



## Equity Mutual Fund Performance Risk Factors

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### **Abstract**

*This study aimed to look at the factors influencing both traditional and Islamic equities fund performance while analyzing stock fund performance. The population of the study consisted of 300 conventional and sharia mutual funds registered with and disclosed by the Financial Services Authority for the years 2014 to 2018. Additionally, 100 people were selected as the research sample by the purposive technique. Data analysis employed both descriptive and inferential statistics, including multiple regressions, conventional assumption tests, and hypothesis testing. The results of the study show that the performance of conventional stock mutual funds is significantly influenced by conventional stocks, stock selection, market timing, and fund size. Cash flow and fund longevity, however, made no appreciable difference. In contrast, the size and durability of the fund have a significant impact on the performance of sharia mutual funds in the stock market. Meanwhile, there is no noticeable impact from market timing or fund cash flow. This research has several limitations because it was only conducted on the Indonesian capital market and did not account for any potential strengthening or weakening variables. Future research should concentrate on these elements.*

**Keywords: Traditional Stock Mutual Fund, Shariah Stock Mutual Fund, Stock Selection, Market Timing, Fund Longevity, Fund Cash Flow, Fund Size**

### **INTRODUCTION**

Most consumers still want assistance when directly investing in the stock market. The majority of people require more time, education, and experience to invest in stocks directly on the capital market, necessitating substantial understanding in stock selection. Additionally, it takes a considerable amount of work to periodically examine stock progress (Manurung, 2015). Mutual funds are one of the investment solutions available on the capital market, offering the community an alternative to these constraints.

The two forms of investments in mutual funds that Indonesians are familiar with today are conventional and sharia. Conventional and sharia mutual funds differ from one another, just like other categories of financial systems like banking and insurance do. The management of investment goods in accordance with sharia principles, the involvement of the Sharia Supervisory Board (DPS) as the supervisory party, and the creation of an income-based cleansing mechanism that only applies to sharia mutual funds are a few of these peculiarities.

The impact of the distinction between conventional and Islamic mutual funds on investors varies slightly. Due to the implementation of Islamic management principles, which provide more optimal and healthy conditions, Islamic mutual funds typically have higher returns than other types of mutual funds. When compared to traditional mutual funds, investing in Islamic mutual funds typically carries a lesser risk.

Mutual funds will expand well if supported by the Indonesian Capital Market's stable state, which serves as the foundation for portfolio asset allocation and the trend of steadily increasing investment units. The number of mutual fund products, including Net Asset Value (NAV) and Participation Units (UP), both conventional and sharia, which demonstrate strong mutual fund performance, has grown relatively quickly in Indonesia, reflecting the expansion of mutual fund investing. Since 2006, there have been a total of 403 mutual fund products, with a NAV of Rp. 51.620 billion and UP of Rp. 36.140 million. In 2013, there were 785 mutual fund products, with a NAV of Rp. 192.54 billion and UP of Rp. 120.59 million (www.bapepam.go.id, 2018).

According to the data, mutual funds have undergone tremendous growth in recent years, which can generally benefit the Indonesian economy by encouraging investors (the general people) to participate in capital market investment. A rise in public interest is a sign that a mutual fund's performance over a given period has been improving. (Jogiyanto, 2013) states that there are 3 (three) ways to gauge the performance of mutual funds: The Treynor technique uses beta as a divider with a systematic risk; the Sharp method is based on the risk between excess return and standard deviation; and the Jensen method bases measures on CAPM.

Savings and time deposits don't have the same long-term return potential as mutual funds. One of them is equity mutual funds, which manage a portfolio that includes at least 80% of equity securities (shares). Equity funds are the subject of most research since they have a higher growth potential for both investment value and risk. For investors who are familiar with the possibilities of making long-term stock investments, equities mutual funds are a compelling alternative because their NAV composition is higher than that of other mutual fund kinds. Stock mutual funds come in two varieties: traditional and sharia.

According to Net Asset Value (NAV), equities mutual fund growth from 2014 to 2018 is as follows:



Sources : <https://reksadana.ojk.go.id>

**Figure 1. Growth Composition of Equity Mutual Funds 2014-2018**

The growth of traditional equity mutual funds has declined over the 2014–2018 period, according to graph 1.1, whereas the growth of sharia–style stock mutual funds has

fluctuated, with a negative tendency. Traditional equities mutual funds' prior contribution to the total NAV of mutual funds in 2014 was 43.58%, but it dropped to 28.35% in 2018. The total NAV declined by 0.68% over five years to 2.05% in 2018, with Islamic equity mutual funds contributing 2.73% in 2014.

The expansion of money market mutual funds, equity mutual funds, fixed income mutual funds, and mixed mutual funds—all of which are observed to be increasing—is inversely correlated with the growth of conventional and sharia equity mutual funds and suggests issues with the performance of equity funds. Various variables, such as stock selection, market timing, fund lifespan, fund cash flow, and fund size, can impact equity fund performance. Research on stock sharia mutual funds shows that stock selection abilities can negatively impact the performance of stock mutual funds (Mustofa & Kusumawardhani, 2016). Research on traditional mutual funds (Indrawati & Wahono, 2017) demonstrates that stock selection favors the performance of stock mutual funds. The performance of traditional stock mutual funds suffers when market timing is used, according to research (Trisnopati et al., 2015). However, analysis shows that market timing has a favorable impact on the performance of Islamic stock mutual funds (Prasetyo et al., 2017).

The performance of traditional stock mutual funds is notably negatively impacted by fund longevity, according to a number of other research findings (Rachmah & Asrid, 2018). In the meantime, (Rachmah, 2018) demonstrated that the performance of Islamic stock mutual funds is significantly and favorably impacted by the duration of the fund. The performance of traditional stock mutual funds is highly impacted by cash flow, according to research (Bitomo & Muharam, 2016). However, research (Nursyabani & Mahfud, 2016) demonstrates that capital flow has a considerable negative impact on mutual fund performance. According to research (Asriwahyudi, 2017), the performance of traditional stock mutual funds is positively impacted by fund size. While research (Elton et al., 2012) demonstrates that the performance of Islamic stock mutual funds is significantly adversely affected by fund size.

The findings of earlier studies on the impact of stock selection, market timing, fund longevity, fund cash flow, and fund size on the performance of stock mutual funds are inconsistent, as mentioned above. In previous studies (Indrawati & Wahono, 2017; Trisnopati et al., 2015; Rachmah & Asrid, 2018; Bitomo & Muharam, 2016), only the effects of stock selection, market timing, fund lifetime, fund cash flow, and fund size on conventional stock mutual funds were discussed (Asriwahyudi, 2017). When it comes to sharia equity mutual funds, research (Mustofa & Kusumawardhani, 2016), (Prasetyo et al., 2017), (Rachmah, 2018), (Nursyabani & Mahfud, 2016), only explains the effect of stock selection market timing, fund lifetime, fund cash flow, and fund size. The findings of some of these earlier research need to make it apparent how some of these characteristics relate to the performance of traditional and sharia stock mutual funds differently. These five parameters' effects on the performance of mutual funds, including conventional equity funds and Islamic equity mutual funds, will be compared in this study.

## THEORITICAL FRAMEWORK AND HYPOTHESIS

### Valuation Theory

The valuation theory is one of the most important concepts in investing. This theory covers the valuation of invested assets, which can take the shape of both real and financial assets. Stock selection analysis typically uses valuation theory (Manurung, 2015). Three methods are used to determine an asset's value: first, its liquidation value; second, its market value; and third, the cost to purchase the asset. There should be a preference for one of the

three methods mentioned. According to (Baurens, 2010), no one method nor another can be the best or most accurate. As a result, analysts who calculate asset prices must attempt to undertake many estimates in order to obtain a fair one.

### **Modern Portfolio Theory**

In 1950, modern portfolio theory was first presented. This theory, which was the first to address return and risk, makes use of fundamental statistical measurements—expected return, standard deviation of securities or portfolios, and correlation between returns—to explain portfolios. According to (Tandelilin, 2015), the fundamental idea of portfolio theory is that the risk leader of stand-alone assets will differ from the risk leader of assets included in a portfolio. According to financial theory, investors need a higher rate of return on their investments as the risk of them rises. According to (Markowitz, 2016) in his book *Risk-Return Analysis*, the benefits of risk reduction increase with the number of securities added to the portfolio until a certain point at which the reduction's assistance starts to decline.

### **Stock Mutual Funds**

Stock mutual funds are defined as mutual funds whose portfolio has at least 80% of total assets invested in shares, according to Bapepam-LK Regulation Number IV.C.3. Investments in shares are made by stock mutual funds, which offer a higher rate of return than money market or fixed income mutual funds but also a higher level of risk. Stock mutual funds, in contrast to other stock investments, are restricted to shares of companies that are both legally recognized and listed on the Indonesian or Overseas Stock Exchange. The goal of investing in stock mutual funds is to avoid the headaches associated with stock investing, such as managing stock stores, selecting the best kind of stock, occasionally needing to control stock performance, wanting dividend payments, and investors hoping to make capital gains from rising stock prices. So large and put money into mutual funds for stocks because they want to receive capital gains and bonuses.

### **Sharia Stock Mutual Funds**

The definition of sharia mutual funds (Islamic investment funds) is defined by the National Sharia Council (DSN) fatwa no. 20/DSN-MUI/IV/2001 as mutual funds that function in accordance with the rules and regulations of Islamic sharia, either in the form of agreements between managers or between investors and investment managers (investor representatives). Investment in conjunction with investors. According to (Hidayat, 2011), sharia mutual funds are mutual funds that follow the rules and regulations of Islamic sharia. These rules can be found in contracts between investment managers and investors acting as representatives of the latter or between investors acting as property owners (shahib al-mal). Shahib Al-Mal accompanied by investors. In summary, Sharia mutual funds serve as a platform for investors to contribute money, which investment managers then use to support their securities portfolios in compliance with Islamic Sharia laws and principles.

### **Mutual Fund Performance**

An analysis of the growth and performance of mutual funds that have been managed over a specific time period is called mutual fund performance. To evaluate and ascertain the status of the mutual funds that have been gathered, performance evaluation is required. Investors must understand mutual fund performance because it will affect their choice of investments. Portfolio performance measurement has seen numerous advancements since

the advent of modern portfolio theory (MPT), which describes how logical investors make decisions based on projected returns and risks (Markowitz, 2016).

### **The Effect of Stock Selection on the Performance of Stock Mutual Funds**

A portfolio that offers a high return with a particular degree of risk or a return as anticipated with a low level of risk will be assembled by the investment manager (Markowitz, 2016). However, even though the shares are tiny and not considerable, investment managers have the ability to select which ones to trade (Ahmad & Samajpati, 2010). Research empirically supports the claim that stock selection improves mutual fund performance (Putri & Haryanto, 2014). According to research by (Trisnopati et al., 2015), stock selection significantly improves the performance of stock mutual funds. Similarly, studies conducted by (Saputro, 2016; Indrawati 2017) also discovered evidence supporting the positive impact of stock picking abilities on mutual fund performance.

It is plausible to assume that stock selection significantly and favorably affects the performance of stock mutual funds based on the findings of earlier research. As a result, hypothesis 1 was developed in the study:

H1a: The performance of stock mutual funds is significantly improved by stock selection.

H1b: The performance of Sharia stock mutual funds is significantly improved by stock selection.

### **The Impact of Market Timing on Stock Mutual Fund Performance**

#### **The Impact of Market Timing on Stock Mutual Fund Performance**

The ability to forecast changes in stock prices allows an investment manager to structure his portfolio to yield returns that are higher than the market return. This talent is known as market timing ability. (Azis et al., 2022), who demonstrates that market timing ability has a favorable and significant effect on the performance of conventional stock mutual funds, explains the impact on the performance of stock mutual funds. (Putri & Haryanto, 2014) provides an explanation of research findings that are also pertinent, stating that there is a notable favorable impact of market timing on mutual fund performance. Studies by (Mustofa & Saputro, 2016) demonstrate that market timing has a noteworthy and favorable impact on mutual fund performance. In the meantime, research by (Mansor & Bhatti, 2011) on Sharia-type stock mutual funds demonstrates that market timing improves Sharia mutual fund performance.

It is thought that market timing ability significantly and favorably influences the performance of stock mutual funds based on the findings of earlier study. Consequently, research hypothesis number two was developed for the study:

H2a: Traditional stock mutual fund performance is significantly improved by market timing.

H2b: Market timing significantly improves the success of mutual funds that invest in Sharia stocks.

### **The Impact of Fund Duration on Stock Mutual Fund Performance**

A mutual fund's age tells you when it began to trade on the capital market. Longer-lived mutual funds are preferred by many investors since they are thought to have a longer track record and can thus offer a more accurate picture of performance (Akbarini, 2011). While (Aim, 2010), provided an explanation of the effect of fund longevity on stock mutual fund performance, demonstrating that fund age can account for investing policy-specific fund performance. According to (Winingrum's, 2011) research, the performance of

conventional and Sharia equities mutual funds is positively and significantly impacted by the age of the funds. Fund age can positively impact stock mutual fund performance, according to research by (Ahmad et al., 2017) on sharia-compliant mutual funds. (Webster, 2022) found that the performance of traditional stock mutual funds is significantly improved by fund longevity. Additionally, (Bitomo and Muharam, 2016) demonstrate that mutual fund performance is positively impacted by mutual fund age.

It is thought that fund longevity significantly improves stock mutual fund performance, based on the findings of earlier studies. As a result, research hypothesis 3 was developed for the study:

H3a: Traditional stock mutual fund performance is positively impacted by fund lifetime.

H3b: The performance of Sharia stock mutual funds is significantly enhanced by the duration of the fund.

### **The Effect of Fund Size on Stock Mutual Fund Performance**

A mutual fund's size is a good indicator of its overall market capitalisation. Mutual funds perform better when they manage large amounts of assets. According to (Elton & Gruber, 2012), a larger fund size will increase the risks that smaller businesses must deal with. Empirically, (Aim, 2010 ; Jusoh 2012) were able to demonstrate that fund size has a major impact on stock mutual fund performance. According to (Nursyabani & Mahfud, 2016), fund size has a favorable impact on sharia-type stock mutual fund performance. The findings of (Asriwahyuni's, 2017) study indicate that the performance of traditional stock mutual funds is positively impacted by fund size.

Fund cash flow is thought to have a major beneficial impact on stock mutual fund performance, based on the findings of prior studies. Consequently, research hypothesis number five was developed for the study:

H5a: The performance of mutual funds that invest in traditional stocks is significantly enhanced by fund size.

H5b: Sharia stock mutual fund performance is significantly improved by fund size.

### **The Influence of Stock Selection, Market Timing, Fund Longevity, Fund Cash Flow and Fund Size on the Performance of Stock Mutual Funds**

According to (Alexandri's, 2015) research, traditional stock mutual fund performance is positively impacted by stock selection. In the meantime, (Mustofa & Kusumawardhani, 2016) demonstrate that the performance of Sharia stock mutual funds is negatively impacted by stock selection. With respect to model timing, (Saputro's, 2016) study revealed a strong positive correlation between market timing and the performance of traditional stock mutual funds. The study also looked at the impact of market timing on the performance of these funds. However, (Prasetyo et al., 2017)'s research findings provide evidence that market timing negatively impacts the performance of mutual funds that invest in stocks of the Sharia type.

According to (Webster, 2002), fund longevity significantly improves the performance of mutual funds that invest in conventional stocks. In the meantime, the findings of (Afza & Rauf, 2018) study demonstrate that fund age has a detrimental impact on Sharia stock mutual fund performance. (Bitomo & Muharam, 2016) discovered evidence in their research that fund cash flow positively impacts mutual fund performance. Conversely, the findings of (Nursyabani & Mahfud, 2016) demonstrate that cash flow has a major detrimental impact on Sharia stock mutual fund performance. According to research findings by (Asriwahyuni,

2017), the size of a mutual fund positively affects the performance of conventional stock mutual funds. In the meantime, there is evidence from (Elton & Gruber, 2012) research that fund size has a detrimental impact on Sharia mutual fund performance.

Several of these elements significantly improve the performance of stock mutual funds, according to the findings of earlier studies. Consequently, research hypothesis number six was developed for the study:

H6: The performance of conventional and Sharia stock mutual funds differs in the ways that stock selection, market timing, fund longevity, fund cash flow, and fund size affect performance.

### RESEARCH METHOD

247 conventional stock mutual funds and 55 sharia stock mutual funds that were registered and made public by the Financial Services Authority between 2014 and 2018 made up the study's population. This study employed purposive sampling to define sample units due to the huge number of samples, resulting in the selection of 60 samples for stock mutual funds and 40 samples for sharia stock mutual funds.

The ability of the investment manager to select the appropriate shares for the portfolio is represented by independent variable 1. Treynor-Mazuy's formula for stock selection skill,  $R_p - R_f = \alpha + \beta (R_m - R_f) + \gamma (R_m - R_f)^2 + \epsilon_p$ , is used to measure stock selection skill (Muhardi, 2010). The ability of the investment manager to manage the portfolio in terms of foreseeing changes in the market is known as market timing, or independent variable 2. Treynor-Mazuy's method for calculating market timing is as follows:  $R_p - R_f = \alpha + \beta (R_m - R_f) + \gamma (R_m - R_f)^2 + \epsilon_p$  (Manurung, 2015).

The third independent variable, fund longevity, is a numerical category that indicates how old each mutual fund is based on the date it was last actively traded. The research period is subtracted from the effective date to determine the fund's lifetime. (Akbarini, 2014) said. Money As the fourth independent variable, cash flow is a report that offers pertinent details regarding a business's cash inflows and outflows over a specific time frame. According to Harap (2014), fund cash flow is calculated as follows:  $NCF = (TNA_{p,t} - TNA_{p,t-1} * (1 + R_p,t)) / (TNA_{p,t-1})$ . The dependent variable in this analysis is mutual fund performance, which is determined by dividing the market risk premium by the standard deviation and calculating the slope of the CML. Sharpe ( $S_{pt}$ ) =  $(R_{pt} - R_f) / \sigma_p$  is a measure of mutual fund performance (Markowitz, 2016).

An summary of the distribution of observation data is given by descriptive statistics. Descriptive statistics are used in this study to calculate the average, maximum, minimum, and standard deviation values using descriptive parameters. to use numerous linear regression equations and inferential statistics to determine the relationship between the observed variables. The standard assumption tests are used in the goodness of model test. These include the normality test, which employs Kolmogorov-Smirnov parameters; the multicollinearity test, which employs variance inflation factors (VIF) and tolerance parameters; the heteroscedasticity test, which employs Glejser parameters; and the autocorrelation test, which employs Durbin-Watson parameters. Testing of the hypotheses comes to a partial and simultaneous end to the analysis.

In this study, the following multiple linear regression equation will be tested:

$$SR_{dk} = \beta_1 SS, \beta_2 MT, \beta_3 FL, \beta_4 FCF, \beta_5 FS, \text{ and } e \quad (1)$$

$$SR_{ds} = a + \beta_1 SS + \beta_2 MT + \beta_3 FL + \beta_4 FCF + \beta_5 FS + e \quad (2)$$

## RESULT AND DISCUSSION

The following table provides descriptive information about the variables seen in the study:

**Tabel.1**  
**Analisis Deskriptif**

| Variabel                     | N  | Minimum | Maximum | Mean     | Std. Deviation |
|------------------------------|----|---------|---------|----------|----------------|
| Reksadana Saham Konvensional |    |         |         |          |                |
| <i>Stock Selection</i>       | 60 | -7.519  | 1.701   | -1.41565 | 2.498494       |
| <i>Market Timming</i>        | 60 | -0.934  | 0.000   | -0.13454 | 0.250029       |
| <i>Fund Longevity</i>        | 60 | 5       | 22      | 13.92    | 4.684          |
| <i>Fund Cash Flow</i>        | 60 | -0.724  | 2.416   | 0.15923  | 0.680800       |
| <i>Fund Size</i>             | 60 | 25.329  | 29.087  | 26.76711 | 1.183135       |
| <i>Sharpe Ratio</i>          | 60 | -5.500  | 6.616   | 0.58189  | 2.727929       |
| Reksadana Saham Syari'ah     |    |         |         |          |                |
| <i>Stock Selection</i>       | 40 | -2.281  | 1.273   | -0.62418 | 0.999558       |
| <i>Market Timming</i>        | 40 | 0.001   | 0.819   | 0.21473  | 0.233382       |
| <i>Fund Longevity</i>        | 40 | 1       | 12      | 7.50     | 2.819          |
| <i>Fund Cash Flow</i>        | 40 | -0.709  | 0.818   | -0.07213 | 0.324828       |
| <i>Fund Size</i>             | 40 | 25.354  | 28.445  | 26.37776 | 0.846844       |
| <i>Sharpe Ratio</i>          | 40 | -4.085  | 1.675   | -0.67275 | 1.607302       |

Source: processed data

The average (mean) value of the stock selection for traditional stock mutual funds is -1.41565, indicating a negative average value. In contrast, the average value of the stock selection of Sharia stock mutual funds is -0.62418, which is higher than that of the stock selection of conventional stock mutual funds.

The minimum and maximum values for stock selection in conventional stock mutual funds are -7.519 and 1.70, respectively. In the meantime, the standard deviation of 2.498 is greater than the average value of -1.416. In contrast, the minimum and maximum stock selection values in Sharia stock mutual funds are -2,281 and 1,273, respectively. In the meantime, the average value is -0.624, which is less than the 0.999 standard deviation. For conventional stock mutual funds, the lowest possible market timing value is -0.934, while the highest possible value is 0.000.

In the meantime, the average value is -0.135, which is less than the 0.250 standard deviation. In contrast, the minimum and maximum market timing values for Sharia stock mutual funds are 0.001 and 0.819, respectively. In the meantime, the standard deviation value of 0.233 is greater than the average value of 0.215.

Conventional stock mutual funds have a minimum value of 5.00 and a maximum value of 22.00 for fund lifespan. In the meantime, the standard deviation value of 4.684 is less than the average value of 13.92. In contrast, the minimum and maximum values for fund lifespan in Sharia share mutual funds are 1.00 and 12.00, respectively. In the meanwhile, the average value is higher than the 2.819 standard deviation value, at 7.50. Conventional stock mutual fund fund cash flow ranges from a minimum of -0.724 to a maximum of 2.416. In the meantime, the average value is 0.159, which is less than the 0.681 standard deviation. In contrast, the fund cash flow in Sharia stock mutual funds is less than the standard deviation value of 0.325, with a minimum value of -0.709 and a maximum value of 0.818, as well as an average value of -0.072.

Conventional stock mutual funds have fund sizes ranging from a minimum of 25,329 to a maximum of 29,087. The average fund size is 26,767, much greater than the standard



deviation value of 1,183. In contrast, the minimum and maximum fund sizes for Sharia stock mutual funds are 25.354 and 28.445, respectively, with an average value of 26.378—much higher than the 0.847 standard deviation. Conventional stock mutual funds have a minimum Sharpe ratio of -5.500. The average value is 0.582, smaller than the standard deviation value of 2.728, and the maximum value is 6.616. In the meantime, Sharia stock mutual funds have a minimum Sharpe ratio value of -4.085, a maximum value of 1.675, and an average value of -0.672, which is less than the 1.607 standard deviation value.

### Classic Assumption Test

The Kolmogorov-Smirnov (K-S) statistical test parameters are used in the normalcy test. If a sig value  $> 0.05$  is found, the regression model has a normally distributed distribution. The outcomes are displayed below:

**Table. 2**  
**Normality Test Results 1**

|                                  |                | Unstandardized Residual |            |
|----------------------------------|----------------|-------------------------|------------|
|                                  |                | Konvensional            | Syari'ah   |
| N                                |                | 60                      | 40         |
| Normal Parameters <sup>a,b</sup> | Mean           | 0.0000000               | 0.0000000  |
|                                  | Std. Deviation | 1.00958391              | 1.22222417 |
| Most Extreme Differences         | Absolute       | 0.217                   | 0.089      |
|                                  | Positive       | 0.208                   | 0.089      |
|                                  | Negative       | -0.217                  | -0.083     |
| Kolmogorov-Smirnov Z             |                | 1.679                   | 0.566      |
| Asymp. Sig. (2-tailed)           |                | 0.007                   | 0.906      |

a. Test distribution is Normal.

b. Calculated from data.

The Asymp value is displayed in the normalcy test findings using the On-Sample Kolmogorov-Smirnov parameter. For traditional stock mutual funds, the 2-tailed significance value is  $0.007 < 0.05$ , but for sharia stock mutual funds, it is  $0.906 > 0.05$ . The normalcy assumption has been satisfied by sharia stock mutual funds since  $0.906 > 0.05$ . In contrast, the findings indicate that the data for traditional stock mutual funds is not regularly distributed. Additional investigation revealed that 25 of the data were identified as outliers, and they were removed. As a consequence, 35 new observational data were found from the original 60 data on the traditional stock mutual fund model after some outlier data were removed. Following outliers, the normalcy test results are shown below:

**Tabel. 3**  
**Normality Test Results 2**

|                                  |                | Unstandardized Residual |
|----------------------------------|----------------|-------------------------|
| N                                |                | 35                      |
| Normal Parameters <sup>a,b</sup> | Mean           | 0.0000000               |
|                                  | Std. Deviation | 0.54564438              |
| Most Extreme Differences         | Absolute       | 0.182                   |
|                                  | Positive       | 0.145                   |
|                                  | Negative       | -0.182                  |
| Kolmogorov-Smirnov Z             |                | 1.078                   |
| Asymp. Sig. (2-tailed)           |                | 0.196                   |

a. Test distribution is Normal.

b. Calculated from data.

It is known that the asymp sig (2-tailed) value has changed to 0.196, which is more significant than 0.05, based on the normalcy test findings in Table 3. Consequently, it is determined that the regression model for traditional stock mutual funds is normally distributed.

Heteroscedasticity testing uses a scatterplot, the results of which are presented below:

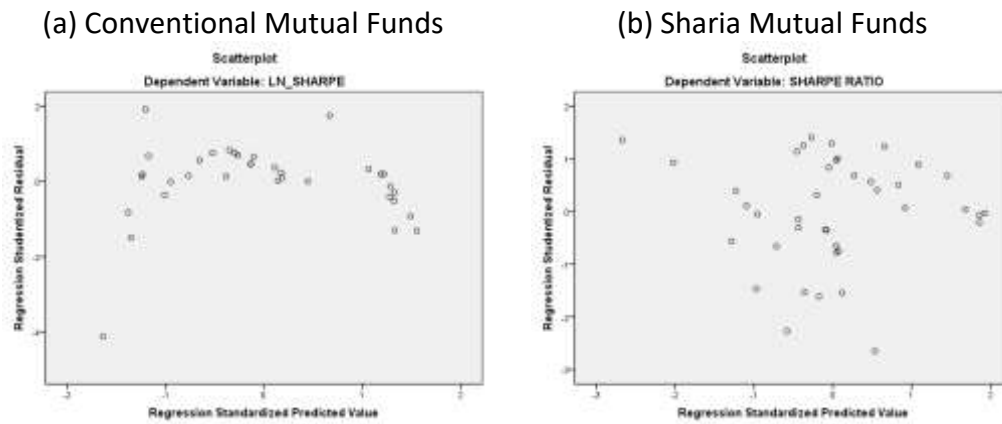


Figure 2. Heteroscedasticity Test Results

It is clear from Figure 2 that heteroscedasticity does not occur in parts (a) and (b). The lack of a distinct pattern in the two photos, where the dots can also be seen spreading above and below, demonstrates this. As a result, it was determined that both regression models had passed the heteroscedasticity test.

If the tolerance value is greater than 0.10 and the VIF value is less than 10, then the regression equation does not exhibit multicollinearity in the multicollinearity test that employs tolerance and VIF parameters. The findings of the multicollinearity are displayed below:

Table 4  
Multicollinearity Test Results

| Model                  | Konvensional |       | Syari'ah  |       |
|------------------------|--------------|-------|-----------|-------|
|                        | Tolerance    | VIF   | Tolerance | VIF   |
| (Constanta)            |              |       |           |       |
| <i>Stock Selection</i> | 0.029        | 4.579 | 0.401     | 2.492 |
| <i>Market Timing</i>   | 0.028        | 5.191 | 0.314     | 3.182 |
| <i>Fund Longevity</i>  | 0.776        | 1.289 | 0.837     | 1.194 |
| <i>Fund Cash Flow</i>  | 0.839        | 1.192 | 0.769     | 1.300 |
| <i>Fund Size</i>       | 0.982        | 1.019 | 0.864     | 1.158 |

a. Dependent Variable: LN\_SHARPE; SHARPE RATIO

All independent variables in the conventional and sharia models have a tolerance value of  $>0.1$ , according to the multicollinearity test results. The fund size variable has the highest tolerance, at 0.982 and 0.864. Regarding the VIF value, it is established that each of the independent variables in both models has a value less than 10, with the market timing variable having the highest value. Therefore, it can be inferred from these findings that multicollinearity does not occur.

The Durbin-Watson test (DW test), which is used in the autocorrelation test, yields the following results:

**Table. 5**  
**Autocorrelation Test Results**

| Indikator | Konvensional | Syari'ah |
|-----------|--------------|----------|
| n         | 35           | 40       |
| DW        | 1.978        | 1.855    |
| dL        | 1.160        | 1.230    |
| dU        | 1.802        | 1.785    |
| 4-dU      | 2.198        | 2.215    |

In the conventional model, the DW value is 1.978 with dL of 1.160 and dU of 1.802 from n=35 and k=5, based on the data in Table 4.6 above. Regression equation (1) yields findings of  $1.802 < 1.978 < 2.198$ , indicating the absence of autocorrelation symptoms. Similarly, DW is 1.855, dL 1.230, and dU 1.785 from n=40 and k=5 in the Sharia model. There are no signs of autocorrelation in regression equation (2) with the findings  $1.785 < 1.855 < 2.215$ .

### Hypothesis Testing

Tables 6 and 7 give the complete results of the hypothesis testing conducted on conventional stock mutual funds and sharia stock mutual funds:

**Table. 6**  
**Hypothesis Testing Results**

| Model                  | Konvensional t table=1,690; sig=5% |          |       |
|------------------------|------------------------------------|----------|-------|
|                        | B                                  | t hitung | sig   |
| (Constanta)            | 1.040                              |          |       |
| <i>Stock Selection</i> | -1.527                             | -6.207   | 0.000 |
| <i>Market Timming</i>  | 8.880                              | 4.441    | 0.000 |
| <i>Fund Longevity</i>  | 0.005                              | 0.203    | 0.840 |
| <i>Fund Cash Flow</i>  | 0.040                              | 0.270    | 0.789 |
| <i>Fund Size</i>       | -0.116                             | -1.833   | 0.019 |

Dependen variable: SRdk

**Table. 7**  
**Hypothesis Testing Results**

| Model                  | Syari'ah t table=1,690; sig=5% |          |       |
|------------------------|--------------------------------|----------|-------|
|                        | B                              | t hitung | sig   |
| (Constanta)            | -15.144                        |          |       |
| <i>Stock Selection</i> | -1.095                         | -3.307   | 0.002 |
| <i>Market Timming</i>  | -1.782                         | -1.112   | 0.274 |
| <i>Fund Longevity</i>  | -0.207                         | -2.552   | 0.015 |
| <i>Fund Cash Flow</i>  | 0.292                          | 0.396    | 0.694 |
| <i>Fund Size</i>       | 0.597                          | 2.242    | 0.032 |

Dependen variable: SRdk

Based on Table 6, the regression equation for traditional stock mutual funds is as follows:  $SRdk = 1.040 - 1.527 SS + 8.880 MT + 0.005 FL + 0.040 FCF - 0.116 FS + e$ . In the meantime, using table 7 as a basis, the multiple regression equation (2) for sharia stock mutual funds is as follows:  $SRds = -15.144 - 1.095 SS - 1.782 MT - 0.207 FL + 0.292 FCF + 0.597 FS + e$ .

### **The Effect of Stock Selection on the Performance of Stock Mutual Funds**

Regression coefficient values for stock selection are  $-1.527$ ,  $t$  count  $-6.207 > t$  table  $-1.684$ , and  $\text{sig } 0.000 < \text{sig } 0.05$ . The performance of typical stock mutual funds is significantly impacted negatively by stock selection, since this result violates the null hypothesis. The findings of the study have to live up to the expectations of the researchers. Additionally, the findings had no bearing on the findings of a study conducted in 2015 by Trisnopati et al., which found that stock selection significantly improves the performance of traditional stock mutual funds. The findings, however, are consistent with earlier research by Syahid and Denny (2015), who found that the performance of conventional stock mutual funds in Indonesia was significantly impacted negatively by stock picking abilities. In contrast, stock selection in Sharia stock mutual funds has a regression coefficient value of  $-1.095$ , a  $t$  count of  $-3.307 > t$  table of  $-1.684$ , and a  $\text{sig}$  value of  $0.002 < \text{sig } 0.05$ . The performance of Sharia stock mutual funds is significantly impacted negatively by stock selection, as this finding defies  $H_0$ . The outcomes had to live up to the expectations of the researchers. The findings also run counter to Prasetyo et al. (2017), who claimed that stock selection had a favorable impact on sharia stock mutual fund performance. The findings, however, are consistent with Mustofa and Kusumawardhani's (2016) study, which found that the performance of Sharia stock mutual funds is significantly impacted negatively by stock selection abilities.

According to the study's findings, not one stock mutual fund in the research sample had adequate proportionate stock selection capabilities. As a result, the performance of the mutual funds would decrease as the investment manager's capacity to choose stocks would grow. The inverse association between stock selection and the performance of traditional stock mutual funds can be explained by the descriptive analysis, which reveals that the investment managers in this research sample have an average negative value for their stock selection competence. Meanwhile, the research sample's investment managers' proficiency in stock selection extends to Sharia stock mutual funds. Nonetheless, the mean is negative and still quite low at  $-0.624$  when compared to the  $1.416$  stock picking skill in Sharia stock mutual funds.

### **The Effect of Market Timming on the Performance of Stock Mutual Funds**

Market timing has a positive regression coefficient value of  $8.880$  in traditional stock mutual funds. These findings suggest that there is a positive correlation between market timing and conventional stock mutual fund performance.  $H_0$  is rejected because the computed  $t$  value is  $4.441 > t$  table  $1.690$  and  $\text{sig } 0.000 < \text{sig } 0.05$ . The findings demonstrate that market timing significantly and favorably affects the performance of mutual funds that invest in traditional stocks. Market timing, on the other hand, has a regression coefficient value of  $-1.782$  in Sharia stock mutual funds;  $t$  is computed at  $-1.112 < t$  table  $-1.684$  and  $\text{sig } 0.274 > \text{sig } 0.05$ . According to this outcome, market timing has a negligible detrimental impact on the performance of mutual funds that own Sharia stocks.

Investment managers can decide when to execute a buy or sale of shares based on the findings of this study on traditional stock mutual funds. Investors benefit from higher returns due to this skill. These findings corroborate those of (Putri & Haryanto, 2014; Saputro, 2016), who discovered a substantial positive relationship between market timing ability and conventional stock mutual fund performance. Conversely, market timing has not yet been empirically demonstrated to affect the performance of Sharia stock mutual funds. This is a result of Sharia stock mutual funds' excessively low Sharpe ratio. Due to the unpredictable

nature of stock mutual fund values, the performance of the fund remains unaffected even if the investment manager of a Sharia-compliant stock mutual fund possesses excellent market timing abilities. The study conducted by (Rachma & Juniar, 2018) on Sharia stock mutual funds provides support for this research as they found no significant correlation between market timing and the performance of these funds.

### **The Effect of Fund Longevity on the Performance of Stock Mutual Funds**

The regression coefficient value for fund longevity in Sharia stock mutual funds is 0.005, indicating a positive sign. These findings demonstrate a slight but positive relationship between fund longevity and conventional stock mutual fund performance. This is demonstrated by the estimated  $t$ , which is allowed because it is  $-0.203 > t_{table} -1.690$  and  $sig\ 0.840 > sig\ 0.05$ . According to the findings, traditional stock mutual fund performance is marginally harmed by fund lifetime. In contrast, the regression coefficient value for fund longevity in sharia stock mutual funds is  $-0.206$ ;  $t\ count\ -2.552 < t_{table} -1.684$  and  $sig\ 0.015 < sig\ 0.05$ , indicating that  $H_0$  is rejected. The findings indicate a substantial negative correlation between fund longevity and Sharia stock mutual funds.

These findings suggest that the performance of traditional stock mutual funds is unaffected by the length of the fund. The findings contradict the findings of (Winingrum, 2011), who claimed that the performance of typical stock-type mutual funds is positively and significantly impacted by mutual fund age. These findings demonstrate that longer fund longevity is associated with higher calibre mutual fund performance. Therefore, the length of time an investment manager has been managing investor funds does not imply that the manager has a solid track record. In contrast, the performance of Sharia stock mutual funds is significantly impacted negatively by fund lifetime. These findings, are in line with those of (Dwiprakarsa & Dharmastuti, 2016), who observed that the performance of Indonesian stock mutual funds is strongly impacted negatively by mutual fund age. These findings suggest that longer fund lifespans will lead to poorer mutual fund performance. It implies that in order to achieve high returns, investment managers had to use greater caution while creating mutual fund products.

### **The Influence of Fund Cash Flow on the Performance of Stock Mutual Funds**

Fund cash flow in traditional stock mutual funds has a positive-sign regression coefficient value of 0.040. These findings demonstrate a positive correlation between fund cash flow and traditional stock mutual fund performance. Nevertheless,  $H_0$  is acceptable because the computed  $t$  value is  $0.270 < t_{table} 1.690$  and  $sig\ 0.789 > sig\ 0.05$ . According to the findings, traditional stock mutual fund performance is marginally improved by fund cash flow. Similarly, the fund cash flow in Sharia stock mutual funds accepts  $H_0$  since its regression coefficient value is 0.292, its  $t$  count is  $0.396 < t_{table} 1.684$ , and its  $sig\ 0.694 > sig\ 0.05$ . According to the findings, fund cash flow has a negligible beneficial impact on Sharia stock mutual fund performance.

The test results show that neither conventional nor sharia stock mutual fund performance is impacted by fund cash flow. The study's findings support (Octasyilva, 2016), showing that fund cash flow has little bearing on mutual fund performance. Better cash flow management skills are required for all equity mutual funds in the research sample in order to maximise returns and enhance mutual fund performance. This is demonstrated by the conventional stock mutual fund industry's average cash flow value, which is still too low; even the average value of Sharia mutual funds is negative.

### The Influence of Fund Size on the Performance of Stock Mutual Funds

Fund size in traditional stock mutual funds has a negative regression coefficient value of -0.116. These results demonstrate that fund size and performance of traditional stock mutual funds as assessed by the Sharpe ratio have a strong negative relationship, rejecting  $H_0$  with  $t$  count  $-1.833 > t$  table  $-1.690$  and  $\text{sig } 0.019 < \text{sig } 0.05$ . In contrast, Fund Size in Sharia stock mutual funds has a regression coefficient value of 0.597;  $H_0$  is rejected since the computed  $t$  value is  $2.242 > t$  table  $1.684$  and  $\text{sig } 0.032 < \text{sig } 0.05$ . The results demonstrate that the performance of Sharia stock mutual funds is highly positively impacted by fund size.

According to the results of the hypothesis test, fund size significantly and negatively affects the performance of conventional stock mutual funds. The higher the size of the stock mutual fund, the more likely it is to lower the performance of conventional stock mutual funds, which is reflected by a fall in NAV (net asset value). This is demonstrated by the negative value of the fund size regression coefficient on conventional stock mutual funds. The study's findings contradict the fund size theory, which postulates that a mutual fund company's sizable net asset value indicates how much investors trust it (Asriwahyuni, 2017). The findings suggest that administering stock mutual funds with substantial fund amounts will require a significant level of complexity in order to allocate the money to the available assets, which could negatively impact the mutual funds' performance. In conventional stock mutual funds, unmanageable complexity may result in a reduction of investment units, hence affecting the return level of the mutual fund.

Regarding Sharia stock mutual funds, on the other hand, the test results corroborate earlier findings by (Mulyawan, 2016), who found that fund size had a substantial beneficial impact on Sharia stock mutual fund performance. Given the difficulty of managing these funds to allocate them to available assets, the results suggest that managing stock mutual funds with substantial investment amounts will significantly improve performance. This conclusion is bolstered by the managed mutual fund managers' stellar reputations. This will affect the mutual fund's rate of return.

### Chow Test

The following are the results of the difference test, which uses chow test settings with  $df_1=65$ ,  $df=n-2=10$ , and  $\text{sig } 5\%$ :

**Table. 8**  
**Chow Test Results**

| Model            | Residual Sum of Square SRdk<br>N1 = 35 | Residual Sum of Square SRds<br>N2 = 40 | Residual Sum of Square SRdr<br>(RSSr) |
|------------------|--|--|---------------------------------------|
| 1<br>RSSur (k=5) | 10.123                                 | 58.259                                 | 68.382                                |
|                  |  |  | 169.011                               |

Source: processed data

$$F = \frac{(RSSr - RSSur) / k}{RSSur / (n_1 + n_2 - 2k)} = \frac{(169,011 - 68,382) / 5}{68,382 / [35 + 40 - 2(5)]}$$

$$F = \frac{100,629 / 5}{68,382 / 65} = \frac{20,125}{1,052} = 19,013$$

The Chow test algorithm returns a computed F value of 19.013 > F table 1.98, rejecting  $H_0$ . Based on the test settings, the results show that there are differences in the simultaneous effects of stock selection, market timing, fund longevity, fund cash flow, and fund size on the performance of mutual funds with conventional and Sharia stocks.

The test results demonstrate that conventional and Sharia stock mutual funds perform differently when considering the simultaneous effects of stock selection, market timing, fund longevity, fund cash flow, and fund size. Longevity and cash flow of conventional stock mutual funds have little bearing on their performance. Conversely, market timing and fund cash flow have a small but noticeable impact on Sharia stock mutual funds. Fund sizes exhibit a significant force, although it is moving in different directions. Traditional mutual funds for stocks provide a considerable impact in the other way. Any attempts to enhance the performance of traditional stock mutual funds will be thwarted by increasing the amount of money under the management of an investment manager. Sharia stock mutual funds, meanwhile, have a big impact in the same direction. This implies that the investment manager will have more incentive to improve the performance of Sharia stock mutual funds the larger the funds under their management.

### CONCLUSION

Implementing mutual funds—both conventional and sharia stock mutual funds—has an unfavourable relationship with the performance of stock selection. The capacity of the investment manager to select the ideal moment to execute the purchase or sale of shares is demonstrated by the market timing performance of traditional shares. Investors benefit from higher returns due to this skill. In contrast, market timing for Sharia shares has no effect on how well Sharia stock mutual funds perform. Longer fund lifetime is a sign that mutual fund performance is of higher calibre than traditional equity mutual funds.

In contrast, the performance of Sharia stock mutual funds was not able to be stimulated by the fund longevity performance for Sharia shares. The performance of the fund's cash flow cannot be used to boost the returns on either conventional or Sharia-compliant stock mutual funds. The performance of traditional stock mutual funds is negatively impacted by fund size. The performance of stock mutual funds may suffer as a result of the growing complexity brought about by the growing number of funds under the management of investment managers. Significant managed funds, as opposed to Sharia stock mutual funds, are characterised by substantial investment managers and a solid reputation, which tends to bolster the latter's performance. The results of many tests reveal variations in the concurrent impact of fund size, longevity, cash flow, market timing, and stock selection on the performance of mutual funds with conventional and Sharia stocks.

One of the research's shortcomings is that it was limited to the Indonesian capital market. Firstly, because the study was limited to the Indonesian capital market, it is not possible to extrapolate the findings to the capital markets of other nations. The factors that make a relationship stronger or weaker were not taken into account in either study. Future studies ought to focus on a few of these components..

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