International Research Journal of
Makawanpur Multiple Campus (IRJMMC)

Vol- 4, No. 3, September 2023 ISSN 2717-4999 (Online) 2717-4980 (Print)

The Interplay of Firm, Industry, and Macroeconomic Factors in the Stock Returns of the Non-Financial Sector in Nepal

SRIJANA KHADKA | AJAY KUMAR KHADKA

*Author affiliations can be found in the back matter of this article

CORRESPONDING AUTHOR:
Ajya Kumar Khadka
Shankar Dev Campus, Kathmandu, Nepal
ajaya.khadka@ncc.tu.edu.np

KEYWORDS

Economic activity

Firm performance

Investment

Stock market

Jel Classification Codes

E02, E31, E43, E44,

H32, L25

ABSTRACT

This research paper focused on the impact of firm-specific, industry-specific, and macroeconomic variables as it examined the dynamics of stock returns in the Nepalese non-financial sector. The study incorporated a comprehensive analysis of existing literature, methodology, and empirical findings from various studies conducted in Nepal and other countries. Five hydropower companies were the sample of the study. Pearson correlation result showed a negative correlation with a strong inverse relationship between the tangibility of a firm's assets and its stock returns. A significant negative correlation with inflation indicates a moderate inverse relationship between the inflation rate and stock returns. Regression results showed that companies' asset tangibility significantly impacts stock return. Firm size and gross domestic product did not have a statistically significant effect on stock return. However, the inflation rate and exchange rate significantly impacted stock return. Based on the study's findings, policymakers can consider implementing measures to promote a conducive environment for stock market development. This may include improving corporate governance frameworks, enhancing transparency and disclosure requirements, facilitating investor education programs, and ensuring macroeconomic stability through sound monetary and fiscal policies.

1. INTRODUCTION

In recent years, stock market growth and expansion have occurred concurrently. Despite the stock market's size and liquidity, its continuous presence and growth might significantly impact economic activity. According to Schulz and Saklani (2021), the private sector has emerged as a prominent group of players in Nepal's energy industry. Under the Independent Power Producers' Association, Nepal (IPPAN), a private sector professional association made up of some of Nepal's best independent hydropower developers, independent power producers (IPPs) play several vital roles. For example, they do research and development and advocate at different

levels to educate Nepalese policymakers, bureaucrats, and the general public to encourage hydropower investment in Nepal. Many hydropower producers in Nepal have pushed hard for new laws, rules, and regulations on behalf of local and foreign businesses, and they continue to take an active role in making and debating new energy and infrastructure policies. Also, private sector funding has been a big part of how quickly Nepal has switched to creating more energy.

Despite their importance in hydropower development worldwide, private sector perspectives have received little attention (Murton & Lord, 2020; Sintov & Schuitema, 2018; Yu, 2003). In the Nepalese stock market context, investors consider the fragile political scenario and insider trading substantial obstacles (Dahal, 2021; Vaidya, 2021). The absence of innovative financial market technology and practices, as well as awareness and instructional programs, has positioned Nepal's stock market as a new industry (Karki et al., 2023; Prasad & Kadariya, 2022). Access to financing limits prospective savers, but even with current resources, investments are not the most productive and efficient. The remaining industries are hotels, hydropower, manufacturing, and others. Investments must be channeled toward more manufacturing and services to optimize the marginal product of capital (Aryal, 2022; Rai et al., 2023).

As economies grow, self-financed capital investments are replaced by bank loan financing, and then stock markets appear as another way to get money from outside the economy (Ghimire et al., 2023). So, economists are now debating how to study the link between how the financial market changes and how the economy is doing. In this situation, the theory and actual links between the growth of financial markets and the Gross Domestic Product (GDP) are still unclear. To detect the problems faced by the security market, there is a need to consider the importance of studying the matter regarding the return in the hydro business. Therefore, this study focuses on the Nepalese stock market's growth, problems, and prospects related to the hydropower business.

Furthermore, analyzing the asset's tangibility, GDP, inflation, exchange rate, and firm size of listed firms' stock performance is planned to study. This will help the stock market decide on the necessary strategies so that the companies' contribution can be increased; there is a considerable question arising with this context: Do firm-level, industry-level, and country-level factors have any relationship and effect on hydropower's stock performance in Nepal? To address this question, the study has established objectives below:

1) To explore the relationship between the hydro business's stock performance and firm-level, industry-level and country-level factors.
2) To analyze the impact of gross domestic product, assets tangibility, firm size, inflation, foreign exchange rate, and country on the hydro business's stock performance in Nepal.

This study is valuable for organizations looking to develop a suitable link between the stock market and their policies. It will be helpful in other comparable types of company organizations (non-financial) to understand the influence on stock performance. This research study may be interesting for people who wish to learn about stock performance and the elements that influence it. It may also be helpful for future researchers in this subject. It will also be useful for managers, accountants, policymakers, and others. This research also helps to provide required recommendations to the firm's associated department.

The article comprises the introduction, literature review, methodology, presentation and analysis, discussion, and conclusion. An introduction describes the research aims, importance, and Nepalese non-financial sector. The literature review critically

examined Nepalese research on stock returns, firm-specific, industry-specific, and macroeconomic variables. The methodology includes study design, data collecting, and statistical analysis. Finally, the presentation, research, and discussion sections include findings, highlighting stock return dynamics in connection to firm-level, industry-level, and macroeconomic factors and drawing inferences from empirical data.

2. LITERATURE REVIEW

Finance and economics researchers have developed ideas on how business, industry, and macroeconomic variables affect stock returns. Investors, governments, and market players must understand how these variables affect stock returns. This theoretical review examines the theoretical foundations and empirical evidence of the variables Assets Tangibility (AT), Firm Size (SZ), Gross Domestic Product (GDP), Inflation Rate (IN), Exchange Rate (XR), and Return in Stock (RI) in the Nepalese non-financial sector. Due to lesser asset value swings, organizations with more asset tangibility may have lower stock return volatility.

Firm size is frequently seen as a significant driver of stock returns. According to the size effect idea, smaller organizations create higher returns than more significant firms for various reasons, including stronger growth chances, less analyst attention, and greater information asymmetry (Karki et al., 2023; Kim & Burnie, 2002). The liquidity impact argument, on the other hand, implies that larger enterprises may supply more liquidity, resulting in lower returns (Amihud & Mendelson, 1991). Understanding the connection between the size of a company and its stock returns is essential for both the diversification of investment portfolios and the development of investment strategies. According to Banerjee et al. (2021), GDP is a commonly used macroeconomic statistic that estimates the total value of goods and services generated inside a nation within a specific period. According to economic theory, GDP growth influences stock returns. The inflation rate is when an economy's overall price of goods and facilities rises (Wollie, 2018). The influence of inflation on stock returns is a hotly debated topic. Dornbusch (1982) defined the exchange rate as the value of one currency in terms of another. In the instance of Nepal, where the non-financial sector is being addressed, the influence of the exchange rate on stock returns may be significant due to the country's reliance on imports and exports. Exchange rate variations can impact company competitiveness, export revenues, and the cost of imported raw commodities. As a consequence, shifts in the currency exchange rate value may either directly or indirectly affect the performance of stock prices.

The Capital Asset Pricing Model (CAPM) is a popular finance theory that describes the link between risk and expected return. According to the CAPM, the risk-free rate, the beta of the stock (a measure of the stock's systematic risk), and the market risk premium all contribute to the definition of the expected return on an investment in the stock market. This study may utilize the CAPM to examine the association between company-specific characteristics (such as asset tangibility and firm size) and stock returns (Fama & French, 2004). CAPM is a variation of the efficient market hypothesis encompassing such effective allocation. Sharpe and Lintner's CAPM of 1964 and 1965 was the most commonly accepted explanation of stock prices and predicted returns (Rossi, 2016). It forecasts the risk of an asset. However, suppose the factors under consideration (e.g., GDP, INF) give the market new or unexpected information. In that case, stock returns may be affected briefly until the data is wholly absorbed into pricing (Malkiel, 2003). Modigliani and Miller (1963) paved the way for modern corporate finance theory. In the context of exchange rates (XR), this theory indicates that disparities in inflation rates across nations might impact exchange rate movements (Hatemi-J, 2009). As a

result, inflation differentials between Nepal and its trade partners may impact currency rates and, as a result, stock returns.

These economic theories provide a theoretical framework for analyzing the relations between the variables considered in the study and their impact on stock returns in the Nepalese non-financial sector.

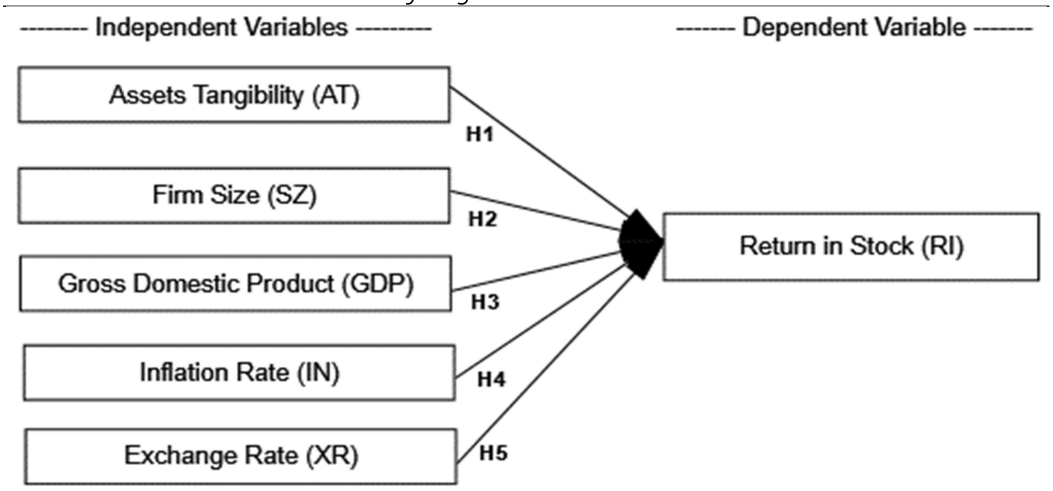

Figure 1: *Conceptual Framework*

Shrestha and Subedi (2014) found that inflation and broad money growth increase the stock market, but interest rates decrease. Mouna and Anis (2017) said that during a crisis, stock market returns, interest rates, and exchange rates all have a significant (good and bad) effect. The three types of risk have mostly been found to play a role in the business world. Abbass et al. (2019) found a positive relationship between the age of a company and its stock returns. On the other hand, the firm's size had no significant effect on stock returns. There was a strong link between the stability ratio and the profits on stocks. The regression model results showed a negative relationship between the solvency ratio and stock returns and between interest rate and stock price.

It has also been found that interest rates have a statistically significant effect on how well stocks do. Also, the results showed a strong link between economic growth and stock gain. Jaishi and Poudel (2019) state that Nepalese non-financial businesses' size, tangibility, income, and development are essential factors that affect how well they work and how much they can borrow. Companies with much debt are less productive, while those with less debt are more productive. Naseer et al. (2021) found that business tangibility, munificence, gross domestic product, inflation, and have a negative link with financial success, but size, growth, dynamism, the Herfindahl-Hirschman index, the exchange rate, and oil prices have a positive association. Raza et al. (2021) found that in Pakistan's textile sector, both micro dynamics (EPS, BVS, and LNFS) and macro dynamics (GDP) are strongly and positively linked to company share prices. But it has been decided that micro dynamics (DPS) and broad dynamics (INF) are unimportant. Suhaibu and Abdul-Malik (2021) found that debt policy statistically affects firm value when there are market imperfections (tax effects). Still, the result is transmitted through either ROA or ROE. They also found that the macroeconomic environment is important in the relationship between debt rules and firm value, as GDP growth and inflation affect both strong performance measures (ROA and ROE). Karn et al. (2023) said that EPSs that are too high are bad for GDP.

Previous research findings suggest that governments develop, adopt, and enforce several imperatives to curb the unpredictability of E.P. For the sake of meeting expanding energy demand and promoting economic progress, the research suggests that policy be aimed at reducing fluctuations in sustainable E.P. and establishing conservative energy policies that stimulate the discovery of new energy sources. The actual data confirm the theoretical framework and provide more supporting assertions.

H1: There is a significant relationship between asset tangibility and the stock performance of hydro business in Nepal.

H2: There is a significant relationship between firm size and the stock performance of hydro business in Nepal.

H3: There is a significant relationship between the gross domestic product and the stock performance of hydro business in Nepal.

H4: There is a significant relationship between the foreign exchange rate and the stock performance of hydro business in Nepal.

H5: There is a significant relationship between inflation and the stock performance of hydro business in Nepal.

Thus, the required regression equation (model) of this study is:

Return on Stock (Y)= $\beta 0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\beta_5 X_5+e$

X_1 = assets tangibility (AT),
X_2 = firm size (S.Z.),
X_3 = gross domestic product (GDP),
X_4 = inflation (INF),
X_5 = currency exchange rates (X.R.),
e= error term.

3. METHODOLOGY

This research used a descriptive, causal-comparative research design. The research design aims to offer a suitable framework for a study. The sample was used from a non-probability (convenience) sampling approach. Since the stock market's impact on the economy is the focus of this research. The information used in this research article is secondary. The study population comprised all listed hydropower companies in Nepal Stock Exchange. For the study, it took five hydropower companies (i.e., Butwal Power Company Limited, Api Power Company Limited, Chilime Hydropower Company Limited, Arun Valley Hydropower Development Company Limited, and Barun Hydropower Company Limited) as samples. The study used recent 5-years (2017/18-2021/22) listed companies with data availability as per convenience sampling design. There are different tools and techniques for the analysis of data. In this study, various related tools and methods have been used for this purpose. To analyze the correlations and regression between independent variables (assets tangibility, exchange rate, firm size, gross domestic product and inflation) stock performance, the study proposed to use SPSS software. Descriptive analysis, correlation analysis, regression analysis, descriptive statistics, and other statistical tools are potential for the research.

4. PRESENTATION AND ANALYSIS

This research article's presentation and analysis attempt to provide a complete evaluation of the dynamics of stock returns in Nepal's non-financial sector. This section covers the empirical analysis findings and provides a comprehensive interpretation.

Table 1: *Descriptive results*

	N	Minimum (Min.)	Maximum (Max.)	Mean	Std. Deviation (S.D.)
AT	25	.008	.97	.78	.199
SIZ	25	5.92	9.54	8.47	1.07
GDP	25	3455.9	4933.70	4097.96	515.68
INF	25	3.60	6.32	4.94	1.10
XR	25	104.67	121.14	114.75	5.77
RI	25	-.487	5.39	.352	1.52

Table 1 provides AT minimum value of 0.008, a maximum value of 0.97, a mean of 0.78, and a standard deviation of 0.199. This variable represents the extent of the tangibility of a firm's assets, indicating the proportion of physical assets compared to other forms of assets. SIZ ranges from a minimum of 5.92 to a maximum of 9.54. The mean firm size is 8.47, with a standard deviation of 1.07. This variable measures the size or scale of the firms in the non-financial sector under study. GDP exhibits a minimum value of 3455.9 and a maximum value of 4933.70. The mean GDP is 4097.96, with a standard deviation of 515.68. GDP reflects the overall economic output of the Nepalese economy and serves as a macroeconomic indicator. INF ranges from 3.60 to 6.32, with a mean value of 4.94 and an SD of 1.10. This variable measures the rate of INF, representing the percentage increase in prices of goods and services over time. XR ranges from a minimum of 104.67 to a max. 121.14. The mean exchange rate is 114.75, with a standard deviation of 5.77. XR indicates the value of the Nepalese currency relative to foreign currencies, providing insight into international trade dynamics. RI exhibits a minimum value of -0.487 and a maximum value of 5.39. The mean return on stock is 0.352, with a standard deviation of 1.52. This variable represents the profitability or performance of stocks in the non-financial sector. These descriptive statistics provide an overview of the range, central tendency, and variability of the variables examined in the study.

Table 2: *Correlations between the dependent variable and independent variables*

	AT	SIZ	GDP	INF	XR
Stock Return	-.706**	-.386	.197	-.483*	.259

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

Table 2 shows a significant correlation with a strong inverse relationship between a firm's assets' tangibility and stock returns. As the tangibility of assets increases, stock returns tend to decrease. A significant negative correlation with INF indicates a moderate inverse association between inflation rate and stock returns. Higher INF is associated with lower stock returns in the Nepalese non-financial sector. The correlation result highlights the relationships between the dependent variable, Stock Return, and the independents of the study. It indicates that asset tangibility and inflation rate statistically influence stock returns in the Nepalese non-financial sector. The magnitude and direction of these correlations provide initial insights into the potential impact of these variables on stock performance, serving as a basis for further analysis and interpretation in the study.

Table 3: *Model Summary*[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890a	.792	.737	.78

a. Predictors: (Constant), XR, AT, SIZ, INF, GDP

Table 3 indicates that the chosen predictors (XR, AT, SIZ, INF, GDP) collectively have a strong influence (R^2 = 89 %) on explaining the variation in Stock Return. The model shows a good fit to the data, with a high proportion of variance accounted for by the predictors. The standard error of the estimate indicates the average accuracy of the model's predictions.

Table 4: *ANOVA*[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.143	5	8.829	14.46	.000b
	Residual	11.594	19	.610		
	Total	55.737	24			

a. Dependent Variable: Stock Return

b. Predictors: (Constant), XR, AT, SIZ, INF, GDP

ANOVA results in Table 4 confirm that the regression model as a whole is statistically substantial in explaining the variation in stock return. The predictors in the model contribute significantly to predicting stock returns within the Nepalese non-financial sector.

Table 5: *Coefficients*[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.90	5.328		-1.483	.155
	AT	-3.17	1.026	-.417	-3.100	.006
	SIZ	-.181	.184	-.127	-.985	.337
	GDP	.000	.001	-.110	-.485	.633
	INF	-.901	.183	-.654	-4.913	.000
	X.R.	.157	.064	.596	2.465	.023

a. Dependent Variable: Stock Return

Table 5 exhibits an unstandardized coefficient of -7.90, which indicates that when all other predictors are held constant, the expected Stock Return value is -7.90. However, this coefficient is not statistically significant (p =.155), indicating that the regular term has a negligible impact on Stock Return. The standardized coefficient of AT is -0.417, which is significant. This means that a one-unit increase in Assets Tangibility is associated with a 0.417% decrease in Stock Return standard deviations. The coefficient is statistically significant (p =.006), suggesting that Assets Tangibility substantially affects Stock Return. It is not statistically significant (p =.337) that SIZ has a negative standardized coefficient of -0.127. This indicates that Firm Size has no significant bearing on Stock Return. Furthermore, GDP has an insignificant coefficient standardization of -0.110, but it is not statistically significant (p =.633). This indicates that the GDP has a negligible effect on stock return. INF has a standardized coefficient of -0.654, which is significant. A one-unit increase in Inflation Rate is associated with a 0.654% decrease in Stock Return standard deviations. The coefficient is statistically highly significant (p= .000), indicating that Inflation Rate substantially affects Stock

Return. The standardized coefficient of XR is 0.596. A one-unit increase in Exchange Rate is associated with a 0.596 unit increase in Stock Return standard deviations. The coefficient is statistically significant (p =.023), indicating that Exchange Rate significantly influences Stock Return. In the non-financial sector of Nepal, Assets Tangibility, Inflation Rate, and Exchange Rate are significant predictors of Stock Return. The results of this regression analysis indicate that neither Firm Size nor Gross Domestic Product significantly influences Stock Return.

Furthermore, Table 5 shows p-values of AT, INF, and XR are less than 0.05, indicating that these variables significantly affect stock return supporting H1, H4, and H5. AT and INF negatively influence stock return, but XR positively impacts stock return (beta values for AT = -3.17, INF = -.901, XR = 0.157). The p-values associated with SIZ and GDP show that they don't significantly impact Stock return (H2 and H3 weren't supported and accepted).

5. DISCUSSION

The studies by Mouna and Anis (2017), Pant et al. (2022), and Shrestha and Subedi (2014) highlighted the significance of INF in determining stock market performance. Both studies find a positive relationship between RI and INF and suggest that investors in Nepal and during crisis periods tend to view equity investments as a hedge against INF and an alternative financial instrument. Abbass et al. (2019) and Shrestha and Subedi (2014) revealed the impact of IR on stock returns. Shrestha and Subedi (2014) found a negative relationship between IR and stock market performance, implying that lower IR can positively influence RI. Abbass et al. (2019) also confirmed a negative relationship between IR and stock prices. These findings indicate that changes in interest rates can significantly affect investor behavior and stock market dynamics. Abbass et al. (2019) and Jaishi and Poudel (2019) highlighted the importance of firm-specific factors in explaining RI. These findings emphasize the relevance of considering firm-specific variables when analyzing stock returns. Dahal (2022), Mouna and Anis (2017), Naseer et al. (2021), Raza et al. (2021), and Suhaibu and Abdul Malik (2021) demonstrated the impact of macroeconomic factors on stock returns. Mouna and Anis (2017) found that interest rates, exchange rates, and macroeconomic crises significantly affect stock market returns. These findings underscore the importance of considering macroeconomic indicators when studying stock returns. Karn et al. (2023) highlighted the need for policymakers to control volatility and fluctuations in earnings per share (EPS) to mitigate their negative impact on GDP. Suhaibu and Abdul Malik (2021) emphasized the importance of considering the macroeconomic environment, such as GDP growth and inflation, when assessing the relationship between debt policy and the firm's value.

6. CONCLUSION

This study evaluated the dynamics of stock returns in the Nepalese non-financial sector, concentrating on the effect of firm-specific, specific to an industry, and overall macroeconomic variables. In conclusion, this study examined the dynamics of stock returns in the Nepalese non-financial sector. Following an exhaustive investigation, several significant discoveries were made. According to the findings, the rate of inflation, the currency rate, and the tangibility of assets are the three factors that influence stock returns most in the Nepalese non-financial sector. To be more specific, a higher tangibility of assets was shown to be connected with lower stock returns. This suggests that businesses with a more significant share of tangible assets may have lowered returns. In addition, it was discovered that more excellent inflation rates negatively influenced stock returns, highlighting the detrimental impact of inflation on the

profitability of businesses operating in the industry.

On the other hand, better stock returns were positively related to a more substantial home currency relative to foreign currencies. This finding indicates the relevance of exchange rate dynamics for investors. In contrast, the results of this study suggest that neither the size of the company nor the gross domestic product (GDP) substantially impacts stock returns. This would imply that other factors, such as characteristics particular to the business or the market dynamics, may play a more significant role in predicting stock performance in the Nepalese non-financial sector. In conclusion, this research contributes to the current body of literature by illuminating the factors that influence the stock returns of companies operating in the non-financial sector in Nepal. The findings highlight the relevance of assets' tangibility, changes in the inflation rate, and differences in exchange rate swings in explaining variations in stock return. If investors and other stakeholders consider the abovementioned variables, they can improve their decision-making processes and better navigate the Nepalese stock market.

7. IMPLICATION AND LIMITATIONS

The implications of these findings for investors, policymakers, and market participants in Nepal are significant. The study emphasizes the importance of contemplating the tangibility of assets, the inflation rate, and fluctuations in exchange rates when assessing the profitability and risk associated with investing in equities. Understanding these dynamics can help investors make informed decisions and effectively manage their portfolios. Nonetheless, it is essential to recognize that this study has certain limitations. Nepal's non-financial sector was the primary focus of the analysis, which considered a specific set of variables. Future research could investigate other sectors or incorporate additional variables to provide a complete understanding of stock return dynamics on the Nepalese market.

AUTHOR AFFILIATIONS

Srijana Khadka, Principal Author
Shankar Dev Campus, Kathmandu, Nepal
srijana.khadka@sdc.tu.edu.np

Ajay Kumar Khadka
Nepal Commerce Campus, Kathmandu

REFERENCES

1. Abbass, K., Song, H., Shah, S. M., & Aziz, B. (2019). Determinants of stock return for non-financial sector: Evidence from energy sector of Pakistan. Journal of Business & Financial Affairs, 8(1), 1-9. https:// https://doi.org/10.4172/2167-0234.1000370
2. Amihud, Y., & Mendelson, H. (1991). Liquidity, asset prices and financial policy. Financial Analysts Journal, 47(6), 56-66. https://doi.org/10.2469/faj.v47.n6.56
3. Aryal, A. (2022). Saving, investment, and capital markets in developing countries: A look at Nepal and Tanzania. CISLA Senior Integrative Projects. 42. https://digitalcommons.conncoll.edu/sip/42
4. Banerjee, O., Cicowiez, M., Vargas, R., Obst, C., Cala, J. R., Alvarez-Espinosa, A. C., ... & Meneses, D. S. (2021). Gross domestic product alone provides misleading policy guidance for post-conflict land use trajectories in Colombia. Ecological Economics, 182, 1-19. https://doi.org/10.1016/j.ecolecon.2020.106929
5. Dahal, R. K. (2021). Customer performance and non-financial organizational performance of the Nepalese cellular telecommunications industry. Problems and Perspectives in Management, 19(2), 132-144. http://dx.doi.org/10.21511/ppm.19(2).2021.11
6. Dahal, R. K. (2022). Individual investors in the Nepalese securities market: What they know and what they like. Nepal Journal of Multidisciplinary Research, 5(4), 71–81. https://doi.org/10.3126/njmr.v5i4.49837
7. Dornbusch, R. (1982). Exchange rate economics: where do we stand? In International economics policies and their theoretical foundation (pp. 557-599). Academic Press. https://doi.org/10.1016/b978-0-12-444280-1.50033-1
8. Fama, E. F., & French, K. R. (2004). The capital asset pricing model: Theory and evidence. Journal of economic perspectives, 18(3), 25-46. https://doi.org/10.1257/0895330042162430

9. **Ghimire, B., Dahal, R. K., Rai, B., Upadhyay, D.** (2023). Employee performance factors in the Nepalese commercial banks: Insights from emerging markets. Journal of Logistics, Informatics and Service Science, 10(2), 29-42. DOI: 10.33168/JLISS.2023.0203
10. **Hatemi-J, A.** (2009). The international fisher effect: Theory and application. Investment Management and Financial Innovations, 6(1), 117-121.
11. **Jaishi, B.,** & **Poudel, R. L.** (2019). Capital structure and firm efficiency of non-financial institutions in Nepal. Journal of Nepalese Business Studies, 12(1), 19-32. https://doi.org/10.3126/jnbs.v12i1.28180
12. **Karki, D., Dahal, R. K., Bhattarai, G., Balla, S.,** & **Lama, A.** (2023). Performance evaluation of technical analysis in the Nepalese stock market: Implications for investment strategies. Quest Journal of Management and Social Sciences, 5(1), 69-84. https://doi.org/10.3126/qjmss.v5i1.56295
13. **Karn, A. L., Kondamudi, B. R., Gupta, R. K., Pustokhin, D. A., Pustokhina, I. V., Alharbi, M., ...** & **Sengan, S.** (2023). An empirical analysis of the effects of energy price shocks for sustainable energy on the macro-economy of South Asian countries. Energies, 16(1), 363. https://doi.org/10.3390/en16010363
14. **Kim, M. K.,** & **Burnie, D. A.** (2002). The firm size effect and the economic cycle. Journal of Financial Research, 25(1), 111-124. https://doi.org/10.1111/1475-6803.00007
15. **Malkiel, B. G.** (2003). The efficient market hypothesis and its critics. Journal of Economic Perspectives, 17(1), 59-82. https://doi.org/10.1257/089533003321164958
16. **Modigliani F., Miller M.** (1963) Corporate income taxes and the cost of capital: A correction, American Economic Review, 53(3), 433-443. http://www.jstor.org/stable/1809167
17. **Mouna, A.,** & **Anis, J.** (2017). Stock market, interest rate and exchange rate risk effects on non-financial stock returns during the financial crisis. Journal of the Knowledge Economy, 8(3), 898-915. https://doi.org/10.1007/s13132-015-0301-4
18. **Murton, G.,** & **Lord, A.** (2020). Trans-Himalayan power corridors: Infrastructural politics and China's belt and road initiative in Nepal. Political Geography, 77(2020), 1-13. https://doi.org/10.1016/j.polgeo.2019.102100
19. **Naseer, M. M., Khan, M. A., Popp, J.,** & **Oláh, J.** (2021). Firm, industry and macroeconomics dynamics of stock returns: A case of Pakistan non-financial sector. Journal of Risk and Financial Management, 14(5), 1-18. https://doi.org/10.3390/jrfm14050190
20. **Pant, R., Ghimire, B., & Dahal, R. K.** (2022). Determinants of mutual fund performance in Nepal. Nepal Journal of Multidisciplinary Research, 5(5), 1–16. https://doi.org/10.3126/njmr.v5i5.51798
21. **Prasad, D.,** & **Kadariya, S.** (2022). Stock returns: Nepalese investors' reactions to news coverage. Journal of Accounting and Finance, 22(3), 58-82. https://doi.org/10.33423/jaf.v22i3.5296
22. **Rai, B., Dahal, R. K.,** & **Ghimire, B.** (2023). Factors affecting consumer behavior in Smartphone purchases in Nepal. Innovative Marketing, 19(3), 74-84. https://doi.org/10.21511/im.19(3).2023.07
23. **Raza, H., Hassan Gillani, S. M. A., Ahmad, H., Qureshi, M. I.,** & **Khan, N.** (2021). Impact of micro and macro dynamics on share price of non-financial listed firms in textile sector of Pakistan. Journal of Contemporary Issues in Business and Government, 27(1).
24. **Rossi, M.** (2016). The capital asset pricing model: A critical literature review. Global Business and Economics Review, 18(5), 604-617.https://doi.org/10.1504/gber.2016.100002 54
25. **Schulz, C.,** & **Saklani, U.** (2021). The future of hydropower development in Nepal: Views from the private sector. Renewable Energy, 179(2021), 1578-1588. https://doi.org/10.1016/j.renene.2021.07.138
26. **Shrestha, P. K.,** & **Subedi, B. R.** (2014). Determinants of stock market performance in Nepal. NRB Economic Review,26(2), 25-40. https://doi.org/10.3126/nrber.v26i2.52578
27. **Sintov, N. D.,** & **Schuitema, G.** (2018). Odd couple or perfect pair? Tensions and recommendations for social scientist-industry partnerships in energy research. Energy Policy, 117(2018), 247-251. https://doi.org/10.1016/j.enpol.2018.03.021
28. **Suhaibu, I.,** & **Abdul-Malik, A.** (2021). Debt policy, firm value, and the macroeconomic environment nexus: Evidence from non-financial sector firms in Ghana. International Journal of Finance & Economics, 26(2), 2106-2117. https://doi.org/10.1002/ijfe.1896
29. **Vaidya, R.** (2021). Qualitative analysis on investment decisions of Nepalese stock market investors. Journal of Business and Management Review, 2(5), 349-365. https://doi.org/10.47153/jbmr25.1422021
30. **Wollie, G.** (2018). The relationship between inflation and economic growth in Ethiopia. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 1(3), 264-271. https://doi.org/10.33258/birci.v1i3.73
31. **Yu, X.** (2003). Regional cooperation and energy development in the greater Mekong sub-region. Energy Policy, 31(12), 1221-1234. https://doi.org/10.1016/s0301-4215(02)00182-9

TO CITE THIS ARTICLE

Khadka, S., & Khadka, A. K. (2023). The interplay of firm, industry, and macroeconomic factors in the stock returns of the non-financial sector in Nepal. *International Research Journal of MMC, 4*(3), 23–33. https://doi.org/10.3126/irjmmc.v4i3.58959

Submitted: 26 August 2023 **Accepted:** 14 September 2023 **Published:** 2 October 2023

International Research Journal of MMC (IRJMMC) is a peer-reviewed open access journal published by Research Management Cell, Makawanpur Multiple Campus, Hetauda