Chapter 2

Review of Literature

During the research process literature review incorporates analyzing the work done in the past by the researchers related to the current subject of study but possibly from some other fields of social science or from some different time period. Literature review provides a theoretical base for the research including concept building about the topic, different forms of representing and studying the same problem or subject, various sources of data, various tools and techniques used for analysis. Following the standard methodology the present study also incorporated the important aspect of Literature review.

For the present study literature review was conducted in two phases:

a. Initially literature review was conducted at the Concept Building Phase. Before initiating the research process it was important to understand the Concept related with the research topic. Upon analyzing the research topic few prominent words were identified such as Attitude, Behavioral Finance so initial studies were done to build the concept about these two important terms. The studies included that explained what is Attitude and Behavioral Finance, what are the sub concepts of the two terms and what are their different forms.

b. In the next step the linkages between the two terms was studied and analyzed, while analyzing the two terms other important terms considered were retail investors and investments in secondary equity market.

The literature review done in the first step acted as a concept builder and identified various facets of investor’s attitude and behavioral finance and its heuristics.

In the next section,

c. Literature review was done as action research phase. Once the different behavioral finance heuristics were identified, few heuristics were considered for analysis and to be tested in the context of Indian retail investors. The next section encompassed the literature review: Individual investor’s investment decision making process, Overconfidence, Intuition, Astrology & Numerology, Problems Investing.

The section also included the review done to understand the pattern of investment exhibited by various secondary equity market participants like FII & Mutual Fund and also how they affected the individual investor’s investment decision.
LR 2: Concept Building Phase

During the concept building phase, basic literature and the initial studies done in the field of Attitude and Behavioral Finance were analyzed and understood.

LR 2.1: Attitude

Attitude is observed to be the most observed and discussed topic in the field of behavioral sciences (Melvin L. Defleur & Frank R. Westie, 1963). The word attitude is greatly exploited by the marketing researchers as the success and failure of the products that an organization is greatly dependent on the consumer attitude toward the organization as well the product. A positive attitude toward the product results in greater achievement of profit targets and vice versa.

An attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with a certain stimuli. The individuals attitude are present most of the time, but are remained at the dormant state, they become expressed in speech or other behavior only when the object of the attitude (in present case Secondary equity market or Stock Market) is perceived. A person may have strong for or against attitude for a particular stimuli but they become aroused or expressed only when the individuals is confronted with some issue connected with the stimuli or when confronted with the questionnaire related to the attitude.

The fundamental question is —Why do people hold a particular attitude?—

The question may be answered in a number of ways. Daniel Katz (1960) explained the formation of attitude which involved a functional approach to attitudes.

The success of an economy depends upon the trust exhibited by its residents in its operating system i.e. trust in its functionality, trust in its system being financial or social. A sound financial system maintains the trust of the residents resulting in the overall economic developments. The financial system of an economy acts as the backbone and the components of the financial system as its backbone. Stock market is one of the components of the financial system. A robust stock market system enhances the trust among the residents of the economy.

The research made an effort in studying the attitude exhibited by the investors in the stock market. Attitude is a favourable or unfavourable evaluative reaction toward something or someone exhibited in ones beliefs, feelings, or intended behaviour (Myers, p. 36). It is a
social orientation - an underlying inclination to respond to something either favourably or unfavorably.

During the 17th Century attitude was referred as the physical positioning of an artist's subject with respect to a background (Melvin L. Defleur & Frank R. Westie, 1963). (Alexander Bain, 1868) used the term "attitude" when analyzing the "power of the Will over trains of thought," and noted that the 'forces of the mind may have got into a set track or attitude."

The term gained a respectable attitude with the experiments involving "mental chronometry" led to the formation of a series of new concepts which were in sense varieties of attitudes. W. I. Thomas and Florian Znaniecki, (1918) are regarded as the first to use attitude as a key concept in an extensive and systematic way. With gaining more and more importance in the behavioural and psychological studies, a need was felt to develop scales to measure attitude. The "social distance" studies of Bogardus (1925) and a monograph by Thurstone and Chave (1929), and are two important milestones which mark the rise of interest in "attitude scales."

2.1.1: Definition of attitude given by different experts

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<thead>
<tr>
<th>Definition</th>
<th>Author</th>
<th>Year</th>
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<tr>
<td>Attitude is a hypothetical or latent variable rather than an immediately observable variable</td>
<td>Bert F. Green</td>
<td>1935</td>
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<td>An individual's social attitude is an enduring &quot;syndrome of <strong>response consistency</strong> with regard to a set of social objects</td>
<td>D. T. Campbell</td>
<td>1950</td>
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<tr>
<td>The predisposition of an individual to evaluate some symbol or object or aspect of his world in a favourable or unfavourable manner</td>
<td>Katz</td>
<td></td>
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<tr>
<td>The most distinctive and indispensable concept in contemporary social psychology, can be formed by an individual’s past &amp; present</td>
<td>Gordon Allport</td>
<td>1935</td>
</tr>
<tr>
<td>Attitude is measurable and changeable and is responsible for influencing the person's emotion and behaviour.</td>
<td>Eagly and chaiken,</td>
<td>1998</td>
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Attitudes are evaluations of any idea pertaining to the social world. The idea to be evaluated can range from automobiles to stock exchanges, from a service offered by a bank to a soap newly launched. The research aimed at observing the opinions of the investors through numerous statements related to stock market investing, as Katz expressed, “opinions as the verbal expression of the attitude.”

Attitudes are important to be studied and observed because they:

a. Strongly influence our social thought
Help to organize and evaluate stimuli (e.g., categorizing stimuli as positive or negative). Social thoughts of the individuals clubbed together generate an overall picture about a particular notion, idea or object. When the investors are asked about their opinion about the stock market investment enables us to identify the level of activity expected in the market.

b. Presumably have a strong affect on behavior

Help to predict people’s behavior in wide range of contexts (e.g., voting, interpersonal relations, investing etc.). Identifying the attitude towards the stock markets will help identifying the reasons behind the resistance of investing in stock market which can be used by the investment firms to eradicate the limiting factors. Also the research aims at identifying the investors with positive attitude and the agencies responsible for formation of such attitude, can such agencies be used to influence the investors with negative attitude about the stock market.

LR 2.1.2: Theories on Components of Attitude

Since the early 1900s, a number of theories had been developed to provide a framework for the attitude-behavior relationship that would provide explanatory and predictive information about the subjects. Throughout the history of social psychology, the concept of attitude had played a major role in explaining human action, viewing attitudes as behavioural disposition.

Attitudes are abstractions - though they are real enough to the individual who holds them. Attitudes are reinforced by beliefs (the cognitive component) and often attract string feelings (the emotional component) that will lead to particular forms of behavior (the action tendency component)

According to the traditional view, the components or the structure of attitude is called as tripartite. The structure included three components: Cognitive, Affective and Behavioral. Krech, Crutchfield and Ballachey (1962) defined “attitude as an enduring system of cognitions, feelings and response dispositions centered about a single object. Similarly, Rosenberg and Hovland (1960) regard “attitude as a predisposition to some class of stimuli with cognitive, affective and behavioral responses.”
The Cognitive Component: Our thoughts, beliefs, and ideas about something. The attitude can be studied by identifying the characteristics and attributes of the idea to be studied. The research aimed at studying the attitude of the investor toward making the secondary equity market investment. An effort was done in the direction to study the attitude towards the attributes of the stock market investment.

Attributes or characteristics of a stock market identified against which the investors could form an attitude

a. Risk Involved  
b. Returns associated  
c. Certainty of returns  
d. Mode of operation or transaction  
e. Security in transacting  
f. Degree of restrictions whether extensive or limited  
g. Complexity of regulations, when numerous numbers of regulations to be followed  
h. Strength of the Governing Agencies

When a human being is the object of an attitude, the cognitive component is frequently a stereotype, e.g. "welfare recipients are lazy"

The Affective Component - Feelings component or emotions that something evokes relative to the characteristic of the idea or object under study; e.g. fear, sympathy, hate, like, dislike, feeling great, anxiety, achievement, remorse, caution, etc. The research aimed at identifying the feelings arising in the investor’s mind while the investor transacts. Various statement indicative of the feelings were mentioned to identify the experience of the investor. Various transacting situations are identified along with the relative feelings or emotions and the
investors were asked to grade the situations indicating them to create a positive or negative attitude. The situations were hypothetical and the investors were asked to rank the statements. Green (1935), attitude does not refer to any one specific act or response of an individual, but it is an abstraction from a large number of related acts or responses. Therefore an effort is made to identify the attitude of the retail investors towards investing in the stock market. When we say an individual has a positive or negative attitude towards an idea, object or thing, it means that the individual consistently favourable or unfavourable work or deeds towards that idea, object or thing. The positive and negative experiences of the individual

c. **Cognitive, or Behavioral** - Tendency or disposition to act in certain ways toward something. The behavioural tendency is multi faceted. Emphasis is on the tendency to act, not the actual acting; what we intend and what we do may be quite different. The behaviour is actually experiencing the idea, product or service. Investor’s actual investment portfolio is indicative of the behavioural component.

The other theory explained the Attitude was the Uni dimensional theory, supported by Thurstone (1931) defined attitude as "the affect for or against a psychological object" (1931, p. 261). Fishbein (1967) argued that all attitude scaling techniques have in common the characteristic that they place individuals on a dimension of affect further discussed by Bagozzi & Burnkrant (1979). Fishbein and Ajzen (1975) advocated a perspective on the determinants of attitude, i.e. cognitive structure (person's salient beliefs) and an expectancy-value model, determines a person's attitude. The proposed cognitive structure mediates the influence of other factors (such as affect) on attitude. Holbrook and Batra (1987), found that multiple affect categories is related to attitude. Trafimow and Sheeran (1998) expressed difference between affective and cognitive based beliefs and observed associations of each type of belief with attitude. The theory stated that an Individuals attitude is affective or emotional response to the attitude object. The theory postulated itself to be based on modern view, and explained that the beliefs component (cognitions) and the behavioural intentions component were separate constructs. However, there was still an implied causal relationship between all three components. Cognitions (beliefs) about attitude objects (e.g. products, brands, companies, investment market etc.) are typically formed first. These beliefs then contribute to the formation of an attitude (affective response) toward the attitude object. In other words, the attitudes are formed based on the beliefs about things. Then, in turn, the attitude toward the object causes some behavioral response with respect to that object.
Aspects of attitudes

- origins - how attitudes were formed
- strength - intensity, importance, accessibility
- specificity - general vs. specific

Nelson (1939), reduced the concept to simple terms, attitudes were variously defined as:

1. Organic drives
2. Purposes
3. Motives
4. A "core of affect"
5. The emotional concomitants of action
6. Permanently felt dispositions
7. A special case of disposition
8. Generalized conduct
9. A neural set or a neuromuscular set
10. A stabilized set
11. A state of readiness
12. A disposition modifying rising experience
13. Verbal responses for or against a psychological object
14. Socially compelled behavior of an enduring type
15. A response which is more obviously a function of disposition than of the immediate stimulus
16. The result of organization of experience
17. A directive or dynamic influence on the re-spouse to which related
18. A determiner of the direction of an activity
19. A guide for conduct. A point of reference for new experience
20. A trial response-substitute behavior
21. A way of conceiving an object. A posture of consciousness
22. A "sum total of inclinations, feelings, notions, ideas, fears, prejudices, threats, and convictions about any specific topic" Thrustone (1928)
23. An integration of the specific responses into a general set

Measuring attitude is a personal and subjective affair. An opinion symbolizes an attitude. The situations in which frank expression of attitude may not be well received, has led to the
suggestion that a man's action is a safer index of his attitude than what he says. But his actions may also be distortions of his attitude.

Katz (1960) proposed a very useful approach to study and observe attitude, the theory is said to be the Functional Approach to Attitudes. Functional analysis played a significant role in explaining the Societal Structures as used by the sociologists and anthropologists. The same approach is followed by Katz (1960) and explained the formation of attitude.

Katz cited two streams of thought regarding man's attitudes: Stream minimizing man's rational powers and another invoking a rational model of man. At the psychological level the reasons for holding onto or for changing attitudes are found in the functions they perform for the individual, the functions can be in the form of adjustment, ego-defence, value expression and knowledge.

1. The Adjustive Function:

   The function includes attitudes which are utilitarian in origin and intent. Very often the object is some tangible benefit. These attitudes are affective associations based upon previous experience. This function of attitudes has relevance in the realm of behavioural theory and social group work. The adjustive function of attitudes indicates that the clarity, consistency and nearness of rewards and punishments as they relate to the individual's attitudes and goals are important factors in the acquiring of new utilitarian attitudes.

2. The Ego-defensive function

   The function where attitudes are proceed from within the person, the attitude is not formed sue to reality if the situation but stems out of the internal conflicts. Individual in order to support his ego maintains an attitude towards the idea or object. Negative results are hard to be observed. The questions are framed indicating positive reinforcements.

3. The value-expressive function
These attitudes have the function of giving positive expression to central values and to
the type of person an individual conceives himself to be. These attitudes help in
confirmation of self-identity and to mould the self-image "closer to the heart's desire.
Researcher must remain content to use opinions, or other forms of action, merely as
indices of attitude. It must be recognized that there is a discrepancy, some error of
measurement as it were, between the opinion or overt action that we use as an index
and the attitude that we infer from such an index. But this discrepancy between the
index and "truth" is universal

**LR 2.1.3: Features of Attitude**

a. Attitudes are considered to be enduring (length of attitude to be staying with the
individual). For how long the individual is carrying the attitude. Measuring the continuity
enables the researcher to identify that can that attitude be changes or affected by guidance or
sessions.

b. Some of the attitudes run deeper in the individual while some stays superficial, such
attitudes can be altered

c. Few attitudes are embracing, that is they are acting as base for formation of attitude
for other ideas and objects also.

On the basis of the nature explained social psychologists made a rough distinction among
these different levels as

The different level can be identified on the basis of depth or changeability

<table>
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<tr>
<th>Most superficial one:</th>
<th>Belief</th>
<th>Easy to change</th>
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<tbody>
<tr>
<td>A level deeper:</td>
<td>Values or basic Attitude</td>
<td>Bit difficult to change</td>
</tr>
<tr>
<td>One more level deeper:</td>
<td>Personality:</td>
<td>Difficult to Influence</td>
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Talking of the different levels, it was also observed that the attitudes are also related to one
another “across” the same level. Interrelation among attitudes follows no logic except the
“Psychologic”, the logic of feeling and emotions. It is important to consider that the attitudes
are very rarely the product of a balanced conclusion after a careful assembly of evidence. Attitudes are acquired or modified by absorbing, or reacting to the attitudes of other people. Attitudes are highly emotional, both in sense of irrational or illogical and arousing powerful needs and the go defenses. Individuals try to maintain the fiction of rationality and impartiality in reaching a conclusion or decision but in reality, attitude predispositions play a vital role.

**LR 2.1.4: Measurement of Attitude**

The general thinking about the nature of the attitude has been rather primitive most of the people perceive that attitudes are measured on the straight lines, running from positive to through neutral, to negative about the object or the idea in question. The researcher tried to place the attitude of the individual on a straight line or on a straight continuum (not correct exactly but easier for measurement), attitudes are observed to be more like concentric circles or overlapping ellipses or three dimensional cloud formation. Attitudes becomes statement dependent, at one time an individual can be ranked high on acceptance and rejection scale making the respondents to be ambivalent.

Attitudes have two attributes: content (indicates the object of the attitude) as well as intensity (measured at greater and lesser vehemence). For a respondent investing in stock market could be of higher interest than other respondent so the earlier one can give more strong inputs or opinions than the latter one. It has been observed that there has been a U shaped relationship between the attributes of intensity and of content. This means that the more extreme attitudes (either positive or negative) are usually held with much vehemence, whereas the more neutral position may be defended with far less intensity. During the formation of a scale the neutral point is point of minimum strength or intensity.

The thesis focused on both the aspects of measuring attitude: content (few features of the stock market are studied), and the intensity (in terms of the responses provided by the respondents, measuring on a scale ranging from strongly agree to strongly disagree).

**LR 2.1.5: Difficulty in measurement of Attitude:**

The standard procedure to remove the degree of shortcoming, it is essential to perform an Indepth interviews first to identify
a. The origins, complexities and ramifications of the attitude areas in question, in order to decide more precisely what exactly the researcher wanted to measure.

b. Enabled the researcher to get the vivid expressions of such attitudes from the respondent

Formation of statements of attitude required clinical acumen, intuition and capacity for “listening with the third ear”. Remembering the fact, that attitudes are emotional the researcher should try to avoid the stilled, rational approach with using more contentiously worded statements of opinion. Statements can also take the form of phrases relating to feelings, emotions, hopes and wishes, hates, fears and happiness, avoiding double barrelled statements. Truth is inferred only from the relative consistency of the several indices, since it is never directly known.

An effort was made to study the investor’s attitude toward investing in the stock market. The attitude was observed by studying the opinions and behavior of the respondents. The study was conducted through the response co variation expressed by the respondents. Numerous models and studies concentrated on studying the link between cognitive structure (i.e., beliefs), affect, and attitude, while contradictions are observed in the relationship, H. Onur Bodur, David Brinberg, and Eloise Coupey (2000). The study focused on two approaches to explain factors affecting attitude. The study focused on (a) whether affect and attitude are separate constructs and (b) whether affect influences attitude independently of cognitive structure.

LR 2.2: Investor’s attitude and attributes and the process of Decision Making

“Wide diversification is only required when investors do not understand what they are doing.”

Warren Buffet

No two investors are same, as people differ in their characteristics and behavior. Investor decision making or the process of investor, selecting the investment avenue is a complex process. There is no single theory that could explain or rationalize the behavior of investor or judge why the investor had made a particular investment decision.
Gunnarsson and Wahlund, (1997), mentioned that the “Private investors are not a homogeneous group but rather individuals with various financial practices combined with different levels of experience, anxiety and interest in financial matters.” Investment decisions had both emotional and financial consequences over time. There was potential for worry and for pride, for elation and for regret, and sometimes for guilt. A financially optimal decision considered of little use to an investor who cannot live comfortably with uncertainty. And if the investor changed course at the wrong time, optimal decision become certainly irrelevant. Decision theorist Howard Raiffa [1968] introduced useful distinctions among three approaches to the analysis of decisions. *Normative* analysis was concerned with the rational solution to the decision problem. It defined that ideal and actual decisions should strive to approximate. *Descriptive* analysis was concerned with the manner in which real people actually made decisions. *Prescriptive* analysis was concerned with practical advice and help that people could use to make more rational decisions. Various theories had been in fashion trying to explain one or the other process followed by the investor while investing. Few among them are

**A. The Rational Portfolio Theory**

The theory suggested that final (i.e., aggregated) states are the ones that should matter for economic investments. Therefore, investors should evaluate their investment decisions based on the expected utility of their portfolios and not by specific portfolio components (*Von Neumann and Morgenstern* [1947], Savage [1954]). Moreover, investors should put more weight on the assets’ final values and not on the change in the assets’ values.

**B. The utility theory developed by Von Neumann and Morgenstern postulated that**

Investors were/ are

1. Completely rational,
2. Able to deal with complex choices,
3. Risk-aversers and
4. Wealth-maximizers

Utility theory further assumed that investors maximize expected utility- measured in terms of anticipated returns and variances from these expectations (the mean/variance
approach). Each investor selected the portfolio that maximizes expected return while minimizing risk.

C. Investors avoid taking decision in favour of the securities assumed to be safer in order to avoid “bad outcomes”. For such type of investors safety is the prime requisite.

D. Investing such that it maximise the geometric mean return.

E. Stochastic Dominanc

Individuals exhibited considerable deviation from the expectation of rational behaviour implied by financial models (Barberis, 2003).

**Rudolph L. Weissman (1959)**, signified the importance of gaining knowledge about the stock market for the investors before investing in the market. The author concentrated on the off Wall Street investors and the potential investors. Through the article he compared the attitude and actions of the investors along two time horizons pre crash 1954 and post crash.

a. It was observed that investors pay no attention to the dividend yield under the growing market in order to gain capital appreciation.

b. Under the period of uncertainty and market crash most investors resorted to the pension funds and investment companies.

c. Over the years the investor made a serious effort in understanding the stock market operations and using the techniques of security analysis before investing. Termed the investors to be “Intelligent Investors”.

d. The efforts taken by the regulatory bodies: The Securities and Exchange Commission by introducing the Securities Exchange Act and the vigilance exercised by the New York Stock Exchange created a feeling of safety and security among the investors and have cut down the manipulation and undesirable practises within the stock exchange.

e. The author talked of the misconceptions of the investor about the
   i. Difference in various types of securities
   ii. Who takes the dividend decision
   iii. Why there is a wide difference among the valuation of common stock
   iv. Also explained the misconceptions in the mind of the investor with relation to the behaviour of the broker and its representatives. The author in order to reduce the misconceptions about the brokers suggests the
investors for Intelligent self-interest to use as a check against such a practice.

v. The author identified that there is no single road to investment wisdom.

vi. The investor should learn the tools of analysis if does not seek the help of others.

vii. Also advised the investors to avoid too much diversification as it will lead to “scatteration”.

viii. The author advised the investors to strike a balance between individual companies shares and investment company shares

ix. There is no ideal portfolio to suit the requirement of all investors uniformly. Each investor must adjust his portfolio in the light of his income, net worth, objectives and personality.

To summarize, the author advise the investors to avoid too much dependency on advisor, ask them to learn few techniques of stock analysis.

John Livanas (2007) provided empirical findings of investor risk tolerances determined using Choice Modeling of alternate portfolios and also argued that if the investor desires to maximize the utility they need to consider the insurance. The author analyzed the risk return trade off of the insurance. The author treated portfolio construction as a “Black Art” as the portfolio’s are constructed by combining two competing ends of investor’s preferences for risk and return and liquidity needs.

The author indicated the work done in behavioural finance assisted, the portfolio formation process by better understanding of the investor’s preference toward risk and return indicating that for the investors “Losses loom larger than gains” and the investor at times are unable to contemplate accurately the differences in portfolio time horizons.

The research conducted empirically derived a quantifiable set of investors’ utility function for each dimension analyzed:

a. risk (or probability of loss)

b. return (or chance of per annum return),

c. time-horizon determined by selecting from alternative periods for which money would be locked up).

On a three dimension scale the investor’s preference was plotted. Later due the indifference observed toward the time horizon the graph was reduced to two scale.
\( Vi = f\{VG; VL\} \)

Where \( VG; VL \) is the resulting value to investor \( i \), of the relative Gains and Losses when compared to the initial Expected Return, and \( VG > VL \) for each relative return of \( G \) and \( L \).

The paper presented the implications where investors have asymmetric risk tolerance, especially with steeper downside risk intolerance presented by the mapping of Kahneman & Tversky’s ‘Value’ function as a set of ‘Value indifference curves’, and also identified an implication that portfolio optimization may consider downside insurance. The paper also discussed the appropriate time horizon of the portfolio given investor indifference to time, and given indeterminate cash flows.

Kahneman & Riepe (1998), discussed the cognitive illusions and their effect on decision making. The paper indicated not to trust the factor of intuition always in the process and identify the situations under which the intuition may go wrong and the decision maker is required to use critical and analytical thinking. The article concentrated on two factors: Judgment Biases and Errors of Preferences. The concept when discussed included the suggestions to avoid such situations

Under Biases of Judgment, the researcher included the Bias of

a. Overconfidence, under which they tried to explain the professionally expert investors calibrate the returns and overestimate the returns expected. Also identified the conditions under which the degree of overconfidence is low are

i.) When the investors face similar problems everyday.

ii.) When the investors make explicitly probabilistic predictions.

iii.) When they obtain swift and precise feedback outcomes.

b. Optimism: indicated that the investors exaggerate their talents and also assign fewer values to the probability of negative outcomes under the situations which is assumed to be not under their control and also believe the fact that they are the owner of their own destiny.

c. Hindsight: indicated that the world is a predictable place, and often turns reasonable gambles into foolish mistakes in the minds of investors.

d. Overreaction to Chance Events: indicated that the investors perceive causal regularity in random sequences of events usually indicated by “Hot Hand” Fallacy Gilovich, Vallone, and Tversky (1985), indicating the fact that the human mind is an pattern seeking device.
Under Errors of Preference the researchers identified that the investors (and their advisors) might be wrong in judging the probabilities associated with different options. They included

a. Non-Linear Weighting of Probabilities explained the concept as the people tend to overweight low probabilities and underweight moderate and high probabilities.

b. People value changes, not states: what matters to a perfectly rational decision maker is where he or she gets to in the end, not the gains or losses along the way. The investors are more concentrated towards narrow framing as it is expressed to be much easier and is natural.

c. The purchase price as the reference point: the Disposition effect is explained in the factor. It is the reluctance shown by the investors to realize their losses.

d. Narrow Framing: the problem with the investor of considering all the problems individually and not adopting a broader frame i.e. taking one problem at a time by making separate mental accounts and not considering the whole scenario. Investor treats the same money earned differently when it is earned from different means.

e. Short and Long views: Experience that an investor hold in the market determines the number of times the investor review the portfolio depends and the risk preference.

f. Regret of Omission and Commission: the difference between the two is expressed as actual loss and opportunity loss. The pain for the opportunity loss(failure to gain) is less in comparison to the actual loss.

g. Regret and Risk taking: Investors people feel more regret about things they did than about things they did not do.

Apart from discussing the various types of illusions, the researchers provided a set of advice statement for the financial advisors.

**Dimtrios et al. (2007)** identified the importance of behavioural finance on the investment decision making. The survey was concentrated on investors trading in Athens Stock Exchange. The research conducted with the sample of Individual investors, Mutual fund Management companies, portfolio investment companies, listed companies and brokers For the purpose of analysing the stocks and shares two types of factors were considered

a. Fundamental Factors i.e. the fundamental analysis

b. Non- Fundamentalist Factors
The objectives tried - to identify general practices of individual and professional investors regarding stock analysis, to investigate the association that might exist between the time horizon and the relative importance of the techniques that individual and professional investors use for stock analysis; and to examine the impact of the various techniques adopted on the performance of individual and professional investors. Questionnaire was used to test whether the individuals and investment analysts

a. regard some techniques for market forecasting and stock selection as more important, and hence use them more than others; and

b. use some techniques more than others in different time periods (e.g. in the short or long term[1], as well as before, during, and after the 1999 crisis[2] in the ASE

The technique used for analysis were segregated in 4 categories as

i.) Fundamental analysis

ii.) Technical analysis

iii.) Portfolio analysis

iv.) Others opinion including the reports published in newspaper, magazine

The paper identified the preference given to the methods under various circumstances

a. Long term

b. Short term

c. Within the broader method the specific techniques that are popular

d. The investor were asked to rank the investment made by them and their success rate

On the basis of semi structured interviews and responses of the questionnaire the results were obtained that the techniques most popular were Fundamental analysis and technical analysis along with the effect of noise in the market and media information drove investors’ strategy to a much larger extent.

Baker and Wurgler (2006) followed the top down approach and concentrated on macroeconomic factors to study the investor sentiment. The top-down approach focused on the measurement of reduced-form, aggregate sentiment and traced its effects to market returns and individual stocks. The research done was in contrary to the Bottom up approach which first focused on individual investor sentiment factors and then drew the market pattern.

The paper tried to identifying the stocks mostly affected by the sentiments rather that the level of stock market prices depends on sentiments. The shares that were more difficult to
value and were difficult for the traders to take arbitrage opportunity were the shares less affected by a larger degree by the investor’s sentiment. The paper also explained

a. How one might measure investor sentiment explicitly, and

b. How to use the sentiment measures to validate the key predictions of the top-down approach.

Fünfgeld & Wang, (2009), advocated the need of market segmentation of the investors on the basis of their specific need. The paper analyzed the individual investors based in Switzerland and the way they manage their personal finances. The paper facilitated the investment companies and financial advisors, for better understanding of the investors they were dealing with. The researchers made an effort to create small clusters of private investors from the bunch, on the basis of their specific needs and then creating a group with identical need.

Technique of factor analysis was used with the factors namely:

a. Anxiety,

b. Interests in financial issues,

c. Decision styles,

d. Need for precautionary savings, and

e. Spending tendency

On the basis of the result observed from the respondents, they were classified in 5 clusters ranging I to V. With the interaction between revealed dimension in attitude and self-stated finance-related behavioural pattern the segment of the investors were created, which helped in providing different services to each subgroup on the basis of their specific need.

After the questionnaire was analyzed and when the interaction was studied, 5 clusters were obtained namely

a. Cluster I: Rational consumer, people with low anxiety and treat money as a tool to be handled wisely

b. Cluster II: Myopic Consumers, people like rational consumers but feeling a low need of precautionary saving differing in view with the rational.

c. Cluster III: Anxious savers, a need for precautionary saving, prefer analytical way of decision making and do not like spontaneous saving
d. **Cluster IV: Gut feeling Followers**, famous for spontaneous and intuitive decision style, but are not insecure and anxious.

e. Cluster V: Anxious Spenders, make decisions intuitively and anxiously, stating conflict among the precautionary saving and treating spending as a means of reducing frustration.

The paper also studied the impact of the demographic variables such as gender; age etc. on the investor need. They identified that Women decided more intuitively and were less interested in financial matters but had a stronger need for precautionary savings (e.g. “Gut-feeling followers”). In addition, they enjoyed spending and tend to be more anxious (“Anxious spenders”) the traits identified made financial management more difficult for women. The people falling in the higher range of age turned out be “anxious savers”, in contrast to the young who are “anxious spenders”.

**Hirshleifer (2001)** indicated recent development in the field of decision making, the hassle of having “Information Overload”, people making poor decisions in the presence of excess information. Intuition is undeniably a part of investment decision making. The author explains two factors within the article

a. What is Intuition?

b. How can the IRO’s tap this important element of an investor decision process?

The author indicated the work done by Herbert Simon done on decision making and the effect of intuition on it. His work indicated that people have limited cognitive abilities and to process information therefore “economize” by adopting rules that simplify complicated tasks. Considering the inability of digesting too much information people put a limit on the information they are going to consider for the decision making. The author described intuition as having the characteristics of the data hidden at the subconscious level stored and processed at some previous time. The availability of time acted as a major influencer in selecting the process of decision making, decision made under dearth of time is mostly dependent on Intuition.

The author also indicated the work done by Kahenman in expanding the work done by Simon, segregating the decision making as a folly if done under 100% intuition or guesswork but if the intuition arises because of underdeveloped, nascent thought will offer great value to the decision making.
Wang et al. (2011), the paper concentrated on the risk perception associated with different categories of investment products. Contrasting the view of traditional portfolio theory which stated that risk averse investors favors diversification, Behavioral finance theory states that people are more attracted or are more comfortable in investing the products they are familiar with or the products that are easier to understand. The article indicated the term “Distorted Probability Judgment”, explained as Investors are overoptimistic and hence underestimate the risks of investment instruments with which they are familiar or on the basis of “Gut Feeling”

The research article mentioned the work done by Kilka and Weber [2000] indicated that domestic stocks as more profitable and less risky than foreign stocks. Another survey viewed that their own employers’ stock as safer than a diversified domestic or international funds (Driscoll et al. [1995]).

Research was conducted to judge the investors perception of the risk associated with the products on the basis of following factors

a. Understanding of the product
b. Expert knowledge prevalence
c. Risk of capital loss
d. Risk of lower than expected
e. Variation in the return on the basis of inflation

Within the research the perceived risk about the investment avenue were compared with the historical risk associated within the same investment category. The researcher observed that familiarity could induce positive feelings or affects, also known as “mere-exposure effect” (Zajonc [1968]) or “familiarity breeds liking.” which may lead to underestimation of risk.

Also indicated the reason behind non rational decision was that instead of evaluating the pros and cons analytically, the judgment was mainly driven by how they feel about the particular activity or whether they like it or not. It was indicated that the amount of analytical deliberation reduces when investors had to take the decision under time pressure, indicating the inverse relationship between the perceived risk and benefit.

The paper suggested that familiarity bias is common among private investors and also suggested that the self-perceived knowledge can be incorrect and deceiving, which may lead to biased risk judgment, insufficient diversifications, and less optimal portfolios. Also investors put proportionally too high wealth into their domestic stocks (i.e., home bias).

The research also identified gender differences while investing, the researchers confirmed that women rated the equity category as riskier than men did and rated the alternative investment (e.g., art, antique, gold) as less risky than men did, while an equal inclination is
found towards familiarity bias. The were expected to be more risk-loving because are more familiar with the associated tasks and perceive less risk.

The survey did not study the risk taking behavior directly, instead they focused on the perceived risk aspect of investor decision making process.

**Dhar & Zhu (2006)** provided an extension to the work done previously on the Disposition effect (The tendency of investors to "sell winners too early and ride losers too long" Shefrin and Statman in 1985.) that demonstrated the effect by aggregating across investors. The main objective was to identify differences in the disposition bias across individuals and explain it in terms of underlying investor characteristics.

The research was initiated after creating a hypothesis as the variation in the individual disposition effect arises because of investor literacy about financial markets and trading frequency.

The researcher indicated the origin of the disposition effect the psychological explanation for the disposition effect is based on Kahneman and Tversky's Prospect Theory (1979), according to which gains and losses were often judged relative to a reference point, and individuals exhibit risk-averse behavior for gains and risk-seeking behavior for losses.

**Muradoglu et. al. (working paper)** concentrated their work on Efficient portfolio. Efficient portfolio is said to be the one which generates maximum returns with an expected level of risk. The efficient frontiers are estimated by using the means and standard deviations from past returns to represent expected returns and expected risk. The study was conducted in Istanbul. The contribution made by the paper were

a. Analyzed the portfolio performance of subjective forecasts.

b. Study was conducted on experts, professional fund managers with substantive expertise (31 experts working for various bank affiliated brokerage houses), and were used as forecasters increased the reliability of the results obtained.

c. Used point, interval and probabilistic forecasts of expert and the subjects were investigated in the portfolio context

The study was conducted by providing the forms to the respondents and asked them to forecast the value of ISE for a week with an assigned probability of their surety also they were asked to forecast the weekly price changes along with subjective probabilities.

The data received was segregated on 3 frontiers:

a. *Historical efficient frontier*
b. **Best estimate efficient frontier**

c. **Probabilistic efficient frontier**

The researchers on the basis of the study concluded that: portfolio context subjective forecasts of either form, i.e. point, interval or probabilistic, did perform better than the standard approach that utilizes past price series. Further research could be conducted to investigate the expectation formation process after including possible biases.

**Lease et. al (1974),** tried to identify who the individual investor was, how he made his decisions, how he deals with his broker, what his portfolio consists of, and how well in fact he has done as a portfolio manager. The research concentrated heavily on the data base of a retail brokerage house based in US. The study was conducted at two levels. The first part of the research was done through a mail questionnaire

a. Through the survey the researchers tried to identify the demographic characteristics, investment strategy patterns, information sources, asset holdings, market attitudes and perceptions, and framework of broker relationships displayed by the customer population;

b. The next step concentrated on the manner the investors build their portfolio and the positions they attributed to within the various types of market conditions.

The methodology adopted was such that to reduce the errors of research. The questionnaire was prepared with the help of experts and the questionnaire undergone three pretest before it was actually articulated. The respondents were clustered on the basis of their geographical proximity. The research studied three factors about the investors

a. It tried to establish link between the individual’s personal traits and the investment made by them.

b. An analysis of the entire portfolio was conducted i.e. where is the money of the investor is parked and how much return do they expect from the portfolio

c. The study also tried to identify how aware and attentive the investors are about their investments

The research provided a basic guideline about the investor’s attitude and the investment process followed by them. The biggest drawback is it is old timely and many changes have occurred since then which are required to be addressed. The results identified that the investors do not invest on a standalone basis; the investment is made on behalf of the household. The decision making authority was observed to be male.
Nagy & Obenberger (1994), analysed the investor decision making process under the light of 34 influencing factors. The authors segregated the factors in two categories: traditional and contemporary. The respondents were required to mark the factors as “Act on” “Consider” and “Not affecting” in their process of decision making.

The authors classified the factors in seven categories namely

a. Neutral Information
b. Accounting information
c. Self image/ firm Image coincidence
d. Classic factors
e. Social relevance
f. Advocate recommendations
g. Personal financial need

Among all the categories various factors were asked to be ranked. The result obtained was that the investors exhibited no unanimous considerations to the factors indicated, they consider the factors according to the relative importance.

Fielitz & Muller (1983), studied the pressure felt by an investment manager or a retail investor while investing in order to decide the amount of funds to be invested in a particular class of fund i.e. the asset allocation decision. The paper provided a simulation model that could be used to identify the assets on the basis of

a. The effect of time on risk and return estimates
b. The utility analysis

The simulation model is expressed to be based on four parameters:

a. Risk
b. Return
c. Time horizon
d. Utility preference

The model provided a framework for evaluating a wide range of possible portfolio mixes by adopting a multi scenario projection approach.

Barua & Shrinivasn (2001) conducted an experiment over students, possessing good knowledge about portfolio management. The experiment was termed as Simulation exercise,
as the respondents were provided with the funds and were asked to divide the money in two categories: consumption and investment (same as the actual decision making process an investor follows). The investors can also borrow.

The restricting conditions were

a. Minimum consumption, with choosing a life style depending on their income
b. Can further borrow funds only to the extent they can repay

The respondents were asked to record the transactions, indicating the outcome of the investment made, as favourable and adverse (return in presence of probability associated). The study was done according to the mean- variance analysis.

The respondents were provided with the opportunities, with varying degree of outcome and the probability associated along with the associated variance. In order to judge the tendency of the investors for unfair lottery, an event was also included. 6 wealth levels were also decided. The investment process started with need recognition. At this stage, the investor recognises a problem or need i.e. the basic purposes behind making investment

a. Short term gains  
b. Cash generation  
c. Long term gains  
d. Capital appreciation

The pioneering work on individual investment decision making was done by Harry Markowitz (1959). Markowitz suggested a method of efficient allocation of funds to a set of risky assets using a mean-variance framework. Later Sharpe (1964), Lintner (1965) and Mossin (1966) developed market equilibrium model for a set of risky assets and one riskless asset. During the process of deciding about the return an investor desired from the investment avenue, it is correspondingly necessary to identify the risk the investor can bear. The financial market is stuffed with numerous investment avenues, with varying degree of return and risk associated. The investor must chose among the right mix of the return and risk.

Koonce et. al (2005), The paper presented a model depicting an excellent mix of conventional decision making variables with the behavioural variables, being utilized by the investor to judge the perceived risk of a financial instrument. Later the researchers also demonstrated that information about the amount of potential loss outcome contained within mandated risk disclosures not only directly influences risk judgments, but also indirectly affects such judgments via its effect on some of Slovic's (1987) behavioral variables.

Mix identified mentioned the sub sets within the category
A. **Conventional decision making variables** of judging risk: they are identified as probability and potential outcome. With any return amount associated with the Investment Avenue, always a probability is associated. The investor before considering the amount of return should discount it with the probability associated.

B. **Behavioural variables**: the variables studied were taken from the work done by “Slovic”. Slovic categorized the variables expressed in terms of risk arising out of behavioural factors. Two categories were identified

i.) **Dread**: the variable identifies risky item's perceived controllability and voluntariness, as well as the amount of worry and catastrophic potential (extreme negative outcome) associated with the investment avenue.

ii.) **Unknown**: risky item's observability, its newness, the amount of knowledge about the item, and the immediacy of the item's effects

Once the variables were identified the study was conducted on the sample size of 40 MBA students with hands on experience in investing in stocks. The investment avenues were classified on the basis of degree of risk associated as Low, Medium and High. 19 such products were identified and questions were asked on the basis of the variables identified. To obtain quality input, a detailed description of the product was provided to the respondents.

The test conducted was validated at three varying situations: varying the order of the questions, varying the order of the same nature question, varying the scale levels.

The statistical technique used was least square regression, constructed three different models: Model 1: using only conventional variables, results indicated loss probability and loss outcome have significant positive coefficients, suggested that greater loss outcomes and probabilities increases perceived risk. Participants believed that greater gain potential leads to greater risk.

Model 2: using only behavioural aspects, results indicated that respondents perceived more risk when they worry more about an item or when the item has greater catastrophic potential. The respondents perceived less risk when the investment avenue is, more known by management and when the risk is more controllable and voluntary. The coefficients on the newness and immediacy variables were observed not to be statistically significant

Model 3: a mix of the two, the statistical techniques used was nested F- test

The results indicated that the decision-theory variables that were significant in Model 1 (i.e., loss probability, loss outcome, and gain outcome) remained significant in Model 3. The behavioural variables that were significant in Model 2 (worry, catastrophic potential, known, control, and voluntary) were also significant in Model 3.
The results indicated that both categories of factors are important in determining the risk behaviour of an investor. Later factor analysis was performed to determine whether the behavioural and decision-theory variables captured different constructs. It was observed that financial risk judgments are influenced not only by probabilities and outcomes, but also by other factors such as how much individuals worry about the risk, the extent to which the risk can be controlled, and whether the risk is known to management.

The second model analyzed the same variables but under varying disclosures: more detailed financial risk disclosures. Within the second model, the researchers manipulated a decision-theory variable and then examined its impact on how investors perceived behavioural variables?

The second model was designed such to test the hypothesis that the decision-theory variables have indirect, as well as direct, effects on investors' risk judgments. The technique used was structural equation modelling, which indicated that

a. **potential loss amount increases, perceived risk increases**

b. **Investment avenues that create more dread result in greater perceived risk, as do those that are more unknown.**

The research finally concluded that

a. The existing risk models, which focussed on either the decision-theory or the behavioural variables, may not explained investors' risk judgments as well as a model that incorporates both sets of variables.

b. The results suggested that current accounting risk disclosures may have unintended consequences. Specifically, the research showed that risk disclosures that contain information about potential loss outcomes will have both direct effects on perceived risk and indirect effects on perceived risk via their influence on dread.

**Cote (2011),** discussed that Making Investment is a very crucial decision that an investor tales during his life time, as it involves the hard earned money and the results of the decision may be uncertain and cost money. During the process of investment decision making, an investor resorts to various sources. The sources provide information about various investment avenues: their costs, returns, risk included etc. one of the most prominent information provider and advisor are the Financial Analyst. Analysts independently and credibly ascertain the value of the organizations, indicating the value of the investment avenue to the present as well as potential customer. Financial markets view the analyst's contribution as a form of risk reduction (Jensen and Meckling, 1976).
The research paper focused on the issue of optimism and tried to understand that when even much had been written about pressures on analysts to present a favourable image of the companies do the investors react negatively to analysts given optimism.

The paper analyzed that how the investors incorporate the information given by the analysts? On the basis of the theoretical studies, three hypotheses were tested by the paper.

H1: Investors rates the analysts with pessimistic view higher on credibility than the one with the optimistic views.

H2: Higher expectations for analyst optimism, a priori, will result in lower analyst credibility assessments.

On the basis of practical behaviour approach, a third hypothesis was formed

H3: The degree, to which the investor will rely upon the analyst’s information, is in positively correlated with the analyst’s credibility assessments.

The methodology used for the study was experimental design. The reason for selecting the method was controllability. The subject matter of the paper was skilled individual investors.

The experimental task required investors to forecast earnings for one of two companies at two intervals: before and after exposure to the analyst's forecast.

Half of the group was provided only financial data, while the other half was provided with financial data initially and then later the analyst’s advises both pessimistic and optimistic in nature. The individuals were supposed to have the optimistic bias, as the investors were provided poor financial performance of the organization. The following factors were included

a. Analyst forecast
b. Analyst credibility
c. Analyst quality
d. Investor reliance: for studying the reliance factor, Reliance Index was used

\[
\text{Reliance Index} = \frac{\text{Forecast Revision} - \text{Initial Forecast}}{\text{Analyst Forecast} - \text{Initial Forecast}}
\]

Reliance Index: Positive when investor moves in the same direction as analysts
Negative: when the investor moves in opposite direction

The paper constructed an Analysts Credibility Model, based on linear equation using the dependent and independent variables

\[
\text{Analyst Credibility} = a + b_1 (x_1) + b_2 (x_2)
\]

Where: \( b_1 \): represents Expected Optimism
\( b_2 \) represents Analyst Forecast Type
The research anticipated that greater Expected Optimism would lead to lower assessments of Analyst Credibility, or a negative coefficient associated with X1. Analyst Forecast Type was a manipulated variable where each subject received either an optimistic (1) or pessimistic (0) analyst forecast. Subjects receiving the optimistic forecast type were expected to perceive analyst credibility as lower than those subjects receiving the pessimistic forecast; hence a negative coefficient was also expected for x2.

A simple linear model was found to be sufficient to detect a relationship between the Reliance Index and Analyst Credibility:

\[
\text{Reliance Index} = a + b_1 \times (x)
\]

Where: \( b_1 \): represents Analyst Credibility

A positive coefficient was expected as it would be evident that with an increase in analyst credibility assessments to be coincided with increased reliance on the analyst's forecast.

At the end, after conducting the experiments, manipulation check was also conducted. Factor analysis was used to aggregate the variables into one. The factor scores were used to construct a weighted average of the four items that were designed to minimize the unique error variance. The Eigen value came out to be greater than 1.0 for the analyst credibility factor, indicated that the correlation among the items was sufficient to be considered a single construct. Regression analysis was used to determine the relationships among the independent and dependent variables.

The results of the experiment demonstrated that investors use the analyst's forecast as one signal of the analyst's credibility. When the forecast was optimistically biased, the credibility of the analyst was perceived to be lower relative to an equally pessimistic forecast bias. Secondly, it was also demonstrated that such credibility assessments directly affected the extent to which investors rely upon the analyst's forecast when they make their own predictions.

The classical investment theories connote an investor as a Rational Investor. The standard finance model, states that unemotional investors always force capital market prices to equal the rational present value of expected future cash flows. Suitability of such investor can’t be explained under the extreme rise and fall situations of the stock market. From the studies done in the past it has been observed and proved that the market works on investor sentiment.

Baker & Wurgler (2007) aimed to test the theory that the stock market is influenced by the investor’s sentiment. The paper attempted a one step ahead of studying the impact of sentiments on the stock market. Various theories have proved that the stock price movement
is influenced by the investor sentiments. The paper aimed at quantifying the impact of the sentiments that the investors exhibit. The study was conducted at two levels

**First**, it was discussed that how investor sentiment could be empirically measured.

**Second**, it was judged that whether more speculative and harder-to-arbitrage stocks were more sensitive to sentiment, in the sense that their prices co-move more with an index of sentiment changes. The paper also studied the impact of sensitivity betas on the bond prices. It was tested that whether bond-like stocks have negative sentiment betas.

**Third**, the paper investigated whether present investor sentiment levels could predict future returns as sentiment wanes (perhaps spurred by fundamental news or an absence thereof) or as arbitrage forces eventually accumulate to correct mispricing.

The study included the factors through which the effect of sentiments could be studied. They include **Surveys, Mood proxies** (weather, cricket winning result), **Retail investor trades** **Mutual fund flows, Trading volume, Premia on dividend-paying stocks, Closed-end fund discounts, Option implied volatility, First-day returns on initial public offerings (IPOs), Volume of initial public offerings, New equity issues** and **Insider trading**

Out of these sensitivity index values, the paper built an index based on the six proxies based on Baker and Wurgler (2006): trading volume as measured by NYSE turnover; the dividend premium; the closed-end fund discount; the number and first-day returns on IPOs; and the equity share in new issues. The fact was that an individual could not be separated from his/her emotions and feelings. Whatever decision was taken by an individual, it had to be influenced by the emotional state of an individual.

**LR 2.3: Behavioral Finance**

**Introduction**

In conventional financial theory, investors are assumed to be rational wealth maximizers, following basic financial rules and their investment strategies were based purely on the risk-return consideration. The pioneers of behavioural finance Daniel Kahneman and Vernon Smith (2002) explained the utility of studying experimental economics and psychology in the process of decision making.

**Ricciardi and Simon [2000]** defined the field in the following fashion: “Behavioral Finance attempts to explain and increase understanding of the reasoning patterns of investors, including the emotional processes involved and the degree to which they influence the decision-making process”. People are observed to be frequently irrational or just quasi-
rational, and individuals are repeatedly inconsistent concerning strict rational behavior in their investment decisions relative to the tenets of standard finance.

Research in behavioural finance had developed rapidly in recent years and provided evidence that investors’ financial decisions are also affected by internal and external behavioural factors (Shefrin, 2000; Shleifer, 2000; Warneryd, 2001).

The field of finance that proposed psychology-based theories to explain stock market anomalies is said to be Behavioural finance. Behavioural finance assumes that the information structure and the characteristics of market participants systematically influence individuals’ investment decisions as well as market outcomes.

**Riccardi & Simon (2000)** in their paper discussed basic features of Behavioral Finance and how was it different from the rational decision making model like Efficient Market Hypothesis (1952, Harry Markowitz) and Modern portfolio Theory. The paper provided a preliminary attempt to assist individuals to answer two questions:

a. How can investors take into account the biases inherent in the rules of thumb they often find themselves using?

b. How can investors “know themselves better” so that they can develop better rules of thumb?

The authors stated the basic pillars of Behavioral finance as: Sociology, Psychology and Finance and explained it to be an interdisciplinary approach. The researchers explained the concept of Behavioral finance through various ways and from the view point of academic scholars as well as investment professionals.

a. Behavioral Finance explains the what, why, and how of finance and investing, from a human perspective.

b. Behavioral finance studies the psychological and sociological factors that influence the financial decision making process of individuals, groups, and entities.

Indicated the work done by Statman (1995) that the behavior and psychology influence individual investors and portfolio managers regarding the financial decision making process in terms of risk assessment and the issues of framing and also of Shefrin (2000) who stated that investing is an interaction of psychology with the financial actions.
To explain the viewpoint of the Investment professionals the author highlighted the work done by the portfolio manager for Undiscovered Managers, Inc., Russell Fuller, who managed three behavioral finance mutual funds: Behavioral Growth Fund, Behavioral Value Fund, and Behavioral Long/Short Fund). The study also stated the statement by Fuller (1998) on behavioral finance that “people systematically make mental errors and misjudgments when they invest their money.”

The paper also explained four themes of behavioral finance:

a. **Overconfidence**, is considered to be the overrating the probability of occurrence of a particular event. Also indicated that because of overconfidence the males incur more trading cost in comparison to females.

b. **Financial cognitive dissonance**, the investor as an individual tries to reduce the inner conflict (decrease the dissonance) either by changing the past values, feelings or opinions or by rationalizing the choice that they have made.

c. **Regret theory**, the investor tries to reduce the regret caused by investing in a falling value share by not selling the share in the market and continue with the security. The investors follow the crowd and if the stock purchased because of “Herd Mentality” falls, the degree of regret is reduced as others also made losses alongwith.

d. **Prospect theory**, investors tend to evaluate prospects or possible outcomes in terms of gains and losses relative to some reference point rather than the final states of wealth.”

The authors advised the traders to identify the type of investors they are and to avoid the mental roadblocks during the process of investing by implementing a disciplined trading strategy and maintaining an “investment record”. Separate Investment advises should be given to the investors investing in shares and those who are investing in mutual fund. To the investors investing in shares the authors suggested a long-term buy and hold investment strategy as it usually outperforms a short-term trading strategy with high portfolio turnover. To the investors investing in mutual funds the authors suggested a four step process by finding the mutual funds with low loads, historical background of 10-15 years, understand the specific risk, and funds with strong investment philosophy.

**Camerer and Loewenstein, (2004)** in their work mentioned that “Being conscious of the empirical limitations of the **homo economicus** model for exploring the behaviour of private
individuals, behavioural finance broadens the view by combining knowledge from psychology and economics”.

In the standard finance model, it was assumed that the investors are unemotional or rational and they always forced capital market prices to equal the rational present value of expected future cash flows. But the great crashes and unexpected behaviour experienced and depicted by the markets failed to justify the assumptions made under the rational model. Researchers in behavioural finance since then were working to augment the standard model with an alternative model. The model was built on two basic assumptions.

a. The first assumption, laid out in Delong, Shleifer, Summers, and Waldmann (1990), was that investors are subject to sentiment. (Investor sentiment, defined broadly, is a belief about future cash flows and investment risks that is not justified by the facts at hand).

b. The second assumption, emphasized by Shleifer and Vishny (1997), was that betting against sentimental investors is costly and risky. As a result, rational investors, or arbitrageurs as they are often called, are not as aggressive in forcing prices to fundamentals as the standard model would suggest.

Victor Ricciardi (2005), The paper is a must read for the scholars who wish to start a research on behavioral finance. The author explained the basics about the new style of studying investor’s behavior and also included the dissertations and work done by the behavioral scientists in the field of decision making by the investors.

The author provided a simpler and easily understandable form of Behavioral finance by explaining in terms of a case study including the

a. What: study of cognitive processes and emotional dynamics concerning the decision making process of investors

b. Why: because standard finance fall short at many instances

c. Who: Behavioral Finance

d. When: after 1998

e. How: Behavioral scientists have applied the psychological concepts to individual, market, groups, and organizations.

f. Where: through academic journals, research papers and dissertations

Also indicated the work done by Barberis and Thaler (2002) on Bounded Rationality, the work was initiated by Simon (1950’s) which explained that when decision makers are limited
by their values and unconscious reflexes, skills, and habits when operating in conditions of substantial risk and uncertainty. An investor would satisfy one’s financial utility rather than maximize it, accepting a satisfactory investment alternative instead of the optimal choice (i.e. maximize gains and minimize losses) the basis of standard finance. The author provided different categories of investors that could be studied under a research. Each group represented a separate category of investors and indicated that who all can be a member of a particular group as the behavioral heuristics were assumed to differ from one group to another.

Four types of decision makers can be studied:

**The Behavioral Finance Decision Makers**

<table>
<thead>
<tr>
<th>The Individual</th>
<th>The group</th>
<th>An Organization</th>
<th>The Markets</th>
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<tbody>
<tr>
<td>An Individual Investor</td>
<td>A group of Investors</td>
<td>An Investment firm</td>
<td>The Stock Market</td>
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<tr>
<td>A Financial Planner</td>
<td>A Board of Directors</td>
<td>A Non Profit Institution</td>
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<td>A Board Member</td>
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<td>A Corporation</td>
<td>An International Market</td>
</tr>
<tr>
<td>A Graduate Student</td>
<td>A College Finance Class</td>
<td>A Student Organization</td>
<td>The Future Market</td>
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</table>


The author indicated the field of Behavioral finance as Interdisciplinary approach integrating the fields including: psychology, behavioral economics, behavioral accounting, and others

The Underpinning of Behavioral Finance, the list provided exhaustive cases of behavioral finance heuristics that can be experienced by an individual investor.

**The Behavioral Finance Checklist**

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<th>Chaos Theory</th>
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<td>Views of Experts vs. Novices</td>
<td>Information Overload</td>
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The author provided numerous starting points for the starters. By selecting among the categories of investor and a kind of cognitive dissonance and behavioral aspect of decision making many permutation and combinations can be created for research.

The author also provided references of various papers and dissertations to ease out the process of research. The above mentioned papers acted as a base setter in the field of Behavioral Finance.

After understanding the concept of behavioral finance in terms of its definition and major components, it was also important to study that how the theory of behavioral finance was different from the theory of Modern Finance, do the two branches of investment behavior contradict or are same, or coincides on few common points.

Sewell (2007) discussed the concept of behavioral finance as “Behavioural finance helps explain why and how markets might be inefficient” also indicated the work done in the past and prominent work done by various behavioural scientists.

The table explained the various behavioral heuristics and their evolvement years and the researcher accredited
<table>
<thead>
<tr>
<th>Concept</th>
<th>Behavioral Scientist</th>
<th>Year</th>
</tr>
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<tbody>
<tr>
<td>Cognitive Dissonance</td>
<td>Leon Festinger</td>
<td>1956</td>
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<tr>
<td>Availability Heuristics</td>
<td>Tversky and Kahneman</td>
<td>1973</td>
</tr>
<tr>
<td>Representativeness, Availability, anchoring</td>
<td>Tversky and Kahneman</td>
<td>1974</td>
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<tr>
<td>and adjustment</td>
<td></td>
<td></td>
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<tr>
<td>Prospect theory</td>
<td>Kahneman and Tversky</td>
<td>1979</td>
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<tr>
<td>Supported Propsect theory suggesting to be an</td>
<td>Thaler</td>
<td>1980</td>
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<tr>
<td>alternative descriptive theory</td>
<td></td>
<td></td>
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<tr>
<td>“Does the stock market overreact”, formally</td>
<td>Bondt and Thaler</td>
<td>1985</td>
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<td>initialized the idea of Behavioral Finance</td>
<td></td>
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<tr>
<td>Herd Behaviour</td>
<td>Banerjee</td>
<td>1992</td>
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<tr>
<td>Disposition effect</td>
<td>Odean</td>
<td>1998</td>
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<tr>
<td>Overconfidence and Optimism</td>
<td>Camerer and Lovallo, Odean</td>
<td>1999</td>
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Kahenman & Tversky acted as the pace setter in the field of behavioral finance and provided a base in the form of Prospect Theory.

Andrikopoulos (2005), provided an overview of the key arguments of the two distinctive academic doctrines i.e. the Modern Finance Theory and the Behavioral Finance. Anomalies in the market challenged the theories ruling the investment making process in the financial market, and these anomalies acted as an ignition point of the new thought i.e. Behavioral Finance.

The paper was distributed in 5 sections. The sections initially explained the concepts of Modern Finance Theory and Behavioral Finance Theory and the main focus of this paper was to discuss modern finance’s key arguments against the new theoretical school of Behavioral finance. The author initially criticized the formation of the Modern Portfolio theory as it was based on the basic assumption of Homo Economicus (Pribram, 1983, p.173) where the investor or the human behavior was oversimplified for the purpose of easier computation and difficulty faced during the evaluation of human behaviour. The investors were considered to be individual with perfect self-interest, perfect rationality and free access to perfect information regarding a specific condition.

The author indicated the Efficient Market Hypothesis (Fama, 1970), ruling the financial world for the last four decades. Also indicated the assumptions lying behind the theory as
The public availability of information,
ii.) The speed with which this information can be absorbed and lead to a new price equilibrium,
iii.) Investor self-interest and
iv.) Investor rationality and the extent to which investor’s exhibit effective and efficient cognitive behavior.

The author initially defined Behavioral Finance as the science explaining the key question of why prices deviate from their fundamental values. The fundamental values are said to be derived on the basis of mathematical models and the human mind fails to follow the standard mathematical model. Indicated that the humans’ inability to differentiate information that requires probabilistic judgement from the information that requires value judgement.

The author indicated the two basic requisite of a sound investment decision making, **intuition and knowledge gained from past experience.** The investors depending more on the psychological factors are termed as “Noise Traders” (Friedman, 1953). These traders are considered to be ineffective in the long run as efficient rational arbitrageurs effectively eliminate noise trading and due to the random and uncorrelated nature of their trades, noise traders cancel each other out leaving asset prices unaffected. Later he explained the Overreaction and Under-Reaction Hypotheses of Behavioural Finance which are said to be aroused from psychological biases of **Conservatism** which states that condition where investors subconsciously are reluctant to alter their beliefs in the presence of new evidence (Edwards, 1968) and the **Representativeness** Heuristic where the investor start seeing a pattern in the random movement (Kahneman and Tversky, 1973; Kahneman, Slovic and Tversky, 1982; Daniel, Hirshleifer and Subrahmanyam, 1998; Kaestner, 2005). The author also explained the concept of overconfidence and Bias of Investment Agent. The main stress was given on Behavioural Inefficiencies under the Modern Finance View within the article.

The article explained

**a. Frequency and Nature of the Behavioral Effects**

It is explained that the over and under reaction phenomena’s included within the Behavioral finance are said to be a part of the market efficiency which only required that investors’ expectations are unbiased, and correct on average, or over the long term, (Fama, 1998). Behavioral finance theories are argued on the basis of their
realistic nature they are said to have “Bad Model Errors” (Barber and Lyon, 1996; Fama, 1998; Barber, Lyon and Tsai, 1999).

b. Behavioural Studies and Research Bias: it is claimed that the data used for the analysis of behavioural finance theory suffers from the researcher’s bias. Indicated mainly the data used within “COMPSTAT” suffers from many biases such as Past selection/survivorship bias and the look ahead bias.

The author claimed that the rational expectations model and the efficient markets model can never become obsolete, since they represent an ideal market. If the behavioral finance revolution succeeds, its applications in practice can simply move real markets closer to the ideal of semi-strong market efficiency.

Behavioural finance attempts to explore the relationship among the market anomalies such as overconfidence, heuristics, opportunism, turn of the day/time effects, etc along with the counting effect of the stock market sentiment. Since past the behaviour of the stock market and its participants is said to be explained by the term rationality. The investor was assumed to work on the theory of Efficient Market Hypothesis.

Subrahmanya (2008) extensively studied the work done in the past by other researchers in order to appreciate and appraise the work done in the field of behavioural finance. The paper presented the development and various facets of the field of Behavioural Finance and mentioned the work done in the field of -

Asset Pricing: Indicated the work done by Black et al. (1972) and Fama and MacBeth (1973) who suggested a significant positive cross-sectional relation between security betas and expected returns, and this study provided evidence which supported the capital asset pricing model (Sharpe, 1964; Lintner, 1965; Mossin, 1966). While Fama and French (1992) found that the relation between return and market beta is insignificant. Also prominently mentioned the work done by Daniel and Titman (1997) (2006) and Brennan et al. (1998)

Behavioral Finance: mentioned the work done by Daniel et al. (1998, 2001) worked on the studying patterns using overconfidence and self-attribution, Barberis et al. (1998) tested that extrapolation from random sequences, wherein agents expect patterns, created overreaction and conservatism, the opposite of extrapolation, creates momentum through underreaction, and Hong and Stein (1999), Frieder (2004), Hong et al. (2000), Barberis et al. (2001) and Barberis and Huang (2001) phenomena of loss aversion.
Investor Moods: Saunders (1993) and Hirshleifer and Shumway (2003) noticed the difference in return of sunny and dull day returns vary positively and negatively respectively, Kamstra et al. (2000) for the weekend effect.

The paper also presented the work done on trading activity and portfolio choice & corporate finance. The author suggested new works that can be included in the field of Behavioural Finance by establishing relationship among “market microstructure and behavioural finance”, studying “cross-country and cross-firm variation in biases (based on investing clientele) and their implications for return predictability” and also the effect of the Personality of CEO on the future activities of the organization. The author indeed provided ideas for future enhancement of knowledge bank in the field of behavioural finance, but it was required to conduct an initial study and express a detailed methodology. The paper only acted as a concept builder and more of theoretical in nature.

The section provided an overview of the concepts of Behavioral Finance. The next section discussed the Behavioral Heuristics used and analyzed for the study. It was identified from the studies in the previous section that When a Human mind experiences “n” number of emotions during a lifetime, so will be their effect on their behaviour and resulting in “n” number of behavioral heuristics, as a result it was important to select a few heuristics and study their impact on the formation of attitude of the retail investor while it invested in the secondary equity market.

LR 2.4: Behavioral Heuristics

LR 2.4.1: Overconfidence:

Unwarranted faith in one’s intuitive reasoning, judgments, and cognitive abilities. The concept of overconfidence had its roots based on large body of cognitive psychological experiments and surveys. The experiments and surveys were conducted on subjects to identify the degree of confidence exhibited by them in the decisions and their perceived abilities. People are poorly calibrated in estimating probabilities. People think they are smarter and have better information than they actually do. Past studies in the area of overconfidence indicated that 99% of the people overestimated their ability of performing better than the average or when asked to rank their driving skills.

In many domains of life success and satisfaction depends on knowledge, wisdom, and the savvy of which rules to follow or which strategy to pursue, this notion is true for many tasks
in social and intellectual domains and people differ in the strategy they adopt for such domains.

**Definition: Overconfidence**

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<th>Definition</th>
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<td>Overconfidence is the tendency of decision makers to unwittingly give excessive weight to the assessment of knowledge and accuracy of information possessed and ignore the public information available.</td>
<td>Lichtenstein and Fischhoff</td>
<td>1977</td>
</tr>
<tr>
<td>The overestimating valuation in assessing a financial asset</td>
<td>Odean Gervais</td>
<td>1998;</td>
</tr>
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<td></td>
<td>Odean Glaser</td>
<td>2001</td>
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<tr>
<td></td>
<td>Weber,</td>
<td>2003</td>
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Numerous studies had shown that investors are overconfident in their investing abilities. Investor’s experience and exhibit different types of overconfidence, based on their prevailing circumstances. All individuals at one time or other belonged to any field exhibited a certain degree of overconfidence, *Griffin and Tversky (1992), De Bondt and Thaler (1995)* stated that finding that the people are overconfident is perhaps the most robust finding in the psychology of judgment., concluded that experts tend to be more overconfident than relatively inexperienced individuals. When the investors were asked to assign a confidence interval to their investment predictions, they were observed to be too narrow and was termed as Prediction overconfidence (*Roger Clarke & Meir Statman, 2000*), another could be when investors are often too certain of their judgment (certainty overconfidence). Talking of investor overconfidence demands discussion on the breakthrough work by *Brad Barber and Terrance Odean (2001)*, primarily studied relationship between overconfidence and gender and the impact of overconfidence on portfolio performance. Overconfidence is one of the most strongly documented behavioral biases.

Overconfident investors overestimate the probability that their personal assessment of a security’s value is more accurate than the assessments offered by others. Rational investors only trade and purchase information when doing so increases their expected utility.
Overconfident investors decrease their expected utilities by trading too much; they hold unrealistic beliefs about how high their returns would be and how precisely these returns could be estimated; and they expend too many resources obtaining investment information.

1. Overconfident investors overestimate their ability to evaluate a company as a potential investment, resulting them to become blind to any negative information indicative of a warning sign either not to purchase a share or sell the existing one.
2. Overconfident investors can trade excessively as a result of believing that they posses special knowledge that others don’t have. Excessive trading behavior have proven to lead to poor returns over time.
3. Because they either don’t know, don’t understand or don’t need historical investment performance statistics, overconfident investors can underestimate their downside risk. As a result, they can unexpectedly suffer poor performance.
4. Overconfident investors hold undiversified portfolio, there by taking on more risk without a commensurate change in risk tolerance. Often overconfident investors don’t even know that they are accepting more risk than they would normally tolerate.

Barber and Odean (2001), indicated that overconfident investors overestimate the precision of their information and thereby the expected gains of trading. They may even trade when the true expected net gains are negative. Studies proved that men and women display different level of overconfidence while investing, making men to be more overconfident than women, making them frequent traders. Barber and Odean (2001) defined overconfidence as a factor “hazardous to your wealth”. Higher level of counterproductive trading in financial markets can be explained by the concept of overconfidence.

Overconfidence is one of the most detrimental biases that an investor can exhibit. This is because underestimating downside risk, trading too frequently and/or trading in pursuit of the “next hot stock,” and holding an undiversified portfolio all pose serious threat to the wealth of the investor.

Kent Daniel and Sheridan Titman (1999), talked specifically about the behavioural heuristic of overconfidence and its effect on investment decision. Stocks with ambiguous and interpreted information gained momentum because of overconfidence. An investor does much of its analysis based on "hunches" or "feelings," which could easily be influenced by behavioral biases. The authors mentioned the work done and explained direct and indirect
effect of overconfidence. Under the direct effect they explained the work done by Daniel, Hirshleifer, and Subrahmanyam (1998), concluded that individuals place too much weight on information they collect themselves because they tend to overestimate the precision of that information. Indirect effect of overconfidence is when people filter information and bias their behavior in ways that allow them to maintain their confidence. Psychologists had developed theories called "cognitive dissonance," "attribution bias," and "conservatism bias" to describe this type of behaviour. The study was built on the hypothesis that overconfidence affects difficult-to-value company’s more than stable companies. The evidence presented in the study rejected the notion of efficient markets in favour of an alternative theory, namely, that asset prices were influenced by investor overconfidence.

Meir Statman et.al.(2006), tested the trading volume predictions of formal overconfidence models and found that share turnover was positively related to lagged returns for many months. The study also differentiated Overconfidence from disposition effect (Shefrin and Statman, 1985). The disposition effect described a desire for investors to realize gains by selling stocks that have appreciated, but to delay the realization of losses. The empirical research was time-series oriented and was based on monthly observations of turnover for the NYSE/AMEX market and individual securities. The study used vector auto regressions (VAR) and impulse response functions to test specific implications of how trading activity relates to lagged return. The study in consistence with the overconfidence hypothesis proved economically significant positive relation-ship between market-wide turnover and lagged market-wide returns. The study proved the difference between the overconfidence and disposition effect.

Kruger Justin, Dunning David (2009), through empirical research in their research article focussed about the burden the incompetent individuals faced while devising or applying a strategy. The burden was explained as two fold a.) Because of the ignorance level people reached erroneous decisions and made unfortunate choices b.) Their incompetence also robs them of their ability to realize it. The research was a composite of four smaller studies, each individual study was on Humour, Logical reasoning, grammar and competence begets calibration. The study proved the conclusion made by Lichtenstein and & Fischhoff, (1977), that people were more miscalibrated in difficult tasks ones for which they fail to possess requisite knowledge.
Schmeling, and Ulrich Schmidt (2010), conducted Experimental Study. The study was conducted on three subject type: Institutional Investors, Investment Advisors and Individual investors. In general the result observed that Investment experience and age had a significant impact on the degree of overconfidence which goes surprisingly in opposite direction. Individual investors provided very narrow interval forecast but were observed to be less miscalibrated than advisors. When asked about self-assessment of one’s own investment performance and one’s own information in comparison to the market peer’s, individual investors showed the lowest value.

The authors questioned the critique done by Gigerenzer (1991) and his colleagues (Gigerenzer, Hoffrage, & Kleinbolting, 1991) about types of probability estimates used in traditional work over overconfidence with respect to a single event study that probabilities do not apply to single events but to multiple ones. The data collected in the research identified that participants consistently overestimated the number of items they had answered correctly.

Trinugroho Irwan, Sembel Roy (2011), the experimental research aimed at linking the fact that the overconfident individuals traded more and followed aggressive strategy of investing and proved poor investment performance. The subjects were not real life investors and were students i.e. the study targeted perspective investors. The study also focussed on trading strategy adopted prior and post a bad news announcement was made by the over and under confident investors. The author mentioned three types of overconfidence:

1. **Miscalibration**, the subjective probability higher than the actual probability,

2. **Better-than-average effect**, the tendency to think that someone has an above average ability.

3. **Illusion-of-control**: a belief that people have more ability to predict or more satisfactory results when they have high involvement in it

The researcher suggested that training must be imparted to improve knowledge and understanding of this overconfidence behaviour would reduce errors that result in a decrease of invested wealth of investors.

Swedroe Larry (2013), explained that the investors believed that other people's decisions as the result of mood, feelings, intuition and emotion. While own decisions were believed to be resulted from objective and rational thought. Overconfident investor restricted the facts and
findings to the degree they were in consortium with their beliefs and views and ignored contradicting evidences. The author also discussed about the positivity of being overconfident an overconfident investor felt well about oneself, creating a positive framework with which to get through life's experiences. The author also discussed the trading strategy followed by an overconfident investor

- Concentrates assets and failed to diversify because diversification was only for those who cannot foresee the future
- Buys risky investments because they believed that they weren't really risky
- Trades too much because they believed that they could successfully time the market
- Uses active fund managers because they believed that they can identify the few future outperformers

The author mentioned the work on overconfidence “Positive Illusions and Forecasting Errors in Mutual Fund Investment Decisions” and Why Inexperienced Investors Do Not Learn: They Don't Know Their Past Portfolio Performance, both the studies focussed on the fact that inexperienced investors do not even provide a correct measure of their past performance.

The author in another article (Don’t be overconfident in investing, 2012), linked the psychological bias of overconfidence with “Hindsight Bias” & “Confirmation Bias”. Conformation bias indicated that the individual assigned more value to the information in conformation of the pre hold belief. Park JaeHong et.al. (2010), while studying the individual investment behaviour identified that investors used message boards to seek information that confirmed their prior beliefs. The confirmation bias made them more overconfident and adversely affected their investment performance. The researchers also confirmed that the investors who demonstrated stronger confirmation bias also exhibited greater overconfidence.

2.4.2: Intuition

In Hindu philosophy, the sacred books i.e. the Vedas are based on darsana or insight. It was believed that via this insight the seers (rsi means seer) were able to see in to reality. The credit of establishing Intuition as a philosophical concept rests on Patanjali, who believed Intuition to be a supra normal insight. Patanjali literature focussed on self realization and the discipline to be followed to achieve self realization. According to Patanjali, “when a jokin
develops yoga proper, i.e. the stilling of the mind, to a high state called samyama, Intuition arises.”

Another prominent example was mentioned in the great epic of Mahabharata, where

After Lord Krishna ‘clarified’ everything to Arjuna through 18 chapters, Arjuna was confused by the contradictions. Krishna’s final advice was, “Reflect on all that I have said and do whatever is best.” In other words, the lord suggested the decedent to use intuition!

The word ‘intuition’ stems from the Latin word, in-tuir, which means ‘looking, regarding or knowing from within’. Intuition is **instinctive and unconscious knowing without deduction or reasoning.** Intuition has numerous synonym such as gut feeling, sixth sense, inner sense, instinct, inner voice, spiritual guide, etc. the human senses relay about 10 million times more pieces of information per second to the brain that can be consciously perceived. It is complicated for the brain to process such enormous amount of information, so the brain uses simplifications and shortcuts to facilitate information processing. Such shortcuts are Intuitive Instincts. The intuitive “hunch” comes to attention as a feeling “good feel or bad”. This feeling represents a subconscious emotional process that is manifested in physical sensations. Jack Welch (Former CEO of GE), in his biography “Jack: Straight from the gut”, mentioned that “the outcomes in the business world are high stakes and inherently uncertain, an ideal environment for integrating intuition and expert judgement.” Same thought was expressed by George Soros, highly successful stock market investor, that “his back started killing him, when he was required to change his position in the market.”

“**Balanced emotions are crucial to intuitive decision-making.**”

Michael Eisner, Former CEO Walt Disney Company

Goldberg Philip and Tarcher Jeremy P. (1983), mentioned the work of Graham Wallas (1929), in his book “The Art of thought”, mentioned the stages of creative process formed of incubation period, followed by Illumination stage (the Intuitive breakthrough) and then verification. The authors discussed about the various theories of incubation as during elimination of fatigue, when the ineffective old ideas are selectively forgotten, Nonconscious synthesis i.e. during sleeping, walking alone etc. The authors discussed the paradoxes of intuition and explained about the its holistic nature and mentioned that the parts and their sum could be discerned through rational analysis, but the greater could be apprehended only
through Intuition. Intuition appears as a flash with no sequential arrangements that comes and goes instantaneously. The paper explained that the rational thoughts are verbal while the Intuitive thoughts are non verbal, emotions are subject matter of intuition expressed in the form of feeling sad, restless, happy etc.

The role and importance of Intuition in decision making had been acknowledged throughout the ages of man. In today’s world, many practicing executives and managers posited that “Intuition is not only a brain skill that is inherited but also one that can be trained and expanded for applied use in management”. The vast majority of the routine decisions made rapidly, automatically and beneath conscious awareness, Intuition and “Gut feeling’ often underline some of the most consequential decisions. Intuitive decision making is honed unconsciously, through experience, and it is the foundation of more than 90% of all decisions.

Fitz Hope K. (2002), mentioned Dr. Radhakrishnan’s writings while describing types of Intuition Radhakrishnan believed that “Intuition is a higher form of knowledge”, criticized by the author as Intuition is not knowledge in itself while it’s a means of gaining knowledge.

Radhakrishnan defined Intuition: “Any cognitive process of awareness which is direct or immediate in contrast to what is inferential, that is, mediated by the reasoning process.”

Intuition is not a passive human account of experience in which the simple relating of past and present experiences creates a habit of expectation.

Mentioning the work of Dr. Radhakrishnan, Fitz Hope K. (2002), further clarified the idea behind Intuition stated that “In Intuitive knowledge, man ceases to be an impartial spectator. His whole being is at work not merely the powers of observation and inference.” The process involves perceptual and conceptual activities. The author identified two broad categories of Intuition “Integral Insight” -

a. Penetrative insight is an insight into the structure of the problem, a situation or a condition
b. Creative Insight explained as a chain or links to a series of events which can lead to solution of the problem i.e. through logic or which can lead to eventuality.

Fitz Hope K. (2002), defined Intuition as “An intentional process of the mind, which culminates in an act of insight.” The process is one in which present impressions are brought together with past related memories on a focus of concern. The process involves Reason, the
reason was used to form a number of the memories and also used in relating those past memories to present impressions.

Many difficulties, such as overconfidence, could be traced back to a flawed, unbalanced application of either the rational or instinctive approach. Areas such as planning, process management and finance are harder business functions that benefit from an analytical approach. Although the softer areas still benefit from information and measurement, an instinctive, intuitive approach can save time and resources: providing, of course, that the decision is right. The theory could be criticized on the fact that finance looks like a hard core decision area but wherever humans are involved the decisions become softer in nature.

Sjoberg L.(2003), the study mentioned the preferred mode of taking decisions under different circumstances or when and for what kind of decisions is the intuitive mode preferred over the analytical?. The situations were classified on the basis of professional vs non professional judgements. The author used intuitive–analytical judgment scale ranging in five steps, from “completely intuitively” to “completely analytically”. The respondents were asked to rank the different situations (28) and were asked to mention whether decisions should be made in an intuitive or an analytical mode, the risk of a negative outcome of the decision, the chance of a positive outcome of the decision, and the extent to which the outcome was under the control of the decision maker. The study revealed that the respondents favour intuitive decision making in situations where they were making personal decisions in non-professional roles. The study was not able to differentiate between the decision making techniques to be used under risky situations.

**Definition: Intuition**

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<td>Smooth automatic performance of learned behaviour sequences and often can short-circuit a step-wise decision-making, thus allowing an individual to know almost instantly what the best course of action is?</td>
<td>Khatri and Ng</td>
<td>2000</td>
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<td>A natural ability or power that makes it possible to know something without any proof or evidence : a feeling that guides a person to act a certain way without fully understanding why</td>
<td>Merriam-Webster</td>
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<td>Unconscious thought process that produces rapid, uninfused knowledge or solution, not a mere guesswork, it draws on previously acquired experiences and information and directly apprehends a totality.</td>
<td>Business Dictionary</td>
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<td>Intelligence and understanding that bypasses the logical, linear cognitive processes; the faculty of direct knowing, as if by instinct, without conscious reasoning. Intuition is pure, untaught, inferential knowledge married to keen and quick insight.”</td>
<td>Childre and Martin</td>
<td>2010</td>
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<td>Unconscious intelligence and uses the terms “gut feeling, intuition or hunch interchangeably</td>
<td>Gigerenzer</td>
<td>2007</td>
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<tr>
<td>Intuition is a muscle everyone has but which most people have forgotten how to flex. Intuition is “the voice of our soul” and “an integral part of our spiritual anatomy”.</td>
<td>Sonia Choquette, Intuitive Guide</td>
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<td>In my mind’s eye, I visualize how a particular sight and feeling will appear on a print. If it excites me, there is a good chance it will make a good photograph. It is an intuitive sense, an ability that comes from a lot of practice</td>
<td>Esterow</td>
<td>1984</td>
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<tr>
<td>An individual’s ability to solve problems despite a relatively small amount of information.</td>
<td>Westcott Tracy</td>
<td>1968 2010</td>
</tr>
<tr>
<td>Immediate knowing of something without the conscious use of reason</td>
<td>Schrader Fischer Tracy</td>
<td>1987 2010</td>
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<tr>
<td>Understanding without rationale</td>
<td>Banner and Tanner</td>
<td>1987</td>
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<td>Adaptive unconscious, exemplified mind by a giant computer that quickly analyzes and quietly processes a lot of data” that is constantly coming in through the senses (p. 10-11). Associated the notion with “feeling”</td>
<td>Gladwell</td>
<td>2005</td>
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Sayegh Lisa et. al. (2004), the researchers concentrated on utility of intuitive decision making under conditions of uncertainty. In the absence of prominent work related to emotions and intuitive decision making, the paper provided a breakthrough. The authors discussed the interaction between emotions and the intuitive decision-making process under
crisis (organizational crisis). The paper exemplified the crisis faced by the managers during the 09/11 attacks on USA and its effect on decision making. Situations of organizational crisis studied: (1) high ambiguity with unknown causes and effects; (2) low probability of occurring; (3) an unusual and unfamiliar event; (4) requires rapid response; (5) poses a serious threat to the survival of the organization and its stakeholders; and (6) presented a dilemma necessitating a decision that will result in positive and/or negative change. The research also supported the theory established that relevant experience plays a major part in intuitive decision making. The paper assumed that experience is composed of education, training, and exposure to events similar to the current situation. Also cognitive schema played a vital role (exemplified by decision making by CEO of Disney (Michael Eisner)), role of self efficacy (confidence or belief in self), self efficacy is not what skills an individual possess while it is the judgment of what one can do with these skills. Higher degree of self efficacy is responsible for intuitive decision making, since organizations are social structures so emotions do play a vital role in decision making and especially under crisis. The combination of the two components, information held by the manager and the emotional response to its applicability in a given decision situation, results in that “gut feeling” about the “right” decision—what we commonly refer to as “intuition.

Thoo Ai chin (2005), studied the relationship between intuitive decision-making style and situational factors (information, time, risk and uncertainty) by the academic staff (University of Malaysia) and observed that the staff was highly intuitive decision maker and they trusted their feeling and believed that their instincts are always correct.

Williamson (2007) suggested that, phenomenologically, intuitions are akin to inclinations to believe. However, he also advocated that intuitions are a species of judgment. Since judgments are belief entailing where intuitions are not.

Hendrie (2009), Psychologist, and author of the book, 'The Genius of Instinct, defined Intuition as “Stimuli that is below the conscious awareness and believed that most human beings made mistake in by listening others and not listening to their natural intuitive decision making skill, the author also suggested five indicators which should be attentively listened and acted upon to make a correct decision.
a. Watch your facial expressions, as emotions are directly linked to facial expressions. Read the face before making a decision and identify the expression as fear, anger, happiness, anxiety? And act accordingly
b. It's not what you say but how you say it, the act of listening to your inner voice or 3rd ear
c. Actions
d. louder than words, becoming aware of the behaviour
e. Increase your "sensory awareness"
f. Visualize and Feel The Outcome of Your Decision-Making

Investment decisions or specifically investing in stock market is considered to be a rational and analytical decision, but since the human nature cannot be separated from emotions and inner self, intuition is also assumed to play a vital role in the process of investing in share market. An individual can experience some peculiar feelings indicating the decision of investing in a particular security to be profitable or loss making investment.

Daniel Kahneman (2011), in his scholarly work “Thinking fast and slow”, postulated that there are two broad neural systems underlying decision making:
The Intuitive i.e. System 1 observed to be fast, intuitive, and emotional and the other is The Analytical i.e. System 2 observed to be slower, more deliberative, and more logical

Analytical judgement is primarily logic based, while the Intuitive system is rapid and feel based. Intuitive decision making seem to flourish under conditions of - risk, uncertainty, with performance expectation, and under time pressure. Intuitive decisions rely on “gut knowledge”. Listening to one’s gut knowledge creates tremendous advantages (as well tremendous danger) for market participants.

Hensman Ann, Sadler-Smith Eugene (2011), studied the applicability of intuitive decision making by the experienced executives of a FTSE-100 bank through qualitative in depth interviews, as the field had paucity of previous works. So the work acted as an exploratory study in the field of Intuitive decision making applied in the field of finance. The research was done by selecting the respondents that suited the criteria assumed to be good for Intuitive decision making: domain knowledge and experience. The directors and senior managers were asked to recall the incident where they applied intuitive decision and obtained a detailed description of the incident. The transcripts were broken into Thought Units (TU’s) numbered to be 275 and identified five super-ordinate categories as follows: (a) outcomes of intuiting; (b) cognitive and affective processes; (c) individual factors; (d) decisional factors; and (e)
organizational and contextual factors. The study observed that intuitions could be compelling and even alluring, but were likely to have a lower perceived validity than rational analyses in business organizations. Intuitions, if followed, are essentially (bets) and should be treated as hypotheses, open to empirical testing, with the potential for falsification. The research corroborated the importance of prior learning, experience and pattern recognition as bases for intuitive judgment in banking. The research indicated that Experience helped to build executives intuitive self-efficacy and decision making self-confidence. The respondents were judgemental in few situations when the right or wrong were not distinguishable, and the intuition had a great role to play, another important factor is under time pressure. The research provided and assembled the building blocks for a preliminary conceptual framework of intuitive decision making in the banking and finance sector. The researchers observed the general inclination and attitude towards the Intuitive decision making and also general implications are observed applicable to other fields also.

Michael Pratt, Erik Dane & Kevin W. Rockmann (2012), tested intuition against analysis, observed that intuition isn’t always bad and there are conditions where it is a good way to make the right decision. People can trust their gut and rely on intuition when making a broad evaluation, in an area where they have a domain expertise (in-depth knowledge of the subject).

Traditional investment theory postulates that people use reasoning and objective analysis during decision making, according to traditional theory, investors slowly and mechanically judge potential outcomes, weighting their probabilities and their potential gains or losses, to arrive at a rational analytical decision. Scholars and practitioners alike agreed that sound decision-making was understood to occur under only the most rational conditions (March, 1978; Simon, 1957). The investors arrived at a choice after a series of calculations i.e. a risk reward analysis. Damasio (1994) pointed out “An important aspect of the rationalist conception is that to obtain the best results, emotions must be kept out.” (p. 171). But in a world where ultimate outcomes are uncertain and volatility can arise unexpectedly, investment practice is not as rational as theory suggests. Many of the best performing portfolio managers are observed to perform a two step analysis before making an actual choice initially they perform a rational analysis of known facts and figures after gathering information from corporate management, customers, suppliers, employees and stock analysts. But in order to consolidate all this complex information into a single decision, they resorted to Intuitive process.
Till now theory of intuition is greatly facilitating managers for arriving their business and routine decisions, as previous researchers preferred to revolve around managers in intuitive decision making (Agor, 1984). Intuitive decision makers are likely to be more risk seeking, impulsive and believe in luck (Martin et al., 2005). People use intuition for making decisions in situations of great uncertainty or lack of information (Judge and Robbins, 2006; David, 2009). Sinclair and Ashkanasy (2005) found that intuitive decision was very useful in ambiguous situations, particularly for those decision makers in business world who have restricted information and they must decide which alternative strategies will benefit the companies most. People relied heavily on intuition to make decision because they are not completely sure of the alternative (Certo and Certo, 2005). Previous researches indicated that the greater the time pressure, the more likely individuals were to base their decisions on their intuitions (De Dreu, 2003; Kruglanski & Freund, 1983).

Intuitions are not always easy to follow, strong emotions drown out Gut feeling. Feelings generate distractions to the gut feeling. Feelings that resulted from remembering, experiencing, or anticipating environments in which one is under significant time, social or performance pressure, could easily be biased intuitive judgement. In simple decision making situations, conscious thought usually leads to better decisions, but after a certain level of informational complexity is reached, the quality of conscious choices falls below that of effective choice. Feelings provide mental shortcuts, allowing people to quickly judge the “rightness” and “wrongness” of complex scenarios.

The pitfalls of overthinking, strong emotional biases, and subliminal emotions render intuitive judgement excessively biased for most investors. Experience (gained through honest appraisals and rapid feedback) and emotional intelligence (specifically self awareness) are the remedies that excellent investors use to fortify intuitive process.

LR 2.4.3: Culture

Introduction:

Culture is the force that shapes human activities including business activities. The set of values, beliefs, and traditions that are shared by a group of people provide a blueprint for how they should act and conduct themselves (Haviland, Prins, Walrath, & McBride, 2005). Culture is a filter through which people perceive their reality, and also a guide to their behaviour. Culture profoundly influences how people organize to exchange the products they need, that is, the way they do business, particularly what to sell or buy, how to sell and buy,
the ways in which operations are to be controlled, managed and financed, along with how employees are going to be managed, motivated, and rewarded or punished. In other words, business and investments are human activities, and as such, culture plays a fundamental role on how they are operated, and how they are to be perceived.

**Lindsay (2001)** The researcher commented that culture is a significant determinant of a nation's ability to prosper because culture shapes individual's thoughts about risk, reward, and opportunity and also added that cultural values are important because they form the standards around which economic activity is organized, and that without economic activity progress is not viable. Therefore, financial progress depends on changing the way people think about wealth creation, this means changing the underlying attitudes, beliefs, and assumptions that have informed the decisions made by individuals that result in poor economic and financial performance.

The cultural biases are also studied on the bases of Race & Community: cultural anthropologists have asserted that the categorization of people in races lack scientific merit, and such categories are based only on prejudice, false ideas of differences, and notions of the superiority of one's own group (Haviland et al., 2005)

Culture according to Merriam Webster is formed of the beliefs, customs, arts, etc., of a particular society, group, place, or time. In terms of an organization, it’s a way of thinking, behaving, or working that exists in a place or organization. Since the research is focussed on individual investors, so we tried to study the effect of beliefs and customs on the attitude formation toward investing in secondary equity market. Till now few studies are done studying the “Culture” as behavioural factor resulting in attitude formation w.r.t. secondary market. The study identified a research gap and tried to study the effect of culture on attitude formation toward secondary equity market specifically the Indian Investor. As the researcher always question the theories formed on behavioural finance and investing strategies, all the theories are western in nature, we should try and test the validity of these theories in the Indian market and investors. An Indian version of such theories must be developed.

**Definition: Culture**

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<tr>
<th>Definition</th>
<th>Author</th>
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<tr>
<td>Transmission from one generation to the next, via teaching and imitation, of knowledge, values and other</td>
<td>Boyd and Richerson</td>
<td>1985</td>
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Culture is the basis of how people systematize values, beliefs, and ultimately, behavior. Samovar, Porter, & McDaniel (2009)

Culture is a collection of knowledge, experience, values, beliefs, attitudes, meanings, hierarchies, religion, notions of time, roles, spatial relations, concepts of the universe, and material objects and possessions acquired by a group of individuals in the course of generations through individual and group efforts. Samovar et. al (2009)

Culture, consists of the abstract ideas, values, and perceptions of the world to inform and are reflected in people's behavior. Culture is shared by members of a society and produces behavior that is intelligible to other members of that society. Cultures are learned rather than inherited biologically, and all the different parts of a culture function as an integrated whole. Haviland, Prins, Walrath, and McBride (2005)

Culture is multidimensional in nature and is transferred from one generation to another either through family tree, educational group or social group. Psychiatrist Rapaille (2007) maintained that humans not only have an unconscious and a collective unconscious, but also a cultural unconscious, which guides our decisions and behaviours directly from our lizard brain. Samovar et al. (2009) asserted that cultural behaviours are invisible and automatic, and that humans produce it without being aware of their actions.

Culture determines the way to dress, the language to speak, the accent while speaking, culture determines fashion, the hairstyle to be used, the way to seat, the place to seat, the etiquette rules to follow, and the way to attract potential mates; culture determines what is considered funny, ironic, and attractive; culture is extremely deep into the human mind. The reason behind selecting culture as an behavioural bias impacting the attitude formation because culture is so integrated into the Indian brain that it even dictates what emotion we should feel.
and under what circumstances should be felt; culture dictates what emotion corresponds to a given situation. So the question arises that it is the cultural differences that guides or differentiates one investor from other or it the individualistic behavioural biases. Lindsay (2001), negated that a culture determines the importance to finance, an individual not in conformity with the cultural values, is outside the culture, it’s the mental model that an individual portray. Such individual mental model should be studied under the periphery of culture.

Culture and Financial Success

So far it has been observed that culture poses a serious effect on Human resource policies and while taking investment decision i.e. when investing in other countries, host country’s cultural variables: uncertainty avoidance and trust, influence the location choices of foreign firms such that foreign firms prefer to invest in nations with (1) low levels of uncertainty avoidance and (2) high levels of trust (Bharadwaj Arjun et.al, 2007).

The argument that culture plays an important role in finance and economics is gaining prevalence in the financial economics literature during recent years. The credit for this increasing attention to the concept is because of behavioural finance. Culture changes very slowly and same values and beliefs are carried on for a longer value of time. The understanding of cultural financial behaviours could help to modify practices and perceptions that had kept cultural groups economically stagnated for decades, or even centuries.

A study of how culture plays a role in perception of money. Culture plays a central role in many aspects of finance including investor portfolio decisions as well as management decisions within a firm. The effect of culture could be studied at individual as well as organizational level, differentiating on the basis of the factors of measurement. Culture influences finance in many ways. Societies decide on the law and institutions that they desire to develop, but that decision is influential by cultural biases that have been developed by religious beliefs, wars, language, ethnicity and other factors that determine current behaviour. The cultural biases will affect the development of laws and the enforcement of those laws, as well as institutions and capital markets. The research is focussed on studying the effect of culture at individual level.

According to the assumptions of efficient market, the individuals make decision rationally or we can include one more term is independently. All the available information is used in the
process while selecting a particular decision which is independent of what others are doing? i.e. an individual decides the investment on its own without being affecting by the decision of the masses. While a research, showed that 80% of individual investors, and 30% of institutional investors, appeared to follow the crowd rather than being logical individual investor (Baker & Coval, 2007).

Few of the cultures are supposed to be more supportive to financial markets, their developments and free movement of funds. Greif (1994), studied the impact of cheating on trader allocation by an external agency, he compared individualist society with collective society, if the trader is cheated in individualist society, no worries for others but in case of collective society the traders boycott the cheating agency. The findings suggested that the theoretical and historical importance of culture in determining societal behaviour towards cheating agencies

Grinblatt and Keloharju (2001), studied the effect of culture on Finnish investors and studied the impact of distance, language and culture i.e. familiarity bias on the investment tendencies and the attributes were expected to be inversely related to investor sophistication. The study indicated that the investors preferred the companies for investment with HQ located within 100 km and the companies that printed their annual reports in Finnish or Swedish. The investors preferred organizations that belong or portray same culture. But the difference was not observed in financially proficient investors restricting the effect of culture only to the household sector.

Cultural Bias. Any bias caused by culture that would interfere in a significant way with a rational decision, or a bias caused by culture that would lead to a less than fully rational decision (Jorge Alberto Grijalva Chavira, 2010: Dissertation work).

Jorge Alberto Grijalva Chavira, (2010): Dissertation work studied the concept of money and the impact of cultural biases on investment practises. In the dearth of quality work establishing a relation between the cultural biases and investment practises the researcher conducted in depth structured interviews, the data was simultaneously analyzed to identify themes and ideas helped in further structuring of the interviews. The researcher asked six key research questions to explore a cultural finance paradigm, and how two different cultural groups, both operating under the same economic framework, perceived money and wealth, and how their values, traditions, and beliefs helped determine their financial behaviour. The
author mentioned few important characteristics of culture mentioning the work of Samovar et. al. (2005). Culture is comprised of material culture (technology, economics), social institutions (social organizations, political structures), individuals and the universe (belief systems), aesthetics (graphics, plastic arts, folklore, music, drama, dance), and language.

2.5: Problems Investing

Apart from the behavioural biases, an investor also faces some situational and conditional factors restricting investors from investing in the stock market. Individual investors are believed to have psychological biases and are often thought of as the proverbial noise traders in the sense of Kyle (1985) and Black (1986).

Tyszka (2002), compared the accuracy of forecasts provided by the financial analysts and weather forecasters, the two groups of people were asked to predict the Warsaw Stock Exchange Index and the average temperature of the next month, both the groups indicated overconfidence with a higher degree was observed among the financial analysts. Financial advisors thought process was dependent on learning from experience. More experienced the advisor more was the limit to the confidence interval. Bruce Brian (2002) studied that If the expert analyst had more to gain from issuing one type of recommendation than another, the opinion will be biased and inaccurate, the reason behind David Dreman (2002) career pressures, fear of issuing sell recommendations.

Torre Nicolo G. and Rudd Andrew (2004), focussed on introducing modifications in the institutional practises and making them suitable for individual investors. Hong, Kurbik, and Stein (2004) proposed that social interaction may partly induce stock market participation and trading, and the current research assumed that the an inverse relation may also be possible, i.e. if social interaction such as peers and friends have generated losses then such experience can result in negative attitude about the market.

Another study was conducted for identification of factors affecting the advice utility by the seeker, Van Swol, Lyn M. Sniezek, Janet A. (2005), conducted Experimental study which examined five factors that would increase utilization of expert’s advice specifically by the judge: judge's trust in the advisor, advisor confidence, advisor accuracy, judge's prior relationship with the advisor, and judge's power to set payment to the advisor. After establishing the regression of all five factors advisor’s confidence was observed to be most significant factor in establishing the relationship. Brown Donalee, Brown Zane E. (2008),
studied the investor attachment and loyalty expressed by the financial advisor, within financial industry it has been observed that even after high resource allocation done to maintain advisor/ client relationship, the desired results were not produced. The author studied the psychological factors affected the relationship. The study revealed that advisors should not waste resources on clients with low self-worth and who lacked assertiveness. Instead, the bulk of client opportunities in the market appeared to be securely attached, with a high sense of self-worth and positive beliefs about the world.

In many countries, before suggesting a client about the investment avenue, financial due diligence regulations and ethical guidelines are required to be followed by the financial advisors as “know their clients,” and to ensure that investment recommendations are “suitable” given clients’ financial and personal circumstances. Michael J. Roszkowski and John Grable (2005), suggested that Risk tolerance is considered to be one of the most important personal circumstances an advisor needs to learn about a client.

The current research focused on the degree to which factor resulting in creating negative attitude about the stock market with respect to the advice by the financial advisor. Financial advisors are very common feature while investing in secondary equity market and if the advice given resulted in losses, what was the result on the attitude. We try to examine to what percentage of respondents felt their disinterest in the stock market aroused out of faulty advice by financial advisor. Gort, Christoph (2008), discussed the overconfidence level exhibited by the pension fund managers, the fund managers indicated too narrow scale of confidence interval in terms of previous returns and projected returns, which indicated that the fund managers are overconfident. But when compared to general individuals they were less miscalibrated. Also the study revealed that the size of participants' confidence intervals was linked to individual characteristics. The sample indicated that younger people with a degree from university and with more experience in finance provide larger intervals than older people without such an education and with less experience.

Smith Thomas (2012), indicated that today’s investor is residing in the age of information easily accessible and analyzed, still the investor is not in a condition to make own investment decision. Presence of emotion and gut feeling are considered as major deterrent in the process of investing. Individual investors are sometimes weak in mathematical analysis restricting them from operating in secondary equity market.
Yang Ann Shawing (2013), studied the factors that restricted the retail investors in Taiwan from investing in secondary equity market. The study identified how investors’ confidence and information gathering ability affected their decision making by using the investment theory on crystallized and fluid intelligences. The researcher adopted the Rasch model to analyze latent and unobservable factors that cause difficulties in investment participation for investors in Taiwan. The investors were observed to be more confident in technical analysis but less confident in trading regulations. The major difficulties identified were trust on Unreliable media and professional sources, low income level and the relative confidence and ability to gather information. But gender and maturity significantly contributed to factors that concern their information gathering ability. Regional demographic differences showed variations in decision making regarding investment preferences.

Indian investors alone are blamed for their flawed appraisal of the market. Investors the world over suffer from this tendency. But why would investors commit this same mistake over and over again. The best answer perhaps lies in the realm of psychology. It is said that in the financial world, the best opportunities always come when there is fear and uncertainty all around. Not when there is euphoria all around and when the indices are scaling new highs. The Indian investors are not very good at calculating compounded growth rates over a long term horizon. They can easily divide or multiply few numbers but to appreciate the enormity of sustained compounded growth is beyond the mindset. Thus, this tendency, coupled with the inability to defer gratification leads the investor to look at short term gains rather than long term benefits.

Robert Laura, author of "Naked Retirement: A Stimulating Guide To A More Meaningful Retirement" and President of SYNERGOS Financial Group said that investors are learning that individual stocks aren't as scary as everyone suggests and there is valuable information available to everyone if they know where to find it and how to apply it. The author identified difficulties encountered while investing in secondary equity market first is that the investors found it difficult to find the information valuable for analysis during the process of selecting a stock, as well the investors were aware of the information processing techniques.

John, in his blog mentioned that average investor feels - that investing is too complex and the entry bar is set too high for average investors to see success. Unaware and less informed investor feels investing to be a gambling activity and mentioned that investing realm that can be difficult, depending on the level of investment knowledge. The author suggested the ways
through which the investor can succeed in the stock market. The investor must first learn the trading strategies by educating self and follow the strategy of “learning by doing”.

The educational level and the experience of the investor in the market makes them sophisticated and unsophisticated, The affective reaction to the earnings announcement was more influential on the stock price judgments of unsophisticated investors when compared to the stock price judgments made by sophisticated investors.

“Why didn’t Wall Street realize that Enron was a fraud?

Because Wall Street relies on stock analysts. These are people who do research on companies and then, no matter what they find, even if the company has burned to the ground, enthusiastically recommend that investors buy the stock.”

—Dave Barry, Humor Columnist

Decision making process ranging from routine to hard core investment decision requires selection of the best choice from a vast array of alternatives. The process of decision making cannot be pursued in sole confinement, an individual following a thought process fells a need of getting the decision validated by some agency. The selection of agency is on the basis of its expertise in the subject matter like Religious advisor, subject faculty or financial advisor, or an agency who gained the status of expert though their vast experience like elder family members, friends. Garcia-Retamero, Rocio Galesic, Mirta (2013), identified the acceptability of the advisors among different functional areas of like i.e. health, career and money. The researchers observed that most of the participants within study preferred to delegate decision making about their health to their physician (exhibiting transformational leadership), whereas they were willing to collaborate or play an active role in decision making about their career or money.

To a great extent the onus of the success of the decision lies on the advice provided by the consulted advisor. If the advisor’s perception, overconfidence and biases take part in the advisory process, the decision becomes faulty. The research poses a question to the respondent about their encounter with financial advisor; Do the respondents finds the advice from financial advisor dependable? Does this perception of the respondents vary across different demographic profiles?
This section discussed the work done wrt to the Attitude displayed and behavioural biases experienced by the retail investor during the process of making the secondary equity market operations. The next section discussed the various studies appraising the performance of actual stock market movement.

**LR 2.6: Factors affecting the volatility of secondary equity market**

The adjustment of the share price to the announcement of various news events was explained, the time taken to adjust Fama (1969) talked of news on Stock split with immediate effect on shares, Dodd (1981) explained the effect of news on merger, observed no abnormal effect. This paper provided evidence on the daily market reaction to the announcement and subsequent acceptance or rejection of merger proposals. The study observed that there was a swift and large positive market reaction to the first public announcement of the merger proposal. Subsequently, there was a positive reaction to the approval of completed proposals and a negative reaction to cancelled proposals. Where proposals were vetoed by incumbent target management, there was a negative market reaction to the veto, but that did not eliminate the earlier positive reaction to the first announcement. In these proposals there was a permanent revaluation of the target shares. This was in contrast to cancelled proposals that incumbent managements do not veto, where the target stock price falls back, on average, to the preproposal level. Patell and Wolfson (1984) explained earnings and dividend announcements, adjustment observed is "very quickly."

French and Roll (1986,1988), expressed that if the receipt of news had equal effect then difference was observed in the opening and closing fluctuations and the exchange trading hours, the fluctuations were more in trading hours, as news releases are made during the day hours.

The paper further supported the fact that the market volatility was dependent on **logical and psychological factors**. Psychology seemed to dominate the pricing process.

Separate studies had been conducted to support the various factors affecting the stock market. After the major breakthrough in the financial sector reforms in the year 1991, the Indian market had become more and more sensitive to the international anomalies. With the blurring boundaries among nations, free movement of goods and services had been observed. In today’s time, the two economies are related through trade and investment, the movement of capital in the stock market is one of the forms of investment. With more and more capital
reforms, investing in the stock market by both Institutional Investors and retail investors (within a specified limit) has increased.

**Chen et. al. (1986)** tried to model equity returns as functions of macro variables and nonequity asset returns. Hence the paper took the stock market as endogenous, relative to other markets. The study considered the future value of equity as future cash flow associated with the share in the form of dividend and discounted it with the time value of money. The systematic forces that influence returns are those that change discount factors, $k$, and expected cash flows, $E(c)$. The study was conducted on the stock listed on the NYSE. The macroeconomic factors considered for analysis and the monthly series of yearly growth rate were calculated included Inflation. Treasury bill rate, Long term government bonds, Industrial production Industrial production, Low-grade bonds Return, Equally weighted equities, Value-weighted equities, Consumption Growth rate, Oil prices. Significant in explaining expected stock returns, most notably, industrial production, changes in the risk premium, twists in the yield curve, and, somewhat more weakly, measures of unanticipated inflation and changes in expected inflation during periods when these variables were highly volatile.

**Malkiel (1989)** acted as a base setter that explained the nature of stock market, the stock market is considered to be efficient i.e. reflected all the information timely and accurately in the stock prices, predicting their movement.

The EMH acts as an article of faith for the investors, the EMH states that no investor can outperform the market on the basis of information availability and by predicting the movement, the information inculcation is so strong and fast that it presents equal opportunity to all the investors.

The study explained and discussed in detail all three forms of market efficiency

a. **Strong Form**: all the information is fully reflected

b. **Semi Strong**: Historical information along with publicly available information

c. **Weak form**: historical information, past stock price movement also known as Technical analysis

The author conflicted with the view expressed by **Samuelson (1965) and Mandelbrot (1966)**, suggesting that the news is unpredictable and thus the price movement should also be
unpredictable and random, and can’t be predicted even for tomorrow. Mentioning the **Random Walk Principle**, the author discussed the principle since its origin **Bachelier (1900)**, expressed serial correlation between successive price changes was essentially zero, with Fama (1965), Solnik (14) work explained profitable investment strategies could not be formulated on the basis of the extremely small dependencies were found.

The paper also mentioned the “January Effect”, “Weekend Effect”, and “Festival Effect”.

**Lin et. al. (1994)** studied the interrelation among the international markets through empirical analysis established correlation among the Tokyo **Nikkei 225 (NK 225)** and the New York Market **Standard and Poor's 500 (S&P 500)** using the two stage GRACH in mean model **Hamao, Masulis, and Ng (1990)**, the effect is studied when the news is declared in one market and the effect is studied on the other. The paper also explained the trading mechanism followed at the two exchanges. The study is performed at different levels. The paper mentioned two techniques used establishing the link between two markets the **International Asset Pricing Model** and **Market Contagion**.

The study formed different proxies for the opening time, by establishing a delay of 15 minutes between the two markets (to avoid the **non-synchronous trading problem or "stale quote problem"**) on the basis of correlation analysis and Stoll and Whaley (1990a). The study also tests whether the **Signal-extraction model** improvises upon the GARCH-in-mean approach in modelling the international transmission of stock returns and volatility and better characterizes investors’ behaviour.

The data used was daily (close-to-close) returns into daytime (open-to-close) returns and overnight (previous close-to-open) returns.

The first model discussed was the **Aggregate-Shock model**, in which the domestic overnight return is specified as a function of the preceding domestic daytime return, tested whether the unexpected daytime returns in Tokyo have any impact on the overnight return in New York.

The second approach was the **Signal-extraction model** which was used to decompose the unexpected return in the foreign market into two uncorrelated shocks, global factors and local factors.

Schwarz (1978) criterion was implied within the different competing models of international transmission of stock returns and volatility.
After the two approaches, a correlation is established between the two exchanges. At the first level **Auto-correlation of domestic returns** is established, followed by **Cross-market correlations** including

a. **Contemporaneous correlation**, which measures the correlation between foreign daytime returns and foreign overnight returns

b. **Lagged spillover**, which measures the correlation between foreign daytime returns and subsequent domestic daytime returns.

The study revealed that

First, the foreign daytime returns do significantly influenced the domestic overnight returns. Through cross-market interdependence analysis the study defeated the theory New York stock returns influence Tokyo, but not vice versa.

Second, weak evidence was established that the signal-extraction model characterized Tokyo traders' behaviour better than the other models in terms of the Schwarz criterion. While the empirical results were consistent with the contagion effect hypothesis in King and Wadhwani (1990), the two authors studied the impact of financial contagion, (Financial Contagion refers to a scenario in which small shocks, which initially affect only a few financial institutions of a particular region of an economy, spread to the rest of financial sectors and other countries whose economies were previously healthy) the study extended the model by incorporating the time-varying volatility to characterize volatility clustering and the time-varying extraction coefficient.

Third, little evidence was found of the lagged return spillovers from New York daytime to Tokyo daytime or vice versa. In contrast to Hamao, Masulis, and Ng (1990), the results expressed little evidence against the hypothesis that the domestic market efficiently adjusts to foreign information. The difference between the results of the model and the study was assumed to be attributed to nonsynchronous trading and stale quotes at open.

**Hassler (1999)** studied and exhibited the effect of international as well as domestic factors on the Swedish Stock Market. The paper was centred on the approach suggested by Engle and Susmel (1993), the authors adopted ARCH model to study the volatility inter linkages among international stock exchanges. They studied the time varying structure of stock return variance in order to understand whether the two international stock markets share the same
volatility process, the paper was an extension to the study done by Engle et. al (1990) that how news from one international stock market will influence other market’s volatility process and King et al. (1994) who estimated multivariate models with common factors. The sensitivity caused might be attributable to Stochastic process (Global news process) or the domestic news process. The author applied the Hamilton regime switching model to bivariate stock market data.

To develop the testing equations, the author employed the recursive method by Hamilton (1989), easing the inclusion of time- varying parameters. Standard errors were calculated from the Hessian of the log-likelihood function at the estimated parameter values. The results are analyzed by applying T-test.

The paper concluded that the increased volatility on the Swedish stock market could be attributed to increased sensitivity to the world markets and not to increased domestic news flows.

During the high volatility in the World Stock markets, domestic sensitivity to news from the world market increases.

**Hirshleifer and Shumway (2003),** examined the relationship between morning sunshine on stock exchange and daily market index returns across 26 countries from 1982 to 1997. Sunshine was found to be strongly and significantly correlated with stock returns. After controlling for sunshine, rain and snow were unrelated to returns. Substantial use of weather-based strategies was optimal for a trader with very low transactions costs. However, because these strategies involve frequent trades, fairly modest costs eliminated the gains. These findings were difficult to reconcile with fully rational price setting as in a rational investment process, no role is assigned to the sunshine assume to affect the stock price movement. The role of behavioural finance emerged in the paper, as the sunshine plays no role in rational process, but act as a mood elevator for the investor.

**Misra and Mahakud (2009)** studied the integration of the Indian Financial Market with the World Financial Market. The sensitivity of the domestic market Is dependent on the degree of its relativity to the world market. All the time series data were tested for stationarity through Augmented Dickey Fuller Test (ADF test 1979, 1981) and in the second step, the Johansen's cointegration test (Johansen and Juselius, 1990) has been applied to check whether the long run equilibrium relationship existed between the variables and then tested the Granger
Causality test (Engle and Granger, 1987) to find out the direction of causality between the variables. The paper initially presented the descriptive statistics of the variables studied in the form of skewness, kurtosis and Jarque Bera

The paper in detail discussed about the introduction of the financial sector reforms and about their further development. Later the Financial integration was measured by analyzing the co-movements of financial ratios/prices/interest rates of different parts and sub-parts of financial markets using the regression model. Nerlove’s Partial Adjustment Method was used to deduce the integration equation supported by the Co-integration and market integration techniques. The different fronts studied for financial integration were

a. Saving – Investment Correlation

b. Interest rate parity

Various instruments of domestic money market, credit market, government securities market, capital market and foreign exchange market were considered. The paper considered US market as a representative of the world market.

The paper tested integration at various levels, the results revealed financial integration on the money and gilt market. No conclusive evidence was formed for the money and credit market integration. The correlation between domestic stock (Bombay Stock index) and NASDAQ was observed to be increasing since 1994, an encouraging sign of gradual integration of the domestic stock market with the international stock market. The paper identified absence of integration between NASDAQ and BSE.

Floros (2011) mentioned that several studies have been conducted to prove the effect of Investor’s mood on the performance of stock market. The studies have proved that the mood of the investor acted as a major influence in the stock market. The study concentrated on the effect of weather conditions on the returns of the Lisbon stock market “PSI20” used the GARCH Model. The study was performed on daily basis with financial and weather data from Lisbon Stock Exchange and Lisbon capital (Portugal) for the period of study ranging from 1995 to 2007. The paper was further extended to study whether the returns were higher in winter.

The study mentioned the work done before on the relative topic; weather affects the attitudes and moods of investors (Hirshleifer and Shumway, 2003; Symeonidis et al., 2010),
Symeonidis et al. (2010, p. 222)[1]. It was observed that during sunny weather investors socialised and communicated more which increased the amount of information (news) and, therefore, stock market returns (or volatility) also known as the “Sunshine Effect”. The studies mentioned during the research explained that on the days of low temperatures the stock market returns were more and vice-versa. The paper used time series analysis techniques like symmetric and asymmetric GARCH(p,q) models under different distributional assumptions (Normal, Student’s-t and GED) for the errors. It was observed that the impact of news on PSI20 volatility was significant, the results from the TGARCH(1,1) model showed that the leverage effect existed and bad news increased PSI20 volatility. A negative effect of daily temperature on the stock market returns of PSI20 (Portuguese index) was observed through the analysis. The second type of analysis scheduled was to test the January Effect, and the study observed that PSI20 returns were positive in January and were higher over the first fortnight of the month (compared to the second fortnight).

Mittal and Pal (2011) studied the impact of macroeconomic variables namely interest rates, inflation, exchange rates and Gross Domestic Savings for over a period of 10 years. The study was conducted on two exchanges prominent indicators of the Indian Stock Market “S&P CNX Nifty” and “BSE Sensex”. The paper was formed on four hypotheses, and the analysis was done on regression model adopted by Coleman and Tettey (2008). Coleman and Tettey (2008) studied the effect of exchange rate volatility on the FDI in Ghana. The authors used time series data analysis technique covered the period of 1970-2002. ARCH and GARCH models were employed for the determination of real exchange rate volatility, and co-integration and ECM were used to determine both the short- and the long-term relationships. In the current study the logarithmic tables were formed to study the impact of the four variables on the indices in order to make the data stationary and same technique of analysis were used as Coleman et. al. (2008). Data was proved stationery as time series analysis was required to be performed, using the ADF test and Co Integration test (the multivariate analysis, i.e. two-step estimation approach) followed by Error Correction Mechanism used for reconciliation of the short-run behaviour of economic variables with their long-run behaviour.

On the basis of the various analyses, few of the hypotheses were accepted and few rejected. Inflation and Interest rate were observed to be the major factors affecting both the Indices. Gross Domestic Saving does not have a significant impact. The effect of the Exchange rate was observed positively only on the BSE Sensex and negative on the S&P CNX Nifty.
Patel S. (2012) studied the impact of macroeconomic variables on the stock market movement. The author followed a systematic approach in studying the impact of the macroeconomic variables on the stock market (BSE and NSE). The variables selected for the analysis were Interest Rate, Inflation, Exchange Rate, Index of Industrial Production, Money Supply, Gold Price, Silver Price and Oil Price. The separate equations were formed of the dependent and independent variables were

SENSEX = \( f \) (IR, IF, ER, IIP, MS, GP, SP, OP)

NIFTY = \( f \) (IR, IF, ER, IIP, MS, GP, SP, OP)

The paper identified the Pearson correlation coefficient between Sensex and Nifty to be .99. All the time series were presented with their descriptive statistics of Skewness, Kurtosis, and Jarque bera test for normality. Later to test whether the series were stationary or not, all ADF (Augmented Dickey Fuller test) was conducted at level and first difference with contact and trend values. Later the study applied granger causality test to separate pair of variables to identify the cause and effect relationship among the variables and the results disclosed that the results show that the Exchange Rate granger causes both stock market indices, i.e. both Sensex and Nifty. Both the stock market indices, in turn, granger cause IIP (Index of Industrial production) and Oil Prices, while for all other variables the Null Hypothesis was rejected. The biggest drawback of the analysis is the usage of monthly data, as it was not possible to draw daily data for few of the variables but few variables could be studied on daily basis.

Symeonidis et. al. (2010), investigated the empirical association between stock market volatility and investor mood-proxies related to the weather. The weather conditions that were tested included cloudiness, temperature and precipitation and also studied the environment (night time length). The study observed that the relationship between cloudiness and length of night time were inversely related to historical, implied and realized measures of volatility. The strength of association was observed to vary with the location of an exchange on Earth with respect to the equator. The paper do not analyzed weather deviations from seasonal norms and dummies representing extreme weather conditions did not offered additional explanatory power to the dataset.
LR 2.7: Pattern of investment exhibited by Foreign Institutional Investors

Literature review was done to investigate the pattern of FII investment and is analyzed across various parameters. The studies explained the basic nature of FII trading in Indian stock market, involvement of FII during the process of financial liberalization and their impact on stock market, the most heated topic of establishing a causal relationship between FII investment and stock market movement and identifying the factor responsible for FII showing interest in the Indian stock market.

Rajesh Chakrabarti (2001) studied the nature and causes of FII flows in India through empirical analysis, in what pattern the FII made the investment and what were the reasons behind their investment decision during pre and post Asian crisis period i.e. May 1993 to December 1999. On the basis of various analysis and interrelations the study observed that

(a) While the flows were highly correlated with equity returns in India they were more likely to be the effect than the cause of these returns. Again debatable, it could be the effect version of FII flows during that particular time period, initially could be the effect version be valid but with time FII investment trending is also observed by the domestic investors as a factor responsible for market growth.

(b) The paper also studied the factors responsible for FII investment and identified it to be the returns of the domestic equity market and view the international stock market independently and to study and invest according to the performance of the individual market but the impact of the other stock exchanges cannot be nullified.

The study observed strong positive correlations among the FII investment and studied the causality among the two variables using granger causality. The study followed a monthly approach of studying the relativity which is not suitable for a sensitive market and its sensitive indicators.

Most of the empirical studies conducted that studied relationship between FII and the stock market movements are mainly concentrated or are performed at the aggregate level i.e. The studies pointed out towards the positive relationship between FII investments and movement of the Bombay Stock Exchange share price index. K.S. Chalapati Rao et.al. (1999), made effort to study the effect of individual FII on the stock market, the major deterrent in the process of availability of data, identification of the FII categories so study was restricted. Complexity in the ownership pattern and the modes of investment made the picture unclear.
The authors then followed the N-30D filings of investment funds with the US capital market regulatory body SEC. then identified the FII trading in Indian bourses and the quantum of business done. The study observed that the FII were more interested in the set of high turnover companies as the shares of such companies are assumed to be more liquid. The FII do not want to stock their money in the shares that are less liquid, again designating their money to be “Hot Money”. The study also identified the Mutual Fund industry also focused on following trends by FII’s. FMCG were observed to be the most sought of category for the investment.

Paramita Mukherjee et.al. (2002), extended the work done by Chakrabarti (2001), established the relationship between the FII and two fold covariates, first level study was of betas (domestic and international markets) and the important macroeconomic variables like exchange rate, short term interest rate and IIP, assumed to be of importance to the FII’s. others macroeconomic variables like GDP and the rate of inflation are also important to be considered. The authors analyzed daily data ranged from January 1999-May 2002. The study was useful to us as the current research also focused on studying the daily data movement. The study transformed the data in the form of ratios at various scales and markets for better comparisons and the volatility is studied with the lag of previous 7/15/30 days’ daily returns. The paper was initiated with the assumption that the market is greatly affected by the demonstration effect of the FII’s but the same was not observed. It was observed that the behavior of FII’s is influenced by the market returns and its volatility when studied at a day’s lag and the volatility of the corresponding international market imparts great affect on the behavior of the FII’s.

Nilsson (2002) has explored that stock market liberalization can lead to excess volatility possibly on account of noise trading for Nordic stock markets using the Markov regime-switching model. He finds evidence of higher expected return, higher volatility and stronger links with international stock markets characteristic of the deregulated period in all Nordic stock markets.

The FII’s are also observed to follow the behavioral approach. Many studies that examined the behavior of foreign institutional investors’ broadly suggested two types of trading behavior— a. Momentum (M) or positive-feedback trading (PT) and

b. Herding (H) strategies,

which may or may not be within the bounds of rational behavior?
Gordon James P. F et. al. (Working paper, 2003), tried to discover the factors attracting or are held responsible for portfolio flow in the Indian market. The paper built an econometric model based on multiple regression on the monthly average data (March 1993-Oct.2001). The two major factors identified were domestic influencers and external influencers. Further classification of the external influencers was made as regional and global. Domestic determinants of a country are mentioned as macroeconomic variables and political variables. Two strategies were identified as Top Down Approach (First country factors and then domestic factors) Bottom Up Approach (Whatever the economic fundamentals few prominent organizations are invested in). The regression results indicated that the a combination of global, regional and domestic macroeconomic variables are great influencers in determination of FII flows.

Batra Amita (2005), studied the volatility persistence in the Indian stock market on account of the process of financial liberalization. The study applied Asymmetric GARCH model to study the relationship observed that sudden shifts in stock index volatility revealed that the period around the 1991 BOP crisis and the subsequent initiation of economic reforms in India was the most volatile period in the stock market. Further the study observed no coincidence between volatility of portfolio capital flows in and out of the stock market and the volatility shifts in stock returns in India.

TT Ram Mohan (2005), studied the types of agencies registered and are operating as FII in the Indian financial market. The study indicated what type of foreign entities take interest in the Indian market and are registered as the institutional investors. The type of foreign entities can be broadly grouped in following categories Insurance Companies, Pension funds, Investment companies (including closed and managed investment companies), mutual funds, unit investment trusts and hedge funds.

RBI is the organization controlling the functionality of the FII’s in the Indian market. FII’s made the purchases taking the Indian banks as intermediary and RBI on a daily basis ensures that the investment amount does not exceed the cap decided. According to the RBI guidelines; The ceiling for overall investment for FIIs is 24 per cent of the paid up capital of the Indian company. The limit is 20 per cent of the paid up capital in the case of public sector banks, including the State Bank of India. The cap is relaxed on considering the sectoral cap. As far as the debt market is concerned it is also relaxed with developed times, started with $500 mn raised to 1 bn and subsequently to 1.75 bn and till recent declaration the cap on
corporate debt is $51 billion (taking consideration of sectoral cap). Government is easing norms to introduce more FII’s in the government debt also.

The financial market is also under the process of further relaxing the norms by introducing relaxations under the FPI scheme i.e. Foreign Portfolio investors observed in the SEBI (Foreign Portfolio Investors) Regulations, 2013 a new set of rules for foreign investors.

T T Ram Mohan (2005) through his paper demonstrated a concept building approach by answering the questions such as who are these investors?, How important they are to the economy in relative terms with the BOP and do their volatility posed any systematic threat to the system. The author studied the presence of FII in terms of both debt and equity sector and the representation of FII’s among various sectors of the economy. The benefit of the institutions was observed in improved position of BOP, but on the other hand the institutions and their hot money was held responsible for making the system more sensitive and volatile.

Prassana (2008) indicated the factors influencing the FII investment and empirically observed through panel data analysis technique of time series analysis that the foreign investment was more in companies with higher volume of publicly held shares. The promoters’ holdings and the foreign investments were inversely related. Avoid companies with family shareholding of promoters is substantial. Among the financial performance variables the share returns and Earning per share were most influencing variables on their investment decision. The study also observed that the foreign institutional investors with draw their money when the stock market performance starts sliding down.

Kumar Sundaram (2009) established Granger causalty among the Index performance and the exchange rate and FII investment. The study investigated the relationship following a structural approach i.e. testing for the stationarity of the series: NSE index, Exchange rate and FII. The first two variables index and exchange rate were integrated to the order one, while the FII investment was integrated to the order zero. The two variables that were non stationary at the initial level and were cointegrated at the same level were tested for long term cointegration through the Johansen Cointegration test, the Index and the exchange rate expressed no cointegrating equation and thus resulted in no causalty relationship among the variables. Another relationship was observed between the Index return and FII investment, since the two variables were not cointegated at the same level, so the author skipped application of Johansen Cointegration test and applied granger causality test. The result from
the test observed Stock return tends to Granger-cause FII at 5% level of significance. However, the reverse causality doesn’t work.

Saha (2009) appraised the effect of FII investment on the Indian Stock Market, the paper acted as a concept builder about the role of FII in Indian stock market. appraised the performance of the Indian stock market and also included the role of the FDI. The paper compared the investment pattern followed by the mutual funds and FII.

Ray (2009) studied the causality among the FII investment and the Indian stock market returns on the daily data observed for a period of 2 years ((2006-08)) with 612 observations. Following the econometric approach the author first tested the series for their stationarity using the Augmented Dickey Fuller test (ADF test) and Philips Perron test (PP test) and if the series were proved to be stationary the author tested the causality with the Granger Causality test. The study observed unidirectional relationship among the variable i.e. the return of the Indian stock market seem to cause the FII investment but the reverse relationship was not validated.

Výrost and Baumohl (2010) studied the cointegration among the various major indices at the international level including the US, European, and Asian market. The study used the granger causality to establish the cause and effect relationship among the indices. The study followed two approaches: Using the traditional form of the technique where all the common dates were considered for the analysis and used the logarithmic values of the indices, while at the other form the data was well synchronized according to the various dates and after considering the settlement for various holidays. As the markets were operative at different time zones, the factor was also considered and the causality was identified. The outcome of the former method expressed only that the US market played a dominant role and influenced the performance of all the other indices, while when the data was synchronized to the dates, the reverse of the indices i.e. other indices creating an impact on the US market i.e. for all the indices the study observed a bidirectional causality. Mentioning the previous empirical studies done which expressed and proved that closing prices are not stationary at the base level. The continuous returns were made after taking the first differences of price logarithms of a series stationary (the Phillips-Perron, ADF-GLS, KPSS, and Zivot-Andrews tests were applied. The data was represented in the local currencies.

With two decades of investing trend, it was observed that the FII’s generated huge impact on the performance of Indian stock market. The sensitivity of the Indian stock market toward the
FII investment is observed to be very high. Earlier the institutions were exhibiting an effect version now the institutions are also responsible exhibiting the cause version. At one point of time when the institutions provide acceleration to the market on the other hand there behavior is followed by other investors and result in the volatility. The biggest question in front of the researchers is to establish a cause and effect relationship. The question goes as Is the stock market returns are responsible for FII investment in India or because of FII investment the Indian stock market is generating returns. The excessive volatility and the impulse decision of the FII investment forced the policy makers to term the funds invested by the FII as “Hot Money” and are always concerned about the role of hot money on the Indian stock market. FII money is considered to be highly sensitive to slightest shock in the economic and market fundamentals. Purchase and sell decisions of the FII creates a big impact on the market sentiment. Dhiman (2012) for a study period of 2006-2011, Abhijeet Chandra, (2012) established cause and effect relationship applying Granger-causality approach between returns of the Indian Stock market expressed in S&P Nifty and FII investment. Investment by FII’s is because of the returns of the Indian stock market, also proved the relation vice a versa but for a shorter period of time. The proof of the relationship between the FII flows and stock market movement are not only observed in Indian stock exchange but also observed in other international stock exchanges like in Istanbul stock exchange Cahit Adaoglu et. al. (2013) applied granger casualty established before and after the start of European Union (EU) accession negotiations of Turkey, it was observed that under speculative conditions the market observed a negative trading. Tayde Mangesh (2011) mentioned that FIIs exhibited herding and positive feedback trading during different phases of the stock market. The issue of positive feedback theory creates volatility by adversely affecting the stock prices.

Vardhan and Sinha (2014), studied the influence of FII investment on the Indian stock market and also identified the factors behind the fluctuations in their investment. The study explored the relationship between the FII investment, impact on Indian stock market (BSE sensex), integration with the US market through FII’s and effect of exchange rate and applied various VAR models. The study was conducted by dividing the entire time series into four time sections. The paper indicated the existence of bi directional casualty (Granger Casualty test) among the FII investment and return of equity market. By the usage of Generalized impulse Function, variance decomposition and Granger causality test; it was found that the change rate has no affect on the inflows of FIIs; however out flows are influence the change
in the exchange rate. US equity market has no impact on the inflows but the return has an impact on the outflows.

S S S Kumar (working paper), studied the impact of FII on the Indian stock market following a twofold approach. Are the FII’s responsible for movement in the market? The study was done for 15 years 1992-2005. The author first tested the whether the data is stationary or not (Augmented Dickey Fuller tests Hamilton, J. 1994), and applied simple regression with the advances to decline ratio as the dependent variable and the institutional purchases to sales as the independent variable. Different stages of analysis were conducted; initially all the institutional participants were taken together, at next stage the two institutions FII and MF’s were separated and the effect is studied separately. The author also studied the granger causality among the two types of institutions.

Dasgupta (2014) conducted literature review available on FII investment in Indian stock market and the driving forces identified domestic stock market returns, domestic macroeconomic fundamentals, and India-specific stock market-driven factors have been the most influential determinants amidst contradictions and similarities in empirical studies.

LR 2.8: Pattern of investment by Mutual Funds:

Nalini Prava Tripathy (1996), Rao P. Hanumantha, Mishra Vijay Kr. (2007), explored the Indian Mutual Fund Industry and its development since the beginning of the liberalization process. The authors discussed the structure of the mutual fund industry, its regulators and the participating investors, advantages and drawbacks. They indicated the growth phenomena of Mutual Fund industry with increased participation of the retail investors, as they find the intermediary to be the most suitable to get a taste of the equity market. The paper also projected the future scenario of the mutual fund industry to be on the north side. The concern exhibited was the competition from the secured return schemes and lack of awareness among the investors. The paper was a concept builder and was theoretical in nature. No analysis part was involved using any statistical technique. The two studies were done to built the concept and awareness about the Mutual Fund industry. The study by Nalini Prava Tripathy (1996) was done in that era of MF where only public sector players were functional. So the author advised to open the industry to the private players also.

G. Shekhar (2013), studied the difference of participation in mutual fund industry though private and public organizations. The paper presented the AUM holding of various investors
and observed that the private sector played a vital role in economic development as they have major market share contributing nearly 90 per cent. The inclination of the retail investors toward a particular scheme or fund manager is because of their success observed in the past and the current and expected NAV of the fund scheme. Deb et. al. (2007) answered the question most prominent in the mind of the retail investor while investing or selecting a particular scheme of mutual fund i.e. how to evaluate the performance of mutual fund and how to identify a successful fund manager. Two skills were identified to be exhibited by the fund managers to be successful fund manager and getting ensured that their fund will generate desired results i.e. Market Timing Skills and Stock Selection Skills. the analysis involved application of pooled regression and observed a lack of market timing ability and presence of stock selection ability existed among the Indian funds managers in both unconditional as well as conditional approaches.

Participation of retail investors in Mutual Funds

<table>
<thead>
<tr>
<th>FUND</th>
<th>INVESTOR TYPE</th>
<th>ASSETS</th>
<th>FOLIOS</th>
<th>ASSETS</th>
<th>FOLIOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equity-oriented</td>
<td>38</td>
<td>369</td>
<td>43</td>
<td>368</td>
</tr>
<tr>
<td></td>
<td>HNIs</td>
<td>127</td>
<td>40,550</td>
<td>140</td>
<td>38,623</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Balanced</td>
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<td>46</td>
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<td>Retail</td>
<td>9</td>
<td>2,940</td>
<td>10,455</td>
<td>2,774</td>
</tr>
<tr>
<td>Gold ETFs</td>
<td>HNIs</td>
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<tr>
<td></td>
<td>Retail</td>
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<td>99</td>
<td>866</td>
<td>235</td>
</tr>
<tr>
<td>Other ETFs</td>
<td>HNIs</td>
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</tr>
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<td></td>
<td>Retail</td>
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<td>52</td>
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<tr>
<td>Total Industry</td>
<td></td>
<td>637</td>
<td>47,966</td>
<td>660</td>
<td>46,978</td>
</tr>
</tbody>
</table>

Assets are in Rs '000 crore, folio numbers in '000; ETFs: exchange-traded funds; HNIs: high net worth individuals.

Source: Amfi

The study indicated that during the years of volatility and uncertainty, the investors moved their portfolio from equity oriented schemes to gold traded schemes. At the time of uncertainty the investors resorted to tangible securities. Next the study analyzed separately the pattern of investment exhibited by the retail investors.

LR 2.9: Pattern of investment Retail Investor

Individual investors are the financial market participants who buy and sell securities for their personal account, and not for another company or organization. Retail investors are also known as an "individual investor" or "small investor".
Investors Rationality depends upon three factors

Demographic Factors

Cognitive Factors

Economic Factors

Koonz et al. (2005), proposed and tested a risk model that explained how investors perceived financial risks. The model combined conventional decision-theory variables probabilities and outcomes-with behavioral variables from psychology research done by Slovic (1987). The study was conducted on the MBA students with experience in investing. The respondents were asked to judge the riskiness of the asset class (Low, Medium and High). After indicating the quantum of profit and loss related with each category. Participants' mean judgments for the behavioral, decision-theory and overall risk questions for the 19 financial items was observed and found significant mean difference. The paper indicated a new behavioural traits dimension of dread (great fear and apprehension), higher potential loss outcome leads to greater dread, and greater dread, in turn, leads to greater perceived risk. The study only included the aspect of only judging the risk aspect, the application part i.e. its impact on the actual decision was not covered.

Ratanjee (2006), presented the research conducted by Gallup organization and Thailand stock market (2006) studied the behaviour of retail investors and identified the motivators and barriers to the stock purchase/trading behaviour either positively and negatively. The study was conducted to identify the measures to be followed to restore the faith of the investors which was shattered after the market suffered from the Asian crash of 1997.

The study quoted that “Thai are vary of investing in stocks, they believe it to be the worst game of gambling”. So it was essential to clear the misconceptions from investor’s mind. An effort was made to identify the factors which are affecting investors to invest or to not invest in the market. The factors were classified as: Attitudes and Disposition, Motivators, Barriers and Influencers. The study indicated that the investors can be classified on the basis of these traits. Based on the four factors, the investors were broadly classified in three categories as Potential, Active and Inactive investors. Among the potential investors 5 categories of
investors were identified as Young risk takers, Optimistic and confident, Shaky but willing, Cautious and Risk Averse, Unaware but interested. Active investors included the investors as Adventurers/ Opportunists, Cautious optimist, Risk Averse and among the Inactive investors included Long term Strategic investors who were waiting for opportune movement and the remaining percentage was of quitters.

In the category of the potential investors’ highest percentage of Young risk takers further supported the fact that the young individuals were the one with high end motivation and zeal to cope with the stock market volatility), Among the active investors the adventurers were the one operating with the highest percentage, and among the inactive investors with long term planning were found invested.

Alok Kumar, Charles M.C. Lee (2006) studied the data of retail investors and identified that the trades performed by the investors are systematically correlated, i.e. they perform in concert especially the shares with high retail concentration small-cap, value, lower institutional ownership, and lower-priced stocks. Barber and Odean (2007), observed that the excessive trading by the retail investors resulted in generating less profit earning than the average investor because of selecting high beta stocks and turning their portfolio frequently. The authors suggested that the retail investor should avoid excessive trading as it reduces the quantum of investment. The resulted overconfidence is because of the most talked of behavioral bias of overconfidence.

Livanas John (2007) studied the application of the “Prospect theory” proposed by Kahneman and Tversky in the construction of optimal portfolio. According to the standard finance theory, various indifference curves of the investor’s options were obtained and the efficient frontier that matches with the indifference curve is selected. But the peculiar feature about the investor is their tendency to weigh and the effect of the profit and loss at different levels, “Losses loom larger than gains.” The study in order to develop a portfolio based in investor’s preference empirically derived a quantifiable set of investors’ utility function for each dimension analyzed: risk (or probability of loss); return (or chance of per annum return), and time-horizon (determined by selecting from alternative periods for which money would be locked up). The author developed Iso utilities graph derived from quadratic equation and reflected the value differences of gains versus losses.

Retail investors are considered as one of the major influencers of the stock market movements. Malcolm Baker (2007), under their working paper series studied the effect of
sentiment and the limits to arbitrage explained that what types of stocks are affected by the sentiment. The study was initiated with a basic assumption that stocks of low capitalization, younger, unprofitable, high volatility, non-dividend paying, growth companies, or stocks of firms in financial distress, were likely to be disproportionately sensitive to broad waves of investor sentiment. The authors followed a contrarian approach by following a “top down approach” approach than to the general behavioral finance theory of “bottom up”.

Arun Thukral (2008), specified the fact that “Has the investor matured enough”, to understand the many choices and offering which are available to him today and acting more rationally than earlier or has he become more confused and looking for answers & guidance. The author tried to compare the investor behaviour along two time horizons. As along the two different times the products have evolved and matured the author wanted to identify are the investors matured enough to understand the new evolved features of the products. The author identified that the investors with higher risk appetite wanted to experiment and try new and exotic products in the name of diversification. Such tendency of experimenting with the new financial products and utilizing them for the correct purpose has resulted in emergence of new options within the same or fresh asset classes. The author suggested that it is important for the the investors to evaluate the options available and to concentrate on the core competencies and should take advantage of good investing solutions.

Brijesh Janadhanan (2008), the author identified the errors and mistakes that the retail investors are attracted to. Few of them were

Buy Knowledge: the investors exhibited too much dependency on suggestions made by financial consultants rather than self appraisal, Investors trade first and then learn, during the process of learning incur losses which acted as a restricting factor for further investment, Herd tendency, late for the trade, caught easily in the sensalization of the media, too much dependent on tips, too much involvement in market evaded them from identification of many other growing trends, they do not exit, the greed takes over the psychology just at the time all the profit objectives are fulfilled, they do not feel the pain of losing the money: the tendency is termed as “House Money” and the investors have the most volatile plan

The author suggested that the investor should be self aware and should perform sufficient analysis before investing in the market. Too much dependency on the external influencers must be avoided.
Evans (2009), the author discussed the worry of the falling number of retail investment in the US stock market, though the SEC (Securities Exchange Commission) was observed to follow a protective approach for the retail investors and made significant laws but the matter lacking was the implementation part and the role of intermediary agencies creating insecurity.

A kumar (2009) studied the tendency of the retail investor with respect to them following the gambling activity while operating in the stock market. The general tendency of the individual investor is not being rational and practical and in the absence of such features their most sought of stocks are with lottery features, and like lottery demand. The inner urge of getting extra and with no additional costs incurred is prominently observed in the paper and observed that during the period of recession and economic downturns pushed the investor more towards selecting such shares with sudden results.

Kabra et. al (2010), studied the perceptions of the retail investors and the factors that influence investment behavior and ways these factors impact investment risk tolerance and decision making process among men and women and among different age groups. The paper followed the descriptive methodology and conducted the survey among the sample of 700 respondents. In order to test the test the validity of the questionnaire, the authors computed the Cronbach alpha, followed by determining whether the sample size was adequate or not, the KMO value was computed (.5-1), the analysis included the technique of factor analysis to reduce the number of factors and finally six factors were identified Security, Opinion, Awareness, Hedging, Duration, Benefits, different regression models were build after considering the various demographic variables. The study observed that the individual investors prefer investments according to their risk preference, the investors do not make blind investment, as majority of the investors were found to be using some source and reference groups for taking decisions. The study also gave indication of the existence of cognitive illusions such as overconfidence and narrow framing, the investor considered multiple factors and seek diversified information before executing some kind of investment transaction. The purpose of this study was to determine whether the variables such as demographic characteristics (age, gender) and investment patterns could be used individually or in combination to both differentiate among levels of men and women investment decisions and risk tolerance and develop some guidelines to the investment managers to design their investment schemes by considering these views of individuals.
Abhijit Chandra (2010), discussed the impact of behavioral biases on Individual investors. The author studied that the retail investors are said to be more influenced by behavioural biases such as herding, overconfidence, and reinforcement bias etc., compared to their institutional counterparts. The paper tried to explain the behaviour of the retail and individual investors that either they are only the followers who buy such stocks that are on the rise, or are they the leaders that determine the direction of trades? The researcher identified that the individual investors trading volume acted as a significant predictor of stock returns in Indian stock markets as they do in all other stock markets of the world. The author suggested that the role of individual and small investors in determining the direction of the stock market movement cannot be ignored. But the decision making by the retail investors were observed to make their investment decisions based on psychological phenomena rather than on rational issues.

Kelley and Tetlock, (2010) analyzed the 5-year data on retail trade orders, representing 225 million executed trades and $2.6 trillion in volume, to explain how it is that retail traders regularly predict stock price movements. Through the research it has been identified that the Retail and individual traders bought stocks in advance of price increases and selling in advance of price decreases. The study discussed “selection bias concerns” and separately examined aggressive (market) and passive (limit) orders. The authors observed that both aggressive and passive net buying positively predicted firms’ monthly stock returns with no evidence of return reversal. Only aggressive orders correctly predicted firm news, including earnings surprises, suggesting they convey novel cash flow information. Only passive net buying followed negative returns, consistent with traders and provided liquidity and benefiting from the reversal of transitory price movements. These actions acted as contributors to market efficiency.

N. Sundaresha Subramanian and Anirudh Laskar (2010), the article specified that after experiencing large losses during 2008 and due to continuing uncertainty in the direction of equity markets, retail investors turned out to be day traders instead of building long-term portfolios. As it was observed that during the Bull run, the delivery based trades were 42%, which reduced to 22% following the uncertainty. The article specified that during the period of 2010, retail investors, accounted for at least half of the total turnover. The trend was observed to be less of a “casino mentality” and more a lack of conviction in start building portfolios. The population of retail investors in capital market was low and of this most of the investors, who have knowledge about markets, opted for day trading. The investors who have
burnt their fingers due to adverse market movements moved out. The authors suggested that the regulatory and policy authorities must indulge in providing incentives such as tax exemption, reduction of brokerage charges, reduction of Security transaction tax etc. to the investors which may improve the contribution in the market.

**Benett et. al. (2011),** the paper aimed to analyze the investors’ perception of the various factors that influence the Equity Stock Selection Decision. The descriptive study was conducted through questionnaire survey in the area of Tamilnadu with a sample size of 400 retail investors during 2010. Two types of variables were considered for analysis: Dependent and Independent. The 29 dependent variables were identified through literature review and in depth interviews and the independent factors were the demographic variables. The dependent variables were observed on 7 point likert scale and the independent variables were observed in nominal scale. With the help of factor analysis 9 factors were identified and sorted on the basis of the Cronbach alpha value. The study that the average value of the five factors, namely, Return on Equity, Quality of Management, Return on Investment, Price to Earnings Ratio and various ratios of the company influenced the decision makers. Further, other five factors, namely, Recommendation by Analyst, Broker and Research Report, Recommended by Friend, Family and Peer, Geographical Location of the Company and Social Responsibility were given the lowest priority or which had low influence on the stock selection decision by the retail investors.

Retail investors can participate in the financial market through various instruments available, the selection of the investment asset completely depends on the risk and return appetite of the retail investor. Gaurav Agarwal (2013), studied the awareness and preference of the retail investors towards investment avenues like Banks, LIC, PPF, Bonds, Mutual Funds, Real estate, Commodity Market, Gold, Equity Shares, Futures & Options and instruments of Post Office like NSC, KVP, MIS and others. The study observed that the investors are most aware of the Bank investment avenues and least they knew about derivatives and commodity market, with equity market stood to be preferred by 68% of the respondents, but prefer the equity investment avenue for generating returns but preferred by investing through mutual funds and if given extra amount expressed interest in real estate. Seonglim Lee et.al.(2000) studied the saving pattern and financial management practices in relation to the income in the Korean nationals, observed Household income and householder’s education had a significant positive effect on saving — higher household income and education are related to a higher probability of saving. The study provided no indication of the preference towards application
of the amount saved among the different asset or investment class. Graham and Kumar (2006) observed the stock holdings and trading behavior among households and to observed the phenomena of dividend clienteles. Preference for Dividend yield among the household investors displayed a direct and indirect relationship with age and decreases with income. The study focused on behavioral “Attention” hypothesis, and observed that the older and low-income investors purchase stocks following dividend announcements. The stocks with dividend announcement draw the attention of the investor and specially preferred by older and low income households. Barber and Odean (2008) differentiated among the retail and institutional investors buying behavior of stocks and concluded that individual investors are net buyers of attention-grabbing stocks, e.g., stocks in the news, stocks experiencing high abnormal trading volume, and stocks with extreme one-day returns. Such practices are followed by the individual investors because of paucity of time and the difficulty faced by the investors identifying the profit generating stocks so easier to purchase the prominent information making stocks and even easier to sell such shares. Soeren (2008), studied the retail investors trading behavior and its impact on the future stock returns.

According to a study conducted by ISB School of Business Analytics, at the end of the year 2012, individual retail investors in India, numbered 2.02 million largest in the world, and it stands out to be 1.6 crore (demat holder account) till the end of year 2013. While according to a survey conducted in the year 2007 by IIMS Dataworks 5.8 million out of 321 million salaried individuals, or 1.81%, in the age group of 18-59 years, hold a demat account. The study disclosed that tough the investors hold demat account but such investors cannot be apprised as active investors, as only half of the account holders (5.8 million) were actively investing in the stock market.

Retail investors' participation in the equity cash market is at a seven-year low, with more and more savings finding their way to properties, gold, risk-free avenues like bank deposits and high-yield debt instruments. Other reason is the static performance of the equity market.

Till 2005, retail investors were active in the Indian equity market. Their contribution to the daily turnover was over 75%, while foreign institutional investors (FIIs) contributed about 14%. But, since then, the trend has changed. In 2012, FIIs' contribution to the daily turnover grew to 35% while retail investors' contribution declined to 48%. The percentage daily turnover attributed to domestic institutional investors doubled from 8% in 2007 to 16% in 2012. Midcap stocks belonging to sectors like real estate, infotech, infrastructure and capital
goods - favorites among retail investors - have moved little

Data: Economictimes.com

The graph above indicated the proportion of retail investor in the Average Daily turnover of cash market. The proportion hold a good percentage in the initial years but the value is continuously decreasing, after suffering a shock in the year 2008 because of US crisis, the investor regained the confidence in the next year but the proportional value at the end of the study period i.e. in the year 2013 seem to be low than the value at the time of US crisis. Domestic uncertainty, fragile economy and political turmoil are all responsible behind increasing disinterest in the market. The regulatory agencies contribute serious and genuine effort to make the investment environment safe and risk free for the retail investors. The regulatory authorities believe themselves to be the advocate of the investors especially retail household and individuals investors (Langevoort, 2009) LC Gupta (1998) mentioned that the retail investor’s loss of interest in the market is because of erosion of investor’s confidence in the corporate India and the regulatory authorities made stringent norms to ensure that the corporate follow a true ethical behavior unharming the interest of the retail investors and ensuing the corporate governance practice.
A study on “The Changing Market Environment Investors’ Preferences, Problems, Policy Issues” was conducted in the year 2003-04 sponsored by Ministry of Company Affairs in order to study the inclination of household investor toward investment in secondary equity market. The study revealed the popularity of the asset class on the basis of different income class, age group. The study mentioned that “equity share ownership had increasingly become a middle class phenomenon in India since around 1980s. The first household investor survey conducted in 1990 found that the domestic middle-class households had become the backbone of the Indian equity market”. The study identified that during the year 2003-04 “equity shares have achieved a fairly high degree of penetration among the well-to-do middle class investors”. “Shareowning households were nearly 74% among the sample households in the lowest income class (upto Rs. 10,000 per month), going up to more than 85% in the highest income class (above Rs. 25,000 per month)”. Operating in the share market was observed to the phenomena suitable to the high income generating investors. The study revealed that till the year 2004, “Share owning individuals hardly constitute 2% of India’s total population”. The study was conducted through personal interviews, questionnaires dissemination in phases I & II. When the investors were asked to allocate the fund among different investment assets, Govt. saving schemes came out to be the most popular investment option. The investors were also asked about the future investment practices to invest in the asset class of equity, mutual funds and bonds. To the surprise, the investors indicated the most likely investment avenue to be Shares (66%) followed by the mutual fund schemes.

The study “Indian retail investors tend to lose in stock markets” conducted in the year 2012 tried to study the relationship between the Trading strategies of the Indian Retail investors and concept of Behavioral Finance. The study mentioned that “Retail equity investors in India systematically lose out to other categories of players because they sell the winning stocks too quickly and hold on to the losing stocks too long”. In the theory of Behavioral Finance such effect was studied under the “Disposition effect” and “Overconfidence”. The study was conducted on daily trade data during Jan 2005 - June 2006, of 2.5 million retail investors, data was retrieved from National Stock Exchange. The number of transaction came out to be 1.4 billion with value of Rs. 37 trillion. De observed that, "the analysis indicated that retail investors increase both buying and selling if their trades in the recent past are marginally profitable or barely in the positive territory, and decrease them if they are unprofitable or in the negative territory, ignoring transactions costs”. As a result the
institutional investors outperform the market as they are considered to more informed and more rational.

Nandi (2013), in his article analyzed the participation of retail investor in the Indian equity market, for the same study period of 10 years (2003-2013) as the current study. The author mentioned that at the initial period of 2003, the retail investor participation was 84% (primary and secondary) of the total turnover of the market with the percentage to be just 34%. In spite of the current high movement of the Indian stock market, the retail investors had directed their funds towards bank deposits, National Savings Certificates, high-yield debt instruments and tax-free bonds. The biggest force behind the lack of interest in the market was because of distrust in the brokers. The behavioral feature of cautiousness was strongly observed in the retail investors post the losses of 2009.
LR 2.10: Key Observations

A very important section of literature review i.e. the key observations are discussed.

1. Literature review on attitude enabled the formation of concept and with the help of the studies done the researcher was able to identify the form in which the attitude could be measured. The studies indicated that the attitude stays dormant in the minds but when asked about the stimuli, the individuals indicate the favorable or unfavorable attitude about the stimuli. Attitude about a stimulus was not suggested to be measured at a dichotomous form of “Yes” & “No”, a need was felt to develop scales to measure attitude. The "social distance" studies of Bogardus (1925) and a monograph by Thurstone and Chave (1929), and are two important milestones which marked the rise of interest in "attitude scales. The current study understood the importance of scales in measuring attitude and thus adopted the 5 point Likert scale to measure the different degree of attitude towards different stimuli.

2. Katz, expressed opinions as the verbal expression of the attitude, and the study sought the opinion of the respondents about investing in stock market. As suggested by traditional view, Krech, Crutchfield and Ballachey (1962) suggested three components and same were followed in the study to identify the respondents attitude towards secondary equity market: Cognitive (thought, belief, idea), Affective (Feeling & Emotions) and Behavioral (to actually act). The studies also identified aspects of attitude i.e. how attitude was formed, strength, and specificity. The studied differentiated between levels of attitude as: Belief (easy to change), Attitude (a bit difficult to change) & Personality (imbibed deeper and difficult to change). On the basis of their readiness to change, the concept of attitude was selected. As beliefs are easier to change but the market need a bit of trust and stickiness to the decision once made so it’s important to measure the attitude.

3. Attitudes have two attributes: content (indicates the object of the attitude) as well as intensity (measured at greater and lesser vehemence). It has been observed that there has been a U shaped relationship between the attributes of intensity and of content. This means that the more extreme attitudes (either positive or negative) are usually held with much vehemence, whereas the more neutral position may be defended with far less intensity. During the formation of a scale the neutral point is point of minimum strength or intensity. So the respondents within the category of 2.5-4.5 could be the one targeted to change their investment pattern and favor of one
investment avenues. The results cannot be defended with 100% surety, as one of the drawbacks of measuring attitude is that “listening to the third ear”, and with the questionnaire such accuracy is not possible.

4. Though the literature on Behavioral Finance indicated numerous heuristics, the studies by Ricciardi and Simon [2000], Camerer and Loewenstein, (2004), Victor Ricciardi (2005), Andrikopoulos (2005) build the concept of behavioral finance and how the investors does not always use the rational thinking while investing. Andrikopoulos (2005) indicated the two basic requisite of a sound investment decision making, intuition and knowledge gained from past experience. The work on overconfidence indicated various facets of the heuristics, one is that when investors are often too certain of their judgment (certainty overconfidence) Roger Clarke & Meir Statman, 2000. Talking of investor overconfidence demands discussion on the breakthrough work by Brad Barber and Terrance Odean (2001), primarily studied relationship between overconfidence and gender and the impact of overconfidence on portfolio performance. Overconfidence is one of the most strongly documented behavioral biases. De Bondt and Thaler (1995) stated that finding that the people are overconfident is perhaps the most robust finding in the psychology of judgment. All individuals at one time or other belonged to any field exhibited a certain degree of overconfidence, Griffin and Tversky (1992), concluded that experts tend to be more overconfident than relatively inexperienced individuals. The investor also exhibit Disposition effect (Shefrin and Statman, 1985), the disposition effect describes a desire for investors to realize gains by selling stocks that have appreciated, but to delay the realization of losses.

5. Indian Vedas like “Gita ”& theories relied heavily on the power of Intuitive thinking, great introspection and experience enhances the ability of the individuals to make sound Intuitive decisions. The power of intuitive decision making is appraised by great leaders involving Indian & International: Krishna in Gita, Dr. Radhakrishnan when we talk of Indian leaders and Jack Welch, George Soros, Michael Eisner believed in Intuitive decision making.

6. One of the recently developed behavioral heuristic being discussed in the academic community is to study the effect of culture on the investors as indicated by Psychiatrist Rapaille (2007) that apart from having unconscious and a collective unconscious, the individuals also have a cultural unconscious. The study tried to explore the idea initiated by the researchers in terms of faith in the role of

7. Another important factor to be reviewed in the study was the restricting forces, Tyszka (2002), Bruce Brian (2002), David Dreman (2002), Van Swol, Lyn M. Sniezek, Janet A. (2005) discussed the problems faced by the respondents because of faulty recommendations provided by the financial advisor, some because of career pressure and some because of personal biases. The studies also indicated the role of unimproved institutional practises Torre Nicolo G. and Rudd Andrew (2004), and too much dependency on advices from social interactions Hong, Kurbik, and Stein (2004). The review indicated numerous problems identified and dealt separately and individually.

8. Regarding the factor affecting the stock market movement, the studies initially explored the movement with respect to the domestic economic factors Chen et. al. (1986), corporate factors of stock split, Fama (1969), merger Dodd (1961), earnings & dividend announcements Patell and Wolfson (1984), Lin et. al. (1994), Misra and Mahakud (2009) indicated effect of international market movement using GARCH models, Hassler (1999) studied the effect of both domestic & international factors. The studies indicated the applicability of econometrics techniques like cointegration and granger causality and suggested new ways to study the relationship.

The key findings enabled the study to be more focused and versatile, based on the key findings the ideas were further developed in the same direction and also explored the contrarian approach. Next section discussed the research gap and the area where the current study was targeted.


Research Gap & Action by the Researcher

1. The studies done so far centered around the international respondents, the research attempted to study these theories on the Indian respondents and find out the differences & similarities in the responses given.

2. The work done so far majorly explained the concept of overconfidence in terms of frequency of trading exhibited by the investor, an overconfident investor traded more. The study considered a different aspect of overconfidence expressed in terms of: conformity with the decision made & feel of smartness in their personal decision.

3. Most of the work done so far rested their conclusion about the overconfidence behavior exhibited for some other work and on the basis of the observation the investors were ranked as overconfident and in its light analyzed their investment behavior. The study here concentrated the statements on investment behavior and judged the overconfidence while investing.

4. After reviewing the work done in intuition and Intuitive decision making, most of the studied done were in general parlance, very little work was identified in the field of finance, as rational decision making is considered suitable for the field of finance, the study tried to explore whether the Indian respondents used the power of Intuitive decision making while investing.

   So far the effect of culture was majorly explored in the field of Human resource, the field of finance had recently developed the phenomena of studying the effect of culture on the investing decisions, so the study made was an effort to study the effect of few cultural traits on the investing community.

5. While reviewing literature, the study did not found a comprehensive list of the problems faced and dealt simultaneously by the respondents while investing. In order to attract more & more investors it was important to address the problems perceived and actually experienced by the investors, so the study included various factors that could and are restricting investors from investing.

6. While doing the literature review, various econometrics techniques were identified that studied the relationship between the time series variables. The study used the references about the techniques and studied the relationship between the time series variables like investments made by different financial institutions, movement in the market indices for different study period.