

A fundamental analysis-based method for stock market forecasting.

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ABSTRACT

Fundamental analysis of stocks links financial data to firm value in two consecutive steps: a predictive information link tying current financial data to future earnings, and a valuation link tying future earnings to firm value. At each step, a large number of causal factors have to be factored into the evaluation. To affect these calculations, we propose a new two-stage multi-criteria procedure, drawing on the techniques of data envelopment analysis. The findings highlight that investors in the Indian market often combine both analyses, leveraging fundamental insights for long-term investment decisions and technical indicators for short-term market movements.

Key words-BSE, NSE, SEBI, ROE, EPS.

INTRODUCTION

Indian stock market

The Indian stock market is one of the fastest-growing markets in the world, providing a platform for companies to raise capital and investors to generate wealth. It operates mainly through two major exchanges: the **Bombay Stock Exchange (BSE)** and the **National Stock Exchange (NSE)**. The **Sensex** (BSE) and **Nifty 50** (NSE) are the key benchmark indices that track the market's overall performance. The Securities and Exchange Board of India (**SEBI**) regulates the market to ensure transparency and protect investors. The Indian stock market includes different segments such as equity, derivatives, commodities, and mutual funds. Factors like economic policies, global trends, corporate earnings, and investor sentiment influence market movements. With advancements in digital trading and growing retail participation, the Indian stock market has become an attractive destination for both domestic and foreign investors.

Fundamental analysis

Fundamental analysis is a method used by investors to evaluate a stock's intrinsic value by examining related economic, financial, and qualitative factors. It involves analyzing a company's financial statements, including the balance sheet, income statement, and cash flow statement, to assess profitability, revenue growth, and financial health. Key metrics such as earnings per share (EPS), price-to-earnings (P/E) ratio, return on equity (ROE), and debt-to-equity ratio help determine a stock's true worth. Additionally, fundamental analysis considers macroeconomic factors like inflation, interest rates, and GDP growth, as well as

industry trends and company-specific elements like management quality, competitive advantage, and market position. By comparing a stock's intrinsic value with its current market price, investors can decide whether it is undervalued (a buying opportunity) or overvalued (a selling signal). Unlike technical analysis, which focuses on price movements and trends, fundamental analysis emphasizes long-term investment strategies, making it a preferred approach for value investors like Warren Buffett. However, it requires thorough research and a deep understanding of financial statements to make well-informed investment decisions.

Objective of Fundamental Analysis

Fundamental analysis aims to evaluate the intrinsic value of a stock based on its financial health, industry conditions, and broader economic factors. The goal is to identify stocks that are underpriced or overpriced relative to their true value.

Key Objectives of Fundamental Analysis:

Company Valuation and Intrinsic Value:

- Fundamental analysis helps investors determine whether a stock is trading at a fair value, overvalued, or undervalued. This is often done by assessing the company's earnings potential, financial health, and overall valuation using ratios and metrics.
- Valuation Ratios: Common ratios used in fundamental analysis include:
- Price-to-Earnings (P/E): Helps assess if a stock is overvalued or undervalued compared to its earnings.
- Price-to-Book (P/B): Measures the market value of a stock relative to its book value.
- Earnings Per Share (EPS): Indicates the company's profitability on a per-share basis.
- Dividend Yield: Shows the return on investment based on dividends

Tools of Fundamental analysis

Fundamental analysis involves evaluating a company's financial health and market position to determine the intrinsic value of its stock. Various tools help investors make informed decisions, including financial statements, valuation ratios, and economic indicators.

A. Financial Statements Analysis – Investors analyze key financial reports such as:

- **Balance Sheet** (assesses assets, liabilities, and shareholders' equity)
- **Income Statement** (evaluates revenue, expenses, and profitability)
- **Cash Flow Statement** (examines cash inflows and outflows to assess liquidity and financial stability)

B. Valuation Ratios – These ratios help determine whether a stock is overvalued or undervalued:

- **Price-to-Earnings (P/E) Ratio** – Compares stock price to earnings per share (EPS).

- **Price-to-Book (P/B) Ratio** – Measures a company's market value relative to its book value.
 - **Debt-to-Equity (D/E) Ratio** – Assesses financial leverage and debt dependency.
 - **Return on Equity (ROE)** – Evaluates profitability by measuring returns generated from shareholders' equity.
- C. Earnings and Growth Analysis** – Metrics like **Earnings Per Share (EPS)** and **Compound Annual Growth Rate (CAGR)** help track a company's profitability and growth potential.
- D. Industry and Competitor Analysis** – Examining a company's position in the market, competitive advantages, and industry trends helps investors assess future growth prospects.
- E. Macroeconomic Indicators** – Economic factors such as **GDP growth, inflation, interest rates, and employment data** influence stock performance and help investors understand broader market trends.
- F. Management and Corporate Governance** – Evaluating the leadership, transparency, and ethical practices of a company's management helps investors assess long-term sustainability.

2. LITRATURE AND REVIEW

Chinthakunta Manjunath, et.al. (2024) Accurately forecasting stock fluctuations can yield high investment returns while minimizing risk. However, market volatility makes these projections unlikely. As a result, stock market data analysis is significant for research. Analysts and researchers have developed various stock price prediction systems to help investors make informed judgments. Extensive studies show that machine learning can anticipate markets by examining stock data.

Hardik Modi, et.al. (2023) In the financial markets, algorithmic trading has become a potent instrument that enables traders to automate their tactics and profit from market inefficiencies. In this paper, we describe a Python-based algorithmic trading model that makes use of technical indicators and evaluate its performance in comparison to the well-known buy-and-hold approach.

Naveen Kumar, et.al. (2013) This paper presents findings of an online questionnaire survey on the perceived importance of chartist/technical and fundamental analysis and the different strategic factors in the stock price forecasting by stock brokers of Bombay Stock Exchange, India. Stock brokers rely more on technical analysis vis-à-vis fundamental analysis at shorter forecasting horizons and rely more on fundamental analysis at longer forecasting horizons.

CONCLUSTION

The main objective of present study is to present review of literature related to Indian Stock Market to study the Indian Stock Market in depth. The study would facilitate the reader to know the past, current and future trend or prospects of Indian Stock market. This study would provide guidelines to investor to maximise profit with minimize risks. High degree of volatility in the recent times in the Indian market has led to more development in the future.

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