The Effect of Investment Style on Portfolio Performance: Evidence from the Nairobi Securities Exchange

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Abstract
The investors must trade to make a return and the choice of where to invest and how many times to trade lies with the investor. This study sought to determine whether the investment styles adopted by the investors on the Nairobi Securities Exchange have an effect on their portfolio performance. The relationship was tested using multiple regression analysis on a sample of 385 individual retail investors. The overall model was statistically significant indicating that investment style influences portfolio performance. Passive investment style and Growth oriented investment style have a significant relationship with portfolio performance with growth having a negative effect while passive style has a positive effect. The implication here is that investors who actively trade should cautiously evaluate the implication on their portfolio to avoid the negative effects.

Keywords: Investment style, passive, active, value, growth, portfolio performance

Introduction
The choice of the style adopted by the investor is intended to serve different purposes depending on the needs of the investor. A passive investor on the other hand, holds the investment as they observe the market and takes action when the market is favorable to them hence making better returns. Investing in a growth stock is an investment style which is based on a company’s fundamentals such as earnings, dividends, cash flows and book value of company and it is be considered as a rational style on behalf of investors. An investor is said to be active when they buy and sell their investments with the aim of taking advantage of profitable opportunities. Investing in value stocks is a strategy adopted by the investor who identifies under-priced stocks with the hope that the price will move up at a future date. The study focuses on how the adoption of any of these styles influences the investor’s portfolio performance.

2. Research Objective
The objective of the research was to determine the relationship between investment style and portfolio performance at the Nairobi Securities Exchange.

3. Literature Review
An investor is said to be active when they buy and sell their investments with the aim of taking advantage of profitable opportunities. A passive investor on the other hand purchases an investment, holds it for a long time awaiting its appreciation and generally has limited turnover. The choice of the style adopted by the investor is intended to serve different circumstances depending on the needs of the investor. An investor can be active in one investment and passive in the other and although most evidence suggests that passive management outperforms active management, there are studies that have found that active and skilled managers can and do generate returns above the average market (Goldman Sachs, 2010).

Active portfolio managers incur high fees, expenses and trading costs which end up lowering their returns hence passive managers tend to perform better. Comparing the fees and the trading costs associated with active and passive management averaging over 26 years, French (2008) found the average of the annual estimates for active management fees over these years to be 38.6 basis points was eight times the average for passive which was 4.8 basis points. French (2008) concluded that active investors spend .67% of the aggregate value of the market each year chasing higher returns.
Emerging markets have fewer analysts and researchers and hence active managers can provide an edge in the areas where there is less information such as small cap companies, international stocks and less liquid markets therefore there is more potential for adding value for an active manager (Mamudi, 2009). Emerging markets however, have stocks that are thinly traded therefore making trading costs a matter of great importance and that give a better return to passive investors.

Investment portfolios may be defined as value or growth stocks. A fund is referred to as a value stock when it has a low P/E ratio and a high dividend yield implying that the stock is trading below its true value. A growth stock has a high P/E ratio and a low dividend yield and is a representative of a company with a high earnings growth rate (Lakonishok et al., 1994). Investing in a growth stock is an investment style which is based on a company’s fundamentals such as earnings, dividends, cash flows and book value of company and it is be considered as a rational style on behalf of investors.

Research findings suggest that the style of investing in value stocks provides returns that surpass that of investing in growth stocks. Basu (1977) used monthly data from over 1400 NYSE firms for the period 1956-1971 and examined whether a stock with low P/E ratio had higher returns than that with a high P/E ratio. He constructed portfolios of high and low P/E stocks and his findings indicated a significant higher return for the low P/E portfolios. Chan et al. (2002), used firm size, book to market ratio (B/M), cash flow yield (C/P) and earnings yield (E/P) as the fundamental variables in the Japanese market and concluded that investing in value stocks was more profitable than investing in growth stocks. Fama and French (1992) on the other hand argue that the superior performance of value stocks is due to the higher underlying risk of these stocks. Lakonishok et al. (1994) suggested that the higher returns achieved by value styles are due to the fact that these are contrarian to the strategies of noise traders that make investors pay too much attention to recent earnings growth and hence overreact to both good or bad news leading to overpricing of the growth stocks and under-pricing of the value strategies. Investors who follow value strategies and invest in undervalued stocks eventually achieve higher returns than those invested in growth companies.

Supporting evidence to the findings of Lakonishok et al. (1994) was provided in the research by Porta et al. (1997). The authors used data from NYSE for the period 1971-1993 and concluded that value stocks outperformed growth stocks. After rejecting the risk based explanation for the high performance of value stocks, the authors concluded that investors often make errors in their expectations about the future earnings of growth stocks hence when the earnings are actually announced, value stocks, whose expectations were lower, outperform glamour stocks.

4. Research Methodology
4.1 Population and Sample
Individual retail stock investors at the Nairobi Securities Exchange estimated to be 2.4 million retail investors as per Central Depository & Settlement Corporation limited investor data base as on December 31, 2014 formed the base of the population. The study covered a five year period from January 1st, 2010 to December 2014 on a sample of 385 individual active investors.

4.2 Data
Data on investment style was collected using a questionnaire that was administered to investors while data on performance was extracted from share investment statements provided by the investors. The 91-day Treasury bill rate was collected from the Central Bank of Kenya web site and from the records in the CBK’s research department where these were not available on the web site. The Central Bank of Kenya 91-day rate was used as a proxy for the risk free rate.

4.3 Data Analysis
The Sharpe ratio was used to measure portfolio performance while investment style was operationalized into four styles namely: active, passive, growth oriented and value oriented. The investors are assumed to suffer from behavioral influences and therefore not expected to hold a diversified portfolio hence the choice of the Sharpe ratio as it makes no assumption on the distribution of assets in the portfolio. The individual investor monthly returns were calculated using the net asset value (NAV) which was derived by multiplying the number of shares by the price.

The monthly returns were determined by subtracting the net asset value at the beginning of the month from the value at the end of the month then dividing the result by the beginning value. The average monthly return and the standard deviation was determined and used to determine the Sharpe ratio as follows:

\[
\text{Sharpe Ratio for each investor} = \frac{\bar{R}_i - R_f}{\sigma_i} \quad \text{....... (1)}
\]

Where
- \(\bar{R}_i\) is the average monthly return for each investor,
- \(R_f\) is the risk free rate as measured by the 91-T bill,
- \(\sigma_i\) is standard deviation of the returns for each investor,

The following equation was derived for the objective:

\[
\text{Performance} = \beta_0 + \beta_1 \text{ Passive} + \beta_2 \text{ Active} + \beta_3 \text{ Value} + \beta_4 \text{ Growth} + \alpha \quad \text{(2)}
\]

To achieve the objective the following hypothesis was formulated and tested:

\[H_1: \text{There is a relationship between investment style and portfolio performance at the Nairobi Securities Exchange.}\]

Test of multi-collinearity showed that the variables were not correlated indicating their suitability for multiple regressions. The test of goodness of fit model of investment style subscales (active, passive, growth oriented and value oriented) as predictor variables and portfolio performance as the dependent variable was carried out. Tests of significance for the overall model were performed using the F-test and the test of significance of the model coefficients was done using the t-test.

5. Results and Discussions
The results of these tests show that Active oriented investment style and Value oriented investment style both have a positive though not significant relationship (p>.05) with portfolio performance as shown in the table below. Passive investment style (\(\beta = .191, t = 3.544, p< .05\)) and Growth oriented investment style (\(\beta = -.154, t = -2.756, p< .05\)) both have a significant relationship with portfolio performance an indication that passive oriented investment style and growth oriented investment style both influence portfolio
performance. Passive investment style has a positive influence on portfolio performance at Nairobi Securities Exchange while growth oriented investment style has a negative influence on portfolio performance. The results further show that passive investors make better returns while the adoption of a growth oriented investment style leads to poor returns. Active and value oriented investment styles have a positive but insignificant relationship with portfolio performance implying that adopting these styles will not affect the investors’ performance.

The hypothesis (H1) explored the relationship between investment style and portfolio performance at Nairobi Securities Exchange by suggesting that there is a relationship between investment style and performance at the Nairobi Securities Exchange. Results of this study indicate that the model has a predictive value. The relationship between investment style and portfolio performance is significant (p<0.05) an indication that investment style influences portfolio performance. Investment style explained 4.4% of the variance in portfolio performance (R^2=0.044). The hypothesis (H1) could not therefore be rejected.

Recalling the prediction equation:
Since the regression coefficients of active oriented investment style and value oriented investment style are not significant, the regression equation can be rewritten as follows:

\[
\text{Performance} = -0.651 + 0.191\text{Passive} - 0.154\text{Growth} + \varepsilon
\]

The results also support the findings of Lakonishok et al. (1994) which were provided in the research by Porta et al. (1997) who used data from NYSE for the period 1971-1993 and concluded that value stocks outperformed growth stocks. After rejecting the risk based explanation for the high performance of value stocks, the authors concluded that investors often make errors in their expectations about the future earnings of growth stocks hence when the earnings are actually announced, value stocks, whose expectations were lower, outperform glamour stocks. Results of this study indicate that the relationship between investment style and portfolio performance is significant (p<0.05) an indication that investment style influences portfolio performance. The hypothesis could not therefore be rejected. Since the regression coefficients of active oriented investment style and value oriented investment style are not significant, the regression equation can be rewritten as follows:

\[
\text{Performance} = -0.651 + 0.191\text{Passive} - 0.154\text{Growth} + \varepsilon
\]

These research findings are consistent with Basu (1977) who found that the style of investing in value stocks provides returns that surpass that of investing in growth stocks. Chan et al. (1991) also concluded that investing in value stocks in the Japanese market was more profitable than investing in growth stocks. Fama and French (2002) on the other hand argue that the superior performance of value stocks is due to the higher underlying risk of these stocks. Lakonishok et al. (1994) suggested that the higher returns achieved by value styles are due to the fact that these are contrarian strategies of noise traders that make investors pay too much attention to recent earnings growth and hence overreact to both good or bad news leading to overpricing of the growth stocks and underpricing of the value strategies. Investors who follow value strategies and invest in undervalued stocks eventually achieve higher returns than those invested in growth companies. Findings by French (2008) who concluded that active portfolio managers incur high fees, expenses and trading costs which end up lowering their returns hence passive managers tend to perform better are also consistent with the findings of this study.

6. Conclusions and Recommendations

The objective of the research was to determine the relationship between investment style and portfolio performance at the Nairobi Securities Exchange. The failure to reject the hypothesis (H1) implies that the investment style adopted by the investor will affect the performance of their portfolio. Passive investment style and Growth oriented investment have a significant relationship with portfolio performance while the other two styles had an insignificant effect on performance.

The implication of these findings is that those investors who adopt growth oriented style in a market where there are behavioral biases will earn inferior returns compared to their counterparts since investing in a growth stock is an investment style which is based on a company’s fundamentals such as earnings, dividends, cash flows and book value of company and it is be considered as a rational style on behalf of investors. A passive investor on the other hand, holds the investment as they observe the market and takes action when the market is favorable to them hence making better returns.

The Capital Markets Authority (CMA), the Nairobi Securities Exchange and other market players can use these findings as a basis of investor education and minimization of noise trading in the Kenyan capital markets. Stock brokers and mutual fund managers can use these findings as a guide to choosing the investment style that best meets their clients’ needs.

References

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