CHAPTER II
REVIEW OF LITERATURE

The current chapter is an attempt to review the available literature studied on various issues like investor behaviour, their investment patterns, and effect of demographics on their investment patterns, attitudes in investing, behavioral biases influencing investor behaviour and problems and grievances faced by individual investors. This review will be helpful in identifying the research gaps, underlying the need of the present study and specifying the objectives of the study.

The major issues reviewed under this study include:

- Factors Influencing Individual’s Investment Behaviour
- Investment Preferences and differences in preferences
- Attitudes influencing Investor behaviour
- Behavioral Biases influencing Investment Behaviour
- Problems and Grievances of Individual Investor

2.1 FACTORS INFLUENCING INDIVIDUAL’S INVESTMENT BEHAVIOUR

Information about the major factors that influence the individual investors is sought out by various financial companies so as to design and adjust their marketing activities to achieve successful performance. The decision variables and especially economic decision variables have great influence for individual investors when making stock purchase decisions as well as other investment decisions. Following are the studies highlighting the factors that influence the decisions of individual investors’.

Nagy and Obenberger (1994) examined the factors influencing investor behaviour. A questionnaire that included 34 items represented in seven categories i.e. neutral information, accounting information, self image/firm image coincidence, classic information, social relevance advocate recommendation and personal financial needs was developed to assess the behaviour of investors. The questionnaires were mailed to 500 experienced shareholders whose names were obtained from a proprietary source involved in financial marketing research and 137 usable responses were received. Classical wealth maximization criteria were found as most important to investors, even though investors employed diverse criteria while choosing stock. The firm’s ethical posture and other
concerns such as local or international operations, environmental track record was found to be given only cursory consideration. The recommendations of brokerage houses, individual stockbrokers, family members and co-workers did not influenced the investor’s decisions.

**Kiran and Rao (2004)** identified the investor segments on the basis of their demographic characteristics and psychographic characteristics. Out of 200 questionnaires administered all over India, 96 responses were received. Multinomial Logistics Regression and Factor analysis were applied to the data. The relationship between the risk taking ability and the demographic and psychographic variables was analyzed. The six parameters i.e. safety, liquidity, long term capital appreciation, high short term returns and risk coverage effected the risk bearing capacity of the investors. The authors stated that such analysis could help the financial product designers to specifically target particular segments.

**Merikas and Vozikis (2004)** examined the factors that influenced the investment decisions of Greek investors in the Athens Stock Exchange. The authors made survey with the use of questionnaire that included 26 variables represented in 5 categories i.e. accounting information, personal information, neutral information, advocate recommendations and personal financial needs. Factor analysis was used to identify similarities among variables and group them into identifiable categories. The authors analyzed not only those variables investigated in previous studies but also those generated through personal interviews that had been found to have influence on Greek investors. The results revealed that there existed certain degree of correlation between the factors that behavioral finance theory and previous studies identified as influencing factors for average investor and the investors in the Athens Stock Exchange. Expected corporate earnings, condition of financial statements and firm status in the industry were found as the most influencing factors.

**Al-Tamimi (2006)** studied the factors influencing the UAE investor behaviour in Dubai Securities Market and Abu Dhabi Securities Market. The author used a modified questionnaire with reference to the one used by Nagy and Obenberger (1994). The questionnaire included 34 items represented in 5 categories i.e. self-image/firm image, coincidence, accounting information, neutral information, advocate recommendations and
personal financial needs. Six factors were found as the most influencing factors on the UAE investor behaviour i.e. expected corporate earnings, get rich quick, stock marketability, past performance of firm’s stock, govt. holdings and creation of the organized financial markets. The factors such as expected losses in other local investments, minimizing risk expected losses in international financial markets, family member opinions and gut feelings on economy were found to be the least influencing factors. It was also found that religious reasons and family opinions were not of much importance for UAE investor.

Shim et al. (2008) observed the behavioral patterns of real estate investors. The behavioral factors considered for study were investment profitability, stability, liquidity, regulations, investment locations and well-being. The responses of real estate investors were derived with the help of a questionnaire in order to study the impact of the above stated behavioral factors on the investors of Gumi area of South Korea on their investment satisfaction, investment firm trust and intention to re-invest were studied. The investors of Gumi area of South Korea questionnaire was limited to subjects who invested in seven areas: Gumi Indong area, Gumi Okgye area, Gumi Bonggok area, Bugok, Gimcheon, Gumi Seonsan, and Jangcheon area. Out of 200 questionnaires, 170 responses were received and out of which 147 questionnaires were used for final analysis. Relationships among constructs were conducted through correlations analysis and exploratory factor analysis was carried out to analyze the validity of the measurement variables. It was concluded that Location had positive effect on investment satisfaction followed by liquidity, profitability and well-being. The investment satisfaction derived by investors had equally positive effect on reinvestment intention and trust in investment firm.

Kumar et al. (2008) studied the financial product preferences of Tiruchipalli investors to rank their product preferences among investment choices i.e. post office savings, bank deposits, gold, real estate, equity investment, mutual fund. The preferences of the respondents were known according to their attributes i.e. safety of principal, liquidity, stability of income, capital growth, tax benefit, inflation resistance and Concealability. The study was confined to the Tiruchirapalli Corporation, historic town of Tamil Nadu. Data were collected from April, 2007 to August, 2007. The respondents
were selected from the tax payers list of the local administration office of the Tiruchirapalli Corporation which consists of 60 blocks. So a Stratified random sampling technique was adopted to select about 120 respondents i.e., two respondents from each block. The Analytical hierarchy process and multi criterion decision-making was applied on the collected data to achieve results. The authors studied this concept as they found that the investors are unlikely to determine the financial product preference i.e. which is better on each attribute. So, the investors needed to make choices depending on what is available and what are his own priority ratings of attribute he wants in his product. The rank preferences of investors were post office, bank deposits, gold, real estate, equity investment and mutual fund. The author suggested that further research could be carried out by using Triangular fuzzy number technique for more accurate results. Each financial product can also be analyzed with respect to scheme, companies or brands.

**Al-Tamimi and Kalli (2009)** focused on identifying the relationship between the financial literacy and the investment decisions of the UAE individual investors. A modified questionnaire was employed by the researchers from that used by the Al-Tamimi (2006) and by the Monetary Authority of Singapore (2005). The questionnaire was divided into two parts. The first part identified the demographic variables i.e. age, gender, employment status, workplace activity, monthly income and education level of UAE investors. The Logistic regression was applied to measure the effect of the demographic/ independent variables on the financial literacy. The results revealed a partial positive relationship between demographic and financial literacy. However, ANOVA was applied to determine significant difference between the financial literacy and demographic variables. It was concluded that there was no significant difference in financial literacy on the basis of their age, employment and monthly income but there was a significant difference between financial literacy on the basis of gender, work activity and education level. The second part determined 37 factors affecting the investment decisions using a 5 point likert scale. The third part identified the relationship between financial literacy level and the investment factors. The results revealed that financial literacy had a negative effect on all factors categorized in five categories, with the exception to the accounting information category.
Iqbal and Usmani (2009) aimed at analyzing the behaviour of in shareholders/individual investors who purchase and sell stocks in the Karachi Stock Exchange. Convenience sampling was used in which respondents were selected based on convenience. A list of 33 variables was prepared with help of previous researches and respondents rated variables on a 3-point scale of "Act On", "Consider" and "No Influence". Data was collected through a questionnaire and 153 questionnaires were distributed to individual investors who invested in Karachi stock exchange and the response rate achieved was 100%. The study found seven factors influencing investor decisions i.e. Social relevance & Image, Accounting Information, Stock Performance, Friend/Coworker Influence, Evaluation, Classic and Stock Broker Influence. The authors concluded that the recommendations of family members, friends and coworkers go largely unheeded, recommendations of Stock Brokers are considered, but 86% of the sample investors are self reliant and make purchase decisions on their own without any ones influence.

Kabra et al. (2010) studied the various factors that influenced investment risk tolerance and decision making process among men and women and among different age groups. The authors observed the behaviour of various types of investors working in the government or private sectors in India and also on the basis of their annual income and annual amount invested by them. Out of 700 questionnaires distributed, 196 responses were received. Various techniques such as regression analysis, Factor analysis and other basic techniques were applied to the data. The major variables considered for the study were investing background, opinion, leadership, duration of investment, awareness of investments and security. The authors concluded that risk averse people opted for insurance policies, fixed deposits with banks, post office, PPF and NSC. It was also found that the investor’s age and gender affected their risk taking capacity.

Singh et al. (2010) gauged the investment preferences of share market investors of Gurgaon, India. The authors analysed the preferences for various investment options available in the market along with the factors like fundamentals of company, strong promoters, past records and quarterly results, goodwill dividends etc. that influence them to invest. Their awareness and satisfaction toward investments was also studied. A sample of 250 investors was selected with help of brokerage houses and data was
collected with help of structured questionnaire consisting of 11 questions. Statistical techniques like frequencies, percentages, paired comparison test were used for data analysis. Mutual funds were found as highly preferred investment, followed by shares as second preferred investment and gold as third preference. Real estate was found as fourth preference while Insurance, Bank FD and Bank came as 5th, 6th and 7th preferred investment. Most of the investors were found to have ten stocks in their portfolio. Most of the investors gave medium weightage to risk associated with shares before investing in share market.

Selvam and Bennet (2011) identified the factors influencing the retail investor’s attitude. A modified questionnaire was used. The respondents formed a sample size of 200 retail investors from Tamil Nadu were contacted using purposive sampling method. 26 variables were retrieved from literature and responses were sought on these variables. Factor Analysis was applied to the data. Nine factors were formed influencing investor behaviour out of which, five top highly influential factors found were Investors’ tolerance for risk, strength of the Indian economy, media focus on the stock market, political stability and finally government policy towards business. Other four factors had low influence on the attitude of the retail investors investing in equity stocks including Stories of successful investors was considered to be the lowest influencing factors among the other variables i.e. get rich quick philosophy, information available on internet and cost cutting by companies.

Bennet et al. (2011) studied the factors influencing the stock selection decision including demographic factors of the investors of Tamil Nadu, India. The respondents were asked to evaluate the importance of 29 variables culled from the literature and personal interviews that influence the retail investors in stock selection decision. The data collected were analyzed through the application of statistical tools such as independent sample T Test, One way ANOVA and Factor analysis. The study found that there is no significant difference in Fundamental and Market Factors, Earning Factors, Decision Making Factors, Industry Related Factors, Corporate Governance Factors, Positioning Factors, Image Building Factors, Goodwill Factors and Industry Competition Factors across their Educational Qualification, Occupation, and Income Status in Stock Selection Decision. However, across gender, male and female, significant difference was found
only in Positioning Factors and across Marital Status difference was found for Fundamental and Market Factors, Industry related Factors and Corporate Governance Factors towards stock selection decision. The results also revealed that the average value of the five factors i.e. Return on Equity, Quality of Management, Return on Investment, Price to Earnings Ratio and various ratios of the company influenced the decision makers and the other five factors i.e. 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.

**Bennet and Selvam (2013)** explored the sentiments of Indian Equity Investors, especially in Tamil Nadu, India and gauged the influence of Stock Specific Factors on investors’ sentiment. A Structured Schedule was administered to the individual investors’ to measure their sentiment. The impact of Psychological Factors, Past Price Performance, Price Earnings and Familiarity with Products, Price Earnings and Familiarity with Products, Recommendation of the financial community, Expected events surrounding the stock and Book Value, Who else is buying, Quality of Management, Financial Characteristics and Price cut off rules were tested in the study with the help of Bootstrapping Method. Structural Equation Modeling was employed to test the unidimensionality of the constructs. It was found that the overall Stock Specific Factors did not have much influence on the investors’ sentiment. The study found that during the period of the Post Global Crisis, Investors’ Participation was influenced by one of the stock specific factors i.e. Financial Characteristics and further it was found that the overall stock specific factors did not had much influence on investors’ sentiment.

### 2.2 INVESTMENT PREFERENCES AND DIFFERENCES IN PREFERENCES

Various studies have been conducted on the pattern of investments and analyzing the investor’s preferences for various investment alternatives and differences in preferences across the demographic dimensions. Studies on investor’s perception towards risk-return trade off for mutual fund services in comparison to other avenues like insurance; government securities and shares have also been conducted. Besides this, the relationship between the risk tolerance level of investors and other independent variables such as age, gender of an individual investor have also been empirically tested. So, this
section highlights the review related to these aspects relating to the investment patterns, preferences of individual investors and differences in their preferences for various investment avenues and differences across demographics. The studies reviewed are:

Cohn et al. (1975) investigated the effect of change in the wealth on the proportions of the individual portfolios allocated to risky assets. The data was collected from 972 U.S. respondents. Different techniques were employed like regression analysis, multiple discriminant analysis, chi-square contingency analysis and automatic detection interaction analysis. The study revealed that the proportion of the individual portfolio allocated to risky assets decreased with the increase in the wealth and the risk taking ability of investors was found to be inversely related at age of 55 and beyond.

Gupta, L.C. (1991) gauged the behaviour of investors like profile of investors, portfolio of investors, preferences, perception of risk, their experiences, problems and intentions. The data was collected from 5212 household investors. Descriptive analysis was used to analyze the data. The author found that share ownership had become a middle class phenomenon which was earlier only among wealth class investors. The results revealed that the shareholders were dissatisfied with the information provided by brokers and companies. The investors preferred investing in primary market as compared to investing in securities market.

Ghazali and Othman (2001) examined the comparison between the investment behaviours of the active and passive investors of Kuala Lumpur Stock Exchange. Self-administered questionnaire was used to get the responses of investors in order to differentiate them according to their investment characteristics. The sample consisted of 240 Stock Exchange individual investors from Kuala Lumpur and Petaling Jaya. The results revealed that 37% were active investors and 63% were passive investors. Remisiers and Brokers were found to have vital role in assisting the investors in their investment decisions. Through this study the authors found that the active investors tended to be heavy investors with the investment of Rs. 80000 or more and were generally weekly or monthly holders of shares in terms of period of share holding whereas passive investors tended to be light investors with the investment of less than Rs. 20000 and usually held shares for one year or longer. Another conclusion was that the
active investors were hit and runners and speculators especially during bull market as compared to passive investors.

Rajarajan (2003) analyzed the determinants of the choice of portfolio of individual investors. The sample of the study included the 405 individual investors from Chennai. The multiple regression analysis was used to analyze the data. The results revealed that positive relationship was found between locus of control and investors’ loss avoidance behaviour, risk bearing capacity of firms and expected rate of return on investments’ while portfolio choice was found to have inverse relationship with locus of control.

Nagpal and Bodla (2007) attempted to understand the individual investor’s pattern of investments and analyzing the investor’s preferences for various investment alternatives across the demographic and psychographics dimensions. With the aim of collecting primary data, a sample of 400 investors was selected using simple random sampling out of which 350 responses were used for data analysis. The survey was limited to the urban areas of Haryana, Delhi and Chandigarh. The study was conducted between September, 2003 and March, 2004. The data was analyzed by using the various statistical techniques like descriptive, chi-square test, one way ANOVA, cluster analysis and correspondence analysis. The study brought out that the highest percentage of investors i.e. 86.29% invested in insurance policies followed by investments in fixed deposits with banks or post offices and then EPF/PPF and NSC. The authors found three segments of investors i.e. aggressive, moderate and conservative investors on the basis of their lifestyles.

Walia et al. (2009) evaluated the investor’s perception towards risk-return trade off for mutual fund services in comparison to other avenues like insurance, government securities and shares. The authors made use of a structured questionnaire to know the experience of existing investors. Selective systematic sampling was taken for consideration. For reliability of questionnaire 100 individual investors were selected from different regions of Punjab which included selective investors who were assumed to be having complete knowledge of financial environment. Age constraint considered in this questionnaire was minimum 18 years. Another objective was to find critical gaps in mutual funds services towards transparency and disclosure practices. Chi-square test was
applied on the data collected. The authors identified critical gaps in the existing services and found the need of some innovations and added quality dimensions in the existing services. It was concluded that due to stock market volatility movements, most of the investors were holding stock with calculated risk in shape of mutual funds. So, the mutual funds were proved to be the most preferred financial avenue as compared to other avenues provided they were put before the investors in the desired form in addition to quality services.

Reddy and Krishnudu (2009) examined the investment behaviour of the rural investors of the one of the backward regions i.e. Rayalaseema region of the state of Andhra Pradesh. The authors studied the socio-economic profile of the investors to assess its impact on their investment habits, analyzed the awareness, preferences and experiences of investors in respect of various investment avenues. The data and the information were collected by conducting a primary survey with the help of a questionnaire and the data was analyzed using descriptive statistics. It was observed that majority of respondents were male investors. The analysis of data showed that majority of respondents was graduates the earning capacity of the households was another factor to be considered while analyzing the influence of various economic factors on investor preferences and behaviour. It was found that most of the households had one or two earning adults. It was found that the majority of investors were quite unaware of corporate investment avenues like equity and preference shares, mutual funds, corporate debt securities and deposits. While they were found highly aware of traditional investment avenues like real estate, bullion, bank deposits, life insurance schemes and small saving schemes.

Sultana (2010) analyzed the characteristics of the Indian individual investor and made an attempt to discover the relationship between the risk tolerance level of investors and other independent variables such as age, gender of an individual investor. A sample of 150 individual investors was studied using referral sampling method. The analysis was done on the basis of the responses of the questionnaire. Various statistical tools were used to accomplish the objectives. Chi-square test of independence of attributes was used to identify the dependency/independency of the factors. Risk tolerance level was measured using cumulative scale and Correlation was used to know relationship between risk
tolerance level and the age of the investors. The study revealed that the male investors dominate the investment market in India. Most of the investors possessed higher education in graduation. Most investors read two or more sources of information and prefer electronic media next to print media as a source of information. It was found that the increase in age decreases the risk tolerance level. Gender and risk tolerance level were found as independent attributes of the investors. PPF/ FD/ Bond next to equities were among the preferred avenues by the investors. The study concluded that the individual investors still prefer to invest in financial products which give risk-free returns which implied that Indian investors even if they are of high income, well educated, salaried, independent were conservative investors who preferred to play safe. The authors suggested that the investment product designers should design products which can cater to the investors who are low risk tolerant and use TV as a marketing median as lot of investors were found to be using TV as source of information.

Lutfi (2011) examined the relationship between the various demographic factors like gender, age, marital status, education, income, and number of family and investor’s investment preferences among bank products, capital market instruments, and physical assets and risk behaviour. A sample of 84 investors in Surabaya, Indonesia was studied. Descriptive Analysis, Inferential Analysis and Chi-square test was applied to analyze the data. The results showed that demographic factors explained investor’s risk tolerance and investment preference. The results also revealed a significant relationship between investors’ risk tolerance and their investment preferences.

Merkoulova-Veld (2011) investigated the impact of age and self-reported planning horizon on the asset allocation decisions of individual investors. The purpose of the study was to identify how age, investment horizon, income, and the investor's background influenced his or her decision to invest in risky assets. The authors focused on distinguishing between investors’ age and their actual self-reported planning horizon along with the study of real estate assets, such as owner-occupied housing in the universe of risky investments. The data on the investors' horizon was collected with the help of questionnaires in November 2003 from Dutch households, through Center data, which is a survey research institute specializing in online surveys. The questionnaire included questions with the extensive data on the household assets, liabilities, income, and
demographic characteristics. The survey was mainly done via the Internet. The results reveal that age has a different and important role from that of the investment horizon in determining investors’ risky portfolio. When taken into account total risky investments, including real estate, age is most important factor. It was found that the share of risky assets tends to decline with age. However, the investment planning horizon was found as the major factor that drives investments in financial risk assets, such as stocks, options and mutual funds. It was also found that the investment in stocks and other risky financial instruments decreases with the risk aversion of the respondents and with their rate of time preference. The results concluded that that personal financial planning should differentiate between the actual planning horizon and age towards making decisions regarding financial investments.

Harikanth and Pragathi (2012) analyzed the factors that influence the investment behaviour of Individual Investors, attitude of respondents towards different financial investment and awareness of investors towards various investment avenues. Data was collected with the help of a structured questionnaire relating to socio-economic background of employees consisted of 12 questions relating to age, educational qualification, income etc and 23 statements relating to various factors of avenue selection for the study. The sample size was 270 respondents who were randomly selected from urban investors of two districts of Andhra Pradesh i.e. Warangal and Karimnagar. The data was analyzed by using the simple descriptive tools like averages and percentages which was performed using Microsoft Excel application package and the secondary data was obtained from various internet websites, journals, magazines and other published sources. It was found that educated males were more interested in risky avenues like shares than female’s investors. Female investors were not found aware of shares and mutual funds. They also make a good portfolio for them and think for their future with an objective of getting high capital gain from a particular avenue. Significant relationship between income and occupation on investment avenues was found in order to satisfy safety, periodic return, liquidity, better future and future contingency needs, etc. Risks bearing capacity and educational level of investors were also found as the two main factors which affect the investment avenues selection. Male urban investors were found
as participative in nature with regard to investment avenues selection due to their larger exposure to market knowledge as compared to females.

Ramanujam and Devi (2012) analyzed the impact of socio economic variables on the attitude of investors towards investments. 100 respondents of Coimbatore city having different socio economic profiles were surveyed. The data collection method used to obtain the desired information from primary sources was through direct interview with the help of questionnaire. The chi-square statistics and descriptive were used to analyze the data. The authors found that certain factors like education level, awareness about the financial system, age of investors made significant impact while deciding on the investment patterns for investment. The authors found that the level of income also influenced their investment decisions. Higher income group showed relatively high preference towards investment in share market, conversely lower and average income group showed keen preference towards insurance and banks as the most preferred investment avenues.

Jain and Dashora (2012) studied the investment pattern of individual investors and the influence of age, impact of income level on the investment decisions along with the impact of announcement of annual result, declaration of dividend and bonus announcements on investment pattern. The data was collected from the retail investors living in Udaipur during the period between September 2011 and January 2012 through a structured questionnaire which was distributed through social networking websites and offline platform through individual brokers and some were hand delivered to verify the accuracy of the self reported data. The results revealed that investors prefer investing in both primary and secondary market instruments. Further, it was found that the most of the decisions of investors were rational and influenced by the various information available in market. It was also found that investors prefer the wait and watch policy for taking their decision, and was found very cautious and their decisions were influenced by various psychological factors and behavioral dimensions.

Samudra and Burghate (2012) examined the investment behaviour of middle income class households of Nagpur. The objective of research was to identify the preferences, objectives of investment of respondents. The data was collected with the help of questionnaire from 300 households which were selected from each of the three
income slabs as defined by the NCAER. Descriptive analysis was used to analyze the data. The results reveal that bank deposits with 41 percent respondents stating it as the most important investment option followed by life insurance as the second most preferred investment option. High return was found as most important attribute for making an investment. The bank deposits and insurance was found as the most preferred avenue among the all income groups and further results revealed that 28 percent of respondents took professional help in making investment decisions.

**Bashir et.al. (2013)** analyzed the differences across demographics regarding investment preferences consisting of stock investment and gambling decisions of the salaried individuals of finance teachers and bankers of Gujarat and Sialkot of Pakistan. A sample of 120 individuals was distributed questionnaires developed by Lennar Sjoberg and Elisabeth Engelbergare distributed among bankers and finance teachers of Gujarat and Sialkot. Out of 150 questionnaires distributed, 120 were returned. The main objectives of the study included measuring the risk level of salaried individuals was determined according to their income, education and age, analyzing the risk differential between salaried males and females and gauging the preferences of salaried individuals in stocks and gambling. To test the reliability of the questionnaire of Cronbach’s Alpha coefficient of gambling, stock investment and risk level was calculated. Correlation Analysis was done to find significant differences between demographics vis a vis with investment and gambling. Females were found more risk averse than males. The factors such as emergence of frequent religious issues, non conducive economic environment and culture were found to be the main factors having negative relationship with gambling. The young and educated people were found attracted towards new risky investment opportunities.

**Bairagi and Rastogi (2013)** gauged the awareness and preferences of investors of Pune for different investment avenues available and analyzed the factors that influence their perception and preferences. A sample of 526 respondents, most of them belonging to the household of Pune City. The authors focused on identifying the level of awareness of investors about various investment avenues and were asked to rank the investment avenues in terms of level of their awareness. Convenient sampling and Simple random procedures was used to select the respondents. Weighted Average Scores was used to
analyze the data. Another objective of the study was to analyze the relation between awareness and socio-economic factors relating to the investors. Banks deposits were rated as highest preference, followed by small saving schemes and insurance was the third preferred investment. Safety of investment was found as the major objective of investment.

Agarwal and Jain (2013) identified the investment preferences of the investors of Mathura. The authors analyzed the investor’s preference towards investment in mutual funds vis a vis other investment avenues. The study is based on primary data collected from 300 investors of Mathura. The respondents were selected with the help of snowball sampling. The Investment Avenues covered in the paper include 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. 100% investors were found aware of banks & LIC, while 96% aware about Mutual Funds followed by 95% for the Real Estate, 80% for the NSC 80%, 78% each for Gold & KVP, 76 % for PPF, 68% each for Equity Shares & Bonds, 64% for MIS, 56% for Others, and the least aware were commodity market & Futures & options which indicated that banks, LIC, mutual funds, real estate & NSC were found as the most popular investment avenues among the investors of Mathura. 46% of the investors’ overall and main criterion for investment was found to be return followed by tax planning (26%), and Safety (22%). The results revealed that more than 50% of the investors preferred banks, LIC & MIS for Safety, while more than 35% of the investors prefer Real Estate, Equity Shares, Commodity Market, and Mutual Funds for Return, while more than 30% investors preferred NSC, LIC, and Mutual Funds for Tax Planning.

2.3 ATTITUDES INFLUENCING INVESTOR BEHAVIOUR

Investment attitudes result in selecting particular instruments in a portfolio (Kiran D. and Rao, 2004). Attitudes and behaviours in daily financial affairs are examined to reveal individuals’ financial competence and consequential product needs (Funfgeld and Wang, 2009). So, this section highlights the studies on various attitudes influencing day to day financial affairs of individual investors.

Lease, Lewellen and Schlarbaum (1974) focused on finding out who the individual investor is, how he makes his decisions, his dealings with his broker, and
analysis of his asset portfolio among the U.S. investors. The authors analyzed such behaviour using a questionnaire, which included information regarding demographic characteristics of individual investors and impact of such characteristics on their attitudes, decision processes, investment objectives, portfolio strategies, and asset holdings. After analyzing the demographic characteristics of investors, the authors found that few of nominal shareowners were women and 80 to 90 per cent were men. The respondents were chosen at random from brokerage firm’s list of all accounts by investigators over the period of January 1, 1964 through Dec.31, 1970. With the help of questionnaire, the investment strategies followed by investors were determined. The responses portrayed that the investors followed a fundamental approach preferring a balanced and well-diversified portfolio of income. It was found that investors preferred long term capital appreciation securities with dividend income instead of short-term gains. The decision framework of investors revealed by their responses was that the groups preferred journals and newspapers as sources of information. The factors such as age, income level and sex (in descending order) were found as dominant elements in effecting individual investor’s behaviour regarding taking investment decisions and forming strategies.

Firer (1988) conducted a survey among individual investors of South Africa to understand their investment pattern and investigate the attitudes and investment decision making processes used by investors. The authors tried to characterize individual investors of JSE during 1985. It was found that majority of respondents enjoyed investment activity and relied on mutual fund as an investment medium. Investors were gauged about their investment goals, their investment strategies. Nearly 20% of respondents replied that they invest in 11 or more stocks. The respondents stated stock brokers’ recommendations as the highest followed source. Investors were provided a list of attitudes influencing their investor behaviour and mean score results revealed that the respondents stated that they trade more frequently than an average investor and they are prepared to take risk in order to earn substantial gains.

Warren et al. (1990) studied the demographic characteristics as well as attitudes and opinions, which represent lifestyle characteristics of investor decisions. The study aimed at segmenting the investors on the basis of such characteristics. Lifestyle and demographic profiles of investors were developed on the basis of the value and type of
their current investment holdings. Of the 600 questionnaires mailed to the households located in one Southern metropolitan area, 152 usable responses were received. Lifestyle measures of investors were obtained by asking the respondents through questionnaire about their level of agreement with 29 lifestyle statements about their personal ability, confidence level, dependency level etc. while demographic profile included queries regarding investor’s sex, marital status, education, income etc. Multiple discriminant analysis was applied on the results obtained through questionnaire to determine whether investment patterns differed according to demographic and lifestyle dimensions. The study helped the authors to differentiate between investor behaviour types i.e. active and passive investors and in addition, they were also able to differentiate between light and heavy investors in particular stock investments i.e. stocks and bonds.

Sharma and Sharma (2004) investigated the investment behaviour of the retail investors of the city of Jammu and focused on identifying the attitudes and strategies followed by the investors while making stock purchase decisions. The sample was selected by choosing random names of the clients provided by a stock broking firm in Jammu and the selected clients were provided questionnaire. A total of 103 responses were received. Descriptive statistics were applied to the data. The authors found that there existed a segment of wealthy, ambitious and well informed investors even in small markets like Jammu. They invested not only in bank investments but also in other instruments like options, futures etc. Although, it was found that there is a need of more education regarding stock regulation for confidence building among the stock investors in Jammu. The authors also studied the various attitudes which investors have towards investment decision making. Investors were found agreeing to take high risk preposition on stock exchange investment and the attitude of Enjoy Investing got highest rating reflecting that it is the enjoyment of risk taking and expectation of higher return that differentiates them from other investors. Investors in Jammu agreed to trading frequently and not believing in high holding for long.

Wood and Zaichkowsky (2004) identified and characterized segments of individual investors based on their shared investing attitudes and behaviour. Five behavioral constructs of investors i.e. risk attitude, personalization of loss, confidence, control and long/short investments or stable/volatile investments were analyzed with the
help of questionnaires filled by MBA student primarily aged twenty-four to thirty-five and to friends and colleagues with more limited investing experience. Cronbach’s alpha test was used to measure degree of consistency of each construct. Once the constructs were finalized, the individual investors were segmented based on the cluster scores of their behavioral constructs. A hierarchical cluster analysis with Ward’s linkage was performed to estimate how many clusters might actually exist. In addition, ANOVA was applied which showed a statistical difference between the clusters for all constructs. The authors identified four main segments of investors i.e. risk intolerant traders, confident traders, loss-averse young traders, and conservative long-term traders and concluded that each segment purchased different types of stocks, used different information sources and had different levels of trading behaviour.

Clark-Murphy and Soutar (2005) used a conjoint analysis approach to identify the various share attributes that are valued by the Australian individual investors while making decisions regarding share purchases. A survey was done with the help of computer-based adaptive conjoint analysis (ACA) questionnaire using relevant share attributes and their levels. A total of 488 questionnaires were distributed to people willing to participate in the study who were the members of the Australian Shareholders Association (ASA) and 361 useable responses were returned. Cluster analysis and Discriminant analysis were the statistical tools used. The relative importance of each attribute was examined to determine respondent investor’s preferences between attributes. The company management was found as the most important attribute followed by market status, price trend, source of recommendation, place of operation, dividend and others. In addition to this, the authors identified four segments of investors i.e. the explorers, the risk-averse investors, the traders and the contrarian investors that valued different share attributes and had different attitudes and preferences to investment alternatives with the help of cluster analysis and discriminant analysis.

Funfgeld and Wang (2009) examined the self-stated attitudes and behaviour of a variety of demographic groups regarding their everyday financial affairs. A questionnaire with response of 5 point Likert scale was used to study the attitude of individuals towards financial affairs. The data came from a questionnaire that was completed by 1,282 respondents from various regions of the German-speaking part of Switzerland. The
respondents were recruited from two sources i.e. 53 per cent of the participants were clients from a Swiss financial planning company, together with participants in courses in financial training within the same firm. A total of 602 study subjects were selected through a combination of quota and snowball sampling procedures. Linear regression was used to investigate the impact of socio-demographic variables. The variables such as gender, age and education were found to have significant impact on their behaviour. Principal factor analysis was used to determine the factors such as anxiety, interest in financial issues, intuitive decisions, precautionary saving and free spending revealing behavioral tendencies of different individuals. Cronbach’s alpha was used to determine the consistency of each factor. A two-step cluster analysis i.e. ward and k-means analyses identified groups of investors i.e. rational consumers, myopic consumers, anxious savers, gut feeling followers and anxious spenders who shared common characteristics in attitudes and financial behaviour. The authors suggested that research is needed to understand the underlying psychological factors and behavioral tendencies of different individuals and to investigate relationship between actual behaviour and change in attitudes and behaviour over an individual’s life cycle.

2.4 BEHAVIORAL BIASES INFLUENCING INVESTMENT BEHAVIOUR

One of the theoretical frameworks under which stock market investors make decisions is the behavioral decision framework, which has gained importance since the pioneering efforts of the behavioral researchers. Modern finance theory advocates the concept of optimal choice in financial decision making, but is too narrow and limited in its approach in fully describing the actual choice (Debondt and Thaler, 1995).

In behavioral finance framework of stock selection, emphasis is on describing psychological biases that effect investor behaviour. Numerous psychological biases have been discussed and described in detail in behavioral finance literature. Some of the important biases that have been identified to influence the stock investors are namely- Representativeness heuristic (Tversky and Kahneman (1974) which further can cause biases like framing (Tversky and Kahneman (1974), mental accounting (Hirshleifer (2001), Kahneman and Lovallo, (1993), prospect theory (Tversky and Kahneman (1979) and the resulting loss aversion and disposition effect (Shefrin and Statman (2000) Odean (1999), cognitive dissonance (Goetzmann and Peles,1997), Status quo bias (Samuelsons
and Zeckhauser (1988), the endowment bias (Kahneman et.al. (1990) and over confidence bias. Some of the studies related to the psychological biases influencing stock selection decision are presented in this section.

**Tversky and Kahneman (1974)** examined a heuristic process (which they called representativeness) which they defined as the subjective probability of the event or a sample is determined by a degree to which it is similar in essential characteristics to its parental population and reflects the salient features of the process by which it is generated. Representativeness heuristic or (focusing ion similarities) can be interpreted in a way that past performance of the stock becomes a dominant selection criteria for the investor, irrespective of the future expectation of returns. Tversky and Kahneman (1979) provided theoretical explanation for why investor sells their winning funds. They made use of the prospect theory, which they regard as the alternative to the utility theory. They argued that people are loss averse; they have an asymmetric attitude to gains and losses. Investors get utility from gaining, say Rs. 100 than they would lose if they lost Rs. 100. If investors used the purchase price of their stocks as a reference point, prospect theory predicts that stock investor would be more likely to sell their stocks than their losers. Tversky and Kahneman (1986) described about rational theory than framing of decisions. Authors observed that decision problems if presented as alternate description give rise to different preferences which contrary to the principal of invariance that underlies theory of rational choice. Authors concluded that violation of the rational theory of choice is due to the framing of decisions.

**Shefrin and Statman (1985)** commented upon the concept of Kahneman and Tversky’s approach of loss aversion to loss realization. The authors discussed this phenomenon into wider theoretical framework, which included elements of mental accounting, regret aversion, self control and tax consideration. They concluded that gain of loss realization explanation is not limited to the concept of tax realization, but also depends on other elements of this framework. Samuelson and Zeckhauser (1988) discussed about status quo bias that is doing nothing or maintaining one’s current decision. Author studies on health and retirement plans of individuals and found that the status quo bias was substantial in real decision making.
Goetz Mann and Peles (1997) measured the recollections of investors regarding their past fund performance. With the use of questionnaire, the authors analyzed two groups of investor, one group consisting of architects and another group consisting of members of American association of individual investors. The groups were asked about the returns of their mutual funds of last year. The authors found that both the groups overestimated their past returns as they believed their investment decisions to be good. The first group overestimated its return 6.22% higher than its actual return and the second group overestimated the returns by 5.11% relative to actual returns. So, it was concluded that investors suffer from cognitive dissonance and well-informed investors tend to bias their perceptions about past performance.

Odean (1999) demonstrated strong disposition effect among investors, which was not motivated by desire to rebalance portfolio or to avoid higher trading costs of low priced stocks. Nor disposition effect was justified by subsequent portfolio performance. Authors concluded such behaviour to be sub optimal and lead to lower returns.

Iyer and Bhaskar (2002) attempted to identify the various psychological factors affecting the market of Chennai and the various other factors contributing to the market meltdowns and upsurges. Interviews of the leading brokers and the market players in Chennai were done. The study was a descriptive and a diagnostic study which seeked to analyze the behaviour of investors. The authors gave the theoretical explanation of the various psychological facets like fear, greed, overconfidence, overtrading, tickeritis, hope, sentimentality, seeking pride and avoiding regret, self control, wishful thinking, group think, herd instincts influencing the investor behaviour. The researchers stated that the importance of the psychological factors cannot be underplayed as the understanding of the different market participant’s psychology gives insight into trading patterns.

Chen et.al (2005) focused on the fact that individual investors are irrational i.e. they are inclined towards behavioral biases and make trading mistakes. The brokerage account data from the Chinese stock markets forming a sample of 46,969 individual investor accounts and the sample period of account from May 20, 1998 to September 30, 2002 was studied and the cross-sectional tests were conducted on such data. In empirical tests, it was found that Chinese investors make trading mistakes (i.e. the stocks they sell outperform the stocks that they buy), they suffer from disposition effect, and they tend to
be overconfident. The authors researched about the middle-aged investors, active investors, wealthier investors, experienced investors and those from cosmopolitan cities, to see if they were inclined towards making cognitive errors as such investors were considered to be better investors but the empirical tests showed that even such investors were unable to overcome behavioral biases.

**Fogel and Berry (2006)** studied the relation between disposition effect and the individual investor decisions. The authors surveyed individual investors and found that more respondents reported regret about holding on to a losing stock too long than about selling a winning stock too soon. The questionnaire was mailed to a random sample of 500 members of the American Association of Individual Investors and 176 responses were received. Two experiments were conducted to study about the disposition effect and the role of the regret and to find evidence about the role of a broker in the assignment of blame and regret in relation to investment decisions. The three-way analysis of variance (ANOVA) was applied on the satisfaction/regret measure. The results revealed that 59% of the active individual investors reported more regret for not selling a loser soon enough and 41% reported more regret for selling a winning stock too soon. The authors also surveyed the importance given to different factors in decisions to sell by the respondents and found that broker recommendation has strongest influence on investor’s decision followed closely by stock price reaching a predetermined target and need for liquidity. The authors surveyed regarding the time spent by respondents on decisions to buy or to sell and found that 51% respondents found decisions to sell as more difficult and 17% found decisions to buy as more difficult. The study concluded that the investor satisfaction and regret are not simply functions of outcome but are influenced by counterfactual alternatives and the types of action taken (i.e. holding v/s selling).

**Sevil et al (2007)** investigated the decision process of small investors on Istanbul stock exchange markets. The attitude of investors about the efficiency of the market was analyzed. The sample consisted of 201 individual investors living in Eskieshir (101 individuals) and Antalya (100 individuals). The survey was based on four main concepts of behavioral finance i.e. expectation theory, regret aversion, over-confidence and cognitive dissonance. 70.6% of respondents indicated that they would sell the stocks which yielded profit rather than selling losing one’s showing impact of disposition effect
in framework of prospect theory. In lieu of regret aversion, it was found that if the joy of gratification was equal to the joy of pain, the investor’s emotions did not affect their decisions. With the use of descriptive statistics analysis, the overall results revealed that the investors are not totally rational figures as assumed by the traditional finance theories.

Bhandari et al. (2008) classified the investment related biases as cognitive, affective and conative and suggested debiasing strategies for each of them. 119 investors were investigated providing a strong evidence for the existence of three cognitive biases i.e. framing, representativeness and ambiguity in investment decisions made and demonstrated the effectiveness of introspective debiasing strategies in lowering the negative impact of such biases on decision makers, consequently improving the quality of their investment decisions. The authors stated that the study made a contribution by proposing a novel way of developing investment decision support system through an integration of behavioral decision theories and appropriate debiasing strategies and such a system is expected to improve individual’s investment decisions by helping them identify and act on their biases which would otherwise go unnoticed.

Chira et al. (2008) explored the cognitive biases and heuristics influencing the decisions of business college students of USA. The authors focused on five biases i.e. overconfidence, excessive optimism, loss aversion, familiarity and sunk cost fallacy, illusion of control and confirmation bias. A questionnaire based behavioral study was administered to a sample of 80 students at Jacksonville University, Florida. The results revealed that the students were extremely optimistic and overconfident, didn’t have illusion of control or familiarity heuristic nor sunk cost fallacy. However, they were found to be risk averse. The authors stated that the current research will provide theoretical underpinnings for the further morphing of standard classical finance into behavioral finance proceedings.

Zoghiami and Matoussi (2009) focused on identification of the psychological biases that influenced the Tunisian investor’s behaviour and that may drive a momentum effect on the stock returns. The authors made use of questionnaires to understand the investor’s reaction to some particular situations. Since investors were unreachable and unknown people the researchers addressed their questionnaire to the brokers who were in daily contact with investors. In the Tunisian financial markets, there are 31 stock market
intermediary houses and each house employs one to six brokers. The whole population included 110 brokers. From this population, they drewed arbitrarily a sample of 100 brokers getting representativeness rate of 90.9%. Nevertheless, they got only 92 responses. The Likert constant-sum scale was used as it seemed appropriate and ideal for their questionnaire. In the questionnaires, the author verified the influence of eight psychological biases. Five biases were resorted from behavioral literature dealing with momentum and three biases were resorted from Tunisians stock market professionals. From the responses they were able to analyze the nature of psychological biases influencing investor’s behaviour. The empirical approach used lied between exploration (i.e. identifying the psychological biases) and confirmation (i.e. testing to what extent biases exist in the market). The univariate and multivariate analysis was applied on the data. However to achieve the multivariate analysis, principal component analysis and varimax rotation method was applied. The authors found that Tunisian investor’s behaviour was driven by five psychological biases that were precaution, under confidence, conservatism, under opportunism and informational inferiority complex.

Chandra (2010) explored the impact of behavioral factors and investor’s psychology on their decision making and examined the relationship between investor’s attitude towards risk and behavioral decision making. The research was carried out using secondary data related to the investments, finance and economics available on internet and on review basis. However, through data collected, the interrelationships of investors’ perception of risk, behavioral factors and decision making were identified in the Indian context. The authors found risk seeking behaviour among investors and found that the investors avoid selling stocks when faced with loss. Their decisions are effected by greed and fear. The authors postulated that the present research will help investors to judge their attitudes towards risk with a new perspective.

Gupta and Chander (2010) studied the differences between the retail and non retail investors of Punjab regarding the behavioral biases influencing their mutual fund purchase behaviour. Factor analysis was applied to an investor base of 450 investors including both retail and non retail investors). 20 variables were considered under the construct for behavioral biases which represented different behaviours as established by empirical research on financial behaviour. The variables included in the study related to
representatives, cognitive dissonance, over confidence and framing. Six factors were extracted for 20 variables i.e. planning and rationality as first factor, endowment bias as second factor, and cognitive dissonance bias as third factor, representativeness bias as fourth factor and objectivity and external stimulants as fifth and sixth factor respectively. The authors concluded that non retail investors were found as more biased as compared to retail investors but the difference between the two was not significant.

**Ha and Luong (2011)** explored the behavioral pattern influencing the decisions of the individual investors at Ho Chi Minh Stock Exchange and identified how such factors impact their investment performance. The authors conducted primary survey using stratified sampling technique. The authors applied factor analysis and structural equation modeling for analysis purpose. The behavioral factors were classified into four categories i.e. heuristics, prospect, market variables and herding variables. The impact of such variables on investment decision making and investment performance were identified. It was found that among heuristic variables, availability bias has highest impact, among prospect variables, mental accounting has highest impact and market and herding variables have an overall moderate impact. The effect of behavioral finance on investment performance showed that the heuristics and herding have positive impact while prospect variables have negative impact on investment performance using regression estimates. The authors concluded that there are five major behavioral factors impacting the investment decisions of the individual investors’ i.e. herding, market variables, prospect variables, overconfidence, gambler’s fallacy and anchoring and availability bias.

**Chandra and Kumar (2011)** explored the influence of the psychological and contextual factors on the individual stock investor behaviour. A primary survey was carried out with appropriate inputs from stock brokers, financial advisors, investment consultants and high net worth individual investors. The data was collected from 500 investors of Delhi NCR out of which 350 responded completely. Convenient Sampling Technique was used but the sample was drawn randomly for data collection purpose. Factor Analysis was applied to the data. Five factors i.e. prudence and precaution attitude, conservatism, Under confidence, Informational Asymmetry, financial addiction were extracted from the list of 17 psychological statements used in the present study to
identify the psychological biases that drive trading behaviour of individual investors in Delhi NCR. The authors concluded that the factors such as conservatism and under confidence were consistent with prior literature but other behavioral axes such as prudence and precautionary attitude and informational asymmetry are not yet considered in prior literature especially in Indian context.

Kourtidis et al. (2011) conducted an exploratory study in order to segment the investor (both individual and professional) of Greece on the basis of various psychological biases and personality traits and attempted to examine how these biases and traits drive their investment behaviour. The selected factors considered in the study to classify the investors into profiles included overconfidence, risk tolerance, self-monitoring and social influence. A structured questionnaire was distributed to the individuals who made stock transactions and had at least two transactions in 2007 on ASE. Out of 600 questionnaires distributed, 373 were returned. The investors were grouped into three clusters i.e. High profile, moderate profile and low profile investors exhibiting different trading behaviour. The results revealed that high profile investors scored high levels on biases and traits examined, they were found to be overconfident, risk tolerant with high degree of social influence and self monitoring, own high value portfolios, trade high volumes of stocks and make transactions more frequently as compared with the investors from the other profiles and such a behaviour seemed to influence stock returns positively. However, low profile investors underperformed in stock market, trade rarely and their major characteristics compared with investors in other groups scored low on biases, traits and investment experience. Moderate profile investors were somewhere between both. The study provided a framework that will help investors understand how biases and traits affect the investment decisions and make them aware of these in order to overcome them.

Jain (2012) explored some of the traits about stock markets that are covered under behavioral finance. The authors also explained the factors responsible for the unusual movements in the stock markets which could not be fully explained by the theories of traditional finance. This study examined three important attitudes including expectations that investors have about the future performance of the stock market in India, Confidence that investors have regarding their investments; and Herd Instincts that
investors tend to herd together. The study also analyzed the Investors’ preference towards traditional trading and online trading. The study was based on primary data and responses were collected through pre-determined set of questions in the form of well designed questionnaire which had multiple-choice questions. The sample size chosen for the current study was 494. The data was collected from retail investors’ which were categorized on the basis of income levels, gender, age, and awareness level and the total sample was further bifurcated in two categories including those investors who deal in internet trading (Net Traders) and second category included those investors who purchase/sell securities only through brokers (Traditional traders). This study found important attitudes held by the investors i.e. Expectations investors had about the future performance of the stock market in India, Confidence that investors have regarding their investments followed by herd instincts that reveals that investors’ tend to herd together.

Zaidi and Tauni (2012) identified the relationship between Investor’s Personality Traits, Demographics and Overconfidence Bias in Lahore Stock Exchange (LSE). Primary survey was conducted with the help of a questionnaire distributed among 200 randomly selected investors out of which 170 questionnaires were used for analysis and rests were discarded due to incomplete or non serious response. It was found that there is a positive relationship between overconfidence bias and Agreeableness, Extroversion & Consciousness and negative relationship was found between Overconfidence bias and Neuroticism. The results also showed that there is an association between investment experience and overconfidence bias and it led to the conclusion that investor’s of Lahore Stock Exchange (LSE) are not purely rational and traditional financial theory do not hold true for Lahore investors.

Sahi and Arora (2012) conducted an exploratory research using In-depth interview to explore the manifestations of the biases among the individual investors of India. The data was collected on a sample of 377 respondents, using a questionnaire that captured eight biases: Reliance on experts; Overconfidence bias; Self-control bias; Categorization tendency; Budgeting tendency; Adaptive tendency; Socially responsible investing bias; and Spouse effect. The segments of investor biases were identified using cluster analysis which yielded four main segments of individual investors termed as the Novice Learner, the Competent Confirmer, the Cautious Anticipator and the Efficient
Planner. In order to understand whether, the clusters showed variations in investment preferences, one-way ANOVA was applied. The results revealed that the percentage of investments in four out of the nine investment categories were found to be statistically significant and hence these investments were preferred differently across the four clusters. While Insurance, Equity and Real-estate showed significant differences, the results were found insignificant for mutual funds. The percentage of insurance investment was highest for the novice learners and lowest for the efficient planners. Similarly the percent of investment in mutual funds was the highest for the novice learners and lowest for the efficient planners. The percentage of investment in real-estate was the highest for the efficient planners and the lowest for the novice learners. The competent confirmers and the cautious anticipators were in between on these investments. Equity was most preferred by novice learners and least by cautious anticipators. The authors stated that the study will be helpful for Indian and foreign financial service providers, to understand the market participants in order to build confidence and trust of the financial consumers.

Subash and Bata (2012) studied various psychological biases influencing the investment decision-making process of Individual Investors in India. The authors analyzed the effect of nine identified behavioral biases on the decision making process of investors, namely: Overconfidence, Representativeness, Herding, Anchoring, Cognitive Dissonance, Regret Aversion, Gamblers’ Fallacy, Mental Accounting and Hindsight Bias. Sample of 92 investors from Kerala, India were studied. Out of this sample, two sub-samples of 46 investors each were taken consisting one of experienced investors i.e. those aged above 30 with at least 7 years of investing experience; and the other, Young investors i.e. those aged 30 or below with less than 7 years of experience. The questionnaire consisted of 35 questions out of which 17 were meant to obtain a measure of the investor attitude and the rest were designed to capture quantitative information. These 17 questions were based on 3-point and 5-point Likert scale. The data collected was from/through the clients of ‘Trivandrum Investor Services’. The young investor were contacted with the help of online survey. Discriminant Analysis, Weighted Scoring Method and Chi square for independence were the statistical analysis techniques used. The results from Chi-squared tests suggested that 6 out of the 9 biases could not be determined to be affecting one investor category more than the other. The Discriminant
Analysis was performed using Investor type (young or experienced) and the biases i.e. Gamblers’ Fallacy and Anchoring were seen to be the biases which were exhibited by the younger and experienced investors in the most significantly different manner. It was found that only 21% of the investors trusted their own judgment more than information/analyses from other listed sources. Further, 24% of younger investors trusted their own judgments, while only 17.4% of the experienced investors gave high importance to their judgments and younger investors seemed to give most importance to opinions of either friends/brokers. The authors concluded that the younger investors mainly prefer online trading rather than trading at the brokerage, which is preferred by the more experienced traders. It was also found that the experienced investors were biased towards opinion.

**Bashir et al. (2013)** explored the relationship between the confidence level of investors across their demographics and personality traits. The study measured the determinants of overconfidence in employees and students. Primary survey approach has been used to collect data from employees and students with the help of questionnaires. Various statistical technique like Pearson correlation, Pearson regression, Chi-square, and Kolmogorov-Smirnov tests are used to analyze the data. The results revealed that in employees when Openness to experience increase, overconfidence level decrease, however all remaining personality traits i.e. conscientiousness, agreeableness, emotional stability and openness to experience) is correlated with overconfidence. However, in students no correlation was found between overconfidence and any of the personality traits. The regression analysis findings showed that no linear relationship existed between independent and dependent variable in employees for individual personality traits except of emotional stability. Only emotional stability was found as a significant predictor of overconfidence among all five personality traits. However the overall personality was the significant predictor of overconfidence in employees. For students, neither individual personality traits nor overall personality had linear relationship with overconfidence.

**Ngoc (2014)** investigate the behavioral factors influencing the decisions of individual investors Ho Chi Minh, Vietnam. 188 responses were collected with the help of primary survey from individual investors. Factor analysis and weighted average scores were used to analyze the data. Five behavioral factors of individual investors were
studied including herding, market, prospect, overconfidence-gamle’s fallacy, and anchoring-ability bias. Anchoring bias, regret aversion, overconfidence, loss aversion was found to have moderate impact on investor behaviour. Market variables were found to have high impact however, herding variables had moderate impact on the behaviour of investors of Vietnam revealing that investors in Vietnam understood the importance of market information price movement and the importance of technical analysis in forecasting.

2.5 PROBLEMS AND GRIEVANCES OF INDIVIDUAL INVESTOR

Cheema and Singh (1990) studied the awareness of investors regarding brokers, sources of information of investor protection guidelines and problems faced by investors of Amritsar city of Punjab. 150 complete questionnaires were received and used for analysis. The problems faced by stock market investors were enquired including long time taken for allotment of shares, refund of application money, long time taken to register share transfer, insider trading insufficient information regarding performance of company, buying and selling of shares, delay in receiving share/ debenture certificate, delay in receiving dividend / interest. Weighted Average score were calculated for responses by assigning weight of +2 for highly satisfied, +1 for satisfied, 0 for neither satisfied nor dissatisfied, -1 for dissatisfied, -2 for highly dissatisfied. Investors found facing problems were delay in transfer of shares, allotment of shares and refund of application money.

Nayak (2010) investigated the nature of investors’ grievances and addressed the role of grievance redressal agencies. A sample of 200 persons residing in Valsad district of Gujarat state was selected through convenience random sampling. With the help of questionnaire, the investors’ demographic profile, knowledge about various grievances like non receipt of dividend, allotment, annual reports etc., their awareness about the functions of the various grievances redressal agencies and their satisfaction level with regard to their agencies were collected. Percentage analysis and chi-square analysis were the techniques used for data analysis. The chi-square analysis showed a significant difference between the demographic profile and the investors’ grievances. As businessmen and professionals were found more daring, informed, risk bearing as compared to the agriculturists who were found as passive, less informed. An association
between the knowledge aspect and the level of income was found i.e. as the income increases, the proportion of the investors’ awareness regarding grievance redressal agencies increased. The author suggested that as the investments like hedge funds and mutual funds are increasing, there is a huge scope for research work in areas of problems and opportunities of the securities market.

Varghese and Francis (2010) analysed the investment pattern and problems faced by individual investors in capital market of Kerala. The objective of the study was to understand the profile of Individual Investors in the Capital Market in Kerala, factors influencing the investors' demand preferences for assets, their attitudes and perceptions along with the problems faced by investors with respect to the capital market. Both primary and secondary data has been used. Primary data was collected from a sample of around 300 investors with the help questionnaire. The authors found that one-third of the investors entered the capital market through investments in Mutual Funds. The investment pattern of the investors before entering the capital market shows that 42.7 per cent invested in bank deposits and 32.7 per cent invested in mutual funds. The problems faced by investors included change of the norms for new issues frequently, rigging of prices before floating new issues, manipulation of high premium on new issues, undue delay in refunding the application money, issue of allotment letters and in the issue of share certificates. Investors in up country regions lack accessibility to stock exchange, stock-brokers and collection centres of commercial banks, delay and non-payment of dues or non-delivery of shares by brokers, undue delay in transfer of shares by companies and transfer agents and delay or default in payments of dividends on shares and interest on debentures and bonus issues. The results revealed about investor perception that investment with private financiers was found as the most risky and deposits with banks the least risky investment by them. From the liquidity point of view, bank deposits were preferred, followed by investments in gold. The majority of the investors (57.7%) have revealed that they were not net gainers in the primary market operations.

Kumar and Prasad (2010) analyzed the factors influencing investment behaviour and trading practices of retail investors in equity markets. The factors influencing the risk taking ability of retail investors and problems and major worries of retail investors in the capital market were also gauged. Retail investors in this study were
classified into two categories i.e. high risk takers and moderate risk takers with the help of discriminant analysis. The factors age, education, occupation, income and stage of life cycle were found to discriminate moderate risk taker and high risk taker. The majority of investors (77.3%) felt that too much volatility is their major worry in the stock market followed by too much price manipulation (39.3%). Only 19.5% of the investors worried about the fraudulent company promoters/managements. 71.4% of investors in the retired category felt that too much volatility was the major worry in the stock market followed by too much insider trading (45.2%). The majority of the investors (55.6%) felt satisfactory regarding the clearing and settlement services offered by trading channel. Majority of the investors (93.6%) were satisfied regarding handling orders on timely basis. Around 34% of the investors were not satisfied with the investment advises provided by the trading channels. The majority of the investors (92.9%) were satisfied with investment in shares, 89.3% of the investors with mutual funds and only 76.4% of investors are satisfied with investment in bonds/debentures. In the new issue market, 78.0% of the investors were not satisfied with the method of share allotment and 27.4% with the late refund on unsuccessful applications. Only 15.3% of the investors were dissatisfied with the complicated application procedures. The majority of investors (74.3%) were comfortable with present T+2 settlement system.

Venugopal (2012) explored the grievances and redressal mechanism of the small investors in Indian Capital Market. The study was conducted in the state of Andhra Pradesh divided into three geographical regions and the districts selected in the region were Chittoor in Rayalaseema, Krishna in Kostha and Hyderabad in Telagana. A sample of 300 individual investors, i.e. 100 each from three districts was selected for data collection. Grievances faced by investors in primary market, secondary market and towards brokers were gauged. The nature of grievances in the primary market as pointed out by respondents revealed that investing in issues made by the vanishing companies, i.e. fly-by-night companies promoted with a view to mobiles funds though public issues was ranked first with a weighted score of 30.46%. Misleading advertisement (25.27%), Non-listing of securities (15.23%) and Non-receipt of share certificate (12.63%) followed the suit. The liquidity problem with a weighted score of 30.08% was the most distressing one in the secondary market followed by bad delivery (27.38%), delay in transfer and
transmission of securities (19.98%) and problems relating to conversion to shares (9.76%). It was also found that the benefits offered by stock exchange were not fully enjoyed by investors in respect of the majority of listed scrip. It was found that the delays in payment or non-payment on the sale of securities was the major complaint against brokers with a weighted score of 33.39% while charging arbitrary commission (29.13%) and delay in delivery or non-delivery of share certificate (28.62%) are other major complaints in the order of importance.

Kumar and Badruddin (2013) conceptually analysed the protection in primary market and secondary market. The authors conceptually analysed the protection of investors in primary market through the issue of capital and disclosure requirements, protection of investors in securities market through securities contract regulation act, protection of investors through regulation of stock brokers, protection of investors’ from insider trading and fraudulent. The authors recommended suggestions to effectively protect the interest of investor and shareholders i.e. regulation to cancel the illegally allotted securities, regulation to winding up of companies of intermediaries etc. The authors suggested that the Sebi should be empowered to attach and auction the assets and properties of companies who has violated its regulations and further Sebi should initiate actions to hand over unclaimed shares and dividends pending to rightful owners or take in the custody of investor education fund or may credit it to IEPF and in order to utilize for compensating the investors.
2.6 RESEARCH GAPS AND NEED OF THE STUDY

The research on investment behaviour gets insight from three frameworks viz. portfolio choice, behavioral decision making and consumer decision making (Gupta and Chander, 2010). There is a vast amount of literature on the investment behaviour of individual investors covered under the field of study known as Behavioral Finance. The studies have been conducted both at global level and Indian level regarding the portfolio choice, attitudes, biases, problems of individual investors from stock market. No doubt, there is ample literature on investment behaviour of individual investors but literature is limited in respect to the investment behaviour of individual investors of stock market in India particularly in the state of Punjab which is a rich state and is undoubtedly a great source of substantial revenues and investment opportunities.

After a thorough literature review, a need was felt to study the decision and economic variables which influence the decisions of investors in Punjab to invest in stocks (high risk investment) and at the same time, decision and economic variables that influence them to invest in other investments (low and medium risk investment). Further, impact of such variables on their preferences for both set of investments respectively was an area found to be where research was found to be lacking.

An analysis of the available literature revealed that a very little work had been done globally and at Indian level to analyze the attitudes which influence the investment decisions of individual investors. This was found to be more true in case of Punjab. Therefore, a need was felt to delve into this issue too.

Behavioral biases form a major aspect of behavioral finance which explains applying of heuristics or shortcuts by investors to take investment decisions. These heuristics or biases influence the behaviour of investors and was found as a major area which required to be extensively studied.