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RELATIVE STRENGTH INDEX (RSI) A TECHNICAL ANALYSIS TOOL REVIEW ARTICLE

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Abstract
Modern economics considers investing in the stock market to be fundamental. Particularly, investing in company shares has drawn many investors and speculators, each with different goals based on their own capabilities and personalities. Despite this, these participants in the stock market are hesitant to identify the best investment opportunity for them. They worry about making poor investment choices that don't offer a high return at the lowest risk. This necessitates the employment of an indicator by investors and speculators to aid in the decision-making process. The challenge facing investors today is selecting the best stock to buy in at the correct moment. Many technical analysis tool are available to assist investors identify the best stock.

Understanding the notion of Relative Strength Index (RSI), a technical analysis tool, and analyzing the literature on the RSI instrument are the major goals of this research project. The current study compiles, organizes, codes, and summarizes the literature that is currently available on the stock market's Relative Strength Index (RSI) tool. This information may be useful to researchers, analysts, academicians, and practitioners as they review the work that has already been done and plan for future research on the RSI tool.

Key Words: Relative Strength Index (RSI), Technical Analysis Tool, Literature etc…

Introduction

The allocation of capital needed by businesses to grow their operations is the primary instrument necessary for building the economy of any nation. As a result, businesses are searching for alternative sources of funding to meet their financial needs. Because traditional sources of funding, such as bond investments, are expensive, require paying interest, and produce fixed returns, business owners and investors need investing tools to help them lower the interest payments made to lenders while also generating growing income for themselves, like stock investments.

Considering the significant amount of risk associated with the stock market. As a result, investors started searching for the finest instruments that would allow them to lower the risks associated with purchasing company stocks. And to accomplish this, one may monitor the price fluctuations for a particular share and utilize this information to anticipate future stock prices using technical indicators. This process is known as technical analysis.

One of the most popular technical analysis indicators is the Relative Strength Index (RSI). It is a tool that assists users in understanding and reading technical charts, forecasts future price trends on financial exchanges, and quantifies the range of price fluctuations.

The Relative Strength Index (RSI), a momentum oscillator created by J. Wilder, gauges the speed and direction of price movement to estimate price changes. The range for the RSI is 0 to 100. Donald J. Wilder, the author, asserts that the RSI is overbought when it exceeds 70 and oversold when it drops

below 30. Signals may be generated in a variety of ways using swinging points, divergences, and crossing the centerline. The RSI is also frequently used to identify emerging trends.

Calculation of RSI

To simplify matters, RSI has been divided into its three fundamental parts: RS, Average Gain, and Average Loss. The 14 periods listed in Wilder's book were proposed as the standard period durations. There wouldn't be any gains to reflect any losses, would there? Simple 14-period averaging is used to provide early estimates of average gain and loss:

RSI = 100 – 100 / (1 + RS).

RS = Average Gain / Average Loss.

Average Gain = Sum of Gains over the past 14 periods / 14

Average Loss = Sum of Losses over the past 14 periods / 14

Objectives of the Study

1. To comprehend the stock market's Relative Strength Index (RSI) idea.
2. To review the Relative Strength Index (RSI) literature.

Data Collection

On the author's research, the current study is founded. The secondary data utilised by the authors in this article was gathered from a variety of publications, websites, and other studies conducted by other people.

Review literature

In order to provide any study the best direction, reviewing earlier research papers is highly important and beneficial. It investigates the most recent advancements in the study's research topic. It assists the researcher in developing research methodologies that include the study topic, research objectives, hypotheses, and choice of variables to be researched. It details what has been done in actuality in earlier studies and what work on the particular issue is still needed.

Ashok Kumar Panigrahi, Kushal Vachhani, Suman Kalyan Chaudhury (December, 2021), "in paper titled 'Trend identification with the relative strength index (RSI) technical indicator –A Conceptual study' researchers examined the two trends, 50/50 and 60/40, to estimate the returns. The NIFTY 50 chart was used to test these two RSI techniques, and it was discovered that 50/50 delivers a better long-term return while 60/40 offers a better short-term return."

Sajjan Choudhuri (July, 2019), "in paper titled 'A Research on Trading of Sensex Stocks by using RSI' determining the accuracy of buy or sell signals produced by the instrument for measuring relative strength index tool. In this research paper researcher study for the last six months, the RSI tool has been tested on 30 equities that make up the Sensex. The daily data were the data set used in this investigation. The return from RSI suggestions and returns from a straightforward buy and hold strategy are compared in the research. The study also intends to assess the RSI tool's propensity to provide erroneous buy-sell recommendations. The results of this study unambiguously show that RSI, as opposed to a buy and hold strategy, may be a significant weapon in the markets. The study also demonstrates that the likelihood of misleading signals is likewise constrained. At the same time, this study made the assumption that trade takes place on fee-free online marketplaces. However, using brokerage in the same study might have a different outcome."

Karuna Dhutti (February, 2014), "had inspected 'Stock price Movement of Information Technology Sector through Technical Analysis' analyst ponders that making investment decisions regarding whether to buy or sell the stock of the IT division, analysts use specialized tools like chart designs and Relative Stock File (RSI), and factual tools like coefficient of variety and beta are used to examine the risk and return relationship of security with the market. This study aims to use specialist analysis on five selected equities from the IT sector: Tata Consultancy Services (TCS), Infosys Limited, Wipro, Hindustan Computers Advances Limited (HCL), and Satyam Computers Limited (now Mahindra Satyam). The financial experts will benefit from this information as they attempt to identify market trends and potential threats.

This analysis is based on supplemental data that was gathered from NSE websites and journals.The RSI of Mahindra Satyam and Wipro computers falls into the overbought group at this time, thus financial advisors should be available for collected pick-ups. It is advised that chance unfavourable financial experts avoid investing in Infosys stock because to its extreme volatility and risk. Financial professionals might anticipate investing in TCS stock since it is less risky and provides returns that are consistent with market returns.
The performance of HCL's stock has been excellent throughout the year, and it is projected that it will continue to improve in the near future. Speculators can invest in this stock to get a significant amount of profit in the near future."

Renaud Beaupain, Lei Meng, Romain Belair (2010), "'The Impact of Volatility on the Implementation of RSI', The application of a trading strategy based on the relative strength index (RSI) in the Chinese stock markets is examined in this study in relation to volatility (measured as an exponentially-weighted moving average). The authors specifically look at how sensitive the selection of RSI bounds is to various volatility regimes using tick-by-tick data from the Shanghai stock market. The paper presents empirical evidence that the boundaries placed on this technical indicator have no discernible impact on the return and risk of our portfolios, under regimes of high and low volatility. We do, however, demonstrate that some strategies offer a more acceptable return-risk package than others within each volatility regime."

Adrin Taran-Morosan (July, 2011), "in this paper titled 'The relative strength index revisited' analyst point to observationally test the working of the RSI in its classic frame, on a set of information, and to reconfigure the pointer by additionally taking into account the exchanging volume in its calculation equation. The thought will test its contemporary shape on the same set of data after modifying the RSI with the varying volume.

Finally, it will contrast the results obtained using the traditional marker frame with those obtained using the balanced form. Future research is anticipated to investigate if using the RSI may produce yields that are higher than those obtained by using the purchase and hold method.

The RSI variation we offered produced the next pick up while using a distinct and in fact inverse translation from the classic one and far more pronounced disasters inside the turnaround condition when compared to the classic form of the marker and for the duration taken into account.

The investigation's findings led the researchers to the conclusion that, at least in the short term, the extraordinary values of the RSI and RSIM do not indicate a drift's return but rather that it is continuing on its current track. Therefore, traditional translation is useless whereas the reversed explanation yields

favorable results for both marker forms. Regardless of the translation method used, the best results are obtained by using the RSI form that we have suggested."

Conclusion

This document offers a summary of RSI tools while emphasizing the value and significance of this tool in technical analysis for decision-making. Despite the fact that technical analysis tools are based on the past prices and events of the securities, they are unable to predict the price of the securities in the future. It is obvious that the relative strength index, or RSI, is one of the best technical analysis tools currently on the market and that using it to build a portfolio is successful.

Using fundamental analysis and other technical analytical tools in addition to RSI, this is a highly effective analytical instrument in and of itself, yields superior outcomes.

One can trade or invest in stocks and earn money if they have a working knowledge of the technical RSI indicator. Lacking an appropriate strategy and trading rules to adhere to when trading causes traders to lose money. By relying solely on technical indicators, the investor runs the risk of losing money on the stock market. Techno funda analysis, which incorporates both technical and fundamental research, is something that every investor should constantly follow. Only when a company's fundamentals are solid should investors employ technical analysis.

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