v. 4, n. 22, 2024

Scientific Journal of Applied Social and Clinical Science

Acceptance date: 30/10/2024

TECHNICAL AND FUNDAMENTAL ANALYSIS

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Abstract: The aim of this paper was to analyze the methods of technical analysis and fundamental analysis in the context of financial investments, highlighting their characteristics and applications. The methodology adopted involved a literature review, seeking to relate price behavior and economic fundamentals. Technical analysis focuses on historical price patterns, volumes and graphical indicators, allowing for short-term forecasts based on past trends. Fundamental analysis, on the other hand, analyzes the intrinsic value of assets, based on economic and financial factors, such as profits and revenues, and is geared towards long-term decisions. In the analysis and discussion of the results, it was observed that both approaches have their advantages and limitations: technical analysis is effective in short-term movements, while fundamental analysis offers a long-term view of value. The final considerations point out that the two methods can be complementary, allowing for more informed and strategic investment decisions by considering both the price history and the economic fundamentals of the companies.
Keywords: Technical Analysis, Fundamental Analysis, Trends, Historical Patterns, Intrinsic Value.

INTRODUCTION

The stock market is attracting more and more enthusiasts every day, people of all ages, men and women (ANBIMA, 2023). However, according to a 2020 study by the Credit Protection Service (SPC Brasil) and the National Confederation of Shopkeepers (CNDL), the vast majority of people do not take the risk of entering this investment sector, as they understand that the risk is greater and prefer to avoid the possibility of financial loss.

For those who are willing to take risks and prioritize profitability, there are two forms of analysis that help with decision-making: Technical Analysis and Fundamental Analysis. These analyses are used by most of the individuals or institutions that are part of this universe: large banks, brokerage houses, small investors and other financial institutions.

On the one hand, there are the fundamentalists, who, according to Damodaran (2006, *apud* Costa, *2011, p. 10*), use analysis as their central focus when evaluating the price of an asset, in order to find out whether it is undervalued or overvalued. On the other side are the chartists or technicians, who use Technical Analysis, which aims to analyze historical price charts and trading volumes to try to evaluate an asset.

THEORETICAL BACKGROUND

This chapter will present relevant works dealing with the proposed topic, which underpin the data collection and analysis procedures of this research.

EMERGENCE

Fundamentalist analysis originated in academia and most of those who use it are fund managers and long-term investors according to LOPES; GALDI, (2006, *apud* BARROS, 2015, p. 40) while technical analysis emerged in China as speculators turned their attention to the supply and demand of rice (FONSECA, 2009). These differences between the two tools emerge from the objective of answering a key question: "When is the right time to buy/sell a particular asset?". In general, the fundamentalist method seeks to assess whether there is real or intrinsic value directly related to corporate performance, i.e. it aims to determine the real value of a share as stated by PENMAN, 2004; and BODIE, KANE and MARCUS, 2001 *apud* BARROS, 2015, p. 40). On the other hand, Technical Analysis aims to make predictions about the behavior of shares based on patterns noted in the market's past performance and uses mathematical and statistical calculations to carry out the analysis with the aim of determining the trend of evolution. the short. rates the word according to

CHAVES and ROCHA, 2004; and ROTELLA, (1992 *apud*, BARROS, 2015, p. 40).

With regard to technical analysis, it is important to highlight Noronha's concept (1995, *apud* PIAZZA, 2008, p.23):

> [...] it is the science that seeks, through the study of multiform records, associated with mathematical-statistical formulations, incident on prices, volumes and open contracts of the past and current of the different financial assets, to provide, through the analysis of patterns that repeat themselves, conditions for us to be able to project the future path of prices, within a logic of greater probabilities [...].

FUNDAMENTAL ANALYSIS

Fundamental analysis is one of the ways used to increase investors' results in the financial stock market, with the aim of assessing the inherent value of an asset. With this tool, investors compare the current market price and determine the purchase and sale of the asset, classifying it as undervalued or overvalued, respectively VILLASCHI et al, (2011, *apud* BARROS, 2015, p. 42). In addition, the price can also be considered fair, i.e. the price found for the asset resembles that used in the market. Fundamentalist analysis therefore defines which asset should be bought or sold, and assesses major movements over a broad, medium and long term period ARAÚJO and MAIA, (2011 *apud* BARROS, 2015, p. 43).

The fundamentalist tool can be summed up as the study of a company's financial position and its future expectations, with the aim of analyzing the potential for expected profit growth, which could be reflected in the valuation of the shares in future periods. The principle of this analysis is to assess the reflection of asset prices in relation to the real value of the company, which can be verified through the company's forecasts and expectations.

As such, the Fundamentalist method seeks to assess the intrinsic value of a stock portfolio, with the aim of finding the fair price that can be understood as the real value of this asset in the market. Therefore, this decision-making technique defines which asset will be acquired or abandoned by the investor. The fundamentalist analyst seeks to focus his studies on the economic and financial behavior of companies, as well as comparing companies in the same sector (segment), observing the current economic and political situation respectively DAMODARAN, (2002, *apud* BARROS, 2015, p.43).

TECHNICAL ANALYSIS

Technical analysis is based on three principles that help develop other techniques. The first is that the price discounts everything, and the most important thing is to know what the price movement will be in order to know when to "open" to buy or sell an asset. The second principle is that prices follow trends. Prices follow the decisions of shareholders and can be positive, negative or vice versa, resulting in upward and downward trends. The third principle covers the emotional part of the agent, driven by losses and gains, and represented by patterns that repeat themselves over time. The more these patterns exist, the more predictable the market is, says NORONHA, (1995, *apud* BARROS, 2015, p. 44).

Graphical analysis is a very important segment of technical analysis research. This tool allows you to analyze numbers and shapes that suggest the emergence of trends and reversal periods within the stock. This technique makes it possible to observe the exact moment of buying and sale of the company's shares. Charts that analysts can use to evaluate financial assets include volume charts, line charts, bar charts and candlestick charts. These charts provide trend indications and indicate the direction of market movement (down, up, sideways). Trends are divided into two segments: continuations and reversals. Unlike a reversal form, where a change in trend direction is observed, a continuation form keeps the trend going in the same direction, VIDOTTO, (2009, apud BARROS, 2015, p. 44).

Technical analysis differs from graphical analysis, which uses statistical and mathematical calculations to carry out the analysis and uses graphs to complement and confirm the research. The second method uses trend lines, but does not subscribe to the use of statistical calculations, and the analysis is based on the evaluation of price charts (or quotes) YANG and SATCHELL, (2003, *apud* BARROS, 2015, p. 44).

METHODOLOGY

For Lima and Mioto (2007), "bibliographical research implies an ordered set of procedures for searching for solutions, attentive to the object of study, and which, therefore, cannot be random." In this context, the search for more knowledge, with the aim of studying and cultivating the habit of developing through research and to achieve the objective of this work, bibliographical research was chosen.

ANALYSIS AND DISCUSSION

Technical analysis uses historical price patterns, volumes and graphic indicators to predict future movements in the short term, based on the premise that the price already reflects all the relevant information. It highlights the importance of charts such as the candlestick and mathematical indicators such as moving averages and oscillators, which help to identify trends and repetitive patterns in the market.

On the other hand, fundamental analysis focuses on the intrinsic value of assets, seeking to evaluate the economic and financial factors of companies, such as revenues, profits and growth expectations. This approach is more suitable for long-term investments, as it identifies undervalued or overvalued assets, as well as assessing growth potential. The two methodologies are discussed as complementary, with the technical one being useful for short-term strategies and the fundamentalist one for forming long-term portfolios

FINAL CONSIDERATIONS

Fundamentalist analysis therefore seems to employ the assumption that there is an intrinsic value per share, taking into account a series of internal and external variables to assess the financial health of a company based on the results determined by the issuing company. Technical/graphical analysis strives to use mathematical and statistical calculations to make predictions about the behavior of shares based on patterns observed in the market's past performance.

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