CHAPTER-I
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). Investments can range from simple bank savings accounts to complex stock and bond portfolios. After the introduction of Liberalization, Privatization and Globalization (LPG) in 1991 and robust growth in Indian economy, the general trend of Indian investors has moved away from fixed return avenues to more of other investment avenues due to extraordinary returns. The amount of information available for investing in various investment opportunities is continually growing. This has led to emergence of many new companies and also many existing public and private companies in providing new and innovative financial instruments to the investors.

With the diversification of financial markets, it has become relevant to understand the minds and decision making styles of the individual stock investors. In recent years, it has become more and more obvious that psychology plays an even more important role in financial markets and also drives back the influence on the rational actions of the stock market participants. In finance research, there has been increasing interest in the psychology of individual stock investors, including their irrationality and emotionality (Aspara and Tikkanen, 2009).
Market participants have for a long time relied on the notion of efficient markets and rational investor behaviour when making financial decisions. In an efficient market, investors would be rational, unbiased and consistent. For a long time, the main hypothesis assumed by most of the financial academic researchers was the investor’s full rationality approach (Zoghlami and Matoussi, 2009). Portfolio theory and Capital asset pricing theory have been covered extensively in the literature but the behavioral aspects relating to the individual investor’s portfolio composition choice have been paid little attention (Benzion and Yagil, 2003). Feeling of loss, pride and regret often override rationality.

This chapter gives a brief introduction to the role of psychographics covered under the field of study named as Behavioral Finance in the decision making of the individual investors of the stock market. The chapter discusses the individual investors and their investment policy, role of financial system in investment decisions and various investment avenues available to individual investors. Behavioral Finance which forms as the base of the study has been discussed briefly along with an explanation to the factors affecting and psychological biases influencing investor behaviour. Lastly, this chapter discusses the rationale for the present study and finally concludes on how the study has been organized. Accordingly, the chapter is divided into following sections:

1.1 **INDIVIDUAL INVESTORS AND INVESTMENT DECISIONS**

1.1.1 The Individual Investors

1.1.2 Investment policy of Individual investors

1.2 **INDIAN FINANCIAL SYSTEM AND INVESTMENT DECISIONS**

1.2.1 Various Investment options available and Investment decisions

1.2.2 Household Savings and Investments in India

1.2.3 Stock Market Perspective in India

1.3 **BEHAVIORAL ASPECT OF INVESTORS: PSYCHOLOGY MERGES WITH FINANCE**

1.3.1 Psychographics: The study of Psychology of Individuals

1.3.2 Behavioral Finance

1.3.3 Factors affecting investment decisions

1.3.4 Psychological biases influencing investor behaviour

1.4 **OBJECTIVES OF THE STUDY**

1.5 **ORGANIZATION OF STUDY**
1.1 INDIVIDUAL INVESTORS AND INVESTMENT DECISIONS

1.1.1 The Individual Investors

Terminologies vary, but for practical purposes we can consider the individual investor to be either affluent or high net worth. For the affluent investor, total economic resources are of roughly the same magnitude as the claims on those resources resulting from the investor’s life choices. These typically include a need for retirement income, the purchase of one or two houses and the educational expenses of children. When the investor is young or middle aged, financial assets typically represent only the smaller portion of his total resources, with human capital and real estate assets representing the bulk of his resources. In late middle and old age, human capital is replaced by social security benefits and financial assets generally come to represent the greater part of the portfolio. For the high net worth investor, resources are generally significantly greater than the claims on those assets arising from daily life. In general, financial assets represent the major part of the portfolio. By the numbers, affluent investors are, of course, the overwhelming majority of the investor population (Torre et.al, 2004). In the present study, Individual stock investors are the individuals investing in the stock market or other investments on daily basis or occasionally either on their own or with the help of stock market traders.

1.1.2 Investment policy of Individual investors

Investing is not a game but a serious subject that can have a major impact on investor’s well being. Virtually everyone makes investments. Even if the individual does not select specific assets such as stock, investments are still made through participation in pension plan and employee saving programme or through purchase of life insurance or a home or by some other mode of investment like investing in Real Estate or in banks or in saving schemes of post offices. 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 are associated with accepting more risks (Kabra et.al, 2010).

A counter-strategy to the diversification principle is that of market-timing or asset allocation plans. Asset allocation is the spreading of money toward assets that are most suitable for investors so as to achieve their objectives but are also within their limits.
TABLE 1.1.2a

ASSET RISK AND RETURN CHARACTERISTICS

<table>
<thead>
<tr>
<th>Asset</th>
<th>Risk(a)</th>
<th>Historical Return(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Deposits</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Certificates</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Money Market Mutual Funds</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Government Bonds</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Bond Mutual Funds</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Direct Investment in Non-Government Bonds (primarily corporate)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Preferred Stocks</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Large, Global Company Common Stocks</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>High Growth, Small Cap. Stocks</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Lascu et.al, 1997

a) 1 = least risky  b) 1 = lowest return  c) 9 = most risky  d) 9 = highest return

By managing within ranges, there are fewer wild swings in portfolio ‘bets’ and more stable value. Good portfolio management makes only incremental adjustments (not sweeping changes) that reduce or increase exposures and ensure the portfolio progresses toward client objectives. It’s more like steering and less like changing directions. With fewer wild swings in allocation, it makes an investor’s portfolio more predictable. Intuitively, it would seem that individual investors who permit brokers to manage their portfolios implicitly expect the brokers to attempt to anticipate market trends. Certainly, investors whose primary vehicle is balanced mutual funds expect fund managers to anticipate such changes. Usually, there are ranges (hi-to-low tolerances) for each asset class. Table 1.1.2a ranks the asset choices in terms of their historical returns and standard

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1 http://dougcronk.wordpress.com/2010/06/02/why-is-investment-policy-important/
deviation of returns (risk). In the table, a rank of one (1) equals lowest risk and, hence, lowest expected return (Lascu et.al, 1997).

1.2 INDIAN FINANCIAL SYSTEM AND INVESTMENT DECISIONS

The developed as well as developing countries need funds for their economic development and growth which are obtained from the surplus economic units or savers. The economic development of any country depends upon the existence of a well-developed financial system. It is the financial system which supplies the necessary financial inputs for the production of goods and services that in turn promote the well being and standard of living of the people of a country. The activities of financial market involve the exchange of one financial asset for another in the form of interest, dividend and capital appreciation. These markets bring savers and borrowers together by selling securities to savers and lending that money to borrowers, thus satisfying both savers and borrowers (Avadhani, 1998).

The major assets traded on the financial system are money and monetary assets. The responsibility of the financial system is to mobilize savings in the form of money and monetary assets and invest them in productive ventures. A successful investor is not the one who makes huge profits but one who studies the market, understands his risk taking ability, sets the clear cut investment objectives, determines the expected rate of return and also decides the time and period of investment (Shaikh and Kalkundarikar, 2011). Structural changes have followed the transformation of India in 1991 from a highly regulated & inward oriented to an outward looking economy. Consequently, the state domination in many spheres of activity is giving way to private sector. The service sector in general & financial sector in particular has to play an important role in this change. It is the development of the financial system, which resulted in a sea change in financial transactions and transformed economics from stagnant & backward position to dynamic & vibrant ones. This fact is also applicable in case of state economy either in the form of high standard of living & low inflation rate (Kantidas, 2011)
1.2.1 Various Investment options available and Investment decisions

Investment decision refers to making a decision regarding the buy and sell orders. This has two aspects namely i.e. what to buy and what to sell and when to buy and sell. Investment in its broadest sense means the sacrifices of the current dollars for the future dollars (Chandra, 1995).

Several investment avenues are available in the market which differs in various attributes such as liquidity, marketability, maturity, risk, return, tax concessions etc (Balkrishna, 1997). Moreover, investors also differ in their attitudes towards such attributes and each investor chooses an investment as per his requirements, demographics and psychographics as well.

Table 1.2.1a displays the various investment avenues available in the Indian financial market. The major categories of investment avenues of financial nature according to Avadhani, 1998 are instruments in the banking sector such as savings or fixed deposits, instruments in the postal sector such as NSC, fixed and saving deposits etc., instruments in the government and semi-government sector such as PSU bonds and government securities, instruments in corporate sector like equity shares, debentures, mutual fund schemes etc., real estate, land and building and other physical assets and bullion namely gold and silver.

Corporate Sector includes investment in shares, preferred stocks etc. which have different risk/return portfolio as compared to instruments in banking sector. Although, all these investments are a part of financial system, investments in the capital market are more liquid and marketable and addition to that more rewarding if investors know the techniques.
Figure 1.2.1b reveals some of the available investment options explaining the level of liquidity, safety, amount required, tax savings and returns provided by investment avenues in terms of low, moderate and high along with active involvement required in each investment option.
<table>
<thead>
<tr>
<th>Investment option</th>
<th>Liquidity</th>
<th>Safety</th>
<th>Returns</th>
<th>Active involvement Required</th>
<th>Tax savings</th>
<th>Amount Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Provident Fund</td>
<td>Low</td>
<td>High</td>
<td>Moderate</td>
<td>No</td>
<td>Good</td>
<td>Low</td>
</tr>
<tr>
<td>Post Office Term deposits</td>
<td>Low</td>
<td>High</td>
<td>Moderate</td>
<td>No</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>National Savings Certificates</td>
<td>Low</td>
<td>High</td>
<td>Moderate</td>
<td>No</td>
<td>Good</td>
<td>Low</td>
</tr>
<tr>
<td>Bank Fixed Deposits</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>No</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>RBI Tax Free Bonds</td>
<td>Moderate</td>
<td>High</td>
<td>Low</td>
<td>No</td>
<td>No Tax</td>
<td>Low</td>
</tr>
<tr>
<td>Company Debentures</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Generally No</td>
<td>Taxable</td>
<td>Medium</td>
</tr>
<tr>
<td>Company Deposits</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Generally No</td>
<td>Taxable</td>
<td>Medium</td>
</tr>
<tr>
<td>Public Sector and FI bonds</td>
<td>Moderate</td>
<td>High</td>
<td>Moderate</td>
<td>No</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Debt Oriented Mutual Funds</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>No</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Equity Oriented Mutual Funds</td>
<td>High</td>
<td>Low</td>
<td>Volatile</td>
<td>No</td>
<td>Good</td>
<td>Low</td>
</tr>
<tr>
<td>Equity shares</td>
<td>Moderate to High</td>
<td>Low</td>
<td>Volatile</td>
<td>Generally Yes</td>
<td>Long Term Low Tax</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Source: Somaiya and Deolankar, 2005
1.2.2 Household Savings and Investments in India

The biggest component of aggregate savings is the savings in the household sector. Household sector occupies a pivotal position in the generation of savings in the economy. This component has been the pivot of the Indian savings behaviour, and the significant increases in the saving rate can be largely attributed to increased savings in this sector (Sharma and Sharma, 2004).

### TABLE 1.2.2a:
GROSS DOMESTIC SAVINGS AND CAPITAL FORMATION AS THE PERCENTAGE OF GDP

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Fixed Capital Formation (% of GDP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household sector</td>
<td>28.72</td>
<td>30.33</td>
<td>31.29</td>
<td>32.92</td>
<td>32.35</td>
<td>31.74</td>
<td>31.74</td>
<td>30.63</td>
<td>32.40</td>
</tr>
<tr>
<td>Public sector</td>
<td>7.42</td>
<td>7.94</td>
<td>8.30</td>
<td>8.86</td>
<td>9.44</td>
<td>9.15</td>
<td>8.39</td>
<td>7.86</td>
<td>11.50</td>
</tr>
<tr>
<td>Household Sector</td>
<td>32.41</td>
<td>33.44</td>
<td>34.60</td>
<td>36.82</td>
<td>32.02</td>
<td>33.69</td>
<td>34.02</td>
<td>30.81</td>
<td>31.80</td>
</tr>
<tr>
<td>Private corporate sector</td>
<td>23.55</td>
<td>23.53</td>
<td>23.15</td>
<td>22.42</td>
<td>23.64</td>
<td>25.18</td>
<td>23.51</td>
<td>22.33</td>
<td>22.80</td>
</tr>
<tr>
<td>Public sector</td>
<td>6.55</td>
<td>7.51</td>
<td>7.88</td>
<td>9.40</td>
<td>7.41</td>
<td>8.35</td>
<td>7.95</td>
<td>7.18</td>
<td>7.80</td>
</tr>
<tr>
<td>Gross Domestic Savings (% of GDP)</td>
<td>2.30</td>
<td>2.41</td>
<td>3.56</td>
<td>4.99</td>
<td>0.96</td>
<td>0.16</td>
<td>2.56</td>
<td>1.30</td>
<td>1.20</td>
</tr>
</tbody>
</table>


Investment decision-making for the household directly or indirectly lies primarily with the household head. In India, household sector occupies a position of dominance
over the other institutional sectors like private corporate sector and the public sector in terms of generating savings. Household savings is composed of both financial and physical savings. As a percentage of GDP at current market prices, the rate of savings of the household sector increased from around 7.0 per cent in the 1950s to over 18.0 per cent in the 1990s (High Level Committee Report, 2009).

Over a 20 year period when Indian capital markets have grown tremendously on many parameters, very few households have ventured too far beyond their bank, insurance agent, mandatory retirement funds and small savings. Household savings contribute 60-80% of India’s gross domestic savings, and have been its most stable and highest component for over six decades.

Planning Commission report asserts that in a capital constrained economy like India, investments are determined by the aggregate saving behaviour. As far as savings are concerned, the economy has performed remarkably well. The biggest component of aggregate savings in India is the savings in the household sector and as seen in the Table 1.2.2a above; that the household savings contribute a major share of 22.33 % in 2011-12 which increased to 22.80 in 2012-13 as compared to private corporate sector and public sector savings with contribution of 7.18% and 1.30 % only respectively in 2011-12 and 7.80 and 1.20 respectively in 2012-13.

However, the gross domestic savings in total for 2011-12 comes up to be 30.81% which increased to 31.80 % in 2012-13.

Further, the gross fixed capital formation for household sector is also higher with percentage of 12.50 for 2012-13 as compared to private corporate sector and public sector with percentage of 11.50 % and 8.40 % respectively. So, it is clear from the trends shown above that the savings and investments in the household sector i.e. by the individual investors are the highest; contributing a great sum towards the GDP of the economy.

1.2.3 Stock Market Perspective in India

Indian stock market was incorporated in 1875. The name of the first share trading association in India was Native Share and Stock Broker Association which later came to be known as Bombay Stock Exchange. The BSE India SENSEX is India’s first stock market index and is tracked worldwide. It is an index of 30 stocks representing 12 major
sectors. BSE is now a corporatized under the provisions of the Companies Act 1995. The National Stock Exchange of India (NSE) is one of the largest and most advanced stock exchanges in the world. NSE is the largest exchange in Single Stock futures and the seventh largest futures exchange in the world. SEBI is the regulatory authority of Indian stock market. The main functions of SEBI are to provide protection to investors and safeguard their rights, to regulate brokers and sub brokers, to prohibit the unfair practices in stock market etc (Warne and Suman, 2012).

The securities market occupies an important position in the national economy of a country. It facilitates the mobilization of the savings of individuals and pools them into reservoir of capital which can be deployed for the economic development of a country. Efficient stock markets are key to raising of capital by the corporate sector of the economy and the protection of interest of the investors. In the last decade, far reaching developments have taken place in the working of the stock market which has influenced the operations of all the players of the stock market (Gurunathan, 2007).

Among all investment options available, securities are considered the most challenging as well as rewarding. There are a large variety of instruments referred to as securities in common parlance. SEBI has been established with the primary objective of protecting the investor’s interest in securities, which is defined in the Securities Contracts [Regulation] Act, 1956 to include: shares, scrip, stocks, bonds, debenture stock or other marketable securities of a like nature in or of any incorporated company or body corporate: Derivatives, units or any other instrument issued by any collective investment scheme to the investor in such schemes; Government Securities, such other instruments as may be declared by the Central Government to be securities and rights or interest in securities.

1.3 BEHAVIORAL ASPECT OF INVESTORS: PSYCHOLOGY MERGES WITH FINANCE

1.3.1 Psychographics: The study of Psychology of Individuals

In recent years, it has become more and more obvious that psychology plays an even more important role in financial markets and also drives back the influence on the rational actions of the stock market participants.

See Section 2(h) of the Securities Contracts (Regulation) Act, 1956.
In finance research, there has been increasing interest in how the stock prices of companies are formed and in the underlying investment behaviour and psychology of individual investors, including their irrationality and emotionality. However, most research on stock market psychology and individuals’ investment behaviour has treated individual investors as if they were a separate species, neglecting the fact that the same individuals who engage in investment behaviour and trading of certain company stocks also engage in other economic behaviour, notably the consumption of products. Only recently have researchers begun to suggest and find evidence that the same, individuals who engage in buying and using the products of certain companies may also engage in buying and holding these companies’ stocks (Aspara and Tikkanen, 2008).

1.3.2 Behavioral Finance

Behavioral economics incorporates insights from other social sciences such as psychology and sociology (Shiller, 2000) into economic models, and attempts to explain anomalies that defy standard economic analysis.

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). Many financial models such as CAPM and Black Scholes option valuation models assume that investors are rational, that they make unbiased forecasts and that financial market are competitive. While these assumptions are often sufficiently correct in the aggregated to create efficient markets, but they need not apply to individual investors, security analysis or portfolio analysis or portfolio managers. And there has been a period during which investors appear to behave irrationally (Mayo, 2009).

For a long time, the main hypothesis assumed by most of the financial academic researchers was the investor’s full rationality approach (Zoghlami and Matoussi, 2009). It was supposed that the decisions made by investors are based on technical analysis. Portfolio theory and Capital asset pricing theory have been covered extensively in the literature but the behavioral aspects relating to the individual investor’s portfolio composition choice have been paid little attention (Benzion and Yagil, 2003). 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 (1974, 1979) have focused more on the psychological aspects of individual investment decisions and identified the behaviour of the individual investor’s that systematically violates Expected Utility Theory.

While studying the irrational behaviour of investors, the investors cannot be analyzed and understood alone on the basis of their demographic characteristics. The consideration of demographic characteristics alone will imply that the investor’s earning similar income and of same age have the similar investment behaviour. However, it is to be ascertained that the individuals can have same demographic characteristics but have different emotions, attributes and attitudes which will affect their financial behaviour and financial needs.

So, the irrational behaviour of investors needs to be studied using lifestyles or psychographics along with demographics. Few researchers have analyzed the attitudes, opinions and the activities of the individual investors which relate to their investment decisions. Such analysis is referred to as psychographics because it evaluates the investor’s characteristics relating to the patterns of their interests and activities (Warren et.al, 1990).

Behavioral Finance (BF) is a new and growing academic discipline that merges finance and psychology and studies investor behaviour. BF represents a collection of alternative approaches to refine the classical definition of economic rationality. In particular, BF draws on the psychology and cognitive science literatures to examine why individual decision making often deviates from rational choices in systematic ways. Within behavioral 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). It attempts to explain the what, how and why of finance and investing from a human perspective (Riciardi and Simon, 2000).
There is a huge psychology literature documenting that people make systematic errors in the way they think: they always making decision easier (heuristics), overconfidence, put too much weight on recent experience (representativeness), separate decisions that should be combined (mental accounting), wrong presenting the individual matters (framing), tend to be slow to pick up the changes (conservatism), and their preferences may also create distortion when they avoid realizing paper losses and seek to realize paper gains (disposition effect). Behavioral finance uses models in which some agents are not fully rational, either because of preferences or because of mistaken beliefs.

The studies on Behavioral finance rely on the psychological characteristics of investors to explain the reasons that could be behind overreaction or momentum. Investors are human, make mistakes and may behave irrationally. These realities affect the decision making process, which in turn, reduces returns. By studying behaviour and identifying mistakes, behavioral finance can contribute to improving returns or reducing investors’ risk (Mayo, 2009).

Empirical studies of the behaviour of the individual investors first appeared in 1970’s. Lewellen, Lease and Schlarbaum (1974, 1977 and 1997) identified the investor’s preferences for capital gains, dividend yield, and returns on the basis of their sex, income and education. Warren et.al (1990) studied the lifestyles and the demographic attributes of individual investors and predicted the individual’s investment choices for bonds and stocks on such basis. Wood and Zaichkowsky (2004) grouped the investors on the basis of the shared attributes, biases and behaviours and identified the different segments of investors.

Amos Tversky, Daniel Kahneman, Werner DeBondt, Richard Thaler and Meir Statman have contributed greatly to the behavioral finance literature. Daniel Kahneman won the 2002 Nobel Prize in Economics “for having integrated insights from psychological research into economic science, especially concerning human judgement and decision making under uncertainty” (Strong, 2004).

3 http://www.academia.edu/414806
1.3.3 Factors affecting investment decisions

Every investor has his own motive behind investment. The primary motive of investment among the small and individual investors is to earn a regular income either in the form of interest or dividend on the investment made (Chandra, 1995).

Investors are generally selective in investing. The investment behaviour of individuals is methodical and logical function of personal circumstances and hence attitudes. Investment attitudes result in selecting particular instruments in portfolio (Kiran and Rao, 2004).

The major factors that influence the investors are required to be sought by the financial institutions in order to design the marketing activities according to the preferred investment instruments by the investors. Nagy and Obenberger (1994), Merikas and Vozikis (2004) and Al-Tamimi (2006) examined the various factors like neutral information, accounting information, self image/firm image coincidence, classic information, social relevance, advocate recommendations and personal financial needs that effect individual investor behaviour. Clark- Murphy and Soutar (2005) studied the importance of various investment attributes such as dividend, yield, management, industry sector, knowledge base, price trend, price earnings ratio, price volatility, market status, source of recommendation and principal place of operation to investors for making investment decisions and grouped the investors in four sub-groups with differing attitudes, attributes and approaches to investment alternatives.

The financial institutions can resort to the market segmentation based on the variables like demographics; psychographics etc. Warren et.al (1990) segmented the investors on the basis of the demographic and lifestyle characteristics. Kiran and Rao (2004) segmented the investors on the basis of demographics and psychographic characteristics and identified the risk taking capacity of investors on such basis. Wood and Zaichkowsky (2004) segmented the individual investors on the basis of five behavioral constructs that drive investor behaviour i.e. investment horizon, confidence, control, risk attitude and personalization of loss. Funfgeld and Wang (2009) examined the self-stated attitudes and behaviour of individual investors regarding their daily financial affairs and identified the impact of socio-demographic variables on their behaviour.
Besides the factors, attitudes, attributes, Filbeck et.al (2005) found the impact of personality type on the risk tolerance behaviour of investor.

1.3.4 Psychological biases influencing investor behaviour

Individual investors are found to make biased judgments under uncertainty because most of the investors in the desire of making easy and quick investment decisions tend to apply various shortcuts and heuristics which lead them to fall prey to various psychological biases such as representativeness bias, self attribution bias, disposition effect etc. Recent theoretical research suggests that psychological biases affect individual investors, causing them to make non-optimal decisions (Baker and Nofsinger, 2002).

Investment decisions are guided by their desires, goals, prejudices, biases and emotions. There are always chances, at some point of time, that investors have fallen prey to some of the psychological biases while making investment decisions (Mayo, 2009).

Many financial academic researchers were motivated to break with the full rationality hypothesis and to recognize from now on the natural effects of some psychological biases on the investor’s decisions and reactions (Zoghlami and Matoussi, 2009). Baker and Nofsinger (2002) examined the common investment mistakes made by an investor’s cognitive and emotional weaknesses and grouped these mistakes in two categories i.e. how investors think and how investors feel. Some of the key ideas such as Prospect theory, regret theory, anchoring and over and under reaction have been surveyed by Shiller (2000). Tversky and Kahneman (1974, 1979 and 1986) introduced prospect theory which contended that people value gains and losses differently and that their decisions are based on perceived gains rather than perceived losses justifying that investors suffer from “loss aversion”. Tversky and Kahneman (1974,1979) explained three heuristics i.e. representativeness bias, availability bias and anchoring bias that are employed by investors in making judgments under uncertainty and assessed that the judgments are based on data of limited validity , which are processed according to heuristic rules.

Bounded rationality, a term associated with Simon (1986) which relates to the cognitive limitations on the decision making covers the basic theories of Behavioral Finance along with series of various concepts. Tversky and Kahneman (1974) resulted
into conclusion that human behaviour is made on the basis of simplified procedures or heuristics which is consistent with the results of Slovic (1972) who interpreted the investment risk taking behaviour of investors. He found that the investors show some judgmental biases and have limitation towards processing of information further leading to overweighing the information. However, DeBondt and Thaler (1985) also supported that people tend to overreact to information.

The investment behaviour of individual investors is highly influenced by behavioral aspects like cognitive dissonance which is the tendency among the investors to adjust their beliefs to justify their past actions. In one of the examples depicting cognitive dissonance, Goetz Mann and Peles (1997) investigated the recollections of investors regarding their past fund performance and found that investors suffer from cognitive dissonance and even well-informed investors tend to bias their perceptions about past performance.

Daniel, Hirshleifer and Subramanyam (1998), Barberis, Shliefer and Vishny (1998) developed a model that allows a momentum effect in stock returns through the influence of some psychological biases. Barberis, Shleifer and Vishny (1998) formulated a model of security price over reaction and under reaction to information when investor judgment is biased by conservatism and the representativeness heuristic. Daniel, Hirshleifer and Subramanyam (1998) proposed a theory on security market under and over reactions on the basis of two psychological biases i.e. overconfidence and self attribution bias.

Investors do not like losses and often engage in mental gymnastics to reduce their psychological impact and such fact is described as loss aversion (Strong, 2004) and this fact explains the concept of disposition effect i.e. the tendency among the investors to hold on to losing stocks and selling the winning stocks too soon. Shafran, et.al (2009) examined the relation of the disposition effect and the momentum behaviour under the different trading conditions. Zoghlami and Matoussi (2009) studied the influence of various psychological biases on the investment behaviour of investors of Tunisia.

So, it can be observed that other than return and risk, there are several factors and psychological influences which affect the decision making of an individual investor.
1.4 OBJECTIVES OF THE STUDY

The main purpose of the present study is to explore the investment behaviour of the individual investors of stock market of Punjab. The research framework of the present study is established to achieve the following objectives:

1. To identify the factors which influence the individual investors to invest.
2. To conduct a comparative analysis of the investment preference 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.

1.5 ORGANIZATION OF THE STUDY

The thesis has been divided into eight chapters. The current chapter (Chapter I) deals with brief introduction to the individual investors and their investment decisions. Further, the chapter focuses on discussing the various investment options available to individual investors and role of household savings in Indian financial system. Behavioral aspect of investors is discussed in brief with the sub-heads including role of psychographics in investment decisions, study of behavioral finance, decision variables, attitudes and biases influencing investment decisions.

Chapter II deals with discussion of the relevant literature including both foreign and Indian studies regarding the role of behavioral finance in investment decisions, covering studies on factors influencing investment decisions, studies on attitudes and biases influencing investor behaviour and studies on problems and grievances of individual investors.

Chapter III deals with the detailed discussion on the research methodology for the achievement of specific objectives of the study. In this section extensive discussion on sample design, data collection procedure, questionnaire structure and various statistical techniques used for analysis purpose has been incorporated.
Chapter IV focuses on identifying the factors that influence the investors to invest. This chapter is divided into two sections. The first section categorizes the variables into identifiable factors with the help of factor analysis that influence investors to invest in stocks (high risk investment) and identifying impact of such factors on overall preference for stocks. The second section of this chapter explains the categorization of these variables into identifiable factors with the help of factor analysis that influence them to invest in other investments (low and medium risk investment) and identifying the impact of such factors on overall preference for other investments.

Chapter V outlines a comparative analysis of investment preferences of the individual investors for stocks (high risk investment) vis-a-vis other investments (low and medium risk investment) on the basis of studied variables using paired sample t-test. Further, the ranking of individual investors for various investment options has been carried out with the help of weighted average scores method. Further, preference for stocks (high risk investment) vis-a-vis other investments (low and medium risk investment) is analysed across demographics including age, marital status, gender, education, occupation and income.

Chapter VI discusses the attitudes that investors have towards investing and behavioral biases influencing their investment behaviour. In first section, Factor analysis is applied to a list of psychographic variables to identify identifiable factors or attitudes’ influencing investor behaviour and cluster analysis is applied to segment investors on the basis of their attitudes. Discriminant analysis is applied to identify best discriminating factors across clusters. In the second section, factor analysis is applied on list of variables of behavioral biases to identify what type of heuristics investors’ apply to their decisions. Further, weighted average scores of factors are calculated to identify most impacting bias on investment behaviour of investors.

Chapter VII gives a 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.

Chapter VIII deals with providing suitable recommendations to financial consultants and individual investors along with the summary and conclusion of the entire study.