their findings indicated that New Zealand ETFs did not track their underlying index perfectly. They also showed that these ETFs' tracking errors were more significant than those observed in other countries. The implication of this finding indicated that investors should be aware that the exposure of investing in ETFs may not be the same as the underlying index. In other words, it cannot be assumed that the risk is the same just because ETFs are commonly known as passively managed funds. ETFs should be more concerned regarding the risk and return, especially if the tracking error is substantially large. A study by Dorocáková (2017) further revealed that the deviation of ETFs' performance from their benchmarks was seasonal, particularly towards the end of the year. It was also shown that fund size and fund stock consolidation are the factors that influence the deviation (Dorocáková, 2017).

Tsalikis and Papadopoulos (2019) compared tracking errors in American and European ETFs. They found that American ETFs had lower tracking errors compared to European ETFs. To assess tracking errors, they employed three measurement methods: the standard deviation of the return differences between the ETF and its benchmark index, the absolute difference in returns between the ETF and the index, and the standard errors from regression analysis based on daily data. In brief, past studies have shown inconclusive results regarding the returns of exchange-traded funds (ETFs). Many studies reveal that ETFs often demonstrate performance discrepancies compared to their benchmarks. Several

factors account for these results, including market conditions and tracking errors. Therefore, due to the inconclusive findings, additional research is necessary to understand better the reasons for these performance gaps and their implications for investors.

METHODOLOGY

The main objective of this study is to compare the performance of Malaysian ETFs with the performance of Malaysian unit trusts. To achieve this goal, Sharpe and Treynor ratios are used to measure the funds' performance. The funds employed include the FTSE Bursa Malaysia KLCI ETF, Affin Hwang Equity, Principal KLCI-Linked Fund, and AmMalaysia Equity. The FBMKLCI serves as the benchmark for proxying market returns, and the Malaysian 3-month Treasury Bills serve as a proxy for the risk-free rate of return. Monthly returns of unit trust funds, FBMKLCI ETF, 3-month Malaysian Treasury Bills, and FBMKLCI are collected, covering the period from January 2018 to December 2022. This timeframe has been selected to incorporate both 3-year and 5-year periods. These durations are chosen as they are more appropriate than a one-year period. This is because a more extended period allows for a more comprehensive assessment. Market fluctuations and external events can easily and significantly influence the results in a shorter period. In comparison, the impact of temporary volatility usually smooths out over a more extended period.

The FTSE Bursa Malaysia KLCI ETF (FBMKLCI-EA) is the inaugural equity ETF in Malaysia. It was listed on July 19, 2007. Its underlying index is the FTSE Bursa Malaysia KLCI Index, which comprises the 30 largest companies listed on Bursa Malaysia. It was initially known as the FBM30 ETF but then changed to FBM KLCI ETF when the FBM KLCI was launched on July 6, 2009. By making one transaction of this ETF, investors can own those 30 companies. Designed to replicate the performance of FTSE Bursa Malaysia KLCI, its specific objective is "to achieve a price and yield performance, before fees, expenses, and tax, that is generally similar to that of the benchmark, balanced with the need to facilitate liquidity provision" (www.fbmklcietf.com.my, n.d.). The trading board has a lot size requirement of 100 units and applies a management fee of 0.50% per year based on the fund's NAV. The fee is relatively small compared to the typical fee for actively managed unit trusts, usually between 1.5% and 2%. In addition, subject to a minimum of RM40, there is usually a brokerage fee of 0.70% of the contract value.

Affin Hwang Equity Fund invests in equities and equity-linked instruments. It allocates between 70% to 99.8% of its portfolio towards these assets, with a maximum of 30% allowed for fixed-income instruments. The fund imposes a management fee of up to 1.50% per annum based on the Net Asset Value (NAV). Principal KLCI-Linked Fund focuses on securities and permissible investments, with up to 99.5% invested in these assets and at least 0.5% in liquid assets. It carries a management fee of up to 0.95% per annum of the NAV. AmMalaysia Equity Fund targets between 75% to 98% of its NAV in equities, with 2% to 25% allocated to cash and liquid assets. Like Affin Hwang, it also applies a management fee of up to 1.50% per annum of the NAV.

Treynor and Sharpe ratios are widely used to measure a fund's performance. They provide investors and analysts with insights into how effectively a portfolio generates returns while considering the level of risk taken. The Sharpe ratio, introduced by William F. Sharpe in 1966, focuses on the risk-adjusted return using total risk (systematic and unsystematic risks), represented by standard deviation. This ratio measures how well a portfolio's returns compensate for the overall risk taken (Sharpe,

1966). A higher Sharpe ratio implies better risk-adjusted returns. The formula for the Sharpe ratio is as follows:

$$\text{Sharpe Ratio} = (\text{Portfolio Return} - \text{Risk Free Rate}) \div \text{Standard Deviation of Portfolio Returns}$$

Jack Treynor developed the Treynor ratio to determine how much excess return is generated for each unit of risk a portfolio takes. In other words, the ratio measures the risk-adjusted return of a fund or a portfolio. This ratio assesses the portfolio's excess return (return above the risk-free rate) per unit of systematic risk. The systematic risk is proxied by a beta. A higher Treynor ratio indicates that the portfolio generates a better return than its systematic risk. Treynor ratio offers information on how efficiently a portfolio uses its systematic risk to generate returns (Treynor, 2012). The formula for the Treynor ratio is as follows:

$$\text{Treynor Ratio} = (\text{Portfolio Return} - \text{Risk Free Rate}) \div \text{Beta of Portfolio Returns}$$

In essence, while both ratios evaluate risk-adjusted returns, they vary in the type of risk they take into consideration. The Treynor ratio assesses performance relative to systematic risk (beta). In contrast, the Sharpe ratio considers total risk (standard deviation). Investors who perceive their portfolios as well-diversified might prefer the Treynor ratio because it specifically targets systematic risk. On the other hand, those concerned with a comprehensive portfolio risk assessment may opt for the Sharpe ratio.

RESULTS AND DISCUSSION

Table 1 presents a summary of returns, risks, and performance measures of the FBMKLCI ETF, the benchmark index, and the three selected equity funds from 2020 to 2022.

Table 1

Performance of Selected Funds for 3-Year Period (2020 – 2022)

Funds	Mean (%)	SD (%)	Sharpe	Beta	Treynor
FBMKLCI ETF	-0.1507	4.1580	0.0181	0.9731	0.0008
FBMKLCI	-0.1681	4.2136	0.0138	1.0000	0.0006
Affin Hwang Equity	0.4427	5.0942	0.1313	0.9090	0.0074
AmMalaysia Equity	0.5073	5.5197	0.1329	0.9787	0.0075
Principal KLCI-Linked Fund	0.0429	4.0605	0.0662	0.9594	0.0028

Based on data shown in Table 1, AmMalaysia Equity has the highest average return (0.5073%), followed by Affin Hwang Equity (0.4427%). On average, FBMKLCI ETF and FBMKLCI experience a loss over the three years, -0.1507% and -0.1681%. At the same time, the Principal KLCI-Linked Fund has a slightly positive mean return (0.0429%). AmMalaysia Equity has the highest standard deviation (5.5197%), indicating higher volatility in line with the notation of high-risk, high-return. Principal KLCI-Linked Fund has the lowest standard deviation (4.0605%), indicating lower volatility. FBMKLCI ETF and FBMKLCI have similar volatility mainly due to how an ETF is structured. In the same vein, the betas of all funds are nearing the market's beta, indicating their volatilities are less than

the market's. Specifically, all funds demonstrate a beta of around 0.9, highlighting their lower volatility compared to the market.

The results of the Sharpe measures reveal that AmMalaysia Equity has the highest Sharpe ratio (0.1329), signifying the best risk-adjusted return. In second place is Affin Hwang Equity (0.1313), and in third place is Principal KLCI-Linked Fund (0.0662). The ETF, with a Sharpe ratio of 0.0181, secures fourth place ahead of FBMKLCI. The close ranks between the ETF and FBMKLCI are expected, given that the ETF is designed to track the performance of its underlying index.

Likewise, the ranks of the funds based on Treynor measures are the same. AmMalaysia Equity has the highest Treynor ratio (0.0075), indicating the best return per unit of market risk. Affin Hwang Equity follows with a Treynor ratio of 0.0074. Like the positions for Sharpe measures, ETF comes fourth with 0.0008 and FBMKLCI fifth with 0.0006.

In summary, for the three-year period (2020 to 2022), AmMalaysia Equity stands out with the highest mean return, Sharpe ratio, and Treynor ratio, indicating strong performance and good risk-adjusted returns. FBMKLCI appears to have the poorest performance with negative mean return, lowest Sharpe ratio, and lowest Treynor ratio. AmMalaysia Equity and Affin Hwang Equity have higher standard deviations, indicating higher risk. In contrast, the Principal KLCI-Linked Fund has the lowest standard deviation among the unit trusts, indicating lower risk, where it also gives lower returns. The results also indicate that the performance of the ETF and FBMKLCI are similar, indicating their close associations. While unit trusts aim to beat the market, ETFs aim to track their benchmark closely.

Table 2 presents a summary of returns, risks, and performance measures of the FBMKLCI ETF, the benchmarking index, and the three selected equity funds from 2018 to 2022.

Table 2

Performance of Selected Funds for 5-Year Period (2018 – 2022)

Funds	Mean (%)	SD (%)	Sharpe	Beta	Treynor
FBMKLCI ETF	-0.2992	3.5989	-0.0335	0.9644	-0.0013
FBMKLCI	-0.3059	3.6727	-0.0347	1.0000	-0.0013
Affin Hwang Equity	0.1996	4.1968	0.0901	0.8490	0.0045
AmMalaysia Equity	0.5347	4.6229	0.1543	0.8270	0.0086
Principal KLCI-Linked Fund	-0.1027	3.5380	0.0214	0.9588	0.0008

Overall, the findings for the five years are very similar to the three-year period in ranking based on Sharpe and Treynor measures. However, unlike the three-year findings, only two unit trust funds exhibit positive average returns. AmMalaysia Equity has the highest average return (0.5347%). Affin Hwang Equity shows a positive mean return of 0.1996%, while Principal KLCI-Linked Fund shows a negative mean return of -0.1027%. In short, the ETF, FBMKLCI and Principal KLCI-Linked Fund experience an average loss over the five years.

As for standard deviation, AmMalaysia Equity has the highest (4.6229%), indicating the highest volatility compared to the others. In contrast, the Principal KLCI-Linked Fund has the lowest (3.5380%), indicating the lowest volatility. Serving as the benchmark, FBMKLCI has a beta of 1.0000. Similar to the three-year findings, all funds have betas less than 1. However, for the five-year

period, AmMalaysia Equity has the lowest beta (0.8270), indicating it is less volatile compared to the market. Affin Hwang Equity has a beta of 0.8490, while Principal KLCI-Linked Fund and ETF have betas close to 1, suggesting similar volatility to the market.

The funds' ranks are the same for five years as the three years. AmMalaysia Equity has the highest Sharpe ratio (0.1543), placing it first. Then, in second place is Affin Hwang Equity, with a Sharpe ratio of 0.0901. KLCI has the lowest Sharpe ratio (-0.0347), indicating the poorest risk-adjusted return among the funds. Third is the Principal KLCI-Linked Fund, which has a ratio of 0.0214, followed by ETF, which has a ratio of -0.0335. In brief, the fund's rank for the five years does not change compared to the three years, revealing superior performance by AmMalaysia Equity, while FBMKLCI is not very good. Similar results are observed for the Treynor measures. A slight difference between the Treynor measure for five years and three years is that the ETF and FBMKLCI show the same ratio, placing both in last place and indicating the lowest return per unit of market risk.

In brief, the AmMalaysia Equity fund stands out with the highest mean return, Sharpe ratio, and Treynor ratio, indicating strong performance and good risk-adjusted returns. In contrast, FBMKLCI appears to have the poorest performance, with the lowest Sharpe ratio and Treynor ratio.

Comparison between Three Years and Five Years Performance

This section provides a detailed comparison of the fund's performance over three and five years to identify trends in average returns, standard deviation, beta, Sharpe ratio, and Treynor ratio.

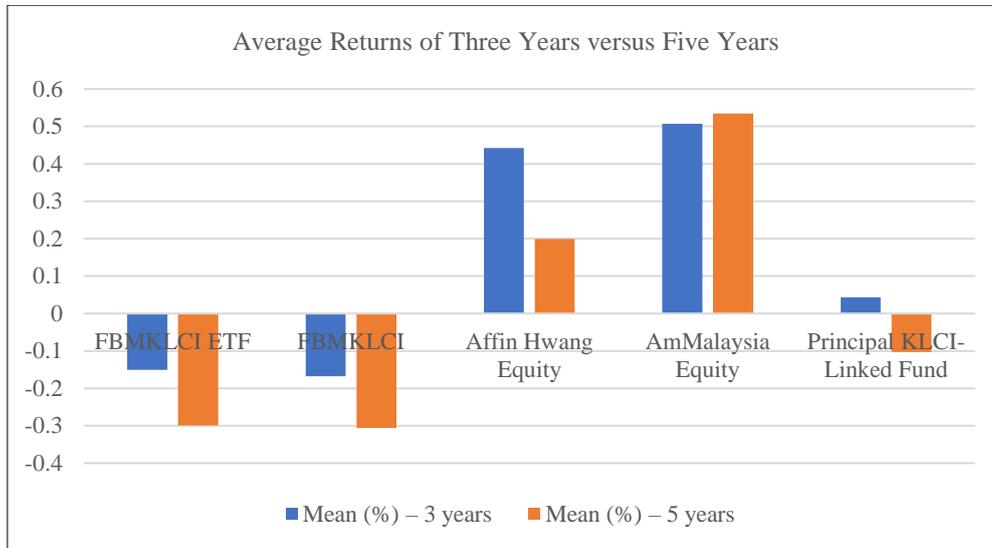
Table 3

Average Returns of Three Years versus Five Years

Funds	Mean (%) – 3 years	Mean (%) – 5 years
FBMKLCI ETF	-0.1507	-0.2992
FBMKLCI	-0.1681	-0.3059
Affin Hwang Equity	0.4427	0.1996
AmMalaysia Equity	0.5073	0.5347
Principal KLCI-Linked Fund	0.0429	-0.1027

Figure 1

Average Returns of Three Years versus Five Years



Overall, the mean return has worsened over the five years for ETF, FBMKLCI, and Principal KLCI-Linked Fund. Although Affin Hwang Equity shows the same scenario, the fund manages to provide positive returns. The only fund that shows positive performance over the three-year and five-year period is AmMalaysia Equity. The mean return over the five years is slightly higher (0.5347%) than the three years (0.5073%). In brief, AmMalaysia Equity consistently shows positive returns. The returns even improved over five years, while the rest have seen their mean returns decline, with Principal KLCI-Linked Fund turning negative over the same period.

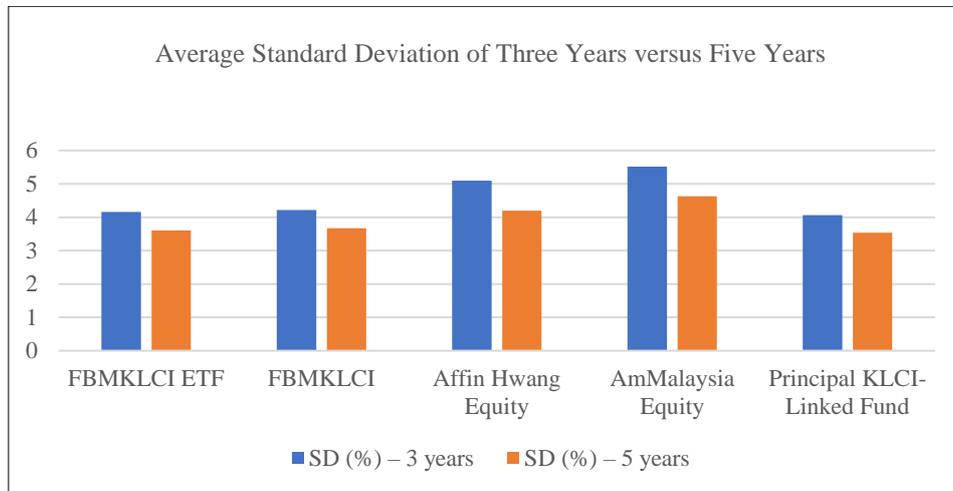
Table 4

Average Standard Deviation of Three Years versus Five Years

Funds	SD (%) – 3 years	SD (%) – 5 years
FBMKLCI ETF	4.1580	3.5989
FBMKLCI	4.2136	3.6727
Affin Hwang Equity	5.0942	4.1968
AmMalaysia Equity	5.5197	4.6229
Principal KLCI-Linked Fund	4.0605	3.5380

Figure 2

Average Standard Deviation of Three Years versus Five Years



Overall, the volatility of all funds is lower when observed for a more extended period. Thus, indicating a sense of security in the fund’s stability in the long run.

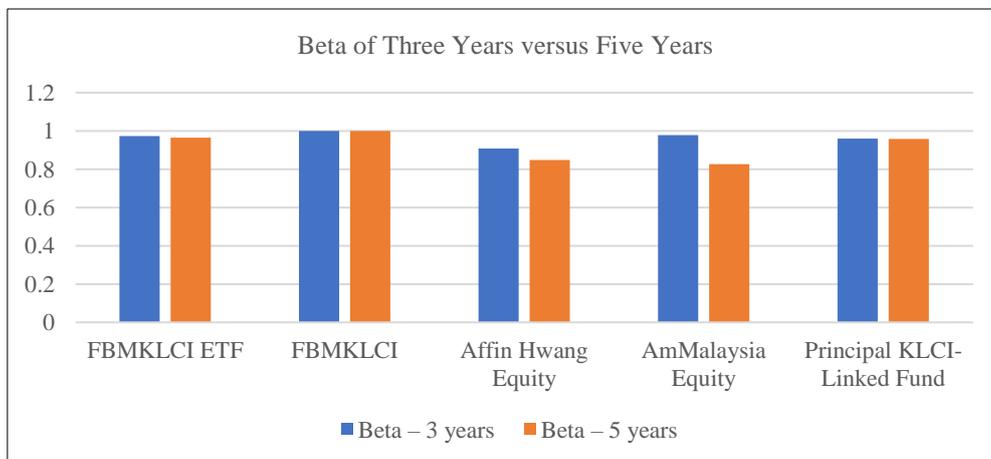
Table 5

Average Beta of Three Years versus Five Years

Funds	Beta – 3 years	Beta – 5 years
FBMKLCI ETF	0.9731	0.9644
FBMKLCI	1.0000	1.0000
Affin Hwang Equity	0.9090	0.8490
AmMalaysia Equity	0.9787	0.8270
Principal KLCI-Linked Fund	0.9594	0.9588

Figure 3

Average Beta of Three Years versus Five Years



All funds show slightly less volatility than the market over the five years.

Table 6

Sharpe Measures of Three Years versus Five Years

Funds	Sharpe Ratio – 3 years	Sharpe Ratio – 5 years
FBMKLCI ETF	0.0181	-0.0335
FBMKLCI	0.0138	-0.0347
Affin Hwang Equity	0.1313	0.0901
AmMalaysia Equity	0.1329	0.1543
Principal KLCI-Linked Fund	0.0662	0.0214

Figure 4

Sharpe Measures of Three Years versus Five Years

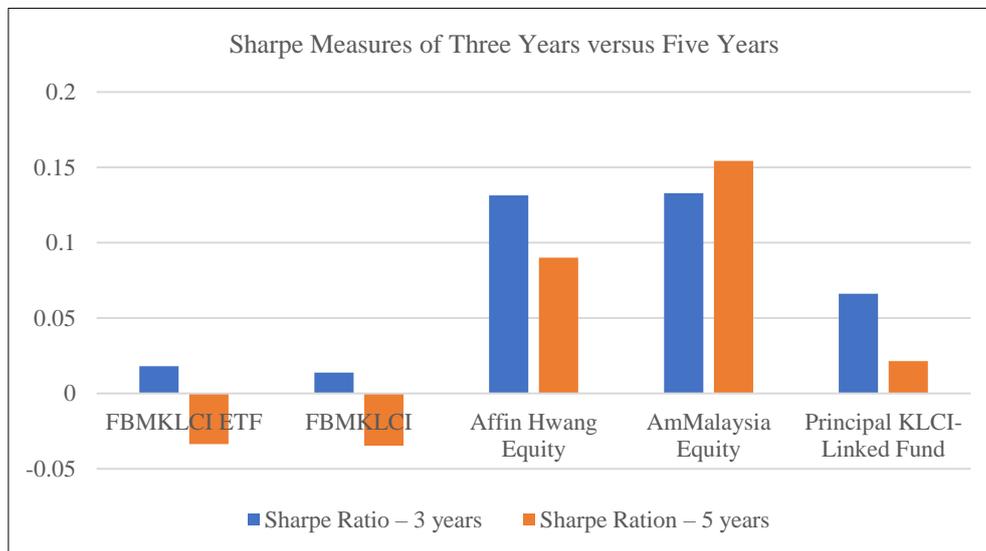
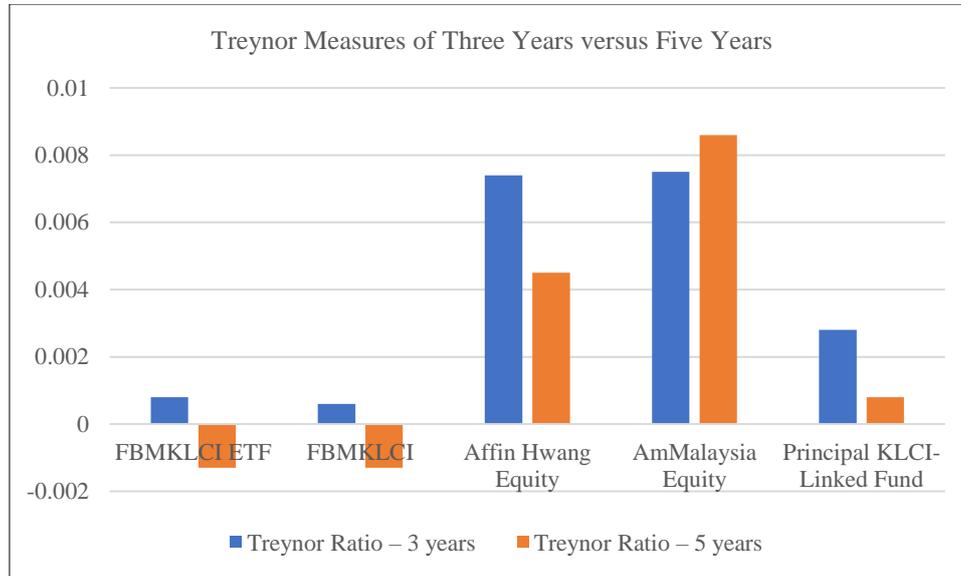


Table 6 and Figure 4 show that over the five-year period, all funds have worse risk-adjusted returns, with the exception of AmMalaysia Equity, which shows its risk-adjusted return is better over the five-year period than the three-year period. Nevertheless, the ranks of the funds are the same in both periods under study.

Table 7

Treynor Measures of Three Years versus Five Years

Funds	Treynor Ratio – 3 years	Treynor Ratio – 5 years
FBMKLCI ETF	0.0008	-0.0013
FBMKLCI	0.0006	-0.0013
Affin Hwang Equity	0.0074	0.0045
AmMalaysia Equity	0.0075	0.0086
Principal KLCI-Linked Fund	0.0028	0.0008

Figure 5*Treynor Measures of Three Years versus Five Years*

Like Sharpe ratios, findings of Treynor ratios show that return per unit of market risk has worsened over the five years for all funds except for AmMalaysia Equity. Overall, findings indicate that the AmMalaysia Equity demonstrates the most consistent and positive trends, improving mean returns, risk-adjusted returns, and returns per unit of market risk. The other funds, particularly ETF and FBMKLCI, show a worsening trend in performance metrics over the extended period.

CONCLUSION

Exchange-traded funds (ETFs) and unit trusts have their own merits and demerits. This study examines the performance of these two investment products over two specific periods, three years and five years. The results support the hypothesis that ETF and unit trust provide different outcomes in terms of risk and return. Overall, findings for these periods show that unit trusts perform better. However, despite the performance disparity, the lower costs, flexibility, transparency, and strategic advantages of ETFs provide compelling reasons why ETFs should not be excluded entirely from forming a diversified portfolio.

Nevertheless, these results are not unexpected since ETF's performance tracks the performance of an index. It is worth noting that, unlike unit trusts, ETFs do not aim to beat the market. Furthermore, ETFs usually have lower management fees, typically below 1%. Whilst actively managed unit trust funds usually require higher management fees. In addition, there is also no sales charge imposed on ETF transactions like those incurred when investing in a unit trust fund. Typically, the upfront sales fee of unit trust transactions is between 3% and 5% of the total value.

It is crucial to note the limitations of this study. This study uses a small sample set focusing on one equity ETF and three unit trusts. In addition to that, it is also limited to a relatively short period. Future studies may examine a more extended period, for example, 10 or 20 years. More studies should also comprehensively cover different types of ETFs and unit trusts. This study only focuses on equity

funds. Therefore, the study does not conclusively show that investing in unit trusts is better than investing in ETFs, as an ETF's investment objective differs significantly from that of a unit trust. In addition to that, given the rapid growth of passive investing, future studies should also look at the factors that impact the performance of these funds so that investors can make wise decisions among many alternatives available (Wu et al., 2020).

An important aspect that people often overlook is that both ETFs and unit trusts are merely vehicles for investing. The critical factor lies in the underlying securities held by these funds. All investment products come with varying degrees of risk, and it is inaccurate to claim that all ETFs are less risky than unit trust funds. Therefore, it is imperative to thoroughly understand the associated risks before investing in any product. In conclusion, there is no one-size-fits-all answer to whether ETFs or unit trust funds are the superior choice.

When making investment decisions, it is prudent to consider one's personal preferences, risk tolerance, investment goals, and time horizon. Identifying the targeted expected return is essential to achieving financial objectives within the specified timeframe. In general, both options are suitable for investors with a long-term horizon and employ a buy-and-hold strategy. Ultimately, the decision rests with the investor and should be based on risk tolerance and anticipated returns to choose the option that best aligns with the aimed financial goals.

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