Abstract
The commodities markets are one of the fastest growing areas in the investment world. A commodity market is an exchange for buying and selling of commodities for future delivery. Commodity trading in India started much before it started in many other countries. However, years of foreign rule, draughts and periods of scarcity and government policies, caused the commodity trading in India to diminish. Commodity trading was however restarted in India recently, but a lot more developments and initiatives needs to be taken in this avenue. Investing on commodities offers protection against risk, diversified portfolio, trading on lower margin and safety. The study focuses on understanding the concepts and mechanism of commodity trading with special reference to Gold. It also aims to analyze the factors that influence the prices of gold and analyze the gold trend in the commodity market.

I. INTRODUCTION
Commodity markets are markets where raw or primary products are exchanged. These raw commodities are traded on regulated commodities exchanges, in which they are bought and sold in standardized contracts. The commodities market consists of the trading of forward contracts or futures contracts; forward contracts are contractual agreements to buy/sell any commodity bet there in two entities; futures contracts are market agreements to buy/sell very specific commodities bet there in two entities over a recognized commodities
exchange. It is a physical virtual market place for buying and selling of raw or primary products. For investors' purposes there are currently about 50 major commodity markets worldwide that facilitate investment trade in nearly 100 primary commodities. Commodities are split into two types: hard and soft commodities. Hard commodities are typically natural resistless that must be mined or extracted (gold, rubber, oil, etc.), whereas soft commodities are agricultural products or livestock (corn, wheat, coffee, sugar, soybeans, pork, etc.)

1.1 GOLD
Gold is a natural resource available all over the world but not in abundant. In science it has atomic number 79 and symbolized as AU. It is highly Precious metal and is invested in coins, jewels, bars, certificates, accounts etc. It is attracted by all the human beings as source of prestigious thing or the source of investment to make maximum returns. In India gold has become very prestigious metal from the ancient days itself, it stands for its unique property and it is treated a asset and core wealth by the people According to the investors owning gold is very much safe because all over the globe gold is same there is no difference in production and people think it will help in difficult situation as there is high liquidity power. Investing in gold is safe because it doesn’t include the crop rotation fluctuation in the market. All over the world gold is accepted and traded as a commodity.

1.2 FEATURES OF GOLD
- It can be source of investment
- It is treated as safe haven
- It is an asset diversifier
- It has high liquidity power
- It acts an insurance

1.3 GOLD AS AN INVESTMENT AVENUE
Investing in gold is booming from the past two decades. The investors will invest in this to protect themselves from the political, economical, inflation, social disaster. However it is subjected to risk in the market especially in futures contracts and derivatives. Even the government will invest in this product to secure from the inflation and gold has become more like currency rather than commodity.

1.4 INVESTMENT SOURCES
1. Gold Bars
2. Gold Coins
3. Gold Exchange –Traded Products(ETPs)
4. Gold Certificates
5. Gold Accounts
6. Gold Mining companies
7. Derivatives

1.5 FACTORS AFFECTING GOLD PRICE
The major factors impacting the gold price can be summarized as under:
- Demand for the product
II. REVIEW OF LITERATURE

Technical analysts argue that their methods take advantage of market psychology as illustrated by the quotation from Pring (1991) above. In particular, technical textbooks such as Murphy (1986) and Pring (1991) outline three principles that guide the behavior of technical analysts. The first is that market action (prices and transactions volume) “discounts” everything. In other words, an asset’s price history incorporates all relevant information, so there is no need to forecast or research asset “fundamentals.” Indeed, technical purists don’t even look at fundamentals, except through the prism of prices, which reflect fundamentals before those variables are fully observable.

Commodity markets are asset markets where market players buy for use and sell for gain. Commodity markets are complex because many factors play a role in relation to their costs. Such factors include the weather, inventories, supply, demand, and technology (Baffes, 2013). Over the recent decade, commodity markets have often been in the spotlight due to a high amount of volatility in the markets, but as mentioned the interest is not new. Ludwell Moore (1921) examined the existence of cycles through history, and did find some evidence of cycles. However, he did not find anything that could predict either the length or depth of those cycles in commodity markets. As other following studies have shown, commodity markets have been volatile and appearing to be random. Nevertheless, that has not prevented the popularization of technical analysis tools that are thought to be able to predict future movements in commodity prices (Bundgaard, 2013), which is what any procurement function would like to be able to do as argued above. Consequently, this paper aims at helping companies at least understand whether they can use technical analysis as a reliable predictor of future movements or if commodity markets truly do behave in a random fashion. It is relatively easy to highlight situations where arbitrage cannot be traded away in commodity markets. First of all, national policies and regulations may create such high transaction costs for certain commodities (Zapoleon, 1931; Caine, 1958). There may not be any open market where a commodity is traded. If the commodity is not traded, it is obviously impossible to trade away arbitrage opportunities. Nevertheless, there are commodities which are somewhat freely and openly traded across the globe (Baffes & Haniotis, 2010; Baffes, 2013). By choosing those commodities, and avoiding commodities that are prone to non-random shocks, e.g. oil and its dependence on OPEC policies, it can plausibly be considered that arbitrage opportunities should be traded away in the market data.
III. RESEARCH METHODOLOGY

3.1 STATEMENT OF THE PROBLEM
When investing for a long and a short term there may be differences in fundamental analysis and technical analysis. Because calculation of fundamental analysis in commodity market is difficult this depends upon the supply and demand for the resources. The highlight of the study is to appropriate use of technical analysis in order to facilitate the investors in decision making.

3.2 NEED FOR THE STUDY
Commodity markets are where raw or primary products are exchanged. Commodity market is of two types i.e., Hard (Non-Agricultural) and Soft (Agricultural) commodities here Hard commodities are typically Nonagricultural or natural resources (Gold, Silver, Copper, Natural Gas) and Soft Commodities are the agricultural commodities(Coffee, Corn, Wheat, Sugar). The problem faced by the participants in the market is to predict the price movement of the commodity and to take the right decision when to entry and exit the market to make a maximum profit. As Gold Commodities are more sensitive in the market, their price prediction is rigorous job. Thus, there is a need to study the present scenario of the performance of the non-agricultural commodities in Indian stock market.

3.3 OBJECTIVES OF THE STUDY
- To study and analyze the commodity market of selected non-agricultural product i.e., Gold
- To study the price volatility among commodity market of selected non-agricultural product i.e., Gold
- To identify the co-relationship between Gold price and Dollar exchange rate.

3.4 SCOPE OF THE STUDY
- Studying the commodity price movements in the market.
- Analysis of the relationship of gold with the exchange rates.
- Helps in buying and selling strategy by recognizing the trend reversals in a formerly stage.
- To help investors in decision making.

3.5 METHODOLOGY ADOPTED
Research methodology stands a way to systematically resolve the research problem. It is a scientific way of studying how research is done scientifically approved by the researcher in reviewing research problem alongside with the reason behind study. It is essential for the researcher to distinguish not only the research methods and procedures but also the methodology.

- Sample size
The sample consists of one commodity – from MCX market, on the basis of the research objectives. This study is mainly based on the Gold prices in Indian commodity market.

- Data Collection
The research is purely based on secondary data.
  - Secondary Data
Secondary data was collected by referring to following sources: Alpha Commodities Private Ltd Online publication, BSE websites, Text books & Research Journals

- **Study Period**
The study includes a period of 5 years covering from 2011-2015.

- **Source of Data**
The main source of data is collected through websites of BSE, MCX to obtain the historical prices. Also the other relevant data required for the purpose of the study was gathered from the various websites, publications, magazines and reports prepared by research scholars.

  ➢ **Statistical tools and indicators used**
  - Simple Moving Averages
  - Moving Average Convergence Divergence
  - Bollinger Band Width
  - Relative Strength Index
  - Correlation

3.6 **LIMITATIONS OF THE STUDY**

- Study is confined only to the commodity market in Indian context.
- The study of this analysis was mainly based on historical data.
- The study is considered a period of five years (20011-2015).

IV. **DATA ANALYSIS AND INTERPRETATION**

4.1: **SIMPLE MOVING AVERAGES (SMA)**

**Graph 1: Simple Moving Averages**

**Interpretation:**
The SMA is plotted using last 5 years data of gold. Here 5 months moving average has been taken to construct the Simple Moving Averages. The 5 years chart of Simple Moving Averages shows that on many occasions monthly moving average line cuts the 5 months Simple Moving Averages line from top to bottom which signals bearish market and it is right time to go out of the market and some time the monthly moving average line cuts the 5 months Simple Moving Averages line from bottom to top which signals bullish market and
it is right time to invest in the market. For example, in December 2015 the Simple Moving Averages and monthly moving averages are closely equal hence it is not a buying signal to the investors.

4.2: MOVING AVERAGE CONVERGENCE DIVERGENCE (MACD)

Graph 2: Moving Average Convergence Divergence (MACD)

**Interpretation:**

The Moving Average Convergence Divergence is plotted using last 5 years of data of gold. Here, MACD is calculated through Exponential moving average (EMA) 12 and EMA 26 period. If EMA 26 line is above the EMA 12 line then it is bearish signal vice versa if the EMA 12 line is above the EMA 26 line then it is bullish market signal. The average closing price of EMA 12 in December 2015 is 2632 which is less than the EMA 26 in December 2015, 2692 thus it is advisable to buy the commodity in the market.

4.3: MOVING AVERAGE CONVERGENCE DIVERGENCE HISTOGRAM

Graph 3: Moving Average Convergence Divergence Histogram
Interpretation:
The histogram is calculated to identify the Convergence and Divergence. If the MACD Histogram is shrinking in height then it leads to the Convergence then it is potential sell signal and if the MACD Histogram is increasing in height then it leads to the Divergence then it is potential Buy signal to the investors. If the MACD crosses the MACD Signal then it is advisable to buy the commodity or if the MACD signal crosses the MACD line then it is advisable to sell the commodity. In the year April 2011 the market is in divergence hence it is to be bought and in the year April 2012 the market is turning to convergence hence it is to be sold in the market.

4.4: RELATIVE STRENGTH INDEX (RSI)

Graph 4: Relative Strength Index

Interpretation:
The RSI graph shows the overbought and oversold areas. The RSI values from 30 and below indicates a good opportunity to buy the commodity and the RSI values from 70 and above indicates a good opportunity to sell the commodity. But as it is clear in above graph in the year 2015 there is no signal to buy or to sell thus it is recommended to hold the commodity still for a long term.

4.5: BOLLINGER BAND WIDTH (BBW)

Graph 5: BOLLINGER BAND WIDTH
Interpretation:
The width between Upper and Lower band refers to the volatility of the prices of the commodity, the higher the width the greater the volatility in this time it is advisable to sell the commodity and when there is low volatility the investor either buy or retain the commodity. If the closing prices touch the Upper Bollinger Band then the commodity is overbought and if the prices touch the lower Bollinger Band then the commodity is oversold in the market. It is advisable to buy the commodity when the stocks prices hits the lower band and to sell when the prices hits the upper band.

4.6: CORRELATION BETWEEN GOLD AND DOLLARS EXCHANGE RATE
H0: There is no significant relationship between gold price and dollar exchange rate.
H1: There is significant relationship between gold price and dollar exchange rate.

| Table 1: Correlation between Gold and Dollars Exchange Rate |
|-----------------|-----------------|
|                 | Gold            | Dollars         |
| Pearson Correlation | 1              | -.838**         |
| Sig. (2-tailed)    | .000            |                 |
| N                | 60              | 60              |

**. Correlation is significant at the 0.01 level (2-tailed).

From the above table it is found that the correlation value is 0.000 that is below 0.05. So, it is significant, hence reject null hypothesis (H0) and accept alternative hypothesis (H1).

Inference
As the correlation value is -0.838 it indicates that the inverse relationship exist between the gold price and dollar exchange rate in India. That shows there inverse effect among variables where if the dollar price increases then the gold price will decrease and if dollar price decreases then the gold price will increase.

V. SUMMARY OF FINDINGS

- Analyzing the commodity market helped to find out the gold price volatility.
- Technical analysis was more helpful in decision making about the commodity market and reduced the errors in forecasting. The various tools in technical analysis were complicated but it has given the realistic results.
- The performance of gold in the year 2015 was in bearish. It has been fluctuating from Rs.3298 to Rs.2509 by the end of the year.
- The overall performance of gold indicates the low returns for short term investment and the high returns for long term investments.
- SMA shows the price fluctuations in the market. The gold price is too sensitive in the market.
- MACD shows the relationship between the MACD histogram and the MACD signal line which helps in taking decisions regarding the entry period and exit period.
Bollinger band is helpful to analyze the market when they are over bought and over sold in the market and it is also helpful to analyze the price volatility of the gold prices which are dependent on their band width.

According to Relative Strength Index when it is above 70 it is advised to sell the commodity and if it is below 30 it is usually recommended to buy the commodity.

The gold and dollar exchange rate share the inverse relationship where if dollar increases the prices of gold decreases and if the dollar price decreases then gold prices increases in the market.

VI. SUGGESTIONS

- Gold is a precious metal; its value cannot not be diminished in a shorter time. But even then there are some investment rules:
- Before investing, an investor should have clear and adequate knowledge of stock market so that they can earn maximum returns.
- The commodity i.e., gold is a very complex financial instrument. Thus the traders must analyze the trend of the market.
- Investing for short term gains in current scenario will not be helpful as both commodity markets are in bearish market, the investor can go for long term investment to maximize the returns.
- The traders should not enter into the market in bullish period they need to wait till the bearish market ends and then they need to invest when market gives positive signal to buy the commodity.
- Investors should not buy in bulk volume because of high price fluctuations. If the investors invest in one shot then they cannot buy when the prices goes down. So it is advisable to buy in small quantities.

VII. CONCLUSION

The analysis emphasized on the commodity market which gave a real time experience in this field and thereby the study could reflect positive from the investor’s perspective. The last five years price movements of gold shows that the investors are satisfied by the reasonable returns from commodity market. Investors can make substantial returns only if investments are made in disciplined manner. The blind investments have always let too many blunders; an investor should always analyze the market by using the analytical tools for investments purpose. Investors can succeed in their investment only when they are able to select the right commodity at right time. The investors should closely watch the situation like market price, economy, returns and risk associated with the commodity before taking the decision to invest. Thus, by utilizing the investment opportunities available in the commodity market will help in maximizing the returns. Finally, as per the present trend and the analysis it can be concluded that, in commodity market there is high possibility of getting good returns, therefore it can be suggested that the investors can invest in gold market without any hesitation.
VIII. REFERENCES


To Cite This Article