
The Impact of Stock Selection, Market Timing and Equity Fund Size on Equity Funds Performance during Covid-19

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ABSTRACT

Investors in Indonesia pay attention to the financial market's investment tools, including mutual funds. Some mutual funds even provide a higher return on investment than alternative stock investments, with a lower level of risk because investment managers properly manage them. This research aims to determine how stock mutual fund success is affected by factors such as stock selection, market timing, mutual fund size, and Covid-19, with Covid-19 serving as a moderator. Purposive sampling was utilized to conduct research on Indonesian equity funds. This study's sample consists of equity funds administered by fourteen investment management firms authorized and regulated by the Financial Services Authority (OJK). Panel data regression analysis in Eviews is used to examine the information. It was discovered that neither mutual fund size nor Covid-19 played a statistically important role in determining the success of equity funds. However, equity fund returns are significantly influenced by company picking and market timing. As a supplementary benefit, Covid-19 can significantly reduce the beneficial effects of overly optimistic stock picking on the returns of equity funds. This research also demonstrates that the effects of mutual fund size and market timing on stock fund returns are not reduced by using Covid-19.

Keywords: Market Timing; Size of Mutual Fund; Stock Selection; Covid-19.

INTRODUCTION

Mutual funds provide a means of diversification and pooled risk assessment for less capitalized in terms of expertise and time. Investors in Indonesia are drawn to mutual funds as a trading instrument in the financial market (Asriwahyuni & Prima, 2017). Investment returns from mutual funds tend to be higher than those from other options like equities or foreign exchange for several reasons (Sudarmanto et al., 2021).

Investment managers and other market participants have little to no control over external variables, such as the state of the environment around the world, which can significantly impact a mutual fund's performance (Rustendi, 2017). In March 2020, the WHO proclaimed a global pandemic due to the spread of Coronavirus Disease (Covid-19). If we want to stop the global reach of Covid-19, the World Health Organization is urging everyone to separate themselves from each other physically. Under these conditions, the rate of return on stocks and mutual funds has decreased.

Indonesia's biggest decline in yields on stocks and mutual funds occurred in February and March

2020, in line with the increasing death toll due to Covid-19. The Jakarta Composite Index, Infovesta Equity Fund Index, Mixed Mutual Fund Index (Balanced Fund Index of Infovesta) and Fixed Income Mutual Fund Index (Fixed Income Fund Index of Infovesta) decreased by 23.59 percent, respectively, 23.59 percent, 14.14 percent and 3.78 percent during the Covid-19 period (Infovesta, 2022).

There are several reasons for the interest of the Indonesian people to invest through mutual funds, namely that they can be started with relatively low costs, have lighter risks, and are more efficient (Dwiwana et al., 2017). These reasons affect the increasing public interest in investing in mutual fund instruments. According to the Indonesian Central Securities Depository's (KSEI) Indonesian Capital Market Statistics data, the number of mutual fund investors in Indonesia hit 8,179,753 as of May 2022, representing a significant increase from 2017.

In line with KSEI data, according to the Indonesian Capital Market Statistics of the Financial Services Authority (OJK), in the 2021 period, there were 2,198 mutual funds recorded with a NAV of



Five hundred seventy-eight trillion rupiahs and participant units in circulation amounted to 420 billion. The number of mutual funds, NAV and the number of outstanding participant units has increased from the previous, which recorded 894 mutual funds, each with a NAV of Two hundred forty-one billion rupiahs, and the number of UP is 142 billion in the 2014 period (Investor, n.d.).

Regarding yield levels, it proves that mutual funds have varied performance. Referring to Infovesta data, from 2014 to 2021, the fixed income mutual fund index has the best yield of 57 percent, followed by the money market mutual fund index of 47 percent and the mixed index of 33 percent. Meanwhile, the equity fund index recorded unfavorable yields, which fell by 1 percent (Infovesta). In contrast to the unfavorable rate of return on the stock mutual fund index, according to OJK data, the total managed fund for equity funds from 2014 to 2021 has increased by 22 percent. Meanwhile, equity mutual funds increased by 93 percent (Indonesian OJK Capital Market Statistics).

Even though stock index mutual funds have poor yields, there are stock mutual funds that can record very good returns compared to the index. This is inseparable from portfolio management carried out by Investment Managers in managing equity funds (Manurung, 2017). The Investment Manager can employ either a passive or active portfolio plan when handling investor funds. Passive investment methods typically follow the index. On the other hand, active portfolio methods have metrics for gauging skills like stock selection and market timing, which are essential to constructing winning investment portfolios (Tandelilin, 2010).

Mutual fund performance research often yields conflicting findings due to the complexity of the underlying mechanisms at play (research gap). Based on their findings, (Khan, 2020) conclude that Pakistani fund administrators are adept at picking stocks for their mutual funds. In line with (Khan, 2020) researched that fund managers in developing countries have stock selection skills but need to gain market timing skills. It is different, researched that mutual funds in the UK have market timing capabilities.

In the meantime, (Ariswati et al., 2021) found that stock picks and market trading decisions heavily impacted mutual fund performance during the Covid-19 pandemic in Indonesia. According to (Anugrah, n.d.) study, mutual funds' returns are unaffected by company selection but are heavily

influenced by market timing. (Ulayya, n.d.) also found that mutual fund performance is unaffected by company picking or market timing.

METHOD

The influence of stock selection ability and market timing on mutual fund performance, as well as the effect of Covid-19 on stock selection ability and market timing, are examined quantitatively in this research. Table 1 describes the meaning, measurement, and scale used for each variable in this study (mutual fund performance, company selection, market timing, mutual fund size, and Covid-19)—Variable Operationalization Explanation.

Stock mutual funds regulated by the Financial Services Authority (OJK) and freely traded in Indonesia at the time frame of this research make up the population study. This study used a purposive sampling method to select a sample of conventional equity mutual funds registered and supervised by the OJK in the 2014-2021 period, which are still active in 2021 and are denominated in Rupiah, have funds under management more significant than 350 billion rupiahs, and have all of the necessary data, including monthly NAVs for the 2014-2021 period, the effective date of traded mutual funds, and other matters. So far, 28 conventional equity mutual funds that are actively managed and meet the requirements have been included in the study. (OJK, Infovesta).

Equity funds meeting the selection requirements were the focus of the study. Numerical panel data were among the data types used in this analysis. This information combines time series and cross-sectional data, so it has two dimensions, which are multiple items and a fixed time frame (Faisal & Eko Sujianto, 2020). Based on the source, secondary data is obtained through a literature search. These data are a list of conventional equity mutual funds registered and supervised by OJK, which will still be active in 2021. This data is obtained through the official OJK website (<https://reksadana.ojk.go.id>). Next is historical data on Bank Indonesia's benchmark interest rate for 2014 – 2021. This data is obtained through Bank Indonesia's official website (<https://www.bi.go.id>). Information includes Net Asset Value, funds under management, the inception date of equity funds actively traded, the indicator for conventional equity funds, and the composite stock price index. Infovesta is the source of this information. (<https://www.infovesta.com>).

Table 1. Operationalization of Variables Description



Variables and Scale	Definition	Indicators
1 Mutual fund performance; measured by its return (Rp) (Ratio)	Return or rate of return provided by a mutual fund for its investors.	$Rp_t = \frac{NAB_t - NAB_{t-1}}{NAB_{t-1}}$ Rp t = Mutual fund return, at t period NABt = value of net asset (period t) NABt-1 = value of net asset (period t-1) (Pandow, 2017; Merti et al., 2019)
2 Stock selection (Rm-Rt) (Ratio)	The ability to choose the right stocks to be included in the portfolio to potentially generate the expected returns	$R_p = R_f + \alpha + \beta(R_m - R_f) + \gamma(R_m - R_f)^2 + \epsilon_p$ Rp= Mutual fund return portofolio (periode t) Rf= Return of risk-free assets (period t) Rm=Market Return of, period t α= Manager of Investment Intercepts Stock Picking β= Coefficient of determination for returns above market average γ= Regression coefficient on market timing ability ε= Random error (Merti et al., 2019; Dar-Hsin et al., 2013).
3 Market timing (Rm-Rt)*D (Ratio)	the right time momentum to make investment decisions	$Mt = \frac{M}{B}$ Mt = market timing M = market capitalization B = book value (Lorenz, 2020; Feng et al., 2007)
4 Mutual fund size; Size (Ratio)	The Wealth of the mutual fund (total assets of the mutual fund minus liabilities)	$NAB = \text{Total Assets} - \text{Liabilities}$ (Zouaoui, 2019)
5 Covid-19 (COV) (Ratio)	Setup for the spread of the Covid-19 epidemic	The government's Determination of the Factual Status of the Covid-19 Pandemic in Indonesia established the circumstances under which the disease emerged. (Keppres No. 24 tahun 2021)

The panel data regression approach is used to analyze the data and test the hypotheses underlying the study. Descriptive analysis is one of the methods used in the data analysis process. The testing of the Classical Regression Assumptions as a condition not to violate the assumptions of classical regression so that it meets the requirements of BLUE or the Best Linear Unbiased Estimator (Faisol & Eko Sujianto, 2020), which includes, among others, the Assumption of Homoscedasticity, Assumption of Autocorrelation (Serial Correlation) and Multicollinearity Assumption Testing. The results of testing the assumptions of classical regression in this study indicate that the data meets the requirements for testing the assumptions of classical regression, so it is feasible to continue processing.

The study employed Chow, Hausmann, and Lagrange multiplier tests in panel data regression analysis. Based on the test results, it was determined that the appropriate model to use was the random effect model in combination with the Common Effects model.

The next step is a panel data regression analysis, which looks at some entities over time to determine how factors like mutual fund size, benchmark interest rates, company selection, and market timing affect the performance of equity funds. Mathematically, the panel data regression model can be delineated (Faisol & Eko Sujianto, 2020; Firdaus, 2020).

The Chow, Hausman, and Lagrange Multiplier tests will be used to identify this research's regression model estimation technique. A t-test followed them to identify the relationship between the independent and dependent variables, an F-test to assess the model's viability, and an ANOVA to analyze the fit of the regression equation (Yang, 2018).

RESULT and DICUSSION

Mutual funds are considered a very cost-effective and convenient option for investment. If a person wants to invest but cannot due to lack of time or experience, he can still invest in the financial markets and earn returns as the investment manager will handle his portfolio.

The research objects used were 28 equity mutual funds, 14 investment management companies, and the research period 2015 – 2021. Net asset value (NAV) data per unit was obtained from Infovesta's official website (www.infovesta.com), The Managed Funds Data from the Financial Services Authority's Official Website (reksadana.ojk.go.id), the Jakarta Composite Index Data from the Indonesia Stock Exchange's Official Website (www.idx.co.id), and the Reference Interest Rate Data (BI7DayRR). The next step is a panel data regression analysis, which looks at some entities over time to determine how factors like mutual fund size, benchmark interest rates, company selection, and market timing affect the performance of equity funds.

Table 2. Descriptive Statistics

Variables	Rpt	SS	MT	Size	COV	IHSG	Risk Free
Mean	0.0008	-0.0084	0.0054	9.3153	0.2963	0.0050	5.45%
St.Dev	0.1052	0.0644	0.0147	1.0823	0.4578	0.0384	1.43%

Variables	Rp _t	SS	MT	Size	COV	IHSG	Risk Free
Variance	0.0111	0.0042	0.0002	1.1714	0.2096	0.0015	0.02%
Minimum	-0.3228	-0.1841	-0.0391	5.8607	0.0000	-0.1676	3.50%
Median	0.0100	-0.0111	0.0000	9.2929	0.0000	0.0094	5.00%
Maximum	0.2955	0.2847	0.0667	11.9869	1.0000	0.0944	7.75%

Sources: Processed Data

A total of 189 observations were included in this analysis. The average value of the success variable of equity funds is 0.0008, as seen in Table 2. As of 2017, Schroder Dana Istimewa Mutual Fund held the least valuable share (-0.3228), while Mandiri Investa Smart Bangsa Mutual Fund held the most valuable share (0.2955).

In the stock selection variable, it is known that the average value produced is -0.0084. The Mandiri Saham Atraktif Class owned the lowest value of -0.1841 A mutual fund in 2019, while the highest value was 0.2847, belonging to the Mandiri Investa Equity ASEAN-5 Plus Fund in 2019. In the market timing variable, it is known that the resulting average value is -0.0054. The Schroder Dana Prestasi Plus equity fund had the lowest value of -0.0391 in 2020, while the Schroder Dana Prestasi Plus mutual fund had the most outstanding value of 0.0667 in 2021.

It is found that the average value of the size variable is -9.3153. In 2017, the mutual fund with the lowest value, 5.8607, was Mandiri Investa Equity

ASEAN-5 Plus, in contrast to the highest-valued mutual fund, 11.9869, was Schroder Dana Prestasi Plus. In the Covid-19 variable, the resultant average value is known to be 0.2963. The lowest value is 0.0000, which corresponds to the period in which Covid-19 did not occur in 2015, 2016, 2017, 2018, and 2019, and the highest value is 1,0000, which corresponds to the period in which Covid-19 occurred in 2020 and 2021. It is known that the average value of the JCI variable is 0.0050. The minimum value was -0.1676 in March 2020, and the maximum was 0.0944 in November 2020. The resultant mean value of the Risk-Free variable is known to be 5.45. The lowest value was 3.50 throughout 2021, and the highest was 7.75 from November 2014 to January 2015.

The statistical test, known as "t," is a test that is used to demonstrate whether or not the independent variable has a significant impact on the individual variable that is being tested.

Table 3. Statistical Test Results –t test

Variables	Coefficient	Std. Error	t-Statistic	Prob.	Hypotheses Conclusion
SS	0.28847	0.14804	1.94861	0.0528	supported
MT	1.15376	0.57985	1.98977	0.0481	supported
SIZE	-0.00491	0.00466	-1.05477	0.2929	rejected
COV	0.08865	0.11905	0.74462	0.4574	rejected
SSCOV	0.58660	0.23218	2.52646	0.0123	supported
MTCOV	-0.19179	1.24114	-0.15453	0.8774	rejected
SIZECOV	-0.00632	0.01656	-0.38168	0.7031	rejected

Sources: Processed Data

Table 3 presents the results of a statistical test (t-test), which, when taken together with the results of an additional test (t), led to the following inferences:

The Effect of Stock Picking in the Performance of Equity Mutual Funds Table 3 displays the results of a panel data regression, which shows that the stock selection variable has a coefficient value of 0.288471 and a likelihood value of 0.0528. It

indicates that stock selection has a significant positive effect on the performance of equity funds if we use a significance level of 0.10 (the value is 0.0528 when we use this significance level), and this effect is statistically significant.

As shown in Table 3 of the panel data regression results, the market timing variable has a coefficient value of 1.153759 and a probability value

of 0.0481, suggesting that market timing has a highly significant positive impact on the performance of stock mutual funds.

The impact of fund size on the overall performance of equity mutual funds. According to the panel data regression findings presented in Table 3, the size variable has a coefficient value of -0.004914 and a probability value of 0.2929. Since it is reasonable to conclude that size does not substantially impact the performance of stock mutual funds, this table presents those findings.

The influence that Covid-19 will have on the returns that are produced by equity mutual funds. The results of the panel data regression analysis are displayed in Table 3, and it can be seen that the value of the Covid-19 variable's coefficient is 0.088649. The value of its probability is 0.4574. Because of this finding, it is possible to conclude that Covid-19 does not substantially impact the performance of equity mutual funds; consequently, the hypothesis can be rejected.

The impact that an investor's stock selection had on the performance of equity mutual funds was helped to be moderated by Covid-19. The results of the panel data regression analysis are displayed in Table 3. It can be seen that the Covid-19 variable, which plays a moderating role in stock selection, has a coefficient value of 0.586602 and a probability value of 0.0123. Because of this, it is possible to draw the indisputable conclusion that the effect of Covid-19, which substantially positively moderates stock selection on the performance of mutual funds,

is conclusive. Covid-19's presence in the system tempers the impact of market timing on the returns of equity mutual funds.

According to the panel data regression findings presented in Table 3, the moderating market timing variable for Covid-19 has a coefficient value of -0.191794 and a probability value of 0.8774. This suggests that it is safe to conclude that Covid-19 cannot significantly moderate the effect of market timing on the performance of stock mutual funds.

The influence of the mutual fund's magnitude on the performance of equity mutual funds is mitigated by the factor covid-19. The results of the panel data regression analysis are displayed in Table 3. The coefficient value for the Covid-19 moderation variable is -0.006320, and the probability value is 0.7031. Because of this, it seems reasonable to draw the conclusion that Covid-19 is unable to substantially mitigate the effect that size has on the performance of stock mutual funds.

The test that is known as R2 test, which is also known as the coefficient of determination test, is a test that is used to determine the quality of the model that has been selected to characterize the relationship between the dependent variable, the independent variable, and the interaction variables. Other names for this test include the test known as the R2 test and the test known as the coefficient of determination test. The coefficient of determination is used as the basis for making judgments about the model's accuracy.

Table 4. Determinantal Coefficient of Variation and F-test

	Weighted Statistics		
R-squared	0.179360	Mean dependent var.	0.000735
Adjusted R-squared	0.148804	S.D. dependent var.	0.103280
S.E. of regression	0.095287	Sum squared residual	1.706958
F-statistic	5.869927	Durbin-Watson stat	2.216427
Prob. (F-statistic)	0.000004		

Sources: Processed Data

According to the findings in Table 4, the following are: According to the Coefficient of Determination and the F-test that were just presented, the random effect model has an adjusted R-squared value of 0.1488. This value translates to an influence of 14.88% on the variables investigated

in this research. The remaining 85 percent is a variable that is not related to this investigation at all.

Table 4 demonstrates that the Coefficient of Determination and the Statistical F-test are both tests that can indicate the significance of variables when they are considered together. It can be seen

from the results in the table that the random effect model has a probability value of $0.000004 < 0.05$, which indicates that the independent variables have a substantial influence on the dependent variable as a whole and that the research model that has been formed is a good one. This conclusion can be drawn from the fact that a good research model has been formed.

The Impact That Stock Selection Has on the Results of Equity Mutual Funds. Table 5 of the statistical test allows one to make the inference that stock selection does have a positive effect on the performance of stock mutual funds over the course of the period 2015-2021. This conclusion was reached as a result of testing the hypotheses, which led to the testing of the hypotheses. The findings of this research are in line with the findings of an earlier study that was conducted by (Gusni et al., 2018). That study discovered that stock selection has a substantial effect, both positively and significantly, on the overall performance of equity funds. The findings of this research are consistent with the findings of that earlier study. According to the findings of this study, the ability of stock investment managers to select companies for the formation of stock portfolios in such a way that the portfolios eventually have a reasonable return rate eventually significantly improves the performance of mutual funds, which can be seen from the net asset value of those funds. This improvement in performance can be seen from the fact that the net asset value of those funds increases (Agarwal & Pradhan, 2019).

The Impact of Market Timing on the Way of Equity Mutual Fund

The table of results from the testing of hypotheses shows that market timing significantly improves the performance of equity funds over the 2015-2021 time frame. The findings of this study are consistent with those of (Ariswati et al., 2021), who found that market timing significantly improves the returns of stock funds. These findings also lend credence to the idea that a manager has adopted a market timing strategy whenever he alters the degree to which his fund is exposed to market risk (Low & others, 2012), which is how stock mutual funds react to market timing.

The Effect of Size on the Performance of Equity Mutual Fund

The table of findings from the hypothesis testing shows no statistically significant relationship between fund size and equity fund performance from

2015 to 2021. The findings of this study are consistent with those of (Christiandi & Colline, 2021), who found that the size of an equity fund has no bearing on its financial success. This study's findings counter previous research suggesting that an investment manager's ability to attract and keep a large client base has a direct bearing on the success of his or her equity funds regardless of the fund size (Asriwahyuni & Prima, 2017).

The Effect of Covid-19 on Equity Mutual Funds Performance of

The table of findings from the test of hypotheses indicates that Covid-19 does not influence the return on equity funds from 2015-2021. This outcome is because investing in mutual funds is a medium- to long-term investment strategy, while the Covid-19 period is relatively brief at two years. As a result of the new norms imposed by Covid-19, investment managers in stock funds are returning to the basics.

Covid-19 Mitigates the Impact of Stock-Selection on Stock-Mutual Fund Performance

The table of hypothesis testing findings suggests that Covid-19 can significantly and favorably moderate the effect that stock-selection will have on the performance of stock mutual funds throughout the period 2015-2021. Both before and after the debut of Covid-19, the stock selection abilities of investment managers in Indonesia had an effect on the profitability of equity funds in the country. Stock selection skills thus became a crucial factor in the management and even determination of equity fund performance.

The Impact of Market Timing on the Performance of Equity Mutual Fund when moderated by Covid-19

Covid-19 cannot make substantially moderate market timing on the performance of stock mutual funds for the 2015-2021 period, as shown in the table of hypothesis testing results. There is no impact on equity fund performance during the Covid-19 pandemic from the market timing skill of investment managers.

The Impact of Covid-19 Moderating the Size on Equity Mutual Funds Performance

According to the chart containing the findings of the hypothesis tests, Covid-19 does not reduce the impact of the size of the fund on the performance of Indonesian equity funds throughout the period 2015-2021. Even during the Covid-19 pandemic, the scale

of equity funds had no bearing on how effectively they mitigated the effects of the pandemic.

CONCLUSION

Multiple inferences can be made from this study's findings about the favorable impact stock selection has on equity funds' outcomes. Market timing expertise can significantly improve the value of equity fund success. Despite popular belief, the size of an equity fund does not play a significant role in how well it performs. There is little to or even no impact of Covid-19 on the profitability of stock portfolios. The beneficial impact of stock selection on the performance of equity funds may be mitigated by Covid-19. The impact of market timing on stock fund returns was not mitigated by Covid-19. Covid-19 has also been shown not to affect the efficiency of equity funds, regardless of their magnitude, as demonstrated by the latter.

Several recommendations, including for Investment Managers, can be considered based on existing studies. To keep their funds performing well, equity fund managers must stay abreast of the latest fundamental and technical information to make informed decisions about which stocks to invest in and when to buy or sell. Investment managers are responsible for monitoring the performance of equity funds closely.

For Investors. Before investing in equity funds, they should have sufficient knowledge on equity funds. Suppose investors want to take advantage of the momentum to buy equity mutual funds in extraordinary circumstances like Covid-19. In that case, they should choose an investment manager with stock selection and market timing skills when making an equity fund selection.

For Regulators. It is imperative that the government, acting through the association of participants in the capital market, continue to encourage mutual fund managers to consistently equip themselves with the maximum amount of knowledge and competence possible by participating in fundamental technical workshops or training. The Indonesian government, acting through the Indonesia Stock Exchange, has a responsibility to maintain its ongoing promotion of an increase in the financial success of issuers by facilitating increased access to relevant information. Mainly if unexpected circumstances like Covid-19 occur, the government, acting through the Indonesia Stock Exchange, needs to make regulations to ensure that the public has access to all of the relevant information (whether through public exposure or some other means).

This research also suggests that future researchers create models for other variables outside of this study, as it was found that variables outside of this study influenced 85.12% of equity fund performance.

REFERENCES

- Agarwal, P. K., & Pradhan, H. K. (2019). Mutual fund performance in changing economic conditions: Evidence from an emerging economy. *Cogent Economics & Finance*, 7(1), 1687072.
- Anugrah, A. P. (n.d.). *Analisis Stock Selection, Market Timing Ability, Size Fund, Danlongevity Fundpada Kinerja Reksa Dana Saham Syariah Di Indonesia Periode 2014-2018*. Fakultas ekonomi dan bisnis uin jakarta.
- Ariswati, L. D., Iskandar, R., & Azis, M. (2021). Performance Analysis of Mutual Funds Based On Market Timing Ability and Stock Selection Skill during Covid-19 Pandemic in Indonesia. *Saudi J Bus Manag Stud*, 6(7), 250-255.
- Asriwahyuni, I. G., & Prima, G. A. (2017). Pengaruh Ukuran dan Umur Pada Kinerja Reksa Dana Saham di Indonesia. *E-Jurnal Akuntansi Universitas Udayana*, 21(2), 1460-1487.
- Christiandi, S., & Colline, F. (2021). Pengaruh Inflasi, Ukuran, dan Umur Terhadap Kinerja Reksa Dana Saham Di Indonesia. *Jurnal Administrasi Bisnis*, 17(2), 194-205.
- Faisol, F., & Eko Sujianto, A. (2020). *Aplikasi Penelitian Keuangan Dan Ekonomi Syariah Dengan Stata*. Cahaya Abadi.
- Firdaus, M. (2020). *Aplikasi Ekonometrika dengan E-Views, Stata dan R*. PT Penerbit IPB Press.
- Gusni, G., Silviana, S., & Hamdani, F. (2018). Factors affecting equity mutual fund performance: evidence from Indonesia. *Investment Management and Financial Innovations*, 15, Iss. 1, 1-9.
- Infovesta. (2022). *Grafik Imbal Hasil Saham dan Reksa Dana*. <https://www.infovesta.com>
- Investor, D. (n.d.). *Statistik Pasar Modal Indonesia*. 2022. https://www.ksei.co.id/publications/demografi_investor
- Khan, S. N. (2020). Stock selection and market timing ability of fund managers: Evidence from Pakistan. *City University Research Journal*, 10(3).
- Low, S.-W., & others. (2012). Market timing and selectivity performance: A cross-sectional analysis of Malaysian unit trust funds. *Prague*



- Economic Papers*, 2, 205–219.
- Rustendi, T. (2017). Analisis Kinerja Reksa Dana Pendapatan Tetap, Reksa Dana Saham, Dan Reksa Dana Campuran (Studi Di Bursa Efek Indonesia--BEI). *Jurnal Ekonomi Manajemen*, 3(2), 83–95.
- Sudarmanto, E., Khairad, F., Damanik, D., Purba, E., Peranginangin, A. M., Arfandi, S. N., Purba, B., Basmar, E., Sriwiyanti, E., & Astuti, A. (2021). *Pasar Uang dan Pasar Modal*. Yayasan Kita Menulis.
- Tandelilin, E. (2010). Dasar-dasar manajemen investasi. *Manajemen Investasi*, 34.
- Ulayya, S. D. (n.d.). Analisis Pengaruh Stock Selection Skill, Market Timing Ability, Fund Age, Fund Size Dan Fund Cash Flow Terhadap Kinerja Reksa Dana Saham Periode 2014-2018. Fakultas Ekonomi dan Bisnis Uin Jakarta.
- Yang, Y. (2018). Prediction and analysis of aero-material consumption based on multivariate linear regression model. *2018 IEEE 3rd International Conference on Cloud Computing and Big Data Analysis (Icccbda)*, 628–632.