The Impact of Financial Ratios on Stock Price Performance: A Quantitative Study of Listed Companies in India

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Abstract: This study examines the impact of key financial ratios—Return on Equity (ROE), Current Ratio (CR), and Debt-to-Equity Ratio (D/E)—on the stock price performance of companies listed on the National Stock Exchange (NSE) of India. Using a sample of 100 firms from the fiscal year 2022–2023, the research applies correlation and multiple regression analyses to assess the influence of these ratios on stock returns. Results reveal that ROE has a strong and positive relationship with stock returns, highlighting profitability as a crucial driver of market performance. The Current Ratio demonstrates a weak but positive association, suggesting liquidity plays a moderate role in investor confidence. Conversely, the Debt-to-Equity Ratio exhibits a negative yet statistically insignificant impact on stock returns, indicating leverage's effect may vary depending on firm or market conditions. These findings provide valuable insights for investors, financial analysts, and policymakers by emphasizing the importance of profitability and liquidity in shaping stock market outcomes in emerging economies like India. The study contributes to understanding how financial fundamentals influence equity valuation, supporting more informed investment decisions and policy formulation.

Keywords: Financial Ratios, Return on Equity (ROE), Current Ratio (CR), Debt-to-Equity, Ratio (D/E), Stock Price Performance, Stock Returns etc.

Introduction:

Stock prices are influenced by a myriad of factors, ranging from macroeconomic indicators to company-specific financial health. Financial ratios serve as important indicators of a firm's performance and stability. In the context of India's rapidly evolving financial markets, understanding how these ratios affect stock prices can provide valuable insights for investors (Sharma, & Singh, 2011). This study aims to explore the predictive power of key financial ratios—Return on Equity (ROE), Current Ratio (CR), and Debt-to-Equity Ratio (D/E)—on stock price performance.

One of the most critical financial ratios impacting stock performance is Return on Equity (ROE). ROE

measures a firm's profitability by revealing how much profit a company generates with the money shareholders have invested. High ROE indicates efficient use of equity capital and often attracts investors seeking superior returns. According to Fama and French (1992), firms with higher ROE tend to deliver higher stock returns, making this metric a strong predictor of price performance. In the Indian context, companies with consistently high ROE generally exhibit stronger investor interest and market valuation (Sharma & Singh, 2011).

Liquidity ratios, particularly the Current Ratio, also play a role in stock price movement. This ratio evaluates a company's ability to meet short-term obligations with its current assets. While a very high current ratio may indicate inefficiency in asset utilization, a ratio within the optimal range enhances investor confidence in the company's short-term financial stability. Research by Sehgal and Tripathi (2009) found that companies with stable liquidity ratios tend to experience relatively stable stock prices, especially during economic downturns.

Another important metric is the Debt-to-Equity Ratio (D/E), which evaluates a firm's financial leverage. Companies with high D/E ratios are considered riskier because of their dependency on external debt, which can impact profitability and long-term viability. However, the impact of D/E on stock performance is more nuanced. While high leverage can amplify returns during profitable periods, it may also lead to sharp declines in stock price during adverse conditions (Ou & Penman, 1989). In India, investors often exhibit caution towards highly leveraged companies, which is reflected in subdued stock price performance, particularly in volatile markets

Review of Literature

Past research has highlighted the predictive potential of financial ratios. Ou and Penman (1989) found a significant association between financial ratios and stock returns. Fama and French (1992) emphasized the importance of profitability measures such as ROE in asset pricing. In the Indian context, studies by Sehgal and Tripathi (2009) and Sharma & Singh (2011) have demonstrated mixed results regarding the impact of liquidity and solvency on stock performance. However, the relationship remains under-explored with recent data, especially post-COVID and during the digital boom in Indian markets.

A more recent study by Gupta and Jain (2020) employed panel data regression to analyze listed firms on the National Stock Exchange (NSE) from 2014 to 2019. The results supported earlier findings, emphasizing the positive impact of ROE and Earnings per Share (EPS) on stock returns, while debt-related ratios had either insignificant or negative correlations.

Despite the growing body of literature, mixed results are observed concerning the impact of liquidity and leverage ratios. While some researchers argue for their predictive potential, others maintain that such ratios are secondary to profitability indicators in influencing stock prices (Agarwal & Srivastava, 2018). These inconsistencies underscore the importance of context-specific research that considers market dynamics, investor behavior, and sectoral nuances.

Research Gap: While previous studies have established the significance of financial ratios—particularly profitability measures like ROE—in predicting stock returns (Ou & Penman, 1989; Fama & French, 1992), there remains inconsistency and limited exploration regarding the roles of liquidity and leverage ratios, especially within the Indian market. Earlier Indian studies (Sehgal & Tripathi, 2009; Sharma & Singh, 2011) show mixed evidence on how liquidity and solvency affect stock performance, and more recent analyses (Gupta & Jain, 2020) reaffirm the dominance of profitability ratios but provide inconclusive results on debt-related measures. Furthermore, these studies often rely on data prior to major recent disruptions such as the COVID-19 pandemic and the accelerated digital transformation impacting Indian markets. The evolving market environment, changing investor behaviors, and sector-specific variations call for updated, context-specific research using recent data to clarify the nuanced influence of

liquidity and leverage on stock price performance in India.

Significance of the Study: This study on the impact of financial ratios on stock price performance is important for investors, corporate managers, policymakers, and academics in India. It provides empirical evidence on how key ratios like ROE, Current Ratio, and Debt-to-Equity influence stock returns of listed companies. Investors gain insights for better decision-making, while managers learn the importance of strong financial fundamentals to boost market value. Policymakers can use the findings to improve market transparency and investor protection. Additionally, the study fills a research gap on Indian markets, supporting future research on financial ratios and stock performance in emerging economies.

Objectives of the Study

➢ To assess the correlation between ROE, Current Ratio, and D/E ratio with stock price performance.

➢ To evaluate the predictive capacity of these financial ratios using regression analysis.

➢ To provide actionable insights for investment decision-making in the Indian stock market.

Research Methodology

Sample and Data Collection: The study includes 100 companies from various sectors listed on the NSE. Data for the fiscal year 2022–2023 was collected from company annual reports, NSE records, and CMIE Prowess database.

Variables

➢ **Dependent Variable**: Stock Return (% change in closing price over FY 2022–2023)

➢ **Independent Variables**:

✓ ROE = Net Income / Shareholder's Equity

✓ Current Ratio = Current Assets / Current Liabilities

✓ Debt-to-Equity Ratio = Total Debt / Shareholder's Equity

Statistical Tools: The researcher has used the following statistical tools to analyze the collected data-

➢ Pearson Correlation Analysis

➢ Multiple Linear Regression

➢ Software: SPSS and Excel

Data Analysis and Interpretation:

Table 1: Descriptive Statistics of the Variables

Variable	Mean	Std. Dev	Min	Max
ROE (%)	14.23	8.11	-5.12	37.45
Current Ratio	1.87	0.68	0.65	3.9
D/E Ratio	0.76	0.59	0.12	2.85
Stock Return (%)	18.94	22.33	-22.1	78.5

The statistical summary reveals meaningful patterns and variations among these variables, which help in understanding both financial health and investor response in the Indian stock market context. Return on Equity (ROE), which reflects a company's profitability in relation to shareholder equity, shows a mean of 14.23%**,** with a standard deviation of 8.11. This indicates that, on average, the sampled companies generate a moderate level of profitability for their shareholders. However, the relatively high standard

deviation suggests notable variability among companies, with ROE ranging from a negative -5.12% to a strong 37.45%. The negative minimum value highlights that some companies incurred losses, thereby eroding shareholder value. On the other hand, firms with high ROE likely attracted greater investor interest due to more efficient capital utilization, consistent with existing financial literature.

The Current Ratio, which measures a firm's short-term liquidity position, averages 1.87, with a standard deviation of 0.68. This suggests that, on average, firms have nearly twice the amount of current assets relative to current liabilities, indicating good liquidity health. The minimum value of 0.65 implies that some companies may be struggling to meet short-term obligations, while the maximum of 3.90 reflects a highly liquid position. The variability points to different working capital management strategies and sector-specific liquidity needs across companies.

The Debt-to-Equity (D/E) Ratio has a mean of 0.76 and a standard deviation of 0.59, indicating a generally moderate use of leverage among the sampled firms. A minimum of 0.12 signifies that some companies are minimally leveraged or mostly equity-financed, which reduces financial risk. Conversely, the maximum value of 2.85 indicates that some firms rely heavily on debt, which could pose solvency risks in times of declining earnings or market instability. The wide spread highlights differing capital structures, often driven by industry norms and strategic financial planning.

Finally, Stock Return (%), shows an average return of 18.94%, which is a robust performance by general market standards. However, the high standard deviation of 22.33% signals substantial volatility in returns. The minimum value of -22.10% suggests that some companies experienced sharp declines in their stock prices during the period, whereas the maximum return of 78.50% reflects substantial growth in others.

Table 2: Correlation Analysis

Variables	Stock Return	ROE	Current Ratio	D/E Ratio
Stock Return	1	0.613**	0.212*	-0.173
ROE		1	0.196	-0.321**
Current Ratio			1	-0.109
D/E Ratio				1

The correlation analysis presented in this study explores the linear associations between stock return, Return on Equity (ROE), Current Ratio, and Debt-to-Equity (D/E) Ratio. The correlation coefficients help determine the strength and direction of these relationships, with particular focus on their statistical significance.

The most prominent finding from the matrix is the strong positive correlation between Stock Return and ROE ($r = 0.613$, $p < 0.01$). This indicates that as companies' profitability—measured by ROE—increases, their stock returns tend to rise as well. This result aligns with prior empirical studies suggesting that profitable firms are more attractive to investors and thus experience better market performance (Fama & French, 1992). The strength of this relationship underscores ROE as a key predictor of stock return performance in the Indian corporate landscape.

The Current Ratio shows a weak but statistically significant positive correlation with Stock Return ($r = 0.212$, $p < 0.05$). This suggests that firms with better liquidity positions are marginally more likely to experience higher stock returns. Although this relationship is not as strong as that of ROE, it implies that investors may still consider liquidity as a factor, especially in times of market uncertainty when the ability to meet short-term obligations becomes more critical.

On the other hand, the Debt-to-Equity Ratio displays a weak negative correlation with Stock Return ($r = -0.173$), though the relationship is not statistically significant. This implies that while higher leverage may reduce stock return performance, the relationship is not strong enough to be conclusive. It suggests that

leverage alone may not be a reliable predictor of market return, possibly due to differences in sectoral capital requirements or market perceptions of debt management.

Examining inter-variable relationships, ROE and D/E Ratio exhibit a moderate negative correlation (r = -0.321, p < 0.01), indicating that highly leveraged firms tend to have lower returns on equity. This is a logical outcome, as higher debt increases interest obligations, which can reduce net income available to shareholders, thereby lowering ROE.

The correlation between ROE and Current Ratio (r = 0.196) is weak and not statistically significant, suggesting minimal linear association between profitability and liquidity in this sample. Similarly, the Current Ratio and D/E Ratio show a very weak negative correlation (r = -0.109), indicating that firms with better liquidity tend to rely slightly less on debt, but again, the relationship is too weak to derive any strong inference.

Table 3: Regression Analysis

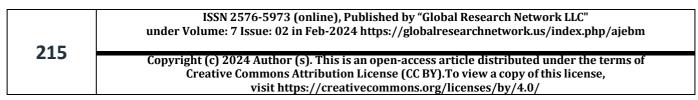| Predictor	B	Std. Error	t	Sig.
(Constant)	5.31	4.23	1.25	0.215
ROE	0.92	0.18	5.11	0.000**
Current Ratio	3.47	1.52	2.28	0.025*
D/E Ratio	-2.58	1.96	-1.32	0.189

The ROE variable emerges as the most significant predictor of stock return, with a coefficient (B) of 0.92 and a t-value of 5.11, which is highly significant (p < 0.001). This indicates that for every one-unit increase in ROE, the stock return increases by approximately 0.92 percentage points, holding other variables constant. This result reinforces findings from both the descriptive and correlation analyses, confirming ROE as a robust indicator of market performance. The strong statistical significance suggests that investors reward firms that deliver higher returns on equity, perceiving them as more efficient in generating profits from shareholders' capital.

The Current Ratio also has a positive and statistically significant impact on stock return (B = 3.47, p = 0.025). This implies that, all else equal, an increase of one unit in the current ratio is associated with an increase of approximately 3.47 percentage points in stock return. While the effect size is notable, the standard error (1.52) and moderate t-value (2.28) suggest the effect is present but not overwhelmingly strong. This finding indicates that liquidity, while not as influential as profitability, still plays a meaningful role in shaping investor confidence, particularly in markets sensitive to short-term risk and operational efficiency.

In contrast, the D/E Ratio has a negative coefficient (B = -2.58), indicating an inverse relationship with stock return. However, the result is not statistically significant (p = 0.189). This suggests that higher financial leverage tends to be associated with lower stock returns, but this effect is not strong enough to draw definitive conclusions in this sample. The lack of statistical significance may be due to industry-specific debt norms or investor tolerance toward leverage under certain market conditions. Therefore, while high leverage may be viewed as a risk factor, its direct impact on stock return is inconclusive in this context.

Discussion: The analysis shows that the average Return on Equity (ROE) among Indian listed companies is 14.23%, with considerable variation, indicating differences in profitability and capital efficiency. The average Current Ratio of 1.87 suggests good liquidity, though variability points to diverse short-term financial strategies. The mean Debt-to-Equity (D/E) Ratio of 0.76 reflects moderate leverage, with some firms showing minimal debt and others heavily reliant on borrowing. Stock Returns average 18.94%, but the high standard deviation signals significant volatility, ranging from notable losses to strong gains.

Overall, the data reveal varied financial health and performance across firms. Return on Equity (ROE) is a critical indicator of a firm's profitability and efficient use of shareholder capital. Studies by Penman and Reggiani (2013) and Fama and French (1992) confirm that consistently high ROE is positively linked to stock returns, while variability in ROE reflects differences in sector, efficiency, and capital strategies (Nimalathasan, 2010). The Current Ratio, a key liquidity measure, signals a firm's ability to meet short-term obligations. Eljelly (2004) and Shin and Soenen (1998) noted that both conservative and aggressive liquidity management approaches impact profitability and risk perception. The Debt-to-Equity (D/E) Ratio reflects financial leverage. Lower ratios suggest stability, whereas higher ratios may signal risk or growth potential. Modigliani and Miller (1963) highlighted the trade-off between tax benefits and bankruptcy risk, while Ramesh and Reddy (2020) noted industry-specific leverage patterns in India. Stock Return, influenced by both firm-specific and external factors, often shows high variability. Jegadeesh and Titman (1993) and Lintner (1965) emphasized the roles of profitability, risk, and investor expectations in driving return volatility.

The correlation analysis reveals a strong positive relationship between ROE and Stock Return ($r = 0.613$, $p < 0.01$), indicating that more profitable firms tend to yield higher returns, supporting previous research (Fama & French, 1992). A weaker but significant positive correlation exists between the Current Ratio and Stock Return ($r = 0.212$, $p < 0.05$), suggesting that firms with better liquidity slightly outperform in the market. The Debt-to-Equity Ratio has a weak negative correlation with Stock Return ($r = -0.173$), though it is not statistically significant, indicating leverage alone may not strongly influence stock performance. Among the independent variables, ROE and D/E Ratio are moderately and negatively correlated ($r = -0.321$, $p < 0.01$), implying that higher debt levels are associated with reduced profitability. Other inter-variable correlations, such as ROE–Current Ratio ($r = 0.196$) and Current Ratio–D/E Ratio ($r = -0.109$), are weak and statistically insignificant, suggesting limited linear associations between profitability, liquidity, and leverage within the sample.

Investors tend to value firms with high ROE, as it signals efficient use of equity and often leads to higher market valuations (Penman & Reggiani, 2013; Nimalathasan, 2010). Liquidity, measured by the Current Ratio, shows a weaker but positive effect on stock returns, reflecting its role in reducing financial distress and supporting stability (Eljelly, 2004; Shin & Soenen, 1998). The Debt-to-Equity Ratio exhibits a weak and insignificant negative relationship with stock returns, consistent with mixed findings on leverage's impact due to varying industry conditions (Modigliani & Miller, 1963; Ramesh & Reddy, 2020). The negative correlation between ROE and D/E Ratio confirms that higher debt can lower profitability by increasing financial risk (Myers, 2001). Overall, profitability, liquidity, and leverage appear to influence firm performance somewhat independently, shaped by firms' strategic choices and sectoral factors.

Return on Equity (ROE) is the strongest and most significant predictor of stock return, with each one-unit increase in ROE leading to an approximate 0.92% rise in stock returns ($p < 0.001$). This underscores ROE's key role in driving investor confidence and market performance. The Current Ratio also positively influences stock returns, with a one-unit increase associated with a 3.47% gain ($p = 0.025$), indicating liquidity's moderate but meaningful impact. Conversely, the Debt-to-Equity (D/E) Ratio shows a negative but statistically insignificant relationship with stock return, suggesting that while higher leverage may be linked to lower returns, its effect is inconclusive within this sample.

Penman and Reggiani (2013) and Nimalathasan (2010) highlight that firms with efficient equity use, reflected in high ROE, tend to achieve sustained market outperformance, confirming ROE's strong role as a stock return predictor across various markets. Liquidity, measured by the Current Ratio, also positively affects stock returns by reducing financial distress risk and promoting stability, as noted by Eljelly (2004) and Shin and Soenen (1998), though its impact is generally less significant than profitability. The Debt-to-Equity Ratio shows a negative but inconclusive relationship with stock returns, consistent with Modigliani

and Miller's (1963) theory and findings by Ramesh and Reddy (2020), which suggest that leverage's effects vary by industry and market conditions, making its influence on stock prices uncertain.

Key Findings:

➢ ROE shows a strong positive relationship with stock returns, affirming the theory that profitability drives investor confidence and market valuation.

➢ Current Ratio is moderately significant, suggesting that liquidity enhances stock performance but is not a primary driver.

➢ Debt-to-Equity Ratio shows a negative association, though not statistically significant, hinting that highly leveraged firms may deter investor sentiment but the effect is limited in magnitude.

Conclusion: This study concludes that among the selected financial ratios, ROE significantly influences stock returns in India. Liquidity (current ratio) has a moderate effect, while leverage (D/E) does not significantly predict returns. These insights are valuable for retail and institutional investors aiming to construct fundamentally sound portfolios.

Recommendations

➢ Investors should emphasize ROE while screening stocks for long-term investments.

➢ Companies should balance profitability and liquidity to enhance market perception.

➢ Further studies may include more variables (like EPS, P/E ratio) and sector-specific analysis for deeper insights.

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