Performance Evaluation of Nepalese Mutual Fund

Binod Ghimire
Assistant Professor, Tribhuvan University, Nepal, E-mail: binod.ghimire1@ncc.tu.edu.np
Ramesh Pant
MBS Scholar, Tribhuvan University, Nepal

Abstract

This study analyzes the financial performance of mutual fund on account of risk adjusted performance evaluation techniques: Sharpe's ratio. This study incorporates the examination of the effect of market index return, Treasury bill rate and systematic risk on performance. As in Sharpe's ratio, market index return is taken as dependent variables; on the other hand, Treasury bill rate and systematic risk are taken as predictor variables. Findings imply that mutual funds in Nepal have not satisfactory performance based on Sharpe's ratio. Likewise, study further exposes that market index return, systematic risk are significant and positively influences the Sharpe's ratio where as treasury bill is significant and negatively influence on the Sharpe's ratio performance of the Nepalese mutual funds. Hence, market index return, Treasury bill rate and systematic risk have major effect on the performance based on Sharpe's ratio in Nepal.

Keywords: Mutual fund, Sharpe's ratio, Performance evaluation, Nepal

SMS Journal of Entrepreneurship & Innovation (2022)
DOI: https://doi.org/10.21844/smsjei.v8i02.28567
Corresponding Author: Binod Ghimire, Assistant Professor, Tribhuvan University, Nepal, binod.ghimire1@ncc.tu.edu.np
How to cite this article: Ghimire Binod, Pant Ramesh (2022). Performance Evaluation of Nepalese Mutual Fund. SMS Journal of Entrepreneurship & Innovation. 2022; 8(2):12-22
Source of support: Nil.
Conflict of interest: None

Introduction

Mutual fund refers the company pooling money from many investors and investing such money in securities such a stock, bonds, and short term debt (Choudhary & Chawla, 2014). All the combined holding that mutual funds secure is known as its portfolio. As they are capable in portfolio management so they are a popular choice among investors. Mutual funds generally offer the professional management, diversification, affordability and liquidity features. It is best option for investors who lack time and skills to manage their fund.

There are open and closed-ended fund. Closed-ended fund does not change as a result of trading on the stock exchange. Supply and demand determines the price of a share values (Sharma & Thapa, 2019). Fund managers are not worry about fund management as in closed-ended funds do not have huge impact caused by regular and sudden redemption. Professional fund managers, acting on behalf of the mutual fund, manage the investor's investments and ensure the benefit in return for a management fee. Mutual fund is growing investment opportunities among investors and regarded as good investment choice for an investor (Derbali, Elnager, Jamel & Ben Ltaifa, 2020).

Sharpe ratio as the reward-to-variability ratio, introduced by William Sharpe in 1966 is used as a tool so as understand the return of an investment while comparing with the risk. Such ratio denotes the average return earned is more than the risk-free rate per unit of volatility or total risk. Volatility refers the assessment of the price movement or fluctuations of an asset or portfolio. When mean return exceeds the risk free rate, it helps an investor identify the situation and help better isolate the profits associated with risk-taking activities. As such risk-free rate of return is the return on an investment with no or zero risk, implying best opportunity for investors as investors could expect return for taking no risk (Bacon, C., & Chairman, S., 2009).

According to Shah, Hijazi, and Hamdani, (2005) mutual fund and its performance evaluation is crucial for all investors including portfolio managers. There may be past performance valuation that can provide prospect to the investors so as to evaluate the performance of portfolio managers. They can presume as to how much return has been generated and with level of implicit risk in generating such returns. Investors must be aware of the factors affecting the performance of mutual funds so that they can secure their investment. With this, the main focus of this paper is to assess how well mutual funds currently operating on the Nepalese capital market

Literature Review

There are number of research and analysis on different aspects of mutual funds. Here, this study is based on the historical performance of the selected schemes that were evaluated based on Sharpe, Treynor, and Jensen's measure. This result is useful for investors for taking better investment decisions (Bhagyasree & Kishori, 2016). Some important studies are mentioned below.

Review of Recent Studies

As per the previous study, mutual funds performance were revealed as good performance was benchmarked with low expense ratio and with this only low relationship was discovered between fund size and performance (Sharpe, 1966). In another study of Eling and Schuhmacher (2007), despite significant deviations of hedge fund returns from a normal distribution, the comparison of the Sharpe ratio to the other performance measures brought significant result. They were in virtually identical rank ordering across hedge funds. Likewise, Choudhary and Chawla (2014) observed that majority of funds selected for study have outperformed under Sharpe Ratio. The analysis was achieved by assessing various financial tests like Average Return, Sharpe Ratio, Treynor Ratio, Standard Deviation, Beta and Coefficient of Determination.

Shah, Hijazi, and Hamdani (2005) finding suggest that mutual funds are adding value in Pakistan as indicated by their positive after-cost alphas. There are three evaluation techniques applied in risk-adjusted performance. They are Sharpe Ratio, Treynor Ratio, and Jensen differential measure. The study of Afza and Rauf (2009) reveals in mutual funds performance that various funds attributes lagged return and liquidity had significant impact on fund performance. The fund performance measure by Sharpe ratio with the help of pooled time-series and cross-sectional data and focusing on different fund attributes such as fund size, expenses ratio, age, turnover, loads and liquidity.

Hussain, R., Hussain, H., & Hassan, A. (2016) explore that the low performance on the part of all the mutual funds and the whole industry was found weak due to the weakness in selection abilities of the fund managers. At the same time, portfolios were found less diversified in overall fund

management. Even though, it was noticed that closed ended funds are better performers in terms of return while comparing with open ended funds.
As in empirical results in India, Bhagyasree and Kishori (2016) showed the performance of 14 out of 30 scheme of open end mutual scheme had benchmarked return outperformed. Further, the result showed that some of the scheme had underperformed; such schemes were facing the diversification problem. The study of Robiyanto, Santoso, and Ernayani (2019) found consistent results regarding Sharia mutual funds with the best performance which was measured on Sharpe and Jensen measurement methods. In another study the Sharp ratio was positive for all schemes which showed that funds were providing returns greater than risk free rate. Derbali, Elnager, Jamel & Ben Ltaifa (2020) examined that the mutual fund schemes under Multi Capital Funds and Large Cap Funds have generated good returns over the period even though with a reasonable risk.

Review of Nepalese Studies

There are few studies available in the Nepalese context. In one study, Paudel (2010) examined that the mutual fund market in Nepal is very small, and investors have yet to accept mutual funds as a preferred investment product. The scope and coverage of mutual fund operations in Nepal are quite limited. However, mutual funds can play determining role in the Nepalese financial system. Existing mutual fund institutions must advance their service quality by incorporating superior technology and putting a greater focus on timely information transmission. Nepalese investors may use options as mutual funds rather than deposits in banks.

According to Bajracharya and Rauniyar (2016), among different fund qualities, lag return, liquidity, and asset have considerable impact on mutual fund performance in Nepal from 2012 to 2016. Furthermore, Bajracharya (2017) embark the greater part of mutual funds outperformed the benchmark on Jenson and Treynor measures, however not on the Sharpe ratio. On the other hand, there are few mutual funds which are well-diversified and have decreased their unique risk. Sharma (2018) reveals that two mutual funds performed better and one scheme (LVF) has underperformed as per Sharpe Measure. There exist negative correlations between return of LVF1 and NEPSE return and high degree of positive correlation between returns of NIBSF1 and NMBSF1 with the market return. Thapa (2019) evaluates the overall schemes provide higher and better average return than market during study period except GIMES-1 whereas NIBSF-1 performance is low with high risk among all the selected mutual funds. LVF1 is instituted as good performer among the selected mutual funds with the result highest value of Sharpe, Treynor and Jensen measure.

Theoretical Framework

Performance of mutual is measured by the different performance measurement techniques. Sharpe's ratio is one among them. Based on the review of performance evaluation and other studies following conceptual framework has been made to conduct this study which is shown in Figure 1. The independent variables are market index return, Treasury bill rate, and systematic risk and performance measurement tool of mutual fund Sharpe's ratio is dependent variable.

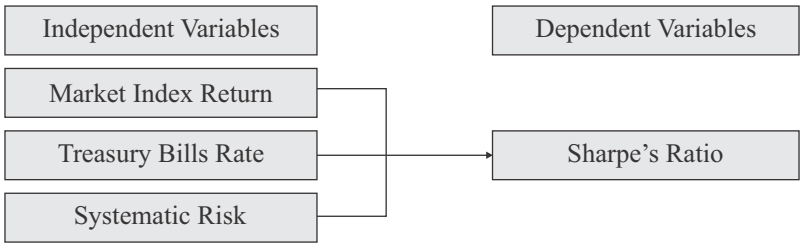

Figure 1: Theoretical Framework

Research Gap

It is clear from the thorough literature study on mutual fund performance from a global perspective that the mutual fund industry has played a critical role in the growth of capital markets throughout the world. There is a need for additional research and studies to help close the literature gap. With the help of empirical studies, we have discovered that Nepal has a variety of unexplored research fields.

The focus of the research papers published in Nepal by Bajracharya and Rauniyar (2016), Bajracharya (2017), Sharma (2018), and Thapa (2019) is purely on comparing the performance of individual mutual funds with that of other mutual funds as well as the performance of the market index or benchmark return. Beside, this study illustrates how systematic risk, the risk free rate, and the NEPSE index as a market index affect performance evaluation. Prior research compared and ranked mutual funds against one another as individual funds. It addresses the return and risk performance of mutual funds using the widely used Sharp Ratio risk adjustment technique. In addition, a large sample size is used in this study to analyze the mutual fund market itself, which comprises of nine schemes. Prior research was restricted to the analysis of descriptive statistics. Additionally, this study employs new methods, namely correlation and regression analysis, which highlights the remaining gap and distinguishes it from past studies.

Research Objectives

The main objective of this study is to assess how well mutual funds currently operating on the Nepalese capital market. The specific objectives include:

- To examine the appraisal of the chosen funds based on performance measure the Sharpe ratio.
- To evaluates the mutual fund's equity performance taking into account the market index return, Treasury bill rate, and systematic risk, i.e. beta coefficient.

Research Methodology

This study is based on descriptive and causal comparative research design. It is to evaluate the performance of mutual funds. Total seventeen closed end mutual funds are registered and listed in Nepal Stock Exchange (NEPSE) has been taken as population. A sample of nine close end mutual funds which are NIBL Samriddhi Fund-1(NIBSF1), Global IME Sammunat Yojana-1 (GIMES1), Nabil Equity Fund (NEF), NMB Hybrid Fund-1 (NMBHF1), NIBL Pragati Fund (NIBLPF), Laxmi Equity Fund (LEMF), Siddhartha Equity Fund (SEF), Sanima Equity Fund (SAEF) and NIC Asia Growth Fund (NICGF) taken as the sample and used available monthly data of three years i.e. fiscal year 2017/18 to 2019/20 that have at least two year history of establishment.

Secondary data has been used in this study to analyze the performance of mutual funds. Monthly periodic financial report published by mutual fund schemes, monthly reports of NEPSE, and Bulletins of Nepal Rastra Bank (NRB) are used to collect the data. The change in NEPSE index provides data relating to market rate of return. Similarly, the average return of 91 days Treasury bill issued by Nepal Rastra Bank was used to calculate risk free rate of return. The data was gathered, entered, and calculated into an excel sheet, which was then analyzed using SPSS. Performance evaluation tool Sharpe's ratio was employed as a dependent variable in this study. The study chose market index return, Treasury bill rate, and systematic risk as independent variables.

Empirical Model

For data obtained, an ordinary least square regression model was used to determine the impact of independent factors such as market return, Treasury bill rate and systematic risk. The study used multiple regression models to establish the relationship between performance measurement technique Sharpe's ratio and each of the explanatory or independent variables, as well as linear regression, in which one finds the line that most closely fits the data according to a specific mathematical criterion. The regression model applied in this study is as follows:

$$SR = \alpha + \beta 1\,(RM_{it}) + \beta 2\,(RF_{it}) + \beta 3\,(BETA_{it}) + \varepsilon_{it}$$

Analysis and Discussion

Mutual fund and hyper funds may follow different development theories, studies and techniques for performance evaluation. The most used techniques by the mutual fund manager is Sharpe's ratio. It determines risk premiums the additional return over and above the risk less rate that is paid to induce investors to assume risk. Before calculating the statistical analysis firstly we must assure the descriptive characteristics. Table 1 displays the mean, standard deviation, minimum and maximum values of dependent and independent variables of mutual funds schemes.

Table 1: Sharpe's ratio of all the sample mutual fund schemes

The table displays the summary statistics of Sharpe's ratio of different companies used in this study that reports the mean, standard deviation, minimum and maximum values including number of cases of listed close end mutual fund schemes. The Sharpe's ratio is known as popular performance a measurement technique which shows the reward-to-variability of the fund.

S.N.	Scheme	N	Minimum	Maximum	Mean	Std. Deviation
1	NIBSF1	36	-2.0835	1.4149	-0.4076	1.0003
2	GIMES1	36	-2.9473	1.9203	-0.4338	1.0486
3	NEF	36	-2.1084	1.7020	-0.4684	1.0595
4	NMBHF1	36	-2.6638	1.1393	-0.6697	1.1111
5	NIBLPF	36	-3.0991	1.4617	-0.5739	1.1561
6	LEMF	36	-3.4480	1.6345	-0.6356	1.1375
7	SEF	32	-3.5460	2.6534	-0.6360	1.2326
8	SAEF	31	-4.1043	2.0425	-0.9037	1.5152
9	NICGF	28	-4.9620	1.5912	-0.7914	1.6283

Table 1 describes the Sharpe's ratio scheme wise. The highest variability in Sharpe's ratio is observed for NIC Asia Growth Fund (1.6283) and least variability is observed for NIBL Samriddhi Fund-1 (1.0003) among all scheme the under study. The highest Sharpe's ratio is observed in Mid-October 2018 for the Siddhartha Equity Fund is (2.6534) and the lowest is for the NIC Asia Growth Fund is (-4.9620) in Mid-May 2018.

Table 2: Descriptive statistics of the variables under study for all samples

The table displays the mean, standard deviation, minimum, maximum values of dependent and independent variables of listed mutual funds. The Sharpe's ratio is the reward-to-variability ratio that measures the risk premium of the portfolio relative to the total amount of risk in the portfolio. The risk premiums the additional return over and above the risk less rate that is paid to induce investors to assume risk. Market index return is the return of benchmark index i.e. NEPSE index return. Treasury bill rate also known as risk free rate is published monthly by NRB on their economic bulletin. Systematic Risk, also known as Beta is a measure of the volatility of a security compared to the market as a whole. The table 3 reveals that Sharpe's ratio has minimum -4.9620 to maximum 2.6534 percentage, with a mean value of -0.6037, and a standard deviation of 1.2029.

Variables	N	Minimum	Maximum	Mean	Std. Deviation
RM	307	-7.4100	14.6100	-0.0494	4.9707
RF	307	0.21	5.82	3.2193	1.5131
BETA	307	-0.0826	1.6715	0.9816	0.4590
SR	307	-4.9620	2.6534	-0.6037	1.2029

Table 3: Pearson correlation analysis among the variables under study of all sample firms

The table shows the correlation analysis of the major variables under study. A correlation analysis is performed for entire sample. The sample includes 307 observations for different periods.

Variables	RM	RF	BETA	SR
RM	1			
RF	-.029	1		
BETA	.090	-.141*	1	
SR	.614**	-.351**	.246**	1

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*

Table 3 shows the Pearson correlation matrix between mutual fund performance measures Sharpe's ratio and all independent variables for all sample firms across time. Since the strongest correlation was found to be 0.614 between Sharpe's ratio and market index return and is significant at 1 percent level, all the correlations can be considered as low. Treasury bill rate and market index return have the lowest correlation of -.029, which is not significant. The results demonstrate that the variables have a low degree of correlation (correlation less than 0.8), indicating that multicollinarity is not a problem. VIF inspects it as well. VIF is less than 10 for all variables; hence multicollinarity is not an issue. So, this it is clear that the data is homoscedastic.

Table 4: Regression results of Sharpe's ratio for mutual funds

This table presents the results of regression model designed to analyze the impact of three firms' predictor variables such as market index return, Treasury bill rate and systematic risk on Sharpe's ratio of mutual funds. The sample includes 307 observations for different periods. The figures in the parentheses are t-values and (**) and (*) indicates that the result is significant at 1 and 5 percent level. The Table also presents the value of F-statistic and R-square value of each model used for the analysis purpose.

Model	(Constant)	RM	RF	BETA	R2	Adjusted R 2	F	Sig
1	-0.596 (-10.984**)	0.149 (13.573**)			0.377	0.375	184.240	0.000
2	0.294 (1.938*)		-0.279 (-6.540**)		0.123	0.120	42.778	0.000
3	-1.236 (-7.844**)			0.644 (4.428**)	0.060	0.057	19.607	0.000
4	0.257 (2.212*)	0.146 (14.710**)	-0.265 (-8.118**)		0.488	0.484	144.679	0.000
5	-1.091 (-8.720**)	0.144 (13.522**)		0.504 (4.361**)	0.413	0.409	93.854	0.000
6	-0.294 (-1.366)		-0.256 (-6.083**)	0.525 (3.779**)	0.162	0.157	29.459	0.000
7	-0.179 (-1.083)	0.143 (14.633**)	-0.249 (-7.694**)	0.390 (3.645**)	0.509	0.504	104.782	0.000

Table 4 describes about regression of independent variables on mutual funds' performance Sharpe's ratio. Market index return has been found to be an important factor affecting mutual fund performance. Sharpe's ratio shows that the beta coefficients are consistently positive and statistically significant at one percent level of significance indicating that higher the market return, higher would be the Sharpe's ratio. Treasury bill rate has been found to be another crucial factor affecting mutual fund performance as beta coefficients are consistently negative and statistically significant at one percent level of significance indicating that higher the treasury bill rate, lower would be the performance of Sharpe's ratio return. In addition, systematic risk has been found to be an important factor affecting mutual fund performance as beta coefficients are consistently positive and statistically significant at one percent level of significance indicating higher the systematic risk, higher would be the Sharpe's ratio performance. The evidence shows that market

return and systematic risk are positively influence to the Sharpe's ratio where as Treasury bill rate is negatively influence on the performance return Sharpe's ratio of mutual funds in Nepal.

Research Findings

This study discovered a negative Sharpe's ratio, which indicates that the expected return on the portfolio is projected to be negative or that the risk-free rate is larger than the return on the portfolio. The performance is not excellent if the Sharpe ratio is negative. It indicates that a mutual fund's performance is battling for a positive numerator value return to investors. It might occur as a result of the market's increased Treasury bill rate given the poor rate of return on investment. To evaluate mutual funds' financial performance in relation to existing schemes the Sharpe's ratio is a widely used metric for comparing risk-adjusted return to other variables. William F. Sharpe devised this measure. The rate on Treasury bills rate in money market is considered risk-free which is set by the central bank. And the management of the fund's operations, a trader's strategy, or an investor's investing pattern all affect mutual fund return. Mutual funds receive excess return if their return is more than the risk-free rate under those circumstances.

According to Sharpe (1966), there is only a weak correlation between fund size and performance, and strong performance of mutual funds is related with low expense ratios. Additionally, the study revealed that some of the schemes had underperformed; these schemes had a diversification issue. Mutual fund performance can be classified as either doing well or outperforming using the standard of Shape's ratio performance. The analysis, according to Choudhary and Chawla (2014), was accomplished by evaluating a number of financial tests, including the average return, the Sharpe's ratio, the treynor ratio, the standard deviation, the beta, and the coefficient of determination. According to the research done by Afza and Rauf (2009), the performance of mutual funds was significantly impacted by factors such as 12B-1, liquidity, and lagged return. With the aid of pooled time-series and cross-sectional data, the Sharpe ratio is used to measure the performance of funds, paying particular attention to various fund characteristics such fund size, costs ratio, age, turnover, loads, and liquidity.

Finding out the present state of the mutual fund market in Nepal can be done by reviewing Nepalese literature. According to Paudel (2010), investors in Nepal have not yet accepted mutual funds as their preferred investment scheme. The mutual fund market in Nepal is also quite small. Mutual fund operations in Nepal have a very constrained range and coverage. Mutual funds, however, can have a significant impact on the Nepalese financial system. Existing mutual fund institutions must improve the quality of their services by incorporating superior technology and emphasizing timely information transmission more. Nepalese investors have an alternative to bank deposits: alternatives as mutual funds. Additionally, the majority of mutual funds beat the benchmark on Jenson and Treynor measures, but not on the Sharpe ratio, according to Bajracharya (2017). On the other hand, there aren't many mutual funds that have reduced their individual risk and are well-diversified.

The results of this study provide theoretical and conceptual implications for the elements that directly affect Sharp's measurement and the performance of mutual funds in Nepal. Since the portfolio of mutual funds depends on market volatility, market return has a positive relationship with mutual funds. It implies that both bullish and bearish trends have a sizable beneficial impact on

the return of the mutual fund portfolio due to the direct connection between their portfolio and investments in the capital markets. Similarly, market risk, commonly referred to as beta risk, contributes equally to the performance of mutual funds. In addition, the interest rate has an impact on how mutual fund investments move. When Treasury bills have a high interest rate, businesses switch their portfolio investments to buy the government securities and keep fixed deposit as alternative in order to get opportunity benefit.

Conclusion

This study provides an overview of the Nepalese mutual fund industry and investigates the mutual funds' performance using Sharpe's ratio performance evaluation model. Most of all mutual funds in Nepal are introduced in the bearish market so that the consequences of performance have also impact when market is in bullish trend. While evaluating the performance it is revealed that market index return, treasury bill rate, systematic risk are the major predictor variables of Sharpe's ratio performance measurement techniques. These factors affect differently to the measurement of fund performance.

Market index return has been found to be an important factor affecting mutual fund performance indicator tool Sharpe's ratio as beta coefficients are constantly positive and statistically significant indicating that higher the market return, higher would be the Sharpe's ratio. Similarly, treasury bill rate has been found to be crucial factor affecting mutual fund performance as beta coefficients are consistently negative and statistically significant. It indicates that higher the treasury bill rate, lower would be the performance of Sharpe's ratio return. In addition, systematic risk has been found to be an important factor affecting mutual fund performance as beta coefficients are constantly positive and statistically significant indicating that higher the systematic risk, higher would be the Sharpe's ratio performance. Hence, market return and systematic risk have positive effect to the Sharpe's ratio where as Treasury bill rate has negatively effect on the performance based on Sharpe's ratio in Nepal.

Recommendations

The founding of "NCM Mutual Fund 2050" in 1993 marked the beginning of the mutual fund industry in Nepal. In the recent years, investment companies have improved their ability to administer mutual funds and launch new products. There are very few financially literate and intelligent investors in Nepal. Mutual funds may be the greatest way to enter into the capital market for new investors where their investment has a low market risk. Therefore, mutual fund determinants are used to assess both the general and individual performance of mutual schemes.

It is advised to investors that a thorough analysis of the market will significantly affect their return. The governance of mutual funds should take into account a variety of variables as well as risk-adjusted measuring approaches to assess performance. They will have improved managerial skills as a result. Additionally, the capital market and money market are significantly impacted by mutual fund schemes' portfolio investments in securities like equities, bonds, and short-term debt. Which depict the conditions of the stock and share market.

This study can help investors, mutual fund holders, securities analysts, and fund managers to better manage and diversify their portfolios. This research may also be helpful to the regulators to get insights while proposing new rules, bylaws, guidelines, and regulations to promote the

Nepalese mutual fund.

Limitations

Because the data used in this study are historical, any applicable conclusions should be used with caution. Only data from three fiscal years that have at least a two-year history of establishment of the schema are included in this research study, and mature schemas from this time period are excluded. When the books are closed, the dividend is adjusted. Annual calculations of the standard deviation and beta coefficients are used as the monthly data for the relevant months for the following data analysis.

Scope for Future Research

This study is useful for academics and finance students to understand the primary element influencing mutual fund performance. This research might be useful for future research on mutual funds because it was made possible by earlier investigations. The performance of mutual funds in Nepal is influenced by market index return, Treasury bills, and systematic risk. To assess the risk adjusted measurement of fund schemes, there are additional trending performance measuring methodologies, including Sharpe, Treynor, Jensen's measure, and information ratio. Additionally, the performance of mutual funds is used to evaluate the investing behavior, economic expansion, and capital market trend. Therefore, additional research is needed to reflect on the performance of funds.

References

Afza, T., & Rauf, A. (2009). Performance Evaluation of Pakistani Mutual Funds. *Pakistan Economic and Social Review,* 47. 199-214.

Bacon, C., & Chairman, S. (2009). How sharp is the Sharpe ratio? Risk-adjusted Performance Measures. *Statpro, nd*.

Bajracharya, R. (2017). Mutual fund Performance in Nepalese Mutual fund units: An analysis of Monthly Returns. *Journal of Advanced Academic Research*, *3*(2), 92-100.

Bhagyasree N., & Kishori B. (2016). A Study on Performance Evaluation of Mutual. *IJIRST –International Journal for Innovative Research in Science & Technology, 2*(11), 2349-6010.

Choudhary, V., & Chawla, P. S. (2014). Performance Evaluation of Mutual Funds: A Study of Selected Diversified Equity Mutual Funds in India. In *International Conference on Business, Law and Corporate Social Responsibility*, 2(10).

Derbali, A., K Elnagar, A., Jamel, L., & Ben Ltaifa, M. (2020). Performance of Mutual Funds: A Comparative Study of Prominent Multi Capital and Large Capital Funds. *Management & Economics Research Journal*, *2*(4), 27-44.

Eling, M., & Schuhmacher, F. (2007). Does the choice of performance measure influence the evaluation of hedge funds?. *Journal of Banking & Finance*, *31*(9), 2632-2647.

Ghimire, B. (2021). Dividend Payout Decision and Investors' Behaviour. *SMS Journal of Entrepreneurship & Innovation*, 8(1), 1-11. Retrieved from https://Doi.org/10.21844/smsjei.v8i01.30001

Hussain, R. Y., Hussain, H., & Hassan, A. (2016). Risk Adjusted Performance Evaluation of Mutual Funds and Selection Abilities of Fund Managers in Pakistan. *Pakistan Business Review*, *18*(1), 76-98.

Paudel, N. P. (2010). Scenario of mutual fund industry in Nepal: A discussion. *Pragyaan: Journal of Management*, 41.

Robiyanto, R., Santoso, M. A., & Ernayani, R. (2019). Sharia Mutual Funds Performance in Indonesia. *Business: Theory and Practice*, *20*, 11-18.

Shah, S. A., Hijazi, S. T., & Hamdani, N. H. (2005). Performance Evaluation of Mutual Funds in Pakistan. *The Pakistan Development Review*, 863-876.

Sharma, D. R. & Thapa, K. (2019). *Investment Management (Second ed.)*. Khanal Publication Pvt. Ltd: Kathmandu.

Sharma, R. (2018). *Financial Performance Analysis of Mutual Funds in Nepal.* (Unpublished MBS thesis). Faculty of Management, Tribhuvan University, Nepal.

Sharpe, W. F. (1966). Mutual Fund Performance. *The Journal of Business, 39, 119-138*.

Thapa, Y. (2019). *Financial Performance Evaluation of Mutual Funds in Nepal*. (Unpublished MBS dissertation). Faculty of Management, Tribhuvan University, Nepal.