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A Comparative Analysis of Equity and Balanced Unit Trust Funds before and During COVID-19 Pandemic

Norhamiza Ishak, Minah Japang, Jude Woryanta Taunson
Labuan Faculty of International Finance, Universiti Malaysia Sabah Kampus Antarabangsa Labuan, Labuan

Abstract
This paper aims to examine the comparative performance of equity and balanced unit trust funds before and during the COVID-19 pandemic, which is from January 2014 to December 2018 and January 2019 to December 2020. To achieve the aforementioned study objective, the study conducted by using three model measures, Sharpe, Treynor and Jensen's alpha Index. The findings of this study carry out the COVID-19 pandemic does not affect the performance of equity and balanced unit trust funds. Investors gain a return from equity funds and balanced funds into a well-diversified domestic investment portfolio. To be concluded that unit trust funds help investors to put their money in different baskets of investment avenues to minimize the risk of loss of money, especially during a turbulent market. Future studies may investigate the features of fixed-income-based unit trusts, such as government and corporate bonds with commercial and social goals and as a mechanism for promoting environmental, social and governance (ESG) considerations towards establishing a low-carbon economy.
Keywords: Equity, Balanced, Sharpe, Treynor, Jensen's Alpha, COVID- 19 Pandemic

Introduction

Pandemic COVID-19 severely impacted the global economy, business operations and social development, jeopardizing the national productivity index, particularly in international tourism revenue. Financial market responses are implied by a sharp decrease in foreign direct investments as shown in the downward trend of some financial assets performances such as sovereign bonds, commodities index and major exchange rates (Ishak et al., 2021). This pandemic leads to adverse impacts and managerial challenges for both fund managers and investors alike. Surprisingly, the unit trust funds have increased to 721 funds as of July 2021 update, with the skyrocketing growth of overall funds managed by 41 existing establishments in fund management companies as reported by (The Securities Commission Malaysia, 2021). These figures represent Net Asset Value (NAV) of RM11.7 billion in 1990 which increased to RM296.36 billion in 2014, RM329 billion in 2017, RM338.711 billion in 2019 and RM366.78 billion in 2020 showing a growth rate of 46.14% to RM536 billion as of 2021 which shows a tremendous growth of the fund industry for the last 62-years. Unit trust funds in Malaysia feature seven categories of unit trust including equity funds, fixed-income funds, money

market funds, real estate investment trusts (REIT), exchange-traded funds (ETF), balanced funds and Syariah funds (Sobri, 2007). To be specific this study, however, would focus on two categories of funds, namely equity funds and balanced trust.

Generally, equity funds and balanced unit trust funds provide diversified investment in multiple asset classes. For instance, it's consisting of currency deposits, short-term cash placements, repo, and futures (equity funds), fixed-income securities, equities, bonds, and cash (balanced funds). The goal and the strategy of these funds are to concentrate the securities and assets of listed companies on domestic and international markets. These two-unit trust funds are closed-end funds with higher capital growth of medium-to-long-term with terms of 3 to 5 years, focusing on the specific region. Thus, the advantages of these unit trust funds provide opportunities for individual investors with minimum investment amount, are professionally managed, enhancement of investor risk, easy access to specialized markets and overseas opportunities and liquidity. On the other side, investing in these funds expose investors to a slight fall in the manageable risk of loss of control, fees, and opportunity cost (Sabri, 2007; Lam, 2008).

This study was driven by the limited studies examining a comparison between two market performances and two types of unit trust (equity funds and balanced trust) in Malaysia. Selvam and Tunggal (2021) stress the limitation of the study-the duration which spans only six months from January 2020 to July 2020 during the COVID-19 pandemic and the small number and asset classes of funds selected. Shanmugam and Ali (2021) scope the limitation on analyzing the performance by using the Sharpe ratio and Treynor's with the consideration of the performance of unit trust during the pandemic situation. Furthermore, previous studies show the mixed result of equity and fixed income unit trust during global financial crises (Abdullah et al., 2007; Kassim & Kamil, 2012; Omri et al., 2019) whilst Islamic fixed income unit trust outperform compared to conventional equity unit trust (Alam et al., 2016; Boo et al., 2017; Alwi et al., 2019; Kamil et al., 2021). Thus, our study is narrowed to examine two market performances, pre-and during the COVID-19 pandemic impact on equity trust and balanced unit trust. Two research objectives include (i) examining the impact of pre-COVID-19 and during the COVID-19 pandemic on the performance of equity unit trust funds and balanced unit trust funds by using the Treynor, Sharpe and Jensen Index performance measure and (ii) comparing the performance of equity unit trust fund and balanced unit trust fund pre-COVID-19 pandemic and during COVID-19 pandemic. Next, it covers daily period data of net value asset (NAV) of funds provided by the DataStream platform in 2 sample periods of approximately 5 years and 2 years respectively, from January 2014 to December 2018, and from January 2019 to December 2020.

Literature Review

An early study on the pandemic COVID-19 impact on the Malaysian unit trusts market can be traced to Selvam and Tunggal (2021) who examined the performance of two-unit trust funds categorized as equity and fixed income fund. It implies a mixed performance of the selected funds, whereby only a small number of funds outperformed the market index, with a record of the daily return of fixed-income funds is 0.0171% and it outperformed the KLCI market index by -0.0445%. The performance, however, was lower than treasury bills by 0.3406%. In contrast, within the same study period, the average return for equity unit trust funds shows a negative value of -0.0195%, which is higher than the KLCI market index by -0.0445% and

lower than treasury bills by 0.3406%. Using a simple explanation, it represents that 10 out of 16 equity unit trust funds outperformed the market benchmark during the pandemic period. A high value of alpha indicates more skill for the investment manager facing the market index and it displays a superior stock pricing skill of a manager. In contrast, a negative alpha value does show the inability of the fund manager in picking stock and the return of the portfolio does not reach the required return.

The point of using the Sharpe ratio and Treynor's was driven by the study by Lai and Lau (2010) investigating the performance of 311 government and private unit trusts from January 1990 to December 2005. The replicate model of using Sharpe, Treynor and Jensen in their study found that there are two performances of unit trust which during (i) super-bull run in the Malaysian stock market in 1993 contributed to the superior mutual fund performance especially equity funds due to the stable political and strong economic environment of the country as well as the inflow of worldwide liquidity into the region whilst unit trust was badly affected by the Asian financial crisis in 1997 in which recorded negative of 42.92% annualized returns. The net asset value (NAV) of the mutual fund had fallen from RM59.96 billion in 1996 to RM33.57 billion in 1997.

Based on Abdullah and Shari (2019), the performance of fixed-income and equity funds from the year 2006 to 2012 indicates that 19 out of 20 fixed-income unit trust funds in Malaysia have outperformed the KLCI index by 0.0014 and Maybank 12-month fixed deposit rate of 0.0001 respectively. Whilst, Public Institutional Bond provides the highest Treynor value of 0.2201, as for the Sharpe measure, all funds outperformed the market index by 0.069. The overall performance shows that equity trust funds have a lower total risk and systematic risk than the market and the top 20 equity funds outperformed the KLCI in both Sharpe and Treynor measures. Jensen alpha analysis resulting in seven funds indicates that the portfolio managers are good at timing the market or selecting unit trust funds. The study finding argument could benefit both investors and fund managers in their asset allocation strategy and decision-making on which funds to be included to improve portfolio performance.

Another study by Wah (2013) evaluates the investment performance of 26 Malaysian-based international equity funds from 2008 to 2010 by using Treynor and Jensen Index measure and found that the overall performance indicates that international equity funds, on average, do not yield positive returns regardless of whether performance is measured against the domestic equity index or the MSCI World Index. This performance is due to managers of international equity funds having positive selectivity ability and associated with poor or negative market timing return. The study argues that investors do not gain from adding international equity funds into a well-diversified domestic equity portfolio.

Simultaneously, a study by Shanmugam and Ali (2021) analyzes the performance of the mutual fund industry in India due to the COVID-19 pandemic from December 2019 to May 2020, have found that NAV under services sectors such as the financial sector, healthcare, technology, FMCG services, energy and automobile sector has relatively higher returns but experienced high volatility during the COVID-19 pandemic. It can be concluded this performance depends on the stimulus packages and the behavioural aspects of the investors as people will tend to adapt themselves to emerging challenges

Looking at the business and financial dynamism adjustments to the pandemic COVID-19 outbreak, this study strives to evaluate how the equity unit trust funds and balanced unit trust funds perform in the Malaysian financial market setting. The research gap between this study and previous studies can be concluded by bringing out a more comprehensive study and merely focusing on a comparative analysis of the performance of 2-unit trust funds before the pandemic outbreak and during the pandemic period. The purpose of this study is to find out up-to-date research and to carry out a complete study regarding the performance of the equity unit trust fund, and balanced unit trust fund, using Sharpe measure, Treynor measure, and Jensen's Alpha and COVID-19.

Research Methodology

The dataset was obtained from DataStream, Bank Negara Malaysia, 2021 website and Security Commission Malaysia (SCM), the data consists of 300 above funds along with 30 asset management companies. However, after filtering the data, there are 219-unit trust funds complete data from January 2014 until December 2020. The sample data segregated into two groups which is started from January 2014 until December 2018, and from January 2019 until December 2020. The FTSE Bursa Malaysia KLCI was chosen as our benchmark from January 2014 until December 2020 (Investing, 2021). In treasury bills, a 90-day Malaysian Treasury Bills rate (3-months) represents the market return and risk- free rate in this study.

Among 219-unit trust funds, there are 166 equity unit trust funds and 53 balanced unit trust funds obtained in the study. There are few criteria used in the fund selections: (1) Two different sample periods; (2) it is a listed unit trust fund on Securities Commission Malaysia; (3) complete data for 5 years, and (4) not new launched funds. In this study, it focused on the equity unit trust funds and balanced unit trust funds in Malaysia. The chosen sample period is 5 years at first and follows up with 2 years because the result computed is more reliable and trustworthy to the investors. New launched funds have been excluded due to the funds not being that stable and effective compared to a period more than 5 years recently issued in this study.

In order to answer the first objective of this study, the returns and risks of the sample are calculated. There are three performance measures used to calculate their returns. There are (Treynor, 1965; Sharpe, 1966; Jensen, 1968). Treynor (1965) analyses the performance of 57 open-ended unit trust funds covering the period of 1953 to 1962. The findings reveal that investors in unit trust funds rely on the variability of the market index. He concludes that fund managers of the 57 funds do not outperform the market. The Treynor ratio uses a systematic risk component of the portfolio's return as measured by (β_i) (portfolio's beta coefficient) in relation to market portfolio's return. It also evaluates the ability of a portfolio to get an excess return that has been adjusted for systematic risk. The Treynor ratio is quite similar to the Sharpe ratio except for risk evaluate. The Treynor ratio can be calculated as follows:

$$T_i = \frac{R_i - R_f}{\beta_i} \qquad (1)$$

Where:

R_i = average return on fund i

R_f = average return on Malaysian 3-month Treasury Bills (the risk-free rate of return)

β_i = Beta of the unit trust fund over the evaluation period or the slope of the fund's characteristic line during the selected period (indicating the fund's relative volatility)

Since the reported Treasury bill rate is an annualized holding period yield on a 3-month Treasury bill, this rate is converted to a weekly equivalent, consistent with the weekly returns of the unit trust funds and the market's return. Essentially, the formula to compute the estimation of daily equivalents of the annualized yield $(1 + \text{Annualized Yield})^{1/360} - 1$ as a geometric mean. Sharpe (1966) proposes a composite measure to evaluate performance of unit trust funds. Rather than just looking at systematic risk (β_i), total risk of the portfolio represented by standard deviation of return is utilized (Reilly & Brown, 2009). The Sharpe ratio utilizes a standard deviation which evaluates the total risk including systematic risk and unsystematic risk while Treynor ratio only uses the component of systematic risk. Meanwhile, Sharpe ratio is a measure of excess return per unit of risk. It measures reward-to-risk of a portfolio. Higher Sharpe ratio indicates better risk-adjusted performances of the unit trust funds. Therefore, the ratio looks at both, returns and risk, and delivers a single measure that is proportional to the risk-adjusted returns. It is also considered to be useful for investors as it could evaluate fund performance by looking at the amount of risk involved. Even though a particular fund could present superior return, it would only be regarded as superior investment if there is less risk involved to generate such return. Higher Sharpe ratio indicates better risk-adjusted performances of the fund. If the Sharpe ratio is negative, it indicates that a risk-less asset would be a better option than the analyzed fund scheme. The formula to measure the Sharpe ratio is as follows:

$$S_i = \frac{R_i - R_f}{\sigma_i} \qquad (2)$$

Where:

R_i = average return on fund i
R_f = average return on Malaysian 3-month Treasury Bills
σ_i = standard deviation (total risk) of returns for fund

The average weekly returns of fund i (R_i) for Treynor and Sharpe are calculated based on the following formula:

$$R_{it} = \frac{NAV_{it} - NAV_{it-1}}{NAV_{it-1}} \qquad (3)$$

Where:

R_{it} = Return of fund i in period t
NAV_{it} = Net Asset Value of fund i in period t
NAV_{it-1} = Net Asset Value of fund i in period t-1

Jensen's (1968) performance measure is based on the capital asset pricing model (CAPM). Both Treynor and Sharpe performance measure only provide relative performance rankings (Reilly & Brown, 2009). A major advantage of Jensen method is that it corrects for market risk and primarily evaluates security selection skill, market timing skill or the combination of the skills of the fund manager. It is also easy to understand and to interpret the results. For example, an alpha value of 0.03 indicates that the fund has generated a return of 3% under the period of evaluation. The equation below is used to measure the Jensen index:

$$R_{it} - RFR = \alpha_i + \beta_i(R_M - RFR) + \check{e}_{it} \qquad (4)$$

Where:

$R_{it} - RFR$ = Excess return of portfolio i in period t
$(R_M - RFR)$ = Excess return of market portfolio proxied by KLCI index
α_i = Jensen's alpha to measure portfolio performance
β_i = The systematic risk (beta) for Portfolio i
$\check{e}_{it}$ = The random error terms

The $\alpha_i$value indicates whether the portfolio manager is superior or inferior in market timing and or stock selection to beat the market. A significant positive $\alpha_i$indicates that a fund has superior performance because of consistent differences as the fund manager has the ability to beat the market with his stock picking skills. Meanwhile, a significant negative $\alpha_i$provides inferior performance of funds because its return is not above the expectation of capital asset pricing model that results in consistent negative differences (Lai & Lau, 2010). The higher the value of a fund means the better the performance of it. As for a retail investor, the $\alpha_i$value is significant because it measures the excess returns a fund generates in relation to the returns generated by its benchmark.

The average weekly risks of fund i for Treynor and Sharpe are calculated based on the following formula. The equation of standard deviation is shown:

$$\text{Standard Deviation}, \sigma = \sqrt{\frac{\sum(R - \bar{R})^2}{(n-1)}} \qquad (5)$$

Where:
σ = The Standard deviation on portfolio i
R = Return of a fund
$\bar{R}$ = Mean Return of the fund
n = Number of daily returns

There are two ways to measure risk in this study. The said measures are standard deviation and beta. As mentioned above, standard deviation evaluates the total risk of the funds. For the calculation of systematic risk(β_i),, the slope coefficient, in the regression of the fund rate of return on the market rate of return is used. Similarly, it is calculated by dividing the covariance of the fund returns and the market returns by the standard deviation:

$$\beta_{(\text{fund i})} = \text{Cov}_{(\text{fund i,KLCI})}/\sigma^2_{\text{KLCI}} \qquad (6)$$

Weekly returns on the KLCI are used as benchmarks to proxy for the market returns.

Results and Discussion of Findings

Table 1 indicates the daily performance of the risk adjusted returns of the top 20 equity unit trust funds from January 2014 until December 2018 while Table 2 shows the daily performance of the risk adjusted returns of the top 20 equity unit trust funds from January 2019 until December 2020. Next, Table 3 has indicated the daily performance of the risk adjusted returns of the top 20 balanced unit trust funds from January 2014 until December 2018 and Table 4 indicates the daily performance of the risk adjusted returns of the top 20 balanced unit trust funds from January 2019 until December 2020. In both equity unit trust funds and balanced unit trust funds, FTSE Bursa Malaysia KLCI was chosen as the market benchmark, using the Malaysia 90-day Treasury Bills (3-months). Table 5 implies a t-test for

Equity unit trust fund and Balanced unit trust fund based on the risk-adjusted performance. (January 2019 to December 2020).

Based on Table 1 above, from January 2014 to December 2018, the average mean returns for equity unit trust funds carried out 0.0003% which is higher than the FTSE Malaysia KLCI market benchmark (-0.0001%). However, the average mean returns are lower than Malaysia 90-day T-Bill 0.0085%. Among 20 equity unit trust funds, all funds have outperformed the market benchmark. During this study period, all equity unit trust funds show positive average daily return. For instance, the funds with high average daily return which are Manulife India Equity MYR, Principal China-India-Indonesia Opportunities, Principal Greater China Equity MYR, and Am Pan European Property Equities along with the returns of 0.0007%, 0.0005%, 0.0005%, and 0.0005%.

Table 1
Daily Performance of Top 20 Equity Unit Trust Funds: From January 2014 until December 2018.

Equity unit trust fund	Mean %	SD %	Sharpe	Beta	Treynor	Jensen
MANULIFE INDIA EQUITY MYR	0.0007	0.0097	0.0632 (1)	0.3645	0.0017 (3)	0.0007 (1)
PRINCIPAL CHINA-INDIA-INDONESIA OPPORTUNITIES	0.0005	0.0086	0.0442 (2)	0.6036	0.0006 (17)	0.0005 (3)
RHB ASIAN TOTAL RETURN	0.0003	0.0044	0.0433 (3)	-0.2065	-0.0009 (19)	0.0002 (20)
PRINCIPAL GREATER CHINA EQUITY MYR	0.0005	0.0098	0.0432 (4)	0.5669	0.0008 (6)	0.0005 (2)
RHB CHINA-INDIA DYNAMIC GROWTH	0.0004	0.0085	0.0423 (5)	0.4435	0.0008 (5)	0.0004 (4)
AM PAN EUROPEAN PROPERTY EQUITIES	0.0005	0.0101	0.0362 (6)	0.2237	0.0016 (4)	0.0004 (6)
PRINCIPAL ASIA TITANS	0.0003	0.0076	0.0342 (7)	0.5416	0.0005 (9)	0.0003 (7)
AM GLOBAL PROPERTY EQUITIES	0.0003	0.0074	0.0332 (8)	0.0969	0.0025 (2)	0.0003 (11)
RHB ASIAN REAL ESTATE	0.0004	0.0101	0.0328 (9)	0.6053	0.0005 (8)	0.0004 (5)
MANULIFE INVESTMENT U S EQUITY MYR	0.0003	0.0088	0.0293 (10)	0.0720	0.0036 (1)	0.0003 (10)
PRINCIPAL ISLAMIC ASIA PACIFIC DYNAMIC EQUITY	0.0003	0.0076	0.0264 (11)	-0.0116	-0.0172 (20)	0.0002 (18)
AFFIN HWANG SEL ASIA (EX JPN) OPPTY MYR	0.0002	0.0064	0.0257 (12)	0.4425	0.0004 (13)	0.0002 (17)
PRINCIPAL ASIA PACIFIC DYNAMIC INCOME MYR	0.0003	0.0074	0.0255 (13)	0.4796	0.0004 (10)	0.0003 (12)
AM MALAYSIA EQUITY	0.0002	0.0061	0.0233 (14)	0.7726	0.0002 (18)	0.0003 (15)
AM CUMULATIVE GROWTH	0.0003	0.0080	0.0233 (15)	0.5929	0.0003 (15)	0.0003 (9)

EASTSPRING INVESTMENTS DINASTI EQUITY	0.0003	0.0088	0.0209 (16)	0.4911	0.0004 (12)	0.0003 (13)
MANULIFE INVESTMENT GREATER CHINA	0.0003	0.0110	0.0207 (17)	0.6880	0.0003 (14)	0.0003 (8)
EASTSPRING INVESTMENTS ASIA PACIFIC EQUITY MY	0.0002	0.0080	0.0191 (18)	0.6465	0.0002 (17)	0.0002 (16)
EASTSPRING INVESTMENTS GLOBAL EMERGING MARKETS	0.0002	0.0086	0.0190 (19)	0.6217	0.0003 (16)	0.0003 (14)
PRINCIPAL GLOBAL TITANS MYR	0.0002	0.0073	0.0176 (20)	0.3272	0.0004 (11)	0.0002 (19)
Average	0.0003	0.0082	0.0312	0.4181	-0.0001	0.0003
KLCI	-0.0001	0.0057	-0.0249	1.0000	-0.0001	0.0000
T-bills	0.0085	0.0006	13.9105	-0.0014	-5.7778	0.0084

From standard deviation, the coverage from 0.0044% to 0.0110% with an average of 0.0082%. The KLCI market benchmark shows a 0.0057% and it implies the average standard deviation outperformed the market benchmark. The result shows that all funds are having a positive standard deviation value. Four equity unit trust funds with high value of standard deviation are Manulife Investment Greater China, RHB Asian Real Estate, Am Pan European Property Equities, and Principal Greater China Equities MYR along with 0.0110%, 0.0101%, 0.0101%, and 0.0098%. The results indicate that it is slightly riskier for investors to invest in these funds.

In Sharpe measure, the average ratio for all equity funds is 0.0312 and the value is higher than the KLCI benchmark, (- 0.0249). All funds outperformed the market benchmark because the funds have a positive Sharpe value which exceeds the KLCI market benchmark, (-0.0249). A positive value of Sharpe measure shows a good ability of a fund manager in diversifying the investments and bringing a better risk-adjusted performance for the unit trust funds. The top 4 ranking of funds are Manulife India Equity MYR, Principal China-India-Indonesia Opportunities, RHB Asian Total Return, and Principal Greater China Equity MYR along with 0.0632, 0.0442, 0.0433, and 0.0432. The result indicates that all equity unit trust funds are worthy to invest during the study period, from January 2014 to December 2018.

From the perspective of systematic risk (total risk), the coverage from -0.2065 to 0.6880 with an average of 0.4181. Am Malaysia Equity fund having the highest systematic risk with a beta value of 0.7726 while the RHB Asian Total Return has the lowest systematic risk with beta value of (-0.2065). In Treynor measure, the average ratio for all equity funds is (-0.0001) and the value is the same as the KLCI benchmark, (-0.0001). There are 18 equity unit trust funds that have a positive Treynor value while there are 2 equity unit trust funds that have a negative Treynor value. The top 4 ranking funds are Manulife Investment U S Equity MYR, Am Global Property Equities, Manulife India Equity MYR, and Am Pan European Property Equities along with 0.0036, 0.0025, 0.0017, 0.0016. In contrast, RHB Asian Total Return and Principal Islamic Asia Pacific Dynamic Equity have a negative value of (-0.0009) and (-0.0172). A positive value of Treynor shows a fund manager has a better market timing relative to the total risk,

meanwhile a negative value of Treynor shows that the fund manager has a poor market timing ability. It shows that the portfolio of 18 equity unit trust funds is more suitable for investors to invest during the study period.

In Jensen's Alpha, all equity unit trust funds have outperformed the alpha of the KLCI benchmark. The average alpha is 0.0003 which exceeds the KLCI market benchmark 0.0000. According to the table above, the results show that all equity unit trust funds have a positive alpha value with the highest value 0.0007 from Manulife India Equity MYR. A positive alpha value indicates the fund manager has ability in picking superior stock for the investors which bring an outperformed return of the funds. In contrast, the lowest Jensen's Alpha value of a fund goes to RHB Asian Total Return with 0.0002. Hence, all equity unit trust funds have an excellent result against the market benchmark and indicate that all funds are reasonable to invest.

In general, during the study period, from January 2014 to December 2018, the equity unit trust funds have outperformed by comparing the market benchmark, average daily return, systematic risk, Sharpe measure, Treynor measure, and Jensen's Alpha with a majority positive value of results. Thus, it can be concluded that the performance of funds is considered stable and worthy for investment.

Based on Table 2 above, from January 2019 to December 2020, the average mean returns for equity unit trust funds carried out 0.0659% which is higher than the FTSE Malaysia KLCI market benchmark 0.0000% and higher than Malaysia 90-day T-Bill 0.0072%. Among 20 equity unit trust funds, all funds have outperformed the market benchmark because all values have exceeded 0.0000. During this study period, all equity unit trust funds show positive average daily return. The fund with the highest average daily return is KAF Vision with 1.2966%. Next, the lowest average daily return goes to 0.0008% and exceeded the market benchmark.

Table 2
Daily Performance of Top 20 Equity Unit Trust Funds: From January 2019 until December 2020

Equity unit trust fund	Mean %	SD %	Sharpe	Beta	Treynor	Jensen
KAF VISION	1.2966	0.2418	5.3623 (1)	1.4733	0.8801 (1)	1.2967 (1)
KAF TACTICAL	0.0013	0.0086	0.1453 (2)	0.6202	0.0020 (5)	0.0013 (7)
KAF CORE INCOME	0.0014	0.0120	0.1138 (3)	0.9332	0.0015 (12)	0.0014 (3)
KAF JADE	0.0012	0.0107	0.1100 (4)	0.4821	0.0024 (3)	0.0012 (10)
INTER PAC DANA SAFI	0.0014	0.0126	0.1070 (5)	0.4204	0.0032 (2)	0.0014 (5)
KENANGA OA INV- KENANGA GROWTH OPPORTUNITIES	0.0016	0.0153	0.0973 (6)	1.0402	0.0014 (13)	0.0016 (2)
KENANGA OA INV- KENANGA SHARIAH OPPORTUNITIES	0.0014	0.0141	0.0947 (7)	0.9359	0.0014 (14)	0.0014 (4)

AFFIN HWANG SEL ASIA (EX JPN) OPPTY MYR	0.0009	0.0091	0.0924 (8)	0.4848	0.0017 (9)	0.0009 (17)
MANULIFE CHINA EQUITY	0.0011	0.0117	0.0922 (9)	0.6093	0.0018 (7)	0.0011 (12)
PHILLIP MASTER EQUITY GROWTH	0.0012	0.0127	0.0909 (10)	0.9363	0.0012 (17)	0.0012 (8)
RHB CHINA-INDIA DYNAMIC GROWTH	0.0010	0.0107	0.0909 (11)	0.5249	0.0019 (6)	0.0010 (15)
EASTSPRING INVESTMENTS DINASTI EQUITY	0.0010	0.0111	0.0860 (12)	0.5402	0.0018 (8)	0.0010 (16)
MANULIFE INVESTMENT GREATER CHINA	0.0010	0.0115	0.0846 (13)	0.5797	0.0017 (10)	0.0010 (14)
PMB SHARIAH TNB EMPLOYEES	0.0013	0.0150	0.0833 (14)	0.8513	0.0015 (11)	0.0013 (6)
RHB BIG CAP CHINA ENTERPRISE	0.0011	0.0124	0.0829 (15)	0.4905	0.0021 (4)	0.0011 (13)
MAYBANK MALAYSIA SMALL CAP	0.0012	0.0143	0.0789 (16)	1.0578	0.0011 (20)	0.0012 (11)
RHB DIVIDEND VALUED EQUITY	0.0009	0.0102	0.0785 (17)	0.5784	0.0014 (15)	0.0009 (18)
HONG LEONG ASIA PACIFIC DIVIDEND	0.0012	0.0151	0.0757 (18)	0.9349	0.0012 (18)	0.0012 (9)
RHB ASIA PACIFIC	0.0008	0.0092	0.0756 (19)	0.5199	0.0013 (16)	0.0007 (20)
PRINCIPAL ASIA TITANS	0.0009	0.0112	0.0705 (20)	0.6586	0.0012 (19)	0.0008 (19)
Average	0.0659	0.0235	0.3556	0.7336	0.0456	0.0659
KLCI	0.0000	0.0093	-0.0086	1.0000	-0.0001	0.0000
T-bills	0.0072	0.0017	4.1576	-0.0082	-0.8673	0.0071

From standard deviation, the coverage from 0.2418% to 0.0086% with an average of 0.0235%. The KLCI market benchmark shows a 0.0093% and it implies the average standard deviation outperformed the market benchmark. The result shows that all funds are having a positive standard deviation value. Four equity unit trust funds with high value of standard deviation are KAF Vision, Kenanga Oa Inv-Kenanga Growth Opportunities, Hong Leong Asia Pacific Dividend, and PMB Shariah TNB Employees along with 0.2418%, 0.0153%, 0.0151%, and 0.0150%. It can be noticed that the funds are slightly riskier for investors to invest.

In the study period, the Sharpe average ratio for all equity funds is 0.3556 and the value outperformed the KLCI benchmark, (-0.0086). All funds outperformed the market benchmark because the funds have a positive Sharpe value which exceeds the KLCI market benchmark, (-0.0086). Thus, a positive Sharpe value indicates the fund manager has a better ability to diversify the investments by bringing a better risk-adjusted performance for the unit trust funds. The top 4 ranking of funds are KAF Vision, KAF Tactical, KAF Core Income, and KAF Jade along with 5.3623, 0.1453, 0.1138, and 0.1100. The result showed that the fund manager in

KAF management companies has a better diversification ability in dealing with the investment funds.

From the perspective of systematic risk (total risk), the coverage from 0.4204 to 1.4733 with an average of 0.7336. KAF Vision fund has the highest systematic risk with a beta value of 1.4733 while the Inter Pac Dana Safi has the lowest systematic risk with beta value of 0.4204. In Treynor measure, the average ratio for all equity funds is 0.0456 and the KLCI benchmark is (-0.0001). All equity unit trust funds have a positive Treynor value and outperformed the market benchmark.

The top 4 ranking funds are KAF Vision, Inter Pac Dana Safi, KAF Jade, and RHB Big Cap China Enterprise along with 0.8801, 0.0032, 0.0024, 0.0021. In contrast, Principal Asia Titans and Maybank Malaysia Small Cap have the lowest value of 0.0012 and 0.0011. A positive value of Treynor shows a fund manager has a better market timing relative to the total risk, and it implies all portfolios of equity unit trust funds are more suitable for investors to invest during the pandemic period.

In Jensen's Alpha, all equity unit trust funds have outperformed the alpha of the KLCI benchmark. The average alpha is 0.0659 which exceeds the KLCI market benchmark 0.0000. According to the table above, all equity unit trust funds have a positive alpha value with the highest value 1.2967 from KAF Vision. A positive alpha value indicates the fund manager has ability in picking superior stock for the investors which bring an outperformed return of the funds. In contrast, the lowest Jensen's Alpha value of a fund goes to RHB Asia Pacific with 0.0007.

In general, during the pandemic period, from January 2019 to December 2020, KAF Vision has an outstanding result, first ranking of Sharpe, Treynor, and Jensen's Alpha which indicates the fund's performance was not affected by the pandemic. In a comparison with before the pandemic period, the equity unit trust funds has outperformed the market benchmark and shows that the performance is not affected by the pandemic.

Based on Table 3 above, from January 2014 to December 2018, the average mean returns for balanced unit trust funds carried out 0.0000% which is higher than the FTSE Malaysia KLCI market benchmark (-0.0001%) but lower than Malaysia 90-day T-Bill 0.0084%. Among 20 balanced unit trust funds, 16 funds have outperformed the market benchmark because all values have exceeded (-0.0001%) and 4 remaining funds underperformed the market benchmark. There are 9 funds that have a negative average daily return. Kenanga Balanced, KAF Dana Alif, Hong Leong Balanced, and Dana Makmur have a negative value of (-0.0001), (-0.0001), (-0.0001), and (-0.0003). There are 11 out of 20 balanced unit trust funds that show a positive average daily return. The fund with the highest average daily return is Eastspring Investments Asia Select Income with 0.0001%.

Table 3
Daily Performance of Top 20 Balanced Unit Trust Funds: From January 2014 until December 2018

BALANCED UNIT TRUST FUND	MEAN %	SD %	SHARPE	BETA	TREYNOR	JENSEN
EASTSPRING INVESTMENTS ASIA SELECT INCOME	0.0001	0.0046	0.0132 (1)	0.2388	0.0003 (2)	0.0001 (2)
AFFIN HWANG SELECT SGD INCOME MYR	0.0001	0.0037	0.0122 (2)	0.0312	0.0015 (1)	0.0000 (3)
EASTSPRING INVESTMENTS DYNAMIC	0.0001	0.0083	0.0022 (3)	0.7790	0.0000 (3)	0.0001 (1)
RHB GOLDEN DRAGON	0.0001	0.0072	0.0009 (4)	0.4106	0.0000 (4)	0.0000 (4)
KENANGA SYARIAH EXTRA	0.0000	0.0043	-0.0111 (5)	0.3618	-0.0001 (7)	-0.0000 (6)
RHB MULTI ASSET REGULAR INCOME	0.0000	0.0049	-0.0120 (6)	0.1018	-0.0006 (19)	-0.0001 (12)
AFFIN HWANG SELECT INCOME	0.0001	0.0026	-0.0130 (7)	0.1031	-0.0003 (13)	-0.0000 (8)
EASTSPRING INVESTMENTS DANA DINAMIK	0.0000	0.0058	-0.0132 (8)	0.6495	-0.0001 (5)	-0.0000 (7)
PHILLIP ASIA PAC INCOME	0.0000	0.0046	-0.0136 (9)	0.2712	-0.0002 (10)	-0.0000 (10)
AFFIN HWANG AIIMAN BALANCED	0.0000	0.0034	-0.0140 (10)	0.3649	-0.0001 (6)	-0.0000 (5)
EASTSPRING INVESTMENTS BALANCED	-0.0000	0.0060	-0.0160 (11)	0.5639	-0.0002 (9)	-0.0000 (11)
TA ASIA PACIFIC ISLAMIC BALANCED	-0.0000	0.0061	-0.0167 (12)	0.2292	-0.0004 (18)	-0.0001 (14)
AFFIN HWANG TACTICAL	0.0000	0.0043	-0.0183 (13)	0.5332	-0.0001 (8)	-0.0000 (9)
PRINCIPAL ISLAMIC LIFETIME BALANCED	-0.0000	0.0041	-0.0213 (14)	0.3729	-0.0002 (11)	-0.0001 (13)
DANA MAKMUR PHEIM	-0.0003	0.0152	-0.0279 (15)	0.4868	-0.0009 (20)	-0.0004 (20)
KENANGA BALANCED	-0.0001	0.0052	-0.0286 (16)	0.4414	-0.0003 (14)	-0.0001 (17)
AFFIN HWANG SELECT BALANCED	-0.0000	0.0039	-0.0314 (17)	0.3318	-0.0004 (17)	-0.0001 (16)
MAYBANK MALAYSIA BALANCED	-0.0000	0.0038	-0.0334 (18)	0.4566	-0.0003 (12)	-0.0001 (15)

HONG LEONG BALANCED	-0.0001	0.0053	-0.0342 (19)	0.5046	-0.0004 (16)	-0.0001 (19)
KAF DANA ALIF	-0.0001	0.0052	-0.0346 (20)	0.4966	-0.0004 (15)	-0.0001 (18)
Average	0.0000	0.0054	-0.0155	0.3864	-0.0002	-0.0001
KLCI	-0.0001	0.0057	-0.0249	1.0000	-0.0001	-0.0001
T-bills	0.0084	0.0006	12.4123	-0.0019	-4.2952	0.0083

From standard deviation, the coverage from 0.0152% to 0.0026% with an average of 0.0054%. The KLCI market benchmark shows a 0.0057% and it implies the average standard deviation underperformed the market benchmark. The result shows that all funds are having a positive standard deviation value. Four balanced unit trust funds with high value of standard deviation are Dana Makmur Pheim, Eastspring Investments Dynamic, RHB Golden Dragon, and TA Asia Pacific Islamic Balanced along with 0.0152%, 0.0083%, 0.0072%, and 0.0061%.

In the study period, the Sharpe average ratio for all balanced funds is (-0.0155) and the value outperformed the KLCI benchmark, (-0.0249). Among 20 balanced funds, 14 out of 20 balanced funds outperformed the market benchmark as the average daily return exceeded (-0.0249). A positive Sharpe value indicates the fund manager has a better ability to diversify the investments by bringing a better risk-adjusted performance for balanced funds. The top 4 ranking of funds are Eastspring Investments Asia Select Income, Affin Hwang Select SGD Income MYR, Eastspring Investments Dynamic, and RHB Golden Dragon along with 0.0132, 0.0122, 0.0022, and 0.0009. The lowest Sharpe value goes to KAF Dana Alif (-0.0346).

From the perspective of systematic risk (total risk), the coverage from 0.0312 to 0.7790 with an average of 0.3864. Eastspring Investments Dynamic fund has the highest systematic risk with a beta value of 0.7790 while the Affin Hwang Select SGD Income MYR has the lowest systematic risk with beta value of 0.0312. In Treynor measure, the average ratio for all balanced funds is (-0.0002) and the KLCI benchmark is (-0.0001). There are 4 out of 20 balanced funds that outperformed the market benchmark, and the remaining 16 balanced funds have a negative Treynor value. The top 4 ranking funds are Affin Hwang Select SGD Income MYR, Eastspring Investments Asia Select Income, Eastspring Investments Dynamic, and RHB Golden Dragon along with 0.0015, 0.0003, 0.0000, 0.0000. In contrast, RHB Multi Asset Regular Income and Dana Makmur Pheim have the lowest value of (-0.0006) and (-0.0009). A positive value of Treynor shows a fund manager has a better market timing relative to the total risk while a negative Treynor ratio implies a poor market timing ability of a mutual fund manager.

In Jensen's Alpha, there are 11 balanced unit trust funds that have outperformed the alpha of the KLCI benchmark (- 0.0001). The average alpha is (-0.0001) which is the same as the KLCI market benchmark (-0.0001). According to the table above, the results show that 11 balanced unit trust funds have a positive alpha value with the highest value 0.0001 from Eastspring Investments Dynamic. A positive alpha value indicates the fund manager has ability in picking superior stock for the investors which bring an outperformed return of the funds. In contrast, the lowest Jensen's Alpha value of a fund goes to Dana Makmur Pheim with (-0.0004).

Based on Table 4 above, from January 2019 to December 2020, the average mean returns for balanced unit trust funds carried out 0.0005% which is higher than the FTSE Malaysia KLCI market benchmark 0.0000% but lower than Malaysia 90-day T-Bill 0.0072%. Among 20 balanced unit trust funds, all funds have outperformed the market benchmark because all values have exceeded 0.0000% and show a positive value of average daily return. The fund with the highest average daily return is RHB Thematic Growth with 0.0009% whereby Phillip Asia Pac Income has the lowest average daily return of 0.0003%.

Table 4
Daily Performance of Top 20 Balanced Unit Trust Funds: From January 2019 until December 2020

BALANCED UNIT TRUST FUND	MEAN %	SD %	SHARPE	BETA	TREYNOR	JENSEN
RHB GOLDEN DRAGON	0.0006	0.0068	0.0806 (1)	0.2905	-0.0228 (20)	0.0006 (6)
KENANGA ISLAMIC BALANCED	0.0005	0.0062	0.0730 (2)	0.4801	-0.0140 (13)	0.0005 (9)
AFFIN HWANG AIIMAN BALANCED	0.0005	0.0064	0.0712 (3)	0.3982	-0.0169 (16)	0.0005 (10)
KENANGA BALANCED	0.0006	0.0074	0.0656 (4)	0.5664	-0.0118 (11)	0.0005 (8)
KENANGA SYARIAH EXTRA	0.0007	0.0104	0.0641 (5)	0.6565	-0.0099 (8)	0.0007 (2)
RHB THEMATIC GROWTH	0.0009	0.0126	0.0629 (6)	0.8795	-0.0072 (2)	0.0009 (1)
PMB SHARIAH TACTICAL	0.0007	0.0096	0.0613 (7)	0.7478	-0.0088 (3)	0.0006 (3)
AFFIN HWANG SELECT BALANCED	0.0004	0.0055	0.0611 (8)	0.3466	-0.0197 (18)	0.0004 (16)
HONG LEONG DANA MAA'ROF	0.0006	0.0100	0.0560 (9)	0.7328	-0.0090 (5)	0.0006 (4)
APEX QUANTUM	0.0006	0.0089	0.0545 (10)	0.5900	-0.0113 (10)	0.0005 (7)
KAF DANA ALIF	0.0004	0.0063	0.0460 (11)	0.4912	-0.0140 (15)	0.0003 (17)
PHILLIP ASIA PAC INCOME	0.0003	0.0055	0.0460 (12)	0.3189	-0.0217 (19)	0.0003 (20)
KAF FIRST	0.0004	0.0064	0.0453 (13)	0.4913	-0.0140 (14)	0.0003 (18)
DANA MAKMUR PHEIM	0.0004	0.0084	0.0439 (14)	0.5284	-0.0129 (12)	0.0004 (12)
APEX DANA ASLAH	0.0005	0.0092	0.0420 (15)	0.7017	-0.0097 (7)	0.0004 (11)
APEX DANA AL-FAIZ-I	0.0004	0.0083	0.0414 (16)	0.6186	-0.0110 (9)	0.0004 (15)
TANA DANA OPTIMIX	0.0006	0.0134	0.0398 (17)	1.0006	-0.0066 (1)	0.0006 (5)
MANULIFE INVESTMENT-HW FLEXI	0.0004	0.0087	0.0397 (18)	0.7115	-0.0096 (6)	0.0004 (14)

EASTSPRING INVESTMENTS DYNAMIC	0.0004	0.0088	0.0396 (19)	0.7689	-0.0089 (4)	0.0004 (13)
TA ASIA PACIFIC ISLAMIC BALANCED	0.0004	0.0075	0.0389 (20)	0.3784	-0.0182 (17)	0.0003 (19)
Average	0.0005	0.0083	0.0536	0.5849	-0.0129	0.0005
KLCI	0.0000	0.0093	-0.0086	1.0000	-0.0073	0.0000
T-bills	0.0072	0.0017	4.1576	-0.0082	0.0004	0.0072

From standard deviation, the coverage from 0.0134% to 0.0055% with an average of 0.0083%. The KLCI market benchmark shows a 0.0093% and it implies the average standard deviation underperformed the market benchmark. The result shows that all funds are having a positive standard deviation value. Four balanced unit trust funds with high value of standard deviation are Tana Dana Optimix, RHB Thematic Growth, Kenanga Syariah Extra, and Hong Leong Dana Maa'rof with 0.0134%, 0.0126%, 0.0104%, and 0.0100%.

In the study period, the Sharpe average ratio for all balanced funds is 0.0536 and the value outperformed the KLCI benchmark, (-0.0086). Among 20 balanced funds, all balanced funds outperformed the market benchmark as the average daily return exceeded (-0.0086) and showed positive Sharpe value. The top 4 ranking of funds are RHB Golden Dragon, Kenanga Islamic Balanced, Affin Hwang Aiiman Balanced, and Kenanga Balanced along with 0.0806, 0.0730, 0.0712, and 0.0656. The lowest Sharpe value goes to TA Asia Pacific Islamic Balanced, 0.0389.

From the perspective of systematic risk (total risk), the coverage from 0.2905 to 1.0006 with an average of 0.5849. Tana Dana Optimix fund has the highest systematic risk with a beta value of 1.0006 while RHB Golden Dragon has the lowest systematic risk with beta value of 0.2905. In Treynor measure, the average ratio for all balanced funds is (-0.0129) and the KLCI benchmark is (-0.0073). There are 2 out of 20 balanced funds that outperformed the market benchmark and the remaining 18 balanced funds have underperformed the KLCI index. All funds show a negative Treynor value, The top 4 ranking funds are Tana Dana Optimix, RHB Thematic Growth, PMB Shariah Tactical, and Eastspring Investments Dynamic along with (-0.0066), (-0.0072), (-0.0088), and (-0.0089). A negative Treynor ratio implies a poor market timing ability of a mutual fund manager. Thus, in the pandemic period, the fund manager has a poor market timing ability towards the funds.

In Jensen's Alpha, all 20 balanced unit trust funds have outperformed the alpha of KLCI benchmark 0.0000 whereby the average alpha is 0.0005. According to the table above, the results show that all balanced unit trust funds have a positive alpha value from range of 0.0003 to 0.0009. The highest value 0.0009 from RHB Thematic Growth. In the pandemic period, the positive alpha value indicates the fund manager has an ability to pick up the superior stock for the investors and it brings an outperformed return of funds.

In general, the balanced unit trust funds have mixed results of performance during pandemic period, the funds are given not performing well in the Treynor measure but outperformed in other variables. An independent sample t-test is executed to determine if there is a significant difference between performance balanced and equity unit trust funds under impact of COVID-19 pandemic, from January 2019 to December 2020. Table 5 shows the results of

independent sample t-test, the mean performance tested was based on the three performance indices of Sharpe, Treynor and Jensen. Among these three performances, 3 measures show there is no significant difference between performance balanced and equity unit trust funds under impact of COVID-19 pandemic.

Table 5

The t-test results for Equity unit trust fund and Balanced unit trust fund based on the risk-adjusted performance. (January 2019 to December 2020)

	Sharpe		Treynor		Jensen	
	Balanced	Equity	Balanced	Equity	Balanced	Equity
Mean	0.0536	0.3556	-0.0129	0.0455	0.0004	0.0659
Variance	0.0002	1.3890	0.00002	0.0385	0.0002	0.0839
Observations	20	20	20	20	20	20
Hypothesized Mean Difference	0		0		0	
Df	38		38		38	
T-Stat	-1.1459		-1.3314		-1.0102	
P(T<=t) two-tail	0.2590		0.1910		0.3188	
T-Critical two- tail	2.0244		2.0244		2.0244	

Notes: ***Significant at level 10%, **Significant at level 5%, *Significant at level 1%.

The results based on both Sharpe measure, Treynor measure, and Jensen alpha revealed that the H0 should be rejected. This is because the t-stat for Sharpe measure is -1.1459, Treynor measure shows -1.3314, and Jensen's Alpha is -1.0102 which is smaller than 2.2044, the critical value. When the t-stat value is a negative value, meaning to say, there is no significant difference between performance balanced and equity unit trust funds under impact of COVID-19 pandemic. Thus, the H1 should be accepted. P-values of Sharpe measure, Treynor measure, and Jensen's Alpha show 0.2590, 0.1910, and 0.3188 which are higher than 0.05. It indicates that there is no significant difference between performance balanced and equity unit trust funds under impact of COVID-19 pandemic in duration of January 2019 to December 2020.

Conclusion

Interestingly the outcome of this study showed that the COVID-19 pandemic does not affect the performance of both equity trust funds or balanced funds. Most of the findings from equity and balanced funds have outperformed the market return benchmarks during COVID-19 compared to before the COVID-19 pandemic outbreak. The fund manager of equity and balanced funds has a positive selectivity ability and is associated with positive market timing

return as supported by Abdullah and Shari (2019). Investors can gain returns from equity funds and balanced funds when involve in a well-diversified domestic investment portfolio. In conclusion, unit trust funds play a crucial role in helping investors to put their money in different baskets of investment avenues and minimizing the risk of net loss or liquidity. However, this study only focused on conventional funds without taking both conventional and Islamic and all asset class funds. Future studies may examine unit trust funds and wholesale funds from a new standpoint, for instance, they may investigate the features of fixed-income-based unit trusts, such as government and corporate bonds with commercial and social goals and as a mechanism for promoting environmental, social and governance (ESG) considerations towards establishing a low-carbon economy.

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