

Summer Internship Project

With

Hardik Fintrade Pvt. Ltd.

Submitted by:

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I would like to take this opportunity to thank Institute of Management, Nirma University for giving me the opportunity to perform and present my Summer Internship report for partial fulfilment of my Masters of Business Administration Degree.

I convey my sincere gratitude to my Faculty Mentor, **Prof. Prabhat Yadav**, **Institute of Management, Nirma University.** This work would not have been possible without his support and guidance.

DECLARATION

I, the undersigned, hereby declare that this Project Report is written and submitted by me to Nirma University, Ahmedabad, in the partial fulfilment of the requirement for the award of degree of Masters of Business Administration under the guidance of Prof. Prabhat Yadav. This is my original work and the conclusions drawn therein are based on the material collected by me.

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EXECUTIVE SUMMARY

The purpose of this project is to analyse two stocks belonging to the Indian banking sector through technical analysis.

Indian Economy, one of the fastest growing economies in the world has companies which have made rapid progress. Many Indian companies are expanding their business globally through mergers and acquisitions. As the companies grow, their shareholders are benefitted with good dividends and capital appreciation on investment in equity shares of such companies. Numbers of companies which are listed on the stock exchange (BSE & NSE) have been increasing every year with new IPOs coming in. In India people are realizing that equity has the potential to give the highest returns when compared to any other asset classes however, majority of the people are not aware of the fundamentals and techniques of investments. They make decisions without the tips of an expert and just invest in shares based on their instinct or advices given by friends and family members.

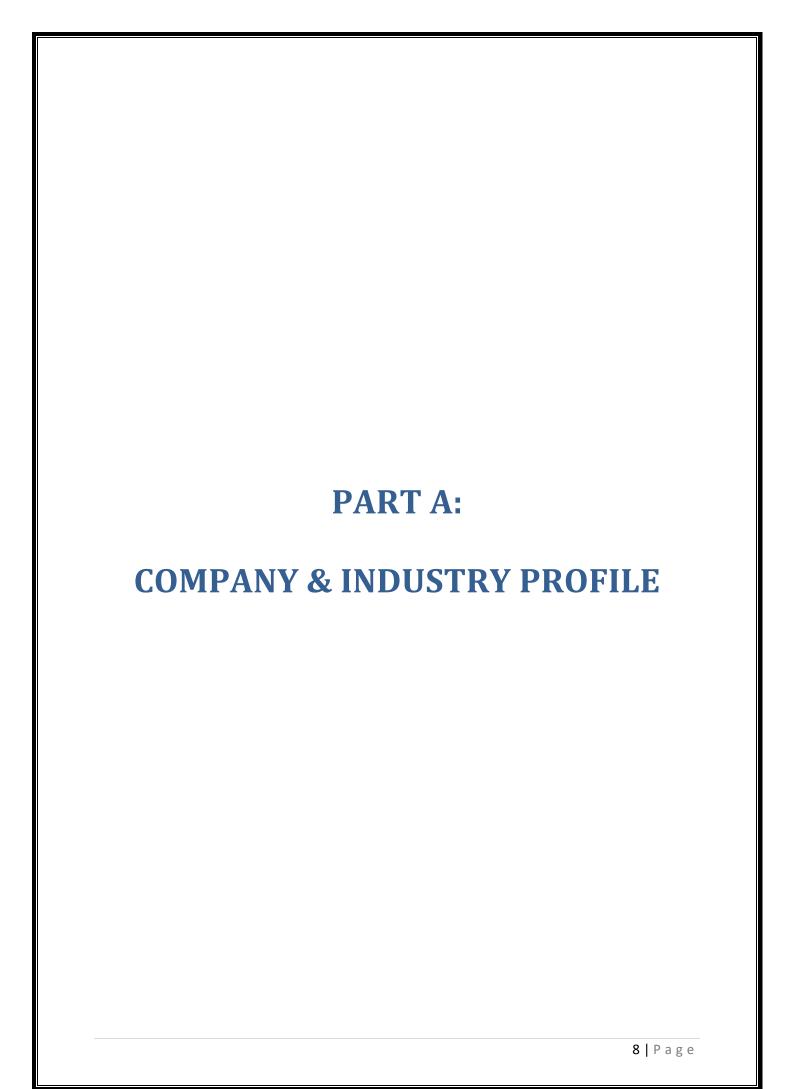
Therefore, it is very important to understand some of the techniques that are involved in the equity market so that an investor can cut losses short. This is where Technical Analysis helps. It considers an extensive variety of factors most importantly the prices movements and volume to future trends of the market.

For the purpose of this study, the price movements have been analysed using tools such as Moving Average (MA), Moving Average Convergence and Divergence (MACD), Relative Strength Index (RSI), and Bollinger Bands. Based on these indicators, the trend of a particular stock has been determined and then a decision to buy, sell or hold is estimated. Finally the conclusion and recommendations are given with respect to the derived result. This study establishes that the future prices are derived from the historical prices and technical analysis can be used to greatly reduce your risks and maximize your profits.

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HARDIK FINTRADE PVT. LTD.

COMPANY INFORMATION

Hardik Fintrade Pvt. Ltd. (HFPL) is one of Ahmedabad's largest independent full service stock brokers. The company is a card holder of <u>Bombay Stock Exchange</u> (BSE) and the card of <u>Central Depository Services (India) Ltd.</u> (CDSL). It is affiliated to <u>ACML Capital Market Ltd.</u> (Subsidiary of ASEL). Trust, reliability and approachability are the main pillars of their business. HFPL's top management has a combined experience of several years in the Indian financial markets.

Services Offered

- Equity: Investing in equities is one of the sources of long term wealth creation. It has one of the best rates of return when compared to other asset classes. HFPL provides dedicated client support services and research advice to their clients who wish to trade in equity.
- Commodities: HFPL allows trades in future commodities on Multi-Commodity Exchange (MCX) platform through their sister company Hardik Multicom Broking Pvt. Ltd.
- Currency: Trading in cash curreny market through their sister company Platinum Money Changer Pvt. Ltd., registered under the Reserve Bank of India.
- Mutual Funds
- IPOs
- Forex

INDUSTRY INFORMATION

Industry Classification

HFPL forms a part of the **Financial Brokerage Industry**. In particular, under the financial services industry, HFPL is a type of an equity brokerage firm that deals with investing & trading etc.

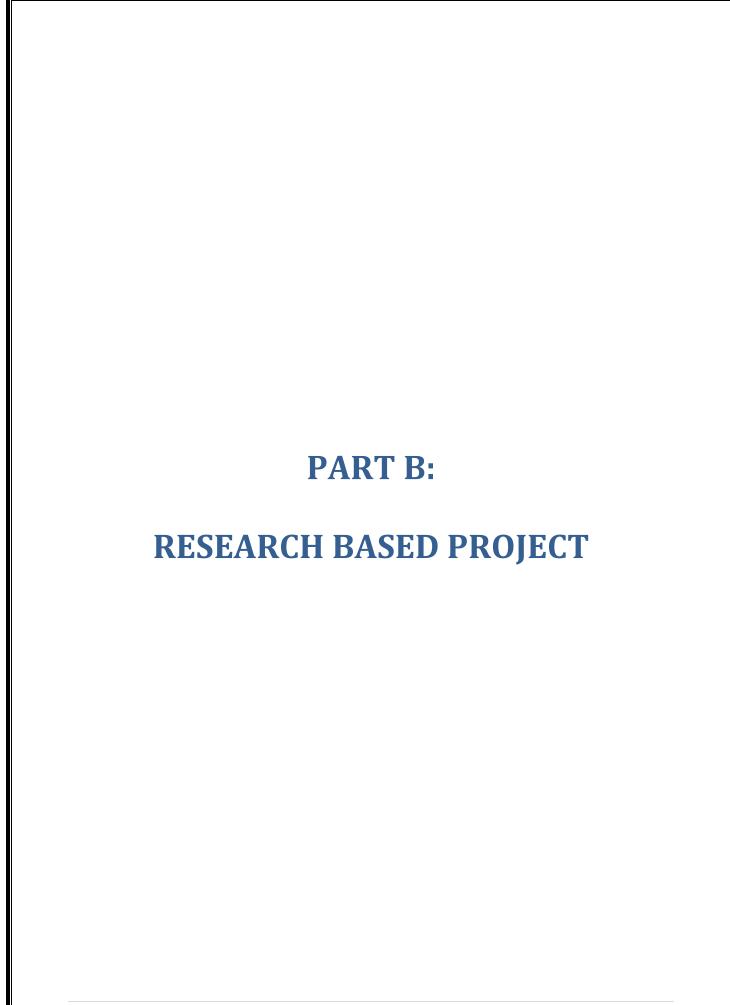
Industry Structure

The financial service industry is going through a rapid change in the past couple of years. Particularly, the stock markets have shown tremendous growth recently. They have become increasingly technology and process driven. Consumers are increasingly demanding more personalized services that suit their risk appetite. However, in this day and age there is vast amount of information available which poses a big challenge against t his industry to analyse so much data and satisfy customer demand. This is particularly challenging for the brokerage firms since they are facing a revamping business climate in the recent years. The entry of discount brokers and mutual fund companies are snatching away their market shares. These newer discount brokers are charging lower prices and incorporating newer forms on technology in their businesses. However, Full-service brokers are still giving a stiff competition to the discount brokers by playing on their strengths which is **customized services** and **one-stop shopping**.

Technology

Technology has changed the way people trade and invest. Earlier everything was done manually and using physical records.

- a) **Brokerage Fees-** In the recent years, with the introduction of discount brokers, brokerage charges have gone down from an average of 0.5%-2.5% of the transaction value to about Rs 10-20 per transaction regardless of its value. Usage of technology has allowed the brokers to reduce their costs of running and managing the businesses to a large extent.
- **b) Transaction Speed-** Earlier, trading order execution would take almost 25-30 minutes. Now it can be done in a fraction of a second. This has allowed clients to manage their portfolios much more efficiently.
- c) Transparency- Clients can view their portfolios 24*7 which ensures much more transparency. SEBI has penalized participants who have tried to engage in manipulative practices.



INTRODUCTION

What is Equity Analysis?

Equity research/analysis is the assessment of the stocks of a company, industry or market. It is a method used to study and analyse financial information and market trends for a particular company or cluster of companies within a specific industry, and make recommendations for buying, selling and holding decisions. It is an attempt to determine the future price levels/movements.

The primary aim is to choose the best performing stock and there are two approaches to do that:

1. Fundamental Analysis

Fundamental Analysis deals with investigating the financial health of a company by examining its annual reports, management, business records, competition scenario, earnings, etc. In short, it comprises of a quantitative and qualitative study of a company which forms the base for investment decisions.

Quantitative study focuses on analysis of the financial statements and understanding how these statements fit together to show the value of a company's stock. Qualitative analysis comprises of information such as goodwill, patents, trademarks and other intangible assets which help in distinguishing the company from its competitors.

While conducting fundamental analysis, the main aim will be to check the company's profitability, liquidity, and solvency. Different financial ratios are used to determine the health of the company. This helps in calculating a numerical intrinsic value of a stock, which is then used by the trader to determine whether the security is undervalued or overvalued.

2. Technical Analysis

There are so many stocks that look fundamentally strong but don't appreciate in price for a long time; this is where Technical Analysis comes in. Technical Analysis refers to studying the past patterns of price movements in order to forecast future prices of the stock. Technical analysis can be applied to stocks commodities, indices, futures and other tradable instruments. The charts which are analysed can be observed on the time range of 1 minute, 5 minutes, 15 minutes, hourly, daily, weekly and monthly basis depending upon the preferences of the investors (Intraday, Positional Trading or Long term Investing).

Technical Analysis is based on three basic assumptions:

i. The market discounts everything

Technical analysis assumes 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 is why it focuses only on price movements. The stock market is driven by mass psychology and human emotions that reflect in the prices of security. Two main human emotions are fear and greed that affect the price movements to a great extent. These two emotions respond rapidly to big events and change gradually when anyone is at its extreme. So we should buy when stock is making bottoms and fear is at its extreme and we should sell when greed is at extreme. Everyone is optimistic here and prices are at highs. Technical analysis helps in identifying the points at which fear and greed are at peak or bottom which in turn helps an investor to enter and exit the market at the correct timing.

MARKET IS UP Buy everything, I want all in "Get me in!" Euphoria Buy, Buy, Buy Thrill Denial-This Can't Be It's Going Up Desperation Optimism What Should I Give Up Hopelessness Sell, Sell, Sell MARKET IS DOWN "Sell everything, I want all out"

THE CYCLE OF MARKET EMOTIONS

Source: CIS Wealth Management Group

ii. Price moves in trend

Trading with the trend is the key of getting successful in the stock market. Once the trend has been identified the future price direction is more likely to be in that particular direction of trend and it is always possible to identify a trend, invest based on trend and make money with the help of technical

analysis. For example, if the current trend is up then we can buy at the bottoms and sell at the highs.



Source: Nasdaq

iii. History tends to repeat itself

In technical analysis the charts and patterns found in the past often repeat themselves in the future. Price charts provide a graphical history of market performance. Technical analysis uses different chart patterns to analyse the emotions like fear and greed and subsequent movements give a signal to understand the trends. Charts are much easier to read the data than a table of numbers. While readings charts it is easy to identify the past history of the market reactions before and after an important event. Historical volume or trading levels, relative strength of the stock and many other signals that various indicators give us to know the best entry and exit points for our trades.

NATURE OF THE PROBLEM

Investing in stocks requires careful planning and evaluation of the underlying stock before making a decision to invest. As per a study, approximately 95% of the investors lose out on money when they trade in stocks, since they undertake investment without any research or information. Hence, it is extremely important for an investor to study the market and understand the market trends and psychology so that they can make well-informed decisions.

OBJECTIVES OF THE STUDY

- a. To provide an overview of the Indian Banking Sector and analyse 2 stocks of that sector.
- b. To interpret the trend of the share price by using charts of Technical Analysis.
- c. To predict the investor's decisions of buying, selling or holding on the basis of historical price trends and the future prospects and provide suitable suggestions.

RESEARCH METHODOLOGY

This project is on technical analysis of the Banking sector of India. Hence, the study is done on the basis of information and news available on the sector i.e. on the basis of secondary data. Internet, newspapers, and the company websites were the major sources of secondary data.

Firstly, data was gathered on the Banking Sector of India and then on the basis of simple random sampling two specific companies were chosen to conduct the analysis on. Various technical indicators were identified which are important for technical analysis and the most relevant ones were applied to the stock prices. While preparing this project, the daily stock prices of the company were tracked.

The research is based on the stock prices of two banks listed NSE & BSE i.e. Yes Bank & HDFC Bank. The research is based on tools of Technical Analysis and involves the use of Candle stick charts, Support & Resistance Levels, 3D Charting, Moving Average, MACD, Bollinger Bands & RSI to determine whether a trader should buy or sell these banking sector stocks.

TOOLS APPLIED

1. TREND LINES

What is a Trend?

The first and the most basic step of conducting technical analysis is to understand trend lines. Trend is the general direction of price movements within a specified time. A market always moves with the trend unless an external force pushes it in the reverse direction. Technical analysis is mainly based on demand and supply, if demand exceeds supply the price will rise and if supply exceeds demand the price will fall. We can see these rise and fall movements on a price chart and the overall direction of these rise and fall movements makes a trend for the prices. On the chart these rise and fall are seen in the form of peak

and trough. Each high is known as the peak or top of the swing and each low is known as the trough or bottom of the swing.



Source: Trading View

In the above chart, for the swing 2014 to 2015, peak and trough have been marked. Trends are generally of three types:

i. Up Trend

In an uptrend, peaks and troughs are higher and higher and each top is higher than the previous one and each bottom is higher than the previous one. In short, there are higher highs and higher lows in an uptrend. Here, since the demand exceeds the supply it makes the market prices go higher and we can say that the market is "BULLISH". Here, the general tendency is to make buying decisions (also known as making a LONG trade) as the prices are going upwards and this leads to more profits.



Source: Trading View

In the above chart of YES Bank, we can see a series of higher highs and higher lows upto June of 2018 signalling the Up Trend.

ii. Down Trend

In a downtrend there are successive lower peaks and troughs. Here each top is lower than the previous one and each bottom is lower than the previous one. So in a down trend we get lower tops and lower bottoms. Here supply is more than the demand and we say that is a "BEARISH" phase, the prices move down lower and lower and we can't make profits by buying stocks in a down trend. Instead we should short sell (also known as making a SHORT trade) our stocks and withdraw from our position at the starting of the down trend.



Source: Trading View

In the above chart of YES Bank, we can see a series of lower tops and lower bottoms signalling a down trend.

iii. Sideways Trend

Here demand and supply are in balance and price movements are confined between a range. These are horizontal trends and there is little movement up and down. We shouldn't trade when the trend is flat and market is in sideways trend.



Source: Trading View

Here in the above screenshot, we can see that the market is pretty much range bound upto 2011 and there aren't too many highs or lows in YES Bank's prices.

Significance of Trend

A trader should always go with the trend and never trade against it. It is often said that "Trend is your Friend". In an uptrend it is always wise to making buying decisions and in a downtrend it is preferred to make short selling decisions.

What is Short Selling?

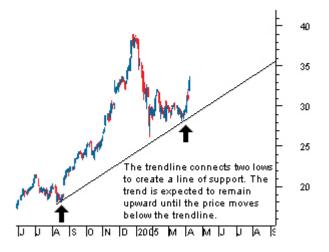
When the stock prices are decreasing we can still make money by making a short sell position in that stock. It is also known as making a **SHORT** trade. Short selling is an important strategy used by traders wherein they can profit from a fall in the share price of some stock that they believe is due for a fall.

- You borrow the shares of a company (whose share price you feel is going to fall because of some problems) from an existing owner/broker.
- Next step is selling those shares in the open market and keeping the cash proceeds with you.
- When the share price drops, you buy back the same number of shares from the open market with the cash that you have. Whatever is the difference is your PROFIT.
- Last step is to return the shares back to the original owner.

In a downtrend, short selling is the way to earn profit. In Indian equity market, in short selling you have to close your position by the day end. It means you can initiate the short sell trade anytime during the day but you will have to buy back the shares and square off your position before the market closes.

What are Trend Lines?

Trend Line is a simple charting technique which adds a line to the chart to represent the trend in the market at a particular time period. An upward trend line is drawn by joining the first two lowest points of a swing and then extending it further in that direction. This line also represents the support that the stock has every time it goes from high to low. In the figure below, notice how the price pops up again after touching this trend line. This helps the trader in anticipating the point at which the stock's price will start moving up again.



Source: MetaStock

Conversely, in a downtrend the trend line is drawn by joining the first two highest points of a swing and extending it further.



Source: MetaStock

Trend Patterns

Trend Patterns is a useful tool which helps in identifying the future trends if the market is currently in a sideways trend.

Reversal Trend Patterns

i. Head and Shoulders

It is a pattern which can be recognized by three peaks where the outside peaks are almost the same height and the middle peak is the highest. It a **reversal pattern** which can be seen in an uptrend signalling a bullish to bearish reversal. In an uptrend when the sellers become dominant at the highs of the swing they force the price to go down which forms the **Left shoulder.** Then, the buyers try to push the prices up and resume buying which takes the stock market to new highs forming a **Head**. The price rises a third time, but only to the level of the first peak, before declining once more. **This is the Right Shoulder**. The **Neckline** connects the lows of this pattern. When the prices fall below the neckline, it is assumed that the trend has reversed and the prices could fall down even further.



Source: DailyFx

ii. Triangle

Here, the price moves in a tighter and tighter range as days pass by. This indicates that neither the bulls nor the bears are able to establish their presence in the market. It is a **continuation pattern** which signals that the prices are going to continue in the same trend as before.

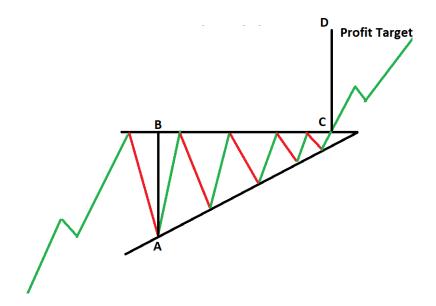
There are 3 types of triangle patterns:

Symmetrical Triangle: This pattern contains at least two lower highs and two higher lows. When we connect these points and extend them, it looks like a symmetrical triangle. This shows that neither buyers nor the sellers are able to drive the prices up/down to make a clear trend.



Source: DailyFx

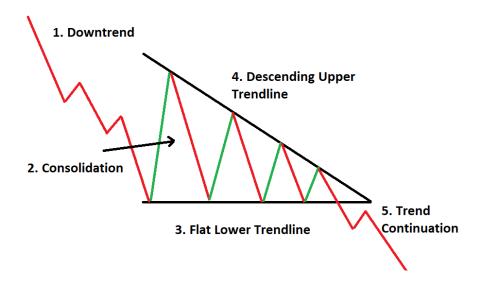
Ascending Triangle: It is a bullish formation which forms in an uptrend signalling the continuation of a trend. It occurs when there is a resistance level and a slope of higher lows.



Source: DailyFx

O <u>Descending Triangle:</u> In a descending triangle, there is a series of lower highs which form an upper line. The lower line is a support

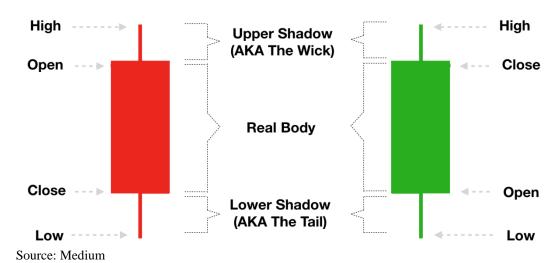
level beyond which the price cannot seem to break. It occurs during a downtrend and generally signals the continuation of the downtrend.



Source: DailyFx

2. CANDLESTICK CHARTS

Candlestick charts originated from Japan. It is a method of looking at the stock prices. Candlestick charts display the opening (the price of the first trade for the period), high (the highest price that the security is traded at during that period), low (the lowest price the security is traded for during that period), and closing prices (the last price that the security is traded at during the period) in a particular fashion.



There are 2 types of candlesticks:

i. Bearish Candlesticks

Bearish markets are the ones in which the economy is performing bad and stock prices are falling down. These bearish candles are red in colour and indicate that the prices have closed lower for the session. Close is always below the open. It indicates that selling pressure is more than buying pressure.

ii. Bullish Candlesticks

A bullish market is the one in which the economy is performing good, people are finding jobs, the GDP is increasing and the stock prices are rising. These bullish candlesticks are green in colour which indicates that the price has closed higher for the session. Open is always below the close. It indicates that the buying pressure is more than the selling pressure.

Candlestick Patterns

Candlestick patterns indicate whether the trend is going to reverse, flatten out and continue in the same direction, or flatten out and reverse its direction.

Some of the most important candlestick patterns are:

i.Hammer

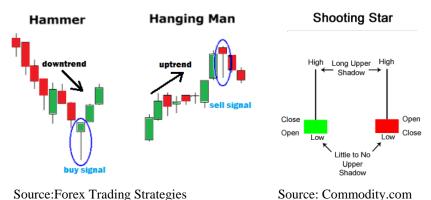
It is a **bullish reversal pattern** that occurs during a downtrend. It shows the price rejection of lower prices in the market. It shows that initially the sellers were in charge but yet the buyers were capable to reverse that control and drive prices back up to close near the highest of the period. In these candlesticks, the real body is small enough and the lower wick/shadow is almost the twice of its body and the upper wick is almost negligible. The colour of the body is not much important however if we get a green coloured candle in downtrend then **it might signal that the prices are about to go up.**

ii. Hanging Man

Hanging man is a **bearish reversal candle**. It is the same as a Hammer however it occurs in an uptrend. It indicates that the sellers are beginning to outnumber the buyers and could be beginning of the trend reversal. This pattern is confirmed if the price falls in the next trading session or shortly after. **Traders can use it as a signal to exit long positions or enter short selling.**

iii. Shooting Star

Shooting star is the opposite of a hammer candle. It is a bearish reversal candle that usually occurs at the end of an uptrend and it shows the rejection of higher prices in the market. It shows how the buyers took charge initially and pushed the prices higher, but then the sellers came in and pushed it all the way near the bottom. These candles also have small real body and almost twice the wick size. It typically suggests the end of an uptrend and that the traders should short sell.



Source:Forex Trading Strategies

iv. Bullish Engulfing Pattern

It is a two candlestick **bullish reversal pattern** which occurs at the end of a downtrend. Here's how to confirm it: The first candle has to be a bearish close. The next candle should be a bullish candle, long enough to engulf the previous candle. It tells you that the buyers have now overwhelmed the sellers are beginning to take control. It is an indication to buy.



Source: Dailyfx

v. Bearish Engulfing Pattern

It is a two candlestick **bearish reversal pattern** which occurs at the top of an uptrend. In this, the first candle has a bullish close. And the next candle closes bearish and is completely engulfing the previous candle. It tells us that the sellers have overwhelmed the buyers and are now in control. **It is an indication to short sell.**



Source: Dailyfx

vi. Doji Candles

These candles do not have a real body at all. It implies that the opening and closing prices are the same. These candles tell us about the indecision in the market where both the buyers and sellers are in equal control. These candles are however not used in isolation. They are combined with other patterns and then a decision to buy or sell can be made.

vii. Morning Star

It is a **bullish reversal candlestick** that comprises of 3 candles occurring at the bottom of a downtrend. The first candle has a bearish close, the second is a doji candle and the last candle closes more than 50% higher than the first one. The first candle shows that the sellers are in control. On the second candle, there is indecisiveness in the market and on the third candle the buyers are momentarily in control. **It is an indication for long trade.**



Source: TradingwithRayner

viii. Evening Star

It is a **bearish** equivalent of a morning star candle which occurs at the top of an uptrend. In this the first candle has a bullish close, the second one is a doji candle and the last one closes more than 50% lower than the first candle. It shows that the buyers are exhausted and the sellers have taken charge for the moment. **It is an indication for short selling.**



Source: TradingwithRayner

3. SUPPORT & RESISTANCE

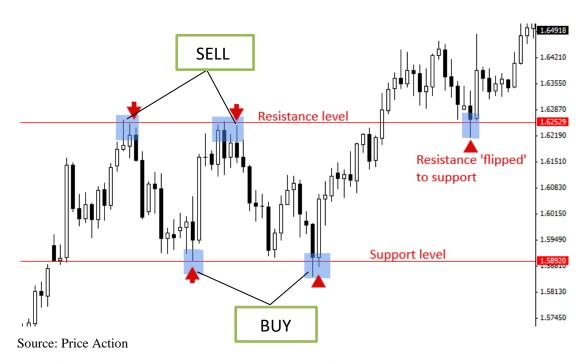
Support and resistance is one of the most important techniques of technical analysis which helps a trader in knowing the direction in which the market is headed, the time of making an entry and the time to exit the market.

What is Support?

Support is an area on the chart that price has dropped to but has difficulties to break below. It is something that prevents the price from falling further. When demand is strong enough to prevent the price from declining further that level becomes the support level. Typically, if the prices fall below the support line they have a tendency to bounce back. The reason is that, when the prices get more and more close to the support level, the stock becomes cheaper to buy and attracts a lot of demand which pushes the price back up. Support level is the level at which a trader can expect maximum demand (buying). It acts as a trigger to buy.

What is Resistance?

Resistance is an area on the chart that the price has risen to but has a hard time to break above. As the prices get closer and closer to the resistance level, the stocks become more expensive and sellers are more likely to sell here. It is a point where traders can expect maximum supply (selling) and hence resistance levels **act a trigger to sell**.



Traders aim to buy at support level and sell at resistance level.

However, prices do not always respect the boundaries of support and resistance, which is termed as a **breakout**. As seen in the above picture, when a support level is broken, it acts as a resistance level then. Similarly, when a resistance level is broken it acts as a support level for the prices. A breakout to the upside of the resistance level could mean that the prices will now start moving higher.

What is Volume?

Volume is the number of shares that are traded over a given period of time, usually a day.



Source: Trading View

It is a very important aspect of technical analysis because it can confirm market trends. Any price movement either up or down with a comparatively higher volume is seen as much stronger than a similar move with a weak volume. For example, if the price of a stock jumps 5-6% higher after a long downtrend, can this be a signal of trend reversal?

This is where volume comes in. If the volume is quite high on that day as compared to average volume then it could probably mean that the trend reversal is true. A price decrease or increase on larger volumes could indicate that something in the stock has changed.

4. MOVING AVERAGE

Moving Averages are trend indicators and are useful in knowing and spotting the changes in trend. It calculates the average prices for a given time frame, from minutes, hours, days to years. They are effective only when they are used in a trending market (up/down trend), their use should not be done in a ranging market. Moving averages can also help in defining the areas of support and resistance for a particular stock. Typically the most commonly used Moving Averages are 5, 10, 20, 7, 14, 21, 50, 100 & 200 Day Moving Averages.

They are of **two** types:

i. Simple Moving Averages (SMA)

The mean of prices is calculated as per the time frame requirement. Here, each day in the data set is given equal importance and weight. As the day ends, the oldest data point is discarded and the newest one is added to the calculation of a new moving average.

For example, in calculation of the SMA of the closing prices of YES Bank for a 5 day period

Date	Closing Price	SMA (5 Day)
1 Jan 2020	46.65	
2 Jan 2020	47.35	
3 Jan 2020	47.1	
6 Jan 2020	45.15	
7 Jan 2020	45.05	46.26
8 Jan 2020	46.05	46.14
9 Jan 2020	47.30	46.13

These averages are then joined to form a smooth curved line known as the moving average line which continues to move as the days pass by.



ii. Exponential Moving Averages (EMA)

Here, weights are assigned to the data depending upon its newness. In the earlier example of calculation of 5 Day Moving Average, now when it is calculated on the basis of EMA, the closing price of 9th Jan 2020 will get more weightage than the closing price of 8th Jan 2020.

Therefore, EMA applies more weighting to the recent prices. This is the reason that EMA Line will react more quickly to price change than the SMA Line will.

Hence, EMA is preferred when calculating MA.



Source: Commodity.com

Moving Average Crossover System

Moving averages signal trend reversals which in turn help in generating buy and sell signals. If the current market price turns greater than the moving average line, it

generates a Buy signal for the traders. However, when the current market price falls below the moving average line it generates a Sell signal. However, these are signals are not very accurate which is why moving average should be used in conjunction with other indicators.

Instead of using a single moving average, we can combine two moving averages to give trading signals. This is known as **Moving Average Crossover System.** An example of this can be combining the 50 day EMA with the 200 day EMA. Here, the shorter moving average (50 Day EMA) is known as the faster moving average while the longer moving average (200 Day EMA) is known as the slower moving average.

The entry and exit signals are:

Buying the stocks when the shorter moving average (50 Day) **crosses above** the longer moving average (200 Day) as this indicates that the trend is going up. This is known as **Golden Cross**.

Selling the stocks when the shorter moving average (50 Day) **crosses below** the longer moving average (200 Day) as this indicates that the trend is shifting downward. This is known as **Death Cross**.



Source: BigTrends

5. MOVING AVERAGE CONVERGENCE AND DIVERGENCE

Moving Average Convergence and Divergence (MACD) demonstrates the relationship between two moving averages namely the 12 Day EMA and 26 Day EMA. MACD is

calculated by **subtracting the 26 Day EMA from the 12 Day EMA**. The points can be joined to form the MACD Line. Then, a 9 Day EMA of the MACD (which is known as the **Signal Line**) is drawn above the MACD Line which serves the purpose of giving entry and exit signals to the traders. MACD Line fluctuates near the Central zero line also known as the "**Centre Line**" (depicted by an arrow in the image below). It is useful only in a **trending market** and not in a range bound market.



Source: IG.com

When the MACD line crosses the 9 Day EMA Line where the MACD is on top of the 9 Day EMA, it indicates bullish sentiments in the market which act as a signal to buy.

Whereas, when the MACD Line crosses the 9 Day EMA where the MACD is below the 9 Day EMA, it indicates the bearish sentiments of the market acting as a signal to sell.

6. RELATIVE STRENGTH INDEX

Relative Strength Index (RSI) is an indicator which helps in identifying trend reversals. The value of RSI fluctuates between 0 to 100 and depending upon its current value, the market's expectations are set. It states how strong the security is and works in a range bound market too.

The main objective of RSI is to help a trader identify the **oversold** and **overbought** levels.

Overbought levels

If the value of **RSI** is 70 or above, it shows that the security is becoming overbought and there could be a potential reversal or pullback in its price. It implies that the positive gain in that security is so high that it might not be sustainable in the long run and there might be a downward correction in the price very soon. It could be a signal of exit.

Oversold levels

If the value of **RSI is 30 or below**, it shows that the security is oversold and there could be a possible reversal soon or an upward correction. It can act as a signal of entry.



Source: Commodity.com

7. BOLLINGER BANDS

Bollinger Bands is an indicator which helps in determining the overbought and oversold levels. It has 3 components:

- i. A **Middle Band** that is the 20 day simple moving average of the closing prices.
- ii. An **Upper Band** this is the +2 standard deviation of the middle band.
- iii. A Lower Band- this is the -2 standard deviation of the middle band.

Typically a trader should **sell** the stocks when the prices are near the **Upper Band** and **buy** the stock when the prices are near the **Lower Band**.



Source: IG.com

The expansion and contraction on band indicates the volatility of the prizes of that particular stock. When bands are expanded it means there is huge volatility and we can see a sharp up move or a sharp down move in the prices. And when banks are close together volatility is lower in a rebound market.

8. THE FIBONACCI RETRACEMENTS

Fibonacci Retracements are a tool which uses some key numbers identified by the mathematician Leonard Fibonacci. Some of the key Fibonacci ratios of 23.6%, 38.2%, 50%, 61.8%, and 100% find their application in stock markets. A Fibonacci retracement chart is created by taking the two extreme points of a swing (peak & trough) and dividing this vertical distance by the key Fibonacci ratios. Horizontal lines are drawn besides these ratio levels which help in determining the probable support and resistance levels where price could potentially reverse the direction. It can be noticed that whenever the stock prices move up or down, they tend to retrace (temporary reversal in a stock's price movements) back before resuming in the direction of the next move. Fibonacci Retracement tool helps in identifying the levels of possible retracement in the prices, which helps the trader to enter and exit at the right time.

In an **uptrend**, Fibonacci Retracement levels act as a **support level** where the traders can decide to go **long** (**buy**).

For example, in the stock chart of Baidu Inc. by applying the Fibonacci Retracements tool we find these particular levels. After reaching the peak, there was a retracement in the prices upto the 50% level with prices taking support at that level before resuming its previous trend. So, the traders can place their **BUY** order at the 50% level with their stop loss at the 61.8% level.



Source: Trading View

In a **downtrend**, Fibonacci Retracement levels act as a **resistance level** where the traders can decide to make a **short trade**.

For example, in the next stock chart after reaching the trough, the prices first pulled back to 23.6% levels and then to 38.2% levels. These are acting as the resistance levels for the prices, so the traders can make a **SHORT** trade here.



Application of these trading tools

A trader should always combine indicators to decide whether to buy/sell/hold. Candlesticks should not be used in isolation but should be combined with the indicators we've learned above.

We can use the **T.A.E framework** to analyse whether we should invest or now.

T.A.E framework stands for Trend, Area of Value & Entry Trigger.

Trend

When the stock is in an uptrend, you want to buy. Whereas when it is in a downtrend you want to be a seller. We can use the 200 period Moving Average indicator here to determine entry and exit points.

If the price is above the 200MA, it signals that you should only be purchasing the stocks because the market is in an uptrend.

If the price is below the 200MA, it signals that you should be selling the stock because the market is in a downtrend.

Area of Value

Now, just because the prices are above or below the 200MA, you don't want to immediately buy or sell the stocks because sometimes the stocks might be overpriced. So we need to wait till the stock is in an area of value.

An area of value could be prices near the **Support or Resistance**, **Moving Average**, **Trend Lines**. (Trend Lines can sometimes act as a diagonal support or resistance line)

Entry Trigger

Suppose the market is in an uptrend and the prices are near the area of value, you should not immediately buy or sell the stocks. We should wait for the entry or exit triggers to perfectly time our investments.

Candlesticks patterns are very useful for identifying such entry/exit triggers. Reversal patterns like shooting star, hammer, bullish engulfing, bearish engulfing, etc. can prove beneficial.

Combining the T.A.E. we can determine the best time to trade.

For example: In the chart of Google,



Source: Trading View

We can see that since the **price is above the 200 MA** we should be looking for making buying decisions. We can also see the Area of value on the **Resistance turned Support**

Level. Next, for the entry trigger we can see **Bullish Engulfing candlesticks** at the Support Level. So this is a confirmation for entering into the trade. We can buy on the next candle's open price.

ANALYSIS AND INTERPRETATION OF DATA

Analysis of the Indian Banking Sector

India is considered to be among the leading economies in the world and it offers remarkable potential for its banking sector to flourish. The decade of 2000s witnessed a significant increase in usage of transactions through ATMs, as well as internet and mobile banking. The repercussions of the subprime crisis saw the global banking sector witness some of the largest and the best known names succumb to multi-billion dollar write-offs and face near bankruptcy. This global crisis hit India too however, its impact was not as severe as it was in many of the developed countries.

The Indian banking sector had been well shielded by the Central bank and managed to sail through most of the crisis with relative ease. The cautious approach taken by the Reserve Bank of India by advising the banks to go slow on their exposure/lending to sensitive sectors like real estate had saved the Indian system from collapsing.

Fast forward to now, the Banking sector has undergone massive changes in the recent times. Because of the increasing consumer expectations, economic and political changes and the cut throat competition, banks have embedded technology in their day to day working. Internet banking & Payment Banks etc. have completed changed the face of the Indian Banking system. Public sector banks have been very proactive in their restructuring initiatives be it in technology implementation or pruning their loss assets. The banks have adopted an integrated approach towards risk management. The NPAs of commercial banks have recorded a recovery of ₹ 4,00,000 crores in FY19 (which is the highest in the last 4 years). Also, Artificial Intelligence is expected to be a very integral part of smart banking. With AI, banks can expand their consumer base by learning what clicks with their users.

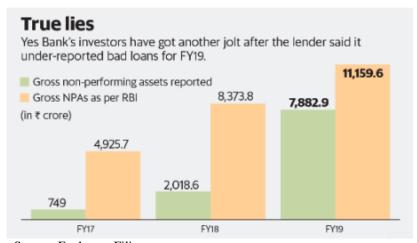
Enhanced infrastructure investment, speedy project execution and continuing reforms are expected to produce additional potential for growth of the Banking sector. These factors suggest that there will be a sturdy growth in this sector as these businesses will turn to the banks for the credit requirements.

1. YES BANK

Yes Bank, an Indian bank offers an extensive range of financial and banking services which includes corporate and institutional banking, investment banking, and wealth management, etc. Their banking business is broadly divided into four categories:

- Treasury: This segment deals with the investments and stock market activities undertaken on behalf of their customers.
- Corporate Banking: This segment deals with the lending and deposit services offered to the corporate clients.
- Retail Banking: This segment deals with the lending and deposit services offered to retail clients.
- Other Operations: Includes merchant banking and activities such as third party distribution, etc.

The biggest problem for the bank started when large scale NPAs had been discovered. This trouble started way back in 2015, when UBS, a global financial services company, raise concerns regarding the bank's asset quality. It was reported that Yes Bank had issued out credit facilities to risky and sensitive business sectors such as NBFCs, real estate, and construction (These sectors have struggled the most in India) at a much higher rate of interest for which the other banks were not eager to write cheques. So, there came a time when some of these loans turned into bad debts. It was only a matter of time that NPAs started rising in the bank. As of 2020, the bank has been under-reporting its bad loans for three consecutive years now.



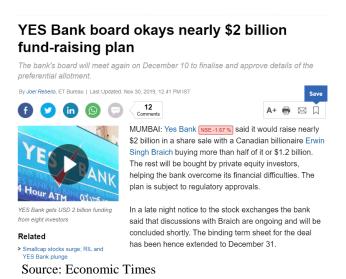
Source: Exchange Filings

What further added to their problems was the reaction of the depositors. The depositors stopped opening fresh accounts with the bank and even started withdrawing their money from the bank. An estimated ₹18000 crores were withdrawn between April and September 2019. This made the bank lose even more capital than it already was because of the NPAs.

So, on 5th March 2020, the RBI had to step in order to avoid Yes bank from collapsing. RBI announced that it was replacing the Bank's Board of Directors for a period of 30 days and named Prashant Kumar, former Chief financial officer of SBI, as new MD & CEO of Yes Bank. RBI also imposed a 30-day moratorium on the banks operations and decided to cap withdrawals at ₹50,000.

Analysis

For the purpose of analysis, I've decided to analyse the stock prices of YES Bank as on 2nd **December 2019** since there was news on 30th November 2019 that the bank is planning a \$2 Billion fund-raising to overcome its financial difficulties. With the help of technical analysis, I will analyse whether this news had an impact on the falling share prices and if the investors were inclined to buy the shares.



As on 2nd December 2019, the stock of Yes bank is following a long downtrend (owing to the NPAs and the general public's reluctance to buy shares of a company which is going through financial troubles) however for the past few months it is in a sideways trend.

As of 2nd December 2019,

Open: ₹69

High: ₹69.30

Low: ₹63.05

Close: ₹64.05

Support & Resistance Levels



On the basis of the past price actions, the support and resistance levels have been identified. As on 2^{nd} December, the stock is trading near the resistance level.

Interpretation on the basis of Moving Average:



As per the moving average indicator, we are getting the signal of **short selling** for the purpose of positional trading (holding stocks over a number of months or years). We get the short selling signal on 2nd December when the 14 Day EMA and 21 Day EMA cross below the 50 Day EMA.

Interpretation on the basis of MACD:



As per the MACD indicator, we are also getting a **short sell** signal since it is falling below the 0 level on that day.

Interpretation for Yes Bank:

Yes Bank's \$2 Billion fund-raising plan failed to improve the prices of its shares. There were concerns that the RBI will not allow investors to take ownership of the bad-debt laden bank. The same can be observed from the indicators that the signal was to short sell the stock and not purchase it since it was too risky.

2. HDFC BANK

HDFC Bank is one of India's leading private sector banks. Headquartered in Mumbai, it was incorporated in August 1994. HDFC Bank offers a wide range of financial and baking services to the customers. The bank has 3 key business segments which include:

 Retail Banking: Providing banking services and financial products to its retail clients. Wholesale Banking: Offering a wide variety of commercial and transactional

banking services to large and well-established manufacturing companies in the

Indian economy.

Treasury: Dealing in Foreign Exchange and Derivatives, Local Currency Money

Market & Debt Securities, and Equities.

In terms of information technology and communication systems HDFC Bank operates in a

highly automated environment. All the branches of the bank have online connectivity

which allows the bank to provide its customers with speedy funds transfer facilities. A

multi-branch access is also offered via the branch network and Automated Teller

Machines (ATMs) to retail customers.

The Bank has made substantial efforts and investments to acquire the best internationally

available technology to build a world-class bank's infrastructure.

Analysis

HDFC bank has delivered strong growth despite the current pandemic situation. Here is an

in depth technical analysis of the stock:

As on 29th June 2020, for HDFC Bank:

Open Price: ₹1037.00

Highest Price: ₹1082.60

Lowest Price: ₹1037.05

Closing Price: ₹1076.05

Support turned Resistance level stood out to be at ₹1077.45

EMA 50: ₹983.59

EMA 100: ₹1015.66

EMA 200: ₹1067.80

Interpretation on the basis of Moving Average:



For the past few days, the stock was hovering around ₹1040-₹1050 levels. Finally, on 29th June it moved past that barrier. Also, in the last 7-8 days, the prices had crossed the 50 Day EMA & 100 Day EMA levels and the next target was going to be crossing the 200 day EMA level which finally today the prices moved beyond that level which was at ₹1067.80. With the chart looking attractive, it is suggested to buy the stock. However, there could also be a potential reversal in the trend and for that the trader can set his stop loss near any of the three EMA levels depending upon their risk potential.

Interpretation on the basis of RSI:

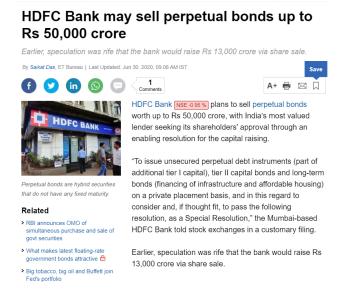


The RSI Indicator has been going pretty strong with a steady rise to signify a strong trend. RSI is at 62.85 level, which suggests that it still hasn't entered the overbought range and the trader can buy the stocks.

Interpretation on the basis of Bollinger Bands:



According to the Bollinger bands indicator, the prices are near the upper band region and the bands seem to be widening, which suggests that even though right now there is a buy signal generated (through RSI) there might be a strong up move or down move in the prices in the coming days. Hence, it is essential to be alert and keep the stop loss in mind.



Interpretation for HDFC Bank:

As per the latest news, HDFC Bank is considering selling perpetual bonds up to ₹50,000 crore to raise capital. Raising more capital will provide greater business opportunities to the bank. It is difficult to ascertain the impact that coronavirus will have on the Indian economy, hence it is tough to predict the scenario of NPA's in the coming future. Raising capital via perpetual bonds will enable HDFC to secure itself against the risk of NPA's to a large extent.

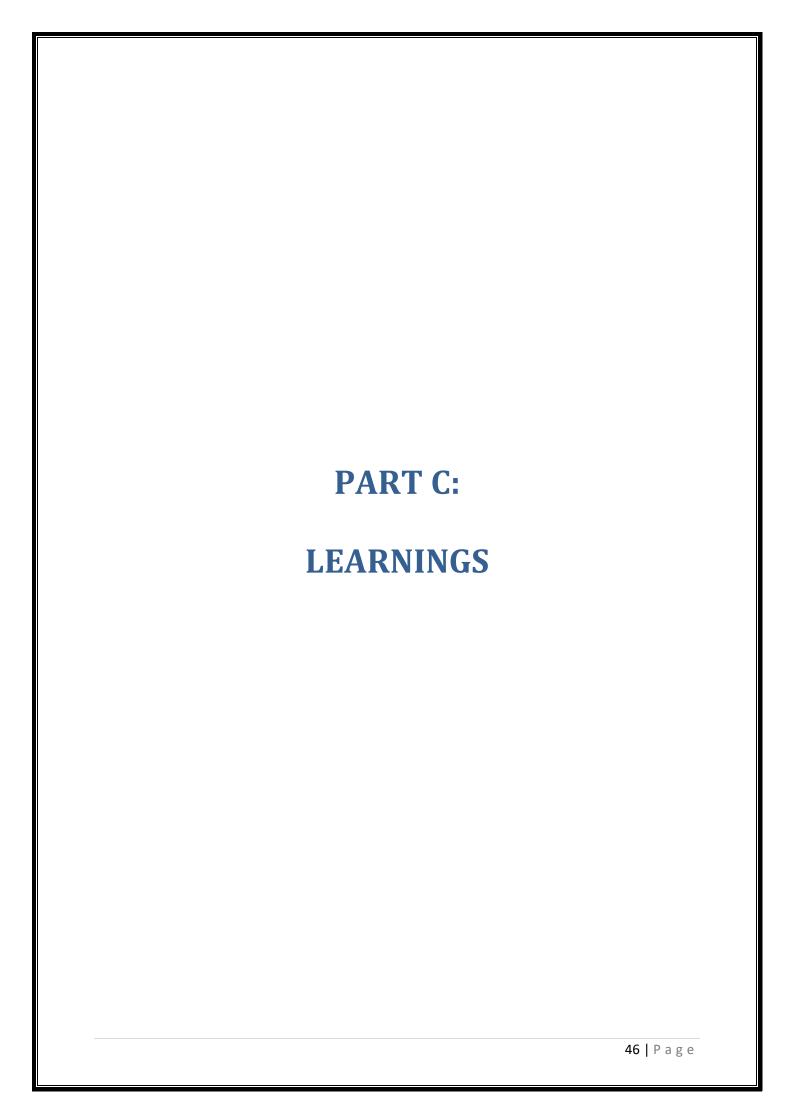
All these indicators & news are indicating that the shares of HDFC Bank can be bought at this time.

CONCLUSION & FINDINGS

Technical analysis gives investor a better understanding of the stocks and also gives them right direction to go on further to buy or sell the stocks. The performance and health of stock exchange is solely dependent on the behaviour and pattern of investments by the investor. In light of this study on two Indian Banks, we can see how technical analysis is used to predict the possible futures swings of stock prices.

The stock market goes through brisk changes; investors should look for right opportunities keeping in tune with the dynamics of market environment. However, in order to have maximum effect, technical analysis should be combined with fundamental analysis. Investors must also take into account various factors like company performance, political and social events, etc. before any decision is made.

Overall the conclusion is that the banking stocks are quite risky because the sector is highly volatile. NPAs, liquidity crises, government policies, etc. can impact the prices to a very high extent. Investors who have a higher risk appetite with the ability to closely track the banking sector and time their investments accordingly can invest in this sector.



Application of Concepts learnt at IMNU

- 1. **Personal Finance:** This course taught me the basics of investments and to how to manage our finances effectively. In order to build upon that further, I was tempted to learn more about equity research.
- 2. Corporate Finance: This subject taught me the different avenues of investment that are available in the market. Risk and return analysis taught me that equity gives one of the highest returns when compared to other asset classes. This was one of the reasons I wanted to learn technical analysis, so that I do not blindly trade in the stock market without properly analysing the price movements. To an extent, I could also apply my knowledge of financial statement analysis to form an opinion of buying/selling the stocks.
- **3. Micro & Macro Economics:** Economic factors play a very important role in the stock market. For example, recently when Glenmark Pharma launched FabiFlu, its stock price jumped up by about 40% in a single day.
 - Movements in the stock market can have a very strong impact on the economy of a country and vice versa. In the recent times, because of the Covid-19, the stock market initially was crashing worldwide and this had an impact on the buying patterns of the traders.
 - I had also learned about the Indian Banking system and our central bank, on the basis of which I could analyse the banking sector in this project.
- **4. Strategic Management:** This course has taught me the importance of a well -executed strategy. Your aim should always be to maximize your return as much as possible with minimal investment.

New knowledge, tools and techniques that I have learnt

My internship in the Equity Research department has been a rewarding experience. In the due course of two months as an intern at Hardik Fintrade Pvt. Ltd, I have learnt a great deal about the Indian stock exchange. The market just like everything else runs in cycles. There will be ups and there will be downs. After every bear comes a bull and vice versa. The extreme volatile nature makes the stock markets extremely difficult to predict. On the contrary, this market also presents a sea of opportunity to make money as long as one employs smart investment strategies. With the help of technical analysis, an investor can actually predict where the future prices will go on the basis of historical trends which reduce the possibility of losses.

Another thing I've learnt during this internship is the use of Trading View platform. It allows users to conduct all sorts of analysis on the prices of a stock and also compare it with other similar stocks.

I also have gained an understanding of the Indian Banking sector and where it is headed to in the future.

Insights about the career path that I would like to pursue

After completing my internship in financial services industry, I have analysed there is broader scope of growth and opportunities in this industry. So, I would like to work as an equity research analyst after gaining knowledge on to conduct fundamental analysis of stocks. This field interests me because it provides a much more in depth knowledge about any sector or company for that matter. For example: analysing the reasons as to why the revenue is down or why the market sentiments of a particular stock is up by not only understanding the surface but also through the entirety of what the company is would allow me to make well-informed decisions.

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