
A effectiveness of technical indicators - a study on cnx it indicesK.Prabhakaran¹ and S.Nagarajan²¹*Assistant Professor, RVS Faculty of Management, Coimbatore, Tamilnadu, India.*²*Assistant Professor, Maharaja Prithvi Engineering College, Coimbatore, Tamilnadu, India.*

ABSTRACT: There are numerous technical tools available to predict future trend of index prices. All tools may not be effective for all the companies and at all times. The purpose of this study is to find out the effectiveness of technical tools in predicting the index price movement. The research is based on secondary data collected from various websites. The data is collected for two different time periods representing the bullish and bearish seasons. The technical indicators taken for the study are Relative Strength Index (RSI), Money Flow Index (MFI) and On Balance Volume (OBV). From the study it is found that Relative Strength Index, Money Flow Index and On Bonus Volume are effective in predicting the index movement CNX IT during the Bullish period and during the Bearish period, Stochastic Oscillator is deemed effective.

Key words: Technical Analysis, MFI, RSI, OBV

INTRODUCTION

Technical analysis is a method of evaluating securities by analyzing statistics generated by market activity, past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value; instead they look at stock charts for patterns and indicators that will determine a stock's future performance. Technical analysis has become increasingly popular over the past several years, as more and more people believe that the historical performance of a stock is a strong indication of future performance. The use of past performance should come as no surprise.

People using fundamental analysis have always looked at the past performance of companies by comparing fiscal data from previous quarters and years to determine future growth. The difference lies in the technical analyst's belief that securities move according to very predictable trends and patterns. These trends continue until something happens to change the trend, and until this change occurs, price levels are predictable.

There are many instances of investors successfully trading a security using only their knowledge of the security's chart, without even understanding what the company does. However, although technical analysis is a terrific tool, most agree it is much more effective when used in combination with fundamental analysis. The methods used to analyze and predict the performance of a company's stock fall into two broad categories: fundamental and technical analysis. Those who use technical analysis look for peaks, bottoms, trends, patterns and other factors affecting a stock's price movement and then make buy/sell decisions based on those factors. It is a technique many people attempt, but few are truly successful at it.

The world of technical analysis is huge today. There are literally hundreds of different patterns and indicators that investors claim to have success with. We have tried to keep this tutorial as short as possible. Our goal is to introduce you to the different types of stock charts and the various technical analysis tools available to investors.

Indian Stock Exchanges are a structured marketplace for the proper conduct of trading in company stocks and other securities. There are 24 Recognized Stock Exchanges in India, including the Over the Counter Exchange of India for providing trading access to small and new companies. The main services of the India Stock Exchanges all over the country are to provide nation-wide services to investors and to facilitate the issue and redemption of securities and other financial instruments.

HISTORY OF THE STOCK EXCHANGE

The working of Stock Exchanges in India started in 1875. BSE is the oldest stock market in India. The history of Indian stock trading starts with 318 persons taking membership in Native Share and Stock Brokers Association, which we now know by the name Bombay Stock Exchange or BSE in short. In 1965, BSE got permanent recognition from the Government of India.

INDEX PARAMETERS

The 30 stock Sensitive Index or SENSEX was first compiled in 1986. The SENSEX is compiled based on the performance of the stocks of 30 financially sound benchmark companies. The NIFTY is compiled based on the performance of the stock of 50 financially sound benchmark companies.

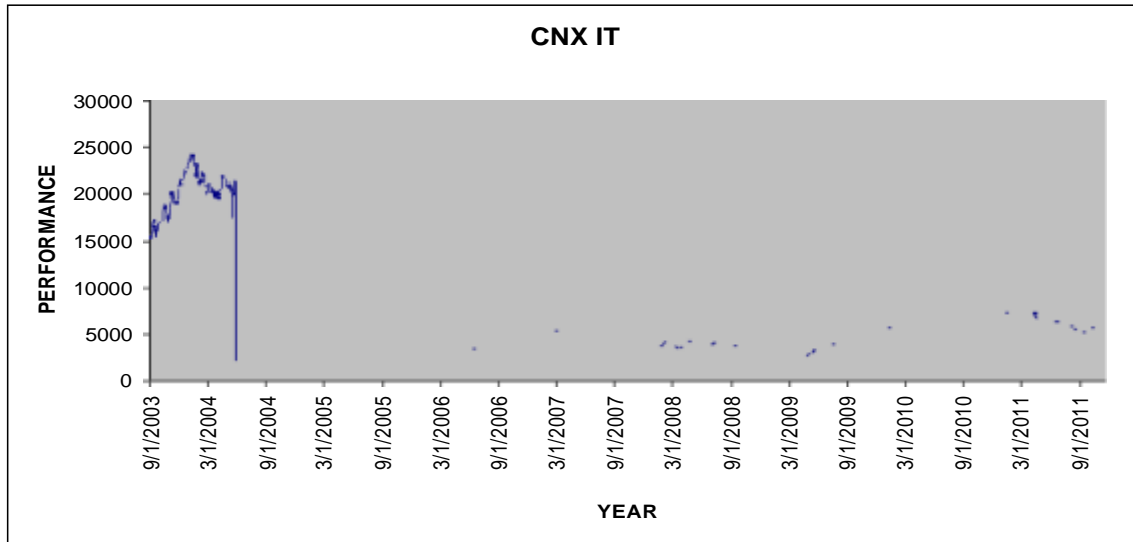
INTRODUCTION OF SEBI

To prevent frauds, the Government formed The Securities and Exchange Board of India, through an Act in 1992. SEBI is the statutory body that controls and regulates the functioning of stock exchanges, brokers, sub-brokers, portfolio manager's investment advisors etc. SEBI oblige several rigid measures to protect the interest of investors. Now with the inception of online trading and daily settlements the chances for a fraud is nil, says top officials of SEBI.

CNX IT INDEX

Information Technology (IT) industry has played a major role in the Indian Economy during the last few years. A number of large, profitable Indian companies today belong to the IT sector and a great deal of investment interest is now focused on the IT sector. In order to have a good benchmark of the Indian IT sector, IISL has developed the CNX IT sector index. CNX IT provides investors and market intermediaries with an appropriate benchmark that captures the performance of the IT segment of the market.

CHART NO - 1
PERFORMANCE OF CNX IT INDEX



STATEMENT OF THE PROBLEM

Several investors have gained as well as lost in the stock market. One way to determine the stock price is fundamental analysis, which in turn is composed of economy, industry and company. The other way is technical analysis, which says that the past trends will repeat in the future.

The question that arises here is how market index moving whether towards efficient or inefficient. So that losses and gains can be estimated with the movement of the market index.

REVIEW OF LITERATURE

Vinothini, (2007) this study is made to find out –Risk Perception and Portfolio Management of Equity Investors|. The study reveals that the investors in Erode are not aware of portfolio which would minimize risk and maximize the return. And also it is clear that the investors in erode have low level of understanding about risk and the importance of portfolio management as they are not aware of the portfolio management proper steps to be taken in order to improve the awareness level in the minds of the investors.

Venkataraman (2008) suggests that Price movements do not only depend wholly in Technical Analysis. Fundamental factors also affect the commodity market price. So, each and every investor should think about their selling and buying the product before the investment. Day to day prices changes in Government policies also affect the market prices. Political stability, war, depression / boom of the economic condition will affect the market. In India, commodity market growth have been increasing day by day awareness spread out throughout the country now ignorance of the commodity market slightly removed by the government policies.

Technical Indicators

Practitioners' reliance on technical analysis is well documented. Frankel and Froot (1990a) noted that market professionals tend to include technical analysis in forecasting the market. There is also a shift away from the fundamentals to technical analysis in the 1980s, according to a survey done by Euro money (see Frankel and Froot, 1990a). On a market level, the prevalence of technical analysis is demonstrated by the fact that most real time financial information services, like Reuters and Telerate, provide detailed, comprehensive and up-to-date technical analysis information. It is obvious that the frequent upgrading of technical analysis services is a response to the demand for technical analysis services and competition among the financial information service providers.

OBJECTIVES OF THE STUDY

- To gain knowledge of the equity market and the instruments being traded in Indian stock market.
- To analysis the index price movement of CNX IT.
- To find out this is a suitable level to entry and exit the trade in CNX IT indices.

SOURCES OF DATA

The data employed in the study consists of Monthly indices CNX IT for the period January 2007 to December 2011. The prices used are Monthly Open, High and Close prices. These data will be collected from National Stock Exchange website.

PERIOD OF THE STUDY

The period of data is from January 2007 To October 2011 - (For the past 05 Years).

TOOLS USED FOR THE ANALYSIS

The following tools were used to analyze the data

- 1) Relative Strength Index (RSI)
- 2) Money Flow Index (MFI)
- 3) On Balance Volume (OBV)

1) RELATIVE STRENGTH INDEX (RSI)

The RSI (Relative Strength Index) is one of the most popular momentum oscillators in Technical Analysis use today. It was introduced in a 1978 book by J. Welles Wilder. RSI helps to signal overbought and oversold conditions in a security. The indicator is plotted in a range between zero and 100. A reading above 70 is used to suggest that a security is overbought, while a reading below 30 is used to suggest that it is oversold. This indicator helps traders to identify whether a security's price has been unreasonably pushed to current levels and whether a reversal may be on the way.

The standard calculation for RSI uses 14 trading days as the basis, which can be adjusted to meet the needs of the user. If the trading period is adjusted to use fewer days, the RSI will be more volatile and will be used for shorter term trades.

FORMULA

$$\text{RSI} = \frac{100}{1 + \text{RS}}$$
$$\text{Average Gain} = \frac{\text{Total Gains}}{n}$$
$$\text{Average Loss} = \frac{\text{Total Loss}}{n}$$
$$\text{First RS} = \frac{\text{Average Gain}}{\text{Average Loss}}$$

(n=number of periods taken)

When the average gain is greater than the average loss, the RSI rises because RS will be greater than 1. Conversely, when the average loss is greater than average gain, the RSI declines because RS will be less than 1. Note: if the average loss ever becomes zero, RSI become 100 by definition.

OVER BOUGHT / OVER SOLD ZONES

Wilder recommended using 70 and 30 and overbought and over sold levels respectively. If the RSI rises above 70 it is considered bullish for the underlying stock. If the RSI falls below 30 it is a bearish signal. Basically, the RSI is a measure of the strength of a recent trend:

- RSI is considered strongly bullish if the 14-day RSI exceeds 70 this means the security has trended up strongly over the past 14 days. Some would consider the security to be overbought at these levels, and a potential selling point might thus be reached when the RSI exceeds 70;
- If the 14-day RSI is between 50 and 70, the security has moved up over the past 14 days; however, the uptrend has not been very pronounced;
- If the 14-day RSI is between 30 and 50, the security has moved down over the past 14 days; however, the downtrend has not been very strong;
- If the 14-day RSI is below 30, the security has trended strongly lower over the past 14 days and the RSI is considered strongly bearish. Some would consider the security to be oversold at these levels, and an RSI reading below 30 might thus mark a potential buying point.

2) MONEY FLOW INDEX (MFI)

Money flow index was discovered by Created by Gene Quong and Avrum Soudack. Money flow is positive when the typical price rises. This is due to buying pressure. A ratio of positive and negative money flow is then plugged into an RSI formula to create an oscillator that moves between zero and one hundred. As a momentum oscillator tied to volume the money flow index (MFI) is best suited to identify reversals and price extremes with a variety of signals.

FORMULA

$$\text{Money Flow Index} = 100 - \left(\frac{100}{1 + \text{Money Ratio}} \right)$$

3) ON BALANCE VOLUME (OBV)

On Balance Volume (OBV) measures buying and selling pressure as a cumulative indicator that adds volume on up days and subtracts volume on down days. OBV was developed by Joe Granville and introduced in his 1963 book, Granville's New Key to Stock Market Profits. It was one of the first indicators to measure positive and negative volume flow. Chartists can look for divergences between OBV and price to predict price movements or use OBV to confirm price trends.

FORMULA

If the closing price is above the prior close price then:

$$\text{Current OBV} = \text{Previous OBV} + \text{Current Volume}$$

If the closing price is below the prior close price then:

$$\text{Current OBV} = \text{Previous OBV} - \text{Current Volume}$$

If the closing prices equals the prior close price then:

$$\text{Current OBV} = \text{Previous OBV (no change)}$$

DATA ANALYSIS AND INTERPRETATION

TABLE NO-1
RELATIVE STRENGTH INDEX OF CNX IT INDEX

| Date | Open | High | Low | Close | MFI | RSI | OBV |
|-----------|---------|---------|---------|---------|-------------|-----------------|-------|
| 31-Jan-07 | 5597.5 | 5626.95 | 5517.95 | 5535 | 14 Days MFI | 14 Days RSI | 12055 |
| 28-Feb-07 | 5301.75 | 5347.75 | 5066.65 | 5129.6 | | | 33835 |
| 30-Mar-07 | 5195.3 | 5218.45 | 5155.7 | 5180.7 | | | 24665 |
| 30-Apr-07 | 5276.05 | 5429.55 | 5275.15 | 5418.4 | | | 37675 |
| 31-May-07 | 5193.85 | 5257 | 5193.85 | 5218.35 | | | 54534 |
| 29-Jun-07 | 5169.5 | 5203.1 | 5165.85 | 5192.3 | | | 40906 |
| 31-Jul-07 | 5083.85 | 5094.25 | 5015.45 | 5086.7 | | | 32063 |
| 31-Aug-07 | 4775.55 | 4820.1 | 4768.2 | 4813.2 | | | 23747 |
| 28-Sep-07 | 4790.65 | 4882.85 | 4769.45 | 4804.2 | | | 37254 |
| 31-Oct-07 | 4828.35 | 4833.25 | 4759.45 | 4793.65 | | | 58105 |
| 30-Nov-07 | 4303.3 | 4452.4 | 4303.3 | 4431.15 | | | 46013 |
| 31-Dec-07 | 4833.1 | 4860.95 | 4778.95 | 4812.6 | | | 37263 |
| 31-Jan-08 | 3850.45 | 3914.9 | 3776.75 | 3838.15 | | | 57679 |
| 29-Feb-08 | 4055.25 | 4060.4 | 3932.65 | 3984.5 | | | 50163 |
| 31-Mar-08 | 3808.65 | 3855.3 | 3650.8 | 3704.95 | 47.76814 | 97.84366 | 63073 |
| 30-Apr-08 | 4330.35 | 4414.45 | 4284.5 | 4357.65 | 48.49776 | 95.52681 | 86057 |
| 30-May-08 | 4592.4 | 4704.35 | 4543.15 | 4688.35 | 54.32169 | 94.72053 | 68735 |
| 30-Jun-08 | 4016.75 | 4067.15 | 3977.75 | 3999.4 | 47.26411 | 96.44708 | 56640 |
| 31-Jul-08 | 3819.25 | 3819.25 | 3732.45 | 3752.85 | 48.20649 | 96.50064 | 76224 |
| 29-Aug-08 | 3827 | 3931.6 | 3827 | 3926.8 | 46.8955 | 96.08052 | 64590 |
| 30-Sep-08 | 2974.5 | 3192.25 | 2902.1 | 3107.05 | 52.68257 | 96.82001 | 86260 |
| 31-Oct-08 | 2585.7 | 2802.25 | 2585.7 | 2686.95 | 52.25253 | 96.93858 | 64613 |

| | | | | | | | |
|-----------|---------|---------|---------|---------|-----------------|-----------------|--------|
| 28-Nov-08 | 2322.2 | 2466.9 | 2322.2 | 2449.95 | 47.59206 | 97.10638 | 45507 |
| 31-Dec-08 | 2215.6 | 2222.65 | 2170 | 2187 | 54.31414 | 97.27191 | 108890 |
| 30-Jan-09 | 2187.35 | 2233.8 | 2167.8 | 2225.75 | 49.99398 | 96.96144 | 84857 |
| 27-Feb-09 | 2104.8 | 2105.6 | 2042.25 | 2094.1 | 49.47044 | 97.69322 | 67125 |
| 31-Mar-09 | 2296 | 2335.6 | 2280.25 | 2318.7 | 47.02449 | 96.50041 | 88878 |
| 29-Apr-09 | 2650.2 | 2781.6 | 2650.2 | 2770.85 | 58.10048 | 95.84585 | 128481 |
| 29-May-09 | 3138.6 | 3217.55 | 3121.5 | 3206.2 | 57.32987 | 94.45218 | 91459 |
| 30-Jun-09 | 3515.05 | 3552.05 | 3480.5 | 3497.65 | 48.73239 | 95.27946 | 66224 |
| 31-Jul-09 | 4334.7 | 4374.55 | 4284.25 | 4330.05 | 63.645 | 94.1344 | 121581 |
| 31-Aug-09 | 4644.05 | 4649.95 | 4602.75 | 4618.35 | 59.40369 | 91.54974 | 85655 |
| 30-Sep-09 | 5043.9 | 5141.55 | 5043.9 | 5122.1 | 58.66704 | 88.99256 | 50338 |
| 30-Oct-09 | 5112.25 | 5192.3 | 4978.15 | 5048.8 | 63.97176 | 89.87646 | 93710 |
| 30-Nov-09 | 5315.8 | 5397.5 | 5309.6 | 5364.2 | 51.68352 | 82.32216 | 76696 |
| 31-Dec-09 | 5797.15 | 5843.2 | 5797.15 | 5818.4 | 53.90732 | 72.00756 | 96786 |
| 29-Jan-10 | 5554.85 | 5619.45 | 5423.45 | 5594.15 | 56.41774 | 71.63816 | 122825 |
| 26-Feb-10 | 5787.3 | 5832 | 5724.8 | 5766.7 | 48.49711 | 59.98183 | 102392 |
| 31-Mar-10 | 5947.6 | 5967.55 | 5842.3 | 5855.95 | 53.31748 | 59.68098 | 86208 |
| 30-Apr-10 | 5947.85 | 6021.75 | 5914.7 | 5985.8 | 55.03691 | 49.85907 | 102913 |
| 31-May-10 | 5852.35 | 5852.35 | 5704.2 | 5761.95 | 54.48987 | 64.80325 | 121220 |
| 30-Jun-10 | 5877.8 | 5949.6 | 5837 | 5928.3 | 47.31266 | 66.49026 | 108234 |
| 30-Jul-10 | 6139.25 | 6144.25 | 6045.6 | 6086.85 | 45.69129 | 68.21004 | 97216 |
| 31-Aug-10 | 5936.5 | 5987.8 | 5908.7 | 5974.9 | 47.62237 | 74.02964 | 86851 |
| 30-Sep-10 | 6583.75 | 6645.55 | 6532.15 | 6613.4 | 39.53223 | 75.2478 | 107673 |
| 29-Oct-10 | 6666.45 | 6666.45 | 6554.4 | 6613.25 | 39.41648 | 77.13918 | 98630 |
| 30-Nov-10 | 6645 | 6745.65 | 6602.95 | 6703.6 | 48.00793 | 80.01624 | 122187 |
| 31-Dec-10 | 7484.8 | 7511.05 | 7436.15 | 7491.1 | 39.93218 | 72.3152 | 108568 |
| 31-Jan-11 | 6990.75 | 6995.1 | 6884.9 | 6971.25 | 50.53283 | 84.91054 | 122392 |
| 28-Feb-11 | 6688.55 | 6918.7 | 6628.05 | 6666.3 | 49.56581 | 89.67345 | 139159 |
| 31-Mar-11 | 7021.45 | 7192.35 | 7021.45 | 7148.1 | 49.99468 | 85.68589 | 159432 |
| 29-Apr-11 | 6722.8 | 6752.1 | 6680.65 | 6718.35 | 47.01354 | 89.75318 | 146204 |
| 31-May-11 | 6533.45 | 6604.4 | 6525.1 | 6538.5 | 48.71936 | 90.9945 | 133507 |
| 30-Jun-11 | 6579.05 | 6640.5 | 6558.95 | 6624.7 | 59.04396 | 91.14056 | 164744 |
| 29-Jul-11 | 6293.65 | 6356.5 | 6264.75 | 6335.1 | 53.73563 | 91.43062 | 140491 |
| 30-Aug-11 | 5407.65 | 5474.85 | 5325.45 | 5451.25 | 51.76985 | 94.43756 | 122017 |
| 30-Sep-11 | 5709 | 5771.3 | 5658.75 | 5678.9 | 51.99527 | 94.276 | 105643 |
| 31-Oct-11 | 6271.2 | 6333.85 | 6261.25 | 6278.7 | 51.94205 | 92.61411 | 91761 |
| 30-Nov-11 | 5814.9 | 5924.15 | 5803.45 | 5893.25 | 51.13757 | 94.85465 | 117658 |
| 30-Dec-11 | 6126.55 | 6171.55 | 6115.85 | 6139 | 50.13163 | 94.32969 | 107221 |

Note: Bolded items in the table indicate Over Bought Zones of RSI and MFI.

CHART NO -2
RELATIVE STRENGTH INDEX OF CNX IT INDEX

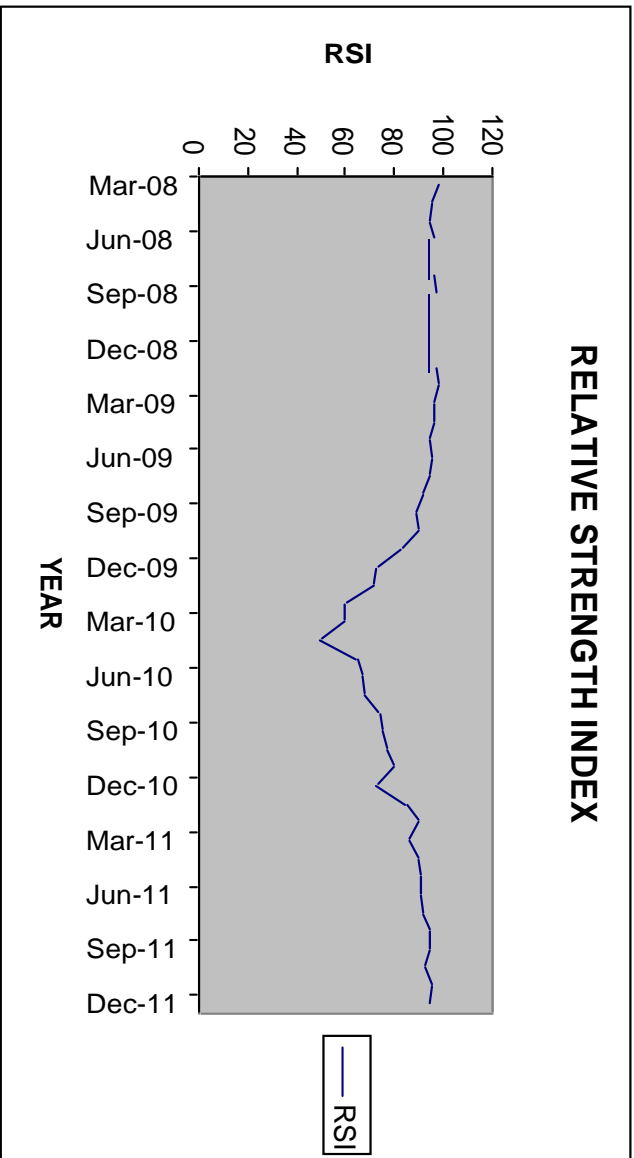


CHART NO -3
MONEY FLOW INDEX OF CNX IT INDEX

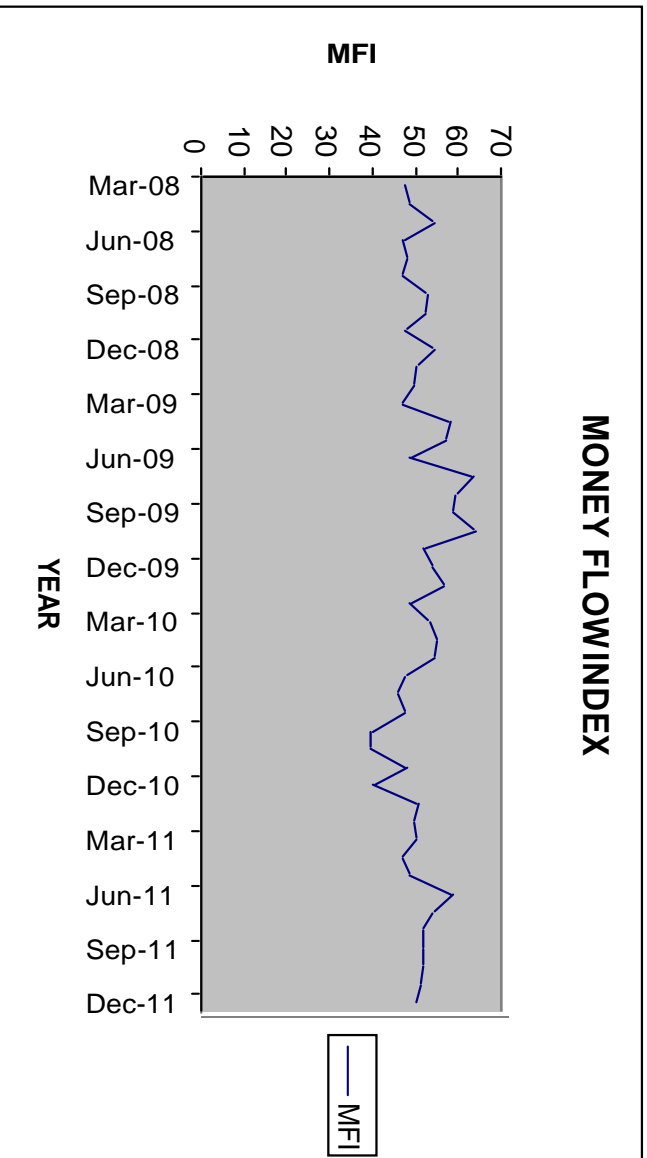
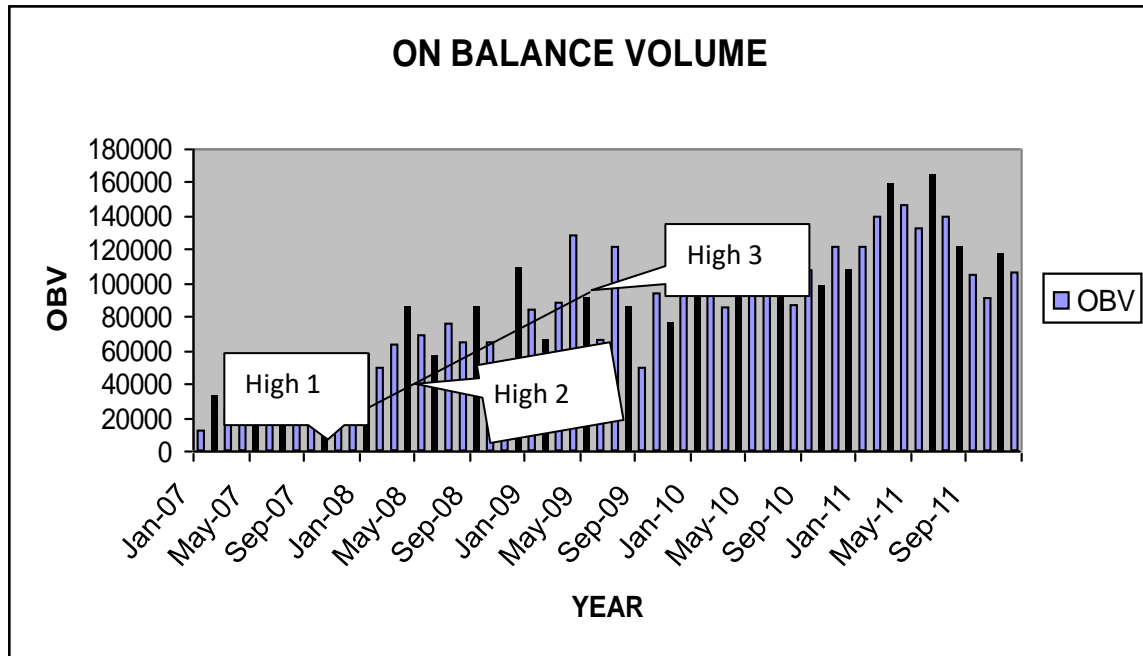


CHART NO – 4
ON BALANCE VOLUME OF CNX IT INDEX



INTERPRETATION

RSI is considered strongly bullish in this study because it exceeds 70 mark levels in maximum cases. This means the security has trended up strongly over the past 14 days. RSI is between 50 and 70 indicates that the security has not been hold uptrend. MFI is considered that the security moves with normal ups and downs in 14 days MFI because the researcher could not able to find overbought zones and oversold zones too. A rising OBV reflects positive volume pressure that can lead to higher prices. That can be explain through high 1, high 2 (higher high), high 3 (higher high) and More buying pressure will increase the volume that will automatically leads to increase the OBV. This is also applicable for lower lows.

FINDINGS

- RSI shown maximum bullish in this research due to buying pressure.
- RSI is below 30, the security has trended strongly lower over the past 14 days and the RSI is considered strongly bearish. But in this research the researcher could not able to find oversold zones.
- MFI is clearly shown that there is normal buying pressures because the research could not able to find overbought zones.
- The higher highs depicted bullish signals. OBI is also holding more highs and higher highs.

- This bearish difference warned stock traders that the recent price increases were lacking strong commitment by buyers.

CONCLUSION

This study concentrated on tools such as RSI, MFI, and OBV used to find the bullish and bearish signals. This study is to focus the forecasting of future price movements based on an examination of past price movements. Based on the finding from this study, the researcher would say that CNX IT indices having more bullish signals compare with bearish signals. The Investors having an option to do trading in CNX IT and It would provide opportunities to test bullish growth. But Technical Analysis does not give absolute predictions about the future. Instead it can be used as an anticipatory tool.

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