Labuan Bulletin of International Business &Finance

Volume 19 Issue 1 eISSN 2600- 7894

IMPACT OF COVID-19 PANDEMIC ON FIXED INCOME UNIT TRUST FUND AND EQUITY UNIT TRUST FUND PERFORMANCE: A COMPARATIVE ANALYSIS IN MALAYSIA

Puvannambehay A/P Tamil Selvam[1], Noor Zainab Binti Tunggal[1*]

[1]Labuan Faculty of International Finance, Universiti Malaysia Sabah, Labuan, Malaysia.
**Corresponding author's email: nurzainab@ums.edu.my*

ABSTRACT

The shock of the global COVID-19 pandemic is critical even compared to the great financial crisis of 2007–2008 (Sansa, 2020). This study emphasises the performances of equity unit trust funds and fixed income unit trust funds during the COVID-19 pandemic, applying daily data from January 2020 to June 2020. A total of 32 unit trust funds are selected for the study, consisting of 16 fixed income funds and 16 equity funds. The performance of the unit trust funds is examined by using the Sharpe ratio measure, Treynor ratio measure, and Jensen's alpha measure to analyse the impact of COVID-19 on the funds. The findings of this research suggest a mixed result of performance, where some funds outperformed the market benchmark while others underperformed it. For the fixed income unit trust funds, both the average standard deviation and average beta underperformed the benchmark index. On the contrary, the total risk of equity funds is higher than the market benchmark, while systematic risk is lower than the market benchmark. Besides, based on the results of Jensen's alpha, only a few unit trust funds have a positive alpha, implying that some of the fund managers are either good in market timing or in selecting unit trust funds. Investors and fund managers can benefit from this study when making decisions to enhance their portfolios' performances during the crucial period. This study will also provide a general outlook on the behaviour and performance of unit trust funds in Malaysia during the selected period of the COVID-19 crisis.

JEL classification*:G11.*
Keywords*: COVID-19, coronavirus disease, investment decision.*

Received: January 21, 2021
Revised: June 2, 2021
Accepted: June 3, 2021

1. INTRODUCTION

The COVID-19 or coronavirus disease 2019 is an infectious disease that causes a respiratory illness with symptoms such as cough, fever, and in more severe cases,

difficulty in breathing (Department of Statistics Malaysia Official Portal, 2020). As of 27th October 2020, there were 43,147,494 confirmed cases, with about 218 countries, areas, or territories reporting cases (World Health Organization, 2020). In Malaysia, 28,640 cases were reported as of 27th October 2020.

The COVID-19 outbreak in Malaysia began when COVID-19 cases were first identified in Malaysia on the 25th of January 2020 where three Chinese nationals who had travelled into Malaysia via Singapore on the 24th of January 2020 were traced to have close contact previously with an infected person in Singapore and were treated at Sungai Buloh Hospital, Selangor, Malaysia (Elengoe, 2020). On the 4th of February 2020, the first Malaysian, a 41-year old man was confirmed with COVID-19.

Ever since then, there were continuous spikes in the number of cases reported daily and the Prime Minister of Malaysia announced a Movement Control Order (MCO) and social distancing for 14 days from 18th March to 31st March 2020, when over 553 cases were detected on the 16th of March 2020. This measure was taken to reduce the rapid increase in COVID-19 cases in Malaysia (Elengoe, 2020) causing many businesses and operations to shut down and putting a great impact on the gross domestic product (GDP) of Malaysia. There has also been a great crash in the financial market not only in Malaysia but worldwide. In the case of unit trust funds, fund managers and unit trust agents are facing more clients who request to make withdrawals from their investments as panic grows with the rising number of COVID-19 cases. This category of clients is mostly from the lower and middle-income group. According to Aruna (2020), the continuous extension of MCO has caused financial investors to be worried and forced them to reconsider their investments, as poor market environments will cause them to fail with greater losses.

The Malaysian unit trust fund industry has seen a vast development in the last 61 years since 1959, when unit trust funds were first introduced. Despite the rapid development, some researchers such as Abdullah, (2015), Białkowski and Otten (2011), Fletcher and Marshall (2005), Angelidis et al. (2013), and Jones et al. (2008) stated the benchmark had outperformed the unit trust funds. On top of that, there is always a concern of whether it is reasonable to invest in this industry when there is a contradiction between the development and performance of the unit trust fund industry, particularly in Malaysia, especially during the COVID-19 pandemic. To avoid jeopardising investors' decision to invest in unit trust funds, there is a need for continuous study on the performance of the funds so that fund management companies, the investing public, government agencies, and regulators could make better policy decisions and investments.

The previous study mentioned that as compared to the Western counterpart, there is a lack of importance given to studies on unit trust fund performance in Malaysia (Abdullah & Shari, 2019) especially during the global pandemic of COVID-19, causing a huge spillover in the global economy. According to Abdullah and Shari (2019), the studies on this topic have shown mixed results where evidence showed some unit trust funds underperformed while some outperformed the benchmarks. As an example, Abdullah (2015) utilised various composite measures such as the Sharpe index, Modigliani measure, and information ratio to reveal that the selected unit trust funds underperformed the benchmark index, the Kuala Lumpur Composite Index (KLCI). This could be due to the funds being grouped without allocating them into respective asset classes, which became a limitation to the study.

As a contrast, this study will segregate the unit trust funds according to two asset classes, namely equity funds and fixed income funds to overcome the limitation. The two

types of funds were chosen for this study because fixed income funds and equity funds made up approximately 30% of the total funds in 2017 compared to other fund categories in 2018 (FIMM, 2018). An equity fund invests primarily in stocks which allows investors to buy into the fund and thus buy a basket of stocks with less stress than purchasing the individual securities. One of the greatest advantages of equity funds is instant diversification, allowing the funds to make capital gain and income gain or both at once. Besides, the previous study confirms that it is less expensive and more convenient to invest in equity funds (Alwi et al., 2019). Due to this reason, this study emphasises on these two types of unit trust funds. Besides that, this study also presents the fund trends and compares the equity fund and fixed income fund performance in Malaysia during the crucial period of COVID-19 pandemic. This study is believed to provide a clear trend of unit trust fund performance which will provide the investors with a clearer outlook.

2. LITERATURE REVIEW

Based on a study by Sansa (2020), COVID-19 had a remarkable repercussion on the financial markets globally. For instance, the Dow and the S&P trading rates trends dropped significantly to respond to the pandemic situation in the United States and the other countries around the world at large. The Economy (2020) clarified in detail that the Dow and the S&P encountered their most significant drop within one day since 1987. Many economists have envisioned the deliberate impact of COVID-19 to happen on the economy and analysed that the crisis will cause social welfare and economic crisis. To support this statement, according to Shambaugh (2020), vital measures taken to curb the escalation of the COVID-19 crisis will have a huge impact on both the broader welfare and the economy.

On the other hand, research on unit trust funds in the developed countries from the perspective of the performance of the different types of funds was conducted. For instance, a study from 1988 to 1993 has found that unit trust funds involving all active taxable domestic bond funds, money market funds, international bond funds, index funds, and preferred stock funds in the United States have underperformed the market portfolio (Kahn & Rudd, 1995). On top of that, the finding of this study is consistent with Gallagher and Jarnecic's (2002) investigation which was conducted on 66 institutional and 77 retail Australian open-ended active bond unit trust funds or fixed income funds from 1990 to 1999. The findings proposed that the retail fixed income funds underperformed the benchmark portfolio after adjusting for fees according to the unconditional model and conditional composite performance in this study.

Previous research on unit trust funds' performance in the Malaysian market from 1991–2001 indicated that unit trusts funds did not perform well against the market benchmark during the period of the study. In many cases, the unit trust funds trailed behind the performance of the market portfolio except during the crisis period when the unit trust market-adjusted returns yielded positive results. Of the various types of unit trust funds under investigation, they found fixed income funds showed excellent performance over and above market and equity funds. The high interest rate kept throughout the majority of the period particularly during the crisis period in 1997 tremendously benefited the fixed income funds (Isa, 2007).

Based on Abdullah and Shari's (2019) research, evidence on unit trust fund performance in Malaysia showed mixed results where some studies showed that unit trust funds underperformed the market return while some showed that they outperformed the market return. For instance, a study conducted by Hin and Wah (1997), Mohamad and

Nassir (1995), and Chuan (1995) found that the unit trust funds' performance was lower than the benchmark performance. The results revealed an insignificant difference in funds' returns between actively and passively managed funds. Another study conducted by Isa (2007) on 110 unit trust funds covering equity, balanced, and fixed income funds from 1991 until 2001 suggests that there is no consistency in its performance as there is no significant inter-temporal correlation between past and current performance which also indicates that they underperformed the market portfolio.

3. METHODOLOGY AND DATA

The data for this research were collected from various asset management companies' websites and funds' prospectuses. The prices of funds for this study were retrieved from Investing.com's website (Investing.com, Malaysia-Funds) and Bank Negara Malaysia's website . The period of data collection was from 2nd January 2020 to 30th Jun 2020, which is about 120 days, in the first two quarters of 2020. This study used daily data with 120 samples for each unit trust fund. This is because this research is based on the current issue which tests the funds' performance during the COVID-19 pandemic and since the pandemic in Malaysia began on 24th January 2020, this study had to be conducted using daily data to prevent missing data. Besides, more data will provide better results. The benchmark used in this study was the FTSE Malaysia KLCI which was also extracted from Investing.com's website (Investing.com). On top of that, Malaysia's 3-month T-Bills were collected from Bank Negara Malaysia's website which will represent the risk-free rate. The independent variable in this study is the market return while the dependent variables in this study are the unit trust funds namely fixed income funds and equity funds.

For this study, only 16 fixed income funds and 16 equity funds were included from a total of 127 equity funds and 54 fixed income funds that were issued. This is mainly because of the availability of complete daily data from January 2020 to July 2020. The unit trust funds were selected based on three main criteria. Firstly, the unit trust funds selected are not newly launched. Secondly, the funds are not closed-ended, and finally, the selected funds have complete data. This study selected unit trust funds that are not closed-ended because many fund investors opt for open-ended funds (Li & Lin, 2011). Therefore, the results would have a direct effect on individual investors. This study did not include newly launched funds because it is less effective to compare funds that have been established in the industry for a longer period with those that were recently issued. This study focused on two types of asset classes, namely fixed income funds and equity funds. Equity funds were chosen because they are generally a convenient and inexpensive investment where higher transaction costs can be avoided (Alwi et al., 2019).

3.1 Research techniques

The following statistical methods and techniques were used to evaluate the unit trust funds' performance. The three performance measures used to calculate the returns were the Sharpe ratio pioneered by Sharpe (1966), the Treynor ratio pioneered by Treynor (1965), and the Jensen's alpha pioneered by Jensen (1968). Sharpe ratio was introduced by Nobel laureate William F. Sharpe and is used to help investors understand the return of an investment in comparison to its risk, also known as a reward-to-risk ratio that focuses on total risk (Sharpe, 1966)**.** According to a book by Reilly and Brown, the total risk of the portfolio which is represented by the standard deviation of returns is utilised, instead of just looking at the systematic risk (β_i) (Brown & Reilly, 2012). The Sharpe ratio measures the reward-to-risk ratio of a portfolio or excess return per unit of risk. It is

figured as a portfolio's risk premium divided by the standard deviation of the portfolio's return. The greater the Sharpe ratio of the fund the higher risk-adjusted performance, thus, investors are advised to pick the investment with a higher Sharpe ratio.

A higher Sharpe ratio indicates better risk-adjusted performance of the fund. Investors benefit through this as it could assess the performance of a fund by analysing the amount of risk involved. Only a fund with less risk involved in generating returns will be regarded, even though a fund could provide a return. A negative Sharpe ratio depicts that a risk-free asset would be a better choice. This ratio evaluates the performance of the fund with the risk taken by it. It is figured as a portfolio's risk premium divided by the standard deviation of the portfolio's return. The greater the Sharpe ratio of the fund the higher the risk-adjusted performance, thus, investors are advised to pick the investment with a higher Sharpe ratio (Abdullah & Shari, 2019). The formula for the Sharpe ratio is as follows:

$$Sharpe\ Ratio = \frac{R_i - R_f}{\sigma_i}$$

Based on the above formula, R_i is the average return on fund *i*, R_f is the average return on the Malaysian 3-month T-Bills, a proxy for the risk-free rate of return, and σ_i is the total risk of fund *i*. It is calculated as follows:

$$\sigma_i = \sqrt{\frac{\sum(R_i - \bar{R})^2}{n-1}}$$

Where:
R_i = return on fund *i*
R_f = risk free rate of return
σ_i = standard deviation of fund *i*
$\bar{R}$ = average return of fund *i*
n = number of daily returns

Treynor ratio is a reward-to-risk ratio that looks at systematic risk only (Treynor, 1965). It is calculated as a portfolio's risk premium divided by the portfolio's beta coefficient. Treynor ratio assesses the extra returns created by a fund over and above the risk-free returns. The ratio is similar to the Sharpe ratio, but it considers the beta as a volatility measure. A higher Treynor ratio proposes a better performance of the fund. Therefore, an investor is advised to pick the investment with a higher Treynor ratio. The Treynor ratio uses the beta which is a systematic risk component of the portfolio's return as measured by the portfolio's beta coefficient *(βi)* in relation to the market portfolio's return. This ratio assesses the capability of a fund to get an excess return that has been adjusted for systematic risk.
The formula for the Treynor measure is as follows:

$$Treynor\ Ratio = \frac{R_i - R_f}{\beta_i}$$

R_i and R_f are similar to the Sharpe ratio while β_i is the beta of the fund over the evaluation period. The fund's relative volatility is measured through this method. It is calculated as follows:

$$\beta_{(fund\ i)} = COV_{(fund\ i,klci)}/\sigma^2_{(klci)}$$

Where:
R_i = realized return on the portfolio
R_f = risk-free rate of return
β_i = portfolio beta

The proxy used in this study for the risk-free rate of return was the average yield of the 90-day Malaysian Treasury Bills. This is in accordance with the standard practice of performance evaluation of mutual funds (Abdullah, 2009). The 90-day Malaysian Treasury Bills' rate was retrieved from Bank Negara Malaysia's website. This rate was converted to a daily equivalent, consistent with the daily return of the unit trust funds and the benchmark (Abdullah, 2009). The formula to compute the estimation of daily equivalents of the annualised yield is as follows:

$$Daily\ equivalent = (1 + Annualized\ Yield)^{1/365} - 1$$

Jensen ratio is a risk-adjusted performance measure. This measure signifies the average return on a portfolio or investment, above or below that expected by the capital asset pricing model (CAPM), given the beta of the portfolio or investment and the average return on the market (Abdullah, 2009). The ratio is determined by subtracting the funds' beta from the contrast between the funds' return and risk-free return and multiplying the result by the distinction of index return and risk-free return.
The formula for Jensen's measure is as follows:

$$Jensen's\ Alpha = (R_i - R_f) - \beta_i(R_m - R_f)$$

Where:
R_i = return of the portfolio
R_f = risk-free rate of return
β_i = portfolio beta
R_m = return of the market index

The alpha (α_i) value shows whether the portfolio manager is skilled in stock selection to beat the market and the market timing. The performance of a fund is considered good when the alpha value is positive. The alpha (α_i) value is vital for a retail investor because it measures the excess returns a fund generates in relation to the returns generated by its benchmark.

4. RESULTS

The empirical results for this study are segmented into four parts of the performance measure. The first part is the average daily return, also known as the mean of the two selected asset classes of unit trust funds against the benchmark index. The second, third, and fourth parts discuss the standard deviation and Sharpe ratio measure, beta and the Treynor ratio measure, and Jensen's alpha measure respectively for the selected equity funds and fixed income funds against the benchmark index, FTSE Malaysia KLCI. This study's observation is based on the daily prices of 16 fixed income funds and 16 equity

funds against the benchmark index for 120 days from 2nd January 2020 to 30th July 2020. The unit trust funds were chosen based on three main criteria; the funds are not newly launched, the funds are open-ended, and there is no missing data in the funds. The data on the unit trust funds and market benchmark were retrieved from Investing.com's website, while the Malaysian 3-month T-Bill yield rate was retrieved from Bank Negara Malaysia's website.

Table 1 discusses the outcome of the selected fixed income funds against the market index, FTSE Malaysia KLCI while Table 2 shows the outcome of the selected equity funds against the benchmark index, FTSE Malaysia KLCI. The outcomes of the selected unit trust funds are based on the average daily return for each fixed income fund and equity fund that were ranked from the highest mean (%) to the lowest mean (%), the standard deviation or the total risk (in %), the beta value or the systematic risk, the Sharpe ratio, Treynor ratio, and Jensen's alpha measure**.**

Table 1: Performance of fixed income unit trust funds: January 2020 to June 2020.

Fixed Income Unit Trust Fund	Mean (%)	SD(%)	Sharpe	Beta	Treynor	Jensen
PB Fixed Income Fund	0.0285	0.1669	-1.8706 (15)	0.0410	-0.0761 (9)	-0.0030 (5)
Eastspring Investments Bond Fund	0.0176	0.2656	-1.2163 (8)	0.0536	-0.0602 (5)	-0.0031 (10)
Kaf Bond Fund	0.0282	0.2007	-1.5572 (13)	0.0381	-0.0819 (11)	-0.0030 (6)
AmDynamic Bond Overview	0.0066	0.3681	-0.9073 (3)	0.0605	-0.0553 (4)	-0.0031 (12)
Kenanga Bondextra Fund	0.0297	0.3515	-0.8846 (2)	0.0105	-0.2956 (16)	-0.0032 (11)
Maybank Malaysia Income Fund	0.0044	0.3173	-1.0596 (5)	0.0366	-0.0919 (14)	-0.0032 (13)
Rhb Income Fund 2	-0.0117	0.5169	-0.6817 (1)	-0.0115	0.3057 (2)	-0.0036 (15)
Kaf Enhanced Bond Fund	-0.0244	0.0731	-4.9909 (16)	-0.0009	3.9018 (1)	-0.0037 (16)
Pb Islamic Bond Fund	0.0279	0.2478	-1.2624 (9)	0.0473	-0.0661 (7)	-0.0030 (4)
Public Islamic Bond Fund	0.0260	0.2317	-1.3582 (10)	0.0375	-0.0838 (12)	-0.0030 (9)
Principal Islamic Lifetime Sukuk Fund	0.0036	0.3077	-1.0951 (6)	0.0248	-0.1361 (15)	-0.0033 (14)
Kenanga Asnitabond Fund	0.0274	0.1983	-1.5795 (14)	0.0347	-0.0903 (13)	-0.0030 (8)
Pb Aiman Sukuk Fund	0.0275	0.2575	-1.2162 (7)	0.0486	-0.0644 (6)	-0.0030 (3)
Rhb Islamic Bond Fund	0.0306	0.2094	-1.4804 (12)	0.0398	-0.0779 (10)	-0.0030 (2)
Kaf Sukuk Fund	0.0252	0.2319	-1.3602 (11)	0.0430	-0.0733 (8)	-0.0030 (7)
AmDynamic Sukuk - Class A	0.0258	0.3102	-1.0149 (4)	0.0587	-0.0536 (3)	-0.0030 (1)
Average	0.0171	0.2659	-1.4710	0.0351	0.1813	-0.0030
FTSE Malaysia KLCI	-0.0445	1.4477	-0.2660	1.0000	-0.0039	0.0000

A high standard deviation or total risk occurs when prices move vigorously which leads to a risky investment. On the contrary, a low standard deviation means prices are tranquil, which leads to a low-risk investment. As for the Sharpe ratio, the higher the fund's Sharpe ratio, the better the returns relative to the risk taken. However, a negative Sharpe ratio is ineffective and simply indicates that the market return is lower or the fund has underperformed the risk-free rate. The beta value is also known as the systematic risk which measures the volatility of the fund. The Treynor ratio is a risk measure that allows investors to adjust a portfolio's returns for systematic risk. A positive Treynor ratio indicates that the fund has performed better than the risk-free rate. A negative Treynor ratio indicates that the fund has performed worse than the risk-free rate which indicates that the fund is ineffective for investment.

According to Table 1, the average daily return or the average mean in percentage for all fixed income funds is 0.0171 %, which exceeds the FTSE Malaysia KLCI average mean (-0.0445 %) but is lower than the Malaysian 3-month T-Bills average daily return of 0.3406%. The fixed income fund with the highest mean return is RHB Islamic Bond Fund, with an average daily return of 0.03065 %, followed by Kenanga BondEXTRA Fund, KAF Bond Fund, PB Islamic Bond Fund, and PB Aiman Sukuk Fund with an average daily return of 0.0297%, 0.02817%, 0.0279%, and 0.0275%, respectively. The fixed income unit trust funds with the lowest average daily return are KAF Enhanced Bond Fund and RHB Income Fund 2 with a mean of -0.0244 % and -0.0117 % respectively. Generally, all the selected fixed income unit trust funds have a higher average daily return compared to the benchmark index which shows that based on the selected fixed income funds, overall, the funds performed better than the benchmark index based on the average daily returns rate.

Next, the fixed income funds' total risk or the standard deviation ranges from 0.0731% to 0.5169% as compared to the standard deviation of the benchmark index (1.4538%) which reveals that the total risk of FTSE Malaysia KLCI supplants the standard deviation of all fixed income funds in general. The fixed income fund with the highest standard deviation is RHB Income Fund 2 with a standard deviation of 0.5169%, followed by AmDynamic Bond Overview, Kenanga BondEXTRA Fund, Maybank Malaysia Income Fund, and AmDynamic Sukuk-Class A with the standard deviation of 0.3682%, 0.3515%, 0.3173%, and 0.3102%, respectively. This shows that these funds are

risky to invest in. The funds with a low standard deviation are KAF Enhanced Bond Fund, PB Fixed Income Fund, and Kenanga AsnitaBOND Fund with a standard deviation of 0.0731%, 0.1669%, and 0.1983%, respectively. On the contrary, the average Sharpe ratio measure for all fixed income funds (-1.4710) is generally lower than the average Sharpe ratio of the market benchmark (-0.2649). The higher the funds' Sharpe ratio, the better the funds return relative to the risk taken. However, a negative Sharpe ratio is ineffective. Based on the observation, all 16 fixed income unit trust funds have a negative Sharpe ratio which indicates that the risk-free rate is higher that the return of the fund and the market benchmark. As such, all funds underperformed the market index.

The systematic risk or beta for all fixed income funds is also lesser than the beta of the benchmark index. The average beta for all funds is 0.0352 below the benchmark. This indicates that the fluctuations in the market returns have a low impact on the returns of fixed income funds (Abdullah & Shari, 2019). Based on the Treynor measure in Table 1, two out of 16 fixed income funds outperformed the benchmark index. In general, the average Treynor ratio for all fixed income fund (0.1813) is higher than the average Treynor ratio of the benchmark index (-0.0039). However, out of the 16 funds, 14 have negative Treynor ratios that are relatively less than the market benchmark's ratio. The fixed income funds that outperformed the FTSE Malaysia KLCI are KAF Enhanced Bond Fund and RHB Income Fund 2 with a Treynor measure of 3.9018 and 0.3057, respectively.

Jensen's alpha is a measure of risk-adjusted return compared to the market index based on the CAPM. Investors will prefer a portfolio with positive alphas as a positive alpha indicates a higher return with a minimum level of risk while a negative alpha indicates a lower return and risky investment. Jensen's alpha is also a tool to measure how much the portfolio signal outperformed the market return as a benchmark. The higher the value of the alpha, the more skilled the investment managers against the market benchmark (Kim, 2013). In short, the Jensen's alpha evaluates an investor or portfolio manager's selectivity skills (Ünal, & Tan, 2015). Table 1 shows that the average Jensen's alpha for all fixed income funds is -0.0031, which is less than the benchmark's alpha.

Equity Unit trust Fund	Mean(%)	SD (%)	Sharpe	Beta	Treynor	Jensen
Eastspring Investments Equity Income Fund	-0.0770	1.4999	-0.2785 (14)	0.9462	-0.0044 (14)	-0.0002 (9)
Affin Hwang Select Dividend Fund	-0.0279	1.2008	-0.3069 (15)	0.7471	-0.0049 (15)	-0.0009 (14)
Maybank Malaysia Dividend Fund	-0.0355	1.1070	-0.3398 (16)	0.6706	-0.0056 (16)	-0.0012 (15)
Manulife Investment Dividend Fund	-0.0906	1.6058	-0.2686 (13)	1.0235	-0.0042 (11)	0.0001 (4)
Hong Leong Dividend Fund	-0.0909	2.6547	-0.1626 (3)	1.5564	-0.0028 (4)	0.0024 (1)
Pb Growth Fund	0.0620	1.2557	-0.2219 (6)	0.7872	-0.0035 (7)	-0.0006 (13)
Public Equity Fund	-0.0888	1.7467	-0.2459 (11)	0.9948	-0.0043 (12)	-0.0000 (6)
Eastspring Investments My Focus Fund	0.0045	1.5355	-0.2189 (5)	0.9946	-0.0034 (6)	-0.0000 (5)
Manulife Investment Regular Savings Fund	-0.1063	1.8468	-0.2420 (10)	1.1146	-0.0040 (10)	0.0005 (3)
Rhb Thematic Growth Fund	0.1233	1.6783	-0.1295 (2)	0.9134	-0.0024 (3)	-0.0002 (8)
AmIslamic Growth Fund	0.0799	1.4898	-0.1750	0.8800	-0.0030	-0.0003

			(4)		(5)	(10)
Pb Islamic Equity Fund	0.0525	1.2869	-0.2239 (7)	0.8088	-0.0036 (8)	-0.0006 (12)
AmMalaysia Equity	-0.0155	1.5079	-0.2362 (9)	0.8906	-0.0040 (9)	-0.0004 (11)
Hong Leong Dana Makmur Fund	0.0124	2.8607	-0.1148 (1)	1.6418	-0.0020 (2)	0.0021 (2)
Principal Islamic Small Cap Opportunities Fund	-0.0888	1.7467	-0.2459 (11)	0.9948	-0.0043 (12)	-0.0000 (6)
Areca Equitytrust Fund	-0.0258	1.6086	-0.2278 (8)	-0.0498	0.0736 (1)	-0.0039 (16)
Average	-0.0195	1.6645	-0.2274	0.9322	0.0011	-0.0002
FTSE Malaysia KLCI	-0.0445	1.4477	-0.2660	1.0000	-0.0039	0.0000

Table 2: Performance of equity unit trust funds: January 2020 to June 2020.

According to Table 2, the average mean for all equity unit trust funds is -0.0195%, which exceeds the FTSE Malaysia KLCI average return (-0.0445 %), but is lower than Malaysia's 3-month T-Bills average daily return of 0.3406%, similar to the result of the fixed income funds. Out of 16 equity funds, 10 have an average daily return that exceeds the benchmark's average daily return while six funds have an average daily return that is lower than the benchmark. The funds with a high positive mean return are RHB Thematic Growth Fund, AmIslamic Growth Fund, PB Growth Fund, PB Islamic Equity Fund, Hong Leong Dana Makmur Fund, and Eastspring Investments My Focus Fund with an average daily return of 0.1233%, 0.0799%, 0.0620%, 0.0525%, 0.0124%, and 0.0045%, respectively. The equity fund with the lowest average daily return is Eastspring Investments Equity Income Fund with a mean of -0.0770%. Out of the 16 equity funds, 10 have outperformed the benchmark index while six underperformed the benchmark index.

The equity funds' total risk ranges from 1.1070% to 2.8607% as compared to the standard deviation of the market benchmark which is 1.4538%. Generally, the average standard deviation for all equity funds (1.6645%) supersedes the average standard deviation of FTSE Malaysia KLCI (1.4538%). The top five equity funds with the highest standard deviation are Hong Leong Dana Makmur Fund, Hong Leong Dividend Fund, Manulife Investment Regular Savings Fund, and Public Equity Fund with a total risk of 2.8607%, 2.6547%, 1.8468%, 1.7467%, and 1.7467%, respectively. This shows that these funds are risky to invest in. On the contrary, the five funds with the lowest standard deviation are Maybank Malaysia Dividend Fund, Affin Hwang Select Dividend Fund, PB Growth Fund, PB Islamic Equity Fund, and AmIslamic Growth Fund with a standard deviation rate of 1.1070 %, 1.2008 %, 1.2557 %, 1.2869 %, and 1.4900 %, respectively.

The average Sharpe ratio for all the equity funds (-0.2274) is generally higher than the average Sharpe ratio of the market benchmark (-0.2649). The higher the funds' Sharpe ratio, the better the funds' returns relative to the risk taken. However, a negative Sharpe ratio is ineffective. Based on the Sharpe measure, 12 equity funds outperformed the market benchmark while four funds underperformed the market benchmark. However, all 16 equity unit trust funds have a negative Sharpe ratio which indicates that the risk-free rate is higher that the return of the fund and the market benchmark.

The equity fund with the highest systematic risk is AmDynamic Bond Overview with a beta of 0.0605, while the fixed income funds with the lowest systematic risk are RHB

Income Fund 2 and KAF Enhanced Bond Fund with a beta of -0.0115 and -0.0009, respectively. Based on the Treynor measure in Table 2, only one out of 16 equity funds outperformed the market benchmark index. In general, the average Treynor ratio for all equity funds (0.0018) is higher than the average Treynor ratio of the benchmark index (-0.0039). However, out of the 16 equity funds, 15 have a negative Treynor ratio which is relatively less than the market benchmarks ratio. The equity fund that outperformed the FTSE Malaysia KLCI is Areca equityTRUST Fund with a Treynor ratio of 0.0851.

However, four out of 16 equity funds have a positive alpha which is higher than the market benchmark alpha, namely Hong Leong Dividend Fund, Hong Leong Dana Makmur Fund, Manulife Investment Regular Savings Fund, and Manulife Investment Dividend Fund with an alpha of 0.0024, 0.0021, 0.0005, and 0, respectively. A negative alpha indicates the unit trust funds have underperformed the benchmark index. In other words, the funds have earned too little for the risk assumed. An investment with a high alpha value is usually preferred by the investors. Since the average alpha is positive, the funds can be considered reasonable for invest for investment.

Based on the table above, it can be concluded that in general, both fixed income fund and equity fund have outperformed the FTSE Malaysia KLCI based on the average daily return. Based on the average daily return for both asset classes, fixed income fund performed better than equity fund as the average mean for all fixed income funds (0.0171%) is higher than the average mean for all equity funds (-0.0195%). Besides, only six equity funds have a positive average daily return compared to 14 fixed income funds with a positive average daily return. However, when comparing based on individual fund performance against the benchmark index, all fixed income funds have outperformed the market index as compared to only 10 equity funds that have outperformed the benchmark index.

Overall, the equity funds' total risk is higher compared to the fixed income funds'. The average standard deviation for equity funds (1.6640%) is higher than the average standard deviation for fixed income funds (0.2659%). On the other hand, both fixed income and equity unit trust funds show an average Sharpe ratio of -1.4710 and -0.2274, respectively. However, equity funds hold a higher Sharpe ratio against the benchmark. A negative Sharpe ratio simply means that the unit trust fund has underperformed the risk-free rate and benchmark index. Besides, the average systematic risk for fixed income unit trust funds is lower than the systematic risk for equity unit trust funds. This indicates that the equity fund is more volatile compared to fixed income unit trust fund. The average Treynor ratio for all fixed income funds is higher than the average Treynor ratio for equity funds.

5. DISCUSSION AND CONCLUSION

The COVID-19 pandemic has caused fund managers and investors to face challenges as the financial markets have been volatile and the business confidence depressed. According to websites, transactional activity has slowed which has caused difficulty for some funds to obtain reliable valuations of their assets, leading to difficulties in dealings in units and redemption requests, reporting on activities, and calculation of fees (Cantor et al., 2020). Besides, the last published study related to this topic was conducted in 2019, which encompassed a sample period from January 2006 to October 2012, which is nearly eight years ago (Abdullah & Shari, 2019). Considering the vast changes in the structure of the unit trust industry in Malaysia and the current global crisis of the COVID-19 outbreak, the existing study compares the performance of 32 unit trust funds consisting

of 16 fixed income funds and 16 equity funds from 2nd January 2020 to 30th October 2020 by using the Sharpe ratio, Treynor ratio, and Jensen's alpha performance measures. This study aims to provide a better view of unit trusts funds' performance in Malaysia and stresses the behaviours of the funds during the COVID-19 pandemic as this situation jeopardises investment decisions. The expected outcome for this study is to identify a better outlook of fund performance and trend in enabling the public investors, government agencies, and regulators to make better policy decisions and investments by identifying the best performing funds.

Based on the Sharpe ratio, both fixed income funds and equity funds show a negative average Sharpe ratio. However, the equity fund holds a higher Sharpe ratio against the benchmark compared to the fixed income fund's Sharpe ratio. The ratio gives the investor an idea of how much extra returns he is earning in the volatile market for holding a riskier asset. A negative Sharpe ratio is not favourable, and it simply means that the unit trust fund has underperformed the risk-free rate and benchmark index. Based on the Treynor ratio, two fixed income funds and one equity fund have a positive ratio, namely RHB Income Fund 2, KAF Enhanced Bond Fund, and Areca equity TRUST Fund, respectively. Based on the findings for both categories of unit trust funds, the average systematic risk for a fixed income fund is lower than the systematic risk for an equity fund. The average Treynor ratio for all fixed income funds is higher than the average Treynor ratio for the equity funds. According to Jensen's alpha, four equity funds are safe to invest in, namely Manulife Investment Dividend Fund, Manulife Investment Regular Savings Fund, Hong Leong Dana Makmur, and Hong Leong Dividend Fund.

The selection of unit trust funds should be based on all forms of measurement as the Sharpe ratio, Treynor ratio, and Jensen's alpha performance measures provide contradictory results. Besides, an investor may be held in a risky position of losing his wealth if he or she relies on only one type of measurement. Another important matter to be considered is the benchmark used to measure fund performance needs to reflect the designated benchmark that is stated in the fund prospectus as fund managers are normally evaluated based on the stated benchmark.

This study emphasises a few limitations that will require adjustments in future studies. The first limitation of this study is the duration of the study spans only six months from January 2020 to July 2020. This is because the COVID-19 pandemic was first detected in Malaysia in January 2020. Future studies may encompass a longer period which would make the study on unit trust funds' performance more robust. At the same time, future researchers can compare the behaviour of unit trust funds during the COVID-19 pandemic and after the pandemic subsides. The second limitation of the study is the data selection could be biased due to a smaller number of funds selected. Future research should include a greater number of unit trust funds to get a more accurate result. Future studies may employ data from Bloomberg or Thomson's Datastream for complete data. Besides that, the selection of funds could be expanded by focusing on other unit trust fund asset classes and including more data selection from other regions and countries' specific indices of a similar methodology. In a nutshell, despite the limitation of this study, this research aims to provide a general outlook on the trend and behavior of the selected unit trust funds during the period of study. In future research can employ a more advanced method such as the Wilcoxon signed-rank test for better results.

REFERENCES

Abdullah, A.R., & Abdullah, N.A.H. (2015). Lipper's rating and the performance of unit. *Studies in Economics and Finance, 32*(3), 322–339. Retrieved from https://doi.org/10.1108/SEF-05-2012-0064

Abdullah, F. M. (2002). A comparative performance of Malaysian Islamic and conventional mutual funds. *Pertanika*, 8(2), 30–49.

Abdullah, N.A., & Abdullah, N.A.H. (2009). The performance of Malaysian unit trusts investing in domestic versus international markets. *Asian academy of management journal of accounting and finance, 5*(2), 77–100.

Abdullah, N.A.H, & Shari, A. (2019). A comparative analysis of fixed income unit trust funds versus equity unit trust funds in Malaysia. *Asian Academy of Management Journal of Accounting and Finance, 15*(2), 95–117.

Alwi, S., Ahmad,R., Hashim,I.Z.A, & Naim,N.M. (2019). Investigating the Islamic and Conventional Mutual Fund. *Journal of Modern Accounting and Auditing, 15*(7), 371-384. doi: 10.17265/1548-6583/2019.07.004

Angelidis, T., Giamouridis, D., & Tessaromatis, N. (2013). Revisiting mutual fund performance evaluation. *Journal of Banking and Finance, 37*(5), 1759-1776. Retrieved from https://doi.org/10.1016/j.jbankfin.2013.01.006

Aruna, P. (2020, March 28). *Fund managers: Remain invested, pandemic a short-term challenge*. Retrieved from The Star: https://www.thestar.com.my/business/business-news/2020/03/28/fund-managers-remain-invested-pandemic-a-short-term-challenge

Bank Negara Malaysia Central Bank of Malaysia. (n.d.). *BNM Government Securities Yields*. Retrieved from Bank Negara Malaysia: https://www.bnm.gov.my/index.php?tpl=142&sdate=2008-09-09&lang=

Białkowski, J., & Otten, R. (2011). Emerging market mutual fund performance: Evidence for Poland. *The North American Journal of Economics and Finance, 22*(2), 118-130. Retrieved from https://doi.org/10.1016/j.najef.2010.11.001

Brown, K.C., & Reilly, F.K. (2012). *Analysis of investments & management of portfolios (International Edition) (10th ed.).* Australia: South-Western Cengage Learning.Chuan, T.H. (1995). The investment performance of unit trust funds in Malaysia. *Capital Markets Review, 3*(2), 21-50.

Cantor, J., Lalji, J., Dentons. (2020, June 15). *COVID-19 impact on funds – top five considerations.* Retrieved from JDSUPRA: https://www.jdsupra.com/legalnews/covid-19-impact-on-funds-top-five-71938/

Coggin, T.D., & Trzcinka, C. (2000). A panel study of U.S. equity pension fund manager style performance. *The Journal of Investing, 9*(2), 6–12.

Department Of Statistics Malaysia Official Portal. (2020). *Current Statistics: COVID-19 by States in Malaysia*. Retrieved from Department Of Statistics Malaysia Official Portal: https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=UjJoNk9OalhZWlVHdExiaGF1OW13UT09

Economy. (2020, March 13). *Financial Markets Rattled by the Multiple Effects Of COVID - 19.* Retrieved from NPR Org: https://www.npr.org/2020/03/13/815307828/financial-markets-rattled-by-the-multiple-effects-of-covid-19

Elengoe, A. (2020). COVID-19 Outbreak in Malaysia. *Osong Public Health and Research Perspectives, 11*(3), 93-100. doi:https://doi.org/10.24171/j.phrp.2020.11.3.08

Fama, E.F., & French, K.R. (2010). Luck versus skill in the cross-section of mutual. *The journal of finance, LXV*(5).

FIMM. (2018). *Yearly Statistics (as at 31 December 2017)*. Retrieved from Federation of Investment Managers Malaysia: https://www2.fimm.com.my/industry-statistics/yearly-statistics/

Fletcher, J., & Marshall, A. (2005). An empirical examination of U.K. international unit trust performance. *Journal of Financial Services Research, 27*, 183–206. Retrieved from https://doi.org/10.1007/s10693-005-6668-9

Gallagher, R., & Jarnecic, E. (2002). The performance of active Australian bond funds. *Australian journal of management, 27*(2), 163–185.

Hin, L.K., & Wah, A.M. (1997). Measuring unit trust fund performance using different benchmarks. *Capital Markets Review, 5*(2), 27–44.

Investing.com. (n.d.). *FTSE Malaysia KLCI (KLSE)*. Retrieved from Investing.com: https://www.investing.com/indices/ftse-malaysia-klci

Investing.com. (n.d.). *Malaysia - Funds*. Retrieved from Investing.com: https://www.investing.com/funds/malaysia-funds?&issuer_filter=0

Isa, M. (2007). Malaysian unit trust aggregate performance. *Managerial Finance* , 33(2):102-121.

Isa, M. (2007). Malaysian unit trust aggregate performance. *Managerial Finance, 33*, 102–121.

Jensen, M. C. (1968). The performance of mutual funds in the period 1945–1964. *The Journal of Finance* , 23(2), 389–416.

Jensen, M. C. (1969). Risk, the pricing of capital assets, and the evaluation of investment. *The Journal of Business*, 42(2), 167–247.

Jones, S., Van Der Laan, S., Frost, G., & Loftus, J. (2008). The investment performance of socially responsible investment funds in Australia. *Journal of Business Ethics, 80*(2), 181–203. Retrieved from https://doi.org/10.1007/s10551-007-9412-6

Jose F. Molina-Azorin, J. (2016). Mixed methods research: An opportunity to improve our studies and our research skills. *European Journal of Management and Business Economics*, 25(2):37-38.

Kahn, R.N., & Rudd, A. (1995). Does historical performance predict future performance? *Financial Analysts Journal, 51*(6), 43.

Kim, D. (2013). Cognitive communities and legitimacy-based groups: The role of external categorization on cognitive similarity. *Academy of Strategic Management Journal, 12*(2), 1-32.

Li, N. & Lin, C.Y. (2011). Understanding emerging market equity mutual funds: The case of China. *Financial Services Review, 20*(1), 1-19.

Malkiel, B. (1995). Returns from investing in equity mutual funds 1971 to 1991. *Journal of Finance, 50*(2), 549–572.

Mohamad, S., & Nassir, A.M. (1995). The performance of unit trusts in Malaysia. *Capital Markets Review, 3*(2), 51-69.

Norman, N., Almsafir, M.K., Smadi, A. (2013). Comparative study of conventional and shariah-based unit trust funds performance. *Australian Journal of Basic and Applied Sciences*, 354-363.

Sansa, N.A. (2020, Apr-Jun). The impact of the COVID - 19 on the financial markets: evidence from China and USA. *Electronic Research Journal of Social Sciences and Humanities, 2*(2), 29-39. Retrieved from www.eresearchjournal.com

Securities Commision Malaysia. (2018, December 31). *Summary of Statistics - Unit Trust Funds for 2018*. Retrieved from Securities Commision Malaysia: https://www.sc.com.my/analytics/fund-management-products

Securities Commision Malaysia. (2019, December 31). *Summary of Statistics - Unit Trust Funds for 2019*. Retrieved from Securities Commision Malaysia: https://www.sc.com.my/analytics/fund-management-products

Securities Commision Malaysia. (2020, August 31). *Summary of Statistics - Unit Trust Funds for 2020*. Retrieved from Securities Commision Malaysia: https://www.sc.com.my/analytics/fund-management-products

Shambaugh, J. (2020, March 23). *COVID - 19 and the US economy; &, FAQ On the economic impact & policy response*. Retrieved from Brookings: https://www.brookings.edu/blog/up-front/2020/03/23/covid-19-and-the-u-s-economy-faq-on-the-economic-impact-policy-response/

Sharpe, W. F. (1966). Mutual fund performance. *The Journal of Business*, 39(1), 119–138.

Sharpe, W. F. (1966). Mutual fund performance. *The Journal of Business*, 39(1), 119–138.

Sylwester, K. (2005). Foreign direct investment, growth, and income inequality in less developed countries. *Int. Rev. Appl. Econ.*, 19 (3), pp. 289-300.

TheEdgeMarkets. (2020, April 8). *Stocks down as global Covid-19 death toll mounts*. Retrieved from TheEdgeMarkets.com: https://www.theedgemarkets.com/article/stocks-down-global-covid19-death-toll-mounts

Treynor, J. L. (1973). How to use security analysis to improve portfolio. *The Journal of Business*, 46(1), 66–86.

Treynor, J.L. (1965). How to rate management of investment funds. *Harvard Business Review, 43*(1), 63–75.

Ünal, G., & Tan, O.F. (2015). Selectivity and market timing ability of Polish fund managers analysis of selected equity funds. *Procedia - Social and Behavioral Sciences*, 411 – 416.

World Health Organization. (2020, October 27). *Coronavirus disease (COVID-19) pandemic*. Retrieved from World Health Organization: https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=Cj0KCQjwit_8BRCoARIsAIx3Rj6f3p87bzaaTXOwyeH22b3CzK_3F0h6R1B9FLjtzilwBdnWcuNu6HUaAjbNEALw_wcB