

Efficiency of RSI Investment Strategy : A Comparative Study of Saudi Arabia, India, and China

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Abstract

Purpose : The present study is focused on testing the performance of the relative strength index (RSI) minutely on daily prices of stock indices of three sample countries. As the interest in investing in the stock market is growing day by day, the need to test the performance of technical indicators is also enhanced.

Methodology: The closing prices of three indices from the sample markets were investigated for 14 years, from January 2008 to December 2021, by applying the 30/70 rule of the RSI. The whole period of sample data from 2008 to 2021 has been divided into two smaller sub-periods of 7 years each in order to test the performance of the oscillator during the short period. Sub-period I is from January 2008 to December 2014; Sub-period II is from January 2015 to December 2021. While comparing the buy and hold strategy with RSI, one form has assumed that once the buy or sell decision is made, the same will be held for 10 days.

Findings : A 1% significance level was used to find the majority of the results to be statistically significant. Twenty-seven places, or 50% at the 1% level, and three results, or 5.55% at the 5% and 10% levels, were determined to be statistically significant out of the 54 total results. At various levels, 61.12% of the long, short, and long-short positions are determined to be statistically significant.

Practical Implications : RSI is the most frequently used oscillator by investors for making investment decisions; thus, it becomes essential to minutely study the profitability of the oscillator academically. Our study is not free from limitations and allows scope for future researchers to study the performance of oscillators along with other techniques of technical trading rule, and it can be tested on different samples of markets.

Originality : The previous research focused either on testing moving averages or testing plain crossover rules of RSI. The current work tested different forms of the oscillator, applying a holding period of days.

Keywords : Relative Strength Index (RSI), stock markets, indices, technical trading rule 30/70 (TTR), transaction cost (TC)

JEL Classification Codes : C12, G11, G12, G15

Paper Submission Date : September 10, 2022 ; **Paper sent back for Revision :** July 30, 2023 ; **Paper Acceptance Date :** August 20, 2023 ; **Paper Published Online :** November 15, 2023

The stock market is a massive market that is influenced by a variety of factors like GDP, national income, economic conditions, and other growth prospects of a country or industry. Though it is difficult to predict future share value, several strategies can provide future price recommendations (Sadhvani, 2019). With

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DOI : <https://doi.org/10.17010/ijf/2023/v17i11/171931>

the advancement of information technology, a significant amount of data has been collected, which may be used to generate valuable information and insights to help individuals make informed decisions. Information technology has made it possible to keep a record of every movement, even with an interval of a fraction of time (e.g., one minute). However, the present study is restricted to the end of the day due to the limitation of the availability of data. Investors can judiciously use the available information in making their investment decisions. Every investment in the stock market aims to maximize profit while reducing the related risk to a minimum level. The stock market significantly influences every nation's economy. Consequently, numerous studies on the application of technical indicators in stock-market forecasting have been conducted (Nti et al., 2020).

Investors mainly analyze graphs to make their investment decisions; whereas, financial scholars argue that any information confined in prior stock values is of slight usage to the stockholders based on the facts of the efficient markets theory and extensive empirical inquiries (Hilliard et al., 2013). Murphy (1999) asserted that the most prevalent kind of visual representation is a graph. The graphs and indicators of technical analysis (TA) illustrate the primary instruments of TA, such as moving averages, which enable technicians to identify market inclinations and inflection points, track financial outflows and inflows, and monitor price volatility.

This paper proposes the use of the momentum oscillator known as the “relative strength index (RSI)” for determining whether a script is overbought or oversold so that investors can make informed stock market investing decisions. The previous research focused either on testing moving averages or testing plain crossover rules of RSI. The current work tests a different form of the oscillator, applying a holding period of days. Our study's purpose is to look into the effectiveness of technical analysis-based trading strategies in the stock markets of selected Asian oil-producing countries. In order to achieve our goal, we have used two different forms of RSI (30/70), one with a 10-day holding period and another without any holding period.

Review of Literature

Technical analysis, being a powerful tool to study price movements and forecast future trends, is widely researched by academicians. Over the years, considerable literature has accumulated on the usefulness of various technical trading rules. Despite extensive investigation, no researcher has been able to determine that all technical analysis methods lead to successful chances or that it is simply luck. Technical analysts utilize these tools in addition to academics while deciding which investments to make. The RSI, EMA, MACD, and candlestick patterns are examples of standard tools. While technicians frequently use RSI, researchers tend to overlook it. Moving averages are incorporated in research together with only basic crossover, if any. As a result, the current study is concentrated on RSI 30/70 to examine the technique's results carefully. We read a great deal of material to prepare for this study, and some of the key articles are listed below:

Genetic algorithms are utilized to investigate TTR by renowned scholars in the field (Allen & Karjalainen, 1999). In their study, trading rules are given mixed reviews. TTR is able to identify when to enter an index position when daily returns are positive, volatility is low, and when to exit the position when the opposite circumstances arise. However, when trading conditions are added, the rules are inconsistent in their ability to generate excess returns compared to a basic B-H approach during the chosen sample periods. Later, another renowned academician, Jegadeesh (2000), provided a theoretical explanation for the usage of charting techniques based on patterns evaluated by Lo et al. (2000) and concluded that prices and trades are determined by the information that relates to past events.

Then, the study conducted by Chitra (2011) concluded that small investors and traders should analyze the strength of scrip using technical tools and make investment decisions accordingly. The researcher examined the selected companies in the Indian energy sector and also focused the study on the behavior of small investors. Hilliard et al. (2013) used the least squares metric to compare the return patterns of a sample stock with an

out-of-sample twin and discovered that the target stock produced higher returns. Twin returns in the post-match period significantly predicted risk-adjusted target returns, according to this study's regression analysis of target return risk.

Boobalan (2014) conducted a study on selected companies of NSE using different technical trading rules, and fundamental analysis was also conducted of the sample. This study concluded that technicians must possess fundamental knowledge as well for making profitable investment decisions. Li and Zhu (2014) compared the performance of the moving average with the one including volume and indicated that when volume is taken into account, information becomes more effective. Sudheer (2015) studied the Indian stock market using MACD and concluded that investors can predict future movements and make profitable investing decisions. Technical analysis can help investors make profits in all market conditions, whether it is moving upwards or downwards.

Vaiz and Ramaswami (2016) conducted a preliminary study of 22 technical trading rules and further classified them into four main sets: trend indicators, momentum indicators, volatility, and volume indicators. The researchers further presented 2-D charts of different techniques and helped investors gain knowledge of trading tools to enhance investment returns. Pushpa et al. (2017) tested technical trading rules on selected stocks of the Indian stock market and presented positive results in favor of technical analysis.

Choudhary and Bhatnagar (2018) examined the Indian stock market for one year and tested five energy sector companies. This study concluded that there exists a significant relationship between market indices and the sample companies, although the market remained volatile during the year. Rakshith and Manoj Kumara (2018) presented the results of RSI on the Indian stock market and tested the volatility of the stocks. The study also suggested that investors invest in the banking and automobile sectors to enhance their earnings, as these markets showed better returns. Isidore and Christie (2018) discussed the history and the components of both fundamental and technical analysis. The pros and cons of both analyses were reviewed, which would help naive investors in stock selection. Using Bollinger bands and RSI, Prasad et al. (2018) evaluated the Indian stock market's banking industry and recommended that investors make investments in particular banks after evaluating their ability to generate profits based on the outcomes of technical trading rules.

Nti et al. (2020) critically reviewed articles on technical analysis and concluded that machine learning is used by most of the researchers in the field. The Saudi stock market was analyzed by Alsabban and Alarfaj (2019), and the study found positive results, i.e., the investors were overconfident in their decisions regarding movements in the stock index. Agustin (2019) conducted a study using data from the LQ45 index of the Jakarta Stock Exchange and applied both fundamental and technical indicators. This study showed that investors can use both forms of analysis to generate profitable opportunities while making investment decisions. The research suggested that both indicators should be used as compliments instead of substitutes. Agrawal et al. (2019) developed a model using neural networks and inspected the efficiency of technical analysis on stock prices. The study tried to support the investors using the model by applying deep learning. The data from three Indian banks were used, and the prediction accuracy of the developed model were tested by the researchers.

Kanojia and Malhotra (2021) analyzed the stock crashes in the Indian stock market using 10 major stocks as samples, and concluded that the Indian market is relatively immune to economic fluctuations around the world. Mehta and Turan (2008) analyzed the BSE SENSEX for 7 years and concluded that risk-associated performance evaluation measures performed better than the market. Singh and Shrivastav (2018) studied the impact of the financial crisis on BRICS markets and found that Indian and South African markets showed some positive momentum, while the three presented a negative momentum.

After studying the available literature, we reached a point where most of the academicians have discussed various forms of moving average, but the most popular technique among technicians is the RSI, and it is not being studied in detail. Thus, this research is focused on RSI 30/70 using two different forms of the same to verify the profitability of RSI minutely.

Objective of the Study

To assess and gauge the effectiveness of the buy and hold (B-H) strategy in Saudi Arabia, India, and China in comparison to the RSI (30/70) based active approach.

Hypothesis

❖ **H01** : There is no significant difference between the RSI (30/70) based strategy and return of buy and hold (B-H) strategy in stock indices of selected countries, which are Saudi Arabia, India, and China.

Research Methodology

The research is empirical, and the secondary data were obtained from investing.com. To achieve the aforementioned objective and ascertain the significance of the hypothesis mentioned above, the following research methodology should be applied:

Daily Returns

The daily returns have been calculated using the following formulae:

$$R_t = \ln \left(\frac{P_t}{P_{t-1}} \right)$$

Where, P_t and P_{t-1} are the value of the security on day t and $t-1$, respectively; R_t signifies the return in relation to day t .

Relative Strength Index

J. Welles Wilder, Jr. is the creator of the RSI approach, which was initially presented in his book *New Concepts in Technical Trading Systems*. The indications' range is from 0 to 100. The following is the calculation of the mathematical formula:

$$RSI = 100 - \frac{100}{1 + RS}$$

$$RS = \frac{\text{Average Gain}}{\text{Average loss}}$$

Average gain = (total of gains during past n periods) $\div n$.

Average loss = (total of loss during past n periods) $\div n$.

where, n is the number of periods.

Wilder initially engaged for 14 days in RSI, but it is observed that the oscillator becomes more sensitive, and its amplitude gets wider if a shorter period is engaged in it. The mechanism works best when it fluctuates between the upper and lower extremes.

The rule adopted in this study for RSI will be based on oversold and overbought zones. According to this, a buy signal is formed when the RSI values fall into the oversold region (RSI 30) and then rise above 30 once again. When the RSI rises over the overbought zone (i.e., $RSI > 70$) and then drops back below 70, a sell signal is generated. This trading strategy is represented by the RSI ($N, 30/70$). RSI (14, 30/70) will be applied in this study. The study will also compare the results of the 30/70 rule with results from a holding period of 10 days. The study is conducted by using MS Excel.

Test of Significance

In order to determine the significance of buy, sell, and buy-sell returns, the t -statistics of Brock et al. (1992) have been employed. The t -statistics tests the difference of mean long (buy) and mean short (sell) from the unconditional mean and long-short from zero.

Data

The data used for the study was from selected sample countries, which are Saudi Arabia, India, and China, their respective stock indices from January 2008 to December 2021. Additionally, the analysis was carried out for two sub-periods, i.e., the closing values of the indices from the first trading day of the sample period to the last trading day of the sample period.

Analysis and Results

The 14-day RSI has been calculated for this study, and the study has been conducted in two cases, i.e., the first one where a holding period of 10 days is used and the second without any limit of the holding period. The results are then statistically tested using Brock's t -test, and the outcomes and their implications are as follows.

Parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy-sell) from zero, Brock et al. (1992) t -statistics are used.

The RSI 30/70 values for the indices of three sample markets are shown in Table 1 for the entire study period from January 2008 to December 2021, without a holding period. Enclosed in parenthesis is the value of the associated t -statistics that evaluate the difference between the mean purchase and mean sell of the RSI strategy and

Table 1. Results of t -statistics for RSI (Without Holding Period) for the Whole Sample Period (Jan 2008 – Dec 2021)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long-Short |
|--------------|-------------------------|-----------|------------|-------------|-------------|-------------|
| Saudi Arabia | Tadawul All Share | 41,313 | 25,797 | –0.0000445 | 0.000329081 | –0.0003736 |
| | | | | (–0.62455) | (3.3931)* | (3.6246)* |
| India | Nifty | 44,683 | 49,962 | 0.000493912 | –0.0002574 | 0.000751334 |
| | | | | (2.4714)** | (7.2475)* | (8.334)* |
| China | Shanghai Stock Exchange | 54,280 | 45,627 | –0.00051221 | –0.0000864 | –0.0004258 |
| | | | | (4.907)* | (0.26971) | (4.3600)* |

Note. We took the data using Excel for the whole sample period (Jan 2008 – Dec 2021).

the buy and hold strategy. The values for t -statistics are compared with table values of two-tailed t -tests. The number of buys is highest in the Chinese market and the lowest in the Saudi market; whereas, for the number of sales, the highest is recorded for the Indian market, and the lowest number of sales is recorded in the Saudi market.

When the results of t -statistics are analyzed, it is found that the technique has generated profitable results in all three markets, as eight out of nine results are found to be statistically significant. The extended values of Saudi Arabia are found insignificant for the period. Out of eight significant results, seven are found to be statistically significant at a 1% significance level, and the t -test value for the long position of India is found significant at a 5% level of significance.

Parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy–sell) from zero, Brock et al. (1992) t -statistics are used.

Table 2 represents the results of the RSI 30/70 without a holding period for the whole sample period of January 2008 to December 2014 for indices of the three sample markets. The value of the corresponding t -statistics assessing the difference between the mean buy and mean sell of the RSI strategy with the buy and hold strategy is shown in parenthesis. The values for t -statistics are compared with table values of the two-tailed t -test. In contrast, the number of sales is largest in the Chinese market and lowest in the Saudi market. The number of purchases is highest in the Indian market and lowest in the Saudi market.

When the results of t -statistics are analyzed, it is found that the technique has generated profitable results in all three markets, as seven out of nine results are found to be statistically significant. The extended values of India and

Table 2. Results of t -statistics for RSI (Without Holding Period) for the Sub-Sample Period (Jan 2008 – Dec 2014)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long–Short |
|--------------|----------------------------|-----------|------------|--------------------------|--------------------------|-------------------------|
| Saudi Arabia | Tadawul All Share | 23,373 | 13,215 | –0.0008429 (5.615)* | 0.000577084 (4.9870)* | –0.0014200 (8.9708)* |
| India | Nifty | 28,643 | 14,619 | 0.0000156 (1.282) | –0.0009035 (6.9896)* | 0.000919106 (5.616)* |
| China | Shanghai Stock Exchange | 27,399 | 16,168 | –0.00068337 (3.1161)* | –0.0005657 (1.836)*** | –0.0001177 (0.7170) |

Note. We took the data using Excel for the sub-sample period (Jan 2008 – Dec 2014).

Table 3. Results of t -Statistics for RSI (Without Holding Period) for the Sub-Sample Period (Jan 2015 – Dec 2021)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long–Short |
|--------------|----------------------------|-----------|------------|---------------------------|------------------------|-------------------------|
| Saudi Arabia | Tadawul All Share | 17,940 | 12,582 | 0.0009956 (7.802)* | 0.000069 (0.8802) | 0.0009270 (7.114)* |
| India | Nifty | 40,822 | 35,333 | 0.000529655 (2.73342)* | 0.0000182 (3.1341)* | 0.000511479 (5.083)* |
| China | Shanghai Stock Exchange | 26,881 | 29,459 | –0.00033776 (3.860)* | 0.0001767 (1.09) | –0.0005144 (4.323)* |

Note. We took the data using Excel for the sub-sample period (Jan 2015 – Dec 2021).

the long–short values of China are found insignificant for the period. Out of seven significant results, six are found to be statistically significant at a 1% significance level, and the *t*-test value for the short position of China is found significant at a 10% level of significance.

The parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy–sell) from zero, Brock et al. (1992) *t*-statistics are used.

Table 3 represents the results of the RSI 30/70 without a holding period for the whole sample period of January 2015 to December 2021 for indices of the three sample markets. The value of the corresponding *t*-statistics assessing the difference between the mean buy and mean sell of the RSI strategy with the buy and hold strategy is shown in parenthesis. The values for *t*-statistics are compared with table values of the two-tailed *t*-test. The number of purchases is greatest in the Indian market and lowest in the Saudi market; likewise, the number of sales is highest in the Indian market and lowest in the Saudi market.

When the results of *t*-statistics are analyzed, it is found that the technique has generated profitable results in all three markets, as seven out of nine results are found to be statistically significant. The sell–short values of Saudi Arabia and China are found insignificant for the period. All seven significant results are found to be statistically significant at a 1% significance level.

Parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy–sell) from zero, Brock et al. (1992) *t*-statistics are used.

Table 4 represents the results of the RSI 30/70 with a holding period of 10 days for the whole sample period of January 2008 to December 2021 for an index of the three sample markets. The value of the corresponding *t*-statistics assessing the difference between the mean buy and mean sell of the RSI strategy with the buy and hold strategy is shown in parenthesis. The values of *t*-statistics are compared with table values of the two-tailed *t*-test. China's market reports the greatest amount of purchases, while India reports the fewest purchases. The Indian market has the most sales, while the Saudi market has the fewest sales, according to an analysis of the sales numbers.

When the results of the *t*-test are analyzed, it is found that out of nine results, only five are found significant. For the Indian market, long and long–short results are found to be statistically significant at a 1% significance level, and the results of sell–short are found significant at a 5% level of significance. While analyzing the Saudi Arabian market, it is found that the values of *t*-statistics for the long position are significant at a 1% level of significance, and the values for long–short are significant at a 10% level of significance; whereas, for the Chinese market, none of the results are found to be statistically significant.

Table 4. Results of *t*-statistics for RSI (With a 10-day Holding Period) for the Whole Sample Period (Jan 2008 – Dec 2021)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long–Short |
|--------------|----------------------------|-----------|------------|-------------------------|-------------------------|-------------------------|
| Saudi Arabia | Tadawul All Share | 11,100 | 7,870 | 0.0004448 (2.825)* | 0.000104394 (0.5638) | 0.0003404 (1.778)*** |
| India | Nifty | 10,440 | 12,090 | 0.000789045 (3.005)* | –0.0000435 (2.375)** | 0.000832535 (4.667)* |
| China | Shanghai Stock Exchange | 13,370 | 9,550 | 0.000099 (1.2475) | 0.0000285 (0.73839) | 0.0000705 (0.3420) |

Note. We took the data using Excel for the whole sample period (Jan 2008 – Dec 2021).

Parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy–sell) from zero, Brock et al. (1992) *t*-statistics are used.

Table 5 represents the results of the RSI 30/70 with a holding period of 10 days for the whole sample period of January 2008 to December 2014 for an index of three sample markets. The value of the corresponding *t*-statistics assessing the difference between the mean buy and mean sell of the RSI strategy with the buy and hold strategy is shown in parenthesis. The values of *t*-statistics are compared with table values of the two-tailed *t*-test. India has the lowest number of purchases, while the Chinese market reports the largest number. When the sales numbers are analyzed, it is discovered that Saudi Arabia has the lowest sales numbers, and the Indian market has the most significant sales numbers.

When the results of the *t*-test are analyzed, it is found that out of nine results, only two are found to be significant. For the Indian market, sell and long–short results are found to be statistically significant at 5% and 1% significance levels, respectively; whereas, for the Saudi Arabian and Chinese markets, none of the results are found to be statistically significant.

Parenthetical statistics indicate that the values denoted by the asterisks (*, **, and ***) are significant at the levels of 1%, 5%, and 10%, respectively. For assessing the difference between the mean long (buy) and mean short (sell) from the daily mean as well as long–short (buy–sell) from zero, Brock et al. (1992) *t*-statistics are used.

Table 6 represents the results of the RSI 30/70 with a holding period of 10 days for the whole sample period of January 2015 to December 2021 for an index of three sample markets. The value of the corresponding *t*-statistics assessing the difference between the mean buy and mean sell of the RSI strategy with the buy and hold strategy is

Table 5. Results of *t*-statistics for RSI (With a 10-day Holding Period) for the Sub-Sample Period (Jan 2008 – Dec 2014)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long–Short |
|--------------|----------------------------|-----------|------------|-------------------------|-------------------------|--------------------------|
| Saudi Arabia | Tadawul All Share | 5,760 | 3,530 | –0.0000006 (0.6496) | 0.000150429 (1.0761) | –0.0001510 (0.4857) |
| India | Nifty | 6,750 | 4,390 | 0.000486102 (1.2610) | –0.0004665 (2.229)** | 0.000952584 (3.0518)* |
| China | Shanghai Stock Exchange | 7,080 | 3,570 | –0.00012977 (0.614) | 0.0001576 (1.384) | –0.0002874 (0.845) |

Note. We took the data using Excel for the sub-sample period (Jan 2008 – Dec 2014).

Table 6. Results of *t*-statistics for RSI (With a 10-day Holding Period) for a Sub-Sample Period (Jan 2015 – Dec 2021)

| Markets | Index | No. (Buy) | No. (Sell) | Long | Short | Long–Short |
|--------------|----------------------------|-----------|------------|--------------------------|--------------------------|-------------------------|
| Saudi Arabia | Tadawul All Share | 5,240 | 4,340 | 0.0010026 (4.308)* | 0.000067 (0.5177) | 0.0009356 (4.068)* |
| India | Nifty | 3,610 | 7,700 | 0.001363026 (4.4145)* | 0.0001504 (1.6487)*** | 0.001212614 (5.391)* |
| China | Shanghai Stock Exchange | 6,290 | 5,980 | 0.000356379 (1.327) | –0.0000288 (0.4255) | 0.0003851 (1.511) |

Note. We took the data using Excel for the sub-sample period (Jan 2015 – Dec 2021).

Table 7. Details of Broken Portfolios of a 10-day Holding Period (Whole Sample Period)

| Markets | Index | No. of Broken Portfolio (Buy) | No. of Broken Portfolio (Sell) |
|--------------|-------------------------|-------------------------------|--------------------------------|
| Saudi Arabia | Tadawul All Share | 23 | 47 |
| India | Nifty | 21 | 46 |
| China | Shanghai Stock Exchange | 22 | 31 |

Note. We took the data using Excel for the whole sample period (Jan 2008 – Dec 2021).

shown in parenthesis. The values of t -statistics are compared with table values of the two-tailed t -test. China is the market with the greatest number of reported purchases, while India has the lowest number. A study of the number of sales indicates that the Indian market has the most sales, while the Saudi market has the fewest sales.

When the results of the t -test are analyzed, it is found that out of nine results, only five are found to be significant. For the Indian market, long and long–short, both results are found to be statistically significant at 1%, and the values for sell-short are found significant at a 1% significance level. In the Saudi Arabian market analysis, the long and long–short values are found to be statistically significant at a significance level of 1%, while the sell-short values are found to be negligible. In contrast, no results are found to be statistically significant for the Chinese market.

Table 7 depicts the number of broken portfolios in the form when a 10-day holding period is used. The broken portfolio is the portfolio when the signal is generated for long/short, but the number of returns to be used for portfolio construction is less than 10. The maximum number of such portfolios are for short positions in the Saudi Arabian Market, and a minimum of such portfolios are available in long positions in the Indian market, which indicates that these markets generated signals for buy or sell, but the signal broke off prior to the decided holding period.

Conclusion

TTRs are used to forecast the future movement of individual stock or securities. There are many tools to analyze securities, but technical analysis is a combination of the best tools to provide practical acquaintance to investors. This analysis uses a 14-day RSI 30/70 and gathered data from Saudi Arabia, India, and China over 14 years (2008 – 2021). The indexes used are Tadawul All Share, Shanghai, and Nifty 50, respectively. Along with this, the whole sample period is divided into two sub-periods as well, i.e., from January 2008 to December 2014 and January 2015 to December 2021. The technique is used in two forms, i.e., one without any holding period limit and another with a 10-day holding period limit. The RSI momentum oscillator has generated profitable results in both forms. Thus, it can be interpreted by the present study that technical analysis can help investors generate profitable opportunities by sampling the stock markets.

Authors' Contribution

Together with the other two authors, Nidhi envisioned the idea of examining the stock market indices and created the paper. Rajat Singla provided assistance in determining the sample nations and in applying t -statistics to the various values produced by the oscillator. Narinder Singh Malik verified the analytical and conceptual methodologies. The analysis was done using Excel.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgment

The authors received no financial support for the research, authorship, and/or for the publication of this article.

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