Research Article

Stock Selection and Market Timing Ability of Nepalese Mutual Funds

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Abstract

This study evaluates the performance of Nepalese mutual fund managers' stock selection and market timing abilities. This study performed the investigation on the weekly data of 5 mutual funds from December 28, 2017 to March 2, 2023 spanning 270 weeks. To serve our objective, the stock selection skills of the fund managers were assessed using average return, Sharpe ratio, Treynor ratio, Information ratio and Jensen's alpha. The study found strong evidence supporting risk management ability in all of the mutual fund schemes as demonstrated by beta coefficient below unity and significant stock selection ability in 2 out of the 5 mutual fund schemes. Furthermore, the positive values of alpha although not statistically significant indicates stock selection ability of the fund managers. On the other hand, Treynor and Mazuy's Unconditional Market timing model was employed to test the market timing skill of fund managers. The test results did not indicate any significant positive market timing skills but one of the mutual fund schemes exhibited statistically significant negative market timing. Thus, the Nepalese fund managers aptly demonstrated stock selection ability but they did not demonstrate any positive market timing skills indicating that fund managers typically relied on stock selection to outperform the Benchmark Index rather than market timing skills.

Keywords: Mutual Funds; Portfolio Management; Stock Selection; Market Timing; Nepalese Stock Market

Introduction

The Nepalese mutual fund industry has witnessed significant growth and reforms over the past few decades. It began its journey in 1993 with the operation of NCM Mutual Fund 2050, followed by NCM Mutual Fund 2059 and Citizen Unit Scheme 2052. However, the industry was unregulated until the introduction of the Mutual Fund Regulations in 2010 by Securities Board of Nepal (SEBON). Subsequently, the mutual fund industry has experienced remarkable growth in terms of fund size, assets

under management, number of asset management companies and the variety of products offered to the public.

Since the introduction of the Mutual Fund Regulations in 2010, a total of 48 mutual fund schemes have raised funds from the general public. Out of the 48 schemes issued to date 34 are closed-ended schemes, 7 closed-ended schemes have matured and 7 open-ended schemes as of mid-May 2023. The assets under management (AUM) of the 41 active mutual fund schemes amount to ~NPR 39,609 million, representing less than 1% of Nepal's GDP. This indicates

the early stage of the industry despite a track record of over two decades and the potential for further growth, especially when considering the Market Capitalization to GDP ratio of ~49% during the same period (Nepal Rastra Bank, 2023).

The evaluation of performance of mutual funds and identification of successful managers have been a great concern for both investors and academia. The performance of mutual fund schemes has extensive implications for the financial wellness of the general population, given the rapid advancements in technology, increasing complexity of financial markets, and the presence of multiple fund management companies in Nepal. It is crucial to assess the value delivered by professional mutual fund managers in relation to the management fees they charge and the higher transaction costs associated with active management.

From the investor's point of view, such evaluation would be a useful aid for efficient allocation of resources and financial management. At a micro level, it is essential to identify mutual fund schemes that are performing exceptionally well and are timing the market accurately. Moreover, it is necessary to conduct in-depth analysis and case studies need to be conducted to assess the soundness of the fund manager's strategy so that the results can be further replicated. The academics are interested in the performance of the fund managers because consistent superior performance is against widely accepted efficient market hypothesis which states that the share prices incorporate all information, making consistent outperformance of the stock market an anomaly. Therefore, fund manager consistently outperforming the market would be considered to be an outliers and a subject of interest for academia.

Two possible methods that are used by fund managers to generate superior performance are 'stock selection' and 'market timing.' Stock selection skills involve micro forecasting of the price movements of the individual stocks relative to the market and identification of the individual stocks that are under-or over-valued relative to the equities in general. Market timing skills imply assessing correctly the direction of the market, whether bull or bear, and positioning the portfolios accordingly. For example, if a fund manager is expecting a declining market, they could reduce the 'beta' of her portfolio suitably by increasing the proportion of cash and fixed income securities in their portfolio. However, in case of a rising market, the fund manager could follow a reverse strategy. In either case, the fund managers could potentially outperform the market by timing their entries and exits.

Furthermore, in the current dynamic and ever-changing business world, active fund management has gained prominence. Fund managers have become increasingly proactive in adapting to market fluctuations and capitalizing on opportunities. Consequently, the traditional measures

such as the Sharpe ratio, Treynor ratio, Information ratio, and Jensen's alpha may not fully capture the impact of the fund manager's active management style. To comprehensively evaluate their performance, it is crucial to consider their ability to time the market in addition to the fund manager's ability to construct well-optimized investment portfolios.

In the context of Nepal, it becomes particularly important to examine the capabilities of Nepalese fund managers to consistently generate returns that surpass the market especially in light of the findings of the study conducted by Risal and Koju (2021), which found the Nepalese stock market to be inefficient in the weak form, suggesting that future price movements can be predicted based on past price movements thus providing an opportunity for fund managers to achieve superior returns by stock selection and effectively timing their entries and exits in the market.

Therefore, there is a need to reevaluate the performance of mutual funds in Nepal by considering their ability to time their entry and exit points in the stock market, in addition to assessing their performance using traditional metrics such as the Sharpe ratio, Treynor ratio, Information ratio, and Jensen's alpha. By incorporating market timing and stock selection abilities into the performance evaluation, a more comprehensive and accurate assessment of the mutual funds' performance can be achieved, considering the specific characteristics of the Nepalese market.

Literature Review

Performance of International Mutual Fund Schemes
The academic literature on the performance of fund managers is rich and spans several decades. The pioneering work in relation to market timing done by Treynor and Mazuy (1966) and they developed an approach to examine fund manager's market timing capabilities. Their study examined the performance of 57 open ended mutual fund schemes and found significant timing ability in only 1 of the 57 funds in their sample. Subsequently, Henriksson and Merton (1981) proposed an alternative method to assess the market timing capabilities of mutual fund schemes. Furthermore, on application of the model proposed by Henriksson and Merton (1981) and upon the test of the model it was revealed that only 3 funds out of 116 sampled exhibited significant positive market timing ability.

Another study conducted by Kon and Jen (1979) during the 1970s found that many mutual funds actively engaged in market timing activities, but little evidence supported the positive outcomes of those activities. Furthermore, Chang and Lewellen (1984) concluded that, as a group, mutual funds were unable to outperform a passive investment strategy through market timing or stock selection.

However, later studies by Bello and Janjigian (1997) indicated the presence of market timing abilities in 663

mutual funds during the 1984-1994 period when non-S&P 500 assets were considered. These findings contrasted sharply with previous studies. Additionally, Bollen and Busse (2001) analyzing daily data changes instead of monthly data changes, found that 34 percent of sampled mutual funds demonstrated significant market timing ability, with daily tests revealing mutual funds exhibiting timing ability more frequently than monthly tests.

However, a study assessing the performance of Greek Mutual fund managers found that the fund managers did not have any market timing ability (Philippas, 2002). Similarly, Deb et al. (2007) concluded that Indian mutual fund managers lacked market timing ability but demonstrated stock selection ability. However, on the contrary, a study carried out by Pandow (2016) in the Indian context found that 85 percent of the fund managers had demonstrated superior market timing performance. The study also noted the presence of a trade-off associated with a fund manager's stock selection ability and ability to time the market and it would be difficult for fund managers to excel in both.

In the context of the Bangladeshi market, a study by Hasan and Ahsan (2016) found that fund managers did not possess stock selection or market timing skills. Additionally, a study conducted on the Indonesian stock market by Azis et al. (2022) revealed that out of 55 mutual fund schemes, 45 demonstrated strong stock selection skills, while only 5 demonstrated market timing ability.

The academic literature on the performance of international mutual fund schemes provides mixed findings regarding the existence of stock selection and timing skills among fund managers. Early studies by Treynor and Mazuy (1966) and Henriksson and Merton (1981) found limited evidence of timing ability, while studies by Kon and Jen (1979) and Chang and Lewellen (1984) showed little support for positive outcomes of market timing activities. However, later studies by Bello and Janjigian (1997) and Bollen and Busse (2001) found evidence of market timing abilities among a considerable number of funds. Regional studies also yielded diverse results, with Greek mutual fund managers lacking timing ability (Philippas, 2002). Initially, Deb et al. (2007) found Indian managers lacked timing ability but showcased strong stock selection skills. However, a later study by Pandow (2016) revealed a different outcome, indicating that a significant proportion of Indian managers demonstrated superior market timing performance. A study conducted on the performance of Bangladeshi fund managers by Hasan and Ahsan (2016) concluded that these fund managers did not demonstrate adequate stock selection and market timing skills to outperform the market, while Azis et al. (2022) discovered strong stock selection skills in the Indonesian market, but limited market timing ability. Overall, these studies emphasize the growing importance of market timing for fund managers, who are increasingly focusing on both timing the market and enhancing their stock selection abilities to navigate the complexities of the stock market effectively with the performance of the fund managers being influenced by the maturity of their domestic stock market and mutual fund industry.

Performance of Nepalese Mutual Fund Schemes

Several studies have been conducted in Nepal, focusing on different fund management companies and spanning various time frames, since the introduction of mutual fund schemes over a decade ago. One of the earliest studies examined the performance of five mutual fund schemes managed by different companies was conducted by (Bajracharya, 2016). The study revealed that the managers of these schemes demonstrated proficiency in reducing systematic risk, as indicated by a decrease in beta primarily through portfolio diversification and asset allocation techniques. The study also revealed that while most of the mutual funds performed better according to Jenson and Treynor measures, their performance fell short of the benchmark when assessed using the Sharpe ratio. Additionally, the study emphasized the importance of diversification in reducing portfolio risk, with only a few mutual funds demonstrating a high level of diversification. (Bajracharya, 2016).

In a subsequent study conducted in 2019, the performance of 8 Nepalese mutual fund schemes was assessed from 2015 to 2018. The performance of these mutual fund schemes was assessed using multiple performance metrics like Jensen's Alpha, Treynor ratio, Sharpe ratio, and Quadratic regression of Treynor and Mazuay. The findings revealed that mutual fund schemes with a duration of 36 months or more exhibited superior performance compared to the market index, indicating the benefit of experienced fund managers and prior period investment decisions. Additionally, funds operational for shorter periods displayed significantly lower returns, suggesting the presence of a gestation period for new schemes. The study also revealed the resilience of older funds with positive Net Asset Value (NAV) even in challenging market conditions. Portfolio diversification in the Nepalese stock market showed limited effectiveness, likely due to the dominance of financial institutions. Furthermore, the study indicated that fund managers had ability to select funds enabling them to outperform the market. However, market timing skill did not significantly impact the overall performance of the mutual fund schemes (Upadhyaya & Chhetri, 2019).

Moreover, in another study, the performance of 8 mutual fund schemes was evaluated by using Sharpe ratios, Treynor ratios, and Jensen's alpha. The study found that most mutual fund schemes maintained a beta lower than 1, indicating their ability to reduce market risk through diversification. However, the performance of the majority

of the mutual fund schemes was unsatisfactory in terms of Sharpe ratio, Jensen's alpha, and Treynor ratios. Notably, the performance of the Sanima Equity Fund stood out, exhibiting better performance compared to its peers in terms of the Treynor ratio (Bajracharya, 2023).

In context of Nepal, the performance of mutual fund schemes has remained volatile and have been significantly influenced by the performance of the stock market. Consequently, the performance of the funds managed by the asset management companies have sometimes outperformed the benchmark while in other instances they have failed to outperform the benchmark in terms of risk adjusted returns. Furthermore, the studies have provided some evidence supporting the presence of stock selection skills amongst fund managers. However, the prior studies did not find any evidence supporting the presence of market timing ability of fund managers.

Methodology

Sampling Procedure and Data Collection

The sample mutual fund schemes for this study was drawn from the population of mutual fund schemes having an operational track record for the week ending on December 28,2017 to March 2, 2023, which covered the performance of the mutual fund schemes over 270 weeks. The sample consisted of five mutual fund schemes managed by different asset management companies (AMC). The weekly Net Asset Value (NAV) and the NEPSE Index data were obtained from the respective websites. The weekly NAV returns of the mutual fund schemes was adjusted for cash dividends distributed during the aforementioned time frame. The formula applied for the calculation of the weekly returns of the mutual fund scheme was as follows:

$$R_{t,i} = \frac{(P_{t,i} - P_{t-1} + D_t)}{P_{t,i}}$$

where,

$R_{t,i}$ = weekly return of the sample fund i in period t

$P_{t,i}$ = NAV value of the sample fund i in period t

D_t = Dividend paid by mutual fund scheme in period t

$P_{t-1,i}$ = NAV value of the sample fund i in period t-1

Risk-Adjusted Performance Measures

Sharpe Ratio

Sharpe Ratio (S_i) represents the risk premium earned per unit of the total risk where standard deviation of the mutual fund portfolio is used to reflect the risk associated with the investment (Sharpe, 1966).the formula for Sharpe Ratio can be expressed as follows:

$$S_i = \frac{R_p - R_f}{\sigma_p}$$

where,

R_p is the weekly return of the mutual fund portfolio,

R_f is the average risk free return for the period

σ_p is the standard deviation of the mutual fund portfolio

The Sharpe Ratio helps investors assess the risk-adjusted performance of a portfolio by considering both the excess return and the volatility of the portfolio's returns. A higher Sharpe Ratio indicates a better risk-adjusted performance, as it implies a higher return relative to the level of risk taken on by the investor.

Treynor Ratio

The Treynor Ratio is another measure used to evaluate the risk-adjusted performance of an investment portfolio, particularly in relation to systematic risk which is reflected by the portfolio's beta (Treynor, 1965) .This measure can be expressed as:

$$Treynor = \frac{R_p - R_f}{\beta_p}$$

Where,

R_p is the weekly return of the mutual fund portfolio,

R_f is the average risk free return for the period

β_p is the beta coefficient of the mutual fund portfolio, which measures the sensitivity of the portfolio's returns to the overall market returns

The Treynor Ratio focuses on the systematic risk or market risk of the portfolio, as captured by its beta. It helps investors assess how well the portfolio performs relative to the level of systematic risk it carries. A higher Treynor Ratio indicates a better risk-adjusted performance, as it implies a higher excess return per unit of systematic risk.

Information Ratio

The Information Ratio is a measure which is used to evaluate the skill of a fund manager by assessing the excess return generated compared to the volatility of those returns, which is represented by the tracking error (TE) of the portfolio (Grinold & Kahn, 2000). The formula for the Information Ratio can be expressed as:

$$Information\ Ratio = \frac{R_p - R_b}{TE}$$

Where:

R_p represents the weekly return of the mutual fund portfolio.

R_b is the weekly return of a benchmark index against which the portfolio's performance is compared.

TE is the tracking error, which measures the standard deviation of the difference between the portfolio's returns and the benchmark's returns.

The Information Ratio helps investors evaluate the ability of a portfolio manager to generate excess returns relative to the benchmark while considering the level of active risk taken. A higher Information Ratio indicates a higher level of skill in generating excess returns, as it implies a greater amount of active return per unit of tracking error.

Testing Fund Manager's performance

Jensen's Alpha

Alpha, also known as Jensen's Alpha, is a widely used measure in finance that evaluates the performance of fund managers and their ability to outperform a benchmark index. The formula proposed by Jensen (1967) to compute the alpha is as follows:

$$R_{p,i} - R_f = \alpha + \beta * (R_m - R_f) + \varepsilon$$

Where,

Rp represents the weekly return of the mutual fund portfolio.

R_f is the average risk free return for the period

R_m is the market return

α is the Jensen's alpha coefficient of the mutual fund portfolio, representing the fund manager's stock selection ability

β_p is the beta coefficient of the mutual fund portfolio, which measures the sensitivity of the portfolio's returns to the overall market returns

Treynor -Mazuy Model (TM) (Unconditional)

The performance of mutual fund schemes in terms of market timing and stock selection capability was analyzed by computing the alpha, beta and gamma of the mutual fund schemes by using the Treynor Mazuy unconditional model proposed by Treynor and Mazuy (1966) .which can be expressed as follows:

$$R_p - R_f = \alpha + \beta * (R_m - R_f) + \gamma * (R_m - R_f)^2 + \varepsilon_{p,i}$$

Where,

Rp represents the weekly return of the mutual fund portfolio.

R_f is the risk-free return for the period

R_m is the market return

α measures stock selection capabilities, reflecting the fund manager's ability to select stocks for the portfolio.

β is the unconditional beta coefficient, indicating the sensitivity of the portfolio's returns to overall market returns.

γ is the market timing coefficient, measuring the fund manager's market timing abilities.

The fund manager's performance is reflected by α and γ coefficients, which represents the fund manager's stock selection ability and market timing capabilities respectively. A statistically significant and positive α coefficient suggests the fund manager's skill in forming an optimal portfolio through effective stock selection. Conversely, a negative α coefficient indicates a lack of capability in portfolio optimization. The γ coefficient is a measure of the fund manager's market timing ability. If γ of the mutual fund is positive and significant it indicates that the fund manager has the ability to market timing. Likewise, if γ is negative and significant it indicates that the fund manager does not have the ability to market timing. Fund managers who have the market timing ability will change its portfolio with a beta component that has a high value (β> 1) when the market is rising (Rm> Rf) and conversely when the market is in decline (Rm <Rf), the investment manager will change his portfolio with a beta component that have a low value (β <1). Thus, the market timing strategy is done by buying and selling shares by forecasting the market movements.

Results and Discussions

Descriptive Statistics

Table 1 represents the descriptive statistics of weekly return of 5 mutual fund schemes and a comparable index, NEPSE Index (the benchmark index of Nepal Stock Exchange). In terms of the weekly mean returns over the 270 periods, the return of Global IME Samunant Scheme 1, Sanima Equity Fund and NIBL Pragati Fund 1 are better than the benchmark index. Additionally, all the funds have a lower minimum negative return than the benchmark index, suggesting that the fund managers have been able to effectively manage risks associated with the stock market. Moreover, the standard deviation for all schemes, except for Global IME Samunnat Scheme 1, is lower than that of the NEPSE Index, which further highlights the fund managers' capabilities regarding risk management. However, it is worth noting that the maximum returns during the period have not exceeded the weekly returns of the NEPSE Index for any of the funds. The kurtosis of all schemes is within the standard limit of 3, except for Sanima Equity Fund, which has a kurtosis of 3.5123, indicating that its returns have more extreme values than the other funds. Similarly, the skewness of Sanima Equity Fund is high at 0.8205, implying that its returns are not symmetrical and have more positive skewness than the NEPSE Index and other funds.

Risk Adjusted Performance Analysis

Table 2 presents the risk-adjusted performance of mutual funds and the benchmark index over a review period using four measures: Sharpe ratio, Treynor ratio, Information ratio, and Jensen's alpha. All funds outperformed the benchmark index in terms of the Sharpe ratio and Treynor Ratio, further accentuating the fund managers' strong risk management ability. During the review period, Sanima

Equity Fund achieved the highest Sharpe and Treynor ratios, followed by Global IME Samunnat Scheme 1, NIBL Pragati Fund 1, Nabil Equity Fund, and Laxmi Equity Fund. Furthermore, Global IME Samunnat Scheme 1 had the highest Information ratio among its peers, indicating superior performance relative to the benchmark index. In contrast, Nabil Equity Fund and Laxmi Equity Fund ranked

4th and 5th respectively, had significantly low Information ratio indicating below average performance of the funds relative to the benchmark index. Overall, the results demonstrate that some mutual funds outperformed the benchmark index during the review period, but the performance varied significantly across funds.

Table 1: Descriptive statistics of weekly returns

Name of Fund/ Index	Mean	Min	Max	Standard Deviation	Kurtosis	Skewness
NEPSE Index	0.0020	(0.1204)	0.1377	0.0317	1.9230	0.4081
Global IME Samunnat Scheme 1	0.0031	(0.1002)	0.1157	0.0327	1.3981	0.5207
Sanima Equity Fund	0.0029	(0.0864)	0.1037	0.0229	3.5123	0.8205
Laxmi Equity Fund	0.0017	(0.0707)	0.0810	0.0213	1.7008	0.6594
NIBL Pragati Fund 1	0.0021	(0.1165)	0.1013	0.0271	2.6134	0.4684
Nabil Equity Fund	0.0019	(0.0695)	0.0760	0.0233	0.9974	0.4323

Source: Author's Computations (2023)

Table 2: Risk –adjusted performance measures (Rating Analysis)

Name of Fund/ Index	Sharpe Ratio	Rank	Treynor Ratio	Rank	Information Ratio	Rank
NEPSE Index	0.0342	6	0.0011	6	-	-
Global IME Samunnat Scheme 1	0.0670	2	0.0023	2	0.0022	1
Sanima Equity Fund	0.0871	1	0.0032	1	0.0020	2
Laxmi Equity Fund	0.0412	5	0.0014	5	0.0009	5
NIBL Pragati Fund 1	0.0465	3	0.0016	3	0.0013	3
Nabil Equity Fund	0.0450	4	0.0016	4	0.0010	4

Source: Author's Computations (2023)

Table 3: Regression results of Jensen's Alpha (1969) Model

Name of Fund	Alpha	T Value (Alpha)	Beta	T Value (Beta)	R- Squared	Observations
Global IME Samunnat Scheme 1	0.0022	2.9358**	0.9534	40.1875*	0.8577	270
Sanima Equity Fund	0.0012	1.7560***	0.6253	27.9335*	0.7443	270
Laxmi Equity Fund	0.0001	0.2570	0.6155	37.2792*	0.8383	270
NIBL Pragati Fund 1	0.0004	0.5609	0.7865	38.3679*	0.8460	270
Nabil Equity Fund	0.0003	0.4491	0.6768	38.4031*	0.8462	270

*Note: * significant at 1% level, ** significant at 5% level, *** significant at 10% level*
Source: Author's Computations (2023)

Table 4: Regression results of Treynor –Mazuy Unconditional (1966) Model

Name of Fund	Alpha	Beta	Gamma	t(Alpha)	t(Beta)	T(Gamma)	R- Squared	Observations
Global IME Samunnat Scheme 1	0.0020	0.9670	(0.8160)	2.3272**	(1.3608)	(2.1094)**	0.8604	270
Sanima Equity Fund	0.0004	0.6191	(0.2505)	0.6516	(22.4464)*	(0.9247)	0.8389	270
Laxmi Equity Fund	0.0004	0.6191	(0.2505)	0.6516	(22.4464)*	(0.9247)	0.8389	270
NIBL Pragati Fund 1	0.0009	0.7940	(0.5247)	1.2161	(9.8078)*	(1.5646)	0.8474	270
Nabil Equity Fund	0.0008	0.6841	(0.5093)	1.2102	(17.5148)	(1.7685)	0.8480	270

*Note: * significant at 1% level, ** significant at 5% level, *** significant at 10% level*
Source: Author's Computations (2023)

Regression Analysis using Jensen's Alpha Model

Table 3 represents the results of the regression of the Jensen's Alpha Model for the 5 mutual fund schemes. Jensen's alpha is an indicator of fund manager's stock selection skill and a large positive statistically significant alpha would indicate fund manager's superior stock selection capabilities. The analysis reveals that the Global IME Samunnat Scheme 1 had the highest alpha coefficient, which was statistically significant at a 5% level. It was followed by Sanima Equity Fund, whose alpha was statistically significant at a 1% level. Further, all the remaining funds viz. Laxmi Equity Fund, NIBL Pragati Fund 1 and Nabil Equity Fund have low alpha coefficients. which suggests that these funds had low or no stock selection ability on the part of their fund managers. Moreover, the analysis indicates that the beta coefficients of all the funds were below 1 and statistically significant, implying that their fund managers had good risk management capabilities. The R-squared values for all the funds were relatively high, indicating that the model was a good fit and it was able to explain a significant portion of the variation in the returns of the mutual funds.

Regression Analysis for Market Timing Skills

The fund manager's market timing skill implies that the fund manager has the ability to predict the movement of the market and adjust their portfolio accordingly. The market timing ability of fund managers is reflected by the gamma coefficient. Table 4 represents the results of the regression of the Treynor-Mazuy Unconditional model for the funds. The gamma of all the funds is negative and none of the t-value of gamma estimate is statistically significant at 5% level, except for Global IME Samunnat Scheme 1. This indicates that the fund managers of Global IME Samunnat Scheme 1 did not time the market but were skilled at selecting stocks as reflected by their positive and significant alpha as per the Treynor-Mazuy Unconditional model as well as the Jensen's Alpha model. Therefore, from the Table 4, it is evidenced that none of the funds' managers had market timing capabilities.

The performance of the 5 mutual fund schemes in terms of market timing, stock selectivity and risk management has been assessed in Table 1 -4. The results indicate that all fund managers effectively reduced market risk by selecting stocks, investing in fixed income securities, and diversifying portfolios. However, all the fund managers could not select a portfolio that could generating returns in excess of the benchmark index. Global IME Samunnat Scheme 1 and Sanima Equity Fund outperformed their peers in terms of Alpha, Sharpe ratio, Treynor ratio, and Information ratio. NIBL Pragati Fund's performance was moderate, while Laxmi Equity Fund and Nabil Equity Fund's performance was relatively poor across all parameters. However, the market timing ability could not

be observed in any of the mutual fund schemes as indicated by the negative gamma.

Conclusion

The present study aimed to evaluate the performance of mutual fund schemes relative to their market timing and stock selection abilities. This study has assessed the performance of 5 mutual fund schemes managed by five different Asset Management companies. This study has utilized the model proposed by Jensen (1967) to assess the stock selection ability of fund managers and the Unconditional Treynor-Mazuy Model proposed by Treynor and Mazuy (1966) to assess the market timing capabilities of the fund manager. This study has revealed that all the fund managers had sound risk management policies, resulting in better risk-adjusted returns than the NEPSE Index and beta coefficient lower than 1. Notably, Global IME Samunnat Scheme 1 and Sanima Equity Fund demonstrated significant and positive alpha coefficients, suggesting a strong stock selection ability. This indicates that these schemes were able to effectively select stocks for their portfolios, contributing to their superior risk-adjusted returns. Further, the alpha coefficient of NIBL Pragati Fund 1, Nabil Equity Fund and Laxmi Equity fund were positive but not statistically significant which is indicative of some stock selection ability of the fund manager.

On the other hand, the assessment did not reveal any significant market timing capabilities among the fund managers during the observation period. Global IME Samunnat Scheme 1, in particular, had a statistically significant negative market timing coefficient, indicating that the scheme generated returns through long-term investments and skillful stock selection rather than timing the market. Additionally, the remaining four funds exhibited statistically insignificant and negative gamma coefficients, further suggesting a lack of market timing ability. Thus, the finding of this paper are in line with the findings of Upadhyaya & Chhetri (2019) whose study also the stock selection ability of Nepalese mutual fund schemes but found no significant evidence of market timing ability. Additionally, the results of this study are consistent with those of Azis et al. (2022), who observed strong evidence of stock selection skills among Indonesian fund managers but no discernible market timing abilities.

The study concludes that the fund managers in Nepal have relied primarily on risk management and stock selection to generate superior risk-adjusted returns compared to the benchmark index. However, the findings indicate a lack of market timing ability among the fund managers. Possible reasons for this could include the limited scope of the Nepalese stock market, the absence of attractive alternative investment avenues, and challenges related to liquidity in long-term fixed income securities, among other factors. Overall, despite the present reluctance of fund managers to

actively engage in market timing, it remains an unexplored avenue that holds the potential to enhance returns and improve the performance of mutual fund schemes. Further research in this area can provide valuable insights for both fund managers and investors seeking to optimize their investment strategies in the Nepalese market.

Conflict of Interest

Acknowledgement

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