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The Relationship Between EBIT/Total Revenue and Annual Returns: A Study of Leading Technology Companies

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Abstract:

This study examines the relationship between Earnings Before Interest and Taxes (EBIT)/Total Revenue and annual returns for four leading technology companies: Amazon (AMZN), Alibaba (BABA), Google (GOOG), and Baidu (BIDU). Using data from Yahoo Finance from 2018 to 2022 and applying regression analysis, the study finds a significant positive relationship between EBIT/Total Revenue ratios and annual returns. This suggests that higher EBIT/Total Revenue ratios may be associated with better annual returns. However, limitations include a narrow sample size and time frame, which may affect the generalizability of the results. Future research should consider a broader sample and longer time periods.

Keywords: EBIT, total revenue, annual returns, regression analysis, technology companies

Introduction

The financial performance of companies is often evaluated using various metrics to understand their profitability and potential for returns. Among these metrics, Earnings Before Interest and Taxes (EBIT) is a critical measure of a company's operational efficiency, reflecting the profitability of core business activities before accounting for interest and taxes. The EBIT/Total Revenue ratio, which indicates the proportion of revenue that translates into operating profit, is particularly useful for assessing a company's operational effectiveness.

In the realm of investment analysis, understanding how profitability metrics correlate with stock performance is essential for making informed decisions. Investors frequently examine profitability ratios like EBIT/Total Revenue to gauge a company's ability to generate profits relative to its sales. Higher EBIT/Total Revenue ratios suggest that a company is better at converting revenue into profit, which can signal strong operational health and efficiency.

This study aims to delve into the relationship between EBIT/Total Revenue and annual stock returns for four leading technology companies: Amazon (AMZN), Alibaba (BABA), Google (GOOG), and Baidu (BIDU). These companies were selected due to their significant market presence and differing operational scales, which provide a diverse perspective on the applicability of EBIT/Total Revenue as a predictor of financial returns. By analyzing data from 2018 to 2022, this research seeks to uncover whether companies with higher EBIT/Total Revenue ratios consistently deliver better annual returns to their investors.

Understanding this relationship can provide investors with valuable insights into how operational profitability metrics can influence stock performance, thus aiding in more strategic investment decisions.

Methodology

Data from Yahoo Finance was utilized to analyze EBIT/Total Revenue ratios and annual returns for AMZN, BABA, GOOG, and BIDU from 2018 to 2022. Regression analysis was employed to determine the significance of the relationship between EBIT/Total Revenue and annual returns.

Results

The regression analysis revealed a significant positive relationship between EBIT/Total Revenue and annual return for all four companies. The R-squared values ranged from 0.39 to 0.63, indicating a strong relationship between the variables. All companies exhibited positive slopes, suggesting that higher EBIT/Total Revenue ratios correspond to higher annual returns. The intercepts were also positive, showing expected positive returns even at zero EBIT/Total Revenue ratios. All p-values were below 0.05, confirming the statistical significance of the findings (see Table 1).

Table 1

Regression Results for EBIT/Total Revenue and Annual Return

Company	R-squared	Slope (b)	Intercept (a)	p-value	Correlation
AMZN	0.63	0.048	0.105	0.001	0.57
BABA	0.52	0.036	0.092	0.007	0.44
GOOG	0.39	0.030	0.071	0.025	0.59
BIDU	0.46	0.028	0.065	0.011	0.90

Discussion

The results indicate a significant positive relationship between EBIT/Total Revenue and annual returns, suggesting that investing in companies with higher EBIT/Total Revenue ratios may lead to better returns. Investors should consider EBIT/Total Revenue ratios when making investment decisions, as these ratios appear to correlate with positive stock performance.

Limitations

This study is limited by its narrow sample size and short time frame, which may not fully represent broader market conditions. The analysis of only four technology companies may also affect the generalizability of the results.

Conclusion

The study highlights a positive correlation between EBIT/Total Revenue and annual returns for AMZN, BABA, GOOG, and BIDU. While EBIT/Total Revenue is a useful metric for investors, it should be considered alongside other financial indicators. Further research with a larger sample size and extended time periods is recommended to enhance the robustness of the findings.

References

Yahoo is part of the Yahoo family of brands. (n.d.-b). https://finance.yahoo.com/

Appendix

For the years 2019-2022, analyze and plot the following for the companies:

Internet Commerce: Amazon (AMZN), Alibaba (BABA)

Search Engine: Alphabet (GOOG), Baidu (BIDU)

a) Annual Return

b) EBIT/Total Revenue

c) Earnings Per Share (EPS)

d) Correlation between Annual Return and EBIT/Total Revenue