

Factors Affecting the Performance of the Mutual Fund in Nepal

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Abstract

This study examines macro and micro factors affecting Nepalese mutual fund results. This study used panel data from March 2016 to November 2022 to determine the success factors of Nepal's 16 mutual funds.

Nepalese mutual funds' irregular performance is due to national economic conditions and individual fund peculiarities. This research analyzes the influence of economic events and fund attributes on the performance of Nepalese mutual funds by using risk-adjusted returns proposed by William Sharpe (1994). This research evaluated how macroeconomic and fund-factor changes affected Nepal's mutual funds.

The results show a positive relationship between fund age, assets turnover ratio, fund size, and exchange rate. Liquidity is a non-factor in mutual fund performance, but growth in gross domestic product, inflation, interest rates, and the money supply (M2) all harm fund return. Managers of mutual funds are encouraged to follow the recommendations made in this study to keep their portfolios as diversified as possible.

Keywords: Mutual Fund, Sharpe Ratio, Macroeconomic-factor, Fund-factor.

I. Introduction

Economic expansion may be achieved by developing a capital market to meet the country's financial demands. The two primary roles that financial institutions may play in the financial system are the generation of public savings and the provision of investment capital. One financial organization that does this is the mutual fund business, which solicits investors for modest contributions and then allocates those assets among a wide range of investment opportunities (Rani & Hooda, 2017). A mutual fund is a firm that uses many people's money (its shareholders) to acquire financial assets with a lower level of risk than an individual investor could achieve (Kolosov & Soltanmammedov, 2011). Small investors benefit from mutual funds because they increase their revenues and lower their exposure to unsystematic risks (Gohar et al., 2011, p. 5583). If small investors need more confidence in managing their portfolio but want to diversify their investments, consider purchasing shares in a mutual fund. Furthermore, the mutual fund aids investors in diversifying their portfolios into a variety of assets, reducing the risk associated with betting on a single firm or sector. Investors own shares of a mutual fund for the potential for profit through dividends and price appreciation. Shareholders realize a capital gain when their shares are sold for more than they were initially paid. In the alternative, owners may experience a capital loss if the share price is lower than the initial investment (Kon, 2006).

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A "fund" is defined in the Mutual Funds Regulation, 2067, as a fund as defined in subsection (m) of section 2063 of the Securities Act. A mutual fund is a company or trust whose only purpose is to invest its investors' money in various securities (often stocks and bonds) to reach a predetermined return.

Mutual funds are a collective investment vehicle in which investors combine their resources to purchase stocks, bonds, marketable securities, and other assets. Managers are liable for allocating the fund's investments and seeking opportunities to increase the fund's capital gains and income for investors. Every mutual fund's portfolio is constructed and managed under the fund's prospectus and the stated investment goals. Mutual funds allow individual and small-scale investors access to professionally managed portfolios of stocks, bonds, and other assets. Therefore, the fund's gains and losses are distributed proportionally among all investors. Because mutual funds invest in a wide variety of assets, their overall efficiency is often evaluated by tracking the percentage change in their market value. Acquisitions and redemptions of mutual fund units or shares are typically executed at the fund's NAVPS (net asset value per share). It is possible to calculate a fund's NAV by dividing the total value of its holdings by the number of outstanding shares (Chen, 2018).

There are many mutual funds available in Nepal; however, the only data available to investors is the fund's balance sheet once a month and its NAV once a week. It needs more information for investors and unit holders, so a more in-depth analysis of mutual funds is required. Therefore, examining variables (both macro-factors and fund factors) of a mutual fund may aid investors in determining the correlations between various characteristics. In addition, understanding which factors are most influential in determining Mutual Fund performance is valuable.

No in-depth research has been conducted in Nepal on mutual funds based on macroeconomic and microeconomic factors. As far as we know, this is the first effort to conduct a comparison study and identify the connection between independent variables (both macroeconomic factors and mutual fund base factors) and the return of mutual funds. While the mutual fund business is well-established in certain regions, this research is to lighten the sector dynamics in emerging nations like Nepal and improve the efficiency with which new mutual funds are managed.

The exchange rate, GDP, inflation rate, interest rate, and money supply (M2) were all employed as macro-based components to arrive at the research's conclusions. Similarly, analysis was conducted using fund-based characteristics such as Age, Assets Turnover Ratio, Fund Size, and Lag Return. Only a few studies have been undertaken in Nepal, where mutual funds are still in the early stages of development. This results in a need for more data availability compared to other nations where mutual funds are well established. This causes the outcomes, findings, and conclusions to vary, which is one of the research gaps in this dissertation.

This research evaluates closed-end mutual fund schemes based on country- and fund-level performance metrics. The reasons for writing this paper are as follows:

- a. To examine country base and fund-base factors' effect on risk-adjusted Sharpe Ratio.
- b. To examine which factors have the most significant relationship to the fund's performance.

II. Theoretical Framework

The performance of equity mutual funds has been the subject of several empirical investigations, compiled into a series of studies. Dhandayuthapani & Arunprathee (2018) evaluated the efficiency of several mutual fund options. Analyzing the schemes' historical

performance using the methods developed by Sharpe, Treynor, and Jensen measure will aid investors in making wiser choices.

Emily Chelanget Kariuki (2014), the Net Asset Value (NAV) of Kenya's mutual fund was influenced by five macroeconomic variables: money supply, interest rate, inflation rate, GDP, and currency rate. Almost 70.9% of Kenyan mutual fund performance may be attributed to these variables. Kenya's mutual fund is favorably impacted by the monetary base, interest rate, inflation rate, and GDP but negatively impacted by the exchange rate.

Tursoy et al. (2008) examined using monthly data from the Istanbul Stock Exchange (Turkey) between February 2001 and September 200. This study uses several macroeconomic variables or broad measures of the economy. These include the author's own market pressure index and measures such as the money supply, industrial output, oil price, consumer price index, import, export, gold price, exchange rate, interest rate, GDP, foreign reserve, and unemployment rate. They used the ordinary least squares method to compare eleven industry portfolios to these macroeconomic factors. According to their findings, there is no statistically meaningful link between stock return and these macroeconomic factors. However, each macroeconomic element impacts various industries' portfolios to varying degrees.

Mutual fund performance, a critical factor in investor fund selection, has been the subject of several attempts to explain. Fund size, age, fees and costs, loads, turnover, flows, and returns are only some metrics scrutinized as possible predictors of future success. Even if most writers claim that mutual funds underperform the market, many claim that managers do well. In particular, data indicates that investors tend to put their money into the best-performing funds, and this trend persists across shorter time horizons. Investors may have a modicum of fund selection competence, given their propensity to put money into funds that subsequently perform well. Additional data shows a negative correlation between fund size and performance (Boudoukh & Richardson, 2002).

N. Hussain (2017), the fund's performance suffers as its size, GDP, liquidity, or real interest rate rises. This investigation confirms previous findings that GDP has a significant and inverse relationship to fund performance. So, growth in the national economy has no beneficial influence on the efficiency of home-grown investment vehicles.

The future performance of mutual funds will be severely impacted if interest rates rise by a certain amount. In general, mutual fund returns improve when inflation rates rise. The impact of currency rate considerations on mutual funds is often relatively small despite the importance of exchange rate considerations when working with overseas assets.

After thoroughly examining the relevant literature, ten variables (five each for the Macro component and the Fund factor) were selected for inclusion in the research. The dependent variable is the Sharpe ratio, and the explanatory variables are the macro-factors (exchange rate, GDP, inflation rate, interest rate, and money supply) and fund factors (age, assets turnover ratio, fund size, lag return, and liquidity). Holding Period Return is used to compute the total return of a mutual fund, with the lag period serving as an additional independent variable. In Table 3.2, we see the factors, their associated measures, and the outcomes we may anticipate.

Table 1*Research Variables for the Study*

Variables	Measurement	Expected Effect	Remarks
Interest rate	Weighted Deposit Interest Rate	+	Higher interest rates, Short term debt securities get a benefit.
Inflation rate	Inflation rate based on Consumer Price Index.	+	Higher the inflation rate, stock prices go upright due to the higher price of their goods and services.
GDP	Average monthly GDP	+	Higher the GDP, there will be growth of the economy and hence growth in financial investment.
Money Supply	Monthly Money Supply (M2)	+	More liquidity in the market will facilitate the investor for more investment.
Exchange Rate	Monthly exchange Rate (NRs./ USD)	+	A higher exchange rate attracts foreign capital.
Assets Turnover Ratio	Net income divided by Total Assets.	+	Positive relation with the higher efficiency of the company's assets to generate revenue.
Age	Age is measured by the number of months the fund is operational.	+	With the increase in age, it increases the efficiency leading to an increase in the fund's return.
Fund Size	Total Net Assets of Fund.	+	Positive relationship with fund's return if it realizes economies of scale.
Liquidity	Liquidity is measured by the fund's total cash on a monthly basis.	+	If an increase in cash balance prevents the quick sale of assets, then the relationship between liquidity and the fund's return is expected to be positive.
Lag Return	Mutual Fund's Return lagged one holding period.	+	If the fund's performance is expected to be consistent, then the relationship is expected to be positive.

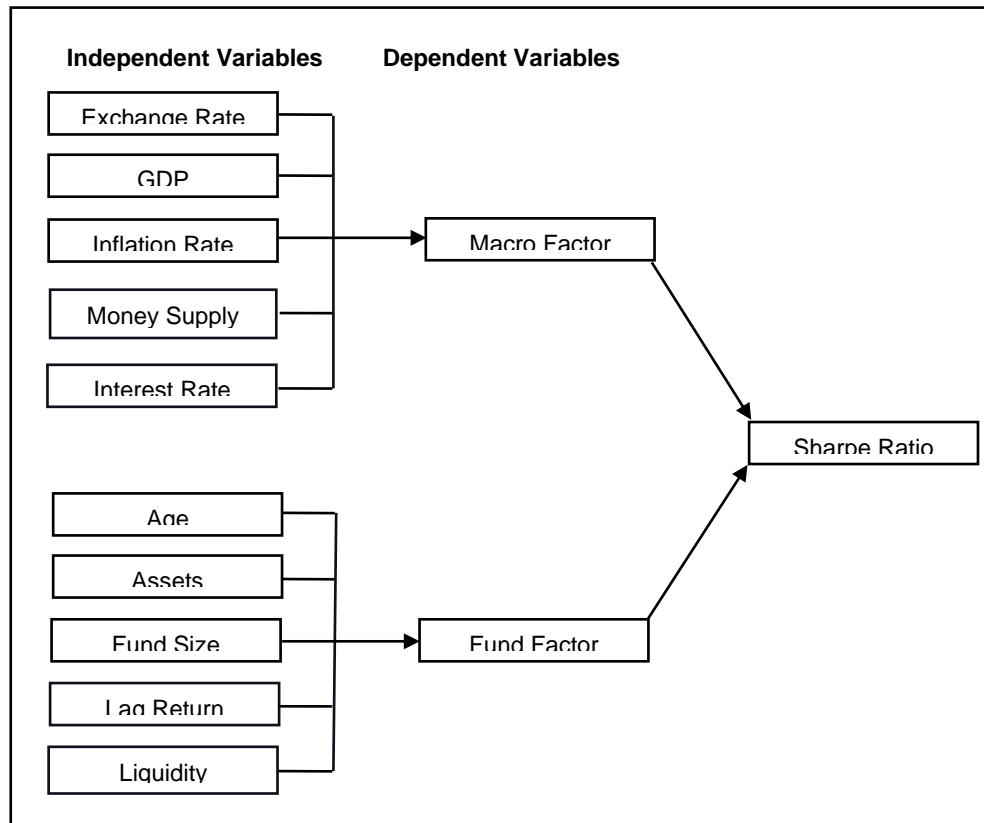
III. Research Methodology

To determine findings, a descriptive research design has been used. In order to provide a clear image of a particular scenario, this design entails the methodical collection and display of data. In a descriptive research design, the raw data is organized after the facts and information to be examined have been gathered. This entails acquiring information

about occurrences, which is then arranged, tabulated, represented, and explained. Sharp Ratio is one of the dependent variables used for the performance study of mutual funds. Additionally, macro-factors (such as the exchange rate, GDP, inflation rate, interest rate, and money supply) and fund factors will be independent variables (Age, Assets Turnover Ratio, Fund Size, Lag return, and Liquidity). The following is a solid basis for creating a theoretical framework that is provided by the preliminary review of the literature and information:

Figure 1

Research framework of the study



Source: Kariuki, E. C. (2014); Rauniyar, A. (2016).

In Nepal, there are now 30 closed-end mutual fund schemes in operation. Only 16 close-end mutual funds made up the population data for this research since the remaining mutual funds had continued to operate after 2020 and hence may not provide useful information. When choosing samples, a judgmental sampling procedure was utilized. It is a non-probability sampling method where the sample participants are solely picked based on the researcher's expertise and discretion. From March 2016 to November 2022, 16 mutual fund monthly samples were collected for this research. The age of the funds takes observation.

Data gathering is a significant component of this research since it is essential to the analysis. The research is supported by secondary data. Periodically released financial reports of the relevant mutual funds will serve as a secondary source of data. Information is

gathered by looking at the official websites of the involved mutual fund managers. They used their monthly balance sheet to capture the information. As previously mentioned, secondary source data form the basis of this research. All of the information analyzed is secondary. Therefore, the validity of this study completely rests on the validity of secondary data. The following are the main data sources:

- Periodic reports of sample mutual funds
- Finance journal available in TU central library
- Previous study thesis
- An economic survey conducted by the ministry of finance
- Websites of NEPSE and SEBON
- Prospectus and Bulletins of Nepal Rastra Bank

To identify the portfolio that provides the best risk-return trade-off, we calculate the Ratio of historical returns in excess of the risk-free rate of return to the standard deviation of portfolio returns, a measure of portfolio performance first published by William F. Sharpe in 1960. Investors often use the average portfolio return to determine which portfolio has the best reward/risk ratio. This index measures how much of an increase in return the fund has earned above the risk-free rate of return. Thus, the metric assesses fund performance in terms of return per overall risk. A high and positive index indicates good performance, whereas a low and negative index indicates poor performance. Simplified notation:

$$S_i = \frac{R - R_f}{\sigma}$$

Where, S_i = Sharpe index

R = rate of return

R_f = Risk-free rate of return

σ = Standard Deviation of portfolio return

IV. Results and Conclusion

Table 2 shows all research variables' mean, standard deviation, minimum, and maximum. Sharpe ratio has a negative average return of 0.53 percent, with SEF's 4.14 in October 2021 and GIMES1's -6.17 in December 2021. GIMES1 is the oldest mutual fund at 81 months, while LUK is the youngest at 27 months. In August 2021, NICGF had the highest turnover ratio (0.72), while in October 2022, GIMES1 had the lowest (-0.44). As of August 2021, SAEF has the most significant fund size at Rs.2.95 billion, while SIGS2 has the lowest at Rs.322 million. In November 2021, SEF (40.79%) had the most significant lag return, while GIMES1 (-53.13%) had the lowest. The mutual fund GIMES1 had the most liquidity in March 2016 and the least in August 2019.

The oldest mutual fund, GIMES1, has the lowest Sharpe ratio, turnover ratio, lag return, and liquidity.

The NRS/USD exchange rate peaked in October 2022 at Rs.130.26 and peaked at Rs.102.13 in January 2018. April 2022's GDP was 0.77, whereas April 2019's was -0.19. Inflation peaked in January 2016 at 11.12% and bottomed out in August 2017 at 2.29%. The weighted deposit interest rate peaked in November 2022 at 8.16% and bottomed in March 2016 at 2.87%. October 2022 had the most M2 money supply at Rs.5.54 lakh, while July 2016 had the least at Rs.2.21 lakh.

Table 2*Descriptive Statistics of Variables*

Variables	Observation	Mean	Minimum	Maximum	Standard Deviation
Sharpe Ratio	854	-0.53	-6.17	4.14	1.17
Age	854	29.42	1	81	18.80
Assets Turnover	854	0.04	-0.44	0.72	0.16
Fund size	854	1,220,000,000	322,000,000	2,950,000,000	442,000,000
Lag return	854	0.25	-53.13	40.79	6.89
Liquidity	854	324,000,000	5,767,685	1,790,000,000	242,000,000
Exchange Rate	854	116.56	102.13	130.26	6.48
GDP	854	0.40	-0.19	0.77	0.31
Inflation Rate	854	5.34	2.29	11.12	1.78
Interest rate	854	6.19	2.87	8.16	0.98
Money Supply	854	4,230,892	2,218,423	5,544,512	955,328.20

Source: Author's calculation

To determine the association between independent variables (Macro-factors and Fund-factors) and the dependent variable performance of mutual funds, the research employed multiple linear regression equations and the estimation approach known as the Fixed Effect Model (FEM).

In table 3, since P-value = 0.0002 < 0.05, it is enough evidence to conclude that the Null hypothesis (H_0) is rejected. It means the REM method is inappropriate at the 5 percent level of significance. So, we will go for the FEM.

Table 3*Hausman test*

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	33.581312	10	0.0002

From the above test, it is confined that the Fixed Effect Model (FEM) is appropriate for regression testing. It means that all the selected mutual funds have different intercepts due to different factors.

One variable describes the same phenomena as another is multi-collinearity. We created a correlation matrix to test multi-collinearity while adjusting for other factors. Correlation links two data sets (a dependent and an independent set). This technique tests for two-variable collinearity.

Table 4 shows that, with the exception of age, there is a positive relationship between the Fund-factor independent variables of Assets Turnover, Fund Size, Lag Return, and Liquidity, and the dependent variable of the Sharpe Ratio. Exchange Rate, GDP, Inflation Rate, Interest Rate, and Money Supply (M2) are all examples of macro-factors with a negative association with the dependent variable Sharpe Ratio.

The strongest correlation between money supply (M2) and the exchange rate is 0.866282, which is less than 0.95. A correlation score of 0.95 or above indicates a strong degree of connection between the two variables. The lack of a severe multi-collinearity issue among the variables suggests that these data are appropriate for inclusion in the regression model.

Table 4
Correlation of Variables

Correlation Probability	SHARP_RATIO	AGE	ATR	FUND_SIZE	LAG_RETURN	LIQUIDITY	EXCHANGE_RATE	GDP	INFLATION_RATE	INTEREST_RATE	M2
SHARP_RATIO	1.000000 ----										
AGE	-0.223643 0.0000	1.000000 ----									
ATR	0.361440 0.0000	-0.002497 0.9419	1.000000 ----								
FUND_SIZE	0.136648 0.0001	0.285469 0.0000	0.404088 0.0000	1.000000 ----							
LAG_RETURN	0.076880 0.0247	-0.086748 0.0112	0.330804 0.0000	0.118163 0.0005	1.000000 ----						
LIQUIDITY	0.162032 0.0000	-0.373516 0.0000	0.168634 0.0000	0.308145 0.0000	0.098621 0.0039	1.000000 ----					
EXCHANGE_RATE	-0.273081 0.0000	0.620881 0.0000	0.037328 0.2759	0.123130 0.0003	-0.112729 0.0010	-0.291872 0.0000	1.000000 ----				
GDP	-0.276808 0.0000	0.241259 0.0000	-0.070969 0.0381	0.088315 0.0098	-0.170594 0.0000	-0.070145 0.0404	0.246720 0.0000	1.000000 ----			
INFLATION_RATE	-0.493109 0.0000	0.324978 0.0000	-0.443118 0.0000	-0.192686 0.0000	-0.260382 0.0000	-0.201663 0.490881	0.040534 0.0000	0.2367 0.0000	1.000000 ----		
INTEREST_RATE	-0.422047 0.0000	0.178276 0.0000	-0.598410 0.0000	-0.347982 0.0000	-0.260629 0.0000	-0.256042 0.0000	0.307066 0.0000	-0.000467 0.9891	0.688082 0.0000	1.000000 ----	
M2	-0.267320 0.0000	0.682533 0.0000	0.232400 0.0000	0.319208 0.0000	-0.082219 0.0163	-0.284700 0.0000	0.866282 0.0000	0.268048 0.0000	0.349178 0.0000	0.101128 0.0031	1.000000 ----

Source: Author's calculation

The analysis required calculating the different independent variable correlation coefficients against the Sharp Ratio. The model's coefficients of the dependent variables are shown as

" β ."Regression analysis was used to investigate the impact of certain determinant factors on the performance of mutual enterprises.

Table 5

Regression Analysis on Fixed Effect Model

Dependent Variable: Fund Performance (Sharpe Ratio)

Variables	Coefficient	Std. Error	T-Statistic	Sig.
Constant	1.5434	2.6847	0.5748	0.5655
Age	0.0715	0.0263	2.7175	0.0067
Assets Turnover	1.9896	0.3198	6.2211	0.0000
Fund Size	4.74E-10	2.00E-10	2.3724	0.0179
Lag Return	-0.0341	0.0049	-6.8782	0.0000
Liquidity	-1.75E-10	1.75E-10	-0.9998	0.3177
Exchange Rate	0.0556	0.0141	3.9489	0.0001
GDP	-0.6762	0.1433	-4.7164	0.0000
Inflation Rate	-0.1964	0.0289	-6.7918	0.0000
Interest Rate	-0.2353	0.0813	-2.8937	0.0039
Money Supply (M2)	-2.01E-06	4.78E-07	-4.2017	0.0000
R-square	0.4299	Durbin-Watson stat	1.7887	
Adjusted R-square	0.4127			
F-statistic	24.9976			
Prob. (F-statistic)	0.0000			

Source: Author's calculation

Except for the exchange rate, all variables under macroeconomic factors have a negative association with the performance of mutual funds – sharp Ratio. It follows that, for Nepalese mutual funds, the risk-adjusted return-sharp Ratio correlates adversely with GDP, inflation rate, interest rate, and money supply.

The early portion of the study indicates that a higher exchange rate promotes foreign investment. Therefore, this might explain the positive correlation between exchange rate and mutual fund performance. Strong GDP growth, on the other hand, is often accompanied by an increase in the demand for borrowing by firms and consumers and is

sometimes indicative of coming inflation. Both increasing borrowing and inflation often result in higher interest rates, which drives down the price of corporate bonds. In addition, a rise in interest rates results in a decline in performance since the sharp Ratio is the difference between the fund's return and the risk-free rate of return divided by the standard deviation. In this research, the risk-free rate (interest rate) used to determine the sharp Ratio is the 91-day Treasury bill rate.

Based on the fund factors prospects, we have determined that age, assets turnover ratio, and fund size positively link the fund's performance–sharp Ratio. It indicates that as a fund's age rises, its efficiency improves, increasing its return since the fund manager's efficiency will increase as the fund ages.

Similarly, the turnover ratio has a favorable relationship with the increased efficiency of a company's assets to create revenue, eventually improving mutual fund performance. In other words, the asset turnover ratio positively and considerably affected the performance of mutual funds regulated by SEBON to operate in Nepal with equity portfolios. In addition, growth in fund size improves the performance of a mutual fund since economies of scale accrue to more significant funds. There is a negative association between fund-factor variables' lag return and liquidity and the fund's performance.

Adjusted R-square is 0.4227, and probability (F-statistics) equals 0.0000 0.05, indicating that the model fits the data well. In particular, the change in an independent variable might account for the 41.27 percent performance change of mutual funds.

Discussion

The ten examined parameters account for 41.27 percent of the variation in fund performance among SEBON-licensed mutual funds in Nepal (0.4127). Therefore, among mutual funds operating in Nepal with SEBON-regulated equities portfolios, the ten independent factors account for 41.27 percent of fund performance, while additional determinants and random fluctuations not addressed in this research account for 58.73 percent.

According to the findings, mutual funds in Nepal that hold SEBON-approved equity portfolios had an age-related performance correlation of 0.0715, which was positive. Della & Olsen (1998) demonstrates the potential for the mutual fund industry and its managers to become more knowledgeable and operationally efficient as a function of increasing fund age, which is consistent with the findings of this study.

For mutual funds registered with SEBON in Nepal that invest in stocks, the research found that a high asset turnover ratio was positively associated with performance. The asset turnover ratio coefficient was found to be 1.9896. Grinblatt & Titman (1994) conducted a study that used tests to investigate the factors that influence mutual fund performance and was conducted in the United States with a sample size of 279 funds and found that portfolio turnover has a positive effect on fund performance, which is consistent with the findings of this study. Rehman & Baloch (2016) observed that asset turnover across various Mutual Funds was positively related to fund performance.

Results showed that among SEBON-licensed mutual funds operating in Nepal with equity portfolios, fund size had a positive but insignificant effect on performance (coefficient = 0.000000000474). Tang Cheong (2007) states that more considerable funds have a lower expense ratio due to economies of scale and a decrease in marginal cost. Therefore our conclusion is consistent with that theory. Therefore, the size of the fund is often seen to correlate favorably with its success of the fund. Otten & Bams (2002) released a report analyzing the success of mutual funds in Europe. As the size of a fund is positively correlated with its risk-adjusted performance, the research into the factors that affect risk-

adjusted performance concludes that more significant funds tend to perform better. M. S. Nazir & M. M. Nawaz (2010) found a similar result that mutual fund growth is favorably correlated with fund size. In general, more considerable mutual funds are an indication of increased growth.

The research also found that mutual funds in Nepal that held SEBON-approved equities portfolios had a coefficient for lag return of -0.0341, indicating that lag return harmed fund performance. M. Mark (1997). Research has shown that funds that had above-average returns the previous year tend to have similar returns the following year but not in years after that, which is consistent with the findings of this study.

Liquidity was shown to hurt fund performance among SEBON-licensed mutual funds operating in Nepal, as measured by a coefficient of -0.00000000175. S. L. Bajracharya & A. Rauniyar (2016) states that fund performance is adversely correlated with liquidity. Mutual funds with lower cash reserves are thus thought to be more profitable, which is consistent with the findings of this study. N. Hussain's (2017) research also revealed that liquidity significantly impacts fund performance.

According to the results, mutual funds in Nepal that hold SEBON-approved equities portfolios saw a clear correlation between exchange rate and fund performance (coefficient = 0.0556). Miller & Show fang (2001) studied the impact of currency depreciation on South Korean stock markets and found similar results that exchange rate swings cause stock market volatility. Mohammadreza Monjazebe, & Esmaeel Ramazanpour (2013) hypothesized that the model estimation is accepted, and their result reached the same conclusion: the exchange rate positively affects the return on a mutual fund.

Based on the findings, it can be concluded that GDP has a negative and statistically significant effect on the performance of equity-focused mutual funds in Nepal that are registered with SEBON. Asad, M., & Siddiqui, D. A. (2019), taking into account risk-adjusted return in addition to GDP and interest rate on fund return, a negative relationship was discovered. N. Hussain (2017) it is found that GDP is significantly and inversely connected to fund performance. So, growth in the national economy has no beneficial influence on the efficiency of home-grown investment vehicles, which is consistent with the findings of this study.

The research also found that mutual funds in Nepal with SEBON-approved equities portfolios negatively correlated with the inflation rate (coefficient = -0.1964). Hompe & Macmillan (2009) used monthly data between 1965 and 2005 to analyze the impact of several macroeconomic factors on stock prices in the United States and Japan. Investors can expect stock values to fall when the CPI rises, which is consistent with the findings of this study. Najarzadeh et al. (2009), there is a strong and negative long-term equilibrium link between the stock price index of the Tehran Stock Exchange and the variable inflation rate. Singh et al. (2011) demonstrated that inflation had a negative association with a stock return across all six portfolios of big and medium-sized businesses, which is consistent with the findings of this study.

According to the findings, mutual funds in Nepal with SEBON-approved equities portfolios had a negative relationship between interest rate and fund performance (interest rate coefficient = -0.2353). Humpe & Macmillan (2009) used monthly data between 1965 and 2005 to analyze the impact of several macroeconomic factors on stock prices in the United States and Japan. When interest rates rise over time, stock values tend to fall, which is consistent with the findings of this study. Illo (2012) has researched the impact of macroeconomic variables on the financial performance of Kenya's commercial banks. The future performance of mutual funds will be severely impacted if interest rates rise by a certain amount.

The research also found that mutual funds in Nepal with equity portfolios approved by SEBON had worse returns when the money supply (M2) was low. Singh et al. (2011) also discovered a negative correlation between stock return and unemployment, inflation, and money supply across six large and medium-sized company portfolios, which is consistent with the findings of this study.

Conclusion and implications

According to the study, macroeconomic conditions and fund-factor variables affect fund performance. When generating future estimates, it is crucial to include the Assets Turnover Ratio since it positively influences Nepal's mutual funds. The Sharpe ratio is favorable for four variables (age, assets turnover ratio, fund size, and exchange rate) and negative for six others (lag return, liquidity, GDP, inflation rate, interest rate, and money supply). Due to the low liquidity issue, the mutual fund's performance and Sharpe ratio are unrelated. All mutual fund participants must consider these macroeconomic factors. This study examines macro- and fund-level factors affecting mutual fund performance in Nepal.

This study has implications for fund managers and stock market investors. Current research has these implications. Those who wish to manage an investment fund must understand the impact of Age, Assets turnover, Fund Size, and Exchange Rate. According to the findings, fund managers should balance the fund's performance determinants. This maximizes the fund's return, which benefits both managers and investors.

This research helps investors and audiences understand mutual fund investment aspects. The study's results will also give recommendations for government and mutual fund decision-makers in Nepal.

There are a few drawbacks associated with the research, any of which, if addressed and resolved, might provide a more realistic picture of the fund business in Nepal. This analysis spans six years, which may need to correctly represent fund performance before this period and alter the conclusions. The fund's performance may be over or under forecast due to its short history. There needs to be more data access that hampered this effort. Because most Nepalese funds are new, there needs to be more data. There have yet to be many studies on Nepal's mutual fund business. Thus, research material or results must be used in a literature survey. This study might be enhanced in the future by using alternative methodologies. However, Nepal needs more data. Before this study, investors exclusively utilized NAV to evaluate mutual fund performance. This will provide a clear picture of Nepal's mutual fund performance.

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