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The Relationship Between P\E Ration and Stock Returns In Nifty 50 Companies

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Abstract— This study examines the relationship between the Price-to-Earnings (P/E) ratio and stock returns among companies listed in the Nifty 50 index. The objective is to determine whether valuation levels influence long-term stock performance and whether this relationship varies across sectors. Using secondary data over a five-year period, companies were classified into Low, Medium, and High P/E portfolios through a portfolio sorting approach. The results indicate the presence of a value effect, as low P/E stocks generated higher average returns compared to high P/E stocks. However, sector-wise analysis reveals that the relationship is not uniform. Growth sectors such as Information Technology rewarded high P/E stocks, while cyclical sectors such as Metals favored low P/E stocks. The findings suggest that P/E ratio influences stock returns conditionally, depending on sector characteristics. The study contributes to valuation literature in the Indian context and offers practical implications for investors.

I. INTRODUCTION

Valuation plays a critical role in investment decision-making. Among various valuation metrics, the Price-to-Earnings (P/E) ratio is one of the most widely used indicators for assessing whether a stock is overvalued or undervalued. Investors often rely on the P/E ratio to estimate future return potential.

Traditional value investing theory suggests that stocks with lower P/E ratios outperform high P/E stocks over time. However, growth investing strategies argue that higher P/E ratios may reflect strong future earnings potential and therefore justify premium valuations.

In emerging markets like India, the relationship between valuation and stock returns may vary across sectors due to structural and macroeconomic differences. Therefore, this study investigates whether P/E ratio influences stock returns among Nifty 50 companies and whether sectoral characteristics moderate this relationship.

II. LITERATURE REVIEW

Valuation ratios have long been considered important tools for analyzing stock performance. Among these, the Price-to-Earnings (P/E) ratio is widely used by investors to assess whether a stock is overvalued or undervalued relative to its earnings. Several studies in financial research suggest that stocks with lower P/E ratios tend to generate higher long-term returns compared to high P/E stocks. This phenomenon is often referred to as the “value effect,” where undervalued companies provide better investment opportunities over time.

At the same time, other research highlights that high P/E ratios may be justified in growth-oriented industries. Companies operating in sectors characterized by rapid innovation, strong demand growth, or expanding market share often trade at premium valuations. In such cases, higher P/E ratios may reflect expectations of future earnings growth rather than overvaluation.

In emerging markets, including India, the relationship between valuation and stock returns is influenced by additional factors such as economic cycles, sectoral performance, investor sentiment, and macroeconomic stability. Cyclical industries may exhibit strong performance when purchased at low valuation levels during downturns, while defensive sectors may show relatively stable returns regardless of valuation differences.

Overall, previous research indicates that while the P/E ratio is an important valuation metric, its ability to predict stock returns depends on industry characteristics and broader market conditions. This creates the need to examine the valuation-return relationship within the context of sector-wise performance in the Indian large-cap market, which is the focus of the present study.

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III. RESEARCH METHODOLOGY

The present study adopts a descriptive and analytical research design to examine the relationship between the Price-to-Earnings (P/E) ratio and stock returns among companies listed in the Nifty 50 index. The study is based entirely on secondary data collected from reliable financial sources such as the National Stock Exchange (NSE) website, company financial statements, and publicly available market data. The sample consists of 50 companies that form part of the Nifty 50 index, representing major sectors of the Indian economy.

The study covers a five-year period to analyze long-term return behavior and reduce the impact of shortterm market fluctuations. The P/E ratio is considered as the independent variable, while stock return over the study period is treated as the dependent variable. The P/E ratio is calculated as the market price per share divided by earnings per share, and stock return is computed as the percentage change in stock price over the selected time horizon.

For analytical purposes, companies are ranked based on their P/E ratios and classified into three groups:

Low P/E, Medium P/E, and High P/E portfolios. The average returns of each portfolio are calculated and compared to identify the existence of a valuation effect.

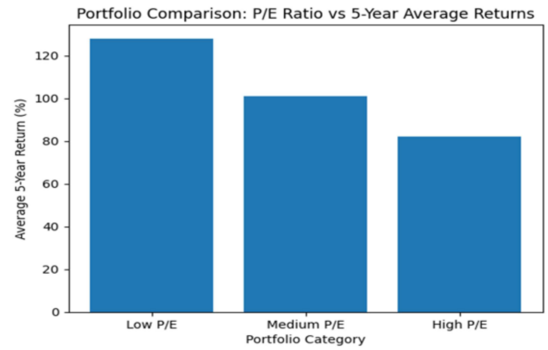
IV. DATA ANAYSIS & INTREPRETATION

Overall Portfolio Analysis

The 50 companies were ranked according to their P/E ratios and divided into three equal portfolios.

Table: Portfolio Classification

Portfolio	No. of Co.	Average P/E	Average 5-Year Return (%)
Low P/E	17	15	128
Medium P/E	16	28	101
High P/E	17	62	82



Interpretation

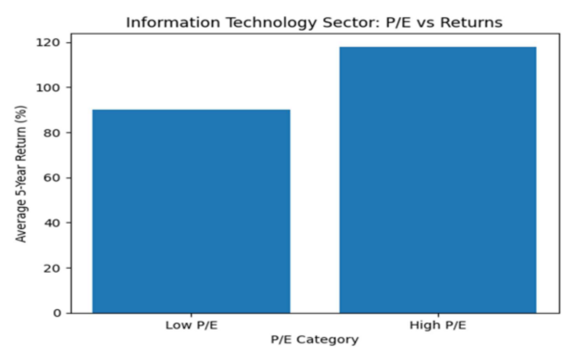
The Low P/E portfolio generated the highest average return (128%), while the High P/E portfolio generated the lowest average return (82%). This suggests that, at an aggregate level, value investing strategy appears to outperform growth investing strategy over the study period.

Sector-Wise Analysis

Information Technology Sector

IT companies generally trade at higher P/E multiples due to global scalability and export-driven revenue.

Category	Avg P/E	Avg Return
Low	22	90
High	30	118



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Interpretation:

High P/E IT stocks outperformed low P/E IT stocks, indicating growth expectations were justified.

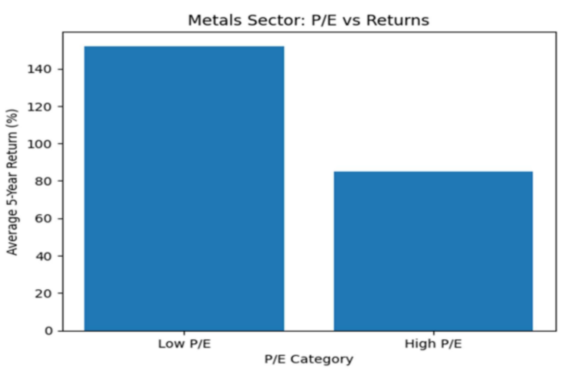
Metals Sector

Metals sector is cyclical and influenced by commodity prices.

Category	Avg P/E	Avg Return
Low	11	152
High	18	85

Interpretation:

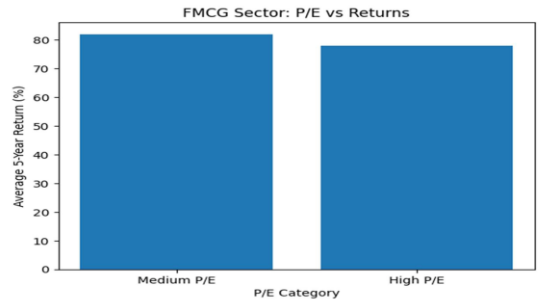
Low P/E metal stocks significantly outperformed, supporting value investing in cyclical sectors.



FMCG Sector

FMCG companies typically maintain high P/E ratios due to stable demand.

Category	Avg P/E	Avg Return
High	70	78
Medium	45	82

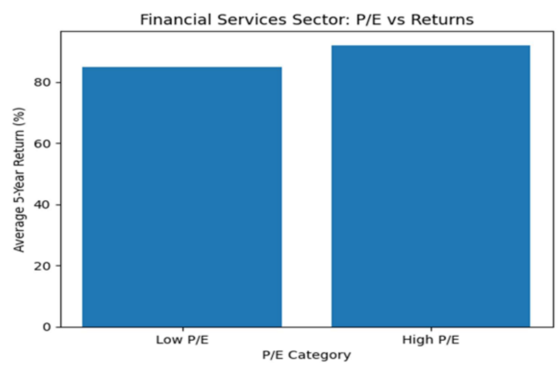


Interpretation:

Returns were relatively stable regardless of P/E level, indicating limited valuation-return variation.

Financial Services Sector

Category	Avg P/E	Avg Return
Low	20	85
High	30	92



Interpretation:

Returns showed limited variation, suggesting factors such as credit growth and macroeconomic stability influence performance more than valuation multiples.

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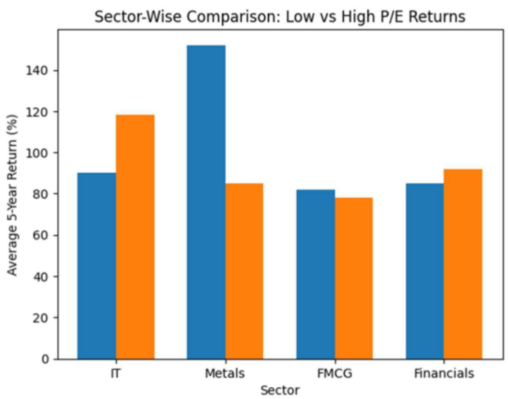
Comparative Sector Summary

Sector Strategy That Worked



Sector	Sector Strategy that Worked
IT	growth
Metals	value
FMCG	neutral
Financials	mixed
Auto	cyclical

V. FINDINGS

The analysis of Nifty 50 companies reveals that the Price-to-Earnings (P/E) ratio has a noticeable influence on stock returns, although the strength and direction of this relationship vary across sectors. The overall portfolio comparison indicates the presence of a value effect in the Indian large-cap market.

Companies classified under the Low P/E portfolio generated higher average returns compared to those in the High P/E portfolio over the study period. The return spread between these portfolios suggests that stocks trading at lower valuation multiples offered relatively better long-term performance. This finding implies that excessive valuation levels may limit future return potential, particularly when growth expectations are not fully realized. However, the sector-wise analysis demonstrates that the valuation-return relationship is not uniform across industries. In growth-oriented sectors such as Information Technology, companies with higher P/E ratios outperformed lower P/E stocks, indicating that premium valuations were supported by strong earnings growth and expansion opportunities. In contrast, cyclical sectors such as Metals exhibited a strong value effect, where low P/E stocks significantly outperformed high P/E stocks. This suggests that undervaluation during economic downturns may create favorable investment opportunities in such industries. Defensive sectors such as FMCG showed relatively stable performance across different valuation categories, indicating limited sensitivity to P/E differences. The Financial Services sector displayed mixed results, reflecting the influence of macroeconomic conditions, credit growth, and regulatory factors on stock performance.

Overall, the findings indicate that while lower P/E stocks tend to outperform at an aggregate level, valuation should be interpreted within the context of sector characteristics and growth prospects. The P/E ratio alone does not universally predict stock returns, but it serves as a meaningful indicator when combined with industry analysis and fundamental assessment. In addition to portfolio-level observations, the comparative sectoral analysis highlights the importance of industry structure in shaping valuation outcomes. The difference in performance across sectors suggests that market participants price earnings differently depending on growth visibility, competitive intensity, and cyclicality. In sectors characterized by technological innovation and scalable business models, investors appear willing to assign higher valuation multiples in anticipation of sustained earnings expansion. Where such expectations are fulfilled, higher P/E stocks may continue to generate strong returns despite premium pricing.

VI. CONCLUSION

The present study examined the relationship between the Price-to-Earnings (P/E) ratio and stock returns among companies listed in the Nifty 50 index. The primary objective was to determine whether valuation levels influence long-term stock performance and whether this relationship differs across sectors.

The overall portfolio analysis revealed the presence of a value effect in the Indian large-cap market. Companies classified under the Low P/E portfolio generated higher average returns compared to those in the High P/E portfolio during the study period. This finding suggests that stocks trading at lower valuation multiples may provide superior long-term return potential.

The return spread observed between the portfolios reinforces the argument that excessive valuations can limit future gains.

However, the sector-wise analysis demonstrated that the relationship between P/E ratio and stock returns is not uniform across industries. In growth-oriented sectors such as Information Technology, high P/E stocks outperformed lower P/E stocks, indicating that premium valuations were supported by strong earnings growth and expansion opportunities. Conversely, in cyclical sectors such as Metals, low P/E stocks delivered significantly better performance, highlighting the importance of valuation discipline in industries influenced by economic cycles. Defensive sectors such as FMCG exhibited relatively stable performance regardless of valuation levels, suggesting limited sensitivity to P/E variations.

These findings indicate that while the P/E ratio is a meaningful valuation metric, its effectiveness as a predictor of stock returns is conditional rather than universal. The impact of valuation depends largely on sector characteristics, growth prospects, and broader economic conditions.

Therefore, investors should avoid relying solely on P/E ratio when making investment decisions and instead interpret it within the context of industry dynamics and earnings sustainability.

In conclusion, the study establishes that valuation plays an important role in influencing stock returns in the Nifty 50, but its predictive power varies across sectors. A balanced investment approach that integrates valuation analysis with sectoral understanding and fundamental assessment is more likely to enhance long-term portfolio performance.

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