

A study on using both, technical and fundamental  
analysis together for trading and investing, with  
reference to Day Trading Stocks & Options

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A study on using both, technical and fundamental analysis together for trading and investing, with reference to Day Trading Stocks & Options

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## **DECLARATION**

I, AMEYA SUNIL PAWAR, declare that this research is my original work and that it has never been presented to any institution or university for the award of Degree or Diploma. In addition, I have referenced correctly all literature and sources used in this work and this this work is fully compliant with the Dublin Business School's academic honesty policy.

Signed: Ameya Pawar

Date: 07 January, 2019

## **ABSTRACT**

There have always been clashes between the fundamentalists and the chartists about how the stocks and markets should be analyzed. Chartist or technical analysts are those who forecast the markets by considering the historic trends, whereas the fundamental analysts consider all the other factors that affects the stocks.

Most people prefer analyzing the markets based on technical or fundamental analysis, while there are only a few who make the use of both, fundamental and technical analysis together for analyzing the stocks. Even when you search the internet for fundamental and technical analysis, the search returns with major results for the substituting nature of two, denoting the better of two. On the other side, there have been huge research done on the complementary nature of the two, proving that even if a single analysis works well in isolations, the results of complementary behavior returns with larger gains. Despite of proofs in regressions and cases and all other ways possible, investors resist to change the way of single kind of analysis based on the type of trade.

This research focuses on knowing what kind of analysis is done by the traders and investors, who are members of the Facebook group “Day Trading Stocks and Options”, and the reason for that particular analysis. This is done with a view to find reason why people rarely use the complementing nature of technical and fundamental analysis, both together.

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## 1. INTRODUCTION

### 1.1. Context

A stock market, equity market or share market is a facility consisting a collection of markets and exchanges where securities such as shares of stocks or equities, bonds and other classes of securities are issued, and the stock brokers and individual traders and investors can buy or sell such securities. People making use of these markets are the traders and investors. Traders buy and sell shares or other securities on a continuous basis for immediate profits, whereas investors keep their securities as an investment, keep owning a share for a long time with a view of rise in price and earn huge profits or appreciation in value.

In financial markets, the central question is how to forecast the future market fluctuations to invest correctly. The market can broadly be analyzed in two ways, **Fundamental** and **Technical**. Fundamentalists are market participants who predict changes by analyzing the underlying economic conditions. Whereas, in technical analysis predictions are made by taking historical prices into consideration. Overall, the process focuses on how and when to open and close trades or investment to earn high returns based on such analysis.

Fundamental Analysis are done by the long-term investors, whereas short term investors prefer technical analysis for speculation of prices. A lot of investors and other researchers found this to be a valuable suggestion and till date, these analysis lead to high results in investment. Whereas, in the later period, researchers and economists started to try analyzing the markets by using and mix matching both the analysis with all possible investments.

Testing confirms the complementary nature of fundamental and technical analysis by showing that, although each performs well in isolation, models integrating both have superior explanatory power (Bettman, Sault and Schultz, 2009). MacDonald and Marsh suggest the

importance of an even more differentiated understanding of different forecasting styles among market participants, and of the factors underlying these distinctive styles of forming expectations about the market. Such better understanding might help clarify why the forecasters hold heterogeneous expectations and why available information is interpreted differently by different forecasters (Ito, 1990; MacDonald and Marsh. 1996).

This is even confirmed by Oberlechner describing that a computation of traders' overall 'Fundamentalism versus Chartism' approaches results in a bell-shaped distribution of individual forecasting approaches, with a majority of foreign exchange traders using a balanced mix of both forecasting techniques. (Oberlechner, 2001).

Despite of proofs in regressions and cases and all other ways possible, investors resist to change the way of single kind of analysis based on the type of trade. The reason for this maybe because they are able to earn profits already or they face various other issues that went ignored by researchers. The fear to change to other practice, when enjoying good returns could be another reason. Just as Goodhart suggested, 'Economists cannot just rely on assumptions and hypotheses about how speculators and other market agents may operate in theory, but should examine how they work in practice, by first-hand study of such markets', (Goodhart, 1988). But needs questions to be answered.

## 1.2. Aims and Objectives

The long-term goal of the research is to formulate an all-inclusive model of analysis of financial markets for investments and trading that would yield the best results by employing the strengths of both, fundamental and technical analysis without hindering a lot of current

practices of investors. The objective of the current study is **to identify the reason why the traders & investors on facebook group “Day Trading Stocks and Options” rarely use both fundamental & technical analysis together**. Particularly, the study has following sub-objectives:

- To review current practices of investors to speculate the prices and returns on investments and the reasons for following the respective practice.
- To outline an equity-based model in context of other valuation exercises for a better management of investment.
- To provide a link between the hybrid model of researchers and the traditional practices of investors.
- To determine if the existing models with complementing nature of fundamental and technical analysis has any flaws from individual investor’s point of view.

The conclusions of this research would be useful to the investors as well as finance experts to provide academic and intellectual discourse on the market that leads to more result-oriented discourse among the traders.

### 1.3. Research Questions

#### **Main Research Question**

WHY DO TRADERS AND INVESTORS RARELY ANALYZE STOCKS USING BOTH, FUNDAMENTAL AND TECHNICAL ANALYSIS?

### **Sub Questions:**

- How do the traders and investors forecast the prices, by fundamental analysis, technical analysis or both?
- Do investors gain comparatively higher gains when using both Fundamental and technical together?
- How should the financial markets be analyzed for speculation of prices while trading or investing?
- What are the reasons for majority investors and gurus not resorting to the complementing analysis despite of proven results?

#### 1.4. Justification for Proposed Research

This research has been proposed due to the long-lasting following concerns:

- There is a shortage of empirical data on the financial market analysis from an investor's point of view. The previous researchers have been done by considering the ratios and regressions, where the issues of an individual went neglected.
- Novice are aware of the non-fundamental factors that drives to higher levels of uncertainty. Traders and investors analyze the stocks in the beginning, and just keep following the same continually.
- The literature of analysis assesses the respective abilities of the two analytical methods; fundamental and technical; complementing and substituting nature. Despite proven research on complementing nature, the major practice remains substituting.

- A better understanding to forecast will yield better returns on investment and would revolutionize the trends in markets.
- The findings of the research would help in career enhancement with a view of trading and investing, as well as consulting job for the financial investments.
- The conclusions of this research would be useful to the investors as well as finance experts to provide academic and intellectual discourse on the market that leads to more result-oriented discourse among the traders.

Moreover, the behavior of traders and investors is influenced by the market gurus. Every individual follows the techniques of the one enjoying huge profits. This makes the market more homogenous and thus leads to a level of stagnancy in prices. If the markets are analyzed in a proper way, the traders would be able to do better forecasting which in return would even manage the depression and inflation in a proper way based on the demand and supply.

The previous researchers have focused on the effects on results by complementing and substituting the two methods of analysis. In conclusion, found that both work good in isolation but better when used both together. The proposed research would focus on the reason why the two techniques are still not widely used together by the individuals in stock market.

### 1.5. Time, Cost and Project Management

The research is on the individual behavior of the traders and investors and hence only a quantitative survey would be carried on with no need of qualitative methods of data collection for the individual investors. The survey and analysis would be done by using google forms and tableau for visualization and hence no cost for the whole research except for the stationary.

The research needs to be completed in a span of 12 weeks, starting from October. The literature needs to be critically reviewed to form a model as a base for the questionnaire. Formulating the questionnaire is one of the most critical tasks to be carried on and hence needs to be formulated in the first 5 weeks. While the questionnaires are being answered, analysis techniques would be learnt, and the chapters of methodology and literature review are to be done. Once the data of surveys is available, analysis and conclusion would be drafted to the supervisor for feedback in week 11. The dissertation would then be updated accordingly, to be submitted in week 12 by the month of January. (See Appendix 2)

## 1.6. Roadmap

Chapter 1 gives introduction to the topic and gives a proper idea about what the research is about. It clearly explains the objectives and all that has been done in this report along with the limitations and contributions. Chapter 2 has all the details on previous research that has been done on the same subject. The literature review explains what milestones the researchers have reached with regards to this research. This chapter is classified into certain concepts necessary for the research. Then the methodology is explained in Chapter 3, where the steps taken in carrying out the research are explained. This chapter clearly explains the different methods of business research and the why the chosen method suits best here.

Chapter 4 focus on the findings of this research. The gathered data is analyzed, and the findings are presented here. These findings are reasonably descriptive and do not intend to draw any general conclusion. Then in Chapter 5, the findings are analyzed by combining different responses of the survey and further discussed with regards to the objectives of this research. The recommendations and conclusions are then presented in chapter 6. This chapter

draws general conclusions by summarizing the findings, pointing out the contributions of this research with regards to previously argued literature.

Following is the chapter 7 on reflection where an in-depth account of student researcher's experience in dissertation and master's program as a whole is presented. Then the chapter 8 is bibliography where all the references cited in between the report are presented in the formatting structure of Harvard Referencing. The report ends with the last chapter of Appendix where the questionnaire and other details are provided.

### 1.7. Scope and Limitations

The proposed research would find the reason why individual traders and investors use the two analysis; Fundamental analysis and technical analysis separately. This research thus needed responses from different individuals who are a part of the stock markets. Reaching out different traders and investors, especially those of whom are not any kind of broker or influencer was the major issue faced by researcher. Given the limited time and need for responses from individual traders and investors from around the globe, researcher has done his research through an online survey questionnaire, which was distributed only to a single facebook group, "Day Trading Stocks and Options". This group was chosen given the members from around the world and the activities which were always directly related to stocks. Adding to it, the group admin agreed to help out with any issues and not only allowed to post the questionnaire in the group, but also 'pinned' the survey when responses were not quick enough, to add the weightage of importance. This allowed a handsome 100 responses to the survey.

Due to the constraints in terms of time, the research would be limited to the following:

- **Research would not be able to find out the individual behavior of traders and investors across different markets:** Based on the 100 responses, classifying them into their specific stock market would not give the accurate results to generalize each of the nineteen stock markets. Instead, the researcher classified the respondents based on their geographic location based on continents. This would give a slightly better idea about changing preferences and techniques.
- **Respondents are only the traders and investors in stock market and hence, analysis for other securities are not done:** The primary objective of the research is to find why traders and investors rarely make use of both, fundamental and technical analysis while analyzing the stock markets. If other securities were involved, the options, preferences and techniques as well as the reasons would have been very different and would require more details and difficult to administer and understand, and also might affect the findings by creating confusions. Instead, based on the stock market analysis, the reasons can be easily generalized with other securities.
- **The study ignores the current best practices suggested by some of the finance gurus and brokers:** The research focuses to find the reason why people carry out only a single factor analysis, despite of the previous researches explaining the complementary behavior of the two. This research thus concentrates on previous research papers on Technical and



fundamental analysis, and then compares it with the preferences of individual traders and investors.

- **The extent of variations in the analysis could not be perfectly measured:** Every trader and investor have their unique style of analyzing the stocks and markets. Some of them actually analyze based on only technical analysis or only fundamental analysis, but there are a few, who knowingly or unknowingly, tend to analyze the markets based on a combination of the two analysis. The extent of these variations cannot be measured based on their simple responses, which would require a depth and long questionnaire which the respondents might find difficult to respond as the questions might get quite personal on the techniques and profits.

## 1.8. Contribution

The main aim of this question is to identify the reason why the traders & investors rarely use both: fundamental & technical analysis models for forecasting. The answer to this question has already been answered through the questions asked above.

From the sub question 1, it can be seen that most of the short term traders analyze the stocks and markets through technical analysis, while fundamental analysis is preferred by those who participate in the stock market for long term investments. The next question enquired if traders and investors gain comparatively higher returns when using both, fundamental analysis and technical analysis together. Though it was evident that they gain higher based on the literature

review of the previous researches, finding the right amount is certainly impossible, but it does support the fact.

The sub-question 3 can be seen as the right conclusion or the recommendation from this research. It is explained that traders and investors can ensure a minimum risk by taking all the factors, individual and market variables into consideration. This is possible for traders as well as for investors, fundamentally sound stocks could be timed properly with technical analysis.

**To put this in simple words for traders and investors,**

- **Short term traders should create their stock watchlist, full of fundamentally good stocks.**
- **Long term investors should pick up their fundamentally strong stock, and time to open and close the trade through technical analysis.**

Mentioned above is the takeaway from the research, which was agreed upon after proper analysis of all the required data from the responses of the survey.

## 2. LITERATURE REVIEW

### 2.1. Introduction

The stock market refers to the collection of markets and exchanges where the issuing and trading of equities or stocks of publicly held companies, bonds, and other classes of securities take place. People buy and sell these securities with a view to get returns in form of profits. But to earn these profits, they need to decide on the security which can only be done with experience.

There has been following question which has been a continuous source of controversy in both academic and business circle: To what extent of accuracy can the stock prices be forecasted? They can depend on numerous factors and thus makes it difficult to gain good returns. The financial markets need to be analyzed thoroughly to predict any future changes in the prices of the stock. The different number of analysis could be broadly be divided into two different techniques: Technical analysis and Fundamental analysis.

Analysis could be done based on a single factor but also by combining different factors together. The traditional method of stock analysis is to predict the future prices based on the past performance of the company of interest, which is termed as technical analysis. This gives a good insight but may not give the whole picture because of the changing economical and other factors. This is what fundamental analysis is all about.

### 2.2. Technical Analysis

Technical analysis could be defined as a technique that forecasts the asset's price through the support of past evidence in the arrangement of tendencies and charts. In their study of

charting and UK non-professional investors, for identification through technical analysis, Roscoe and Howorth examined chartists' decision-making techniques and derived a taxonomy of charting strategies based on investors' market ontologies and calculative strategies. This distinguished trend-seekers and pattern-seekers, and trading as a system or an art. They argued that the interpretative activity plays a more important role than previously thought and further suggested that charting's main appeal for users lies in its power as a heuristic device regardless of its effectiveness at generating returns (Roscoe and Howorth, 2009).

In the paper, Roscoe and Howorth deliberately pushes upon the technical analysis approach rather than a fundamental approach. They have majorly cited the work of Michael Lewis, who finds himself bewildered by the investment practice of technical analysis, commonly known as 'charting'. This is a method of identifying investment opportunities using graphs. Unlike fundamental analysis, charting requires no information other than price history; it is not necessary to know the activity – nor even the name – of the company whose shares are traded; nor the precise nature of the financial instrument in question; nor the uses and likely demand for a given commodity. Chartists are not necessarily schooled in the staples of fundamental analysis: economics, accounting, industry expertise and financial modelling. Instead, they use methods of varying complexity to extrapolate past price movements into future predictions (Lewis, 1989, p. 192).

Recognition of competency of the historic evidence of values and their variation to predict the future values was even uninterruptedly researched with different techniques and experiences dating right from the series of papers published by Charles Dow in Wall Street Journal from year 1900 to year 1902. Being a great influencer of his time, people easily started believing how technical analysis is based on certain patterns and is not just a random walk in

the markets. . The publications by this founder of Wall Street Journal are still found to be relevant today (Sether, 2009). These publications provoked additional research in the areas of technical analysis to explain current and future prices and the returns as well.

In the journal paper, “Stock Market Prices Do Not Follow Random Walks: Evidence from a Simple Specification Test”, Andrew W. Lo and A. Craig MacKinlay from the University of Pennsylvania test the random walk hypothesis for weekly stock market returns by comparing variance estimators derived from data sampled at different frequencies. In their research, after testing and several rejections and success of several hypotheses, a relationship between past prices and future returns was confirmed (Lo and MacKinlay, 1988).

The relationship between historic values and future earnings was found after testing of over 8 hypotheses in the 2 editions, which denoted that stock market process does not follow random walks. Lo and MacKinlay, further explained the importance of variance ratio as another achievement. The hypothesis was tested with regressions against the empirical evidence. By choosing the sampling frequency appropriately, the variance ratio test is shown to be as powerful as the Dickey-Fuller and Box-Pierce tests against the stationary alternative and is more powerful than either of the two tests against the two unit-root alternatives (Lo and MacKinlay, 1989).

Still, other researchers prefer considering the profitability of momentum approaches, where the traders and investors create their portfolios based on the historic data of past performance and holding those for a predefined period. In the paper, “Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency”, Narasimhan Jegadeesh And Sheridan Titman, documents that strategies which buy stocks that have performed well in the past and sell stocks that have performed poorly in the past generate significant positive returns

over 3- to 12-month holding periods. They found that the profitability of those methods does not seem to be because of their systematic risk or due to delayed stock worth reactions to common factors. Still, a part of the abnormal returns generated within the initial year once portfolio formation dissipates within the following 2 years. A similar pattern of returns round the earnings announcements of past winners and losers is additionally documented.

Narasimhan Jegadeesh And Sheridan Titman further evaluated various explanations for the profitability of momentum strategies documented in “Returns to Buying Winners and Selling Losers (1993)”. The evidence indicates that momentum profits continued in the 1990s, suggesting that the original results were not a product of data snooping bias. The article conjointly inspects the forecasts of current behavioral models that propose that momentum profits to delayed overreactions which are ultimately inverted. Our proof provides support for the behavioural models, but this support should be tempered with caution. While impetus research enables huge profits by buying a portfolio of past ‘winners’ and concurrently short selling a portfolio of past ‘losers’, and after that hold the same consequent position for a couple of quarters spanning 4-12 months. (Jegadeesh and Titman, 1993, 2001).

It is also observed by several researchers that for a small forecasting duration as of a couple of weeks, technical analysis outperforms the fundamental analysis (Menkhoff, 2010).

### 2.3. Fundamental Analysis

The importance of fundamental indicators in the valuation of shares was argued formally earlier by Graham and Dodd in “Security Analysis”. In their writings, Wall Street was warned for their tendency of giving excess importance to the stated earnings per share of a company rather than the other prominent factors. In the further review of this writing, it was stated by

the Journal of Finance that "An investment operation is one which, upon thorough analysis, promises safety of principal and an adequate return. Operations not meeting these necessities are speculative.", to define investment in a more fundamental way (BOOK REVIEWS, 1952).

To put this in simple words, Fundamental Analysis is simply a method of forecasting the fluctuations in the stock by attempting to compute its intrinsic value by examining related economic, financial and other qualitative and quantitative indicators. The exceptional nature of capital market instruments compels investors to rely heavily upon fundamental factors in their investment choices. These fundamental factors recount to the whole economy or a particular industry or an organization. The performance of the stocks that represent the organization relies on the performance of the organization as whole. Yet, as organizations are a portion of industrial and business sector, what is known as a chunk of overall economy, so also the economic and industry factors can affect the investment decision. The selection of an investment will start with fundamental analysis. Fundamental analysis examines the economic environment, industry performance and company performance before making an investment decision.

Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like the overall economy and industry conditions) and individual specific factors (like the financial condition and management of companies). Thus, further explains, fundamental analysis is a three-phase analysis of

- a. The economy
- b. The industry and
- c. The company

Most fundamental analysis studies involve large sample estimations that span the entire population of firms with available data. However, fundamental analysis as practiced by professional analysts is generally done in a more limited context, typically involving the comparison of a subset of firms with common characteristics. “The Contextual Fundamental Analysis Through the Prediction of Extreme Returns” states the example, most sell-side financial analysts tend to focus on firms within the same industry, or the same economic sector. Similarly, many buy-side analysts and fund managers specialize in either the universe of “value” stocks, or “growth” stocks. Collectively, this illustrates the usefulness of conducting fundamental analysis in context. (Beneish, Lee and Tarpley, 2001).

The study on “Financial Statement Analysis to Predict Stock Returns of Listed Consumer Goods Firms in Nigeria” examines whether the application of an accounting fundamental strategy to select stocks of a portfolio can systematically yield significant and positive excess market buy-and-hold returns after one year of portfolio formation. Using financial statement information and the “direct approach”, multiple logit models were developed to predict the year-ahead returns. The study found that eleven accounting ratios predict stock returns accurately in 76.6% of the cases. This robust ability to accurately predict stock returns is evidence that conducting fundamental analysis and taking investment positions on the basis of Pr values can be a fruitful strategy for investors. (Ajekwe and Ibiamke, 2018).

Fundamental analysis typically uses econo-metric techniques like logit/probit analysis (Holthausen and Larcker, 1992) or regression analysis (Lev and Thiagarajan, 1993; Abarbanell and Bushee, 1997; Sloan, 1996).



In the journal paper, “Fundamental Analysis, Future Earnings, and Stock Prices”, Abarbanell and Bushee investigate how detailed financial statement data (fundamental signals) enter the decisions of market participants by examining whether current changes in the signals are informative about subsequent earnings changes. Their approach is consistent with the view that are expressed predicting accounting earnings, as opposed to explaining security returns, should be the central task of fundamental analysis. Studying the links between fundamental signals and future earnings changes allows to test directly the validity of the economic intuition that underlies the original construction of the signals. An alternative, and less direct, approach, followed by (Lev and Thiagarajan, 1993), is based on an examination of the relations between the fundamental signals and contemporaneous returns (Abarbanell and Bushee, 1997).

#### 2.4. Substituting nature

De Zwart et al (2009) observed that technical analysis works well for short term trading while fundamental analysis outperforms technical for long term trading. Zhu & Zhou (2009) found that the rules of technical trading are robust for modeling specifications and they outperform the strategies of fundamental analysis. Technical analysis is valuable because the fundamental factors may be enough to reveal some information, but not all. Because the underlying uncertainty in the economy is not resolved in one period, sequences of market statistics can provide information that is not impounded in a single market price (Blume, Easley and O'Hara, 1994).

Seven forecasting horizons were tested, and it gave an interpretation that at shorter time periods (Intraday, 1 week and 1 month), there exists a skew towards reliance on technical analysis as compared to fundamental analysis, but as the length of time period increases (6

months, 1 year and > 1 year) the skew shifts to fundamental analysis (Baradi and Mohapatra, 2015).

In general, the purpose of the technical analysis is trading, and the goal of fundamental analysis is investment. Fundamental analysis is primarily used by investors who buy and hold stocks for a period of time, while technical analysis is most frequently used by traders looking to make short-term profits. Investors buy certain stocks because they believe that their value will increase in the future, while traders buy certain stocks because they think they will be able to sell them at a higher price in a relatively short period of time (Petrusheva and Jordanoski, 2016).

Fundamental vs. Technical is the most controversial subject among all the investors and the analysts. Archana Mishra, in her paper, does not favor a particular method for trading, but clearly defines when Fundamental analysis should be done and when technical analysis to be done. The method would also depend on the type of market one is investing in. The first half of the paper suggests what factors should be considered while trading. Also, some basic concepts on type of trading has been mentioned which helps in knowing the mentality of the trader and thus his trading technique. Lastly, the paper explains few technical patterns to trade by taking NIFTY as an example. From the findings it can be said that no particular technique for trading can be used in isolation. Technical analysis can only result in short term gains but for large gains, the fundamental study of industry and company needs to be done (Mishra, 2013).

There always exists an ambiguity in the analyst's mind concerning tracking the market. Which method to follow, Fundamental or Technical? Though this question still remains under grey area, the smart performers got the way out. The Fundamental analysts find the intrinsic

value of the company, but this value already gets reflected in the price movements of the stocks (generally top performing stocks) i.e. the lowest price at which the selling or buying happens in an adverse situation is found to be the intrinsic value of that stock. Archana Mishra also observed that that patterns on charts can be used to hold position for a longer duration as well. Also, traders can use fundamental analysis for selecting the suitable stocks for investment and thereafter tracking the charts to speculate or take advantage of the arbitrage opportunity. Most often the fundamentals are reflected in charts via price movements.

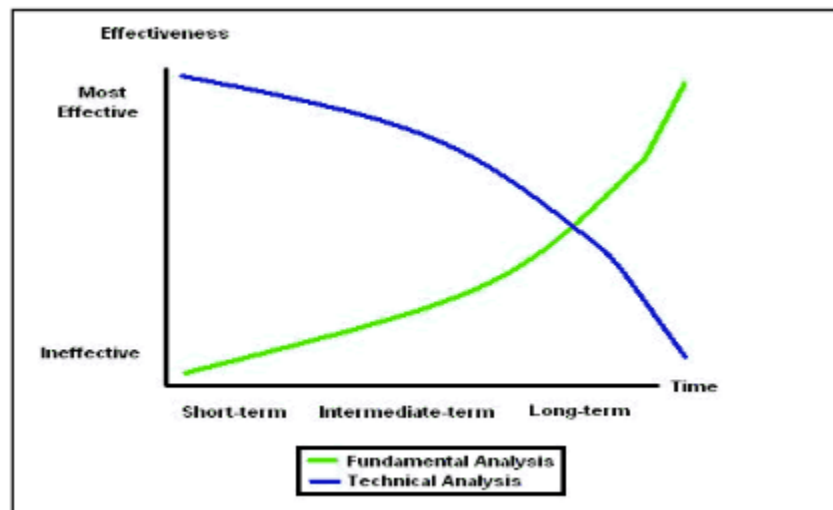


Figure 1: Effectiveness of Fundamental vs Technical Analysis (Mishra, 2013)

## 2.5. Complementing nature

The extant valuation literature invests considerable effort in assessing the ability of both fundamental and technical analyses to explain share prices. However, in doing this, the literature invariably focuses on one type of analysis without reference to the other. Consequently, the literature neglects the possibility that fundamental and technical analyses

could serve as complements rather than substitutes in equity valuation exercises. In bridging this gap in the literature, Bettman, Sault, and Schultz, in 2009, proposed an equity valuation model integrating both fundamental and technical measures. Testing confirms the complementary nature of fundamental and technical analysis by showing that, although each performs well in isolation, models integrating both have superior explanatory power (Bettman, Sault and Schultz, 2009).

Fundamental and technical analysis differ in several aspects, such as the way of functioning and execution, the time horizon used, the tools used and their objective. These differences lead to certain advantages and disadvantages of each of the analyses. Fundamental and technical analysis are also a subject of critical reviews by the academic and scientific community and many of these reviews concern the methods of their application, i.e. the possibility of combining the two analyses and using them complementarily to fully utilize their strengths and advantages. Petrusheva and Jordanoski in their “Comparative analysis between the fundamental and technical analysis of stocks” explain that the differences show that the fundamental and technical analysis are essentially different strategies for making investment decisions. However, the observed differences don’t necessarily indicate that fundamental and technical analysis lead to different investment decisions. In fact, both analyses have their advantages and disadvantages that can be combined to give optimum results (Petrusheva and Jordanoski, 2016).

Suresh, in the study of fundamental and technical analysis, explains that Investment is generally distinguished from speculation in terms of three factors, namely risk, capital gains and time period. Gambling is the extreme form of speculation. Investors may be individuals or institutions. Both types of investors combine to make investment activity dynamic and

profitable. The investors in the financial market have different attitudes towards risk and varying levels of risk bearing capacity. Some investors are risk averse, while some may have an affinity to risk. The risk bearing capacity of an investor, on the other hand, is a function of his income. A person with higher income is assumed to have a higher risk bearing capacity. Each investor tries to maximize his welfare by choosing the optimum combination of risk and return in accordance with his preference and capacity. It is highly essential for the investor to do both fundamental and technical analysis for deciding the suitable stock. In stock market, trend is considered to be a man's best friend (A.Suresh, 2013).

Zwart documented that an equally-weighted combined chartist/fundamentalist investment strategy renders economically and statistically significant positive risk-adjusted returns. Although both fundamentalist and chartist trading rules individually also generate positive risk-adjusted returns on average, the performance of the combined strategy is far superior and, in particular, much more stable across countries. Notably, the dynamic strategy, in which the weights assigned to chartist and fundamental information are adjusted dynamically based on relative past performance, does not outperform a naive equally-weighted combination.

This idea has been supported by numerous researchers including (Oberlechner, 2001); (Thomsett, 2017); (Blume, Easley and O'Hara, 1994).

## 2.6. Conclusion

There has been a good research on both, technical analysis as well as the fundamental analysis. Both being true, there are also researches on the nature of these analysis. There are a huge amount of journal papers who have quoted that both the analysis need to be used together to earn better returns. The others saying that a single analysis suffice are only a few, most of

them pertaining to the long past years. Based on the technical tools' analysis and secondary research, Archana Mishra (2013), there cannot be a perfect way of trading. It all depends on the individual's comfort level in using the technical analysis tools, or analyzing the fundamentals to take positions (Mishra, 2013). On critical assessments of the latest research material, it can be concluded that although each performs well in isolation, models integrating both have superior explanatory power. But we need to put special emphasis on the fact that models simultaneously incorporating both fundamental and technical analysis are all but non-existent (Bettman, Sault and Schultz, 2009).

### 3. RESEARCH METHODOLOGY

#### 3.1. Introduction and research onion

This chapter presents a thorough review of the chosen research methodology utilized in order to achieve the study's research objectives. Justification for the selected methodology is also provided along with potential limitations and ethical concerns related to the conduct of the research.

Kothari (2004, p.5) emphasizes the chief consequences of research, declaring that "increased amounts of research makes progress possible" whilst Rajasekar, Philominathan and Chinnathambi (2006, p.1) state that "research can lead to new contributions to the existing knowledge." Meanwhile, Collis and Hussey (2003, p.3) illuminate the complexities associated with defining the research endeavour, ultimately concluding that research is "a systematic and methodical process of enquiry and investigation with a view to increasing knowledge." The research process, according to Collis and Hussey (2003, p.10), is ideally "a neat orderly process with one stage leading logically onto the next stage"; however, they also acknowledge that "research is rarely like that" and give some consideration to the prerequisite stages of the process, within which continuous revisions are typically made, as outlined below.

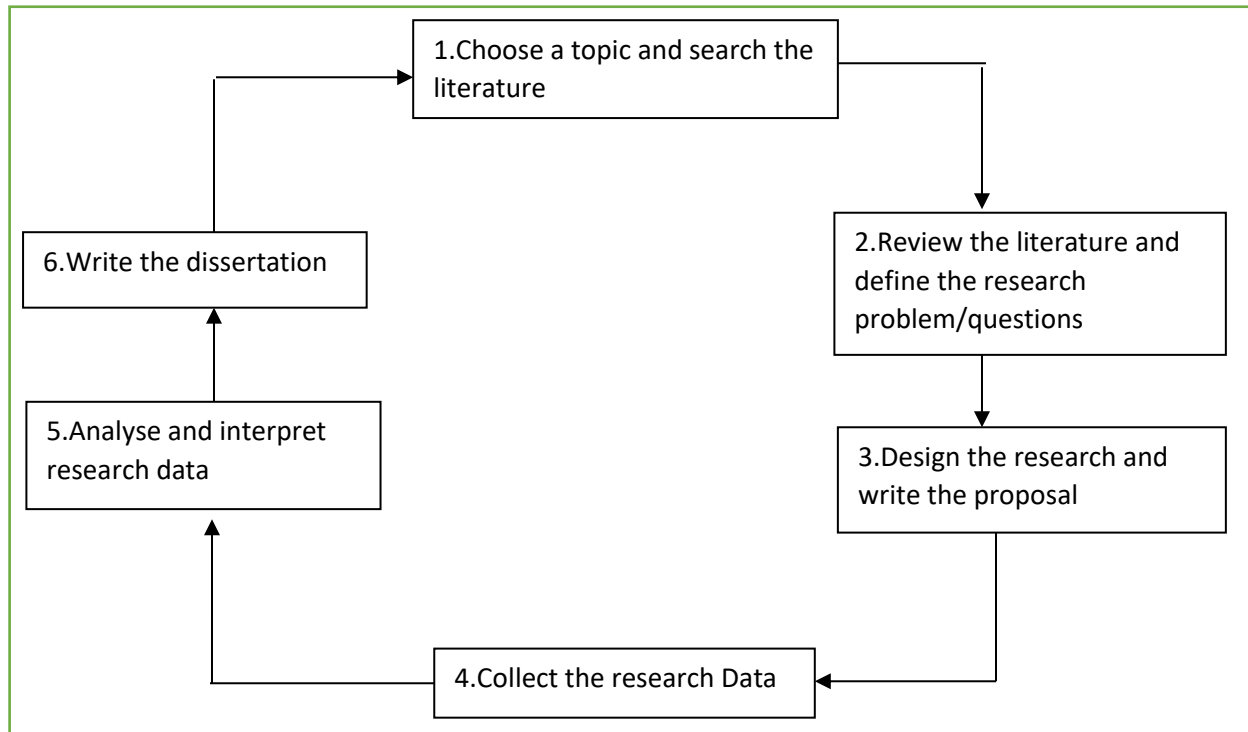


Figure 2: Overview of the research process (Collis and Hussey, 2003, p.10)

Blumberg, Cooper and Schindler (2011, p.12-13) emphasize that good research should be “purposeful with a clearly defined focus and plausible goals, defensible ethic and replicable procedures with evidence of objectivity.” Consequently, it is imperative for the researcher to identify not only the research methods necessary but also the overall methodology (Rajasekar, Philominathan and Chinnathambi, 2006, p.5). Accordingly, at this juncture, it is essential to distinguish between research methods and methodology. Research methods can be described as the techniques and tools employed to obtain and analyse research data, inclusive of questionnaires, observations and interviews and both statistical and nonstatistical techniques (Saunders, Lewis and Thornhill, 2012, p.674). Conversely, Ponterotto (2005, p. 132) stipulates that research methodology refers to the “process and procedures of the research.” Furthermore, Kothari (2004, p.8) more vividly explicates that the scope of methodology is more extensive



than methods and, in contrast, has “many dimensions” that constitute different parts of the overall methodology. In this respect, the inherent value of affirming the logic of the methodology for a particular study is emphasised.

The metaphor of the ‘research onion’ has been chosen to embody the various research strategies being employed for this study. The outer layer of the ‘onion’ portrays research philosophies, with the research approaches, strategies and choices depicted in the inner layers of the model and, finally, at the onion’s centre, time horizon along with data collection and methods of analysis are addressed (Saunders, Lewis and Thornhill, 2012, p.103). The specific methodologies that were utilised in this study have been encircled diagrammatically below.

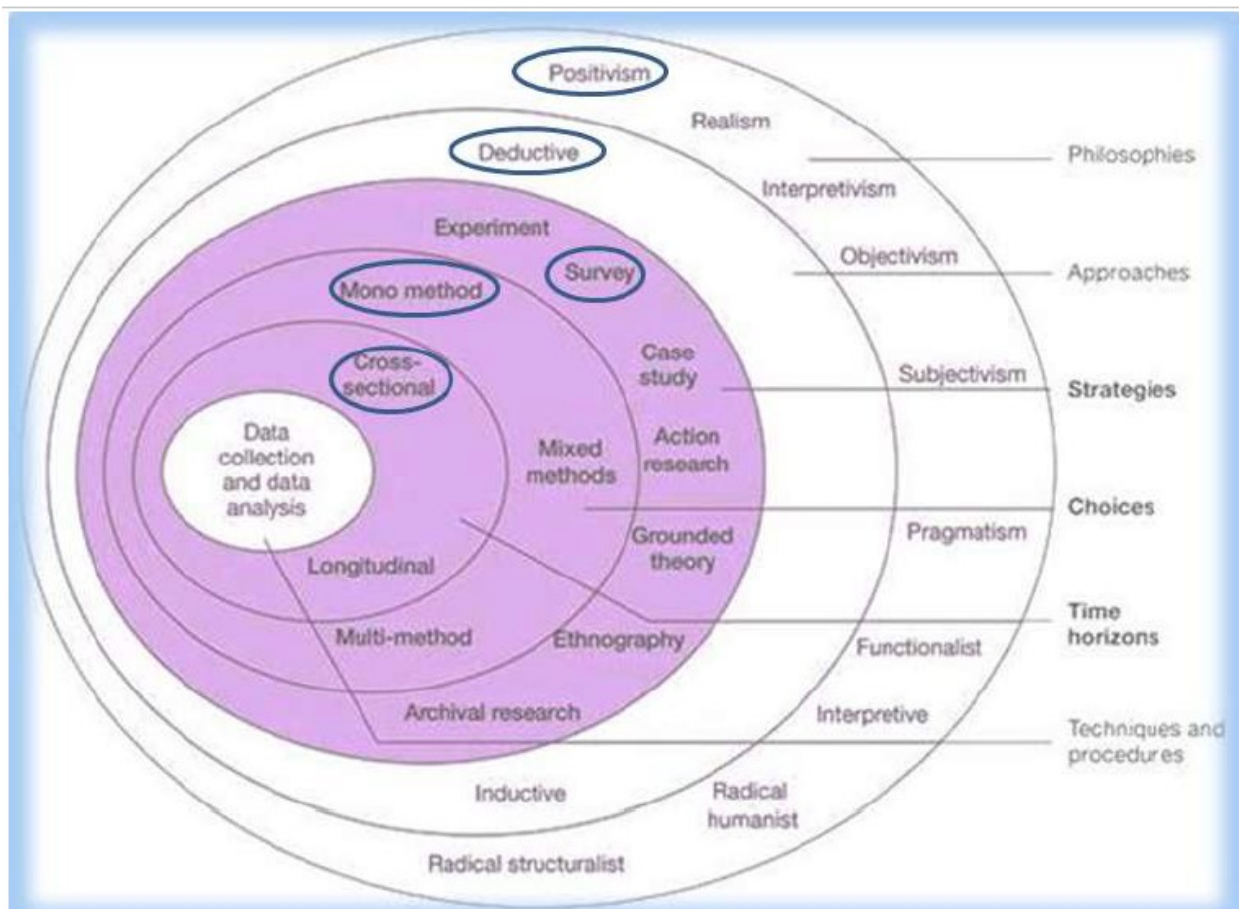


Figure 3: The ‘research onion’ (Saunders et al., 2012, p.103)

### 3.2. Research Philosophy layer: Positivism

Eriksson and Kovaleinen (2008, p.11) stress that knowledge about basic issues of philosophy promotes enhanced, well-grounded business research. The outer research ‘onion’ layer relates to this area, whereby the researcher must select a fundamental research philosophy to abide by throughout the process. According to Saunders, Lewis and Thornhill (2009, p.108), “the research philosophy one adopts contains important assumptions about the way in which you view the world.” Saunders, Lewis and Thornhill (2009, p.13) and Johnson and Clark (2006) highlight the magnitude of the research philosophy and consider that it both fortifies the research strategy and the methods chosen as part of that strategy. The selection of the specific philosophy is itself dependent upon the type of research question being asked. There are 10 possible philosophies to select from, as demonstrated below.

<b>Positivism</b>	<b>Subjectivism</b>	<b>Objectivism</b>	<b>Radical humanism</b>	<b>Pragmatism</b>
<b>Interpretivism</b>	<b>Realism</b>	<b>Functionalist</b>	<b>Interpretive</b>	<b>Radical structuralist</b>

Figure 4: Research philosophies (Saunders, Lewis and Thornhill, 2009, p.13)

It is imperative to note the philosophical assumptions relating to the underlying epistemology which guides the research (Myers, 2013, p.36). The principal research epistemologies are positivism, realism and interpretivism (Blunberg et al., p.16-17, 2011). However, Colin and Hussey (2003, p.55) hold that there are just two main paradigms that “guide how research should be conducted based on people’s philosophies and their assumptions about the world and the nature of knowledge”, which are positivism and interpretivism. Hudson and Ozanne (1988, p.511) stress that these two approaches are polar

opposites, which “represent two different ways of knowing”, with each comprising its own particular strengths and weaknesses.

<b>Positivism</b>	<b>Interpretivism</b>
Reality is objective and singular	Reality is subjective and multiple
Researcher is independent of research	Researcher is interactive with research
Value free and unbiased	Value laden and biased
Formal, passive language style	Informal, personal language style
Deductive process	Inductive process

Figure 5: Qualities of the main research paradigms (Creswell, 1994; 1998, as cited in Collis and Hussey, 2003, p.58)

In light of the above, the researcher embraced the principles of the positivist position. This is deemed the most appropriate to address the particular research questions of this study and to further develop knowledge of the area. Walliman (2001, p.15) refers to such knowledge building as “positive information” on the basis that “every rationally justifiable can be scientifically verified or is capable of logical or mathematical proof”. In addition, Blumberg, Cooper and Schindler (2011, p.17) stipulate three rudimentary principles of positivism, in the following figure.

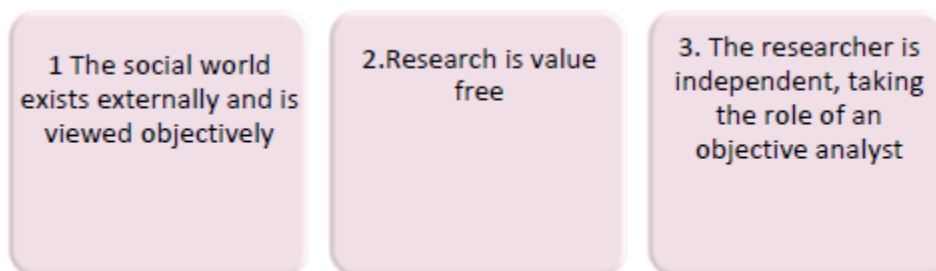


Figure 6: Key principles of positivism (Blumberg, Cooper and Schindler, 2011, p.17)

Ponterotto (2005, p. 128) suggests that “the primary goal of positivistic inquiry is an explanation that leads to prediction and control of phenomena,” which aligns with the researcher’s overall aim of gauging bank consumers’ attitudes towards the nation’s banking industry following the Irish banking crisis in order to produce recommendations and conclusions.

In this regard, Remenyi et al. (1998,p.88-90) stress that the positivistic approach is typically implemented by researchers with a preference for pursuing facts or the causes of social or business phenomena, which further substantiates suitability of this customer study. Moreover, many scholars have noted that positivism is the primary paradigm in customer research (Anderson, 1983, 1986; Bagozzi, 1980; Hunt, 1983; Peter and Olson, 1983, as cited in Ozanne and Hudson, 1989, p.1). The positivist approach is typically used in studies that can be generalised to broader populations regarding links between cause and effect, and therefore, is well suited to this study of current bank customer attitudes, in light of the banking crisis (Nair, 1999, p.14). Despite its utility, nevertheless, positivism does have certain limitations that cannot be discounted, such as its deficiency in predicting the complexities of the real world. The constraints associated with this approach are fully documented diagrammatically below.

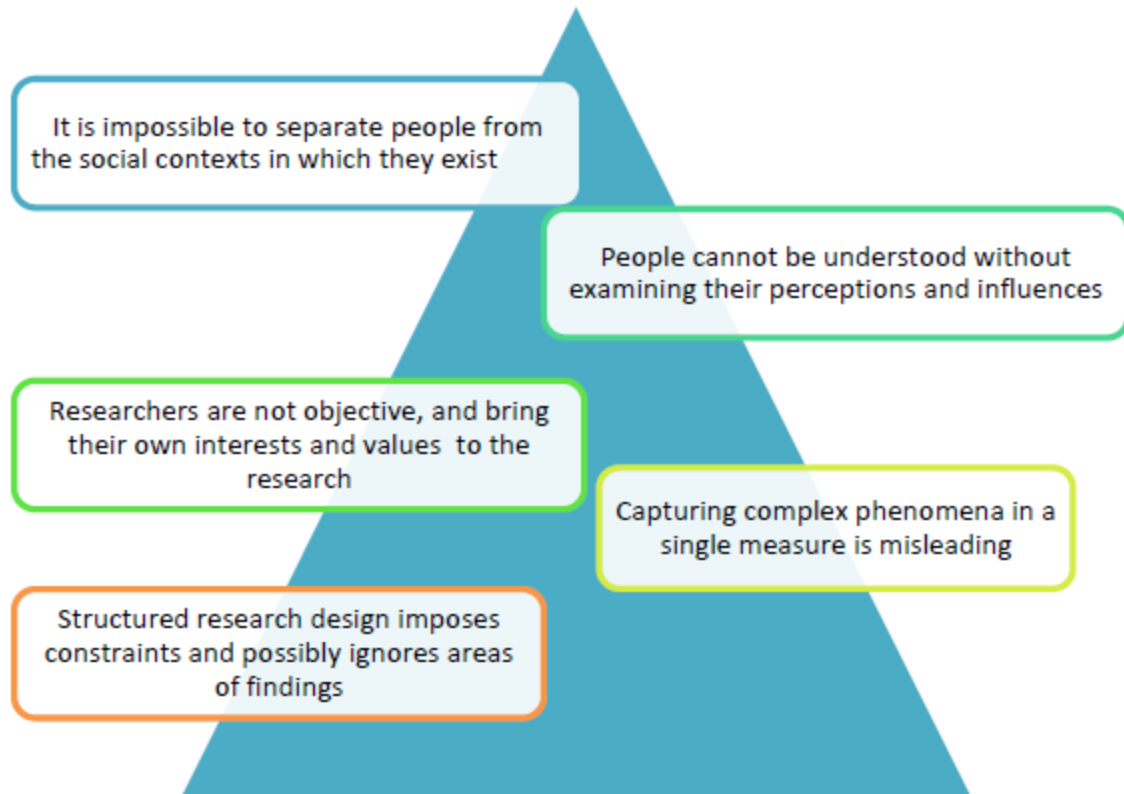


Figure 7: Criticisms of positivism (Collis and Hussey, 2003, p.56)

Alternative philosophies that could be utilised for this research include interpretivism, which considers that social reality is not objective but, rather, is highly subjective in that there is an interaction between the researcher and what is being researched so that investigating the social reality also has an effect on it (Collin and Hussey, 2003, p.57). Meanwhile, pragmatism, which “argues that knowledge and understanding should be derived from direct experience” (Easterby-Smith, Thorpe and Jackson, 2008, p.331), takes both interpretivism and positivism into account to integrate these different perspectives with the research results in order to acquire a more balanced perspective (Saunders, Lewis and Thornhill, 2009, p.598). Realism, on the other hand, “assumes that the physical and social worlds exist independently of any observations made about them” (Easterby-Smith, Thorpe, and Jackson, 2008, p.332).

However, considering the previously explained suitability of positivism and the chief research constraints concerning time, wording and budget, positivism was selected. Such a rationale is further validated as the researcher justifies the other choices made in the research onion.

### 3.3 Research approach Layer: Deductive

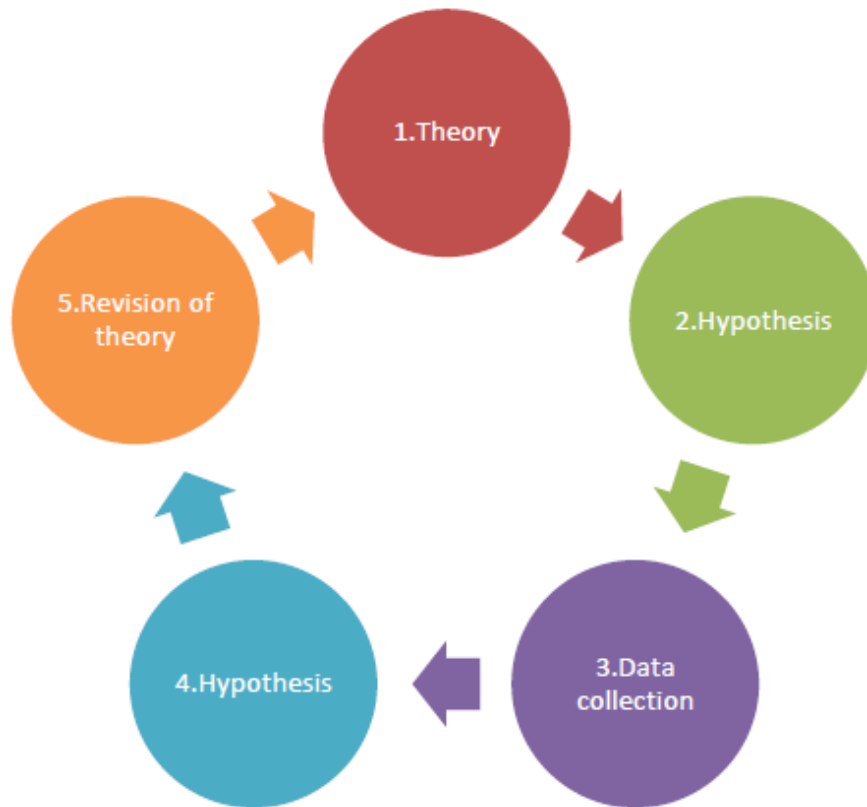
Considering the research approach onion layer, deduction and induction are the two chief research approaches that may be selected, either as alternatives or used in a complimentary fashion in an approach termed abduction (Saunders, Lewis and Thornhill, 2009, p.124-127). Deductive reasoning may be explicated as “reasoning from the general to the particular” (Pelissier, 2008, p.3), whereas inductive reasoning is the opposite. Alternatively explicated, deduction constitutes the initial formulation of hypotheses and their subsequent testing during the research process, while inductive studies do not involve hypotheses at all (Saunders, Lewis and Thornhill, 2009, p.127). The key dissimilarities between the brace of research approaches are outlined below.

### Major differences between deductive and inductive approaches to research

Deduction emphasises	Induction emphasises
<ul style="list-style-type: none"><li>• scientific principles</li><li>• moving from theory to data</li><li>• the need to explain causal relationships between variables</li><li>• the collection of quantitative data</li><li>• the application of controls to ensure validity of data</li><li>• the operationalisation of concepts to ensure clarity of definition</li><li>• a highly structured approach</li><li>• researcher independence of what is being researched</li><li>• the necessity to select samples of sufficient size in order to generalise conclusions</li></ul>	<ul style="list-style-type: none"><li>• gaining an understanding of the meanings humans attach to events</li><li>• a close understanding of the research context</li><li>• the collection of qualitative data</li><li>• a more flexible structure to permit changes of research emphasis as the research progresses</li><li>• a realisation that the researcher is part of the research process</li><li>• less concern with the need to generalise</li></ul>

Figure 8: Chief differences between deduction and induction (Saunders, Lewis and Thornhill, 2009, p.127)

Considering that as Blumberg, Cooper and Schindler (2011, p.21) stipulates “deduction is a form of inference that purports to be conclusive”, the researcher has chosen to follow the deductive approach, the process of which is charted below.



*Figure 9: Deductive process (Bryman, 2001, p.11)*

Saunders, Lewis and Thornhill (2009, p.124-125) note that, typically, those who adopt the positivist approach also adopt the deductive research approach, as the researcher has done in this study. The decision to employ a deductive approach for this research topic is based primarily upon a pair of dynamics. There is a wealth of literature available on the broad research topic from which hypotheses can be formulated. An inductive approach generally suits research into a new area where little or no literature exists. Additionally, the constraints of time and financial resources made deductive research the more practical and hence feasible choice. Although this quantitative approach may, initially, take significant time to set up, once this has been done, the study is usually speedier to complete than the alternative method. This is because data collection is often based on “just one take”, contrasting with the more prolonged



inductive approach whereby usually a more extended period of data collection and analysis is required (Saunders, Lewis and Thornhill, 2009, p.127).

Data about how individual investors analyze the stocks would help in explaining the reason for the widely used techniques. This data would be considered reliable only when it comes from an individual investor, rather than a broker or a firm who might influence or manipulate the individual behavior. Thus, to standardize the individual behavior for easy comparison, a **quantitative data collection** technique needs to be implemented. It would be a **mono collection method** as the gathering the data qualitatively from an expert might again lead to their influence on every other individual. Also, the individual behavior changes according to the geography. Hence to be specific about this, a **survey questionnaire** would be the best option which could be circulated among various traders and investors across the globe without any economic and time hassles.

A further justification for employing this approach is highlighted by Fisher's (2007, p.76) suggestion that "the strength of inductive arguments is often weaker than that of deductions," thus concluding that "deductions are certainties, but inductive conclusions are probabilities." In addition, as Saunders, Lewis and Thornhill (2009, p.127) illuminate, the deductive method is familiar to many industry managers, who are "much more likely to put faith in the conclusions emanating from this approach", also highlighting its "lower-risk", more strategic nature in contrast with the alternative inductive approach.

#### 3.4. Research Strategy Layer – Web-Based Survey

Saunders, Lewis and Thornhill (2009, p.141) describe a research strategy as a generic plan that directs the researcher to address specific research questions. Equally, the optimal research

strategy should consider “objectives, the extent of existing knowledge, the amount of time and other resources you have available, as well as your own philosophical underpinnings” (2009, p.141). They go on to expound that “each strategy can be used for exploratory, descriptive and explanatory research”. Seven different research strategies are available to the researcher, as listed below.

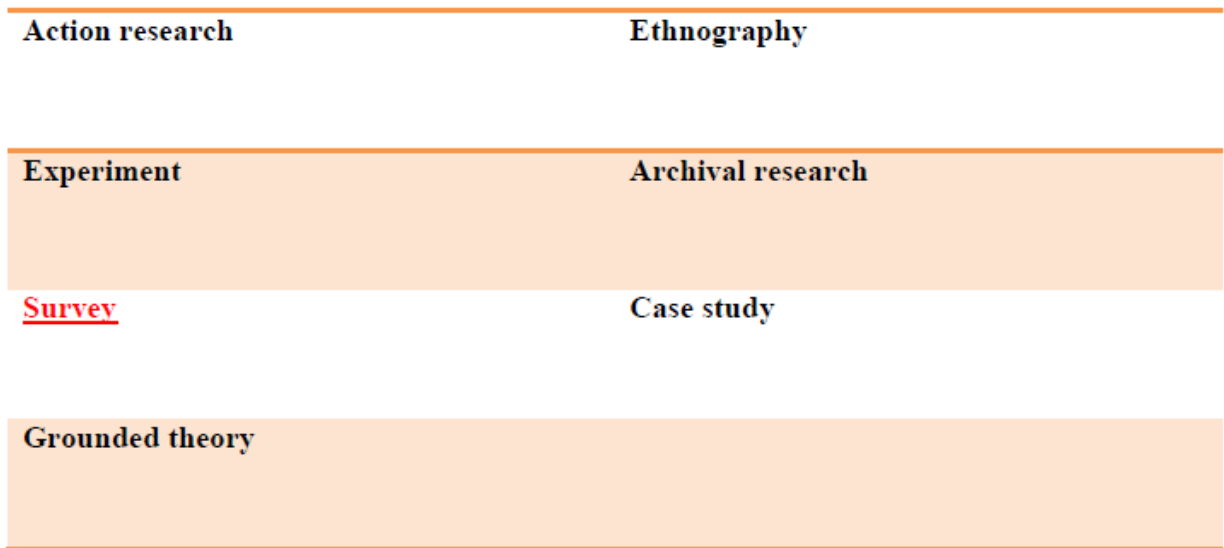


Figure 10: Key research strategies (Saunders, Lewis and Thornhill, 2009, p.141)

Considering the selections already made relating to the ‘research onion’, most of these strategies can be discounted. This research was performed by means of a survey, which was considered the most appropriate means of gathering a large amount of data from a large group of individuals over a short period of time, whilst also meeting limited budget requirements. This strategy is commonly utilized to address the “who, what, where, how much and how many” category of questions, thereby “...allowing easy comparison” in an economical manner from a broad sample of persons relating to the specific data sought by this study (Saunders,

Lewis and Thornhill, 2009, p.144). Surveys are often used “to describe frequencies of behaviors and attitudes and sometimes to identify relationships between variables and test hypotheses” (Hart, 2005, p.327).

Of the various survey methods available, an online survey was selected rather than any of the comparatively slower, costlier and less anonymous range of alternative techniques, including postal questionnaires and telephone interviews. Figure 15 was considered before the researcher made this decision.

**Table 11.1** Main attributes of questionnaires

Attribute	Internet- and Intranet-mediated	Postal	Delivery and collection	Telephone	Structured interview
Population's characteristics for which suitable	Computer-literate individuals who can be contacted by email, Internet or Intranet	Literate individuals who can be contacted by post: selected by name, household, organisation, etc.		Individuals who can be telephoned: selected by name, household, organisation, etc.	Any, selected by name, household, organisation, in the street etc.
Confidence that right person has responded	High if using email	Low	Low but can be checked at collection	High	
Likelihood of contamination or distortion of respondent's answer	Low	May be contaminated by consultation with others		Occasionally distorted or invented by interviewer	Occasionally contaminated by consultation or distorted/invented by interviewer
Size of sample	Large, can be geographically dispersed		Dependent on number of field workers	Dependent on number of interviewers	
Likely response rate <sup>a</sup>	Variable, 30% reasonable within organisations/via intranet, 11% or lower using Internet	Variable, 30% reasonable		High, 50-70% reasonable	
Feasible length of questionnaire	Conflicting advice: however, fewer 'screens' probably better	6-8 A4 pages		Up to half an hour	Variable depending on location
Suitable types of question	Closed questions but not too complex, complicated sequencing fine if uses IT, must be of interest to respondent	Closed questions but not too complex, simple sequencing only, must be of interest to respondent		Open and closed questions, including complicated questions, complicated sequencing fine	
Time taken to complete collection	2-6 weeks from distribution (dependent on number of follow-ups)	4-8 weeks from posting (dependent on number of follow-ups)	Dependent on sample size, number of field workers, etc.	Dependent on sample size, number of interviewers, etc., but slower than self-administered for same sample size	
Main financial resource implications	Web page design, although automated expert systems providers are reducing this dramatically	Outward and return postage, photocopying, clerical support, data entry	Field workers, travel, photocopying, clerical support, data entry	Interviewers, telephone calls, clerical support. Photocopying and data entry if not using CATI <sup>b</sup> Programming, software and computers if using CATI	Interviewers, travel, clerical support. Photocopying and data entry if not using CAP <sup>c</sup> Programming, software and computers if using CAP
Role of the interviewer/field worker	None		Delivery and collection of questionnaires, enhancing respondent participation	Enhancing respondent participation, guiding the respondent through the questionnaire, answering respondents' questions	
Data input <sup>d</sup>	Usually automated	Closed questions can be designed so that responses may be entered using optical mark readers after questionnaire has been returned		Response to all questions entered at time of collection using CATI	Response to all questions can be entered at time of collection using CAP <sup>e</sup>

Figure 11: Attributes of different types of questionnaires (Saunders, Lewis and Thornhill, 2009, p.364)

After the literature review and proposing a model, the questions used in questionnaires need to be prepared. This process is quite consistent with **deductive approach** which

emphasizes that researchers may know how the world operates, thus using this approach to examine these ideas against “hard data” (Kreuger, Neuman and Neuman, 2006). Deductive approach is usually associated with quantitative researches, which involve collecting of quantitative or quantifiable qualitative data and analyzing statistical methods, which is also compatible with quantitative research strategies (Bryman and Bell, 2002). A **quantitative data collection** by a survey questionnaire also suits the cross-sectional time horizon considering the time constraints for the research.

The popularity of online surveys in business research is outlined by such authors as Wright (2005, p.373) and Evans and Mathur (2005, p.197) which substantiates motivation for the researcher’s choice. The foremost benefits of online surveys compared with their alternatives include the low financial resource implications involved, for instance, in saving on postage, printing and phone-call expenditure. Web-based surveys also tend to lead to more accurate responses and are less susceptible to human error given the shorter response time and the superior data analysis capabilities available. The ease of use for the researcher, in that the survey hyperlink can quickly be remitted, and alterations rapidly performed, permits the researcher to exert a high level of control over the targeted sample. Similarly, the ease of use for survey participants is also beneficial in terms of convenience and flexibility. Additionally, considering anonymity promotes honesty and that participants generally feel safer in the anonymous environment of the internet, there is a greater likelihood of more truthful responses (Wright, 2005, p.373; Evans and Mathur, 2005, p.197). Figure 16 comprehensively demonstrates the reasons for the researcher’s decision.



Figure 12: Chief benefits of online surveys (Evans and Mathur, 2005, p.197)

### 3.5. Research choice layer: Mono-Method quantitative research

The choices regarding collection techniques and the analysis procedure are represented by the fourth layer of the “research onion”. In this regard, there are three methods available for conducting research, comprising mono-method, mix-method and multi-methods (Bryman and Bell, 2011, p.643-644). Mono-method quantitative research was deemed most appropriate for this research as a solitary quantitative data collection technique and the analysis procedure was then selected to address the overall research question of this study. This was considered most appropriate given the challenge of large population of traders and need for geographically diverse inputs, that too from individuals, rather than representatives or large groups, in this case (Saunders, Lewis and Thornhill, 2009, p.152).

Furthermore, the time, word count and financial restrictions further supported the researcher’s choice among the alternative approaches, as this method permitted a narrower, more in-depth focus in contrast with focusing on more than one method. From the topics’ literature review, it emerges that a single method of data collection is used in several similar

consumer-related studies, demonstrating its capability in answering the research question and meeting its objectives. Quantitative research, which is more focused, narrow and conclusive, will be used in this research, as opposed to a qualitative approach or a combination of the two. Quantitative research generates numerical data, while qualitative research generates non-numerical data (Saunders, Lewis and Thornhill, 2009, p.482). Figure 17 accentuates the key differences between both approaches.

Distinctions between quantitative and qualitative data	
Quantitative data	Qualitative data
<ul style="list-style-type: none"> <li>• Based on meanings derived from numbers</li> <li>• Collection results in numerical and standardised data</li> <li>• Analysis conducted through the use of diagrams and statistics</li> </ul>	<ul style="list-style-type: none"> <li>• Based on meanings expressed through words</li> <li>• Collection results in non-standardised data requiring classification into categories</li> <li>• Analysis conducted through the use of conceptualisation</li> </ul>

Sources: developed from Dey (1993); Healey and Rawlinson (1994); authors' experience.

Figure 13: Differences between quantitative and qualitative data (Saunders, Lewis and Thornhill (2009, p.482)

The central inadequacy of the qualitative approach is that it diminishes the possibility of generalization. Also, this research focuses on individual preference and behavior that cannot be judged from a qualitative method, and is, accordingly inappropriate for this research. Conversely, the quantitative method requires the employment of standardized measures, which allow for varying participant responses to be assigned to fixed response categories to which numbers can then be assigned (Cameron and Price, 2009, p.309-310). Mixed methods research, a combination of quantitative and qualitative research processes can yield a more enhanced picture of consumer attitudes, as methods can be verified against the findings derived from another associated method (Bryman and Bell, 2011, p. 631). Nonetheless, there is also considerable criticism of this approach; Sale, Lohfeld and Brazil (2002, p. 50) argue that “in

our opinion, mixing research methods across paradigms, as is currently practiced, often diminishes the value of both methods.” Sale, Lohfeld, and Brazil (2002, p.47) also suggest that “perhaps the only convincing argument for mixing qualitative and quantitative research methods in a single study is to challenge the underlying assumptions of the two paradigms themselves.” Multi-method research uses more than one data collection method, but these sources will be of a similar type, whether qualitative or quantitative (Saunders, Lewis and Thornhill, 2009, p. 151). Ideally, the researcher would have preferred to adopt the multi-method approach of using interviews, paper and online surveys along with focus groups. However, while such alternatives were considered, upon realization of the constraints and related practicality issues, as outlined previously, led the researcher to utilize the mono-method.

### 3.6. Time Horizon: Cross sectional

There are two different approaches in terms of time horizon available in research, as stipulated by Saunders, Lewis and Thornhill (2012, p190). Firstly, there is the longer-term longitudinal timeframe, also known as the “diary” time horizon, which entails gathering information over a given period of time through a series of snapshots. This approach assesses general changes and trends over a period and permits predictions to be made (Saunders and Lewis 2012, p.190). The time horizon employed for this research was cross-sectional. This may be defined as the study of an exact phenomenon by providing a portrait or “snapshot” at “one point in time” (Creswell, 2009, p. 146). The rationale underpinning the researcher’s choice derives primarily from the constrained dissertation submission deadline of just 12 weeks to complete the entire study. This period is too short to demonstrate trends and, when

coupled with other previously mentioned constraints, it made sense for the researcher to choose this most frequently utilized time horizon (Saunders and Lewis 2012, p.190). This research was collected from 13th December and locked for data analysis later on the 1st January 2018.

### 3.7. Research Population

Research was proposed to be done on an online trading and investing forum called “The Wall Street Oasis”. But due to the guidelines and rules of the website, the survey was identified to be spam at the last moment. Fortunately, the researcher was ready with a backup plan and decided to conduct the research from a similar group on facebook called “[Day Trading Stocks and Options](#)”. Out of the many communities on stocks and trading, this was the group that had a major participating population, diverse enough to make the dissertation strong. The group admin “Alejandro Alvarez” and the moderator “Colby Cook” were kind enough to support the dissertation and not only allowed to conduct the survey, but also pinned the survey post to let the members know about the survey by creating a better reach.

The group created in October 2017, consisted of people who trade and invest in stocks and options, both short term and long term. The group displayed the rules set by the admin as follows:

Welcome to the community! PLEASE read and make sure you FOLLOW these rules:

- 1) We discuss about Stocks & Options **\*\*\*ONLY\*\*\*** // No room for Crypto, Forex or Binary Options discussions.
- 2) Share FREE content only. If you own a paid service do not promote it here.
- 3) Respect all the members in the community. Any kind of argues or offences will be removed from the page and so will be the people involved.



- 4) Spam posts will NOT be approved. So, don't even try to post them.
- 5) Members that try to post spam will be removed and blocked (no second chances given).
- 6) You're welcome to post funny pictures & trading jokes!
- 7) You're welcome to post profit pictures, but it'd be nice if you explain how did you make them, why you took the trade, which strategy you used, and all information you can think it will help others to learn and grow their trading skills.
- 8) Happy trading!!!!

This made this group appropriate to conduct a research on and was thus circulated with the survey questionnaire and administered until there were proper 100 responses, based on 95% confidence and 2% margin of error.

### 3.8. Data Collection: Google Forms

A survey is proposed for the research and needs a self-administered questionnaire to be circulated through the internet. The biggest flaw in the survey questionnaire is that you could not be sure if the correct respondent is responding to the questionnaire or not. Internet mediated questionnaires offer greater control because most users read and respond to their requests from their personal computer (Saunders, Lewis and Thornhill, 2009).

For the proposed research, individuals in different stock markets around the world need to be analyzed. The more diverse the population is, more difficult it becomes to circulate a questionnaire. Thus, keeping in mind the financial and time constraints, a questionnaire mediated through internet to be posted in the community is the best option. The individuals in community are from different parts of the world, with different thinking, different cultures and

a whole lot of other difference but only bind together with a common interest in trading or investing. They would be happy to bring about some advancement in current techniques and thus would fill up the survey questionnaire quickly.

### 3.9. Survey Design

The questionnaire would be a mix of questions to find out if the respondent uses fundamental analysis or technical analysis; both together or in isolation; factors influencing the investment behavior; importance of univariate and multi variate factors in analysis and other relevant questions based on the equity-based model from the secondary research. This would be done by a proper mix of questions in a specific order of closed questions or forced choice questions. An example of question would be the 6-point Likert scale, which are rating scale widely used for asking respondents' opinions and attitudes (Fisher, 2010), would be utilized to ask the individual investors to evaluate the degrees of their agreement with the importance of analytical factors in their investment decision as well as with the statements of investment performance. The 6 points in the scale would respectively be from 1 to 6: extremely disagree, highly disagree, somewhat disagree, somewhat agree, highly agree, and extremely agree. Similarly, multi options grid are created for ranking.

Such closed questions are usually quicker and easier to answer, as they require minimal writing, responses are also easier to compare as they have been predetermined. They consist of list questions, ranking, rating, category and other systematic questions. (Saunders, Lewis and Thornhill, 2009). The survey questionnaire would be created with Google Forms, a service from google to collect and organize information for free. They offer to Choose from a bunch of question options, from multiple choice to dropdowns to a linear scale and lets us to create

on the go. With the use of google forms, responses to the surveys are neatly and automatically collected in Forms, with real time response info and charts, or even allows to take data further by viewing it all in Sheets.

### 3.10. Data analysis: Tableau

For analyzing the responses, data in sheets would be the best outcome from Google forms. This data then can be used for calculations from responses and further find the analysis widely done by traders and investors. Google forms usually gives the responses in an excel format file and even visualize it in google forms itself. These analyses are very basic and gives you results that are defined in only one form and does not allow easy editing. It is also interactive and informative enough when the questions are formed accordingly. Analysis as done for every question is given in google forms and has been used in the report.

The questionnaire had certain questions which needed the responses to be combined for the in-depth analysis. This analysis was done in the excel sheet which was then exported to Tableau for data analysis. **Tableau** can help anyone see and understand their data. Connect to almost any database, drag and drop to create visualizations, and share with a click. This was the extra thing that needed to be learnt for proper understanding and analysis to make the dissertation stronger.

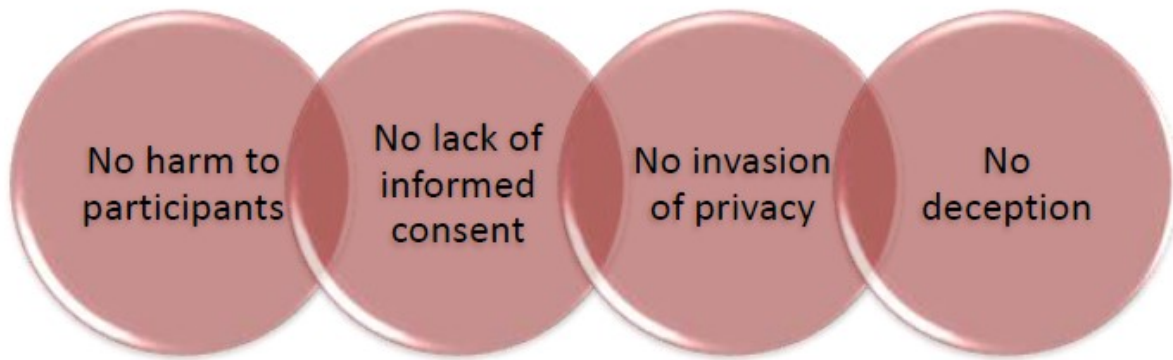
### 3.11. Pilot test

Riley et al. (2000, p.98) indicates that, in order to counter mistakes in performing a survey, “piloting is your best safety.” Similarly, Bell (2005, p.147) stresses that “however pressed for

time you are, do your best to give the questionnaire a trial run.” For these reasons, the survey was thoroughly pilot tested by three individuals, an experienced trader, a family member and the supervisor, to measure the validity and reliability of the questions and check for any faults. Resultantly, it emerged that some of the wording was difficult to understand, and there were grammatical errors. Furthermore, there were too many unnecessary questions included at first, which were reduced so as not to impose excessively on the participant’s time. The survey was subsequently refined to take these highlighted issues into account, while ensuring ample time remained for data collection and analysis.

### 3.12. Ethical issues

According to Buchanan and Hvizdak (2009, p.37), in every study, ethical concerns will arise for a researcher. Therefore, it was imperative for the researcher to ensure that ethical behaviour was correctly addressed throughout this study. Blumberg, Cooper and Schindler (2011, p.134) stipulate that “the goal of ethics in research is to ensure that no-one is harmed or suffers adverse consequences from research activities.” This is particularly important in this case given that openly giving out personal stock analyzing techniques may be distressing for participants. Consequently, efforts were made to ensure that no questions were asked that were potentially offensive to participants and that the option of withdrawing at any point was highlighted in the introductory letter (see section 9.6). Diener and Crandall (1978, as cited in Bryman and Bell, 2011, p.128) stress that four main ethical concerns exist.



*Figure 14: Four key ethical principals in research (Diener and Crandall, 1978, as cited in Bryman and Bell, 2011, p.128)*

The researcher took all measures necessary to maintain an ethical code based on the above four key values. Moreover, many of the ethical problems associated with the collection of quantitative research data online have been highlighted by Poynter (2010, pp.62-64), who underlines the centrality of such issues as honesty in the study's design and in collecting the relevant information. Furthermore, as detailed in the consent form, this is mitigated by the fact that it can be completed on a voluntary basis and individuals are free to decline to participate if they do not wish to.

The purpose of the survey was communicated upfront to the participants on the opening page, which gives a clear indication of the reasons behind this academic survey and who the beneficiaries of the research will be. The researcher also ensured that the respondents' information was adequately protected. No names or unnecessary data were collected in order to preserve the anonymity of participants, thereby guaranteeing privacy. Participants were also informed that the data collected would be for the sole purpose of completing the dissertation and would be deleted once no longer needed. Also, it is noted that should a respondent wish to

ensure transparency, a copy of the thesis upon completion will be made available to him or her upon request. Such communications were intended to alleviate any initial fears that potential participants may have had with regard to completing the survey.

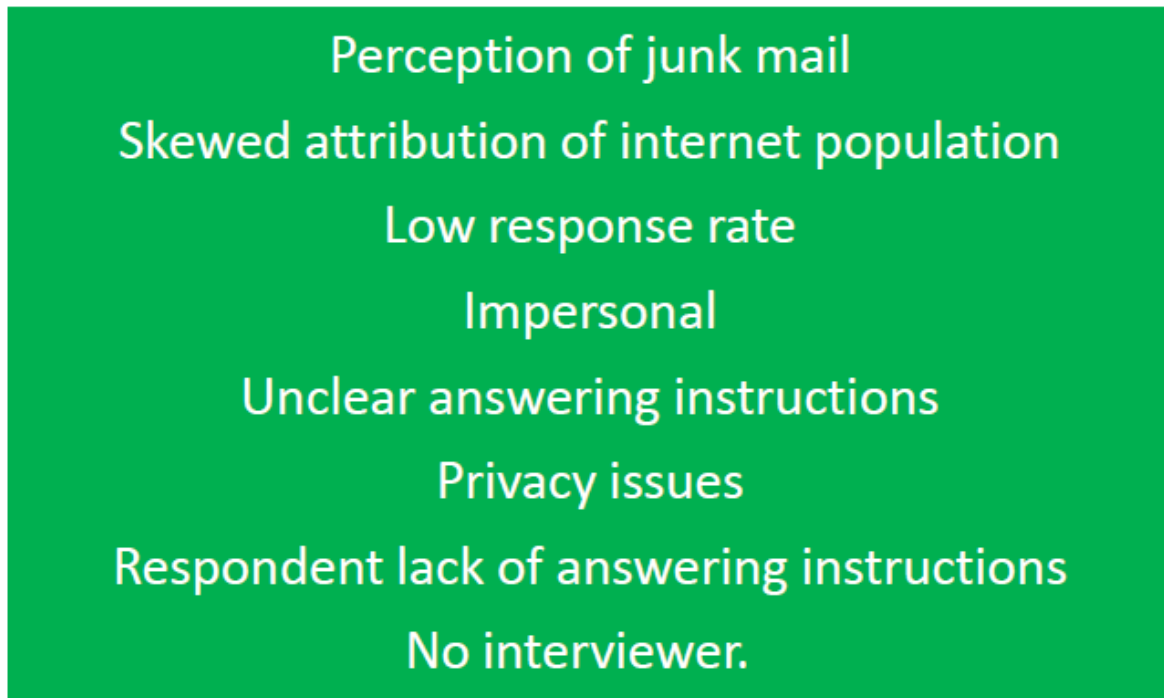
### 3.13. Limitations of methodology

Gerald Milburn Scientific (N.D. as cited in Rajasekar, Philominathan and Chinnathambi, 2006, p.2) suggests “research is a chaotic business, stumbling along amidst red herrings, errors and truly, creative insights. Great scientific breakthroughs are rarely the work of a single researcher plodding slowly by inexorably towards some final goal.” Whilst there are practicalities and reasons for this methodology choice as such scholars as Evans and Mathur (2005, p.197) highlight, numerous limitations to the research methods being used.

Many of the limitations of this piece of research are related to lack of time, limited word count and funding as these factors impacted on the choice of methodology used to carry out the study. As discussed earlier, individual cross-sectional surveys are not very effective at following trends in real time or over short periods of time, as they collect data at a single point in time. This study examined attitudes of individual preferences towards the stock market analysis. Respondents are only the traders and investors in stock market and hence, analysis for other securities are not done. Importantly, the factors selected for this research study, which the researcher regarded as affecting participants’ attitudes, were based on studies from the academic literature and may not cover the entire range of possible factors that may impact traders and investors attitudes.

The foremost drawback in this research relates to its small sample size. Consequently, readers should be aware of this generalisable nature as the sample of just 100 participants does not adequately represent all the stock trading community.

The self-completing nature of the survey without personal supervision meant that possible misunderstandings or misinterpretation may not have been clarified. This limits the quality of this research as the motivation and honesty of participants may be questioned. In order to diminish the possibility of such issues, respondents were provided with the survey via a known source, and, hence, perceived to be dependable; along with the researcher's contact details should they have any questions. In order to diminish participants' privacy concerns and thus also potential honest response issues, the researcher confirmed that no personal information would be collected, thereby ensuring anonymity. As previously detailed, the survey was tested by trial respondents. The researcher decided against paying respondents due to budget constraints and the low incentive for honesty associated with this method; however, this method could have proved successful in eliciting answers from respondents of alternative demographic profiles. Similarly, the option of adding the survey to online chat forums could have been successful in increasing the sample size. However, this was discounted due to concerns of consequent lower levels of honesty among respondents that would contaminate the results. The web-based nature of this survey has many other limitations. Following figure comprehensively lists the prime limitations associated with online surveys.



*Figure 15: Limitations of online surveys(Evans and Mathur, 2005 p.201-202*

Furthermore, there was a risk that some participants would not find any of the categories offered applicable as a potential answer (Bryman and Bell, 2011, p. 251-253). In light of this, an “other” column was created where appropriate (see figure 37). It was not possible, within the extensive survey, to explore in greater detail the effects of other aspects of respondents’ attitudes on their banking behaviour. Had additional columns been added to investigate this it would have been interesting to examine how these general attitudes translated to specific banking behaviour. Saunders, Lewis and Thornhill (2011, p. 20) recommend that the researcher should be independent; however, a degree of personal bias is unavoidable given the researcher’s role in selecting the subject, the elements of the ‘research onion’ ,the overall research strategy and the design of the survey. However, the researcher does not believe that his personal biases, experience or knowledge of the research area have interfered with the



study's results. On the contrary, great focus was put on ensuring the validity and reliability of the data collection process and on designing the questionnaire, in as far as was possible, to avoid misinterpretation and bias on the part of respondents.

#### 3.14. Conclusion

This chapter explained the research selections made within the chosen 'research onion' framework. It also provided justifications for these selections and considered other important issues, such as the necessary ethical considerations.

## 4. DATA ANALYSIS/ FINDINGS

### 4.1. Introduction

This chapter presents the results returned from the study's primary quantitative research process. The chapter first provides a synopsis of the survey distribution process before briefly commenting upon the results of each survey question. The results for each question in the order in which they appear in the survey will be illustrated through labelled pie charts, bar graphs and column graphs. A comprehensive discussion and analysis of the findings will be conducted separately in the next chapter.

### 4.2. Survey Distribution and Response

The facebook group had a total of 12000 members who all were trading or investing and belonged to different geographic locations, age and gender. Hyperlink to the survey was provided in the facebook group during the week commencing 13<sup>th</sup> December 2018. A generic communication accompanied this (see section9.5), which contained the submission deadline and encouragement both to forward the survey to others and to complete it as soon as possible to aid analysis. The group admin was kind enough to pin the post after first week as the responses were not in a pace as expected. This method proved successful in yielding the targeted 100-person response within a period of two weeks, which pointed to a speedy positive response rate. As exactly 100 respondents were surveyed, this allowed for absolute numbers to be used rather than percentages when discoursing findings. The efficiency of the data collection process allowed for the survey to be closed and the data analysis process to commence in a timely manner as planned.

### 4.3. Data Analysis

#### 4.3.1. Consent form

I hereby confirm that I understand the purpose of this survey and I agree that my data is used for the above mentioned purpose.

100 responses

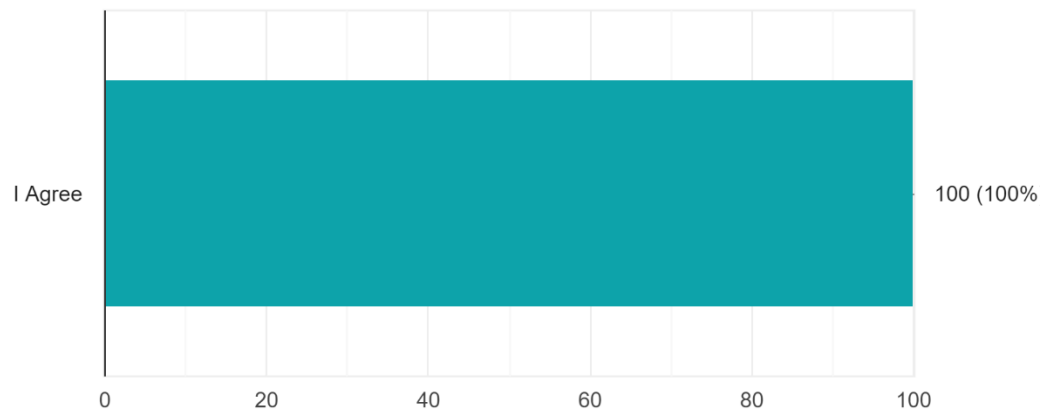


Figure 16: Respondent's Consent

Efforts were made to ensure that no questions were asked that were potentially offensive to participants and that the option of withdrawing at any point was highlighted in the consent letter.

The consent letter was used as the section 1 as a covering letter for the respondents to get some general information regarding the survey. The letter started with a brief description of the student which contained the name, course and college. The supervisor was introduced along with the title of the research. Some details regarding the survey questionnaire and general meanings of important words used was further displayed.

The respondents were informed that all information obtained is strictly CONFIDENTIAL and used only for this research paper and that the respondent cannot be identified from the

information provided, and also no information would be stored or shared. Other details of the questionnaire, including the type of questions and time required were given. This letter explained to the respondents how depending on their answers, the questionnaire would take them through different streams of questions to provide ease and convenience.

The consent form then contained the contact details of the researcher for the respondents to contact regarding any further details on the research and a checkbox was provided so that the respondent consents and continues to the survey.

#### 4.3.2. General information

Section 2 of the survey questionnaire consisted of 6 general questions to know about the respondent and where and how he/she conducts the trading and investing activities.

Your age  
100 responses

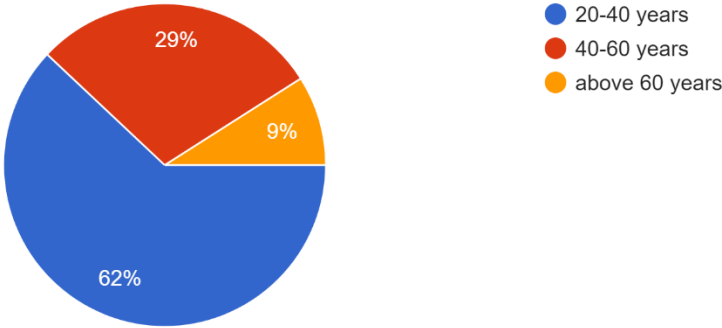


Figure 17: Question 1

The question provided 3 multiple choice age brackets to classify the respondents into sets of comparable ages. The survey was circulated amongst the online community facebook, and hence, people with their age above 60 years were only 9%. The majority of respondents ie. 62% belonged to the age of 20-40 years and the rest of 29% were of the age between 40 to 60 years. It should thus be noted that the research is slightly biased towards the young community that makes a constant use of facebook. It is evident that the young generation of traders and investors use social media like facebook to gain and share ideas and information of different techniques and their experiences.

### Preferred mode of trading

100 responses

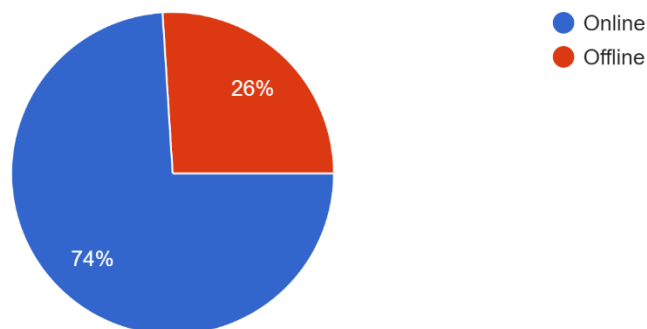


Figure 18: Question 2

From the total of 100 respondents surveyed, 74% preferred trading online, and only 28% preferred trading offline. This again goes with a bias of online survey and compels the conclusions of this research on the trading community who makes us of facebook groups. But the bias is very

limited because of the convenience in trading online. Share trading was carried online after the introduction of internet. Prior to this, it was carried through brokers who placed buy/sell orders on your behalf. Angel Broking, a leading stock broking firm highlights the difference between Online and Offline Trading in 4 points as follows.



Figure 19: Online vs Offline

From the points mentioned above, it is clear that online stock trading is much more convenient and offers you better control of your portfolio as compared to the traditional medium of trading through brokers.

### How long have you been a participant in the stock market

100 responses

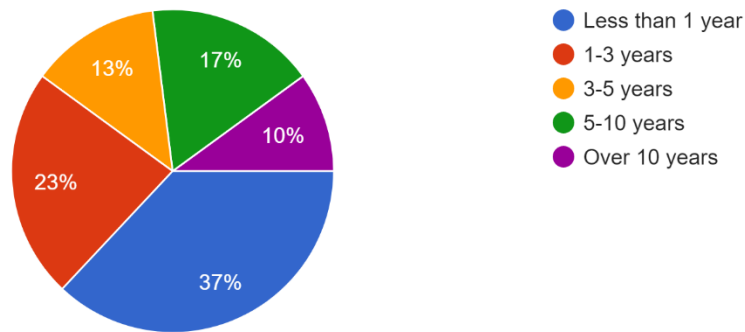


Figure 20: Question 3

It is important to know how long the respondent has been a participant in the stock market to know about the experience in trading and investing in stocks. The question consisted 5 multiple choice options giving certain brackets of experience based on years. It is important to understand, learning to trade in stocks does not require a huge amount of time, bringing in accuracy and consistency is what requires time.

37% of the total respondents had an experience of less than a year. This bracket of people is important as they are constantly learning by their own research and following the practices lead

by others. They are updated and constantly trying to adapt different techniques to bring accuracy and consistency in their trades. Other 23% had an experience ranging between 1-3 years. By this time, the traders have usually tried different techniques and try to pick up a technique to improve the accuracy and consistency. While trading and investing for 3 years, the participants of stock market are ready with their favorite technique of forecasting and follow the same for their trades.

### In what geographic region is the stock market that you participate?

100 responses

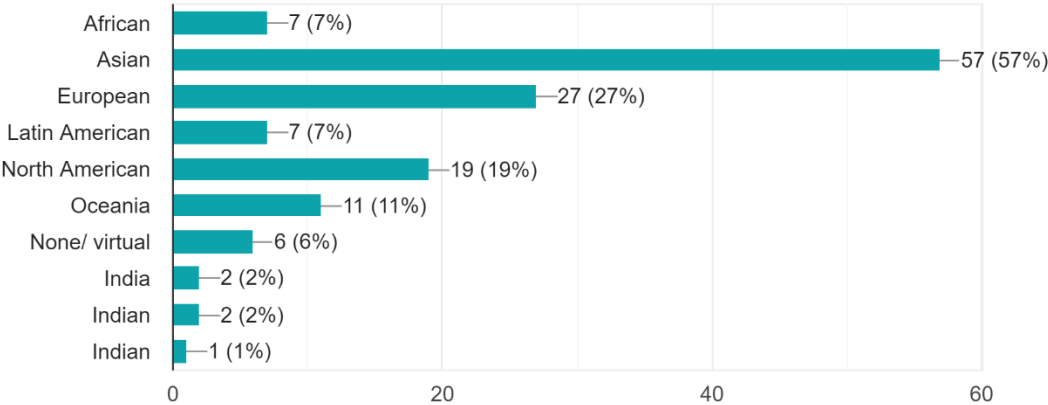


Figure 21: Question 4

There is a total of nineteen stock markets in the world and asking about the individual stock market would have been difficult, given the size of population and the options for choice. The stock markets were thus divided by geographic regions. Also, people tend to participate in different stocks in different stock market, irrespective of their physical location. This is denoted by the total



participation indicated in 139 regions, despite only 100 respondents. Hence, the options had 7 options of checkboxes and an others option to tick.

Despite the group was created and administered in Europe and North America, the maximum participation (57%) is done in the Asian stock markets. Europeans markets follow with 27% of respondents dealing in. Despite of New York Stock Exchange being the largest of all and, participants in North America are only 19% while participants in African, Latin American, oceanic and virtual exchanges are close to 8% each.

### What attracts you the most to Equity Markets?

98 responses

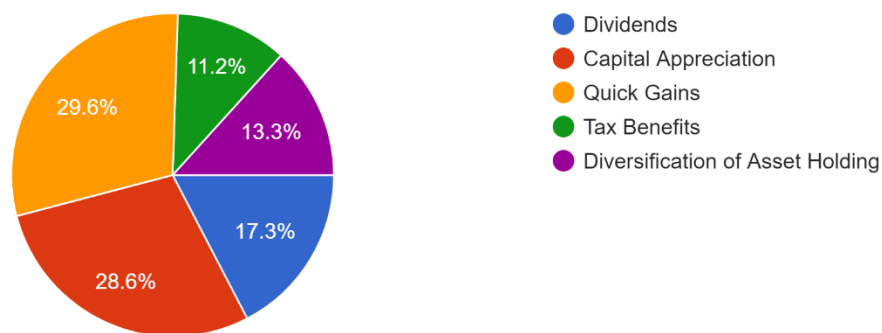


Figure 22: Question 5

People have different preferences when participating in trading and investing activities. The major 5 multiple choice of preferences are given as options. It can be seen in the given picture that 29.6% are attracted by quick gains and closely 28.6% are attracted due to the capital appreciation. Most traders and investors are attracted towards stock market because of the quick

gains and capital appreciation. The people attracted towards quick gains are usually short-term traders while long term investors aim for capital appreciation. To dig in deep, this denotes close to equal number of short-term traders and long-term investors, which gives the research more weightage.

There are also 17.3% of people who aim towards earning dividends, which was once the major interest of traditional stock market participants. 13.3% of the participants consider share market for diversification of asset holding while 11.2% are attracted by the tax benefits.

### How have you acquired your investment knowledge?

98 responses

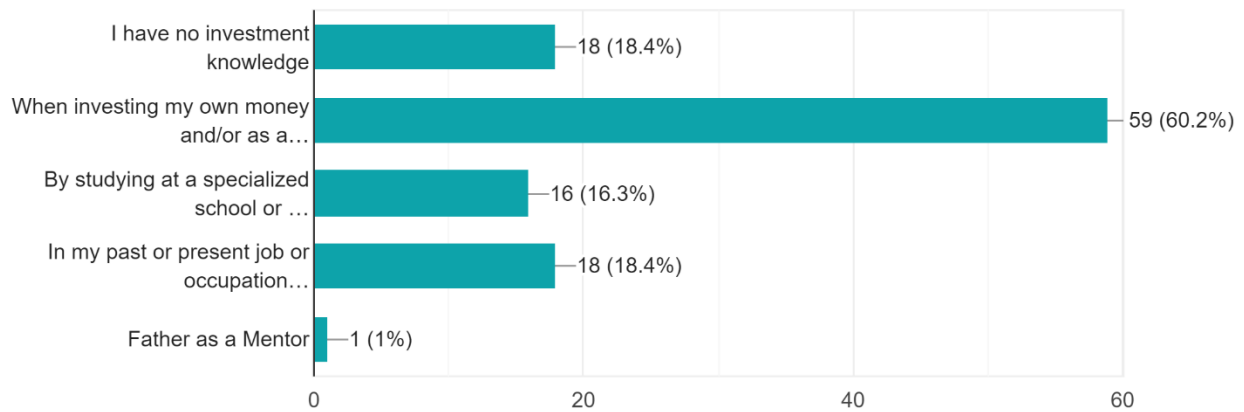


Figure 23: Question 6

People's behavior changes with the source of their knowledge. To find out the preferences of analytical methods of individuals, it is important to know where they have acquired their prior knowledge from. More than half, i.e. 60.2% of the traders and investors have acquired their

knowledge on stocks when investing their own money and/or as a self-learner and only 16.3% of the total had studied at a specialized school or took a specialized course which included investment studies. Also, 18.4% got their knowledge from their past or present job or occupation, where the professional duties were directly related to investing. The others had only a little investment knowledge and belonged to the people trying to figure out the best way of trading or investing.

#### 4.3.3. Market factors influencing Investment Decisions

This section consisted of only 3 questions, one of them being mandatory, to know about what kind of trade is carried out by the respondent. This is the last common section for the respondents. Based on the answers to the mandatory question, the respondents are redirected to different sections to provide convenience and avoid any confusion or repetition.

### What kind of an investor are you?

100 responses

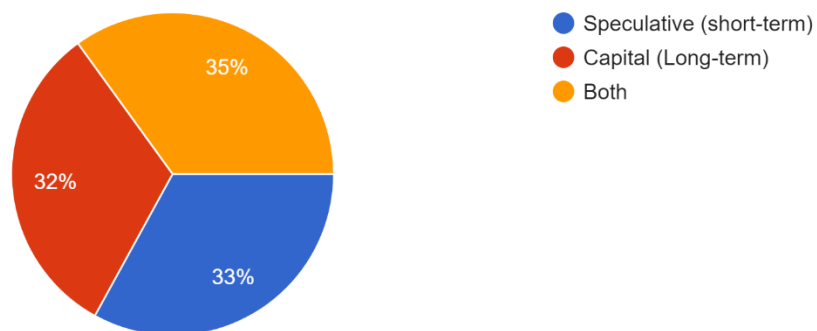


Figure 24: Question 7

Basically, the goal of an investor is to gradually earn wealth over an extended period through the buying and holding of portfolio of stocks. On the other hand, Trading involves more frequent buying and selling of stock, currency pairs and other instruments. The preferences and behavior changes accordingly and is hence important for the analysis. 3 multiple choice options were given to the respondents to find out that half of the traders and investors do both, short term and long-term investing. All the 3 options being close to 33% is a good indicator that confirms the fact from the analysis of question number 5.

By combining both the facts, it is evident that from the total number of investors and traders, half from both the groups do both, short term and long-term investing. This question also poses its importance to analyze if the fact that, speculative traders resort to technical analysis and capital investors resort to fundamental analysis, is true or not.

### While analyzing the markets

100 responses

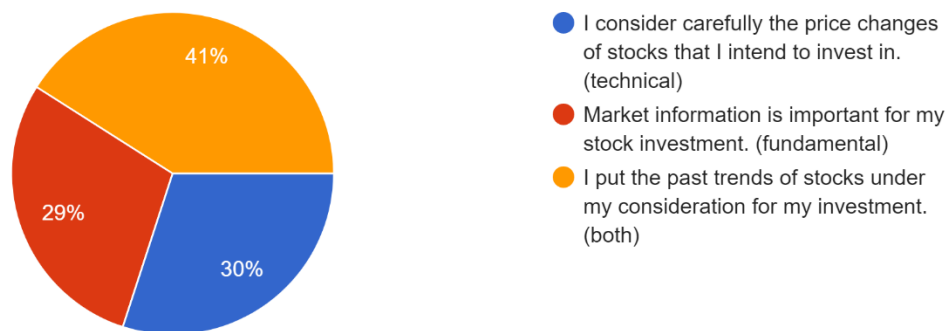


Figure 25: Question 8

This question was the only mandatory question in the survey. 3 multiple choice options are made available to the respondents to choose their analytical preferences. Further, there are a total of 3 sections, of which only one section will have to be answered by each respondent. Simply meaning, the respondent is redirected to a particular section based on their answer to this question.

The options could have been framed simply by keeping the words as “technical”, “fundamental” and “both”. But there is a general bias amongst the trading and investing community that both are different and to be used for totally different styles of trades but can never be used complementarily. The options were thus formed in different format to know about the actual behavior.

It was found that 30% of the respondents consider the price changes stocks, otherwise technical analysis, 29% rely on the market information, otherwise called as fundamental analysis. The critical option was regarding the complementing nature of both, which had to be framed as putting past trends of stocks under consideration. The simple framing of sentence denotes that 41% of the total respondents used both the analyzing techniques.

Rank the investment factors according to importance (1 being the most important and 5 being the least important)

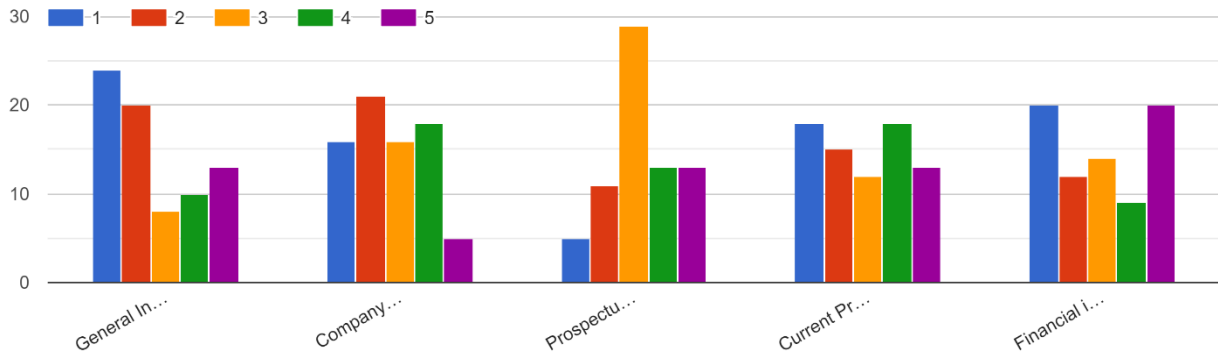


Figure 26: Question 9

A multiple-choice grid was created to rank different factors according to its importance for analysis of stocks and markets. The respondent was required to respond in each row, so that every factor is ranked only once. This grid does not only give the most important factor, but also surveys on how many respondents think it is less important.

It is evident that general Information such as Stock exchange information, broker's advice, media effect, etc. is considered to be the most important. The second important factor is the financial information which includes factors like EPS/PE ratio, market volume trades, etc. The next stands to be the current Project Details like product strength, demand, future prospects, etc. Huge number of people also take company management like company history, company policies, etc. into consideration. The least people voted prospectus details which includes details like authorized & paid up capital, terms of issue, etc. as the most important.

These analyses are done only on the basis of responses that were marked as the most important investment factor marked to be 1 and displayed in blue color. More analysis can be done with the other details in the figure.

#### 4.3.3.1. Technical Analysis

### While analyzing the markets

100 responses

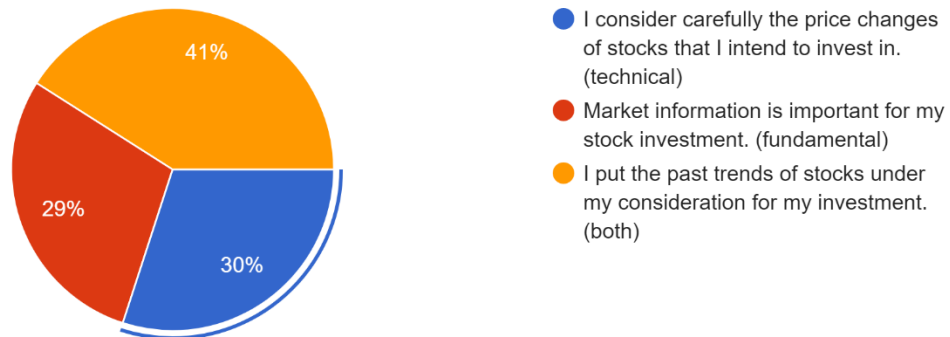


Figure 27: Question 8, response "A"

Respondents who select the first option "I consider carefully the price changes of stocks that I intend to invest in (technical)" are redirected to this section. This section contains the questions that are meant only for those who use only technical analysis for analyzing the stocks.

This section concentrates on why the respondent uses only technical analysis and not fundamental analysis or a mix of the two analysis. The questions are kept simple and up to the point.

## Why technical?

29 responses

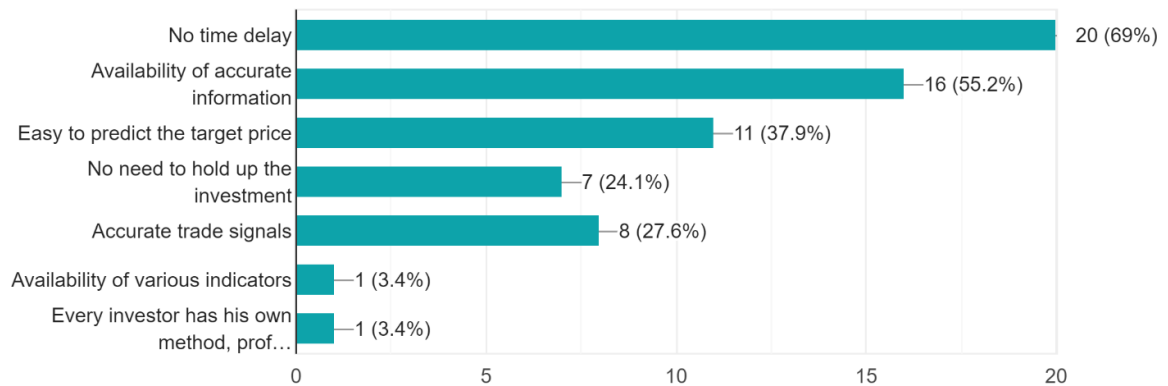


Figure 28: Question 10.1

The question attempts to find out the reason why the respondent makes use of only technical analysis indicators. The major advantages are given as options with 5 checkboxes with an additional 'others' option to specify the other alternatives. 64 ticks in only 29 responses denotes the number of advantages of technical analysis.

Most people make use of technical analysis because there is no delay when using technical analysis. More than 50% of the technical analysis indicators confirm that the information available from technical analysis is accurate. Two respondents made use of the other options to add the benefit of the 'availability of various indicators' and 'every investor has his own method, profits are earned by using only a couple of indicators'. These two options have more weight being added by individual respondents.



## Why not fundamental?

29 responses

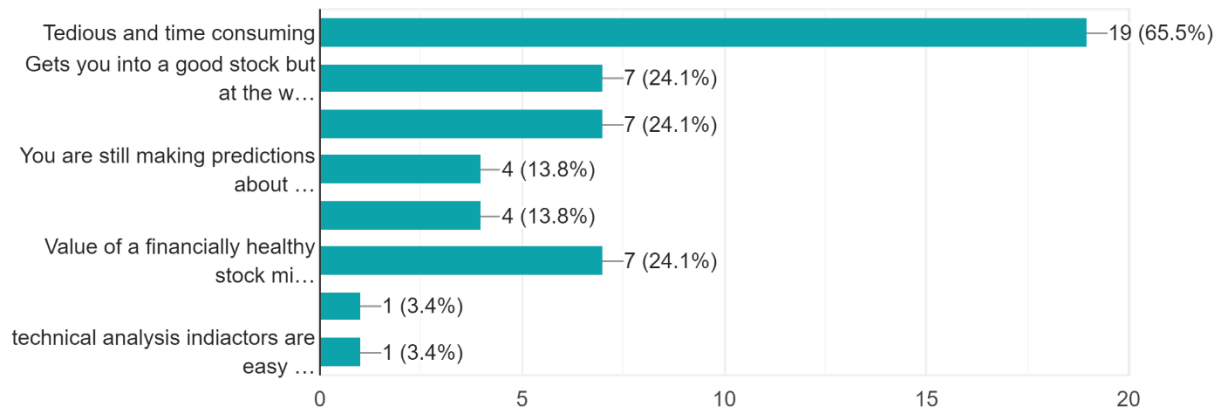


Figure 29: Question 11.1

This question attempts to find out the reason why the respondent does not make use of any fundamental indicators in their analysis. The major disadvantages with chartist or technical analyst's point of view are given as options with 6 checkboxes and an additional 'others' option to specify the other alternatives.

65% of the chartist do not resort to fundamental analysis as they feel it is tedious and time consuming. Other issues faced by the chartists is that it gets you into a good stock but at the wrong time (24%), only immediate price changes matter for earning profits (24%) and that Value of a financially healthy stock might not rise immediately and/or continuously (24%). There are 4% of chartists who feel that by using fundamental analysis, you are still making predictions about the future and other 4% believe that fundamental analysis ignores the fact of supply and demand.

Respondents added two different options to the reason why fundamental analysis is not suitable to them. One of them said that within the time you find the fundamentals, you could close multiple deals by the technical analysis. The other emphasized that technical analysis indicators are easy to find out than the fundamentals.

### Why not analyse the markets with both, technical and fundamental analysis?

29 responses

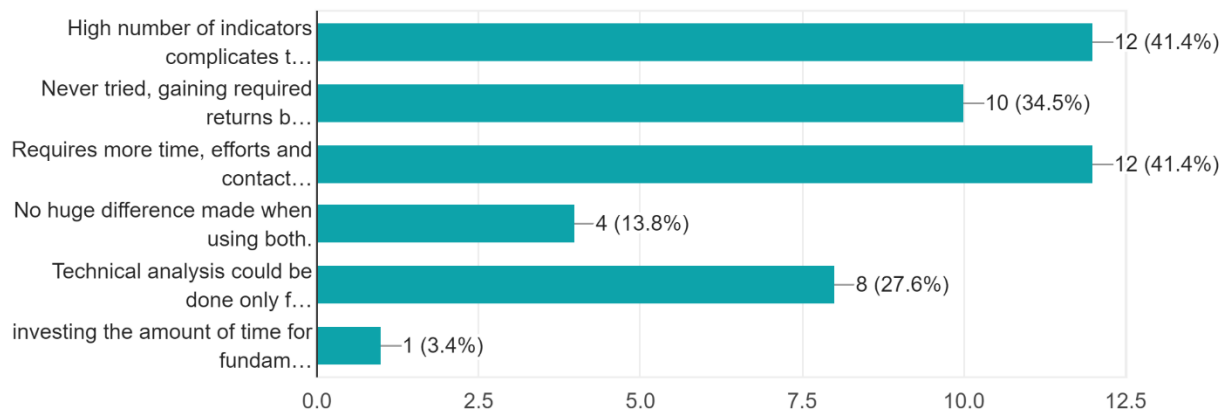


Figure 30: Question 12.1

Chartists prefer not to use a combination of technical and fundamental analysis because the high number of indicators complicates the style of trading (41%) and it requires more time, efforts and contacts to gather information of large amounts (41%). It should be noted that 35% of chartists have never tried using fundamental analysis as they are able to gain the required returns based only on technical analysis. This indicates a high number of traders and investors who are gaining good

profits based on their current practices which prevented them from even testing the other methods of analysis.

There is a total of 28% chartists who believe that technical analysis could be done only for short term stocks and fundamental analysis for only long-term investments and 14% believe that no huge difference is made when both the analysis are done.

Rank the sources according to importance (1 being the most important and 8 being the least important)

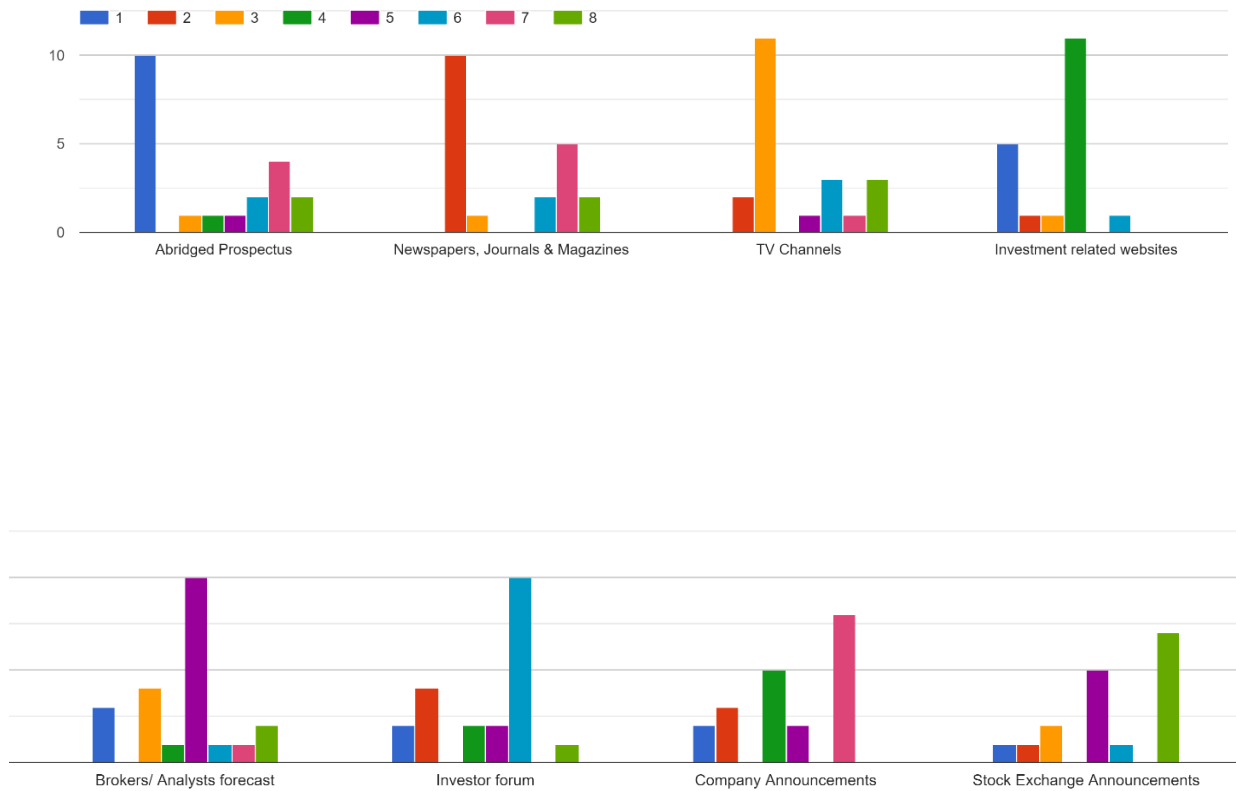


Figure 31: Question 13.1

A multiple-choice grid was created to rank different sources of information according to its importance for analysis of stocks and markets. The respondent was required to respond in each row, so that every factor is ranked only once. This grid does not only give the most important factor, but also surveys on how many respondents think it is less important.

It should be noted that most of the chartists make use of the abridged prospectus as the source of information for their analysis. The second reliable source is considered to be the investment related websites which is followed by broker's/analysts' forecast. Investor forums and company importance are given close to equal importance based on ranking of the most important. It is also evident that none of the chartist consider newspapers, journals and magazines as the most important source of information for analyzing stocks and markets.

These analyses are done only on the basis of responses that were marked as the most important investment factor marked to be 1 and displayed in blue color. More analysis can be done with the other details in the figure.

Would you think of adding up certain fundamental analysis indicators to your usual technique of analyzing the stocks that you trade in?

29 responses

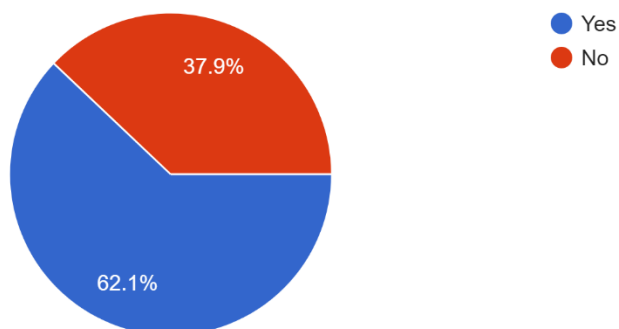


Figure 32: Question 14.1

It should be noted that more than half of the chartists tend to try to include certain fundamental analysis indicators to their usual technique of analyzing the stocks.

#### 4.3.3.2. Fundamental analysis

### While analyzing the markets

100 responses

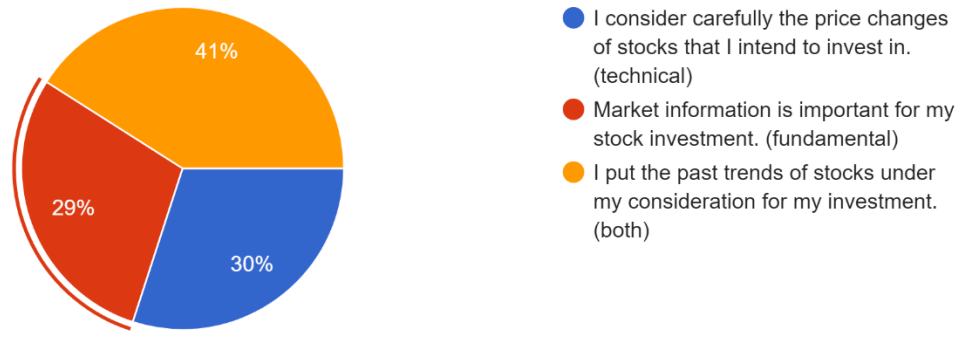


Figure 33: Question 8, response "B"

Respondents who select the second option “Market information is important for my stock investment. (fundamental)” are redirected to this section. This section contains the questions that are meant only for those who use only fundamental analysis for analyzing the stocks.

This section concentrates on why the respondent uses only fundamental analysis and not technical analysis or a mix of the two analysis. The questions are kept simple and up to the point.

## Why fundamental?

28 responses

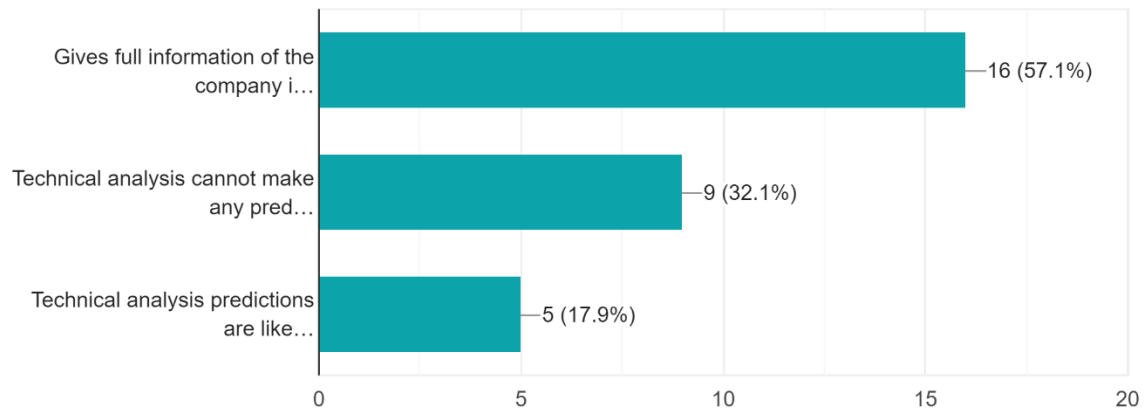


Figure 34 Question 10.2

More than half of the fundamentalists prefer fundamental analysis because it gives a full information of the company in detail. When the company is confirmed to have good fundamentals, it is forecasted to have a potential for great returns. 32% of the total fundamentalists explain that technical cannot make any predictions for long term investments, but only for short terms. 17% also believe that technical analysis predictions are like astrology.

## Why not technical?

28 responses

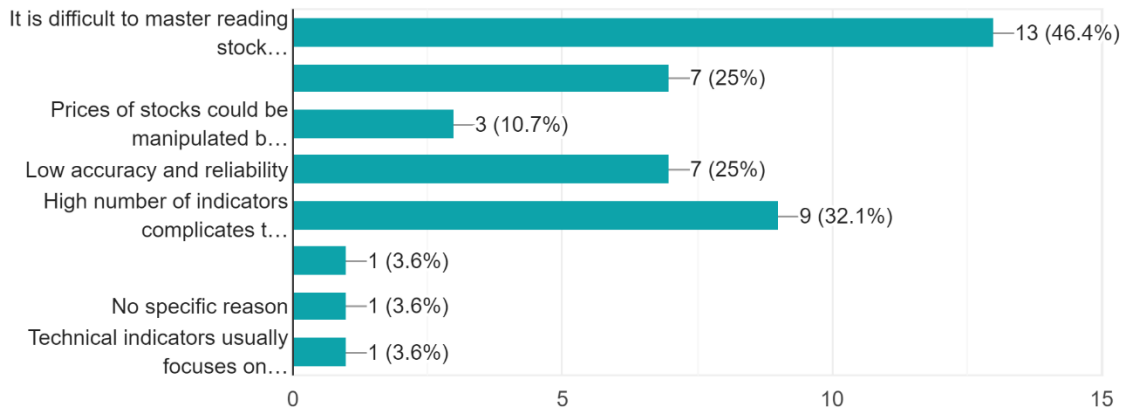


Figure 35: Question 11.2

Fundamentalists do not prefer the technical analysis as 46.4% feel that It is difficult to master reading stock charts accurately. 32% explain that high number of indicators complicates the style of trading. The traders and investors must analyze the stocks and markets according to personal comfort rather than accepting different suggestions much.

25% fundamentalists explain that result of market and price movement cannot be predicted accurately and 25% also believe that technical analysis is less accurate and less reliable. Apart from them 10% do not make use of any technical indicators as they feel that prices of stocks could be manipulated by simple things like demand and supply, analysts' bias, which is not very easily possible due to the size of the stocks and stock markets they are dealt in.

The other options added up by individuals include that technical analysis are not suitable for long term investments, that technical indicators focus on near future which might not help in



long term investments. One option was also added saying that there is no specific reason, yet they prefer fundamental analysis over technical analysis or the combination of two.

## Why not analyse the markets with both, technical and fundamental analysis?

28 responses

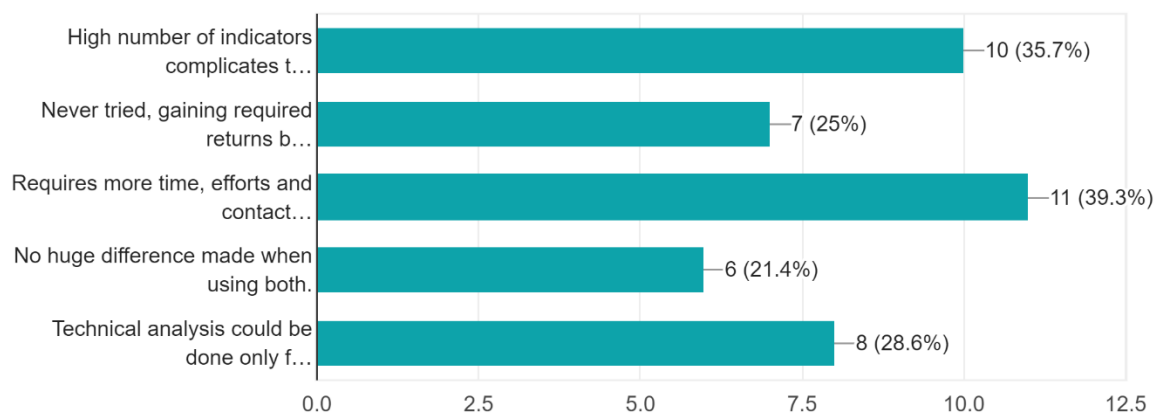


Figure 36: Question 12.2

Most of the fundamentalists do not analyze the markets or stocks using a combination of both, technical and fundamental analysis because it requires more time, efforts and contacts to gather information of large amounts. 36% fundamentalists explained that high number of indicators complicates the style of trading. The traders and investors must analyze the stocks and markets according to personal comfort rather than accepting different suggestions much. It is also believed by 29% of the respondents that technical analysis could be done only for short term stocks and fundamental for long term investments.

It must be noted that 25% of fundamentalists have never tried analyzing through technical indicators as they were gaining required returns based only on fundamental analysis. This indicates a high number of traders and investors who are gaining good profits based on their current practices which prevented them from even testing the other methods of analysis. Also 21% said that they have tested to find that no huge difference was made when using both together.

Rank the sources according to importance (1 being the most important and 8 being the least important)

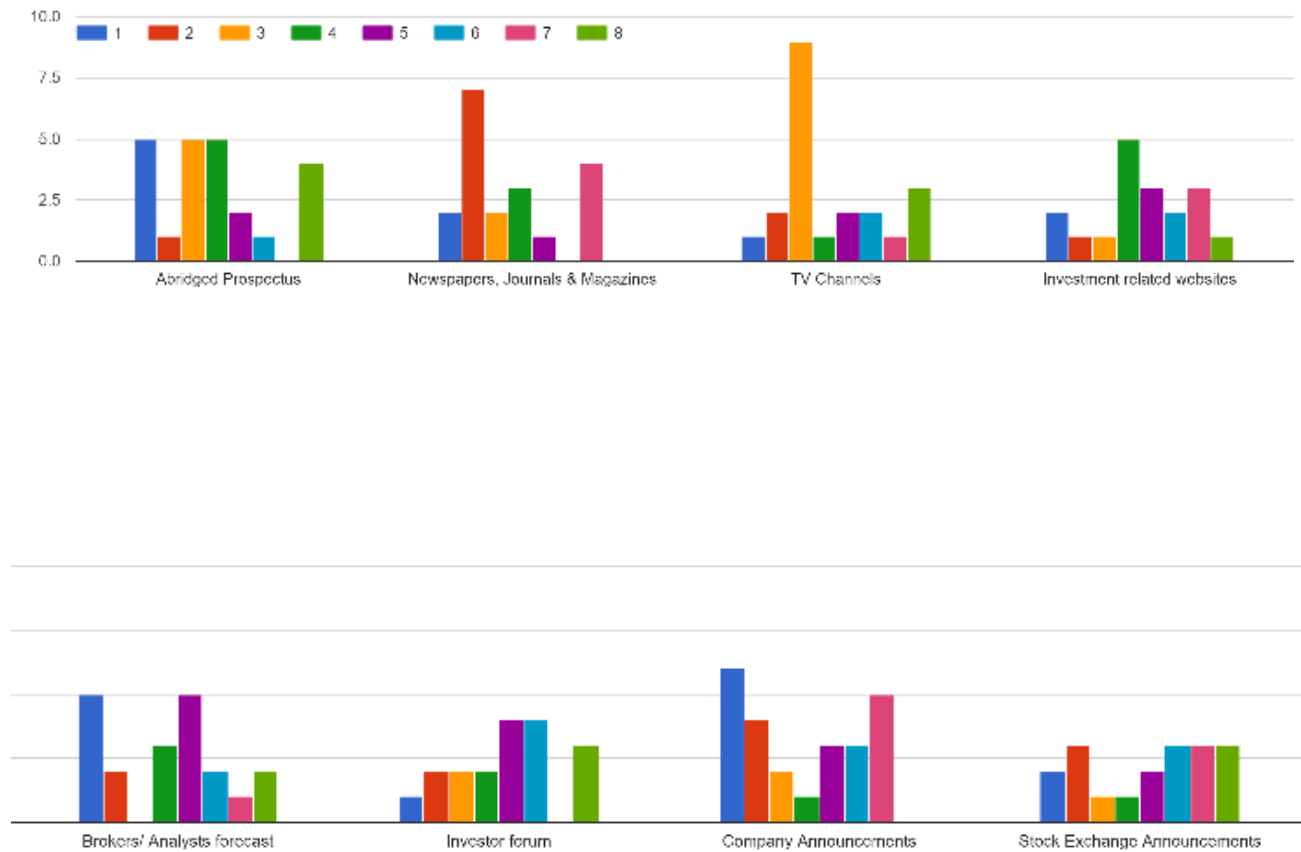


Figure 37: Question 13.2

A multiple-choice grid was created to rank different sources of information according to its importance for analysis of stocks and markets. The respondent was required to respond in each row, so that every factor is ranked only once. This grid does not only give the most important factor, but also surveys on how many respondents think it is less important.

The most important source of information for the fundamentalists is found to be the company announcements. Broker's/ analysts' forecast and information through prospectus is considered to be of an equal importance. It is quite unexpected, but newspapers, journals and magazines are deemed to be equally important as the stock exchange announcements and investment related websites, while TV channels and investor forums are considered to be the most important by only a few fundamentalists.

These analyses are done only on the basis of responses that were marked as the most important investment factor marked to be 1 and displayed in blue color. More analysis can be done with the other details in the figure.

Would you think of adding up certain technical analysis indicators to your usual technique of analyzing the stocks that you trade in?

29 responses

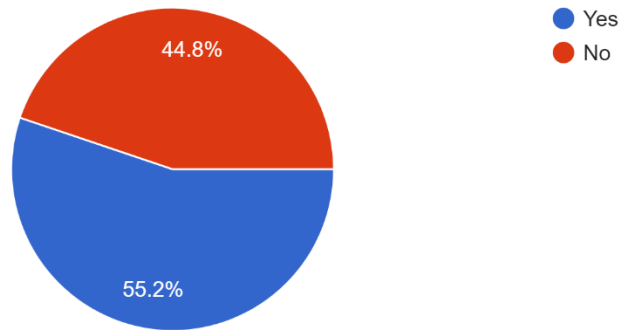


Figure 38: Question 14.2

It should be noted that more than half of the fundamentalist tend to try to include certain technical analysis indicators to their usual technique of analyzing the stocks.

#### 4.3.3.3. Both

### While analyzing the markets

100 responses

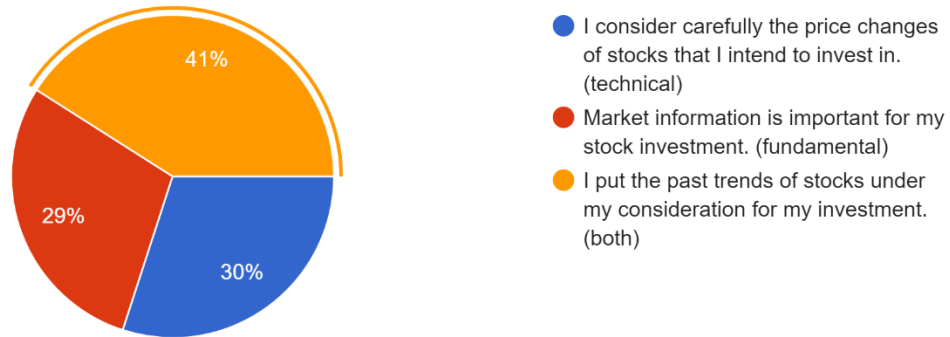


Figure 39: Question 8, response "C"

Respondents who select the third option “I put the past trends of stocks under my consideration for my investment. (both)” are redirected to this section. This section contains the questions that are meant only for those who use both, technical and fundamental analysis for analyzing the stocks.

These are the people who use both technical and fundamental analysis for analyzing their investments, but it is not totally clear if they use a combination of both for all their investments. It is possible that some of them use different techniques for short term trading and different for their long-term investments.

## What are the main benefits of using both, fundamental and technical analysis?

40 responses

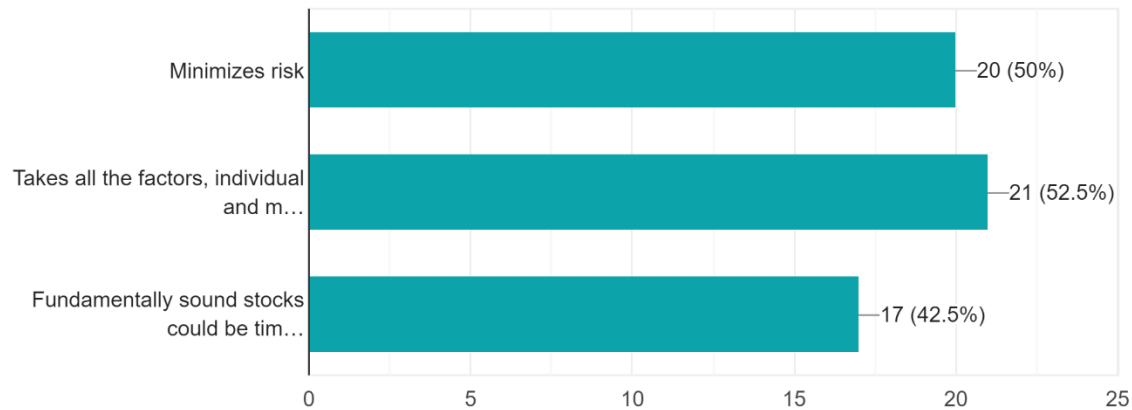


Figure 40: Question 10.3

These respondents are already using both, fundamental and technical analysis. It is thus important to know about the main benefits when a combination of both is used. 53% prefer to trade using a combination as it takes all the factors, ie. individual and market variables into consideration. These people basically have all the in and out information of the stock they intend to invest in. 50% of the total respondents make use of the combination to minimize the risk in their investments, while 43% explain that fundamentally sound stocks could be timed properly with technical analysis.

Rank the sources according to importance (1 being the most important and 5 being the least important)

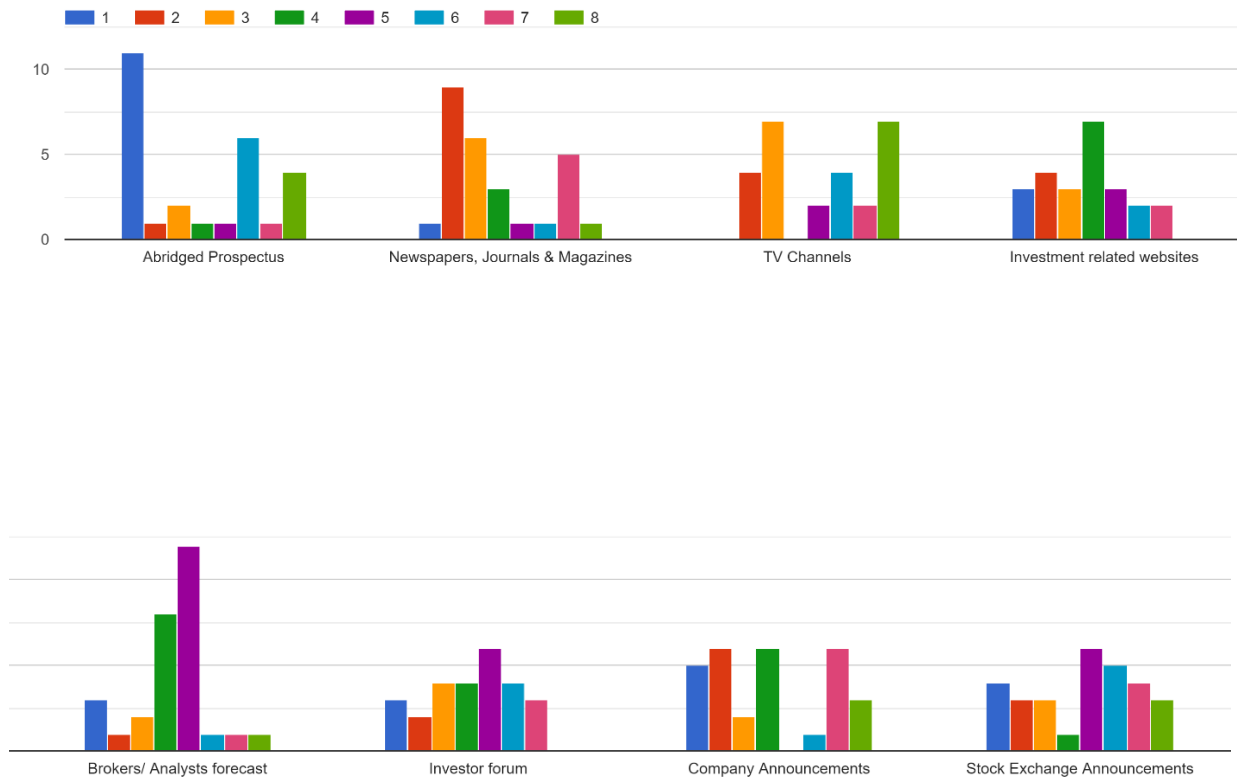


Figure 41: Question 11.3

A multiple-choice grid was created to rank different sources of information according to its importance for analysis of stocks and markets. The respondent was required to respond in each row, so that every factor is ranked only once. This grid does not only give the most important factor, but also surveys on how many respondents think it is less important.

The most reliable source of information for respondents doing both the type of analysis is the abridged prospectus. The next sources of investment according to importance are the company announcements followed by stock exchange announcements. Different investment related websites, investor forum and broker's/ analysts' forecast are given equal importance by the

analysts who use both, fundamental analysis and technical analysis. Only a small number of people consider newspapers, journals and magazines to be important, while no respondent suggested TV channel to be the most important source.

These analyses are done only on the basis of responses that were marked as the most important investment factor marked to be 1 and displayed in blue color. More analysis can be done with the other details in the figure.



## 5. DISCUSSION

### 5.1. Introduction

In this chapter, the results from the primary research, as set out in the preceding chapter, are reviewed, discussed and interpreted in relation to the objectives of this research study. Reference will be made to chapter four throughout the analysis of primary data in this chapter, as attempts will be made to evade reiterating the previous stated findings and, instead, provide a more in-depth analysis. This analysis will correspond directly to the research objectives as outlined in chapter one, along with the pertinent literature presented in chapter two. Considering that the research sub-objectives all center on one principal research objective, each subset objective will be discussed first, before summarizing the primary research objective. Survey questions are not discoursed in the order asked in the survey and, instead, are rearranged into a more logical structure for analysis. Those survey questions which the researcher deems as central to answering the research objectives are selected for comparison. Readers should also be mindful of the research's limitations. The questions are framed by keeping the objectives in mind and every question explains its objective of research.

### 5.2. Sub Question 1

**How do the traders and investors forecast the prices, by fundamental analysis, technical analysis or both?**

This question aims to review current practices of investors to speculate the prices and returns on investments and the reasons for following the respective practice. The respondents are recognized as traders and investors in two ways. Question 7 in the questionnaire asks what kind of

investments are done, speculative (short-term), or capital (long-term), and had an option for both. The other identifier used are from the options of Question 5 which intends to find what attracts the respondent most to the stock markets. People opting for quick gains are usually traders and those opting for capital appreciation and dividends are mostly investors.

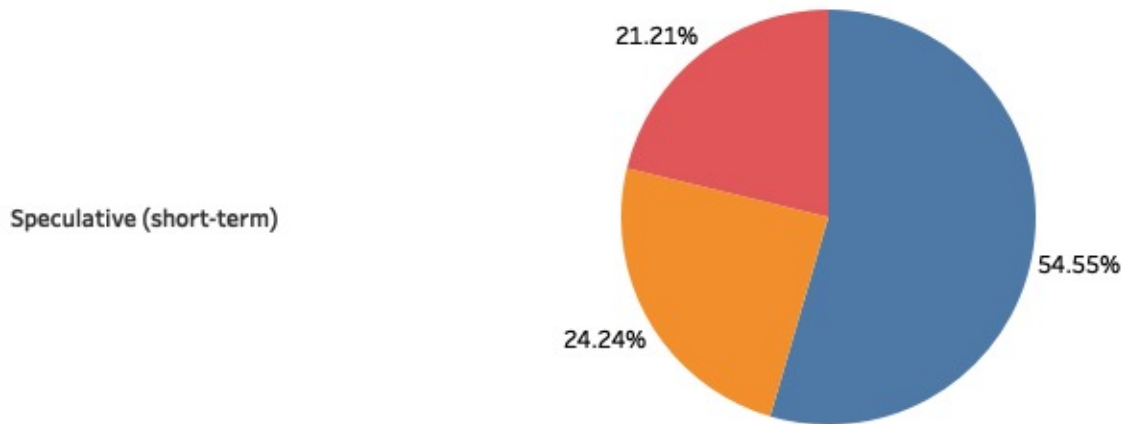
From the analysis we know that the preferences differ from whether you are an investor or a trader. In general, from the analysis of question 7, our respondents have 33% traders, 32% investors and 35% who are into both, speculative and long-term investments. Out of these respondents, 30% use only technical analysis, 29% use only fundamental analysis and 41% said they put the past trends into consideration, meaning both, as answered in question 8. To dig in deep by combining details from question 5, it was found out that respondents can be divided solely into traders and investors into two halves, meaning a close to equal number of traders and investors.

To know about the correct analyzing techniques of the traders and investors in such a condition, it was mandatory to combine the results of question 7 and question 8. This was done with the help of tool 'Tableau', and the results are as follows:

# Sheet 3

## What kind of an investor are you?

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While analyzing the markets (color) and % of Total Number of Records (size) broken down by What kind of an investor are you?. The view is filtered on What kind of an investor are you?, which keeps Speculative (short-term). Percents are based on the whole table .

### % of Total Number of Records



### While analyzing the markets

- I consider carefully the price changes of stocks that I intend to invest in. (technical)
- I put the past trends of stocks under my consideration for my investment. (both)
- Market information is important for my stock investment. (fundamental)

Figure 42: Analysis by speculative traders

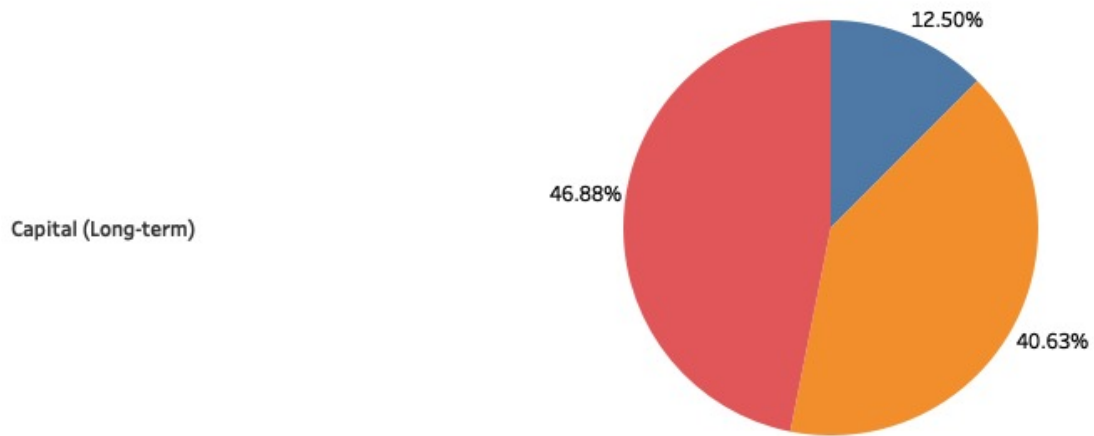
The figure takes all the speculative (short-term) investors into consideration and displays the different methods of their analyzing techniques. It should be noted that 55% of traders make use of only technical analysis. 21% traders use fundamental indicators, while only 24% make use

of both. Even if all the traders and investors are taken into consideration, only 41% make use of both the analysis in their forecasting.

## Sheet 4

What kind of an investor are you?

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While analyzing the markets (color) and % of Total Number of Records (size) broken down by What kind of an investor are you?. The view is filtered on What kind of an investor are you?, which keeps Capital (Long-term). Percents are based on each row of the table.

**% of Total Number of Records**



**While analyzing the markets**

- I consider carefully the price changes of stocks that I intend to invest in. (technical)
- I put the past trends of stocks under my consideration for my investment. (both)
- Market information is important for my stock investment. (fundamental)

Figure 43: Analysis by capital investors

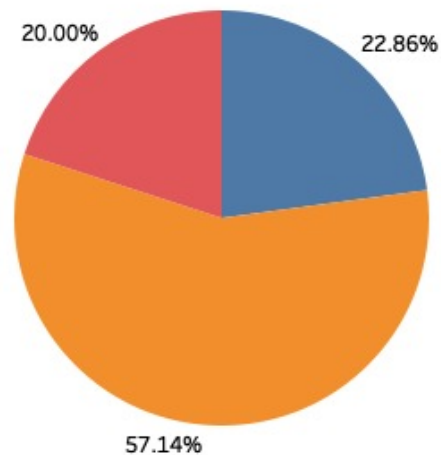
The figure takes all the capital (long-term) investors into consideration and displays the different methods of their analyzing techniques. It should be noted that 47% of investors make use of only fundamental analysis. 41% investors use fundamental indicators, while only 13% make use of both.

## Sheet 5

What kind of an investor are you?

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Both



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While analyzing the markets (color) and % of Total Number of Records (size) broken down by What kind of an investor are you?. The view is filtered on What kind of an investor are you?, which keeps Both. Percents are based on each column of the table.

**% of Total Number of Records**



**While analyzing the markets**




-  I consider carefully the price changes of stocks that I intend to invest in. (technical)
-  I put the past trends of stocks under my consideration for my investment. (both)
-  Market information is important for my stock investment. (fundamental)

Figure 44: Analysis by traders and investors

The figure takes into consideration both, short-term traders and long-term investors to display the different methods of their analyzing techniques. It should be noted here that even if the respondents are making both short-term and long-term investments, 45% of them still make use of only one analyzing technique for forecasting. It can be seen in the figure that 58% use both the techniques for analyzing, whereas 20% use fundamental analysis and 23% use technical analysis

By analyzing all the above information, it is evident that most of the short-term traders make use of technical indicators and most long-term investors use fundamental indicators for their forecasting.

### 5.3. Sub Question 2

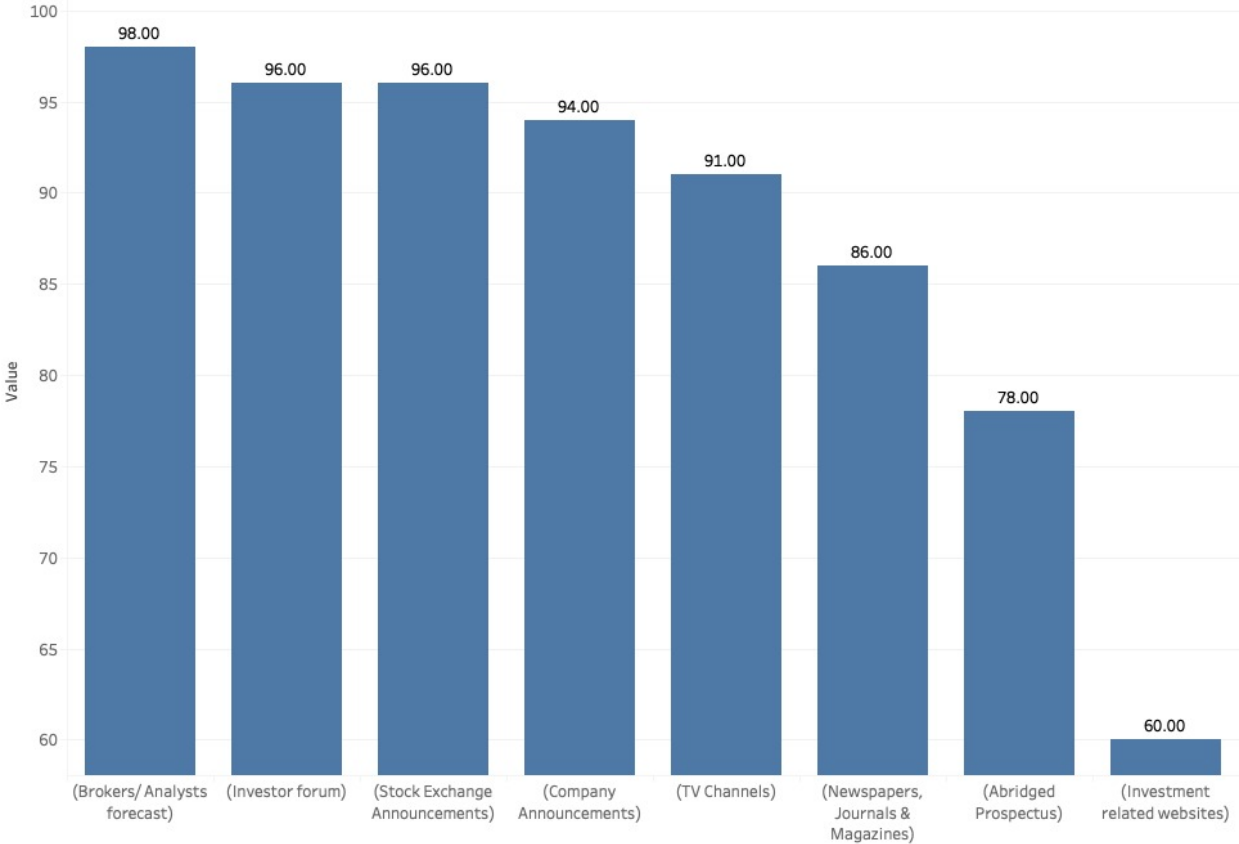
**Do investors gain comparatively higher gains when using both Fundamental and technical together?**

It cannot be confirmed if using both the analysis together leads to higher gains through a survey questionnaire, but surely proves that the risks could be minimized leading to security in trading and investing by preventing from certain losses. The above question aims to outline an equity-based model in context of other valuation exercises for a better management of investment.

It is evident that using both, technical analysis and fundamental analysis would lead to lesser losses than based on the individual analysis. So now we would look at the combined data of rankings of investment factors and sources of information according to their importance. This data is generated by taking the averages of all the factors from most importance to the least importance

according to the responses from the questionnaire. This information is different for chartists, fundamentalists and those using both and visualized in the images below, with the help of Tableau.

Sheet 3



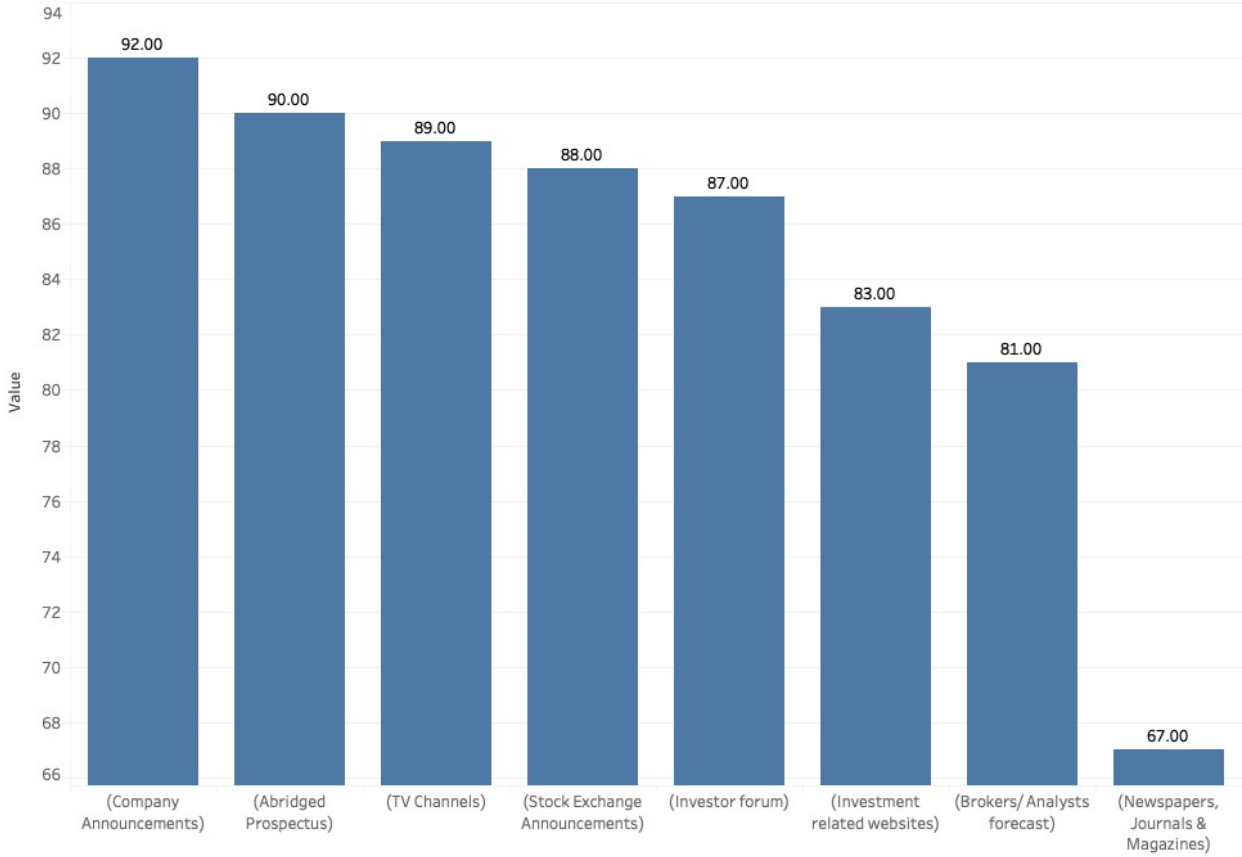
(Abridged Prospectus), (Brokers/ Analysts forecast), (Company Announcements), (Investment related websites), (Investor forum), (Newspapers, Journals & Magazines), (Stock Exchange Announcements) and (TV Channels).

Figure 45: Ranking by chartists

The figure above is a combination of rankings from the responses of investment factors and source of information as done by chartists. This is done by considering all the rankings from 1 to 5 from factors and 1 to 8 from the sources question. Brokers’ or analysts’ forecast is deemed to be the most important while the least important is the investment related websites. It can be seen

from the numbers above each that brokers' or analysts' forecast, investor forums, stock exchange information and company announcements have close to equal importance from the point of view of chartists.

Sheet 3



(Abridged Prospectus), (Brokers/ Analysts forecast), (Company Announcements), (Investment related websites), (Investor forum), (Newspapers, Journals & Magazines), (Stock Exchange Announcements) and (TV Channels).

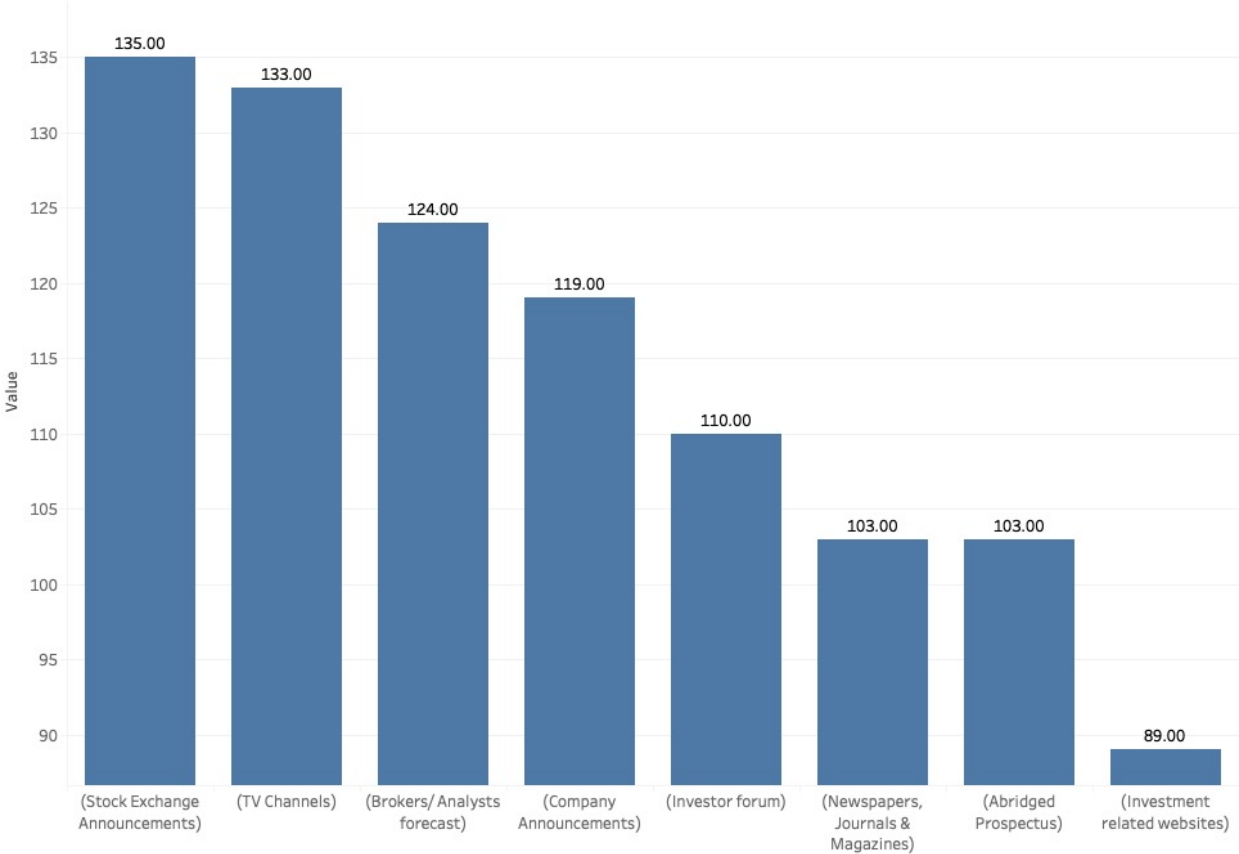
Figure 46: Ranking by fundamentalists

The figure above is a combination of rankings from the responses of investment factors and source of information as done by fundamentalists. This is done by considering all the rankings from 1 to 5 from factors and 1 to 8 from the sources question. Company announcements is deemed



to be the most important while the least important is the newspapers, journals and magazines. It can be seen from the figure that company announcements, abridged prospectus, TV channels and stock exchange announcements have close to equal importance from the point of view of fundamentalists.

Sheet 3



(Abridged Prospectus), (Brokers/ Analysts forecast), (Company Announcements), (Investment related websites), (Investor forum), (Newspapers, Journals & Magazines), (Stock Exchange Announcements) and (TV Channels).

Figure 47: Ranking by both

The figure above is a combination of rankings from the responses of investment factors and source of information as done by people using both, technical analysis and fundamental

analysis. This is done by considering all the rankings from 1 to 5 from factors and 1 to 8 from the sources question. Stock exchange announcements is deemed to be the most important while the least important is the investment related websites. Stock Exchange Announcements and TV Channels have close to equal importance from the point of view of traders and investors using both the types of analysis.

It is evident from the above information that the two most important factors as considered by those using both, fundamental and technical analysis are a part of the top three important factors from chartist and fundamentalist point of view. It is thus clear that all the required technical analysis could be done from stock exchange news and announcements and TV channels could provide with important fundamentals. While using the two analysis together, the traders and investors could not only earn higher by reducing risks and losses, but also would not need to do the analysis of both kinds very deeply.

#### 5.4. Sub Question 3

**How should the financial markets be analyzed for speculation of prices while trading or investing?**

This question aims to provide a link between the hybrid model of researchers and the traditional practices of investors. Both technical and fundamental analysis have their benefits in own way, and none can be ignored. There is no perfect way to analyze the stock markets for speculation of prices while trading or investing in general. Everyone has their own techniques to make the analysis on the stock and market that suits best to the particular individual, which might

be based on the techniques of a broker or any specialized course, but in the end is modified based on the personal experience and by mix matching different analyzing sources and techniques. The best method to analyze is to keep trying different methods and then modify it in your personal way to minimize the risks and earn high returns.

Said that both, fundamental and technical analysis have their own benefits, both tend to have certain limitations as well. Apart from the majority of chartists who prefer technical analysis over fundamental analysis only because fundamental analysis is tedious and time consuming, there are people who believe that fundamental analysis gets you into a good stock but at the wrong time, some of who also believe that only immediate price changes matter for earning profits. The major limitation of fundamental analysis is that value of a financially healthy stock might not rise immediately and/or continuously, and you might end up with your money stuck into a stock that you cannot even sell out.

Even if technical analysis has the potential of earning profits, based only on certain indicators, just like fundamental analysis, technical analysis is also not competent of doing all the things on its own. Apart from the majority of fundamentalists who prefer fundamental analysis over technical analysis only because of the large number of technical indicators and because of the difficulty in mastering reading these stock charts accurately, a huge number also believe that technical analysis is less accurate and reliable because of its open ignorance towards other important factors such as the economy, government and even the company itself.

All these factors could be seen as flaws but instead should be used for improvement of the current analyzing techniques. All these factors have been identified only from the respondents who have tried analyzing the stocks by making use of both, fundamental analysis and technical analysis at some point of time, which gives a clear idea of the possible issues. Traders and investors can

ensure a minimum risk by taking all the factors, individual and market variables into consideration. This is possible for traders as well as for investors, fundamentally sound stocks could be timed properly with technical analysis.

To put this in simple words for traders and investors,

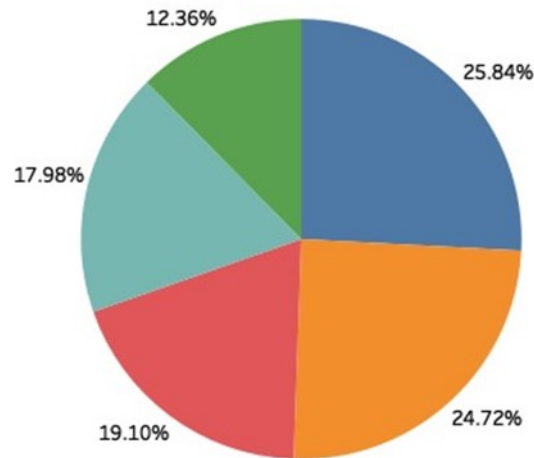
- Short term traders should create their stock watchlist, full of fundamentally good stocks.
- Long term investors should pick up their fundamentally strong stock, and time to open and close the trade through technical analysis.

### 3.5. Sub Question 4

What are the reasons for majority investors and gurus not resorting to the complementing analysis despite of proven results?

The aim of this question is to determine if the existing models with complementing nature of fundamental and technical analysis has any flaws from individual investor's point of view. It has to be noted that no other option was added for this specific question, apart from those mentioned by the researcher. This points out that there are no specific reasons or experiences that withdraw respondent's interest from carrying out trades based on both, technical analysis and fundamental analysis.

## Sheet 2



Why not analyse the markets with both, technical and fundamental analysis? (color) and % of Total Number of Records (size). Percents are based on the whole table .

### % of Total Number of Records



### Why not analyse the markets with both, technical and fundamental analysis?

- Requires more time, efforts and contacts to gather information of large amounts
- High number of indicators complicates the style of trading
- Never tried, gaining required returns based on single analysis
- Technical analysis could be done only for short term stocks and fundamental for long term investments
- No huge difference made when using both.

Figure 48: Why not analyze by both

The above figure is the result of combining the direct questions on why not analyze by using both, asked separately to the chartists and fundamentalists. It needs to be noted that 19% of the total fundamentalists and chartists have never tried using both the types of analysis together.

This 19% consists of people from the two groups, who use only technical analysis and those who use only fundamental analysis. It amounts to a group of respondents who just believe that either only technical analysis is better or only fundamental analysis is better, without even trying the other.

The majority of respondents prefer trading and investing based only on technical analysis or only on fundamental analysis because analyzing the markets using both requires more time, efforts and contacts to gather information of large amounts. The other huge chunk belongs to those who believe that high number of indicators complicates the style of trading. If these two are combined, it can be seen that 50% of the total respondents following only single analysis do not have any particular issues with the other type of analysis, but only find it to be hectic. This confirms that both, fundamental and technical analysis have no such great disadvantages, but are just preferences of people based on their style of trading or investing.

12% of people explained that they tried using both the types of analysis together, but no huge difference was made. Unfortunately, it was not possible to find out the period for which they tried analyzing the markets by complementing the two types of analysis. Since, using both technical analysis and fundamental analysis together reduces the amount of risk, it becomes difficult to know if any difference is made only by using the two for a short period. The results from using single factor analysis and from complementing use needs to be compared for certain period of time when the market conditions are same, which can be done only together through experimentation.

The other option said that technical analysis could only be done for short term trading while fundamental analysis could be done only for long term investments. This is a generic statement which could be heard in every debate regarding to technical analysis vs fundamental analysis.

While, it is evident that both technical analysis and fundamental analysis could be done together for all, short term trades and long term investments, the proper way of doing it would be explained in the previous question.

The main research question would conclude the research in next chapter.

## 6. CONCLUSIONS/ RECOMMENDATIONS

### 6.1. Introduction

There have always been clashes between the fundamentalists and the chartists about how the stocks and markets should be analyzed. Chartist or technical analysts are those who forecast the markets by considering the historic trends, whereas the fundamental analysts consider all the other factors that affects the stocks.

Most people prefer analyzing the markets based on technical or fundamental analysis, while there are only a few who make the use of both, fundamental and technical analysis together for analyzing the stocks. Even when you search the internet for fundamental and technical analysis, the search returns with major results for the substituting nature of two, denoting the better of two. On the other side, there have been huge research done on the complementary nature of the two, proving that even if a single analysis works well in isolations, the results of complementary behavior returns with larger gains. Despite of proofs in regressions and cases and all other ways possible, investors resist to change the way of single kind of analysis based on the type of trade.

This research focuses on knowing what kind of analysis is done by the traders and investors, who are members of the Facebook group “Day Trading Stocks and Options”, and the reason for that particular analysis. This is done with a view to find reason why people rarely use the complementing nature of technical and fundamental analysis, both together.

### 6.2. Research Question

Why do traders and investors rarely analyze stocks using both, fundamental and technical analysis?



The main aim of this question is to identify the reason why the traders & investors rarely use both: fundamental & technical analysis models for forecasting. The answer to this question has already been answered through the questions asked above.

From the sub question 1, it can be seen that most of the short term traders analyze the stocks and markets through technical analysis, while fundamental analysis is preferred by those who participate in the stock market for long term investments. The next question enquired if traders and investors gain comparatively higher returns when using both, fundamental analysis and technical analysis together. Though it was evident that they gain higher based on the literature review of the previous researches, finding the right amount is certainly impossible, but it does support the fact.

The sub-question 3 can be seen as the right conclusion or the recommendation from this research. It is explained that traders and investors can ensure a minimum risk by taking all the factors, individual and market variables into consideration. This is possible for traders as well as for investors, fundamentally sound stocks could be timed properly with technical analysis.

**To put this in simple words for traders and investors,**

- **Short term traders should create their stock watchlist, full of fundamentally good stocks.**
- **Long term investors should pick up their fundamentally strong stock, and time to open and close the trade through technical analysis.**

Mentioned above is the takeaway from the research, which was agreed upon after proper analysis of all the required data from the responses of the survey.

The last sub question tries to find out the reason why traders and investors are not resorting to the complementing analysis despite of proven results. The results showed that it is tedious and requires a lot of time and efforts and thus people continue to follow the same practice that earns them profits without trying new methods to increase earnings and reduce the risks.

### 6.3. Key Findings and Scope

- It should be noted that 55% of traders make use of only technical analysis and 47% of investors make use of only fundamental analysis.
- To the question asking why the respondents do not analyze by using both, technical and fundamental, no option was added in the others options, meaning no strong reason.
- 32% explain that high number of indicators complicates the style of trading. The traders and investors must analyze the stocks and markets according to personal comfort rather than accepting different suggestions much.
- 19% of the total fundamentalists and chartists believe that either only technical analysis is better or only fundamental analysis is better, without even trying the other.
- It should be noted that more than half of both, the chartists and the fundamentalists tend to try including certain fundamental analysis indicators and certain technical analysis indicators respectively to their usual technique of analyzing the stocks.

### 6.4. LIMITATIONS

Due to the constraints in terms of time, the research would be limited to the following:

- **Research would not be able to find out the individual behavior of traders and investors across different markets:** Based on the 100 responses, classifying them into

their specific stock market would not give the accurate results to generalize each of the nineteen stock markets. Instead, the researcher classified the respondents based on their geographic location based on continents. This would give a slightly better idea about changing preferences and techniques.

- **Respondents are only the traders and investors in stock market and hence, analysis for other securities are not done:** The primary objective of the research is to find why traders and investors rarely make use of both, fundamental and technical analysis while analyzing the stock markets. If other securities were involved, the options, preferences and techniques as well as the reasons would have been very different and would require more details and difficult to administer and understand, and also might affect the findings by creating confusions. Instead, based on the stock market analysis, the reasons can be easily generalized with other securities.
- **The study ignores the current best practices suggested by some of the finance gurus and brokers:** The research focuses to find the reason why people carry out only a single factor analysis, despite of the previous researches explaining the complementary behavior of the two. This research thus concentrates on previous research papers on Technical and fundamental analysis, and then compares it with the preferences of individual traders and investors.
- **The extent of variations in the analysis could not be perfectly measured:** Every trader and investor have their unique style of analyzing the stocks and markets. Some of them actually analyze based on only technical analysis or only fundamental analysis, but there are a few, who knowingly or unknowingly, tend to analyze the markets based on a combination of the two analysis. The extent of these variations cannot be measured based

on their simple responses, which would require a depth and long questionnaire which the respondents might find difficult to respond as the questions might get quite personal on the techniques and profits.

- **The survey is carried out only on a facebook group members:** The survey was posted in a facebook group and 100 members responded to the survey. This means that the results are out of a small sample and might be little different when taken the general public in consideration.
- **Internet survey:** The survey is basically conducted online. This automatically ignores the traders and investors who do not resort to any online surveys. There are different factors such as age, number, demographics, etc. that might have went ignored.
- **Analytical indicators:** Throughout the research, only terms ‘fundamental’ and ‘technical’ are used, without any reference to the individual indicators that they consist. The research could have taken a different action based on individual indicators.

## 7. REFLECTION

### 7.1. Introduction

This chapter is a critical assessment wherein an in-depth account of experience in dissertation and the whole master's program is presented. This section would take you through the whole process, from the challenges faced to the skills acquired at all the different levels. The course of Msc.in Management Practice was designed in a way to include the module on research methods right from the first semester. This makes the research, an integral part of the master's, and thus the reflections on the whole master's program is explained through the steps of dissertation

### 7.2. Learning Experience

The dissertation process was made easy and possible by the professors of Dublin Business School and I was majorly benefitted from the fifth edition of book "Research Methods for Business Students", written by Mark Saunders, Philip Lewis and Adrian Thornhill. The book has guided me through all the steps and chapters that are covered in this report and despite of being a novice in the area of research, the master's program in management practice has taught me every minute detail of the research methods. Furthermore, the master's program has inculcated significant values of management and developed an overall personality. This chapter will guide through the whole journey of masters with regards to this dissertation.

When it came to selection of topic, the main issue faced by me and my colleagues was that everyone had broad thoughts, which is next to a suicidal attempt in research. Nevertheless, to define the research in a proper way, everyone learnt to narrow down and focus on the particularly

important and relevant research. This developed the skills of focusing and taught me to pay attention to every minute detail. Further, the research on that particular minute detail makes it broad and could be narrowed down till the very simplest form.

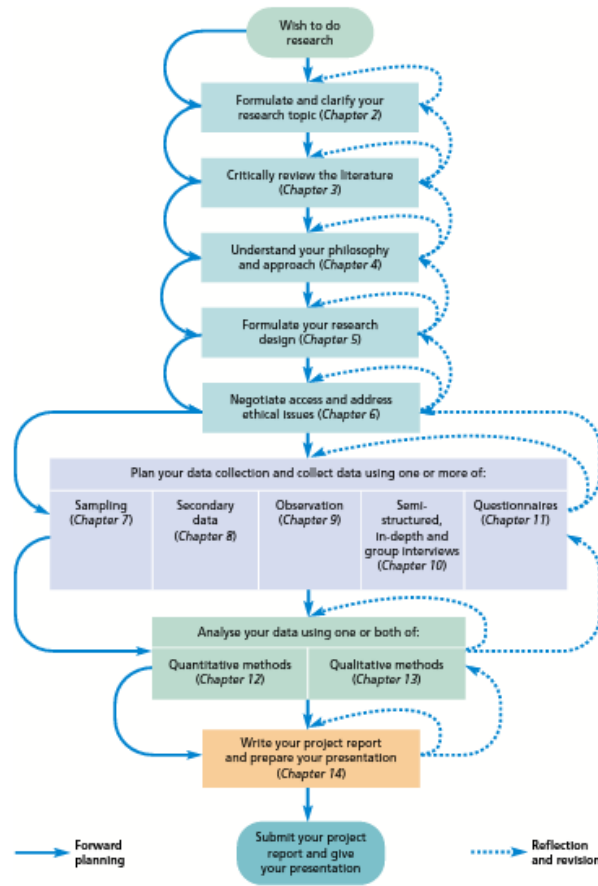


Figure 49: Research Process (Saunders, Lewis, Thornhill)

The topic of share market was chosen out of personal interest. Whenever I searched for the techniques to analyze stocks and markets, I landed up on arguments between fundamental and technical analysis. Later when I got the access to the DBS library and understood the use of search engines like scholarly, EbscoHost, Dawsonera, Emerald, Esource and Athens, I was encountered

with huge collection of journals and researches explaining the complementing nature of both the analysis which gave rise to this research. The above search engines were then used to develop my literature review.

These databases have humongous research material which is easy to access. This does not make the research process easy or more achievable, but instead bombards you with various researches that might not suit your research or might be similar to the previous research. Judging a book by its cover might be wrong but reading the correct details and interpreting it just in the way intended in the abstract of the research, and judging further on which journal it was published, and then doing a deep analysis is the true method of literature survey.

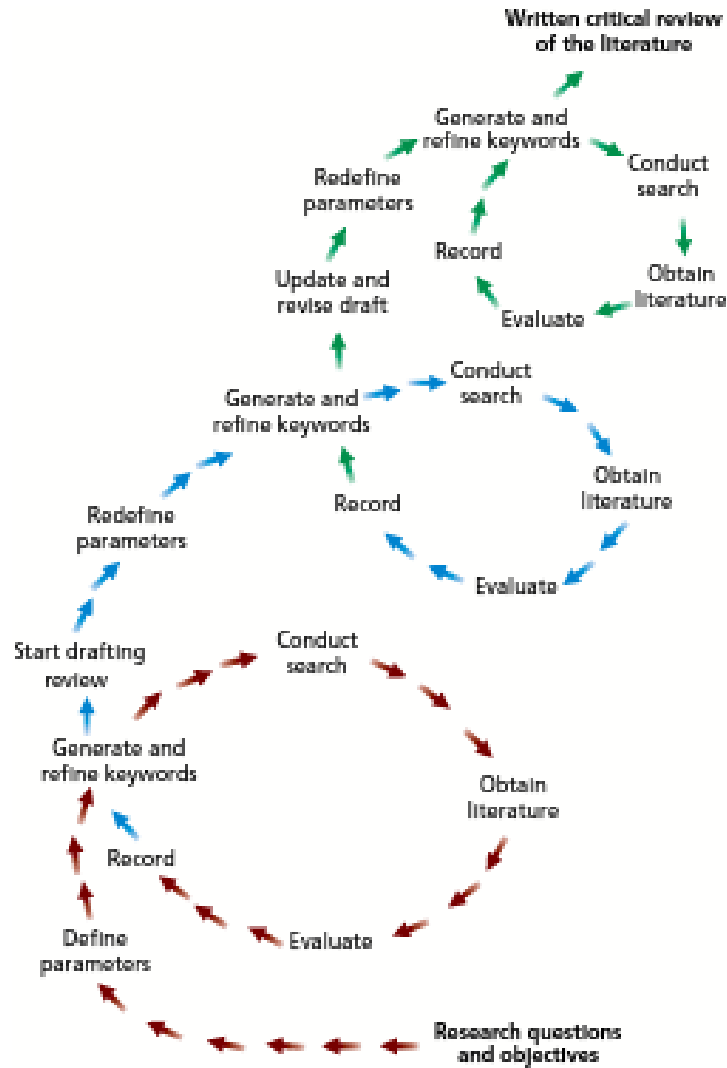


Figure 50: Literature review process (Saunders, Lewis, Thornhill, 2003)

The best part of the research, with regards to literature review was that the topic was developed based on previous research. A huge amount of papers and articles are available on the internet and gives you details on various aspects of the topic. There are loads of journals, books, articles and websites that were referred to, but not included in this research. When it comes to selection of your literature, it is equally important to categorize what not to include in the research.



Based on the research questions and objectives, the parameters must be defined, and the same process is to be repeated until you are ready with your final pick of literature survey. Also, to be mentioned, choosing the right journals and picking up the required material to relate it with my research was a bit tough part, but taught me the skills of organizing and lead to a strong literature review.

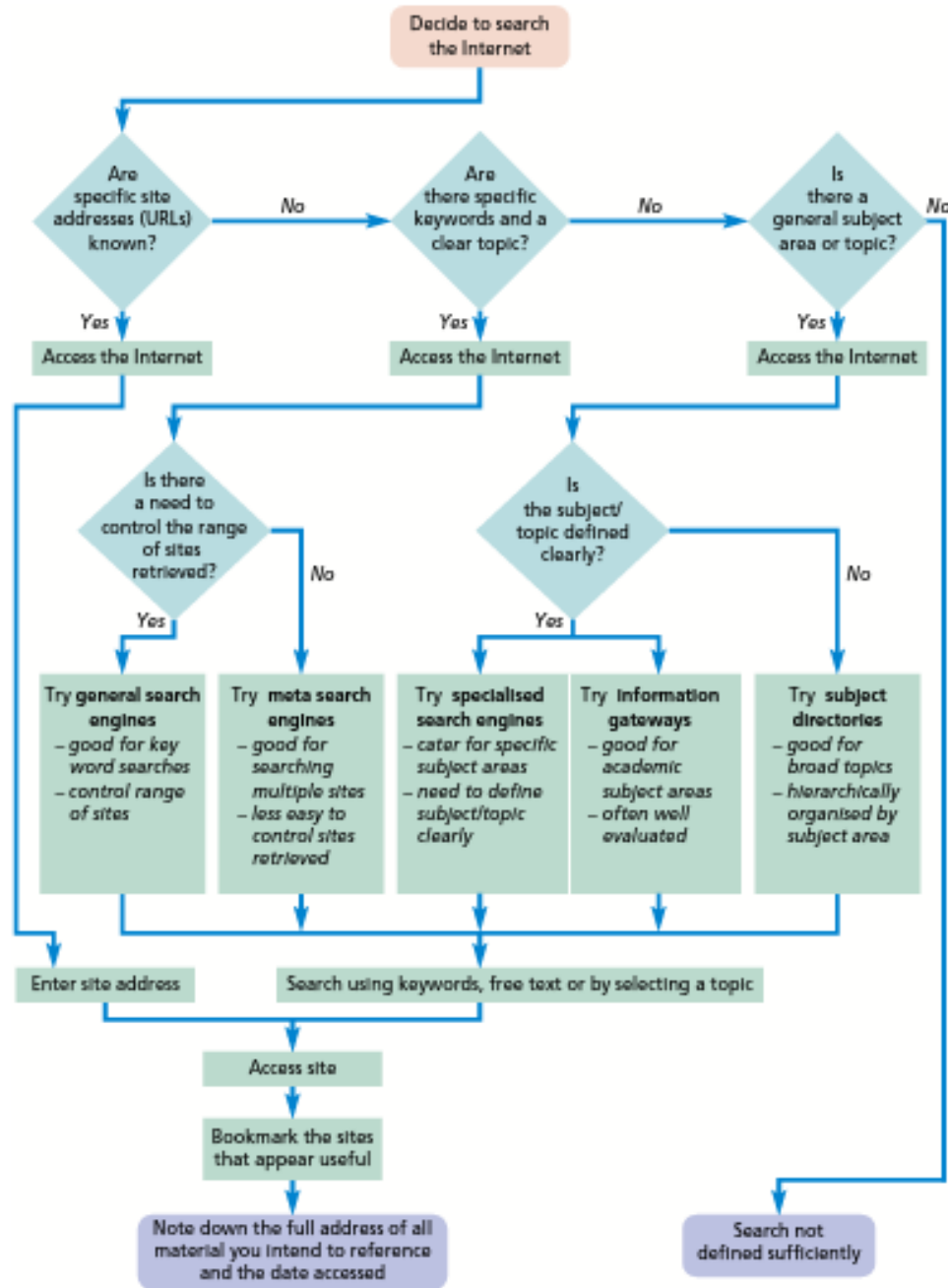


Figure 51: Searching the internet (Saunders, Lewis, Thornhill, 2003)

It should be clear that the regular internet search is different than the internet search for your research. Every concept or point in your research needs to be referenced properly and given justification for. You cannot include any blogs, individual posts, forums, articles that are not peer-

reviewed and other stuff which has even a small amount of doubt. It was one of the difficult things to master which sources are reliable and which are not, which was made easy by the Continuous Assessment during the master's course where every professor gave details on how an ideal report should be.

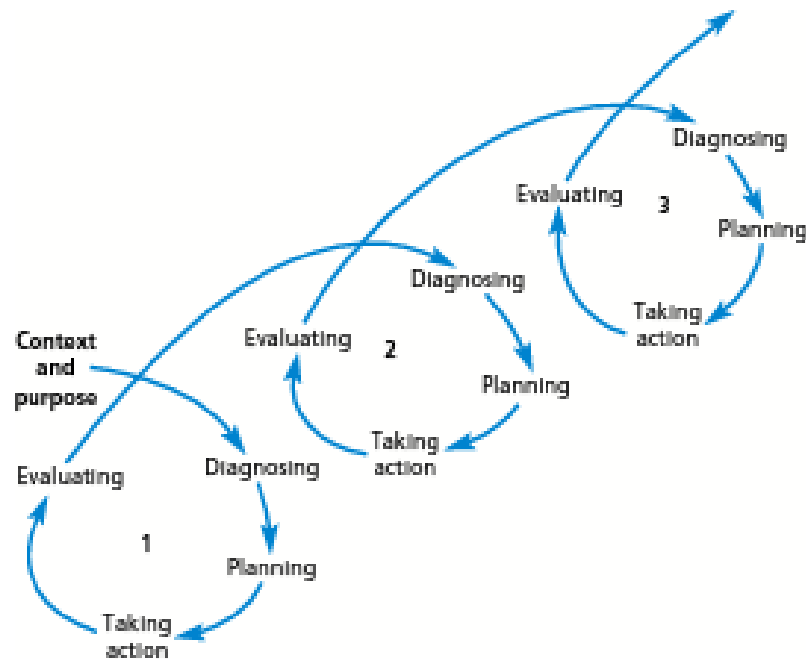


Figure 52: The action spiral (Saunders, Lewis, Thornhill, 2003)

Internet and its reach allows you to gather data at a very large scale. Even when you have selected the researches that need to be included in your research, it is important to know that different researchers have different thoughts which are justified in a proper way. These thoughts from different papers and articles needs to be compared and contrasted to make a strong research,

which requires a continuous filtering and modifications. The action research spiral defined by Saunders and Lewis looks like following.

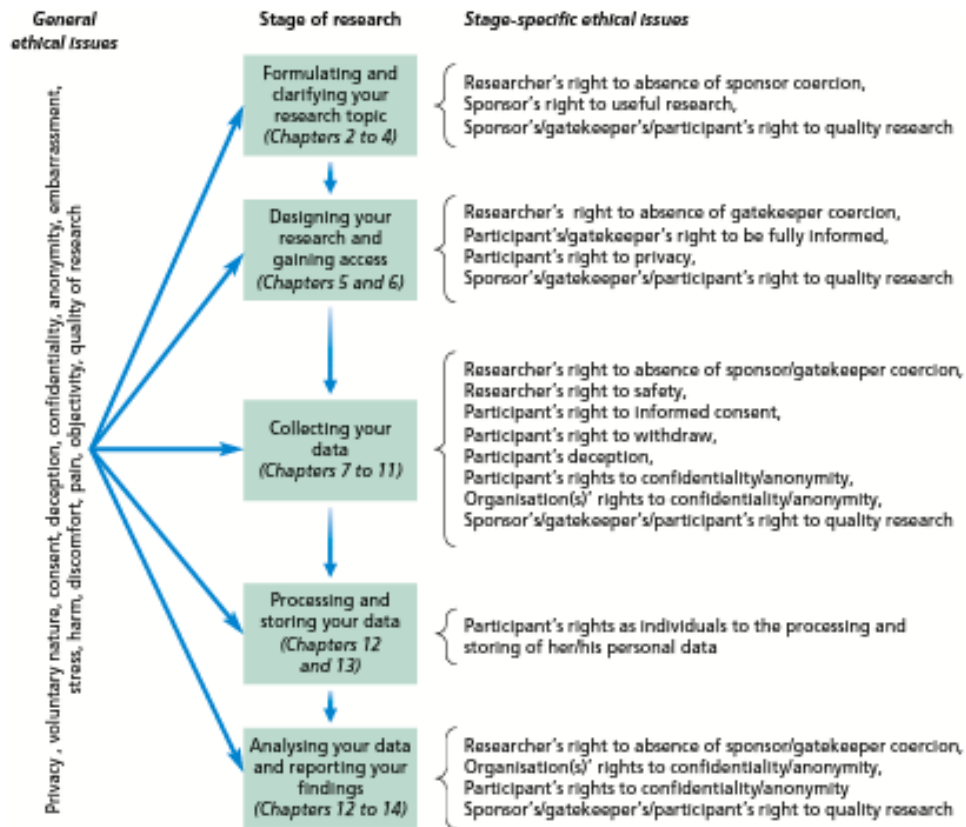


Figure 53: Ethical Issues (Saunders, Lewis, Thornhill, 2003)

Literature review is the secondary research that creates a base to the research and research methodology. The methodology as discussed in the chapter 3 have different approaches and choosing the best suitable method made me know my topic in a more deep manner. I had several meetings with my Research methods professor on what kind of sample and methods would suit best. Then with a proper guidance, the topic got narrowed down and created a proper research as

above. The most crucial part of conducting the primary research was to abide by the rules and ethics like privacy, consent, deception, confidentiality, anonymity, embarrassment, quality of research and other such ethical considerations that are to be followed at different stages of dissertation.

The most difficult part of the dissertation for me remained to be selecting the sample and population for the research. The dissertation and other continuous assessment taught me to the result of trust and no confirmation. Every decision must be taken only after a proper confirmation on the part and never rely on anyone regarding work that benefits only you. A moderator on Wall Street Oasis had confirmed me to carry on the research on the website, but later did not reply to any of my messages or emails. Later, I tried contacting everyone on there, but with no success.

On learning that Wall Street Oasis would be of no help, various other forums, linkedin groups, facebook groups and other chatting blogs were looked upon. After proper study of the members, several administrators were contacted for permission of the research. The moderator of the facebook group that I picked supported me with my dissertation in a good way and agreed upon helping further. Later while administering the questionnaire, he was no longer the moderator but he conveyed the proper messages to the admin and the group returned with more than 100 responses, some of which were not used for analysis as they were not answered in the manner of the question asked, and I concluded on 100 responses.



*Figure 54: Question formatting*

The preparation of survey questionnaire was a different experience at all. I had a number of options available and each had certain pros and cons. Google forms taught me an easy way to form certain questions that I was facing difficulty to deal with. It was easy enough but taught me to design and administer the questionnaire in a modern way. The questionnaire had to be easy and small for the respondent but required to gather huge data, this compelled the mind to think on different aspects to make the questionnaire short and informative. Different sections were created in the questionnaire to redirect respondents according to their personal preferences. This allowed to gather huge amount of data without stressing up on the respondents. Data analysis was also made easy by the help of google forms. Tableau remains the best thing that I had got to learn while analyzing the data. I had seen and read a lot about tableau visualizations and got an opportunity to use it for the right purpose.

Finally explaining, all the data was ready but needed to be the original work and referencing had to be done in a proper way. Module lecturers in the semesters had given me enough knowledge

on plagiarism and referencing in the prior assessments. The assignments gave me a vast knowledge on different features of Microsoft Word, Excel, PowerPoint and other software along with personal development in the journey of masters.

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## 9. APPENDICES

### Appendix 1: Security Clearance

#### **Dublin Business School Company Security Clearance**

Name: Ameya Sunil Pawar

Student Number: 10385647

Dissertation Title: A study on using both, technical and fundamental analysis together for trading and investing, with reference to Day Trading Stocks & Options

#### **Company Security Clearance**

##### **Please initial as appropriate**

- We agree that the student(s) may undertake a dissertation of the nature indicated above and that he/she/they will be given access to appropriate information sources within our Organisation
- We agree that copies of the finished project will be made available for assessment by staff of Dublin Business School and External examiners

Company Name: Day Trading Stocks and Options

Signed: Colby Cook

Position: Moderator

Date: 01/09/2018

## Appendix 2: Questionnaire

### Stock Market Analysis

Welcome to the survey!

I, Ameya Sunil Pawar, M.Sc in Management Practice student from Dublin Business School, Ireland am here conducting a research under the guidance of Mr.Paul Walsh to analyse different investment techniques of traders and investors in stock markets.

For my dissertation, I am reviewing current practices of investors to speculate the prices and returns on investments and the reasons for following the respective practice. This is done with a view to find out the reason if and why investors rarely make use of both, technical and fundamental analysis models.

All information obtained is strictly CONFIDENTIAL and used only for this research paper. You cannot be identified from the information you provide, and no information would be stored or shared.

In this survey you will be asked to answer a range of questions that deal with your preferences of stock analysis techniques. You will be asked to choose one or multiple answers for each question which would take no more than 5 minutes to complete. Depending on your answers, the questionnaire would take you through different streams of questions to provide ease and convenience.

I hope you find completing the questionnaire enjoyable, and thank you for taking the time to help us. If you have any queries or would like further information about this dissertation, do not hesitate to email Ameya Pawar: [10385647@mydbs.ie](mailto:10385647@mydbs.ie)

\* Required

1. I hereby confirm that I understand the purpose of this survey and I agree that my data is used for the above mentioned purpose. \*

Check all that apply.

I Agree

### General Information

This survey gets information of how the traders and investors analyse the stock markets while trading or investing. The aim of the research is to find out the reason why despite the proofs from several researchers, only a few make use of both, technical and fundamental analysis.

2. Your age

Mark only one oval.

- 20-40 years  
 40-60 years  
 above 60 years

3. Preferred mode of trading

Mark only one oval.

- Online  
 Offline

**4. How long have you been a participant in the stock market**

*Mark only one oval.*

- Less than 1 year
- 1-3 years
- 3-5 years
- 5-10 years
- Over 10 years

**5. In what geographic region is the stock market that you participate?**

*Check all that apply.*

- African
- Asian
- European
- Latin American
- North American
- Oceania
- None/ virtual
- Other: \_\_\_\_\_

**6. What attracts you the most to Equity Markets?**

*Mark only one oval.*

- Dividends
- Capital Appreciation
- Quick Gains
- Tax Benefits
- Diversification of Asset Holding
- Other: \_\_\_\_\_

**7. How have you acquired your investment knowledge?**

*Check all that apply.*

- I have no investment knowledge
- When investing my own money and/or as a self learner
- By studying at a specialized school or specialized course which included investment studies
- In my past or present job or occupation, where my professional duties were directly related to investing
- Other: \_\_\_\_\_

**Market factors influencing Investment Decisions**

**8. What kind of an investor are you?**

Mark only one oval.

- Speculative (short-term)
- Capital (Long-term)
- Both

**9. While analyzing the markets \***

Mark only one oval.

- I consider carefully the price changes of stocks that I intend to invest in. (technical) *After the last question in this section, skip to question 11.*
- Market information is important for my stock investment. (fundamental) *After the last question in this section, skip to question 17.*
- I put the past trends of stocks under my consideration for my investment. (both) *After the last question in this section, skip to question 23.*

**10. Rank the investment factors according to importance (1 being the most important and 5 being the least important)**

Mark only one oval per row.

	1	2	3	4	5
General Information (Stock exchange information, broker's advice, media effect, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company Management (company history, company policies, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prospectus details (Authorized & paid up capital, terms of issue, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current Project Details (Product strength, demand, future prospects, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial information (EPS/PE ratio, market volume trades, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Technical Analysis

**11. Why technical?**

Check all that apply.

- No time delay
- Availability of accurate information
- Easy to predict the target price
- No need to hold up the investment
- Accurate trade signals
- Other: \_\_\_\_\_

**12. Why not fundamental?**

*Check all that apply.*

- Tedious and time consuming
- Gets you into a good stock but at the wrong time
- Only immediate price changes matter for earning profits
- You are still making predictions about the future
- Ignores the fact of supply and demand
- Value of a financially healthy stock might not rise immediately and/or continuously
- Other: \_\_\_\_\_

**13. Why not analyse the markets with both, technical and fundamental analysis?**

*Check all that apply.*

- High number of indicators complicates the style of trading
- Never tried, gaining required returns based on single analysis
- Requires more time, efforts and contacts to gather information of large amounts
- No huge difference made when using both.
- Technical analysis could be done only for short term stocks and fundamental for long term investments
- Other: \_\_\_\_\_

**14. Rank the sources according to importance (1 being the most important and 8 being the least important)**

*Mark only one oval per row.*

	1	2	3	4	5	6	7	8
Abridged Prospectus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers, Journals & Magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV Channels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investment related websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brokers/ Analysts forecast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investor forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company Announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stock Exchange Announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**15. Please mention any other sources of information (optional)**

\_\_\_\_\_

**16. Would you think of adding up certain fundamental analysis indicators to your usual technique of analyzing the stocks that you trade in?**

*Mark only one oval.*

- Yes
- No

Stop filling out this form.





21. Please mention any other sources of information (optional)

---

22. Would you think of adding up certain technical analysis indicators to your usual technique of analyzing the stocks that you trade in?

Mark only one oval.

- Yes  
 No

Stop filling out this form.

## Complementing Technical and Fundamental Analysis

23. What are the main benefits of using both, fundamental and technical analysis?

Check all that apply.

- Minimizes risk  
 Takes all the factors, individual and market variables into consideration  
 Fundamentally sound stocks could be timed properly with technical analysis  
 Other: \_\_\_\_\_

24. Rank the sources according to importance (1 being the most important and 8 being the least important)

Mark only one oval per row.

	1	2	3	4	5	6	7	8
Abridged Prospectus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers, Journals & Magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Investment related websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brokers/ Analysts forecast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investor forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company Announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stock Exchange Announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Please mention any other sources of information (optional)

---

## Appendix 3: Consent form

### Stock Market Analysis

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**\* Required**

**1. I hereby confirm that I understand the purpose of this survey and I agree that my data is used for the above mentioned purpose. \***

*Check all that apply.*

I Agree