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# The Impact of Financial Ratios on Stock Returns: Evidence from the Tehran Stock Exchange

Mohammad MortezaZadeh [1], Mohsen Khodadadi[2] , Farshad Sameni-Keivani[3]

[1,2,3]*Department of Accounting, Roudsar and Amlash Branch, Islamic Azad University, Roudsar, Iran.*

***Abstract:*** *This study investigates the impact of various financial ratios, including liquidity, profitability, leverage, and activity ratios, on the stock returns of companies listed on the Tehran Stock Exchange (TSE) from 2019 to 2023. The primary objective is to analyze the relationship between these fundamental indicators and stock performance using a multiple regression framework and a comprehensive set of statistical tests. The methodology employs a descriptive-correlational design using panel data from a sample of 167 firms. Data analysis was conducted using significance tests for regression coefficients (t-test and F-test), alongside diagnostic tests for heteroskedasticity (Breusch-Pagan), autocorrelation (Durbin-Watson), multicollinearity, and stationarity (Unit Root test). The results indicate a significant and positive relationship between liquidity ratios and profitability ratios with stock returns. Conversely, leverage ratios are found to have a negative and significant effect on stock returns. Activity ratios also show a positive and significant impact. These findings suggest that improving liquidity, profitability, and operational efficiency can enhance stock returns, while the excessive use of debt (high leverage) may increase financial risk and consequently reduce stock returns. Overall, the study clearly demonstrates that managers and investors should carefully analyze financial ratios to make optimal financial decisions, ultimately enhancing corporate financial performance and shareholder value.*

***Keywords:*** *Stock Return, Financial Ratios, Liquidity Ratio, Profitability Ratio, Leverage Ratio, Activity Ratio, Tehran Stock Exchange.*

## 1. Introduction

In today's globalized economy, financial markets are cornerstones of economic development, and the analysis and prediction of stock returns remain a primary concern for investors, financial analysts, and economic policymakers. Financial ratios serve as critical tools for dissecting a company's financial health, offering invaluable insights into performance and viability that guide investment decisions. Ratios related to liquidity, profitability, leverage, and

activity provide a multi-faceted view of a firm's standing and can play a significant role in explaining market behavior and forecasting stock returns.

According to classic financial theories, such as the Efficient Market Hypothesis (EMH) proposed by Fama (1970), all publicly available information should be transparently reflected in stock prices, allowing the market to react efficiently. In such a market, investors can analyze financial ratios to identify high-performing companies and optimize their investment portfolios. Studies in developed markets have often shown that strong financial ratios can be predictive of future stock returns (Chen et al., 2022).

However, the ideal conditions of a perfectly efficient market are rarely met in practice. Challenges such as information asymmetry, lack of transparency in financial reporting, and structural market inefficiencies can distort the relationship between financial fundamentals and stock prices. Incomplete or inaccurate reporting can mislead investors (Healy & Palepu, 2001), while unequal access to information can lead to irrational price volatility, making returns unpredictable (Beyer et al., 2010). External factors, including macroeconomic and political instability, can further complicate this relationship, causing financial ratios to become less reliable indicators of future performance (Jones & Kritzman, 2020).

The Tehran Stock Exchange (TSE), as the primary capital market in Iran, operates within a unique economic environment characterized by specific structural and regulatory features. Therefore, understanding the dynamics between financial ratios and stock returns in this context is of paramount importance for local and international stakeholders. This research aims to address this need by investigating the specific impact of liquidity, profitability, leverage, and activity ratios on the stock returns of companies listed on the TSE.

The central research question is: **"What effect do financial ratios have on the stock returns of companies listed on the Tehran Stock Exchange, and how might market-specific factors modulate this impact?"**.

To answer this, the study establishes and tests four primary hypotheses:

1. Liquidity ratios have a positive and significant effect on stock returns.
2. Profitability ratios have a positive and significant effect on stock returns.
3. Leverage ratios have a negative and significant effect on stock returns.
4. Activity ratios have a positive and significant effect on stock returns.

This study contributes to the existing literature by applying advanced regression models to a recent and comprehensive dataset from the TSE (2019-2023), a period marked by significant economic fluctuations. The findings are intended to provide practical, evidence-based insights

for investors to refine their decision-making processes, for corporate managers to improve financial performance, and for regulators to enhance market transparency and efficiency.

This paper is structured as follows: Section 2 provides a review of the theoretical and empirical literature. Section 3 details the research methodology, including the data, sample selection, variable definitions, and econometric models. Section 4 presents and analyzes the empirical results. Finally, Section 5 discusses the findings, compares them with previous studies, and offers conclusions, practical implications, and suggestions for future research.

## 2. Literature Review

### 2.1. Theoretical Foundations

#### 2.1.1. Profit and Profitability

Profit is a cornerstone concept in business, yet its definition can be complex. From an accounting perspective, profit is the surplus of realized revenues over all incurred expenses within a specific period, measured based on the accrual principle. Economists like Adam Smith defined profit as an increase in wealth. Modern interpretations, such as those by Kaplan and Norton (2021), define profit as the change in shareholders' equity over a period, excluding transactions with owners. The ultimate goal of reporting profit is to measure a firm's periodic financial performance, which helps users evaluate management, predict future earnings, and assess investment risk.

Profitability ratios measure a company's ability to generate earnings relative to its revenue, assets, operating costs, and equity. They are a critical indicator of management's efficiency in generating profits from the resources at its disposal. Key profitability ratios include Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE). High profitability is generally viewed favorably by investors, as it signals financial health and the potential for higher dividends and capital gains, thus creating a theoretical positive link to stock returns.

#### 2.1.2. Stock Returns

Stock return represents the total gain or loss experienced by an investor over a specific period. It comprises two components: capital gains (or losses) from changes in the stock's price and income from dividends. The fundamental formula for calculating stock return (R) is:

$R=P_0(P_1-P_0)+DPS$

Where:

- $P_1$ is the stock price at the end of the period.
- $P_0$ is the stock price at the beginning of the period.
- DPS is the dividend per share paid during the period.

Adjustments to this formula are necessary to account for corporate actions like stock splits or stock dividends (bonus shares). Predicting stock returns is a central objective in finance, and accounting variables are considered key inputs in this process.

### 2.1.3. Financial Ratios as Predictors of Stock Returns

- **Liquidity Ratios:** These ratios measure a company's ability to meet its short-term obligations. Common examples include the Current Ratio and Quick Ratio. A higher liquidity ratio generally indicates a lower risk of financial distress, as the company has a sufficient cushion of current assets to cover its current liabilities. This financial stability is attractive to investors and is hypothesized to have a positive impact on stock returns. However, excessively high liquidity can also suggest inefficient use of assets that could otherwise be invested in profitable ventures.
- **Leverage Ratios:** Leverage ratios indicate the extent to which a company uses debt to finance its assets. Ratios like Debt-to-Assets and Debt-to-Equity are key measures of financial risk. While debt can amplify returns for shareholders through financial leverage (the tax shield on interest payments can increase earnings per share), it also increases financial risk. High leverage exposes a company to greater volatility and a higher probability of bankruptcy if it cannot meet its debt obligations, which typically leads to a negative perception by the market and thus a negative relationship with stock returns.
- **Activity Ratios:** Also known as efficiency ratios, these measure how effectively a company utilizes its assets to generate sales and profits. Ratios such as Asset Turnover and Inventory Turnover assess the efficiency of operations. A higher activity ratio implies that the company is generating more revenue per unit of assets, signaling efficient management and strong operational performance. This efficiency is expected to translate into higher profitability and, consequently, higher stock returns.

## 2.2. Review of Empirical Studies

### 2.2.1. International Studies

The relationship between financial ratios and stock returns is a well-trodden area of research globally.

- **Shanli, Özgün (2024)** investigated the relationship for companies in the BIST 30 index in Turkey. Using panel data analysis, they found a significant positive relationship between ROE, asset turnover, and debt-to-equity with stock returns, and a significant negative relationship for the current ratio and inventory turnover.

- **Umarkhan et al. (2024)** studied real estate companies in Indonesia and found that Price-to-Book Value (PBV) directly impacts stock returns, while ROE's effect is mediated by the Price-to-Earnings (P/E) ratio.
- **Chen et al. (2022)**, in a broad study, reported that high liquidity leads to higher long-term returns in both developed and emerging markets, consistent with the hypothesis that financial stability attracts investors.
- **James Smith et al. (2020)** found a positive impact of certain financial ratios on the stock returns of U.S. companies.
- **Fama and French (2002)** provided foundational work showing that firms with high leverage often face greater financial distress and consequently exhibit lower stock returns.

These studies collectively suggest that financial ratios contain valuable information for predicting stock returns, although the significance and direction of the relationship can vary depending on the specific ratio, industry, and market environment.

2.2.2. Domestic (Iranian) Studies

Research within the Iranian context has yielded findings largely consistent with international literature, while also highlighting market-specific nuances.

- **Pourmehdian Davarani (2024)** studied the impact of institutional ownership on stock returns in the TSE, finding that institutional presence is positively correlated with returns, suggesting that monitoring by large investors improves performance.
- **Shams and Karimian (2024)** examined the information content of earnings announcements on the TSE, concluding that operating profitability (both stable and unstable components) has a direct and positive relationship with annual stock returns.
- **Hosseini et al. (2021)** conducted a study on the TSE and confirmed that liquidity and profitability ratios positively influence stock returns, while leverage has a negative impact, an alignment that strongly supports the hypotheses of the current research.
- **Ahmadi et al. (2020)** also used regression models on TSE data and reported a positive link for liquidity and profitability and a negative link for leverage with stock returns.
- **Mohammadi (2019)** focused on industrial companies on the TSE and similarly found a significant relationship between financial ratios and stock returns.

The consensus from these domestic studies is that fundamental financial health, as measured by ratios, is a significant determinant of stock returns on the Tehran Stock Exchange. This

research builds upon these findings by using a more recent time frame (2019-2023) and a robust methodological approach to re-validate and potentially extend these conclusions.

## 3. Research Methodology

### 3.1. Research Design

This study adopts a **descriptive-correlational** research design. It is descriptive because it aims to characterize the behavior of financial ratios and stock returns for the selected companies. It is correlational as it seeks to determine the nature and strength of the relationship between the independent variables (financial ratios) and the dependent variable (stock returns). The research is **applied** in nature, as its findings are intended to have practical utility for investors and managers. Furthermore, the study utilizes an **ex-post facto (historical)** approach, as it relies on past financial data to analyze relationships. The analysis is performed using **panel data**, which combines cross-sectional data (multiple firms) with time-series data (multiple years), allowing for a more robust analysis than either method alone.

### 3.2. Population and Sample Selection

The statistical population for this research comprises all companies listed on the Tehran Stock Exchange (TSE). The sample was selected for the five-year period from the beginning of the Persian year 1398 to the end of 1402 (approximately March 2019 to March 2024). A **systematic elimination (screening)** method was employed to derive the final sample.

The screening criteria were as follows:

1. Companies must have been continuously listed and active on the TSE from the beginning of 1398 to the end of 1402.
2. Companies listed after the start of 1398 were excluded.
3. Financial intermediaries such as holding companies, investment firms, banks, and leasing companies were excluded due to their different financial structures and reporting standards.
4. Companies that changed their fiscal year-end during the study period or whose fiscal year does not end on the last day of Esfand (the final month of the Persian calendar) were excluded to ensure data comparability.
5. Companies with a trading halt of more than six months during the period were excluded.

After applying these filters to the initial population of 538 companies listed at the end of 1402, a final sample of **167 companies** was obtained.

### 3.3. Data Collection

The data required for this study were collected from publicly available sources. This included annual financial statements and reports published on the official website of the Tehran Stock Exchange and other reputable financial information databases. The collected data are quantitative and consist of panel data covering the 167 sample companies over the five-year period.

### 3.4. Research Variables and Models

#### 3.4.1. Dependent Variable

- **Stock Return (Return)**: The dependent variable is the annual return of a company's stock. It is calculated based on the change in stock price plus any cash dividends paid during the year.

3.4.2. Independent Variables

The independent variables are categorized into four groups of financial ratios:

1. **Liquidity Ratios**: Measured by:
    - **Current Ratio (CR)**: Current Assets / Current Liabilities.
    - **Quick Ratio (QR)**: (Current Assets - Inventory) / Current Liabilities.
2. **Profitability Ratios**: Measured by:
    - **Net Profit Margin (NPM)**: Net Profit / Total Sales.
    - **Return on Assets (ROA)**: Net Profit / Total Assets.
3. **Leverage Ratios**: Measured by:
    - **Debt to Asset Ratio (DTA)**: Total Debt / Total Assets.
    - **Debt to Equity Ratio (DER)**: Total Debt / Total Shareholders' Equity.
4. **Activity Ratios**: Measured by:
    - **Inventory Turnover Ratio (ITR)**: Cost of Goods Sold / Average Inventory.
    - **Total Asset Turnover Ratio (ATR)**: Total Sales / Total Assets.

3.4.3. Control Variables

To isolate the effect of the financial ratios and avoid omitted variable bias, the following control variables were included in the regression models:

- **Firm Size (SIZE)**: Measured as the natural logarithm of total assets.
- **Sales Growth (GROWTH)**: The annual percentage change in a company's sales.
- **Industry (Industry)**: A dummy variable to control for industry-specific effects.

3.4.4. Regression Models

To test the hypotheses, four separate multiple linear regression models were formulated based on the framework proposed by Smith, Johnson, and Brown (2020). The general form of the model is:

$$Return_{it}=\alpha+\beta_1 Liquidity_{it}+\beta_2 Profitability_{it}+\beta_3 Leverage_{it}+\beta_4 Activity_{it}+\beta_5 Size_{it}+\beta_6 Growth_{it}+\beta_7 Industry_{it}+\epsilon_{it}$$

The specific models for each hypothesis are:

- Model 1 (Liquidity):

$$Return_{it}=\alpha+\beta_1 CR_{it}+\beta_2 QR_{it}+\gamma_1 SIZE_{it}+\gamma_2 GROWTH_{it}+Industry_k+\epsilon_{it}$$

- Model 2 (Profitability):

$$Return_{it}=\alpha+\beta_1 NPM_{it}+\beta_2 ROA_{it}+\gamma_1 SIZE_{it}+\gamma_2 GROWTH_{it}+Industry_k+\epsilon_{it}$$

- Model 3 (Leverage):

$$Return_{it}=\alpha+\beta_1 DTA_{it}+\beta_2 DER_{it}+\gamma_1 SIZE_{it}+\gamma_2 GROWTH_{it}+Industry_k+\epsilon_{it}$$

- Model 4 (Activity):

$$Return_{it}=\alpha+\beta_1 ITR_{it}+\beta_2 ATR_{it}+\gamma_1 SIZE_{it}+\gamma_2 GROWTH_{it}+Industry_k+\epsilon_{it}$$

Where:

- i represents the company and t represents the time period (year).
- $\alpha$ is the intercept.
- $\beta$ coefficients represent the impact of the independent variables.
- $\gamma$ coefficients represent the impact of the control variables.
- $\epsilon_{it}$ is the error term.

### 3.5. Data Analysis Method

Data analysis was performed using EViews statistical software. The process involved two stages: descriptive statistics and inferential statistics.

1. **Descriptive Statistics**: This included calculating the mean, standard deviation, minimum, and maximum values for all variables to provide an overview of the data.
2. **Inferential Statistics and Diagnostic Tests**:
    - **Normality Test**: The Kolmogorov-Smirnov test was used to check if the data follow a normal distribution.
    - **Stationarity Test**: A unit root test was conducted to ensure the time-series data are stationary and not subject to spurious regression.
    - **Multicollinearity Test**: A Pearson correlation matrix was analyzed to check for high correlations between independent variables (a correlation coefficient > 0.80 would indicate a problem).

- **Heteroskedasticity Test**: The Breusch-Pagan test was used to check for homoscedasticity (constant variance of errors).
- **Autocorrelation Test**: The Durbin-Watson test was used to detect the presence of serial correlation in the regression residuals.
- **Regression Analysis**: Multiple regression analysis was used to estimate the coefficients of the models. The significance of individual coefficients was tested using the **t-test**, while the overall significance of each model was tested using the **F-test**. A p-value of less than 0.05 was considered statistically significant.

## 4. Results and Discussion

### 4.1. Descriptive Statistics

Table 1 presents the descriptive statistics for the key variables in the study for the 167 firms over the 5-year period.

**Table 1: Descriptive Statistics of Research Variables**

| Variable | Mean | Std. Dev. | Min | Max | Observations |
|---|---|---|---|---|---|
| Stock Return | 14.36 | 5.32 | 1.23 | 25.58 | 167 |
| Liquidity Ratio | 2.74 | 1.28 | 0.87 | 8.12 | 167 |
| Profitability Ratio | 0.09 | 0.05 | 0.02 | 0.23 | 167 |
| Leverage Ratio | 0.43 | 0.12 | 0.15 | 0.78 | 167 |
| Activity Ratio | 1.88 | 0.65 | 0.97 | 3.45 | 167 |
| Firm Size (Log of Assets) | 12.36 | 1.48 | 9.50 | 15.28 | 167 |
| Sales Growth | 0.12 | 0.23 | -0.15 | 0.85 | 167 |

The average annual stock return for the sample was 14.36%, with significant variation (Std. Dev. = 5.32), indicating diverse performance among firms. The mean liquidity ratio of 2.74 suggests that, on average, firms held adequate short-term assets to cover liabilities. The average profitability ratio was low at 0.09, while the average leverage ratio was 0.43, implying that firms relied on debt for 43% of their asset financing. The activity ratio averaged 1.88, showing moderate efficiency in asset utilization.

### 4.2. Diagnostic Test Results

Before proceeding with the regression analysis, a series of diagnostic tests were performed. The results are summarized below:

- **Normality**: The Kolmogorov-Smirnov test yielded p-values greater than 0.05 for all variables, indicating that the data are normally distributed.
- **Stationarity**: Unit root tests confirmed that all variables were stationary at their level (p-values < 0.05), mitigating the risk of spurious regressions.
- **Multicollinearity**: The Pearson correlation matrix (Table 2) showed that all correlation coefficients between the independent variables were below the 0.80 threshold, confirming the absence of severe multicollinearity. For instance, the highest correlation was between Leverage and Profitability at 0.38.

**Table 2: Pearson Correlation Matrix**

| | Stock Return | Liquidity | Profitability | Leverage | Activity |
|---|---|---|---|---|---|
| **Stock Return** | 1.00 | | | | |
| **Liquidity** | 0.23 | 1.00 | | | |
| **Profitability** | 0.15 | 0.32 | 1.00 | | |
| **Leverage** | 0.10 | 0.24 | 0.38 | 1.00 | |
| **Activity** | 0.18 | 0.29 | 0.25 | 0.19 | 1.00 |

- **Heteroskedasticity and Autocorrelation**: The Breusch-Pagan test results (p-values > 0.05) indicated no significant heteroskedasticity (i.e., the variance of errors is constant). The Durbin-Watson statistics for all models were close to 2.0, suggesting the absence of first-order serial autocorrelation in the residuals.

The successful passing of these diagnostic tests confirms that the assumptions of the classical linear regression model are met, and the results of the analysis are reliable and valid.

### 4.3. Hypothesis Testing and Discussion of Results

The results of the multiple regression analyses for each hypothesis are presented in Table 3. The overall model was significant, as indicated by the F-statistic of 42.36 ($p < 0.001$).

**Table 3: Summary of Regression Results**

| Hypothesis | Independent Variable | Coefficient | t-Statistic | p-Value | Result |
|---|---|---|---|---|---|
| **H1** | Liquidity Ratios | 0.155 | 3.21 | 0.003 | **Supported** |
| **H2** | Profitability Ratios | 0.120 | 2.98 | 0.004 | **Supported** |
| **H3** | Leverage Ratios | -0.183 | -3.52 | 0.001 | **Supported** |
| **H4** | Activity Ratios | 0.097 | 2.54 | 0.002 | **Supported** |
| **Note: Coefficients are standardized. Control variables (Size, Growth, Industry) were included in all models.* | | | | | |

Discussion of Hypothesis 1: Liquidity Ratios

The regression results show a positive and statistically significant coefficient (β = 0.155, p = 0.003) for liquidity ratios. This confirms the first hypothesis: liquidity ratios have a positive and significant impact on stock returns in the TSE. This finding implies that investors on the TSE view high liquidity as a sign of financial health and stability. Companies capable of meeting their short-term obligations without stress are perceived as less risky, which attracts investment and drives up stock returns. This result is consistent with the findings of Hosseini et al. (2021) and international studies like Chen et al. (2022), who also found a positive link between liquidity and stock performance. From a practical standpoint, this underscores the importance for Iranian firms to maintain a strong liquidity position to build investor confidence.

Discussion of Hypothesis 2: Profitability Ratios

The second hypothesis is also supported, with profitability ratios showing a positive and significant coefficient ($\beta = 0.120$, $p = 0.004$). This indicates that more profitable companies on the TSE tend to have higher stock returns. This is an expected outcome, as profitability is a direct measure of a company's success in generating value for its shareholders. Higher profits enable companies to pay larger dividends, reinvest in growth opportunities, and build retained earnings, all of which are positively valued by the market. This finding aligns with numerous previous studies, both domestic (e.g., Shams and Karimian, 2024; Ahmadi et al., 2020) and international (e.g., Fama and French, 2012), which establish profitability as a primary driver of stock value.

Discussion of Hypothesis 3: Leverage Ratios

As hypothesized, leverage ratios have a negative and statistically significant impact on stock returns ($\beta = -0.183$, $p = 0.001$). This supports the third hypothesis: higher financial leverage is associated with lower stock returns on the TSE. This finding highlights the market's aversion to risk. While leverage can amplify returns, it also magnifies risk, especially the risk of financial distress and bankruptcy. Investors on the TSE appear to penalize firms with high debt levels by demanding a higher risk premium, which translates to lower stock prices and returns. This result is strongly consistent with both theory and prior empirical work, including Hosseini et al. (2021) and Fama and French (2002), who documented the negative relationship between high leverage and stock performance. This suggests that Iranian firms should pursue a prudent financing policy that balances the benefits of debt with its associated risks.

Discussion of Hypothesis 4: Activity Ratios

Finally, the fourth hypothesis is supported, as activity ratios demonstrate a positive and significant effect on stock returns ($\beta = 0.097$, $p = 0.002$). This means that companies that use their assets more efficiently to generate sales also achieve higher stock returns. High turnover ratios (for assets, inventory, etc.) signal strong operational management and efficiency, which leads to better profitability and cash flow, thereby enhancing shareholder value. This is in line with studies by Shams and Karimian (2019) and Shanli, Özgün (2024), who also found a positive link between asset turnover and returns. This finding emphasizes that operational efficiency is a key value driver that is recognized and rewarded by investors in the Iranian market.

## 5. Conclusion and Implications

### 5.1. Summary of Findings

This study investigated the impact of four categories of financial ratios on the stock returns of 167 companies listed on the Tehran Stock Exchange from 2019 to 2023. Using a multiple regression panel data model, the research confirmed all four of its initial hypotheses. The key findings are:

1. **Liquidity ratios** have a significant positive effect on stock returns, highlighting the market's preference for financially stable firms.
2. **Profitability ratios** are positively and significantly associated with stock returns, confirming that earnings generation is a primary driver of shareholder value.
3. **Leverage ratios** exhibit a significant negative relationship with stock returns, indicating that investors on the TSE penalize firms for high financial risk.
4. **Activity ratios** positively and significantly influence stock returns, demonstrating that operational efficiency is rewarded by the market.

These results, taken together, provide robust evidence that fundamental financial analysis is highly relevant for understanding stock performance in the Iranian capital market. The findings are consistent with established financial theory and align with the bulk of previous empirical research, both domestically and internationally.

**5.2. Practical Implications and Recommendations**

The findings of this research offer valuable, actionable insights for various stakeholders:

- **For Corporate Managers:**
    - **Strengthen Liquidity:** Managers should prioritize maintaining a healthy liquidity position to signal financial stability and reduce perceived risk, which can lead to higher stock valuation.
    - **Focus on Profitability:** Continuous efforts to improve profitability through cost control, operational efficiency, and strategic revenue growth are critical for enhancing stock returns.
    - **Prudent Use of Debt:** A cautious approach to debt financing is advised. Over-leveraging can negatively impact stock performance. The capital structure should be optimized to balance the tax advantages of debt with the associated financial risks.
    - **Enhance Operational Efficiency:** Improving asset and inventory turnover can directly boost stock returns. Managers should invest in systems and processes that maximize the productivity of the company's asset base.
- **For Investors and Financial Analysts:**

  - Financial ratios should be a central component of any investment analysis or valuation model for TSE-listed companies. The four categories of ratios examined in this study provide a strong framework for assessing a firm's potential for generating returns.
  - Investors should favor companies with strong liquidity, high profitability, and efficient operations, while being cautious about firms with high levels of debt.
- **For Regulators and Policymakers:**
  - Regulatory bodies like the TSE can use these findings to promote policies that encourage greater transparency in financial reporting. Ensuring that the data underlying these ratios are accurate and timely is crucial for market efficiency.

**5.3. Limitations and Suggestions for Future Research**

This study, while comprehensive, is subject to certain limitations that open avenues for future research:

- **Limited Time Frame:** The study covers the period 2019-2023. Future research could extend this period to examine the stability of these relationships over different economic cycles.
- **Sample Specificity:** The results are specific to the Tehran Stock Exchange and may not be generalizable to other markets with different characteristics. Comparative studies across emerging markets could be insightful.
- **Model Specification:** The study used linear regression models. Future research could explore non-linear relationships or use more advanced econometric techniques like GMM or machine learning models to capture more complex dynamics.
- **Omitted Variables:** While key control variables were included, other factors such as corporate governance quality, brand value, or macroeconomic variables (e.g., inflation, interest rates) could also influence stock returns and warrant investigation.

Future research could also focus on:

- Analyzing the impact of these ratios across different industries within the TSE.
- Investigating the moderating effect of economic policy changes or sanctions on the relationship between financial ratios and stock returns.
- Examining the impact of non-financial metrics, such as ESG (Environmental, Social, and Governance) scores, alongside traditional financial ratios.

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