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Effect of Investment Strategies on Portfolio Performance of Individual Investors in the Nairobi Securities Exchange

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Abstract:

This study sought to determine the effect of investment strategies on the portfolio performance of individual investors in the Nairobi securities exchange. A descriptive cross-sectional survey approach was adopted. The population for this study were individual investors in the Nairobi Securities Exchange. A sample of 384 respondents was used. Both primary and secondary data were collected in this study using a questionnaire and data collection tool. Data were analyzed using descriptive and inferential statistics. The strongest correlation was observed between the active investment strategy and portfolio performance, followed by growth, passive and value strategies. From regression analysis, there was a strong positive correlation between investment strategies and performance. The relationship between investment strategies and performance was also found to be significant. It was revealed that growth and active investment strategies were statistically significant predictors of portfolio performance, with positive relationships. Active investment strategy had the largest beta coefficient, indicating that it is the most important of the four strategies in affecting portfolio performance, followed by value investment strategy and growth investment strategy, while passive investment strategy had the least influence on portfolio performance. The study concludes that investment strategies have a strong, positive and significant effect on the portfolio performance of individual investors in the Nairobi Securities Exchange. The study recommends that Nairobi Securities Exchange ought to encourage individual investors to educate themselves about various investment strategies and their potential impact on portfolio performance. It is also recommended that Nairobi Securities Exchange emphasize the importance of diversification to reduce risk.

Keywords: Investment strategies, active investment strategies, growth investment strategies, value investment strategies, passive investment strategies

1. Introduction

An investment portfolio's performance is measured against how it compares to a benchmark portfolio (Mangwa, 2017). At the core of performance is the idea that investors prefer high returns but low risk. The purchase of stocks and bonds on the securities market, often known as investing in the stock market, is one of the most popular ways to accumulate money (Lee, 2020). Investors choose and manage their portfolios using a broad range of strategies. Regardless of the strategy, the goal is to earn returns and capital appreciation to overcome uncertainty in the future (Lee et al., 2019). Investors may benefit from these methods by making informed decisions about where and how to invest based on their desired rate of return, level of risk, willingness to take on debt, time horizon for keeping assets, age at retirement, and preferred industry. They commonly focus on growth, income or a combination of the two (Siegel, 2021; Forsberg & Sundqvist, 2022).

An investment strategy is a well-thought-out plan of action that helps investors decide where and how to put their money based on criteria such as their desired rate of return, level of risk, investment horizon (how long they plan to hold onto their money), the amount of money they have available to invest (Davydov et al., 2020). Worth investing, as defined by Otero-González, et al. (2021), encompasses a wide range of techniques based on the belief that the market is undervaluing certain assets that would subsequently perform better if their true value is recognized. Despite a seemingly high share price, growth investors look for firms with above-average growth prospects over the long run (Yu & Kim, 2021). To mirror the market's performance over the long term, investors who choose a passive investment strategy often acquire and hold a wide range of assets (Karlsson et al., 2020). Because of the hands-on nature of active investing, a dedicated portfolio manager is needed. However, a passive investor is one who makes a purchase and then sits on it for a while in the hopes of a return (Wahyudi et al., 2021; Garleanu & Pedersen, 2020). This study focused on four strategies: value, growth, passive and active investment strategies.

Investment plans may be evaluated using many different metrics. Metrics on publicly traded companies' performance are a key tool for value investors looking for equities they think are undervalued by the market. Value investing relies on the use of financial ratios like price/earnings, price/book, debt/equity, and price/earnings/growth to identify companies at bargain prices (Greenwald et al., 2020). Value investing was evaluated here using the price-to-

earnings ratio. Stocks are often evaluated by growth investors based on five criteria: past and projected earnings growth, profit margins, returns on equity (ROE), and share price performance (Wang, 2021). The growth investment plan was evaluated based on the return on equity. Investors who take a passive approach to the market compile holdings with the goal of replicating the performance of a market index (Anadu et al., 2020). Investors in this research who purchased equities at a discount with the purpose of hanging onto them for the long term were classified as engaging in passive investing.

Assessing the soundness of an investment portfolio is essential for optimizing returns. If the portfolio has outperformed, underperformed, or been on a level with the benchmark, this may be deduced from its performance (Ross et al., 2013). A four-factor approach for gauging portfolio success was presented by Fama and French (2012). The three-factor model variable and a momentum component, which measures the disparity in returns between successful and unsuccessful portfolios, are used as a basis for comparison. Due to the irrationality of certain market participants, it may be impossible to diversify away from all of the unsystematic risks in the financial sector. Therefore, a metric that takes overall risk into account, such as the Sharpe ratio, is suitable (Kircher & Rösch, 2021). Portfolio performance measures how well a collection of assets has performed for its owners over a certain time frame and within a specified range of possible losses (Theron & Van Vuuren, 2018). Portfolio performance may be evaluated using the three-factor model variable and a momentum component, the latter of which evaluates the difference in returns between high- and low-performing portfolios. When investors are emotional, it may be impossible to effectively diversify the unsystematic risk in a financial market. To that end, it is reasonable to use a metric like the Sharpe ratio, which considers the whole amount of risk involved (Kircher & Rösch, 2021).

Various metrics are used to evaluate a portfolio's success. Ross et al. (2013) state that Sharpe's measure, Treynor's measure, Jensen's measure, and the informational appraisal ratio measures were the original composite metrics of portfolio performance. To measure how much a portfolio's returns have increased since taking on more risk, investors use a metric called the Sharpe ratio (Zu et al., 2021). Also called "excess return," the risk premium is the difference between the portfolio's return and the yield on a risk-free investment, such as a treasury. The portfolio's overall risk is measured by its standard deviation of returns. The risk premium is the rate of return on an investment portfolio over and above the risk-free rate of interest; the denominator is the portfolio's return volatility (Benhamou et al., 2019). Here, the Sharpe ratio is synonymous with the reward-to-variability ratio (Guo et al., 2018).

Therefore, the Sharpe ratio was used in this research since they are more likely to provide useful findings. Portfolios may be evaluated in terms of their risk-adjusted performance using the Sharpe ratio (Zu et al., 2021). By dividing the average return on an investment by its standard deviation and the risk-free rate of return, the Sharpe ratio indicates the profitability of an investment. Compared to similar portfolios, one with a greater Sharpe ratio is preferred. The Sharpe ratio's strengths lie in its easy-to-use calculation and its ability to compare assets of many sorts (Benhamou et al., 2019).

1.1. Research Problem

The investment strategy chosen by an investor is key to portfolio performance. It is, therefore, vital for researchers to identify the most valuable investment strategies. Studies by Githire and Muturi (2015), Njuguna and Moronge (2013), and Waema and Nasieku (2016) investigated the capital structure, managerial behavior and working capital management among firms listed at the NSE. The conceptual gap is that these studies focused on the influence of managerial factors on portfolio performance and ignored the role of investment strategies. Although managerial factors contribute to portfolio performance it is also important to find out the role of investment strategy.

Studies by Kioko and Ochieng (2020), Muchiri (2020), Tanui and Serebemuom (2021) and Osewe (2020) reviewed portfolio diversification and corporate diversification among firms listed at the NSE. While these studies explored the relationship between diversification and portfolio performance in NSE, there is a lack of research on the role of investment strategies in influencing the performance of individual investors' portfolios. Because diversification differs from investment strategies, a study on the relationship between investment strategies and performance is necessary. Therefore, there was a significant contextual gap in the literature with regard to the effect of investment strategies on the portfolio performance of individual investors in the NSE, which requires further investigation.

Since everyone's financial resources are unique, financial planning should be tailored to each person's specific needs. Studies by Kioko and Ochieng (2020), Muiruri and Wepukhulu (2018) and Odeny (2013) focused on various factors influencing the performance of NSE-listed firms in Kenya. The gap in these studies is that the researchers carried out their studies on firms instead of individual investors. It is, therefore, important to study the investment strategies used by individual investors since they make up the majority of the investors. The study, therefore, aimed to fill this gap.

1.2. Research Objective

To determine the effect of investment strategies on the portfolio performance of individual investors in the Nairobi Securities Exchange.

2. Methods

A descriptive cross-sectional research design was used for the study. The population for the study were 384 individual investors at the Nairobi Securities Exchange. Questionnaires were used to collect data from the respondents. The data was then analyzed using descriptive and regression analysis.

Regression analysis was conducted to assess the effect of investment strategies on portfolio performance using the model below:

$$Y = C + \beta_1 VI + \beta_2 GI + \beta_3 PI + \beta_4 AI + e$$

Where:

Y = Portfolio performance

C = Constant

$B_1 - \beta_4$ = Co-efficient

VI = Value investment strategy

GI = Growth investment strategy

PI = Passive investment strategy

VI = Active investment strategy

e = error term

3. Results

A regression analysis was carried out on the relationship between investment strategies and performance. Table 1 presents the model summary of the outcome of the analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.526	.521	.0472
a. Predictors: (Constant), Active, Value, Growth, Passive				

Table 1: Model Summary

The correlation between investment strategies and performance was strong and positive ($r=0.725$). The R-Square value is 0.526, which indicates that approximately 52.6% of the variance in portfolio performance can be explained by the combination of the investment strategies included in the study. The adjusted R-square suggests that even after accounting for the number of investment strategies considered, about 52.1% of the variance in portfolio performance is explained. The model summary shows that the combination of investment strategies considered in the study has a moderate ability to explain variations in the portfolio performance of individual investors. This result is similar to the results of Daniluk (2020), Laine (2020), and Sembel (2021), where investment strategies play a crucial role in determining the performance of a portfolio in stock markets.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.611	4	21.153	94.942	.000 ^b
	Residual	76.196	342	.223		
	Total	160.807	346			
a. Dependent Variable: Performance						
b. Predictors: (Constant), Active, Value, Growth, Passive						

Table 2: ANOVA

There was a significant effect $F(4, 342) = 94.942, p < .001$, between investment strategies and performance. Results in table 2 demonstrate that the combination of investment strategies (active, value, growth & passive) has a significant impact on explaining the variation in portfolio performance. Falkowski et al. (2020), Nyamute et al. (2017) and Joshipura and Joshipura (2020), in similar studies, also found a significant relationship between investment strategies and performance.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	.177	.288		.614	.540
	Value	.218	.065	.183	3.352	.001
	Growth	.174	.042	.311	4.152	.023
	Passive	.064	.049	.069	1.308	.192
	Active	.359	.053	.319	6.721	.000
a. Dependent Variable: Performance						

Table 3: Regression Analysis

Results in table 3 reveal that the value ($p=0.001$), growth ($p=0.023$), and active investment strategies ($p<0.001$) are statistically significant predictors of portfolio performance, with positive relationships. The beta values in table 3 can be used to solve the model of the study.

$$Y = 0.177 + 0.218 VI + 0.174 GI + 0.064 PI + 0.359 AI + e$$

Where:

Y = Portfolio performance,

VI = Value investment strategy,

GI = Growth investment strategy,

PI = Passive investment strategy,

AI = Active investment strategy and
e = error term

The results show that without investment strategies, portfolio performance would be 0.177, which is low. All four investment strategies are preceded by positive signs indicating that they contribute positively to portfolio performance. The coefficient for value investment strategy is 0.218, which means a unit change in value investment strategy would increase portfolio performance by 0.218. Active investment strategy has the largest beta coefficient (0.359), indicating that it is the most important of the four strategies in affecting portfolio performance. An active investment strategy is followed by a value investment strategy and a growth investment strategy, while a passive investment strategy has the least influence on portfolio performance. This is consistent with Daniluk's (2020) findings, which show that passive investing via the purchase of ETF funds has better profitability and reduced risk. As the mean difference between their means is not equal to zero, the results further support the findings of Shaukat and Shahzad's (2018) study, which demonstrated that these strategies vary from one another and would affect portfolio return and risk differently. This finding, however, conflicts with Karlsson and Brinkestem Persson's (2020) conclusion that there is no discernible difference between the two locations with respect to the relative benefits of active vs passive investing strategies. It also contradicts the findings of Nyamute et al. (2017), who discovered a substantial association between portfolio performance and investing styles, with growth having a negative influence and passive style having a favourable one.

4. Conclusion

The study concludes that investment strategies have a strong, positive and significant effect on the portfolio performance of individual investors in the NSE. The active, value and growth investment strategies have a statistically significant positive effect on portfolio performance. This implies that individual investors who incorporate these strategies into their investment portfolios are likely to achieve better performance in the stock market of developing countries. Active investment strategies involve proactive decision-making, where investors regularly analyze and adjust their portfolios based on market conditions and new information. Their ability to conduct in-depth research, analyze financial statements, and stay informed about market trends enables them to make well-informed investment decisions, potentially leading to superior portfolio performance. Value investing, focusing on undervalued stocks, may provide a margin of safety and potentially lower downside risk. In addition, growth investing, while inherently riskier, has the potential for higher returns driven by companies experiencing rapid expansion. The combination of both strategies allows for a balanced risk approach, optimizing the risk-return tradeoff.

In contrast, the passive investment strategy does not demonstrate a statistically significant effect on portfolio performance. This indicates that passive strategies may not significantly improve portfolio performance in the context of this study. This could be attributed to the fact that passive strategies generally involve minimal adjustments to the portfolio's asset allocation or stock selection. In addition, they do not involve individual stock selection or in-depth fundamental analysis of companies, leading to lower returns. Active investors may identify and capitalize on these inefficiencies, potentially leading to better returns than a passive approach.

5. Recommendations

Nairobi Securities Exchange ought to encourage individual investors to seek information on various investment strategies and their potential impact on portfolio performance before making their decisions. Investors should understand the risks and benefits associated with each strategy. NSE should also emphasize the importance of diversification in reducing risk. While value, growth, and active strategies have shown positive effects, a well-diversified portfolio should incorporate a mix of these strategies based on individual risk tolerance and investment goals. Investors should also carefully consider their risk tolerance, goals, and market conditions when selecting and implementing these strategies to optimize their portfolio performance.

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