http://journals.uonbi.ac.ke/index.php/adfj
ISSN 2522-

African Development Finance Journal http://journals.uonbi.ac.ke/index.php/adfj
October Vol 8 No.1, 2024 PP 134-156 ISSN 2522-3186

The influence of Fundamental Indicators on Stock Prices: Evidence from Listed Manufacturing Firms in East Africa

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Abstract

This study aims to determine the influence of fundamental indicators on the stock prices of listed East African manufacturing companies. Specifically, the study investigates the extent to which profitability, leverage, and market fundamentals affect the stock prices of manufacturing companies in East African exchanges. To achieve this, the study used fixed-effect regression with Driscoll and Kraay standard errors on an unbalanced panel dataset comprising 26 companies over 13 years, from 2010 to 2022. The results of the study revealed that the stock prices of the targeted industry are sensitive to the Book to Market ratio, Debt-to-Equity ratio, Price to Earnings Ratio, and Growth of Earnings per share and Return on Assets, while Return on Capital Employed lack statistical significance. Furthermore, while stock prices are positively influenced by EPS growth and Book to Market ratio, a negative influence is observed from Debt to Equity and Price to Earnings ratio.

Keywords: *Fundamental analysis; Stock Prices; Manufacturing firms; East Africa*

1. Introduction

The capital markets provide companies with the opportunity to raise money for investment, and investors have the chance to generate wealth. It should not come as a surprise that the wealthiest people in the world hold stocks of companies as a significant part of their investment portfolios. However, the decision on what is a good stock depends on various factors that can be specific to the company, industry dynamics, economic conditions, and market factors (Nti, Adekoya, and Weyori, 2019). Two prominent types of analysis are primarily used to make investment decisions in the stock markets: Fundamental analysis and Technical analysis (Anjani and Syarif, 2019; Kaur and Dharni, 2022). Technical analysis is centered on analyzing statistical trends of past data produced by the market such as stock price movements, the volume of a stock trade, and market trends to predict the stock price movements (Muhammad and Ali, 2018). Fundamental analysis on the other hand is used to deeply analyse stock prices and to determine the value of the corporate

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stock by evaluating essential value drivers, such as earnings, risk, growth, and competitive position (Muhammad and Ali, 2018). Graham and Dodd (2009), pioneers in fundamental analysis, defined the intrinsic value (or fundamental value) of a security as the value justified by relevant facts such as assets, earnings, dividends, risk, and the company's future prospects. Normally, the decision-making process for fundamental analysts begins with the examination of economic factors, continues with industry specific factors, and concludes with the review of company-specific fundamentals (Kaur and Dharni, 2022). For that reason, it's not surprising that some experts believe that the information that enables the evaluation of a sequrity can be found on the company's financial statements. They contend that management uses financial statements to signal to investors regarding the financial prospects of the company, aiming to maximize the company's stock prices (Tarmidi, Pramukty, & Akbar, 2020). Concequently, investors being the recipients of these signals in the financial statements, adjust their behavior in response, depending on their interpretation of the signals (Tarmidi et al., 2020).

Nonetheless, some financial experts believe it is impossible to identify overvalued or undervalued stocks through any analytical approach. They argue that it is a fool's game trying to outperform the capital markets by predicting the stock prices because stock prices follow a random walk (Isah and Zulkernine, 2019). They argue that capital markets are efficient, meaning that securities in the market at any point in time are correctly priced. That is to say the market value of a security is equal to its intrinsic value (Guney and Komba, 2016; Isah and Zulkernine, 2019). However, from time to time, investors like Warren Buffett, a prominent advocate and practitioner of fundamental analysis, have demonstrated that it is indeed possible to outperform the market. Furthermore, market events such as Black Monday and the Dotcom Bubble have shown that stock prices can significantly deviate from their intrinsic values, serving as reminders and evidence of occasional inefficiencies in capital markets.

Guney and Komba (2016), suggests that when stock prices in the capital markets do not follow a random walk, intelligent investors can exploit these market inefficiencies to their advantage. Reports from the two largest exchanges in the East African Community region by Eucabeth (2014) and Guney and Komba, (2016) from Nairobi Security Exchange and Dar-es-salaam Stock

Exchange respectively indicate that these markets do not follow random walk. The bad news is, this means that trading in these markets potentially involve buying overpriced stocks or selling stocks for prices lower than their intrinsic value. On the other hand the good news is, these inefficiencies provides an opportunity for smart investors to create portfolios that will generate abnormal returns. Previous studies such as Hasan, Farooq, and Muddassir, (2015); Iqbal, Khattak, and Khattak (2013); Muhammad and Ali, 2018; and Shafana (2013) have indicated that portfolios created through fundamental analysis have managed to achieve this. Even so, fundamental indicators necessary for evaluating the intrinsic value of stocks, as identified by studies in other markets, may not be directly applicable to all markets. The inapplicability of these factors in different markets can be attributed to various reasons, including variations in market maturity, regulatory frameworks, investor behaviors (as observed in behavioral finance), investor proficiency, and cultural norms (Coleman, 2019).

Yet, there is a notable absence of research addressing company-related fundamental indicators that could be valuable for predicting and estimating intrinsic values of stock prices on exchanges in developing economies, such as those in the EAC region. In that regard, it is entirely possible that investors in these markets are making their investment decisions based on fundamental indicators that are not relevant to their market setting or relying on their gut feelings, neither of which are valuable approaches. Therefore, the aim of this study is to identify fundamental factors that investors in the EAC region can use as part of their investment strategies.

The focus of this study is centered on manufacturing companies listed in the East African stock markets. The current average contribution of the manufacturing sector to the EAC regional Gross Domestic Product (GDP) is 9.7%, with the potential to rise to an average of 25% by 2032 (EAC, 2023). This growth of the manufacturing sector presents an opportunity for investors to create wealth. However, to listed manufacturers this growth also means increased competition that will come from both domestic and international manufacturers, and certainly, these companies will be exposed more to business risk. Further, the growth of the manufacturing sector in the region means these companies will need more subsequent financing to be able to catch up with expanding markets, new business opportunities, and especially on the expenditure on innovation and

technology, as the companies try to differentiate themselves from competitors. Therefore, the fundamentals of listed manufacturers will in one way or the other be affected by this growth. Subsequently, investors need to understand how their portfolios will be affected by this development. Therefore, this study aims to assist investors in listed manufacturing companies in East Africa in making informed decisions by investigating the extent to which profitability, leverage, and market fundamental signals affect the stock prices of these companies. Through the insights provided by this study, the researcher hopes to assist the EA investors in their quest of wealth creation in the capital markets and contribute to the overall efficiency of these markets.

2. Literature Review

2.1 Theory of Capital Structure

The theory seeks to explain how changes in a company's capital structure affect its market value. Purwanti (2020), claims that for a company to improve its profitability and performance, debt is a key element in the capital structure of the company, and an appropriate mix of debt and equity helps to reduce the cost of capital. Moreover, the Trade-off theory of capital structure suggests that a company will have a financial advantage from a moderate mix of debt and equity finance because of the tax benefit that is obtained from the interest expenses being tax deductible referred to as debt-tax shield (Myers, 2001). Therefore for the company to maximize shareholders' wealth it should determine a target equity-to-debt ratio by carefully weighing the advantages and disadvantages of each (Aggarwal and Padhan, 2017). Rizki, Fatma Lubis, and Sadalia (2018) maintain that the capital structure of the company is an important factor to investors for it directly relates to the risk, return, and timing of the cash flows of the company. Thus, the capital structure and debt policy of the company have an impact on the stock price in two major ways, i.e. the risk associated with debt financing and the return offered by using debt financing (Rizki et al., 2018). Further, it is reported that companies that have debt in their capital structure are likely to have higher returns on equity and potentially higher earnings per share than those without debt financing (Rizki et al., 2018).

However, an increase in debt may not necessarily lead to an increase in shareholder value as Timmer (2012), points out that managers can manipulate the capital structure of the company to

maximize earnings per share. As a result, an increase in debt also increases the financial risk of the firm, and shareholders may not be willing to accept higher risk for a small increase in return. Fama and French (1992); and Groth and Anderson (1997), state that the earnings yield (E/P) is expected to be greater (i.e., stock market prices are lower relative to earnings) for stocks with greater risks, thus as a company increases its debt in its capital structure, it is logical for the price-earnings ratio to decline to reflect the increase in risk.

In that manner, the optimum mix of debt and equity that will maximize the firm's value should reflect a balance in the risk and return rate trade-off. This is because investors are unwilling to pay a higher price for the stock of a highly leveraged company with similar earnings to other companies in the market. Therefore, if an increase in debt in the capital structure is not compensated with a reasonable increase in earnings, the leverage ratio will have a negative relationship with stock prices and the opposite is true.

2.2 The Economic Value-Added Theory (EVA)

Economic value added can be referred to as the amount by which a company's return on capital employed exceeds its weighted average cost of capital, which is the minimum rate of return a company must earn on its investments to satisfy the required rate of return for each source of finance, including debt and equity, serving as a benchmark for evaluating investment opportunities (Kyriazis and Anastassis, 2007); return on capital employed, on the other hand, is a financial metric that measures a company's efficiency in generating profits from its invested capital. EVA has three main components, i.e., Net Operating Profit after Taxes (NOPAT), Total Capital Employed (TCE), and Weighted Average Cost of Capital. The economic value added of the company is the difference between the ROCE and weighted average cost of capital (Kootanaee, Kootanaee, Talari, and Babu, 2012; Pajoohi, 2012; Sharma and Kumar, 2010). Therefore, economic value added is the excess after-tax net operating profits a company has generated after deducting the company’s cost of capital (Kramer and Peters, 2001). In other words, Economic value added represents the profit that a company has generated for its investors, after accounting for the opportunity cost of using their capital elsewhere. A company with a positive EVA indicates that the company has been able to generate returns beyond the minimum rate of return required by the company’s stakeholders hence

the company has achieved its objective of generating value for its investors, while a negative EVA indicates that the company has not earned enough to cover its cost of capital (Pajoohi, 2012).

EVA helps evaluate the extent to which the company's capital structure benefits investors by comparing the company's profitability to the cost of acquiring funds for its investments. Under EVA when a company has been able to generate a return on capital employed greater than it's cost of capital, it is considered to be creating shareholder wealth, while the opposite is also true. Therefore, companies must strive to maximize their return on capital employed while simultaneously minimizing their cost of capital. From the theory of capital structure, the company value is at maximum when the cost of capital is at minimum. Further, the cost of capital is said to be minimized by increasing debt in the capital structure. Hence, EVA helps answer questions such as whether the debt in the capital structure of the company actually maximizes shareholder wealth. EVA measures whether the managent efficiently use its financial resources to generate wealth for its invetsors. As a result, a company with a rate of return on capital employed greater than its cost of capital creates more value for its investors and, subsequently, is likely to be valued higher than companies with a lower rate of return on capital employed compared to their cost of capital. Hence, Net Operating Profits after Taxes (NEOPAT) is an essential metric when examining the intrinsic value of a security.

2.3 The Fama and French Three-Factor Model

Fama and French model is a multi-factor asset pricing model extended from the capital asset pricing model (CAPM). The model highlights that the expected return of a portfolio above the risk-free rate of return is explained by the sensitivity of three factors: the difference between the market return and the risk-free rate of return, the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks (SMB), and the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks (HML) (Fama and French, 1995). Fama and French showed that when CAPM is extended to include the size factor (Market Equity), and book-to-market equity factor (B/M), the model performs exemplary work in explaining the cross-section variation of average returns (Fama and French, 1992, 1993). Further, they found that the combination of the said fundamentals captivated the roles of leverage and earnings-to-price ratio which was left unexplained by the

market beta (Fama and French, 1992). Together, these three factors (variables) are said to provide a modest yet comprehensive description of the cross-section of average stock returns, with most of the explanation attributed to the size of the firm factor and the ratio of the equity book value to its market value (Li and Dempsey, 2019).

The insights of Fama and French provide a foundation for the relative valuation also referred to as the multiples or comparable method of valuing securities and value investing. In practical investing, stocks are often classified as either 'value stocks' (with low Price-to-Earnings and Market-to-Book ratios) or 'growth stocks' (with higher Price-to-Earnings and Market-to-Book ratios). Further, it has been observed that stocks that perform well typically have low Price-to-Earnings (PER) ratios, and low Market-to-Book (MTB) ratios. Value stocks are often referred to as undervalued stocks i.e., prices below their intrinsic value, hence are attractive to investors who are looking to create wealth in the long run and are willing to take on high risks. Coleman (2019), contents that in the capital markets, an investor is better off with a stock with low price to earnings and high expected earnings growth (value stock) over the one with a high PER and low earnings growth (growth stock). Similarly, Dechow, Hutton, Meulbroek, and Sloan (2000), specifies that when the book-to-market ratio of growth stocks becomes too low i.e., an indication of overvaluation investors will take a short position on the said stock until the ratio reverts to normal levels. Therefore, market multiples are used by investors to identify potential temporary mispricing and take advantage of them, then exit as the market price adjusts to the intrinsic value of the stock. For value stocks, this adjustment typically means the price increases to its intrinsic value, while for growth stocks, the price declines to its intrinsic value. That is to say valuation multiples help capture market sentiment, indicating whether the market overlooks certain companies or overestimates others. Consequently, these multiples provide investors with signals for the optimal timing to take long or short positions on stocks. Through careful analysis of these metrics, investors can gain valuable insights into whether a stock is undervalued or overvalued relative to its intrinsic worth, thereby assisting them in making well-informed investment decisions.

2.4 Empirical Review

2.4.1 Profitability fundamentals and Stock Prices

Profitability fundamentals encompass financial metrics used to assess a company's profit-generation capability, and their impact on stock prices is well-documented. Some of the earlier works such as Gursida (2017); Tarmidi et al. (2020); Herawati and Putra, (2018); Lutfiah and Soegoto (2020); and Muhammad and Ali (2018) found that that return on assets had significant influence on stock price, implying that the stock price of the company are influenced by the rate of the return on assets, which is a common indicator of efficient use of resources. While all the mentioned studies showed a positive influence of return on assets, the findings of Lutfiah and Soegoto (2020) showed that return on assets has a negative influence on stock prices. However, while Gursida (2017); and Asikin, Saudi, and Roespinoedji (2020); concluded that earnings per share did not affect the stock price of the company despite having a positive relationship the studies by Muhammad and Ali (2018); Lutfiah and Soegoto (2020); and Herawati and Putra, (2018) concluded otherwise. Further, the findings of Asikin et al. (2020); and Purwanti (2020) showed that return on equity had a positive and significant influence on stock prices indicating that investors are willing to pay more for companies with the potential to generate great returns on the monies invested by shareholders. On the other hand, Iqbal et al. (2013) return on assets and return on equity are not enough for successful forecasting decisions as this study found a positive but insignificant effect of these variables on stock returns. Collectively these studies emphasized on the importance of efficient resource allocation and maximizing returns for companies aiming to attract investors. Furthermore, they reveal that investors use these metrics to evaluate and capture a company's earnings prospects. From the theoretical perspective and the empirical evidence, the following hypotheses are formulated regarding the influence of profitability fundamentals on stock prices:

EPS H0: EPS growth does not have a significant influence on stock prices.
H1: EPS growth has a significant influence on stock prices.

ROA H0: Return on Assets does not have a significant influence on stock prices.
H1: Return on Assets has a significant influence on stock prices.

ROCE H0: Return on capital employed has no significant influence on stock prices
H1: Return on capital employed has a significant influence on stock prices.

2.4.2 Leverage Fundamentals and Stock Prices

Leverage fundamentals pertain to financial metrics assessing a company's use of debt financing and its associated financial risk. Empirical evidence on the influence of leverage on stock prices varies among studies. Some studies, like Alexakis, Patra, and Poshakwale (2010); and Lutfiah and Soegoto (2020), have reported a significant negative association between leverage (debt/equity ratio) and stock prices, suggesting which indicates the risk-averse nature of investors. Conversely, Anjani and Syarif (2019); Purwanti, (2020), found a significant and positive relationship between leverage and stock prices. These findings are evidence of a market characterized by risk-loving investors, as they tend to favor leveraged companies due to their higher EPS. On the other hand, studies like Gursida (2017); Iqbal et al. (2013); and Muhammad and Ali, (2018) found insignificant effects of leverage fundamentals on stock returns, possibly because investors only react significantly to leverage beyond a certain threshold of financial risk. Despite variations in findings, the debt-to-equity ratio remains a common measure of financial risk and an indicator of a company's vulnerability to economic shifts. For that reason, the following hypotheses are formulated:

H0: Debt-to-equity does not have a significant influence on stock prices.

H1: Debt-to-equity has a significant influence on stock prices.

2.4.3 Market fundamentals and Stock Prices

Market fundamentals encompass financial metrics that provide insights into a company's performance and market perceptions of its financial health and growth prospects. Dechow et al. (2000), indicate that short sellers are able to generate abnormal returns from the stock markets by short-selling stocks that have low fundamental-to-price ratios. They achieve this by targeting and short-selling stocks of companies with low fundamental-to-price ratios, such as cash-flow-to-price, earnings-to-price, and book-to-market, and as these ratios return to normal levels, they unwind their positions. This study showed that short sellers rely on market fundamentals to identify stock mispricing, as stocks with low fundamentals-to-price ratios tend to be overvalued due to temporary high prices. Further, Shafana (2013); and Zeytinoğlu, Akarim, and Çelik (2012), provide evidence that shows a significant positive relationship between the book-to-market equity ratio and stock returns. The study indicates that high book-to-market ratios can signal undervalued stocks with the

potential for better long-term returns. Thus, investors may choose to invest in companies with high B/M ratios as these firms may be undervalued by the market, and could potentially offer better returns over the long term as the market eventually recognizes their true value. Muhammad and Ali (2018); Alexakis, Patra, and Poshakwale (2010); and Iqbal et al. (2013), showed that companies with low price-to-earnings ratios, also known as value stocks, tend to have higher estimated returns compared to companies with high values of this ratio, commonly referred to as growth stocks, hence investors seeking higher returns prefer to invest in value stocks with low P/E ratios. The following hypotheses are formulated with regard to market fundamentals:

BM Ratio: H0: Book-to-market ratio does not have a significant influence on stock prices.

H1: Book-to-market ratio have a significant influence on stock prices.

PE Ratio: H0: Price to Earnings ratio does not have a significant influence on stock prices

H1: The to-earnings ratio does have a significant influence on stock prices.

3. Methodology

3.1 Design

To analyze the influence of fundamental analysis on the stock prices of manufacturing firms listed on East African stock exchanges, the study takes the form of an explanatory research design. The researchers chose this study design because it aims to test the causal-effect relationships that exists between the fundamental indicators and the stock prices of manufacturing companies listed on East African stock exchanges.

3.2 Population and Sampling

East African Community has only four exchanges, namely Nairobi Securities Exchange (NSE) in Kenya, the Dar es Salaam Stock Exchange (DSE) in Tanzania, the Rwanda Stock Exchange (RSE) in Rwanda, and the Uganda Securities Exchange (USE) in Uganda. Collectively these exchanges host 118 companies of which 26 companies are manufacturing companies. All the 26 companies were included in the sample. Data collected and used for this study was for 13 years from 2010 to 2022.

3.3 Validity and Reliability of Data

To ensure a meaningful analysis, the data was converted into a common currency. The selection of the currency was based on which of the currencies is the strongest among the four countries where the exchanges are located. Subsequently, the Kenyan shilling was chosen as the common currency; hence, the data from the companies in Tanzania, Uganda, and Rwanda was converted into Kenyan shilling.

The Hausman test was performed to examine whether fixed-effect regression or random-effect regression was suitable for the analysis. The results of the Hausman test suggested that fixed-effect regression was appropriate for the analysis (Prob>chi2 = 0.000 < 0.05). To ensure the reliability of the results, diagnostic tests were conducted to identify any violations in the statistical method employed. Specifically, the following tests were performed: Variance Inflation Factor (VIF) for assessing multicollinearity, the Modified Wald test for groupwise heteroskedasticity to check homogeneity of variance of the residuals, the Wooldridge Test for Autocorrelation to detect time dependence of residuals, and the Pesaran CD test for cross-sectional dependence of residuals. The test results indicated the absence of collinearity among the predictors (Mean VIF = 1.42), the presence of heteroskedasticity in the residuals (Modified Wald test Prob > chi2 = 0.000), time dependence of residuals (Wooldridge Test Prob F = 0.000), and cross-sectional dependence of residuals (Pesaran CD test P-Value = 0.000). Fixed effect multiple regression with Driscoll and Kraay's standard errors was employed to address the identified issues, as suggested by Vogelsang (2012).

3.4 Statistical Treatment of Data

To assess the influence of fundamental indicators on the stock prices of listed manufacturing firms in the EAC region, the researcher employed the following econometric model, derived from the theories reviewed:

$$Ln\_Sp_t = \beta 0 + \beta 1 Ln\_EPS_{t-1} + \beta 2 ROCE_{t-1} + \beta 3 ROA_{t-1} + \beta 4 DTE_{t-1} + \beta 5 BMt + \beta 6 PEt + \varepsilon t$$

Where; Ln_Sp = the percentage change in the stock price as represented by natural logarithm; Ln_EPS = earnings per share growth as represented by natural logarithm; ROCEt = return on capital employed in period t-1; ROAt = Return on total assets at period t-1, DTEt = debt to equity ratio in period t-1; BMt = difference in book-to-market ratio of the sample with the industry

average at period; PEt = difference in Price to Earnings ratio of a sample with the industry average at period t; β0 = the intercept or constant term; β1 to β6 = the estimated coefficients for each independent variable; εt = the error term or residual. Table 1 below presents the measurement of the variables in the model.

Table 1: Variable Definition and Measurement

Variable	Description	Measure
Percentage change in stock price (Ln_Sp)	Percent	log_e(SPt)
Earnings per share growth (EPS)	Percent	log_e(EPSt)
Return on Assets (ROA)	Ratio	ROA = Net income/Average Total Assets
Return on capital employed (ROCE)	Ratio	ROCE = NOPAT / Total Capital Employed
Debt to equity ratio (DTE)	Ratio	DTE = Total debt / Total equity
Book-to-market ratio (BM)	Ratio	Observed BM – Industry average BMIndustry average = Year average of BM Observed BM = Book Equity / Market Equity
Price to Earnings Ratio (PE_Ratio)	Ratio	Observed PE – Industry average PE Industry average = Year average of PE Observed PE = Market price per share / EPS

The percentage change in stock prices is determined by the natural logarithm of the stock prices. Similarly, the percentage growth of earnings per share is determined by the natural logarithm of earnings per share. The return on total assets was calculated by dividing the after-tax net income for the year by the average total assets. Likewise, the return on capital employed was determined by dividing the after-taxes net income for the period by the capital employed for the same period (i.e., the sum of shareholders' funds and long-term finances). The risk measure used in the analysis is the debt-to-equity ratio, computed by dividing the total debt (comprising long-term and current liabilities excluding trade and other payables) by the total equity. Market fundamentals are assessed based on their deviation from the industry average. This is because in capital investment analysis, these multiples are typically compared to the industry average (benchmark) rather than solely relying on the multiple's value for the target company.

4. Presentation and Discussion of Findings

The findings indicate that overall changes in stock prices of manufacturing companies on the East African Stock Exchanges can be primarily be explained fundamental indicators by 68.34%. Two measures of profitability, namely, growth in Earnings per Share (EPS) (P-Value = 0.000 < 0.05) and return on total assets (P-Value = 0.029 < 0.05), show a positive and statistically significant influence on stock prices. However, Return on Capital Employed exhibited a negative and insignificant influence on stock prices. Further, it is observed that the stock prices are negatively influenced by leverage. Similar to Alexakis, Patra, and Poshakwale (2010); and Lutfiah and Soegoto (2020), this study associates an increase in debt relative to equity with a decrease in stock price as the ratio of borrowed capital compared to equity capital has a negative and statistically significant coefficient (P-Value = 0.021 < 0.05) which signifies that investors in these markets are risk averce. From market fundamental indicators, it is observed that the Book-to-Market ratio (BM) has a positive and significant influence (P-Value = 0.000 < 0.05) on stock prices. Conversely, the Price-earnings ratio (PE) exerts a negative and statistically significant influence (P-Value = 0.000 < 0.05) on stock prices. Table 2 below presents the results of fixed effect multiple regressions with Driscoll and Kraay standard errors.

Table 2: Fixed Effect Multiple Regression

Regression with Driscoll-Kraay standard errors	F (6, 25)	= 242.73
Method: Fixed-effects regression	Prob > F	= 0.0000
Group variable (i): COCODE	**R-Squared**	
Maximum lag: 2	Within	= 0.2410
	Between	= 0.8979
	Overall	= 0.6834

Ln_SP	Coefficients	Drisc/Kraay Std. Err.	t-Stat	P>Value	[95% Confidence Interval]	
BM	0.06343	0.01323	4.80000	0.00000	0.03619	0.09068
PE Ratio	-0.00063	0.00007	-9.55000	0.00000	-0.00076	-0.00049
DTE	-0.07001	0.02835	-2.47000	0.02100	-0.12839	-0.01162
Ln_EPS	0.19887	0.02845	6.99000	0.00000	0.14027	0.25748
ROA	1.27256	0.54850	2.32000	0.02900	0.14290	2.40222

ROCE	-0.16166	0.10225	-1.58000	0.12600	-0.37226	0.04893
Intercept	3.73181	0.10558	35.35000	0.00000	3.51436	3.94925

These findings suggest that investors in the region are predominantly drawn to a company's profitability, as evidenced by the high coefficient of EPS growth and return on assets, making expected earnings growth a reliable predictor of stock prices. However, ROCE lack statistical significance and therefore cannot be used in the same predictive manner as EPS growth. While both EPS growth and ROA exhibited the expected positive relationship with stock prices, ROCE, on the other hand, demonstrated an unexpected negative relationship, contrary to theoretical expectations. There could be two possible explanations for this anomaly. The first reason for this irregularity is explained by Lev and Thiagarajan, (1993), who argued that investors tend to penalize companies that fail to expand their investments during periods of economic boom. Assuming a constant capital structure, changes in return on capital employed are solely driven by company earnings, leading to higher ROCE during an economic boom. Keeping the capital structure constant during an economic boom may lead investors to view this as managerial failure to seize opportunities, discouraging investment. Hence a company may have a high return on capital employed but lower stock prices. The second reason for a potential negative relationship between ROCE and stock prices arises when a company heavily depends on debt for its capital employed. The findings indicate that higher debt levels negatively impact stock prices. Further, as it has been previously established that the maximum EVA depends on achieving the highest ROCE and the lowest WACC. While the highest ROCE is attained by maximizing net profits after taxes, the lowest WACC is achieved through an appropriate mixture of debt and equity capital, particularly by increasing debt up to a certain debt-to-equity ratio. Therefore, if a company increases its capital employed through debt, even if its earnings rise, investors may perceive these earnings as risky and choose to avoid investing in such companies.

The two most commonly used valuation multiples, namely the book-to-market ratio and the price-to-earnings ratio, have proven to be valuable indicators in predicting stock prices through fundamental analysis. A substantial deviation of these multiples from the industry average indicates either overvaluation or undervaluation, depending on the direction of that deviation. A positive difference in the BM ratio indicates undervaluation, allowing for the forecasting of a

percentage increase in stock prices when subjected to the positive coefficient. Conversely, a negative difference suggests overvaluation, and when subjected to a positive coefficient, it enables the estimation of a percentage drop in the security price. In contrast to the BM ratio, with the PE ratio, the dynamics are reversed, that is, a positive difference indicates overvaluation and a negative difference indicates undervaluation. Therefore, when a positive difference is introduced to the negative coefficient, it allows for the estimation of a percentage decrease in stock price, and the negative difference of this ratio will enable forecasting of an increase in stock price.

5 Conclusion

The study's findings indicate that at a 95% level of confidence, the fundamental signals/indicators of Earnings per Share growth, Return on assets, Debt-to-Equity ratio, Book to Market ratio, and Price to Earnings ratio have a significant influence on stock prices. The profitability of the company in these markets is the primary driver of stock prices. This is evidenced by the significance and high betas of the profitability measures ROA and EPS growth. In the EAC region, investors' exhibit risk aversion, hence, it is not advisable for companies to heavily leverage their capital. Further, given the risk aversion of investors in the region managers are cautioned against using debt in an attempt to maximize earnings per share, as it may hinder investors' wealth maximization. Last but not least, the market multiples have shown a very significant influence on stock prices when compared with the industrial average. Investors are advised that it's worth keeping track of these multiples when setting investment strategies.

It is recommended to investors that, in order to make accurate stock price predictions in these markets, they should consider the combined impact of these fundamental indicators. Neglecting certain fundamentals can result in inaccurate predictions and significant losses, and solely relying on a specific category of fundamental indicators may introduce bias. Such narrow reliance could cause investors to overlook critical factors, compromising the accuracy of their predictions. Furthermore, investors must understand that since these metrics are derived from the company's financial statements, there is a potential risk that management may manipulate this information to deceive investors and artificially inflate the company's stock price. Additionally, while financial data is crucial, it's important to note that other non-financial factors can also influence stock prices.

Therefore, investors should not solely rely on financial information. Consequently, there is potential for further research into how non-financial information can impact stock prices.

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