QUBAHAN ECOLEAD JOURNAL
VOL. 2, NO. 3, August 2023
https://doi.org/10.48161/qaj.v2n3a8

The Relationship between Financial Indicators and Market Returns of (S and P 500) Companies in the Period 2012-2016

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ABSTRACT: This paper examines the relationship between accounting-based financial indicators and annual market returns for S&P 500 companies during 2012–2016. The study draws on company identification data, sector classifications, financial statement variables, and adjusted daily stock prices to construct annual measures of stock return, volatility, profitability, leverage, liquidity, research and development intensity, and capital expenditure intensity. The empirical approach combines descriptive statistics, sector-level comparisons, Pearson correlation analysis, and a linear regression model with sector fixed effects and HC3-robust standard errors. The findings indicate clear differences across sectors in firm size, profitability, return volatility, and annual stock performance, suggesting that sector characteristics are important when interpreting financial and market outcomes. However, the associations between individual accounting indicators and annual market returns are generally weak and inconsistent. The final regression model explains only a limited proportion of the variation in annual returns. Capital expenditure intensity, return on equity, and firm size show statistically significant negative relationships with annual returns, whereas other indicators exhibit little explanatory power. Overall, the results suggest that accounting indicators provide useful background information for assessing corporate performance, but they are not sufficient on their own to explain short-term stock-return behavior in large U.S.-listed companies. The evidence highlights the need to incorporate market expectations and broader macroeconomic factors in future research.

Keywords: S&P 500; Financial Indicators; Annual Stock Returns; Profitability; Leverage; Liquidity; Regression Analysis.

I. INTRODUCTION

Financial indicators are widely used in accounting, finance, and investment analysis to evaluate company performance, compare firms across sectors, and support decision-making by investors, managers, creditors, and analysts. These indicators summarize important dimensions of a firm's financial condition and operating performance. Measures such as profitability, liquidity, leverage, revenue growth, earnings per share, research and development intensity, and capital expenditure intensity provide useful information about how efficiently a company uses its resources, how much financial risk it carries, and how strongly it invests in future growth. Because these measures are derived from financial statements, they are often considered reliable and comparable across firms, especially for large publicly listed companies.

However, the relationship between accounting-based indicators and stock market performance is not always direct or predictable. Stock returns are forward-looking and may reflect investors' expectations about future earnings, growth opportunities, risk, innovation, competitive position, and broader economic conditions. In addition, market sentiment, interest rates, inflation expectations, industry trends, geopolitical events, and firm-specific news may influence share prices independently of current accounting performance. As a result, strong financial performance in accounting terms does not always lead to higher annual stock returns, and weaker accounting results may sometimes be accompanied by positive market performance if investors expect future improvement.

This paper investigates whether selected financial indicators are associated with annual market returns for companies included in the S&P 500 during the 2012–2016 period. The analysis is based on an archive containing company identification information, sector classifications, financial statement variables, daily adjusted stock prices, and annual stock-return calculations. The study focuses on commonly used financial indicators, including profitability, leverage, liquidity, firm size, volatility, research and development intensity, and capital expenditure intensity. By combining accounting data with market-return measures, the paper evaluates the extent to which financial statement information helps explain differences in annual stock performance among large U.S. companies.

The central research problem is whether accounting-based indicators provide meaningful explanatory power for annual market returns after controlling for sector differences. This issue is important because companies in different sectors often have distinct financial structures, investment patterns, risk profiles, and profitability levels. For example, technology firms may report higher research and development intensity, while industrial or energy firms may have higher capital expenditure requirements. Therefore, ignoring sector-level differences may lead to misleading conclusions about the relationship between financial indicators and stock returns.

The contribution of this paper is both empirical and practical. Empirically, it examines a broad sample of S&P 500 companies over multiple years and applies descriptive statistics, sector-level comparisons, correlation analysis, and regression modeling. Practically, it demonstrates how publicly available financial and market data can be organized into a structured financial analysis. The paper also evaluates data completeness and highlights the limitations of relying only on accounting indicators to explain market behavior.

The remainder of the paper is organized as follows. Section 2 reviews the conceptual background related to financial indicators and stock returns. Section 3 presents the research questions and hypotheses. Section 4 describes the data, variables, and methodology. Section 5 reports the empirical results. Section 6 discusses the findings in relation to the research problem, and Section 7 concludes the paper with key implications and suggestions for future research.

II. LITERATURE REVIEW

Recent literature generally shows that accounting information is useful for describing firm fundamentals, but its ability to explain stock returns depends on how investors process profitability, investment, accruals, risk, and expectations. Studies after 2008 increasingly connect financial statement variables with asset-pricing anomalies and factor models. Cooper, Gulen, and Schill [1] show that asset growth is negatively related to subsequent abnormal returns, while Fama and French [2] examine how several well-known anomalies vary across firm size groups. These studies are relevant to the present paper because capital expenditure intensity, asset growth, and firm size can affect stock-return behavior in ways that are not always positive.

Research on reporting quality also emphasizes that accounting numbers are not mechanically converted into stock returns. Khan and Watts [3] develop a firm-year measure of accounting conservatism, while Armstrong, Guay, and Weber [5] explain how financial reporting can reduce governance and contracting frictions. Dechow, Ge, and Schrand [6] review earnings-quality proxies and show that the usefulness of earnings depends on the decision context. Richardson, Tuna, and Wysocki [7] and Lewellen [8] further argue that fundamental analysis and accounting anomalies can help forecast earnings and returns, although results vary across variables and samples.

A second stream of research focuses on profitability, investment, value, and momentum as predictors of expected returns. Li and Zhang [4] provide a q-theory explanation for the relation between investment and returns, and Fama and French [9] document international evidence on size, value, and momentum. Piotroski and So [10] show that financial statement analysis can identify expectation errors in value and glamour stocks, suggesting that accounting information can be more useful when combined with valuation categories.

Profitability became especially important in more recent asset-pricing research. Novy-Marx [13] finds that gross profitability has strong predictive power for average returns, while Aharoni, Grundy, and Zeng [14] link expected returns to profitability and investment through valuation theory. Ball, Gerakos, Linnainmaa,

and Nikolaev [17] refine this evidence by showing that the deflator used for profitability measures affects predictive ability. These findings support the use of profit margin, return on equity, and revenue-scaled investment variables in the present study.

The post-2015 literature increasingly evaluates whether financial indicators are part of broader factor structures. Hou, Xue, and Zhang [15] propose an investment-based q-factor model using investment and profitability. Fama and French [16] develop the five-factor model by adding profitability and investment factors, and later show that those factors help explain several anomalies [18]. Green, Hand, and Zhang [19] examine many firm characteristics simultaneously and find that only a smaller subset provides independent information after controlling for data-snooping and microcap effects.

Behavioral and model-comparison studies also caution against relying on one indicator. Stambaugh, Yu, and Yuan [11] and Stambaugh and Yuan [20] show that investor sentiment and mispricing can influence anomaly returns. Asness, Moskowitz, and Pedersen [12] document value and momentum premia across asset classes, while Barillas and Shanken [21] compare competing asset-pricing models. Hou, Xue, and Zhang [22] replicate many anomalies and show that only some remain robust under improved testing choices. Together, these studies justify the empirical design of this paper: financial indicators are expected to contain useful information, but annual stock returns are likely to remain only weakly explained because returns also reflect risk, expectations, sector conditions, and market sentiment.

Overall, the literature suggests that profitability, leverage, liquidity, firm size, investment intensity, and accounting quality can be related to stock returns, but the strength and sign of these relationships are not stable across contexts. This supports the use of descriptive statistics, correlation analysis, and regression with sector controls, rather than assuming that every financial indicator should be strongly positively associated with annual stock returns.

Table 1. Comparison of selected studies used in the literature review.

Ref.	Study	Main finding and relevance to this paper
[1]	Cooper, Gulen, & Schill (2008)	Asset growth predicts lower subsequent abnormal returns; relevant to investment intensity and firm expansion.
[2]	Fama & French (2008)	Examines anomalies such as accruals, net stock issues, asset growth, profitability, and momentum across size groups.
[3]	Khan & Watts (2009)	Develops a firm-year accounting conservatism measure; relevant to reporting quality and financial-statement interpretation.
[4]	Li & Zhang (2010)	Uses q-theory and investment frictions to explain investment-return relations; relevant to capital expenditure effects.
[5]	Armstrong, Guay, & Weber (2010)	Reviews how financial reporting reduces governance and contracting frictions; relevant to information quality.
[6]	Dechow, Ge, & Schrand (2010)	Reviews earnings-quality proxies and their consequences; relevant to earnings and profitability measures.
[7]	Richardson, Tuna, & Wysocki (2010)	Reviews accounting anomalies and fundamental analysis; relevant to using accounting indicators to explain returns.
[8]	Lewellen (2010)	Provides an alternative view of accounting anomalies and fundamental analysis; relevant to predicting returns with accounting data.
[9]	Fama & French (2012)	Documents size, value, and momentum patterns internationally; relevant to firm size and valuation effects.
[10]	Piotroski & So (2012)	Shows fundamental analysis identifies expectation errors in value and glamour strategies; relevant to financial ratios and market expectations.
[11]	Stambaugh, Yu, & Yuan (2012)	Links investor sentiment to anomaly returns; relevant because market returns reflect sentiment beyond accounting data.
[12]	Asness, Moskowitz, & Pedersen (2013)	Finds value and momentum premia across markets and asset classes; relevant to broad return-predictability evidence.
[13]	Novy-Marx (2013)	Shows gross profitability predicts average returns; relevant to profit margin and profitability indicators.

Ref.	Study	Main finding and relevance to this paper
[14]	Aharoni, Grundy, & Zeng (2013)	Connects stock returns to profitability and investment through valuation theory; relevant to ROE and CapEx intensity.
[15]	Hou, Xue, & Zhang (2015)	Proposes q-factor model with investment and profitability factors; relevant to return modeling.
[16]	Fama & French (2015)	Adds profitability and investment factors to the asset-pricing model; relevant to financial indicators in return explanation.
[17]	Ball, Gerakos, Linnainmaa, & Nikolaev (2015)	Shows profitability predictive power depends on deflation choices; relevant to scaling accounting ratios.
[18]	Fama & French (2016)	Uses the five-factor model to explain several anomalies; relevant to profitability and investment interpretation.
[19]	Green, Hand, & Zhang (2017)	Tests many firm characteristics simultaneously; relevant to identifying independent information in financial variables.
[20]	Stambaugh & Yuan (2017)	Develops mispricing factors from anomalies; relevant to behavioral explanations of weak accounting-return links.
[21]	Barillas & Shanken (2018)	Compares asset-pricing models; relevant to evaluating whether selected factors explain returns.
[22]	Hou, Xue, & Zhang (2020)	Replicates anomalies with improved testing; relevant to robustness and caution in interpreting return predictors.

III. HYPOTHESES AND RESEARCH QUESTIONS

The study is guided by the following research questions:

- RQ1: To what extent do selected financial indicators correlate with annual stock returns for S&P 500 companies during 2012-2016?
- RQ2: Do sector-level patterns differ in revenue, profitability, leverage, stock returns, and volatility?
- RQ3: Do financial indicators explain annual stock returns after controlling for sector fixed effects?

Based on these questions, the paper tests the general expectation that financial indicators are associated with annual stock returns. Because the expected signs may differ across indicators, the analysis emphasizes the magnitude, direction, and statistical significance of the relationships rather than assuming that all accounting indicators should have positive effects.

IV. PROPOSED METHOD

1. DATA SOURCE AND SAMPLE

The dataset combines financial statements, daily stock prices, and company identification data for S&P 500 companies. The analytical period is 2012-2016. Company names, ticker symbols, sectors, and sub-industries are used to identify firms and classify them by GICS sector. Annual stock returns are derived from adjusted daily stock prices, while annual volatility is calculated from daily returns.

The financial dataset covers 448 companies, the stock-price files cover 501 companies, and the company reference file includes 505 named securities. After merging and variable construction, the usable sample varies by analysis because some variables, particularly earnings per share and current ratio, contain missing observations.

Table 2. PROPOSED METHOD

Stage	Data / Procedure	Description

1. Financial Statements	448 companies	Financial statement data are used to calculate accounting indicators such as ROA, ROE, EPS, leverage, liquidity, R&D intensity, and capital expenditure intensity.
2. Daily Stock Prices	501 companies	Adjusted daily stock prices are used to calculate annual stock returns and annual volatility for each company.
3. Company Reference Data	505 named securities	Company names, ticker symbols, sectors, and sub-industries are used to identify firms and classify them by GICS sector.
4. Data Merging	Combined dataset	Financial statements, stock-price data, and company reference data are merged using ticker symbols and company identifiers.
5. Variable Construction	2012-2016 period	Annual stock returns are calculated from adjusted daily stock prices, while annual volatility is calculated from daily returns.
6. Sector Classification	GICS sectors	Companies are grouped by sector to allow sector-level comparisons and control for industry differences.
7. Final Usable Sample	Varies by analysis	The final sample size differs across analyses because some variables, especially earnings per share and current ratio, contain missing observations.

Figure 1: Proposed Method and Sample Construction

The figure summarizes the data sources, data merging, variable calculations, sector classification, and final sample selection.

2. VARIABLES AND MEASUREMENT

The dependent variable is annual stock return, expressed as a percentage. The explanatory variables include profit margin, return on equity after tax, debt-to-assets ratio, current ratio, R&D intensity relative to revenue, capital expenditure intensity relative to revenue, and firm size measured by the natural logarithm of revenue. Annual volatility is used in descriptive and correlation analysis to represent market risk.

Annual stock return was calculated from adjusted closing prices at the beginning and end of each year. Annual volatility was calculated as the standard deviation of daily returns multiplied by the square root of the annual number of trading days. Additional financial ratios were calculated from the accounting variables to support comparability across firms.

3. EMPIRICAL MODEL

The empirical analysis uses descriptive statistics, sector-level summaries, Pearson correlations, and a linear regression model. The regression includes sector fixed effects to control for systematic differences across industries and uses HC3 robust standard errors to reduce sensitivity to heteroskedasticity. The general model is:

Annual stock return = financial indicators + firm size + sector fixed effects + error term

This model is designed to estimate associations rather than causal effects. The dataset does not include all market drivers, such as macroeconomic expectations, interest rates, valuation ratios, analyst forecasts, or company-specific news; therefore, the regression results should be interpreted cautiously.

V. RESULTS

1. DATA COMPLETENESS

Table 3. Missing values in key analytical variables.

Variable	Available rows	Missing rows	Missing (%)
Security	1776	0	0
GICS Sector	1776	0	0
Total Revenue	1776	0	0
Net Income	1776	0	0
Profit Margin	1776	0	0
Operating Margin	1776	0	0
Gross Margin	1776	0	0
After Tax ROE	1776	0	0
Earnings Per Share	1562	214	12
Total Assets	1776	0	0
Total Liabilities	1776	0	0
Current Ratio	1477	299	16.8

Most core analytical variables are fully available. Earnings per share and the current ratio contain missing observations, which reduces the usable sample in some statistical tests and in the final regression model.

The data-quality results indicate that the main financial variables are suitable for broad descriptive and regression analysis. The missing values for earnings per share and current ratio are important because they reduce the number of observations in analyses that include those variables.

2. COMPANY AND SECTOR CHARACTERISTICS

Table 4. Sample of the highest-revenue companies.

Ticker	Company	Year	Sector	Revenue ($bn)	Net income ($bn)	Profit margin (%)	Annual return (%)
WMT	Wal-Mart Stores	2016	Consumer Staples	482.13	14.69	3	12.46
XOM	Exxon Mobil Corp.	2015	Energy	259.49	16.15	6	-16.03
AAPL	Apple Inc.	2016	Information Technology	215.64	45.69	21	9.94
MCK	McKesson Corp.	2016	Health Care	190.88	2.26	1	-27.85
UNH	United Health Group Inc.	2016	Health Care	184.84	7.02	4	37.42
CVS	CVS Health	2016	Consumer Staples	177.53	5.32	3	-18.19
GM	General Motors	2016	Consumer Discretionary	166.38	9.43	6	4.59
F	Ford Motor	2016	Consumer Discretionary	151.8	4.6	3	-13.17
ABC	AmerisourceBergen Corp	2016	Health Care	146.85	1.43	1	-23.25
T	AT&T Inc	2015	Telecommunications Services	146.8	13.34	9	1.59
AMZN	Amazon.com Inc	2016	Consumer Discretionary	135.99	2.37	2	17.72

Ticker	Company	Year	Sector	Revenue ($bn)	Net income ($bn)	Profit margin (%)	Annual return (%)
VZ	Verizon Communications	2015	Telecommunications Services	131.62	17.88	14	-1.58
CVX	Chevron Corp.	2015	Energy	129.93	4.59	4	-20.09
CAH	Cardinal Health Inc.	2016	Health Care	121.55	1.43	1	-18.17
COST	Costco Co.	2016	Consumer Staples	118.72	2.35	2	0.36

The table illustrates the diversity of the sample by comparing large firms across sectors. High revenue does not necessarily imply high profit margin or positive annual stock return.

The largest firms in the sample come from several sectors, including Consumer Staples, Energy, Information Technology, Health Care, Consumer Discretionary, and Telecommunications Services. The comparison shows that firm size, profitability, and stock returns vary substantially even among high-revenue companies.

Table 5. Sector-level summary of financial and market indicators.

Sector	Observations	Companies	Median revenue ($bn)	Median net income ($bn)	Median profit margin (%)	Median ROE (%)	Median debt/assets	Median annual return (%)	Median volatility (%)
Consumer Discretionary	316	79	8.505	0.628	7	20.5	0.6	14.963	24.772
Industrials	248	62	9.969	0.597	8	19.5	0.631	16.085	22.183
Information Technology	237	61	5.012	0.648	14	17	0.51	17.203	25.992
Financials	211	53	9.611	1.113	15	10	0.87	14.732	20.817
Health Care	193	49	8.446	0.671	12	17	0.579	18.217	21.99
Consumer Staples	128	32	14.388	0.955	10	25	0.639	13.847	17.47
Energy	124	31	11.777	0.707	12	12	0.557	0.756	30.311
Real Estate	108	27	1.951	0.339	22.5	9	0.622	9.798	19.21
Materials	95	24	9.648	0.631	8	20	0.662	11.081	23.203
Utilities	96	24	10.9	0.883	10	10	0.715	5.419	15.838
Telecommunications Services	20	5	18.063	0.826	5	6.5	0.73	5.723	22.483

Sector-level medians show important differences in company size, profitability, leverage, annual returns, and volatility. These differences justify the inclusion of sector fixed effects in the regression model.

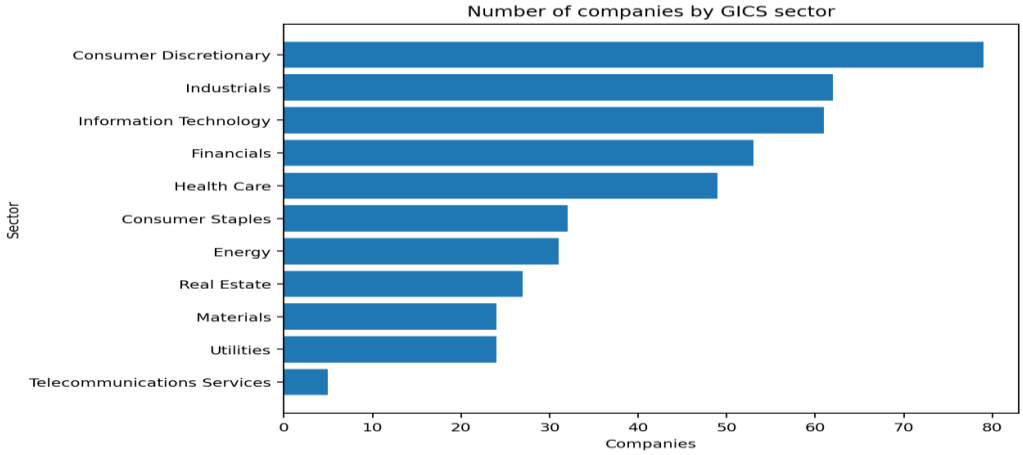

FIGURE 2. Distribution of companies by GICS sector.

The figure shows that some sectors are more heavily represented than others, which affects interpretation of sample-wide results.

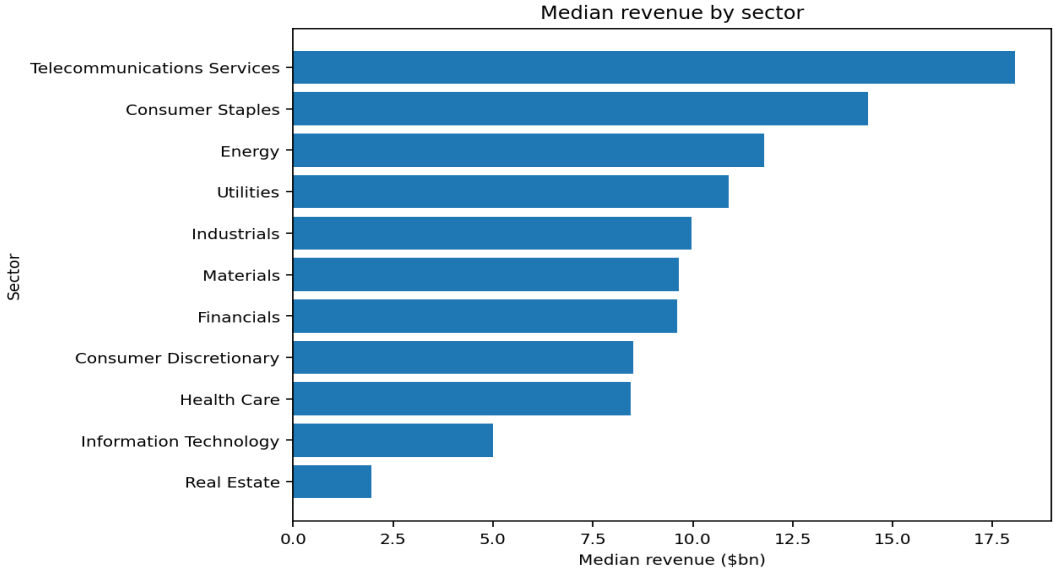

FIGURE 3. Median revenue by sector.

Median revenue differs substantially across sectors, indicating that typical firm size is sector-dependent.

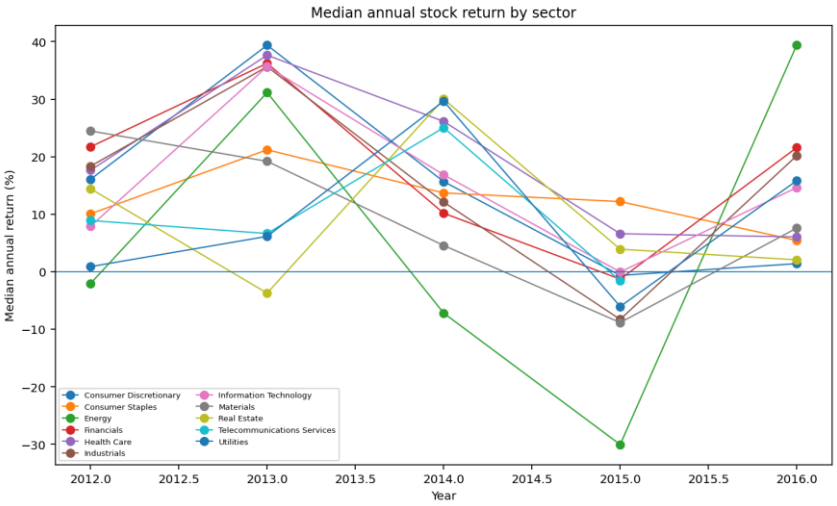

FIGURE 4. Median annual stock return by sector and year.

Sector returns vary over time, confirming that annual market performance is influenced by both year and sector conditions.

The descriptive evidence shows meaningful sector-level variation. Consumer Discretionary, Industrials, and Information Technology account for relatively large numbers of observations, while Telecommunications Services is represented by a much smaller number of firms. Health Care and Information Technology show relatively stronger median annual returns, whereas Energy records a lower median annual return and higher median volatility during the period.

3. CORRELATION ANALYSIS

Table 6. Bivariate correlations with annual stock returns.

Explanatory metric	**N**	**Pearson correlation with annual stock return**
R&D/revenue	1749	0.1
Current ratio	1462	0.082
EPS	1549	0.08
Gross margin (%)	1749	-0.003
Debt/assets	1749	-0.004
Annual volatility (%)	1749	-0.011
Revenue ($bn)	1749	-0.024
ROE after tax (%)	1749	-0.027
Profit margin (%)	1749	-0.089
Operating margin (%)	1749	-0.109
CapEx/revenue	1749	-0.147

The correlations are small in magnitude. R&D intensity, current ratio, and earnings per share have weak positive correlations with annual returns, while capital expenditure intensity, operating margin, and profit margin show weak negative correlations.

The bivariate results suggest that no single accounting variable strongly explains annual stock returns. The strongest positive correlation is associated with R&D intensity, while the most negative correlation is associated with capital expenditure intensity. These results are descriptive and should not be interpreted as evidence of causality.

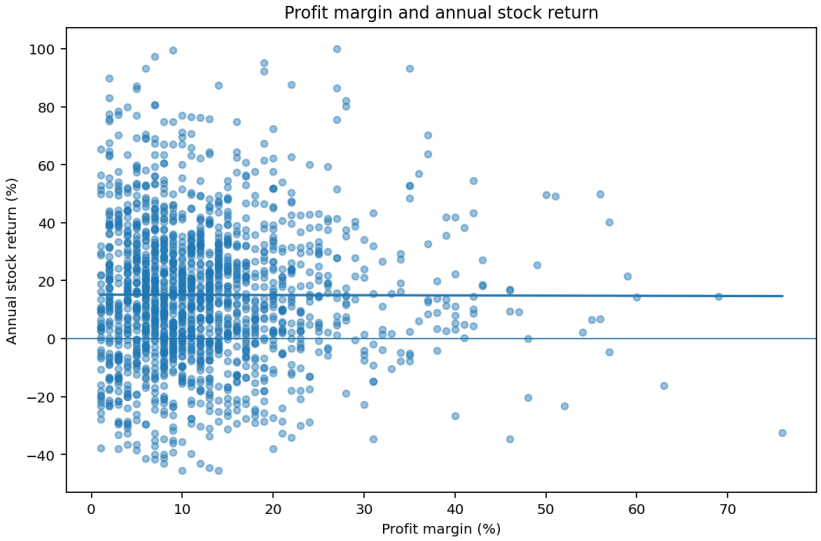

FIGURE 5. Profit margin and annual stock return.

The scatterplot suggests that the association between profit margin and annual stock return is weak and not clearly linear.

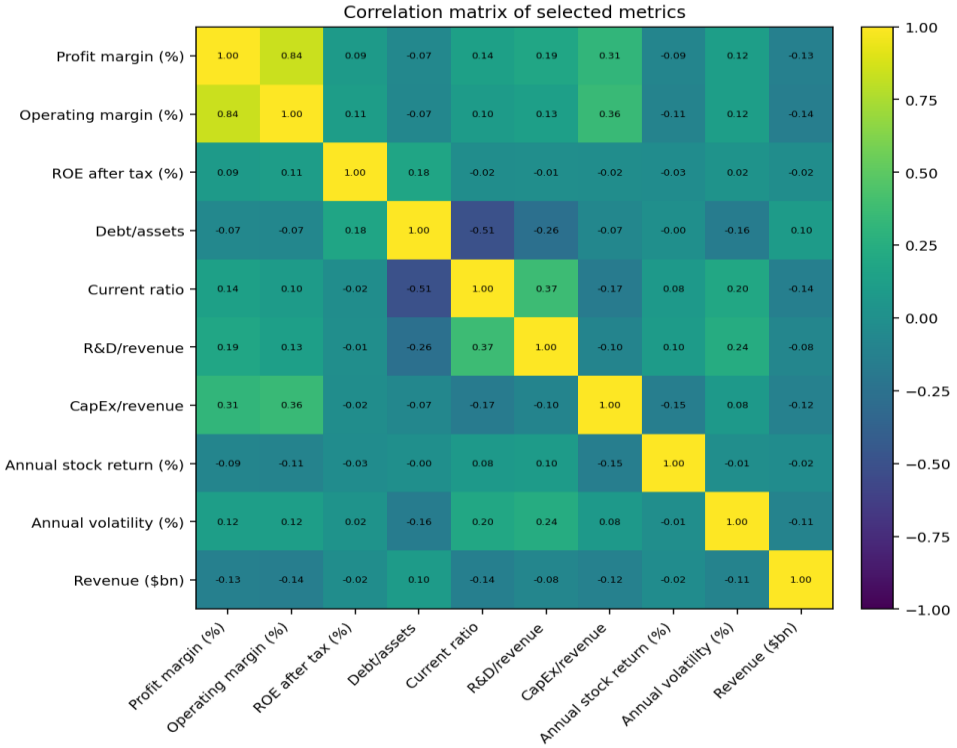

FIGURE 6. Correlation matrix for selected indicators.

The matrix shows the direction and relative strength of relationships among selected variables and helps identify potential associations among financial indicators.

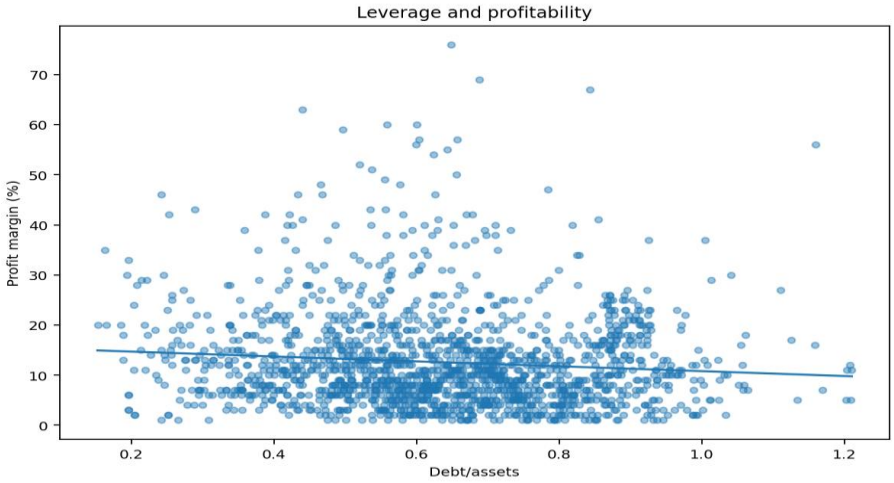

FIGURE 7. Leverage and profit margin.

The figure compares debt-to-assets ratios with profit margins and shows whether more highly leveraged firms differ in profitability.

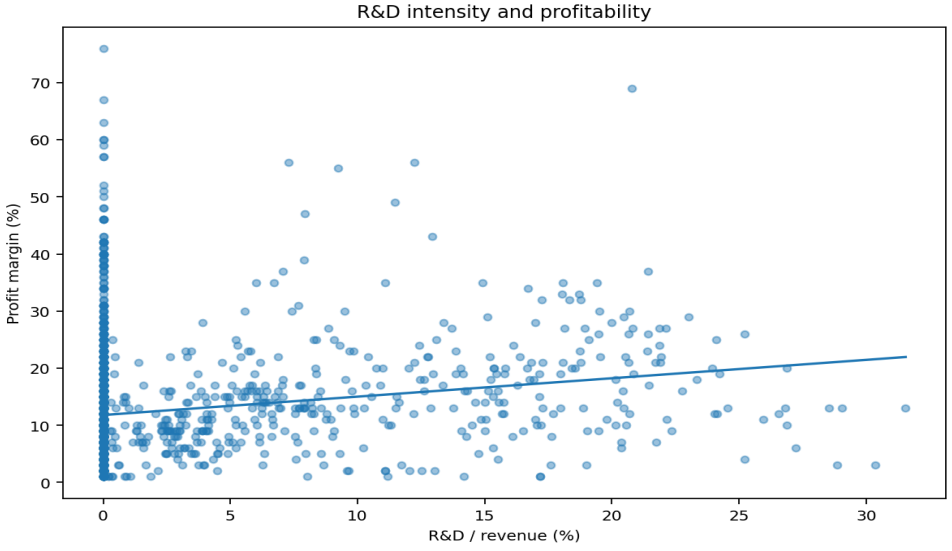

FIGURE 8. R&D intensity and profit margin.

The figure compares R&D intensity with profit margin and helps assess whether innovation-related spending is associated with profitability patterns.

4. REGRESSION RESULTS

Table 7. Regression model summary.

Item	Value
Dependent variable	Annual stock return (%)
Observations	1462
R-squared	0.056
Adjusted R-squared	0.0449
Sector fixed effects	Included
Robust standard errors	HC3

The model includes sector fixed effects and HC3 robust standard errors. The low R-squared indicates that the selected variables explain only a limited share of the variation in annual stock returns.

Table 8. Main regression coefficients.

Variable	Coefficient	Std. error (HC3)	t-statistic	p-value
Intercept	48.585	16.403	2.962	0.003
Profit margin (%)	-0.151	0.08	-1.891	0.059
ROE after tax (%)	-0.028	0.011	-2.489	0.013
Debt/assets	7.975	4.765	1.674	0.094
Current ratio	0.007	0.008	0.869	0.385
R&D/revenue	18.977	14.723	1.289	0.197
CapEx/revenue	-21.306	7.961	-2.676	0.007
ln(Revenue)	-1.555	0.679	-2.291	0.022

The table reports coefficients, robust standard errors, t-statistics, and p-values. Capital expenditure intensity, return on equity, and firm size are statistically significant in the model, but the results should be interpreted as associations rather than causal effects.

The regression model confirms the limited explanatory power of the selected financial indicators. The R-squared value is approximately 0.056, meaning that the model explains only a small portion of the variation in annual stock returns. Capital expenditure intensity has a negative and statistically significant coefficient, return on equity also has a negative and statistically significant coefficient, and firm size measured by the logarithm of revenue is negative and statistically significant. Profit margin is negative and only marginally significant, while current ratio and R&D intensity are not statistically significant in the final model.

VI. DISCUSSION

The findings indicate that accounting-based financial indicators provide useful descriptive information but have limited ability to explain annual stock returns. This result is consistent with the distinction between realized accounting performance and forward-looking market performance. Investors price firms based not only on current profitability or liquidity, but also on expected growth, risk, valuation, macroeconomic conditions, and new information that may not be visible in financial statements.

The weak correlations suggest that financial indicators should not be interpreted in isolation. For example, high profitability may already be incorporated into stock prices, while lower-return firms may still be financially strong if investor expectations were already high. Similarly, large firms may generate stable revenue and profit but experience lower percentage stock returns than smaller or faster-growing firms during certain periods.

The negative coefficient for capital expenditure intensity may reflect investment cycles, sector characteristics, or short-term market reactions to heavy spending rather than a harmful effect of investment. Capital-intensive firms may require large expenditures to maintain operations, and the market may discount

current returns if expected benefits are uncertain or delayed. The negative coefficient for firm size may indicate that larger firms in the sample had more mature growth profiles during the period.

Sector differences are also central to the interpretation of the results. The descriptive statistics show that sectors differ in median revenue, profitability, leverage, returns, and volatility. These patterns justify controlling for sector effects and caution against applying one interpretation uniformly across all industries. The results should therefore be viewed as evidence of broad association rather than a universal rule about the effect of financial indicators on market returns.

A key implication is that financial analysis should combine accounting variables with market-based and forward-looking variables. Future models would likely be stronger if they included valuation ratios, macroeconomic conditions, year effects, firm fixed effects, analyst expectations, and external sustainability or ESG indicators where relevant. Such extensions would allow a more complete test of the determinants of market performance.

VII. CONCLUSION

This paper examined the relationship between selected financial indicators and annual market returns for S&P 500 companies during 2012-2016. The analysis used financial statement variables, company identification data, sector classifications, and adjusted stock prices to calculate profitability, leverage, liquidity, investment intensity, annual returns, and volatility.

The main conclusion is that the relationship between accounting indicators and annual stock returns is generally weak. Correlation coefficients are small, and the regression model explains only a limited proportion of annual return variation. Although capital expenditure intensity, return on equity, and firm size are statistically significant in the model, these associations should not be treated as causal effects because stock returns depend on many factors outside the dataset.

The study contributes by converting the financial data into a structured manuscript-style analysis and by showing the importance of sector-level differences in interpreting financial indicators. Its main limitation is that the dataset does not include all determinants of stock returns, such as valuation measures, macroeconomic variables, investor expectations, or firm-specific news. Future research should extend the time period, use panel-data methods with firm and year effects, add market valuation measures, and consider integrating external sustainability or ESG variables if the research objective is broadened to include non-financial performance drivers.

Author Contributions

The author conducted the conceptualization, methodology, data analysis, investigation, writing, review, editing, and final approval of the manuscript.

Funding

This research received no external funding.

Data Availability

The dataset will be available from the author upon reasonable request.

Conflicts of Interest

The author declares no conflict of interest.

REFERENCES

1. Cooper, M. J., Gulen, H., & Schill, M. J. (2008). Asset growth and the cross-section of stock returns. The Journal of Finance, 63(4), 1609-1651.
2. Fama, E. F., & French, K. R. (2008). Dissecting anomalies. The Journal of Finance, 63(4), 1653-1678.
3. Khan, M., & Watts, R. L. (2009). Estimation and empirical properties of a firm-year measure of accounting conservatism. Journal of Accounting and Economics, 48(2-3), 132-150.

4. Li, D., & Zhang, L. (2010). Does q-theory with investment frictions explain anomalies in the cross section of returns? Journal of Financial Economics, 98(2), 297-314.
5. Armstrong, C. S., Guay, W. R., & Weber, J. P. (2010). The role of information and financial reporting in corporate governance and debt contracting. Journal of Accounting and Economics, 50(2-3), 179-234.
6. Dechow, P. M., Ge, W., & Schrand, C. M. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. Journal of Accounting and Economics, 50(2-3), 344-401.
7. Richardson, S. A., Tuna, I., & Wysocki, P. D. (2010). Accounting anomalies and fundamental analysis: A review of recent research advances. Journal of Accounting and Economics, 50(2-3), 410-454.
8. Lewellen, J. (2010). Accounting anomalies and fundamental analysis: An alternative view. Journal of Accounting and Economics, 50(2-3), 455-466.
9. Fama, E. F., & French, K. R. (2012). Size, value, and momentum in international stock returns. Journal of Financial Economics, 105(3), 457-472.
10. Piotroski, J. D., & So, E. C. (2012). Identifying expectation errors in value/glamour strategies: A fundamental analysis approach. Review of Financial Studies, 25(9), 2841-2875.
11. Stambaugh, R. F., Yu, J., & Yuan, Y. (2012). The short of it: Investor sentiment and anomalies. Journal of Financial Economics, 104(2), 288-302.
12. Asness, C. S., Moskowitz, T. J., & Pedersen, L. H. (2013). Value and momentum everywhere. The Journal of Finance, 68(3), 929-985.
13. Novy-Marx, R. (2013). The other side of value: The gross profitability premium. Journal of Financial Economics, 108(1), 1-28.
14. Aharoni, G., Grundy, B., & Zeng, Q. (2013). Stock returns and the Miller Modigliani valuation formula: Revisiting the Fama French analysis. Journal of Financial Economics, 110(2), 347-357.
15. Hou, K., Xue, C., & Zhang, L. (2015). Digesting anomalies: An investment approach. Review of Financial Studies, 28(3), 650-705.
16. Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. Journal of Financial Economics, 116(1), 1-22.
17. Ball, R., Gerakos, J., Linnainmaa, J. T., & Nikolaev, V. V. (2015). Deflating profitability. Journal of Financial Economics, 117(2), 225-248.
18. Fama, E. F., & French, K. R. (2016). Dissecting anomalies with a five-factor model. Review of Financial Studies, 29(1), 69-103.
19. Green, J., Hand, J. R. M., & Zhang, X. F. (2017). The characteristics that provide independent information about average U.S. monthly stock returns. Review of Financial Studies, 30(12), 4389-4436.
20. Stambaugh, R. F., & Yuan, Y. (2017). Mispricing factors. Review of Financial Studies, 30(4), 1270-1315.
21. Barillas, F., & Shanken, J. (2018). Comparing asset pricing models. The Journal of Finance, 73(2), 715-754.
22. Hou, K., Xue, C., & Zhang, L. (2020). Replicating anomalies. Review of Financial Studies, 33(5), 2019-2133.