

# **INTERNATIONAL RESEARCH JOURNAL OF COMMERCE, ARTS AND SCIENCE**



**ISSN 2319 – 9202**

*An Internationally Indexed Peer Reviewed & Refereed Journal*

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Published by iSaRa Solutions

## A Study on Performance Evaluation of Rubber Commodity in Indian Futures Market

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### Abstract

*The needs of an upcoming area of investment are very necessary for the small-scale investors as they are not the real beneficiaries of the existing system of investment. The emergence of commodity derivatives market aims at the avoidance of disparities and to provide investment to any type of investors with the process of hedging the risk and yields the considerable profit. The scope of this study points the finger to analyze various price and volume changes analysis in order to understand the market for investors and to take better and wise decisions related to the commodity exchanges at various points of time. The commodity Rubber can be one of the good commodities which the investors should preferably use for their investments in Kerala, India. So, through this study the researcher is trying to analyze the performance of Rubber commodity traded in Multi Commodity Exchanges.*

**Key Words:** *rubber commodity – futures market – bull and bear – spot market price – investment avenues- natural and synthetic rubber.*

### Introduction

Rubber has an inevitable role in spot market as well as in exchange-based market in Indian. Both the spot market and exchange-based markets are very much live in case of rubber commodity. There are two broad categories of rubber in India, 'Natural rubber' and 'Synthetic rubber' and under these main heads there are certain sub categories also. The rubber latex which are

obtaining naturally through rubber trees are called natural rubbers and the artificial laboratory made are called as synthetic rubbers. In the spot market the types and sub categories of rubber has great importance and pricing is also done according to their classes. The most important forms in which NR is processed and marketed are Sheets, Crepes and Block rubber. RSS 4, RSS 5 are the most commonly produced and marketed natural rubbers. But in case of commodity exchange-based transactions the only type of rubber is called in the name "Rubber".

In India, commercial cultivation of natural rubber was introduced by the British planters, although the experimental efforts to grow rubber on a commercial scale in India were initiated as early as 1873 at the Botanical Gardens, Calcutta. The first commercial Hevea plantations in India were established at Thattekadu in Kerala in 1902. In the 19th and early 20th century, it was often called "India rubber." In 2010, India's natural rubber consumption stood at 978 thousand tons per year, with production at 893 thousand tons; the rest was imported with an import duty of 20%.

In 1879, Bouchardat created one form of synthetic rubber, producing a polymer of isoprene in a laboratory. The expanded use of motor vehicles, and particularly motor vehicle tires, starting in the 1890s, created increased demand for rubber. In 1909, a team headed by Fritz Hofmann, working at the Bayer laboratory in Elberfeld, Germany, also succeeded in polymerizing methyl isoprene, the first synthetic rubber. Methyl isoprene is 2, 3-dimethylbuta-1, 3-diene. Scientists in England and Germany developed alternative methods for creating isoprene polymers from 1910-1912.

In the world market, the importance of rubber is unavoidable because of its industrial uses. The auto mobile industries are the first industries to consume the rubber with a percentage of almost 52% of the rubber. The products like vehicle tyres, tubes and various components demanding the production hike of rubber on continues basis. The foot wears industry is the second largest consumer of rubber commodity. India is holding sixth rank for production of rubber. Following by countries like Thailand, Vietnam etc. The Kerala state in India accounts almost 75%-85% of the production of rubber in India and Karnataka possess the second place. The major rubber primary markets of in India are: Kottayam, Kochi, Kozhikode and Kannur.

The trading of rubber in the world market is through various commodity exchange markets and the Tokyo commodity exchange is one of the most important exchanges in the world following by Singapore commodity exchange and Osaka Mercantile Exchange. India also possesses a good ranking among world commodity markets in case of rubber trading. Kuala Lumpur, London, New York etc... are the major physical markets. The commodity exchanges like MCX and NMCE are major commodity exchanges dealing online rubber trading in India.

Commodity based exchange Investors are concerned to invest in derivatives rather than other options. In case of rubber commodity also the basic derivative method called 'futures' is being following. Futures are nothing but a contract between two persons in order to buy or sell certain commodity on a future date at a future amount through standardized means. The futures are one of the best method of derivatives used in commodities rather than options, swaps and so on. These futures paved a wonderful way to the investors to make earnings through commodity exchanges without taking so many risks so in case of rubber commodity also futures are playing

vital role in making the commodity more attractive mean of investment. Through this project study titled "a study on the commodity rubber and the performance evaluation of rubber commodity in Indian futures market" is a project paper developed to study on the commodity rubber and its futures trading analysis.

### **Objectives of the study**

1. To study the price volatility of Rubber commodity in Indian futures market.
2. To understand the volume volatility of commodity Rubber in Indian futures market.
3. To study the bullish and bearish aspects of the Rubber commodity in Indian futures market.

### **Methodology**

This study was conducted with the help of field study in "The Indian Rubber Board' office situated at Kottayam and zonal office at Calicut. The various data regarding various aspects of the commodity Rubber were collected from January 2021 for analyze purposes. The data has been modified according to the needs of the study without affecting the heart of it. After the field study, first - hand information collected from various primary sectors were arranged sequentially and tabulated in a systematic manner. After this stage, data analysis tools such as rate of change and volume accumulation methods were applied

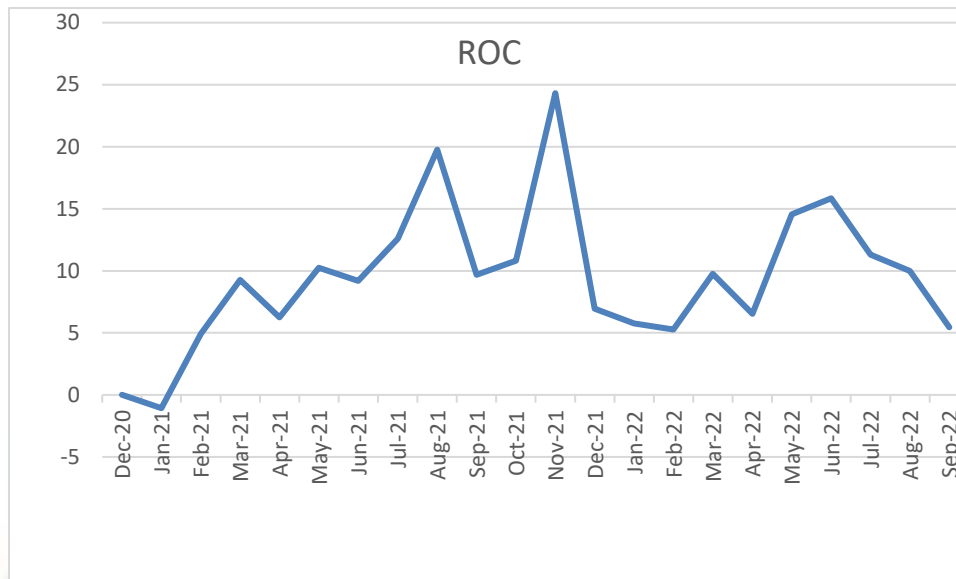
### **Analysis and Interpretations**

It is very important to consider the nature of various varieties of assets in their portfolio by the investors. Derivatives have one advantage over stocks, bonds and usual trading commodities lower inherent price volatility. Futures in particular serve balance a portfolio due to their negative correlation with other markets. This chapter it is an attempt to study the performance evaluation of rubber commodity in Indian futures market from 2021 January to 2022 August. Most of the analysis has been with the help of two basic technical tools which shows the price volatility, volume volatility and the overbought positions, oversold positions, and bullish and bearish of market of Rubber in futures market. The two technical tools are:

- Rate of change method (ROC)
- Volume accumulation method (VA)

The rate of change method also known as simple momentum is a pure momentum oscillator which measures the volatility of price from one period to the next. Usually, the calculation of ROC includes the current prices and the price of all number of periods ago. The basic use of ROC is to measure the volatility of price changes in the market for a particular commodity, beyond this it is also helps the investors to understand the overbought and oversold positions of the commodity. The most important hindrance that suffered by any investor is the price volatility of any assets and if it is possible to calculate price volatility in such a good manner will helps the investor to study the volatility of price for some past years which might leads to a better understanding regarding the assets.

$$\text{ROC} = \frac{(\text{CLOSE} - \text{CLOSE NO. PERIODS AGO})}{\text{CLOSE NO. PERIODS AGO}} * 100$$

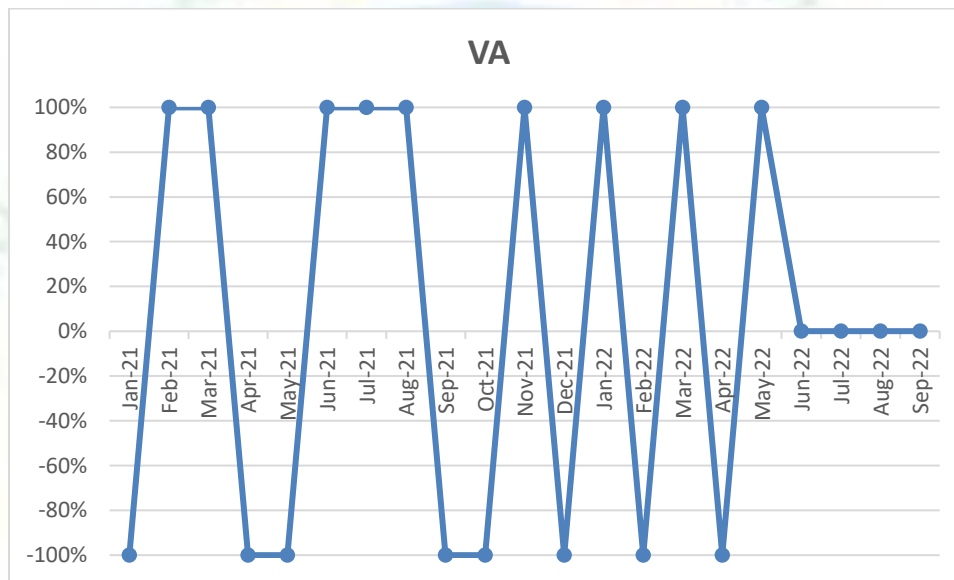


- The price volatility of Rubber commodity in Indian futures market points out that there is high volatility in price of the commodity Rubber
- The basic reason for price fluctuation in the commodity derivatives market are market factors such as demand and supply
- The other factors like production of rubber, consumption of rubber, import and export conditions etc. are factors affecting the price of rubber commodity.
- As per ROC analysis it is found out that there are tremendous number of overbought positions and oversold positions in the market.
- Each overbought position indicates the selling signal of the product and each oversold positions indicate the buying signal to the investors
- ROC is one of the best technical analysis tools which can be used to find out the price volatility of the commodity in the derivative market and it can be used to calculate the overbought and oversold positions of the commodity. This will help the investors to understand the trend of the market for that commodity

You can find a number of indicators in technical analysis to measure volume and the flow of money for an index or a particular security. The Accumulation/Distribution Line is one of the most popular technical indicators for analysis of volume. The technical analysis statements that "volume precedes price" implies that, in many cases, after decline and just before a reversal, we may see an increase in the volume. A majority of the volume indicators have been developed to identify this volume volatility in order to predict price trend reversals. The Volume Accumulation indicator combines volume and a price-weighting that shows the strength of conviction behind a trend; the Volume Accumulation indicator is a helpful tool in uncovering divergences. The formula for the Volume Accumulation formula is shown below:

The formula only gives positive volume to the day if the close is higher than the midpoint of the high and low. If the close is towards the lower half of the range of the price action, then volume is negative for the day. Any increase or decrease in price with little volume is to be looked upon with skepticism. The Volume Accumulation indicator helps show instances where price is making new highs or lows, but the indicator is failing to confirm those price moves. Also, the Volume Accumulation technical indicator can confirm price movements.

$$\text{Volume} \times [\text{Close} - (\text{High} + \text{Low})/2]$$



- Volume Accumulation indicator is a strong indicator used to identify the bullish and bearish market trend of the particular commodity in the market.
- The decline in price and backing to reversal the changes in volume shows a vital information to the investors that whether want to buy or sell
- It is found that the skepticism is prevailing in rubber futures market also because there are high price variations without having sufficient volume traded
- The VA analysis says that the rubber futures market should improve more in order to eradicate the disparities of volume changes and price changes.

### Conclusion

The higher means and wants of peoples increase the investment avenues to a great level and in most diverged manner. From the old banking deposits to the investment of shares, forex and even commodities also emerged. In India the commodities also started to trade through exchanges from 2003 onwards and most of the agricultural, energy wise, bullion commodities are now trading through the exchanges. Rubber is one of the agricultural commodities among those which trading very well in the world-wide commodity market and in India also it is trading

at its possibilities. Now investing specific area like is very difficult for the investors because of the nature of high risk and volatility in share market, commodity market etc. In order to reduce the disparities and bring the small investors in to the scenario the term called derivative market has been emerged.

In India NMCE (National Multi Commodity Exchange) is the basic exchange trading the commodity Rubber effectively. The performance evaluation of rubber commodity in the Indian futures market has been studied with the help of two technical analysis such as ROC and VA methods. And by the end of this study, it is specifically clear that the performance evaluation is perfectly possible with the above said analysis methods and it is noted that the performance noted in bullish and bearish concept and overbought and oversold concepts helps the investors a lot to understand the market and invest according to the situations in the market.

The overbought positions instruct the investors to sell the commodity and the oversold conditions instruct the investors to buy the commodity so that the real hedging mechanism through derivatives will come into true. In the same way the bullish and bearish concepts help to understand the bull and bear positions of the market which the investor can very well use in such a way that at bull market investors should sell the commodity and at bearish market buy the commodity. In short, the study of performance evaluation through above said technical analysis helps the investors to take wise decisions regarding investment.

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