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ABSTRACT

Technical analysis is one among the most popular tools of analysis for investing and trading in the stock market, currency exchange and commodity markets across the world.Originally developed around 1700, technical analysis as a subject got its strong foundation thanks to Charles Dow in the late 1800's, which lead to the creation of DIJA-Dow Jones Industrial Average in the US markets- a standard precursor to know about the economy.

Nifty by NSE comprising of 51 stocks from various background is the most tracked ticker symbol in the world. Nifty by itself has become a popular too to know the strength of the economy of our country.Being most liquid symbol and the impact cost less than 0.04%, Nifty is the third most liquid and most popular among the investors and traders.

Applying the knowledge of the Technical analysis and its tools for a certain period and comparing the returns on the Nifty futures is good combination- a combination of risky and most accessible asset.

Key words: Technical analysis,Nifty,Futures

CHAPTER I - INTRODUCTION

There are two different stock-picking methodologies used for researching and forecasting the future growth trends of stocks. Like any investment strategy or philosophy, both have their advocates and adversaries. Here are the defining principles of each of these methods of stock analysis:

- Fundamental analysis is a method of evaluating securities by attempting to measure the intrinsic value of a stock. Fundamental analysts study everything from the overall economy and industry conditions to the financial condition and management of companies.
- Technical analysis is the evaluation of securities by means of studying statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value but instead use stock charts to identify patterns and trends that may suggest what a stock will do in the future.

In the world of stock analysis, fundamental and technical analysis are on completely opposite sides of the spectrum. Earnings, expenses, assets and liabilities are all important characteristics to fundamental analysts, whereas technical analysts could not care less about these numbers.

Technical analysis is a method of evaluating securities by analyzing the statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity.

The study of the relationships among the security market variables such as price levels,trading volumes, and price movements so as to gain insights into the supply and demand for securities. Rather than concentrating on earnings, the economic outlook, and other business-related factors that influence a security's value, technical analysis attempts to determine the market forces at work on a certain security or on the securities market as a whole.Technical analysis believes that the historical performance of stocks and markets are indications of future performance.

The Nifty 50 is the flagship index on the National Stock Exchange of India Ltd. (NSE). The Index tracks the behavior of a portfolio of blue chip companies, the largest and most liquid Indian securities. It includes 50 of the approximately 1600 companies listed on the NSE, captures approximately 65% of its float-adjusted market capitalization and is a true reflection of the Indian stock market. The Nifty 50 covers major sectors of the Indian economy and offers investment managers exposure to the Indian market in one efficient portfolio. The Index has been trading since April 1996 and is well suited for benchmarking, index funds and index-based derivatives. The Nifty 50 is owned and managed by India Index Services and Products Ltd. (IISL). IISL is India’s first specialized company focused on an index as a core product.

The Nifty 50 is a 51 stock, float-adjusted market-capitalization weighted index for India. It is used for a variety of purposes, such as benchmarking fund portfolios, index based derivatives and index funds.

1.1 Fundamental Analysis

Fundamental analysis is a method of evaluating a security in an attempt to measure its intrinsic value, by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysts study anything that can affect the security's value, including macroeconomic factors such as the overall economy and industry conditions, and microeconomic factors such as financial conditions and company management. The end goal of fundamental analysis is to produce a quantitative value that an investor can compare with a security's current price, thus indicating whether the security is undervalued or overvalued.

Fundamental analysis determines the health and performance of an underlying company by looking at key numbers and economic indicators. The purpose is to identify fundamentally strong companies or industries and fundamentally weak companies or industries. Investors go long on the companies that are strong, and short the companies that are weak.

Fundamental analysis uses real, public data in the evaluation a security's value.Equity instruments, this method uses revenues, earnings, future growth, return on equity, profit margins and other data to determine a company's underlying value and potential for future growth. In terms of stocks, fundamental analysis focuses on the financial statements of the company being evaluated.

Macroeconomic fundamentals include topics that affect an economy at large. This can include statistics regarding unemployment, supply and demand, growth, and inflation, as well as considerations for monetary or fiscal policy and international trade. These categories can be applied to analysis of a large-scale economy as a whole or can be related to individual business activity to make changes based on macroeconomic influences.

Microeconomic fundamentals focus on the activities within smaller segments of the economy, such as a particular market or sector. This can include issues of supply and demand within the specified segment, as well as the theory of firms, theory of consumers and labor issues as related to a particular industry.

The most successful investor who abides with the fundamental analysis, and made billions of dollars in the coming years is the “Oracle of Omaha”- Warren Buffett.

1.2 Technical Analysis

The field of technical analysis is based on three assumptions:

1. The market discounts everything.
2. Price moves in trends.
3. History tends to repeat itself.

1. The Market Discounts Everything

Technical analysis assumes that, at any given time, a stock's price reflects everything that has or could affect the company - including fundamental factors. Technical analysts believe that the company's fundamentals, along with broader economic factors and market psychology, are all priced into the stock, removing the need to actually consider these factors separately. This only leaves the analysis of price movement, which technical theory views as a product of the supply and demand for a particular stock in the market.

Fig:Market discounts everything and charts incorporates all news

2. Price Moves in Trends

In technical analysis, price movements are believed to follow trends. This means that after a trend has been established, the future price movement is more likely to be in the same direction as the trend than to be against it. Most technical trading strategies are based on this assumption.

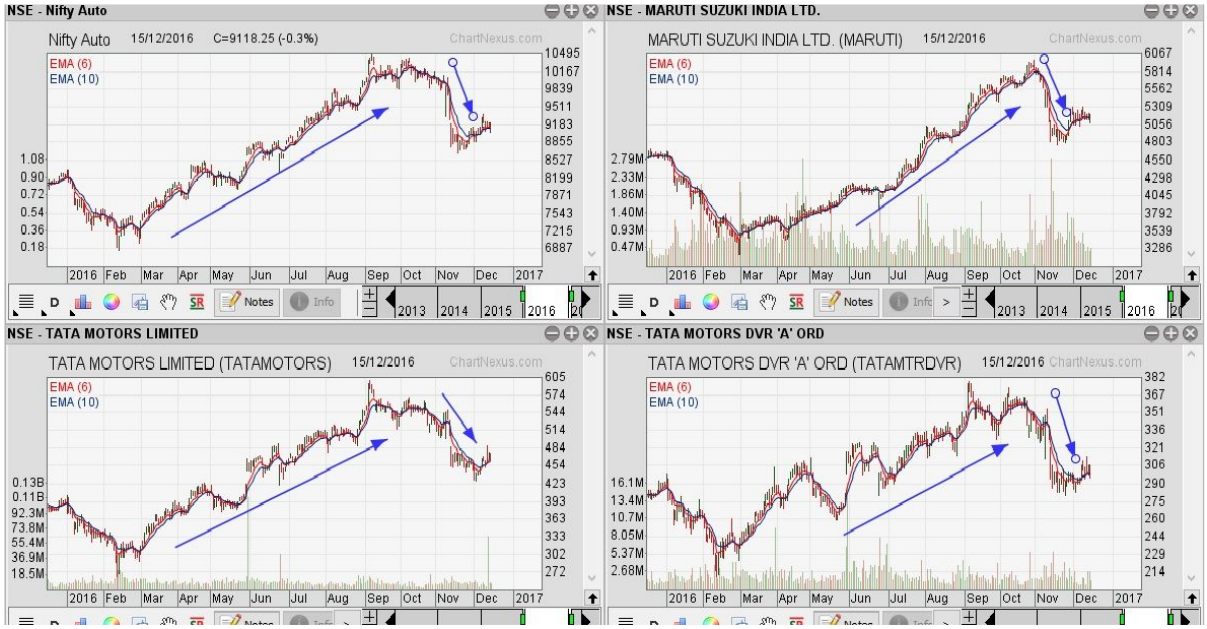

Fig:A comparison of Nifty auto with Maruti Suzuki,Tata Motors, Tata Motors DVR

3. History Tends To Repeat Itself

Another important idea in technical analysis is that history tends to repeat itself, mainly in terms of price movement. The repetitive nature of price movements is attributed to market psychology; in other words, market participants tend to provide a consistent reaction to similar market stimuli over time. Technical analysis uses chart patterns to analyze market movements and understand trends. Although many of these charts have been used for more than 100 years, they are still believed to be relevant because they illustrate patterns in price movements that often repeat themselves.

These are drawn from the basic assumptions of the original theory formatted by Charles Dow, as stated below

1. *The market discounts everything.*
2. *There are three kinds of market trends*
   - *a)primary trend*
   - *b)secondary trend*
   - *c)minor trend*
3. *Primary trends have three phases. A primary trend will pass through three phases, according to the Dow theory. In a bull market, these are the accumulation phase, the public participation (or big move) phase and the excess phase. In a bear market, they are called the distribution phase, the public participation phase and the panic (or despair) phase.*
4. *Indices must confirm each other.*
5. *Volume must confirm the trend.*
6. *Trends persist until a clear reversal occurs.*

1.3 Nifty50

The Nifty 50 is the flagship index on the National Stock Exchange of India Ltd. (NSE). The Index tracks the behavior of a portfolio of blue chip companies, the largest and most liquid Indian securities. It includes 50 of the approximately 1600 companies listed on the NSE, captures approximately 65% of its float-adjusted market capitalization and is a true reflection of the Indian stock market. The Nifty 50 covers major sectors of the Indian economy and offers investment managers exposure to the Indian market in one efficient portfolio. The Index has been trading since April 1996 and is well suited for benchmarking, index funds and index-based derivatives. The Nifty 50 is owned and managed by India Index Services and Products Ltd. (IISL). IISL is India's first specialized company focused on an index as a core product.

Market impact cost is the best measure of the liquidity of a stock. It accurately reflects the costs faced when actually trading an index. For a stock to qualify for inclusion in the Nifty 50, it has to reliably have market impact cost below 0.50 %, when doing Nifty 50 trades of Rupees (Rs) 2 crores.

The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with index futures on June 12, 2000. The futures contracts on the NSE are based on the Nifty 50. The exchange introduced trading on index options based on the Nifty 50 on June 4, 2001. Additionally, exchange traded derivatives contracts linked to Nifty 50 are traded at Singapore Exchange Ltd. (SGX), Chicago Mercantile Exchange Inc. (CME) and Osaka Exchange Inc. (OSE).

Portfolio Characteristics

Methodology	Free Float Market Capitalization
No. of Constituents	51
Launch Date	April 22, 1996
Base Date	November 03, 1995
Base Value	1000
Calculation Frequency	Real-Time Daily
Index Rebalancing	Semi-Annually

Sector Representation

Sector	Weight(%)
FINANCIAL SERVICES	31.54
IT	13.92
ENERGY	12.06
AUTOMOBILE	11.68
CONSUMER GOODS	9.95
PHARMA	6.65
CONSTRUCTION	3.75
CEMENT & CEMENT PRODUCTS	3.12
METALS	2.95
TELECOM	2.39
MEDIA & ENTERTAINMENT	0.82
SERVICES	0.78
INDUSTRIAL MANUFACTURING	0.39

Top constituents by weightage

Company's Name	Weight(%)
HDFC Bank Ltd.	7.98
Housing Development Finance Corporation	6.61
I T C Ltd.	6.51
Infosys Ltd.	6.44
Reliance Industries Ltd.	5.41
ICICI Bank Ltd.	5.10
Tata Consultancy Services Ltd.	4.00
Larsen & Toubro Ltd.	3.75
Kotak Mahindra Bank Ltd.	2.98
Tata Motors Ltd.	2.93

Statistics

	QTD	YTD	1 Year	5 Years	Since Inception
Returns (%) #	-4.49	3.50	3.65	11.22	10.51

	1 Year	5 Years	Since Inception
Std. Deviation *	15.05	15.77	24.75
Beta (Nifty 50)	1.00	1.00	1.00
Correlation (Nifty 50)	1.00	1.00	1.00

Fundamentals

P/E	P/B	Dividend Yield
21.61	3.12	1.34

CHAPTER II - LITERATURE REVIEW

Ashutosh Vashishtha- in "*Development of Financial Derivatives Market in India- A Case Study"* says that risk is a characteristic feature of most commodity and capital markets. Variations in the prices of agricultural and non-agricultural commodities are induced, over time, by demand-supply dynamics. The last two decades have witnessed many-fold increase in the volume of international trade and business due to the wave of globalization and liberalization sweeping across the world. This has led to rapid and unpredictable variations in financial assets prices, interest rates and exchange rates, and subsequently, to exposing the corporate world to an unwieldy financial risk. In the present highly uncertain business scenario, the importance of risk management is much greater than ever before. The emergence of derivatives market is an ingenious feat of financial engineering that provides an effective and less costly solution to the problem of risk that is embedded in the price unpredictability of the underlying asset. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. Since its inception in June 2000, derivatives market has exhibited exponential growth both in terms of volume and number of traded contracts.

The market turnover has grown from Rs.2365 crore in 2000-2001 to Rs. 11010482.20 crore in 2008-2009. Within a short span of eight years, derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts. The present study encompasses in its scope an analysis of historical roots of derivative trading, types of derivative products, regulation and policy developments, trend and growth, future prospects and challenges of derivative market in India. Some space is devoted also to a brief discussion of the status of global derivatives markets vis-a–vis the Indian derivative market.

Innovation of derivatives have redefined and revolutionised the landscape of financial industry across the world and derivatives have earned a well deserved and extremely significant place among all the financial products. Derivatives are risk management tool that help in effective management of risk by various stakeholders. Derivatives provide an opportunity to transfer risk, from the one who wish to avoid it; to one, who wish to accept it. India's experience with the launch of equity derivatives market has been extremely encouraging and successful. The derivatives turnover on the NSE has surpassed the equity market turnover. Significantly, its growth in the recent years has surpassed the growth of its counterpart globally. The turnover of derivatives on the NSE increased from Rs. 23,654 million (US $ 207 million) 2000-01 to Rs. 130,904,779 million (US $ 3,275,076 million) in 2007-08. India is one of the most successful developing countries in terms of a vibrant market for exchange-traded derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous safe and secure electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery. Factors like increased volatility in financial asset prices; growing integration of national financial markets with international markets; development of more sophisticated risk management tools; wider choices of risk management strategies to economic agents and innovations in financial engineering, have been driving the growth of financial derivatives worldwide and have also fuelled the growth of derivatives here, in India.

In the paper “Foreign Fund Flows and Stock Returns: Evidence from India “ by Viral V. Acharya, and Kiran Kumar of NISM,comparison of FII participation in Indian markets is studied.

Foreign fund flows in and out of Indian stock markets are now a sizeable portion of the market activity. Cumulative net investment flows from foreign institutional investors (FIIs) have exceeded USD 100 billion in the last decade, and FII order flow accounts for a significant portion of the daily turnover in Indian exchanges. For instance, the number of FIIs registered with the Securities and Exchange Board of India (SEBI) increased from 882 in March 2006 to 1757 in March 2013, and FIIs, on average, accounted for 20.6 percent of the total turnover traded at the National Stock Exchange of India (NSE) in 2012-13. 3

While FII participation in Indian equity markets has been steadily increasing over the last decade, there is a widespread perception that foreign fund flows may be creating substantial volatility in markets, especially during times of stress, a concern that extends more generally to emerging markets given the illiquidity of their equity markets (relative to those of developed markets) for absorbing sudden inflows and outflows of foreign funds. During the global financial crisis (2008-09), FII inflows turned negative (net outflows of approx. USD 10 billion) consistent with the overall flight to quality. The volatility of the NIFTY, an index measuring the broad stock market performance in India, is also, much higher during this period in comparison to other years, lending casual support for the hypothesis that FII flows may have induced volatility in emerging markets.

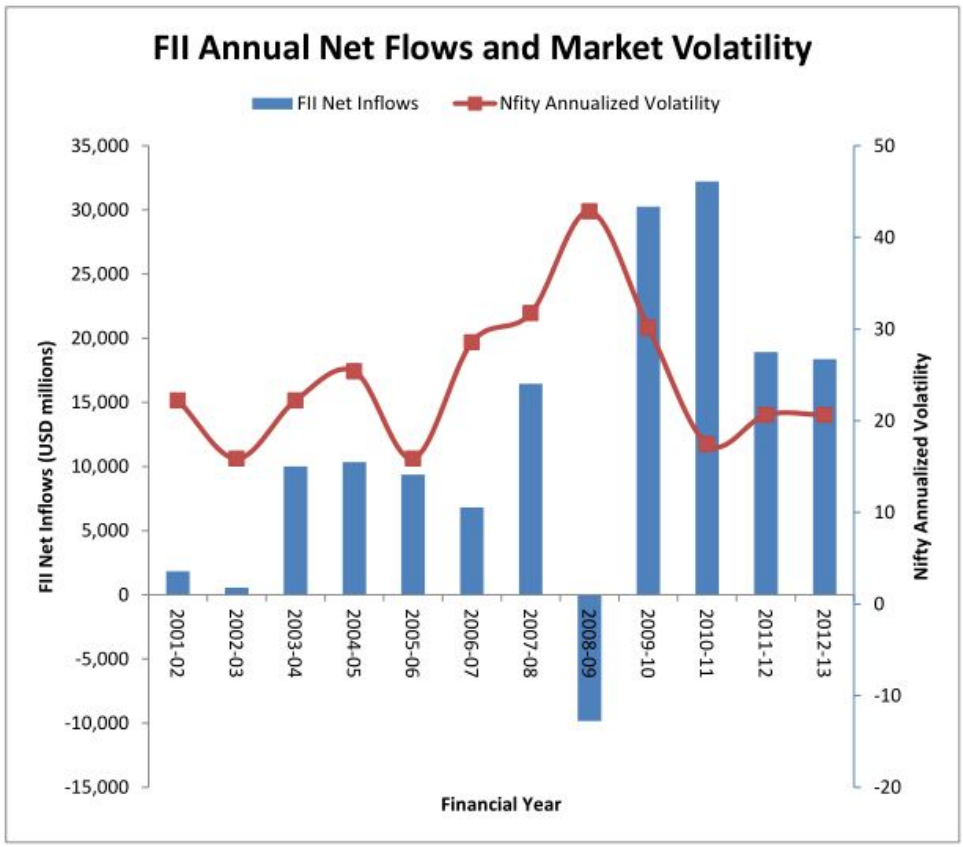

Fig:FII participation in India

CHAPTER III - RESEARCH DESIGN

3.1 Objectives

1. Applying the technical analysis and technical tools on the Nifty50 index.
2. Trading all the three future contract in accordance with the Buy/Sell signal given by the analysis
3. Taking a notional amount of only 100000 x 3 and applying it across the three contracts
4. Remove the profit from the system so that only 100000 x 3 is exercised.

3.2 Scope

The focus of the present study is on the returns one can generate from the application of technical analysis and encouraging the Indian public thereby increasing the domestic participation.Also to promote stock markets among Indians as an active source of passive income.

3.3 Methodology and Data source

1. The study is based on the secondary data
2. Data is collected from capital line database, NSE website to get the latest closing price as well as the data related to contract expiry

3.4 Tools of technical analysis used

Tools of technical analysis used

1. EMA-Exponential Moving Average
2. MACD-Moving Average Convergence Divergence
3. William%R
4. ADX

Charts:

"What are Chart formations? Chart formations identified and analyzed by the authors are graphic representations of unchanging human behavior in complex multivariate situations. They are the depiction of multifarious human actions bearing on a single variable (price). On converge a galaxy of influences: fear, greed, desire, cunning, malice, deceit, naiveté, earnings estimates, broker need for income,professional money managers' need for performance and job security, supply and demand of stocks, monetary liquidity and money flow, self- destructiveness, passivity, trap setting, manipulation, blind arrogance, conspiracy and fraud and double dealing, phases of the moon and sun spots, economic cycles and beliefs about them, public mood, and the indomitable human need to be right."

-Edward and Magee

Technical Analysis of Stock Trend

Charts represent the action carried out in a stock market during a period of time.The period of time varies from 2 min, 5 min, 10 min, 30 min, 1 hour, 1 day, 1 week, 1 month, 1 quarter and yearly charts depending on the style of investors and their investing.

A daily trader who is a speculator will use a shorter time segments to trade where as the position trader will use daily and weekly charts to seek out opportunities to book profits. A long term investor will look at monthly and yearly charts to make a investment for a long term. Surprisingly technical analysis can work for all the style of investors regardless of their investing style.

The charts contain the OHLC- Open,High,Low and Close data of a period ascertained by the investors and the volume is also accompanied by it, which closely shows the amount of bull and bear that ruled for that period.

Fig:OHLC data in bar chart

Fig:OHLC data in a Japanese candlestick chart

Exponential Moving Average:

The exponential moving average (EMA) is a weighted moving average (WMA) that gives more weighting, or importance, to recent price data than the simple moving average (SMA) does. The EMA responds more quickly to recent price changes than the SMA. The formula for calculating the EMA just involves using a multiplier and starting with the SMA.

$$EMA(current) = ((clo\sin g\,\mathrm{Pr}ice(current) - EMA(previous)) \cdot Multiplier) + EMA(previous)$$

$$Multiplier = \frac{2}{(1+N)}, where\ N = number\ of\ observations$$

The report takes the calculation EMA 6 days and EMA 10 days, and with the comparison of both the buy and sell decision is taken, ie; whenever the crossover of EMA 6 and EMA 10 happens the decision the buy or sell is taken as shown in the figure below.

Fig:EMA and the Cross over signals

Moving Average Convergence and Divergence:

Moving-Average Convergence Divergence (MACD) was developed by Gerald Appel in the 1960s. Since it is constructed from Moving Average (MA), it inherits the trend-following property of MA. Consequently MACD works best in trending markets and performs poorly during sideways trading. MACD gets its name from the fact that the shorter Moving Average is continually converging toward and diverging from the longer term-one. Like Moving Average, MACD is a trend-following indicator that simply tell you what the prices are doing (i.e. rising or falling) so that you can invest accordingly. Trend indicators have you buy and sell late and, in exchange for missing the early opportunities, they greatly reduce your risk by keeping you on the right side of the market.

MACD is an oscillator constructed from the division of one MA by another. The two MAs are usually calculated on an exponential basis in which the more recent periods are more heavily weighted than in the case of a simple MA.

A typical combination used is the 26-period exponential MA with the 12-period exponential MA. The MACD line is calculated by subtracting the longer period moving average from the shorter period moving average. This creates a momentum oscillator whose values oscillate around the horizontal equilibrium line (zero-line) which represents the points at which the two MAs are having the same value.The default time span used for daily charts (26/12 with a 9-day signal line) appears to work better on monthly ones because it manages to retain the primary trend swings yet the signal line whipsaw crossovers are kept to a minimum .When the indicator moves through this line, it means that the shorter-term MA is crossing the longer-term MA. Plots below the horizontal line indicate when the shorter-term MA is below the longer-term MA and vice versa.

Fig:MACD plot and the relative Buy/Sell signal

In the above chart,during August 2016 EMA 6 crossed above EMA10 giving a buy signal.On the lower end of the chart where the MACD is plotted MACD(26,12) line crosses over the Signal line giving an indication to buy.Further on November 2016 MACD(26,12) line crossed below the Signal line giving the indication that downtrend may continue which can be confirmed by the price action of EMA 6 and EMA 10.

ADX :

The Average Directional Index (ADX), Minus Directional Indicator (-DI) and Plus Directional Indicator (+DI) represent a group of directional movement indicators that form a trading system developed by Welles Wilder. The Average Directional Index (ADX) measures trend strength without regard to trend direction. The other two indicators, Plus Directional Indicator (+DI) and Minus Directional Indicator (-DI), complement ADX by defining trend direction. Used together, chartists can determine both the *direction* and *strength* of the trend.

Directional movement is positive (plus) when the current high minus the prior high is greater than the prior low minus the current low. This so-called Plus Directional Movement (+DM) then equals the current high minus the prior high, provided it is positive. A negative value would simply be entered as zero.Directional movement is negative (minus) when the prior low minus the current low is greater than the current high minus the prior high. This so-called Minus Directional Movement (-DM) equals the prior low minus the current low, provided it is positive. A negative value would simply be entered as zero.

ADX Value	Trend Strength
0-25	Absent or Weak Trend
25-50	Strong Trend
50-75	Very Strong Trend
75-100	Extremely Strong Trend

ADX only show the strength of the trend whether the movement is towards the rising of the prices or the movement is towards the price falling. The interpretation of the Buy and Sell signal should be taken in accordance with the movement of +DI and -DI line and the relative strength of the ADX line.

Fig: ADX and its relative buy/sell signal

In the above chart, during August 2016, while both the EMA and MACD gave the buy signal the +DI moved above(crossover) the -DI, and the ADX is showing a weak change. Similarly on October 10, -DI moved above +DI giving a indication to sell while both EMA and MACD showed signs which cannot be ascertained to trade in which direction.On Nov 1, the EMA and MACD signal confirmed that the downtrend is set confirming with the signal given by ADX much earlier. During the successive trading sessions -DI rose much above the +DI and the ADX line crossed 40 range showing the trend is strengthening.

William%R:

William%R: Developed by Larry Williams, Williams' %R is a momentum indicator that measures overbought/oversold levels.The formula used to calculate the William%R is as below

$$\frac{(highest\,Price\_forNperiods - latest\_closing\,Price)}{(highest\,Price\_forNperiods - lowest\,Price\_forNperiods)} \cdot (-100)$$

Williams' %R is plotted on an upside-down scale (the multiplier is -100 instead of 100).Williams' %R is calculated using 14 periods. However, the timeframe and number of periods may vary according to the desired sensitivity and the characteristics of the security.

The overbought and oversold regions are above -20 to 0 and below -80 to -100, respectively.It's not unusual for the William%R to remain the overbought or the oversold region for a long period of time, the longer the time it spends in the either region the more severe is the action in such region.

Fig: William%R and the oversold and overbought region

In the above charts on August 25 the William %R reversed its position from the oversold region to overbought region.On the corresponding note MACD and EMA changed much later than that of William%R signal.The William%R is shown to be in the overbought region for a long time during which the Nifty50 moved much higher. On November 1 the William%R is in the oversold region and when the other indicators gave the Sell signal William%R was already deep in the oversold region.

Fig:Plot of all the Technical tools and the relative buy and sell signal

From the above tools and the charts we can see that the each technical indicator has its strength and weakness. As a technical analyst/chartist one has to compare the signals given by all the compared indicators and only take a position to buy or sell when other indicators are confirming with them. When the indicators are rapidly changing in the trading range of the market it's better to wait and watch rather than to take in loss due to whipsaws.

Fig:Bull and Bear run from April 2015 to Oct 2016

The above charts shows the various bull and bear run in the time period considered in the project, ie from April 2015 to Oct 31.The arrow pointing upwards are the bull run and arrow pointing downwards are the bear runs. The Bull run is characterized by continuous higher highs and lower lows compared to the previous periods.The Bear run is characterized by the continuous lower lows and lower highs compared to the previous periods.

In the chart the 8000 level shows a major Resistance and Support line. As seen the chart is taking the support of 8000 level 3 times and turned as resistance for 5 times.As of the latest November data the Nifty found a lot of support at 8000 level and bounced higher to other price level.

Fig: The various Buy and Sell points

The above chart is showing the various buy and sell signal given buy the technical indicators. The downward arrow is taken to be sell point and the upward arrow is considered to be buy signal.

Fig:Pattern formations

M formation:

Characterized by the formation of double tops and as a whole it vaguely looks like a M. On the start of June 2015 the bearish rally ended from whereon the bullish rally took over.Over the next couple of days the Nifty index rose to higher highs. After forming a bull rally over 3 times as indicated by the chart below the fourth time it failed to penetrate higher high. The two times reaching the same level forms a double top or M formation. The M formation is accompanied by the increasing volume. When it failed to penetrate higher the subsequent rally turned from Bull to Bear.

Fig:M or Double top formation

W formation:

During the bearish rally from late December 2015 to early March 2016 the market tried to penetrate lower lows of twice.Due to the failure to penetrate the lower price of 6800, the power of bear rally comes to an end.During the subsequent rally the market changes its direction as charging bull and reaches higher highs in the subsequent rally.The accompanying volume confirms the validity of bull.

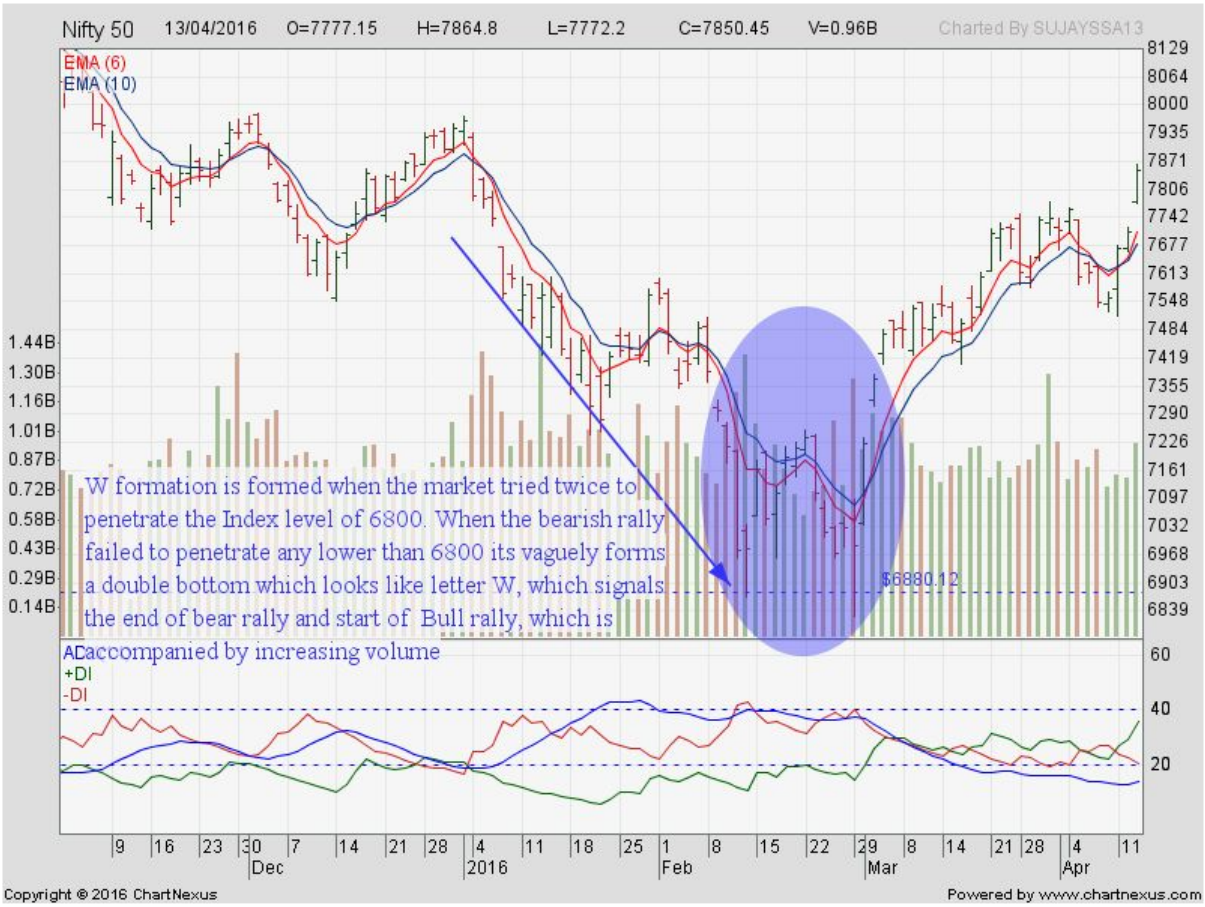

Fig: W or Double bottom formation

3.5 Hypothesis

Hypothesis 1:

Ho: There is no significant difference between the returns on buy and hold strategy and the returns when applying technical analysis on the Nifty futures trade on the near,mid and far month contract.

H1: There is a significant difference between the returns on buy and hold strategy and the returns when applying technical analysis on Nifty futures trade on the near,mid and far month contract.

3.6 Assumptions

In the Hypothesis proposed, we are going to ignore the fact contracts are going to expire, and the related rollover costs usually associated with the future contracts on expiry in the calculation. We are calculating the returns as we do the normal returns when holding a non expiring stock.

3.7 Testing the returns on Nifty Future contracts on the application of technical analysis

To check the return calculated on the net return a investor will get when investing Rs 100000/- on all the Near,Mid and Far month contract and repeatedly removing the profits whatever is generated in the process of trading.

CHAPTER IV - DATA ANALYSIS

1. Initial investment

As there are 3 active contracts in Nifty future index, each month contract shall be allocated with a notional amount of 100000 each. Whatever the profit is generated from the trade is systematically removed from the account keeping the amount to be invested/traded to be 100000 per contract only.

The normal margin required is kept at 50000, and thus the investor could buy 2 contracts of 75 lots for each month's trade. The trade will take the absolute risk of losing all the amount to be invested and there will be no measures to minimize the risk, no counter contracts nor calendar spreads.

2. Charges

PARTICULAR	CHARGES/AMOUNT
Brokerage	20/- for each side of transaction
STT	0.01 on Sell side
Transaction charge	0.0021
Service tax	0.15 on brokerage and transaction charge
Stamp(Karnataka)	50

Securities/Commodities transaction tax: Tax by the government when transacting on the exchanges. Charged as above on both buy and sell sides when trading equity delivery. Charged only on selling side when trading intraday or on F&O.

Transaction/Turnover Charges: Exchange transaction charges + Clearing charges. Charged by exchanges (NSE,BSE,MCX) and clearing member.

Service Tax (ST): Tax levied by the government on the services rendered. 15% of brokerage + transaction charges)

Buy and Hold Strategy returns

BUY				SELL				TOTAL
06-Apr-2015	8689.8	30-Apr-2015	150	30-Oct-2016	8629.2	24-Nov-2016	150	-9090
06-Apr-2015	8738.45	28-May-2015	150	30-Oct-2016	8681.65	29-Dec-2016	150	-8520
06-Apr-2015	8769.9	25-Jun-2015	150	30-Oct-2016	8723.95	25-Jan-2017	150	-6892.5
Net total								-24502.5

The buy and hold strategy, returned a total of **-24502.5/-** from the purchase date, a resulting loss.

The trading done through technical analysis returned a total of **2319150/-** on the investment of Rs300000/-.

The Near month,Mid month and Far month returns are 1124660,614025 and 670060 respectively. The returns are structured as follows

Near month>Mid month<Far month

Near month returns are greater because the no. of contracts expiring at the near month are more when there is a long bull and bear run.

Correspondingly the returns of the Far month is more than the Mid month which can be attributed to the fact that volume/liquidity is low in the Far month and there is a huge difference in the bid and ask price as compared with the Near and Mid month.

CHAPTER V - SUGGESTION

1. There are chances of getting the whipsaws even when there is a clear evidence that the trend in either of the ways is strong according to all the tools compared.
2. The conformation of a start and end of a trend should be carefully analysed with respect to all the technical tools available and then decide to trade or invest.
3. One should not force the trend on the charts, the market has its own way to go.
4. A caution to the investors not to overtrade nor force oneself to trade every days.
5. Trade only when there is a chance of trend strengthening.

CHAPTER VI -CONCLUSION

With a net investment of 3,00,000 lakhs into the derivative segment we made a profit of 23.19,150 in a period of 18 months which is a phenomenal return 773.05% return after taxes and brokerage on Nifty index alone.

The Nifty50 comprises of 51 stocks will also show a similar characteristic and the application of technical analysis on the the stocks derivatives segment will give a phenomenal return.

There should be an encouragement among Indians to participate in the Indian stock market and the stigma of considering the stock market as gambling should be removed from the minds of Indian public. The greater participation by the public will boost the prospects of India being a strong market and remain independent to the whipsaws of the global market and the sudden fluctuation in the stock market due to the participation the FII.

India is poised to become a leading strong economic superpower and the future of equity segment in India is going to grow phenomenally. The capital market in India should be promoted as an active source of passive income other than the regular income, thus leading on the way to financial independence.

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