CHAPTER-VIII

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

Individuals making investing decisions face a daunting task (Ackert and Church, 2006). The expectations of investors play a very important role in the financial market. Such expectations are found to have great influence on the investor’s behaviour. These can affect the price of the securities, the volume of trading and the various other financial operations in actual practice (Rangnanthan, 2006).

In order to get higher returns, mankind has always been persuaded to develop more and more avenues of investments. The establishment of the company form of organization and the subsequent trading in their shares and derivatives based on them are all an effort in this direction (Gupta and Chander, 2010). Today, financial services and the economic sector generally are more highly diversified than ever. This diversification means that individual investors have a wider range of investment instruments and greater choice of how to invest their money (Warren et.al, 1990).

There are many assets (e.g. stocks, bonds, derivatives, fixed deposits, gold, real estate etc) which an investor can include in his portfolio (Mayo, 2009). Each of this investment has common characteristics such as potential return and the risk one must bear. The future is uncertain, and one must determine how much risk you are willing to bear since higher returns is associated with accepting more risks (Kabra et.al, 2010). In this context of increasing role and complexity, any lack of awareness about the available choices and their characteristics and the consequent inability to choose products optimally, could significantly affect individuals’ financial outcomes (Aggarwal et.al, 2012).

Economic models assume that the investors are rational and the decisions made by them are unbiased. The behaviour of the individual investors involving technical analysis and the rational thinking has been studied extensively under such models. However in reality, in the financial services industry, the irrational reactions of the investors can be observed that deviate from the aspects of rationality. Researchers such as Kahneman and Tversky (1979) have focused more on the psychological aspects of
individual investment decisions and have identified the behaviour of the individual investor’s that systematically violates Expected Utility Theory.

Behavioural finance is a new and growing academic discipline that merges finance and psychology and studies investor behaviour. Within behavioural finance it is assumed that the information structure and the characteristics of the market participants systematically influence individual investment decisions as well as the market outcomes (Al-Tamimi, 2006). Empirical studies of the behaviour of the individual investors first appeared in 1970’s. Amos Tversky, Daniel Kahneman, Werner DeBondt, Richard Thaler and Meir Statman have contributed greatly to the behavioural finance literature.

The thrust of the proposed study will be on understanding the dynamics of the investment behaviour of individual investors from stock market of Punjab. The review of existing literature reveals that no single study has attempted to understand the investment behaviour of individual investors of Punjab with respect to investment preferences, factors influencing preferences and attitudes and biases influencing investor behaviour. Therefore, a need was felt to fill in this gap in the literature. The present study not only focuses on identifying the factors which influence an individual investor to invest in stocks (high risk investments) and other investments (low and medium risk investments) but also makes a comparison between the two. The study also examines the attitudes that investors have towards financial decisions and psychological biases that influence their decisions along with problems faced by investors. The specific objectives of the study are:

1. To identify the factors which influence the individual investors to invest.
2. To conduct a comparative analysis of the investment preferences for stocks vis-a-vis other investment avenues.
3. To examine the attitudes and psychological biases influencing the investor behaviour.
4. To uncover the problems which the investors encounter.
5. To suggest some suitable recommendations to financial consultants and individual investors.
8.2 REVIEW OF RELEVANT LITERATURE

A number of theoretical and empirical studies are available concerning the psychology of investors towards making investment decisions involving role of demographics, psychographics, heuristics, lifestyles, attitudes etc. in the financial behaviour of individual investors. The studies related to investment behaviour of individual investors covered under the area of Behavioural Finance conducted in and abroad were reviewed to have a general overview of the studies which highlighted the following issues –

- **Factors Influencing Individual’s Investment Behaviour**

  The decision variables and especially economic variables have great influence for individual investors when making stock purchase decisions as well as other investment decisions (Kiran and Rao, 2004; Shim et.al., 2008; Kumar et.al., 2008; Iqbal and Usmani, 2009; Kabra et.al., 2010; Singh et.al., 2010; Selvam and Bennet, 2011; Bennet et.al., 2011; Bennet and Selvam, 2013). The various factors which have an impact on the stock market purchase decisions as well as purchase decisions of other investments (i.e. low and medium risk investment) have been reported in the literature (Nagy and Obenberger, 1994; Merikas and Vozikis, 2004; Al-Tamimi, 2006; Kumar et.al, 2008 and Al-Tamimi and Kalli, 2009).

- **Investment Preferences and differences in preferences**

  The decisions of investors depends on the types of investors, risk tolerance capacity, education, occupation, age, sex, income, marital status, family background etc. The issue have been studied by previous researchers (Cohn et.al., 1975; Gupta, L.C., 1991; Ghazali and Othman, 2001; Rajarajan, 2003; Nagpal and Bodla, 2007; Walia et.al., 2009; Reddy and Krishnudu, 2009; Sultana, 2010; Lutfi, 2011; Merkoulova-Veld, 2011; Harikanth and Pragathi, 2012; Ramanujam and Devi, 2012; Jain and Dashora, 2012; Samudra and Burghate, 2012; Bashir et.al., 2013; Bairagi and Rastogi, 2013 and Agarwal and Jain, 2013). The literature covers different aspects of investor’s preferences such as savings and investment patterns of household investors, role of demographic and lifestyles in investor’s decisions.
Summary, Conclusions And Recommendations

- **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). 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. The issue has been studied by previous researchers (Lease, Lewellen and Schlarbaum, 1974; Firer, 1988; Warren et.al., 1990; Sharma and Sharma, 2004; Wood and Zaichkowsky, 2004; Clark-Murphy and Soutar, 2005 and Funfgeld and Wang, 2009).

- **Behavioural Biases influencing Investment Behaviour**
  
  Numerous psychological biases have been discussed and described in detail in behavioural 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), loss aversion and disposition effect (Shefrin and Statman, 2000; Odean, 1999), cognitive dissonance (Goetzmann and Peles, 1997), status quo bias (Samuelsons and Zeckhauser, 1988), endowment bias (Kahneman et.al., 1990) and overconfidence bias. A number of studies (Tversky and Kahneman, 1974; Shefrin and Statman, 1985; Goetz Mann and Peles, 1997; Odean, 1999; Iyer and Bhaskar, 2002; Chen et.al, 2005; Fogel and Berry, 2006; Sevil et.al, 2007; Bhandari et.al., 2008; Chira et.al., 2008; Zoghlami and Matoussi, 2009; Chandra, 2010; Gupta and Chander, 2010; Luong and Ha Thu, 2011; Chandra and Kumar, 2011; Kourtidis et.al., 2011; Jain, 2012; Zaidi and Tauni, 2012; Sahi and Arora, 2012; Subash and Bata, 2012; Bashir et.al., 2013 and Ngoc, 2014) analyzed the psychological biases influencing stock selection decision.

- **Problems and Grievances of Individual Investor**
  
  It has been observed that the individual investors do become the victims of the malpractices and negligence of the companies, mutual funds, merchant bankers and brokers. The studies reviewed on issue of problems and grievances of individual
investors include Cheema and Singh, 1990; Nayak, 2010; Varghese and Francis, 2010; Kumar and Prasad, 2010; Venugopal, 2012; Kumar and Badruddin, 2013.

8.3 RESEARCH METHODOLOGY

The following research methodology (Table 8.3.1) has been used to achieve the objectives of the study.

TABLE 8.3.1
RESEARCH FRAMEWORK SCHEME

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Objective I</th>
<th>Objective II</th>
<th>Objective III</th>
<th>Objective IV</th>
<th>Objective V</th>
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</thead>
<tbody>
<tr>
<td>Factors which influence the investors to invest in stocks and other investments</td>
<td>Comparative analysis of investment preferences for stocks vis-a-vis other investments</td>
<td>Attitudes and psychological biases influencing the investor behaviour</td>
<td>Problems faced by individual investors</td>
<td>Recommendations to financial consultants and individual investors</td>
<td></td>
</tr>
<tr>
<td>Literature used</td>
<td>Managerial, Financial and Psychological Literature</td>
<td>-do-</td>
<td>-do-</td>
<td>-do-</td>
<td>-do-</td>
</tr>
<tr>
<td>Sample and Data Source</td>
<td>Individual investors from stock market; Primary data</td>
<td>-do-</td>
<td>-do-</td>
<td>-do-</td>
<td>-do-</td>
</tr>
<tr>
<td>Research Methodology</td>
<td>Factor Analysis, Multiple regression analysis</td>
<td>Weighted Average Scores, Descriptive, Paired Sample T-test, Chi-square test</td>
<td>Factor Analysis, Cluster Analysis, Discriminant Analysis, Weighted Average Scores</td>
<td>Weighted Average Scores</td>
<td>On the basis of findings of the study</td>
</tr>
<tr>
<td>Variables used</td>
<td>Decision and Economic variables</td>
<td>-Investment avenues types -Demographics including age, gender, marital status, education, occupation, income</td>
<td>-Psychographics/attitudes -Heuristics</td>
<td>Problems faced</td>
<td>-Recommendations to financial consultants -Recommendations to individual investors</td>
</tr>
<tr>
<td>Empirical Analysis</td>
<td>Chapter IV</td>
<td>Chapter V</td>
<td>Chapter VI</td>
<td>Chapter VII</td>
<td>Chapter VIII</td>
</tr>
</tbody>
</table>
8.4 NEED OF THE STUDY

The research on investment behaviour gets insight from three frameworks viz. portfolio choice, behavioural 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 Behavioural 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. After a thorough literature review, a need was felt to study the decision and economic variables that influence the decisions of investors to invest in stocks (high risk investment) and at the same time, decision and economic variables which 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 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. Behavioural biases form a major aspect of behavioural 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.

8.5 SAMPLE DESCRIPTION

The operational definition of Individual Investors for the present study are the individual investors from stock market investing in other investments and the stock market investments on daily basis or occasionally either on their own or with the help of stock market trader. The population of the study is the entire universe of the individual investors from the stock market of Punjab. Individual Investors were selected from three cities i.e. Amritsar, Jalandhar and Ludhiana in equal proportion. The city wise sample selection is represented in Table 2 revealing that 225 investors were contacted in each city for achieving the desired sample of 600, however in total, 607 complete responses
were received and further used for analysis purpose. Since it was not feasible for enlisting of entire individual investors investing in stock market from Punjab, so a list of individual investors was prepared with the help of brokers and thereafter the sample of investors was selected from the list with the help of simple random sampling. The lists included the name and contact number of the individuals. It is worthwhile to mention here that the individual investors were residents of the cities surveyed and the study is confined to the octroi limits of the mentioned cities.

### TABLE 2

**CITY WISE SAMPLE SELECTION OF INVESTORS**

<table>
<thead>
<tr>
<th>City</th>
<th>Investors contacted for achieving the desired sample</th>
<th>Actual complete responses received and used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amritsar</td>
<td>225</td>
<td>204</td>
</tr>
<tr>
<td>Jallandhar</td>
<td>225</td>
<td>201</td>
</tr>
<tr>
<td>Ludhiana</td>
<td>225</td>
<td>202</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>675</strong></td>
<td><strong>607</strong></td>
</tr>
</tbody>
</table>

#### 8.6 DATABASE

The present work is primarily based on primary data collected from 607 respondents from Punjab. The respondents were interviewed through a non-disguised, structure schedule. However, secondary data have also been used to delve upon the household savings and investments. The present study is focused on the individual investors from stock market residing in the three economically significant districts of Punjab i.e. Amritsar, Jallandhar and Ludhiana. These districts have been selected because they comprise of the highest overall urban population. These districts were also selected on the basis of the geographical division of Punjab into Majha, Malwa and Doaba. Amritsar district represents Majha, Jallandhar district represents Doaba and Ludhiana district represents Malwa.

#### 8.7 QUESTIONNAIRE

For the purpose of data collection, research instrument i.e. questionnaire was used. The questionnaire was prepared with the help of insights from various researches done in the past. First version of questionnaire was pre-tested on 100 individual investors.
There were slight modifications in the contents of the questionnaire which were later modified before the actual data collection process took place. The responses collected in the pretesting of questionnaire were not considered for the analysis of the data.

To ensure the validity of the questionnaire, the research instrument was discussed with the academicians and industry experts. Final questionnaire was developed with few additions and deletions. The description of the questionnaire is given in the following paragraphs.

**Part A**

This part of the questionnaire consisted of personal information about the respondents regarding their name, location, gender, occupation, educational qualification, marital status, annual income, information about their portfolio i.e. time period of holding investments, composition of equity portfolio, time spent on investment monitoring, sources of information used and time since entered stock market along with their objective of investment.

**Part B**

The first question of this part focused on identifying the preferences of investors for various investment avenues on a scale of most preferred to least preferred. The second and third question focused on identifying the variables that influence the investors to invest in other investments (low and medium risk investment) and stocks (high risk investment) respectively. Similar 28 variables were used in both the constructs to make a comparison in the preferences for other investments (low and medium risk investment) and stocks (high risk investment). The respondents were also asked about highly preferred low risk investment and their overall preference for low and high risk investment was also gauged. Similarly, their overall preference for stocks was also gauged. The variables were taken from the previous studies (Nagy and Obenberger, 1994; Kiran and Rao, 2004; Merikas and Vozikis, 2004; Al-Tamimi, 2006; Kumar et.al, 2008; Al-Tamimi and Kalli, 2009; Kabra et.al, 2010; Selvam et.al, 2011; Lease, Lewellen and Schlarbaum, 1974; Sultana, 2010; Bairagi and Rastogi, 2013). These three questions helped in achieving first two objectives of the study. For these constructs, investors were asked to rate on a scale of most important to least important for 28 variables that influence them to invest.
The fourth question of this part included the statements on the attitudes that the individual investors hold towards making investment decisions. The dimensions in this construct were psychographic variables studied by various previous researchers (Lease, Lewellen and Schlarbaum, 1974; Sharma and Sharma, 2004; Wood and Zaichkowsky, 2004; Clark-Murphy and Soutar, 2005 and Funfgeld and Wang, 2009).

The fifth question of this part was based on behavioural biases which influence investors’ behaviour. Several questions in the form of statements about various behavioural tendencies like loss aversion and disposition effect (Shefrin and Statman, 1985 and Odean, 1998), prospect theory and representativeness heuristics (Kahneman and Tversky, 1974), herding effect, cognitive dissonance and mental accounting. In addition, statements on financial planning and retirement planning (Mayo, 1994 and Gupta and Chander, 2010) were also considered. Market factors influence the investors in different ways, so that it was not adequate if market factors were not listed when considering the behavioural factors influencing the investment decisions, as given by Luong and Ha Thu, 2011 together with the research of Waweru et al., 2008 and Gupta and Chander, 2010. So, market factors were considered in the present study as behavioural factors influencing the decisions of individual investors. For these behavioural statements, investors were asked to rate these statements on a scale of strongly agree to strongly disagree.

The sixth and seventh question of this part focused on identifying the problems or grievances of individual investors towards investing in stocks and other investments.

8.8  STATISTICAL TECHNIQUES

Commensurate with the objectives of the study to understand the investment behaviour of individual investors of Punjab, the survey has been analysed and categorized by using descriptive statistical tools. Tables and figures have been presented with proper titles and captions to show clear, self-descriptive and informative display of the results. Factor analysis has been used to group the variables into identifiable categories. Multiple regression analysis is applied to study the impact of decision and economic variables on overall preference for stocks (high risk investment) and to analyze the impact of decision and economic variables on overall preference for other investments (low and medium risk investment). In the present study, an attempt has been
made to compare the perception of respondents regarding the variables influencing their investment preferences for stocks (high risk investment) vis-a-vis other investments (low and medium risk investment). Since, the responses were derived from same set of people, i.e. sample was not independent of each other, so paired sample t-test is applied to the data of responses to identify the differences in their perceptions. Further, chi square test has been used to determine if there is significant association in the preferences of the individual stock investors of Punjab for stocks vis-a-vis other investments avenues across their demographics such as age, marital status, educational qualification, occupation and family income. Cluster analysis technique has been used to classify the given respondents into different groups on the basis of their psychographic tendencies based upon their attitudes towards investing. One way ANOVA has been used to determine which classifying variables are significantly different between the clusters because there are a large number of respondents. Weighted average scores was used to estimate the mean when the data had been collected using an interval or ratio-scale. Discriminant Analysis has been carried out to identify the most significant discriminating factor that influence the investment behaviour of three clusters groups of investors.

8.9 STRUCTURE OF THE STUDY

1. The first chapter is a brief introduction to the various investment options available to individual investors and role of household savings in Indian financial system including role of psychographics in investment decisions, various factors and psychological influences affecting investment decisions.

2. The second chapter discusses the relevant literature related with the study and the literature is grouped into five categories according to the issues they touched upon.

3. The research methodology applied for studying the set objectives is discussed in the third chapter.

4. In chapter four, the variables have been categorized into identifiable factors with the help of factor analysis that influence investors to invest in Stocks (high risk investment) and other investment avenues (low and medium risk Investments) and further the impact of such factors on their overall preference has been gauged.
Summary, Conclusions And Recommendations

5. The comparative analysis of investment preferences of the individual investors for stocks (high risk investment) vis-a-vis other investment avenues (low and medium risk investments) using paired sample t-test has been discussed in chapter five along with the preferences for Stocks (high risk investment) vis-a-vis other investment avenues (low and medium risk investment) across demographics.

6. Chapter six discusses the attitudes that investors have towards investing and behavioral biases influencing their investment behavior.

7. The theoretical explanation of problems and grievances faced by individual investors in stock market along with weighted average means calculated for problems faced by investors on given set of problems have been discussed in chapter seven.

8. In chapter eight, major findings, conclusion and suggestions to the financial consultants and individual investors along with scope for further research have been discussed.

8.10 FINDINGS

Factors which influence investors to invest in stocks (high risk investment)

- The 28 variables were grouped into ten factors i.e. Credibility factor as first factor, Family/ Friend recommendation factor as second factor followed by Benefits factor as third factor. Other factors formed were Personal financial needs factor, Pre- Investment analysis factor, Market information factor, Expert advice factor, Low volatility influences factor, Pocket friendly factor and Religious beliefs factor.

- Credibility factor was found to have highest impact on the overall preference for stocks (high risk investment) as derived with the help of regression analysis. It includes variables i.e. Legality, Concealability, Professional management and Associated risk indicating that investors rely and emphasize on stocks which are within applicable laws and safe from social disorders and government confiscation. The reason can be explained by the fact that the lack of confidence, loss averse behaviour and low expert advice experience lead investors to be more considerate in legal confiscations in order to avoid risk of loss when investing in a particular stock.
Summary, Conclusions And Recommendations

- Pre-Investment analysis factor was found as the second most impacting factor. Market information factor was found as the third most impacting factor and Benefits factor as the fourth most impacting factor having positive significant impact on overall preference for stocks (high risk investment). Expert advice factor and recommendations of family/friends were found to have low impact on overall preference for stocks (high risk investments).

Factors which influence investors to invest in other investments (low and medium risk investment)

- The variables that influenced investors to invest in other investments were grouped into eight factors. Benefits Factor was found as first factor, Pocket friendly factor was found as second factor and Credibility factor as the third factor followed by Friend/Family recommendation as fourth factor. Personal financial needs factor, Pre-Investment analysis factor, Expert advice factor and Religious beliefs factor were rest of the factors formed.

- Benefits factor was found to have highest positive impact on overall preference for low and medium risk investments as found with the help of regression analysis including variables i.e. Liquidity, Stability of income, Flexibility, Safety of principal, High returns, Convenience, Tax benefit, Capital growth and Associated risk. This finding can be explained by the fact that the investors want to play safe and have security needs in their mind towards making investment decisions.

- Regression analysis results revealed that Pocket friendly factor was found as second most impacting factor followed by Friend/Family recommendation factor as the third most impacting factor on overall preference for other investments (low and medium risk investment). Credibility factor, Personal financial needs factor and Expert advice factor had positive and significant impact on overall preference for low and medium risk investments. Religious beliefs factor was found to have an insignificant impact.

- Pre-Investment analysis factor had significant but negative impact on overall preference for other investments (low and medium risk investment). The reason for negative relation can be explained by the fact that when investors go for understanding of technical aspect of investing like following market indicators, past portfolio performance and returns and stock market indices, their demand for
low and medium risk investments decreases and on the other hand, such analysis increases their demand for stocks i.e. high risk investment.

**TABLE 8.10.1**

THUMB NAIL SKETCH OF THE FACTORS THAT INFLUENCE TO INVEST IN STOCKS (HIGH RISK INVESTMENT) VIS-A-VIS OTHER INVESTMENTS (LOW AND MEDIUM RISK INVESTMENTS)

<table>
<thead>
<tr>
<th>Factors influencing investors to invest in stocks (high risk investment)</th>
<th>Impact level of factor on overall preference for stocks</th>
<th>Factors influencing investors to invest in other investments (low and medium risk investments)</th>
<th>Impact level of factor on overall preference for other investments</th>
</tr>
</thead>
</table>
| F₁: Credibility Factor  
Legality, Concealability, Associated risk, Professional management | Significant (Highest Impact) | X₁: Benefits Factor  
Liquidity, Stability of income, Flexibility, Safety of principal, High returns, Convenience, Tax benefit, Capital growth, Associated risk | Significant (Highest Impact) |
| F₂: Family/ Friend Recommendation Factor  
Family member opinion, Friend or peer recommendation, Safety of principal | Significant | X₂: Pocket friendly Factor  
Low transaction cost, Future security, Inflation resistance, Rumors, Coverage in financial news | Significant |
| F₃: Benefits Factor  
Liquidity, High returns, Diversification needs, Inflation resistance | Significant | X₃: Credibility Factor  
Legality, Concealability, Terms and conditions | Significant |
| F₄: Personal Financial Needs Factor  
Competing financial needs, General trend of investments in public | Insignificant | X₄: Friend/ Family Recommendation Factor  
Friend or peer recommendation, General trend of investment in public, Family member opinion | Significant |
| F₅: Pre-Investment Analysis Factor  
Convenience, Current economic indicators, Past performance of the portfolio | Significant | X₅: Personal Financial Needs Factor  
Competing financial needs, Diversification needs | Significant |
| F₆: Market Information Factor  
Coverage in financial news, Fluctuation in stock index, Terms and conditions, Rumors | Significant | X₆: Pre-Investment Analysis Factor  
Current economic indicators, Past performance of the portfolio, fluctuations in stock index | Significant but Negative |
| F₇: Expert Advice Factor  
Financial Analyst and advisory recommendation, Tax benefit | Significant | X₇: Expert Advice Factor  
Professional management, Financial analyst and advisory recommendation | Significant |
Comparative analysis of preferences for stocks (high risk investment) vis-a-vis other investments (low and medium risk investment)

- The stock investors in Punjab placed fixed deposits as their highly preferred investment followed by gold as the second highly preferred investment. The investment in real estate was ranked the third most preferred investment by them followed by equity or common stocks as fourth preferred investment and mutual funds as fifth preferred investment option.

- It was analyzed that individual investors placed investment in common stock or equity at fourth position, however other high risk investments i.e. investment in derivatives, futures options and others (like commodities) and debentures were among least preferred. On the other hand, preferences towards low and medium risk investments i.e. fixed deposits, gold, real estate was found to be quite high.

- Post office schemes was found to be the sixth most preferred investment option and Life Insurance as the seventh most preferred investment among stock investors in Punjab. SIP’s i.e. Simple Investment plans ranked as the eighth investment in order of their preference. However among the least preferred investments with very low weighted average scores were ULIP’s i.e. Unit linked Insurance plans, infrastructure bonds/ govt. securities, derivatives/futures/options/swaps, others and debentures.

- The overall preference of the individual investors towards stocks i.e. high risk and other investments i.e. low and medium risk investments was also gauged, and it was found that investors preferred low and medium risk investments with WAS of 4.01 over high risk investments with WAS of 3.19 revealing that the individual investors in Punjab had a risk averse attitude.
• It was found that individual stock investors ranked Medium-term capital appreciation (greater than 6m but less than 5yrs) as their major objective behind investment followed by Retirement planning as their second most important objective of investment and tax considerations was ranked as third important objective of investment.

• Television was the major source of information revealing that information received from business channels highly influenced their investment behavior followed by newspapers as their second major source of information.

• Highest percentage of individual investors in Punjab liked to invest 50,000-1,00,000 in a year. 27.75% of respondents stated that they preferred to invest about 1,00,000-2,50,000 in a year.

• 70.7% of investors in Punjab liked to hold their investments for 1-5 years and 22.9% of individual investors liked to hold investments for less than a year.

• It was found that 44.2% of investors held 6 to 10 stocks in their portfolio followed by 33.9% of investors who were found holding 3 to 5 stocks.

• Results revealed that 45.6% of investors belonged to category of 2-5 years of entering stock market followed by 26.9% of respondents who belonged to category of 5-10 years.

• 61.3% of respondents answered that they monitor monthly followed by 22.4% of respondents who monitored investments occasionally and only 16.3% of respondents monitored their investments daily.

• Paired sample t-test was applied to compare the perception of respondents regarding the variables influencing their investment preferences for stocks (high risk investment) vis-a-vis other investments (low and medium risk investment). The results revealed that the individual investors significantly differed in their perception for 23 variables i.e. High Returns, Liquidity, Convenience, Tax Benefit, Safety of Principal, Future Security, Flexibility, Diversification Needs, Stability of Income, Low Transaction Cost, Risk Associated, Legality, Rumors, Current economic indicators, Religious reasons, Inflation Resistance, Professional Management, Past performance of your portfolio, Coverage in financial news,
Family member opinion, Friend or Peer recommendation, Capital Growth, Fluctuations in stock index.

- However, the rest 5 variables i.e. General trend of investment in public, Concealability, Financial analyst and advisor recommendation, Terms and conditions and Competing financial needs had same influence for individual investors of Punjab while investing towards stocks (high risk investment) vis-a-vis other investments (low and medium risk investment).

- The results revealed that young individual investors belonging to age group of Upto 30 years i.e. young investors and senior investors (i.e. above 60 years) preferred more of other investments (low and medium risk investment) than stocks (high risk investments). Investors of lower middle age group i.e. 30-45 years had neutral preference for both set of investments i.e. stocks as well as other investment avenues. However, the investors belonging to upper middle age group i.e. 45-60 years preferred to invest in stocks i.e. respondents of Punjab belonging to this age group were more risk takers as compared to other age groups. The results revealed that lower age group investors of Punjab preferred less risky investments; reason could be that such investors fall into low income group and do not have much confidence and funds to put their money at stake.

- The results revealed that married respondents had more overall preference for stocks i.e. high risk investment and single investors preferred more of low and medium risk investments i.e. single investors were found to be more risk averse. The reason can be explained by the fact that single young investors lack funds in order to take risk to invest in high risk investments, however, on the other hand married respondents have more funds and risk taking ability but such investors have equal high preference for low and medium risk investments too.

- Significant difference revealed that less than graduates, graduates and doctorates preferred more of low and medium risk investments as compared to post graduate (professional degree) and post graduate (non professional degree). The findings can be enlightened by the fact that the computation of risk and return profiles of capital market investments are more complex and difficult to estimate leading to
the fact that the investors who hold good educational profile have more risk taking ability and prefer to invest in stocks (high risk investment).

- Comparison of percentages revealed that housewives, retired and other investors preferred more of other investments (low and medium risk investment). Own business investors had an almost neutral preference for both sets of investments. Service-govt. investors had neutral preference for stocks (high risk investment) and other investments (low and medium risk investment). However, results revealed that stocks (high risk investments) were preferred by service-private employees and professionals with more percentage of preference.

- Significant difference in the overall preference of the investors for stocks (high risk investments) was found across the income groups of investors. Lower income group investors had low preference for stocks and high level of preference for other investments (low and medium risk investment). High income groups had neutral preference for other investments (low and medium risk investment) and high level of preference for stocks (high risk investment). Middle income group of investors had neutral preference for both stocks (high risk investment) and other investments (low and medium risk investment).

- The results concluded that as the age increases and the income increases, the risk taking ability of the individual stock investors’ of Punjab increases. So, low income respondents tend to be risk averters, while wealthier respondents tend to be risk seekers. This implied that income may affect an investor’s risk behaviour.

**Attitudes influencing Investor Behavior**

- Individual investors hold attitudes towards making investment decisions. The investors were categorized on the basis of such attitudes with the help of cluster analysis. The three types of clusters were found i.e. Risk Intolerant Investors, Conservative Moderate Investors and Rational Confident Investors.

- The first segment i.e. “Risk Intolerant Investors” constituted highest number of respondents i.e. (N=223) and included young investors and senior investors earning low income. Such investors were found to be risk averse, having less
interest and knowledge in financial issues. Such investors preferred investments with lowest risk with less return. The results revealed that such investors do not have knowledge and much interest in financial issues, low confidence, highly intuitive. So, results revealed that their decisions are prejudiced due to certain reasons which need to be identified to make effective decisions.

- The second cluster “Conservative Moderate Investors” also constituted the major share of respondents in the study (N=213). Such investors neither agreed nor disagreed to having high knowledge or interest in financial issues i.e. they revealed a moderate level of knowledge. Such investors followed traditional approach of investing; had medium level of interest and knowledge of financial issues and followed their customary methods of taking decisions.

- The third cluster constituted “Rational Confident Investors” who exhibited a prudent and considerate financial behaviour. The investors falling under this cluster (N=171) managed financial matters in a rational manner. They preferred adequate savings, had high interest in financial issues, were risk takers, more confident and had high knowledge of investments. This cluster constituted middle age group, well educated and earning good income investors.

- The list of psychographic variables was categorized into eight factors with help of factor analysis. The factors formed showed the type of attitudes investors hold and were named accordingly i.e. Confidence factor, Financial interest factor, Apprehension factor, Optimism factor, Knowledge factor, Intuition factor, Risk factor and Control factor.

- Further, the application of Discriminant analysis technique clearly revealed the attitude factors as derived from factor analysis that best discriminated among the three cluster groups on the basis of two functions. The variables loaded on function 1 were Intuition factor (F_6), Apprehension factor (F_3) and Control factor (F_8) and the variables loaded on function 2 included Financial interest factor (F_2), Confidence factor (F_1), Optimism factor (F_4), Risk factor (F_7) and Knowledge factor (F_5).
Respondents in cluster 3 were mapped as the one having negative feeling towards intuition factor i.e. they were not intuitive while taking investment decisions and cluster 1 and 2 had positive feeling towards intuition factor.

Respondents belonging to cluster 1 and 2 had positive feeling towards apprehension attitude while cluster 3 respondents had negative feeling towards apprehension attitude when making investment decisions.

Investors falling in cluster 3 had low control attitude as compared to respondents in cluster 1 and 2 who had positive feeling towards control factor.

Respondents in cluster 3 had positive feeling towards financial interest factor which had highest loading on function 2 revealing more financial interest as compared to respondents in cluster 1 and 2 who were found having negative feeling towards interest in financial issues.

Respondents in cluster 3 were found to have positive attitude towards Confidence factor (F₁) revealing that respondents in cluster 3 were more confident in investment decision making while investors in cluster 1 and 2 do not hold such. Optimism factor (F₄) and Knowledge factor (F₅) were also loaded on function 2 and it could be interpreted that investors in cluster 3 were more optimistic and knowledge seekers than respondents in cluster 1 and 2. Further, respondents belonging to cluster 3 had positive feeling towards Risk factor (F₇) revealing that such investors had high risk taking ability and respondents falling in cluster 1 and 2 were low risk takers as they had negative feeling towards this factor.

The following Table 8.10.2 gives the comparative description of the clusters so derived.
### TABLE 8.10.2
THUMB NAIL SKETCH OF THE CLUSTERS

<table>
<thead>
<tr>
<th>Cluster 1- Risk Intolerant Investors</th>
<th>Cluster 2 – Conservative Moderate Investors</th>
<th>Cluster 3- Rational Confident Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Such investors follow a narrow minded approach with low confidence attitude towards investment decisions as these investors are highly intuitive, do not take pain of much technical analysis and are risk avoiders.</td>
<td>Such investors have a neutral confidence level followed by neutral level of interest in financial issues, knowledge in financial issues, precautionary saving and risk and control attitude. Such investors follow traditional approach of investing revealing a neutral attitude towards investment decisions.</td>
<td>The investors in this cluster are confident, firm decision makers, anxious yet optimistic, have high interest in investments, least intuitive, have high knowledge of investments, neutral control, low need for precautionary saving and hold a high risk taking ability. Such investors reveal a high level of positive attitude towards investment decisions.</td>
</tr>
<tr>
<td>Includes young investors (Upto 30 yrs) and senior investors (above 60 yrs).</td>
<td>Includes lower middle age group investors (30-45 yrs)</td>
<td>Includes upper middle age group investors (45-60 yrs)</td>
</tr>
<tr>
<td>Females are overrepresented</td>
<td>Equally likely to be female or male</td>
<td>More likely to be male</td>
</tr>
<tr>
<td>Equally likely to be single or married</td>
<td>Equally likely to be married or single</td>
<td>Equally likely to be married or single</td>
</tr>
<tr>
<td>Qualification of Less than graduation and graduation</td>
<td>Post graduate (other than prof degree), doctorate</td>
<td>Post graduate (Prof. Degree)</td>
</tr>
<tr>
<td>Low Income Group</td>
<td>Middle Income Group</td>
<td>Middle High and High Income Group</td>
</tr>
<tr>
<td>Occupation of housewife, retired, others, service govt., own business</td>
<td>Occupation of service – private, own business</td>
<td>Occupation of professionals, service private.</td>
</tr>
<tr>
<td>High preference for low and medium risk investments</td>
<td>Neutral preference for low and medium risk investments and stocks i.e. high risk investments</td>
<td>High level of preference for stocks i.e. high risk investments.</td>
</tr>
</tbody>
</table>
Behavioral Biases Influencing Investor Behavior

- Several behavioral biases which influenced the investment decisions of individual investors of Punjab were grouped into eight factors i.e. Aversion bias, Herding bias, Market factor bias, Overconfidence bias, Budgeting bias, Representativeness bias and Disposition bias.

- Herding bias was found to have highest impact on the behavior of investors with average score of 4.01 and values of mean of variables were also high leading to conclusion that investors followed herd behavior when making investment decisions.

**TABLE 8.10.3**

**BEHAVIORAL BIASES AND THEIR LEVEL OF IMPACT ON INVESTMENT BEHAVIOR**

<table>
<thead>
<tr>
<th>Label</th>
<th>Behavioral biases Factors</th>
<th>Average Score of Factor</th>
<th>Impact Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>F₂</td>
<td>Herding Bias</td>
<td>4.01</td>
<td>Highest</td>
</tr>
<tr>
<td>F₃</td>
<td>Market Factor Bias</td>
<td>3.72</td>
<td>Moderate</td>
</tr>
<tr>
<td>F₅</td>
<td>Budgeting Bias</td>
<td>3.68</td>
<td>Moderate</td>
</tr>
<tr>
<td>F₁</td>
<td>Aversion Bias</td>
<td>3.59</td>
<td>Moderate</td>
</tr>
<tr>
<td>F₄</td>
<td>Overconfidence Bias</td>
<td>3.59</td>
<td>Moderate</td>
</tr>
<tr>
<td>F₇</td>
<td>Disposition Bias</td>
<td>3.35</td>
<td>Moderate</td>
</tr>
<tr>
<td>F₆</td>
<td>Representativeness Bias</td>
<td>2.66</td>
<td>Slightest</td>
</tr>
</tbody>
</table>

- Market factor bias had moderate impact on the investment behavior of individual investors of Punjab with an average score of 3.72 revealing that investors’ decisions were influenced by the technical analysis as well.

- The decisions of Individual investors of Punjab had a moderate impact of Budgeting bias on their investment behavior with an average score of 3.68. It was revealed that investment decisions of investors were greatly influenced by
budgeting bias i.e. they had a tendency to decide upon investments on the basis of their planning for savings rather than for profit making and risk taking.

- Aversion bias i.e. tendency of individual investor of avoidance of loss, having regret in decisions and treating their money separately. It was found that average mean of variables included in this factor was 3.59 revealing that aversion biases and anchoring bias had moderate impact on investor behavior.

- The impact of overconfidence towards decision making of investments was also moderate with average score of 3.59. So, it could be concluded that decisions were moderately effected by the overconfident behavior of individual investors of Punjab.

- Disposition bias also had moderate impact on investment behavior of investors i.e. investors had a tendency of holding losing stocks and selling winning investments i.e. their behavior was affected with disposition effect.

- Representativeness bias had slightest impact on investment behavior of individual investors with average score of 2.66. The findings revealed that investors do accept their past mistakes and similar events or past events slightly influenced the behavior of investors.

Problems faced by Individual Investors

- Non-receipt of allotment advise/refund orders was found as major problem as it was ranked first.

- Non-receipt of dividend was ranked as second major problem revealing that investors in Punjab were facing problem relating to non receipt of dividends payable on shares. This forms as one of the major problem as it affects the return of investors from stocks.

- Third problem was related to non-offering of right issues revealing that investors were not offered or not aware of offering of right issues.

- Difficulties in transfer and transmission, de-listing of securities, non-receipt of annual report/ AGM Notice / Proxy Form and demat related problems were ranked as fourth, fifth, sixth and seventh.

- Filing of complaint with SEBI was one of among other important problems and was ranked eighth as compared to other problems.
• Understanding terms and conditions was ninth ranked problem.
• Delay in receiving duplicate certificates, problem in services provided or abuses by broker/brokerage houses, arbitrary commission charged by broker/brokerage houses, non registration of change in address and misstatement in annual report were ranked among low faced problem.

8.11 RECOMMENDATIONS

Some recommendations are made both to the financial consultants/financial service providers and individual investors to contribute more effectively to the study of investor behavior. The study provides recommendations to financial consultants i.e. those providing advice to the growing market of individual investors’ need to understand client attitudes to investment in general and risk in particular. Failure to grasp the differences in the investor behavior of individual investors may make it extremely difficult to provide appropriate advice and to satisfy clients over the long term.

Recommendations to Financial Consultants

There are few suggestions on the basis of the study that may prove helpful to the financial consultants -

• The results revealed that individual investors take little advice from experts regarding their analysis of investment as influence of expert recommendation was not found to have much high influence on both sets of overall preference i.e. stocks vis-a-vis other investments. The study recommends financial consultants including stock brokers / sub brokers to extend their relationship with investors by establishing forums, conducting workshops and seminars in order to extend their relationship with the prospective clients.

• The financial advisors need to understand and track the factors that influence individual investors to invest and suggest them investment options as per their needs. The result recommends financial consultants to keep into consideration the hierarchy of factors influencing the investor preferences while dealing with them. Findings of the study revealed that the most influencing factor for investors towards investing in stocks (high risk investment) was Credibility factor followed by Pre-investment analysis factor and Market information factor. Further, the most influencing factor for investors towards investing in other investments (low
Summary, Conclusions And Recommendations

and medium risk investment) was Benefits factor followed by Pocket friendly factor and Family/Friend recommendation factor. The financial services marketers armed with this type of information will be in a better position to anticipate the needs of prospective clients.

- The results revealed that the individual investors state their preference for other investments (low and medium risk investment) over stocks (high risk investment) resulting to conclusion that majority of individual investors from stock market in Punjab hold a risk averse attitude. This confirms that majority of individual investors of Punjab are risk tolerant and conservative investors and prefer to play safe. The study provides recommendation to investment product designers to design and market products which cater to such type of investors who are low risk tolerant.

- The study found that highest number of respondents i.e. 223 investors fell in the category of Risk Intolerant Investors included in the age groups of Upto 30 years and above 60 years. Such investors were found to be the one who follow their instinct rather than following technical analysis for making decisions revealing a tendency of herd effect in their behavior. The study recommends that financial consultants should help such investors to gain more knowledge and develop confidence by conducting investment programmes for such groups in order to increase their confidence, knowledge and interest in financial issues. Such a group of investors can be directed towards investing in not so high risk investments and helping them follow technical analysis before investing.

- The study found Conservative Moderate Investors formed as second major group of investors in Punjab constituting lower middle age group (30-45 years), well educated and earning good income investors who neither agreed nor disagreed to having high knowledge or interest in financial issues i.e. they revealed a moderate level of financial behavior. Good financial consultancy is recommended which will help such individual investors learn to manage their financial affairs in a sound way such as to gain more confidence in dealing with financial affairs.

- Lowest number of respondents fall in cluster 3 i.e. Rational Confident Investors (N= 171) exhibiting a prudent and considerate financial behaviour. Such investors
had high interest in financial issues, were risk takers, more confident and had high knowledge of investments constituting upper middle age group, well educated and earning good income investors. Financial advisors are recommended to help such cluster to invest in high risk - high return investments.

- A very important aspect that needs to be taken care of is the biasness in the decision making of individual investors of Punjab. The findings revealed that investors in Punjab had highest impact of herding bias on their investment decisions revealing that investors relied more on information validated by crowd rather than relying on technical aspects and expert recommendations. The financial consultants can play a wonderful role in helping investors overcome such biases. They can arrange for seminars, workshops in order to educate and increase their awareness regarding market.

**Recommendations to Individual Investors**

- Young investors i.e. Upto 30 years were found to have low preference for stocks as compared to other investments. The study suggests young individual investors of Punjab to increase their involvement in stock market as young investors have the capacity to take more exposure in asset choice as compared to older age groups.

- Expert recommendation factor was found to have low influence on overall preference for stocks and other investments as well. This fact showed that individual investors in Punjab consider themselves quite independent of any influences outside their own personal feelings. The study recommends individual investors to extend their relationship with financial consultants and extract more of knowledge and information when making investment decisions.

- The results revealed that investors in Punjab are short term investors as 70.7 % of investors stated that they preferred investment horizon of 1-5 years. The study recommends individual investors to invest money in large investment horizon of > 5 years as money needs time to grow and so does the economy.

- Herding Bias had highest impact on investment behavior of individual investors revealing that the investors were not mature and suffered from lack of reliable information portraying the need that the individual investors should choose good
investment information sources for their investment decisions. So, in order to overcome this biasness, forums can be established by individual investors to support each other in finding reliable information of stock market. Thus, the cooperation of a crowd of investors can increase their chances to have good investment results, followed with less biasness in decision making and will help them limit their risks.

- Non-receipt of allotment advice/ refund orders was found as major problem faced by investors. Investors are recommended to invest in primary market through use of escrow account facilities in order to overcome the problem.
- Non-receipt of dividend was ranked as second major problem faced by individual investors. This formed as one of the major problem as it affected the return of investors from stocks. Investors are recommended to check that whether their bank has a tie up with the company they are investing in order to get dividend directly into account.

**Recommendation to Regulatory Authorities**

- The study provides recommendations for government and regulatory agencies especially SEBI as well who need to encourage retail investors’ confidence towards investing in stocks as individual investors had rated their low preference for stocks as compared to other investments. So there is need for more investor education for confidence building of individual stock investors of Punjab.
- The study provides implications for regulatory authorities regarding the integration of capital market with banking system. Efficient electronic fund transfer (EFT) is yet to come up in Indian banking system so as to create a stable and strong payment, settlement and clearing system. EFT is important for solving problems such as those related to direct payment of dividends to bank accounts as non receipt of dividend is among one of the major problems faced by individual investors of Punjab.
- Female participation was found to be very low as sample is more representative of male respondents. The government and SEBI needs to take initiative to increase the literacy, interest and awareness of females towards the investment market.
Scope for further research

- The research is confined to Punjab only which may somewhat limit the generalizability of the findings and may not give similar results when generalized to other regions. Future studies can be undertaken by extending the subject nationwide so that the results of this study can better be generalized. People have many reasons to invest their money in different investment alternatives and differences in social, cultural, economic, political, demographic factors may strikingly differentiate the behavior of investors when making investment decisions.

- One relevant area for further research is finding relationship between various dimensions i.e. attitudes, biases and their impact on investment performance of individual investors.

- Researchers can extend the scope of the study in order to understand the financial literacy level of individual investors.

- A comprehensive and inclusive research can be conducted by future researchers regarding problems faced by investors in low and medium risk investments.

- The intrinsic and extrinsic variables influencing the decisions of individual investors towards investing in stocks can be explored by future researchers.

- Another interesting area that could be studied is to explore the behavioral factors influencing the decisions of institutional investors.

- One relevant area for future research could be to examine how financial consultants perceive their clients’ preferences and attitudes, and how they take such opinions into account while interacting with investors.