CHAPTER 5

FINDINGS AND CONCLUSION

5.1 INTRODUCTION

Behavioural finance is an emerging and fastest growing field that combines the understanding of behavioural and cognitive psychology with investment decision making process. Behavioural finance propagates that markets are not efficient, especially in the short duration. Individual investors do not make rational decisions to maximise profits. They are susceptible to various behavioural anomalies. This may become counter-productive to the maximisation of wealth leading to irrational behaviour. The purpose of this study is to understand the relationship between big five personality traits and behavioural aspects of the investors in capital market in India.

This chapter presents the findings of the study, discusses the managerial implications and directions for future research. Behavioural finance attempts to illustrate why retail investors systematically diverge from such rational behaviour, challenging major assumptions of a number of conventional financial models such as Modern Portfolio Theory (MPT) and Efficient market Hypothesis (EMH). Nofsinger and Ricciardi define behavioural finance as an attempt to explain and increase the understanding of the reasoning patterns of investors, including the psychological processes involved and the degree to which they influence the decision making process. The purpose of the study is to examine the big five personality traits, behavioural aspects and behavioural biases among the individual investors.
Descriptive research design has been employed for the present study. It is chosen for the present study in order to derive the meaningful relationship between big five personality traits, behavioural aspects and behavioural biases of investors. Among the different cities in Tamil Nadu, the Chennai city has been purposively selected for the present study. The investors have been selected by adopting random sampling technique. The data and information have been collected from 500 individual investors.

In order to understand the socio-economic characteristics of the investors, big five personality traits, behavioural aspects and behavioural biases of investors the percentage and frequency distribution are worked out. In order to examine the relationship between gender and marital status of the investors, big five personality traits, behavioural aspects and behavioural biases of investors, one way analysis of variance (ANOVA) has been employed. To find the relationship between the various features of big five personality traits, behavioural aspects and behavioural biases of investors correlation analysis has been conducted.

The multiple regression analysis has been carried out to examine the influence of behavioural biases on big five personality of investors. The Structural Equation Model (SEM) has been employed to analyse the structural relationship between personality traits and investment biases, the structural relationship between demographics and investment biases, the structural relationship between behavioural aspects and investment biases and the structural relationship between demographics and behavioural aspects.

5.2 FINDINGS

Majority of the respondents are in the age group of 26 - 45 years. The number of male respondents is more than that of females. Most of the respondents are graduates or post graduates. Married respondents are more in
Majority of the respondents belong to the salaried class. More than 58% of respondents are those who earn between Rs.2 lakhs and Rs.5 lakhs per annum and 21% are those who earn above Rs.5 lakhs per annum. Most of the respondents save between Rs.50,000 to Rs.1,00,000 per annum. Prime saving objective of the respondents is tax planning which is followed by children’s education and marriage. The results show that the big five personality traits such as neuroticism, extraversion and agreeableness are present in both male and female respondents, whereas big five personality traits such as openness and conscientiousness are present more among the female respondents than the male respondents. Presence of all the big five personality traits is higher among the investors in the age group of 45 -52 years when compared to other age groups. Neuroticism, extraversion and agreeableness traits are present in all the income groups, whereas presence of openness and conscientiousness are more among the respondents having an annual income of Rs.2 to 5 lakhs. The results show that the female respondents are more careful when compared to male respondents. Female respondents are also more confident and anxious. Behavioural aspect, impetuous, is present among both male and female respondents. Female respondents are more anxious than the male respondents. Both single and married respondents are careful and confident, whereas married respondents are more impetuous than the single. Respondents who are married are less anxious than the respondents who are single. There is a significant difference in the behavioural aspects among the age group of respondents. The respondents of the older age group are more careful while investing than the younger respondents. Similarly the respondents of the older age group are more confident as well as anxious about their investments. Highly qualified respondents are more careful and anxious about their investments. The results show that salaried respondents are careful, confident, impetuous and anxious on their investments.
The results of the structural equation modelling show that respondents who possess extraversion trait are not overconfident in their investing abilities. Respondents who possess neuroticism and conscientiousness traits have significant relationship with overconfidence bias. This means that the investors with the traits of neuroticism and conscientiousness would overestimate their ability to evaluate a stock as an investment opportunity. These investors hold concentrated portfolio, thereby taking on more risk. These investors also trade very frequently which results in higher transaction cost. Neuroticism is related to recency bias. This implies that they ignore proper asset allocation. This will cause investors to ignore the importance of the fundamental analysis and to focus on recent upward price performance of the stock. Openness has a significant relationship with conservatism. This means that these investors may stick on to the initial, optimistic impression of few imminent, positive developments of the organisation and fail to take action on subsequent negative developments of the same organisation.

Age has relationship with all the three biases, whereas income has relationship with overconfidence and recency biases. This indicates that older people possess overconfidence, recency and conservatism biases. People with higher income are overconfident in their investment abilities. Higher income people are prone to recency bias. These investors tend to invest in various asset classes at the wrong times and end up in making huge losses. The respondents who are careful have a relationship with recency bias. It implies that even though the investors are careful, they are still prone to make a few mistakes like ignoring the diversification of the portfolio to earn better returns with minimum risk. Impetuous investors have relationship with overconfident and conservatism biases. It indicates that these investors either do not react to market information or react too slowly. These investors may lose their investment as capital market will react to any new information quickly.
Anxious investors have relationship with recency bias. Investors with recency bias will extrapolate patterns and make projections based on performance of mutual fund company that are too small to ensure accuracy. Gender of the respondents has relationship with anxiousness. This shows that both male and female investors are anxious about their investment abilities. Income of the respondents has relationship with confidence. It indicates that the higher income investors are more confident than the lower income group.

5.2.1 Big Five Personality Traits of Investors

The big five personality traits of neuroticism, extraversion, agreeableness, openness and conscientiousness of investors are examined in the present study. The correlation coefficients show that the Neuroticism trait of investors is positively and perfectly correlated with Extraversion trait, Agreeableness trait, Openness trait and Conscientiousness.

The correlation analysis also indicates that the Extraversion trait of investors is positively and perfectly associated with Agreeableness trait, Openness trait and Conscientiousness. It is also observed that the Agreeableness trait of investors is positively and perfectly correlated with Openness trait and Conscientiousness and Openness trait investors is positively and perfectly associated with Conscientiousness. There is a significant difference in big five personality traits of male and female investors and there is a significant difference in and big five personality traits of married and unmarried investors.

5.2.2 Behavioural Aspects of Investors

The careful, confident, impetuous and anxious behaviour of investors are studied. The correlation analysis shows that the Careful
behaviour of investors is positively and perfectly associated with Confident behaviour, impetuous behaviour and anxious behaviour.

The correlation coefficients show that the Confident behaviour of investors is positively and perfectly correlated with impetuous behaviour and anxious behaviour. The Impetuous behaviour of investors is positively and perfectly associated with Anxious behaviour. There is a significant difference in behavioural aspects of male and female investors and there is a significant difference in behavioural aspects of married and unmarried investors.

5.2.3 Influence of Big Five Personality Traits on Behavioural Aspects of Investors

The neuroticism is positively and significantly influencing the careful behaviour of investors. The agreeableness, openness and conscientiousness are positively and significantly influencing the careful behaviour of investors, while the extraversion is negatively and significantly influencing the careful behaviour of investors. The agreeableness, openness and conscientiousness are positively and significantly influencing the confident behaviour of investors.

The extraversion, agreeableness and openness are positively and significantly influencing the impetuous behaviour of investors and the neuroticism and conscientiousness are negatively and significantly influencing the impetuous behaviour of investors. The neuroticism, extraversion, agreeableness and openness are positively and significantly influencing the anxious behaviour of investors and the conscientiousness is negatively and significantly influencing the anxious behaviour of investors.

5.2.4 Behavioural Biases of Investors

The conservatism bias, recency bias and overconfidence bias of investors are studied. The correlation analysis shows that the conservatism
bias of investors is positively and very poorly associated with recency and overconfidence biases of investors. The recency bias of investors is positively and very poorly correlated with overconfidence.

The conservatism bias is positively and significantly influencing the neuroticism personality trait of investors, while, the overconfidence bias is also positively and significantly influencing the neuroticism personality trait of investors. The conservatism bias is positively and significantly influencing the extraversion personality trait of investors, while, the overconfidence bias is also positively and significantly influencing the extraversion personality trait of investors.

The conservatism bias and recency bias are positively and significantly influencing the agreeableness personality trait of investors, while, the overconfidence bias is also positively and significantly influencing the agreeableness personality trait of investors. The conservatism bias, recency bias and overconfidence bias are positively and significantly influencing the conscientiousness personality trait of investors. There is a significant difference in behavioural biases of male and female investors and there is a significant difference in behavioural biases of married and unmarried investors.

5.2.5 Structural Relationships

The extraversion has a negatively significant relationship with over confidence. The neuroticism has a positively significant relationship with recency and over confidence and the openness has also a positive significant relationship with conservatism. The agreeableness has a negatively significant relationship with recency and it has a positively significant relationship with
over confidence. The conscientiousness has a positively significant relationship with over confidence. Age has a positively significant relationship with regency, over confidence and conservatism. The income has a negatively relationship with over confidence and regency. The careful has a positively significant relationship with regency and the impetuous has a positively significant relationship with over confidence and conservatism. The anxious has a negatively significant relationship with overconfidence and it has a positively significant relationship with regency. The gender has a positively significant relationship with anxious and age has a negatively significant relationship with anxious and confident. The income has a positively relationship with confident and anxious.

5.3 IMPLICATIONS OF THE STUDY

Individual investors are prone to behavioural biases. This has serious implications in their short term and long term investment decisions. The asset allocation by the individual investors is also based on various behavioural aspects they possess. Wrong asset allocations hamper the investment goals of individual investors. The individual investors, therefore, need to guard against their biases to avoid the investment losses. Correct asset allocation and well diversified portfolio are essential to achieve the long term investment goals. Investors with conservatism bias react slowly to new information. Equity investors are required to act fast on any new development in the economy or company specific information. Hence, there is a requirement for proper investor education on asset allocations among the individual investors. The financial sector companies like mutual funds, insurance and investment intermediaries are to educate the individual investors for the purpose of proper investment decisions, resulting in investment gains and vibrant economy.
5.3.1 Implications to Financial Advisors

Evidence from this study in behavioral finance indicates that investors often prone to behavioural biases. There are proper methods to be followed regarding how choice under risk is actually made. This study provides the implications of such observations for improving asset allocation decisions. The evidence on limited computational ability implies that investors will have difficulty making optimal choices when information requires complex processing, such as aggregating risks across investments or time. The implication for investment advisors is that information should be processed and presented in a format that simplifies optimal choices. Individual investments could be aggregated into portfolios instead of presented separately. Horizon specific return projections could be made instead of presenting annual return information. An advisor could ask for the investor’s preferences across efficient portfolio choices instead of expecting investors to build efficient portfolios by themselves. These observations suggest, for example, that appropriately designed and communicated lifetime funds may improve investor choices. Much experimental evidence regarding attention shows that individual investors make decisions based on heuristics, or short-cuts, instead of considering all available information. Further, individual investors pay attention to some kinds of information more than others. The implication for financial advisors is that the most important, decision-relevant information needs to be up front and clearly presented in a salient manner. The results of this study suggest that the ways financial advisors should provide all the information including risks about the various asset classes. Long-term financial planning is extremely important for lifetime financial security, but it is also exceptionally difficult for most individual investors. Investors’ earnings, savings and investment choices determine their consumption and wealth across their lifetime. Individual Investors face the “portfolio problem” when selecting investments as they save for future
consumption. For many individual investors, long term investment plans need proper advice from financial advisors. Many individual investors are monitoring their investments on day to day basis, even though they are long term investors. This will certainly hamper their portfolio performance. To avoid this, financial advisors must indicate their clients about the danger of monitoring investments on daily basis. Among other things, financial advisors decide the investment options offered to investors, the advice given to investors, and how that advice is tailored for individual investors. Appropriate advice requires, at a minimum, an expert understanding of the basic portfolio problem and an understanding of how investors make decisions in the real world.

Individual investors feel that they have full control in picking investments that will outperform the market. But in reality more than 50% of time stock picking is proved to be wrong. Here financial advisors need to guide the investors on proper stock pickings. Financial advisors can help the individual investors in making optimal financial decisions. By improving decisions, financial advisors can improve lifetime financial security of individual investors. On the other hand, advice that is difficult to understand or advice that does not account for the behavioral decision-making processes of investors may actually make them worse off. In order to assist investors, it is important to understand how they process information and how they make investment decisions.

Traditional economic models assume investors are analytically sophisticated and knowledgeable about markets. By assumption, individual investors in such models make optimal decisions in a rational manner. The average investor is less knowledgeable than professionals about the problem and has limited time and attention to devote to it. Understandably, investors may resort to various behavioural biases such as overconfidence, recency and
conservatism or behave “irrationally” in other ways. Not only does this make optimal long-term financial planning difficult for the average investor, but it presents challenges for financial advisors as well. Financial advisors need to explore behavioral research on how investors think about aspects of the portfolio problem. Financial advisors should focus on experimental studies that have examined various tasks associated with financial decision-making. The goal is to convey what is known and not known about investor behaviour.

5.3.2 Implications to Individual Investors

This study confirms that most of the individual investors are subject to behavioural biases, big five personality traits and behavioural aspects which imply that their investment decisions need not to be fully rational. Even though the individual investors able to recognize the effects of behavioural biases, they should also recognize that adequate knowledge may not guarantee right investment behaviour. Individual investors are likely to hold large amount of their savings in fixed income securities. This is not a good way to make investments, because this will drag the overall returns from their investments. Ideally individual investors should hold a mix of equity and fixed income securities. Individual investors are ready to take new investments themes for better return, but while taking a new theme individual investors be very careful. This is because not all new themes can be a successful one like information technology sector. There are many new investment themes went right from tulip mania in 1637 in Europe to present day failures of many such new investment ideas.

There is no uniform investment plan which is suitable for everyone, investment plan has to be drawn as per the requirement of individual investors risk appetite, age, income etc. The wrong choice is never about the investments rather, it is about a mismatch between the investment and the risk profile of the individual investor. The wrong choice is also due to the past
performance of investments made. Behavioural biases like overconfidence, conservatism and recency will influence the investment decisions of individual investors.

Individual investors feel that they are confident that stock market is the right kind of investments and they will be successful in their trading activities. But many times individual investor loses heavily from the stock investments. One reason for this danger is many times individual investors are subjected to biases and various big five personality traits. Sometimes individual investors overestimate the correctness of the information they have, while at times individual investors hold on to some prior beliefs even when new information is available. Also, they either under react or over react to economic and market realities at different times.

5.3.3 Behavioural Finance and Investment Decisions

Behavioral finance seeks to find how investor’s emotions and psychology affect investment decisions. It is the study of how people in general and investors in particular make common errors in their financial decision due to their emotions. It is nothing but the study of why otherwise rational people rely on thumb rule to take investment decisions. Decision making is a process of choosing best alternatives among a number of alternatives. This decision has come out after a proper evaluation of all the alternatives. Decision making is the most complex and challenging activity of the individual investors. Every investor differs from the others in all aspects due to various factors like demographic factor, socioeconomic background, educational level, gender, age and ethnic and religious background. An optimum investment decision plays an active role and is a significant consideration. Investor is a rational being who will always act to maximize his financial gain. Yet individual investors are not rational. An integral part of humanness is the emotion among the investors. Indeed, investors make most
of their life decisions on purely emotional considerations. In the financial
world, investor’s sometimes base their decisions on irrelevant figures and
statistics, e.g., some investor may invest in the stock that have witnessed
considerable fall after a continuous growth in recent past. They believe that
price has fallen which is only due to short term market movements, creating
an opportunity to buy the stock cheap. However, in reality, stocks do quite
often decline in value due to changes in their underlying fundamentals.
Cognitive dissonance is the perception of incompatibility between two
cognitions, which can be defined as any element of knowledge including
attitude, emotion, belief or behaviour. The theory of cognitive dissonance
holds that contradicting cognition serves as a driving force that compels the
mind to acquire or invent new thoughts or beliefs or to modify existing beliefs
so as to reduce the amount of dissonance (conflict) between cognition.

5.4 STRATEGIES FOR OVERCOMING BEHAVIORAL BIASES

In recent years, behavioral finance is becoming an integral part of
decision-making process because it heavily influences the investor’s
performance. Understanding behavioral finance will help the investor to select
a better investment instrument and they can avoid repeating the expensive
error in future. They can improve their performance by recognizing their
biases and errors of judgment to which we are all prone. The main issue of
studying behavioral finance is how to minimize or eliminate the psychological
biases in investment decisions of the investors. After an extensive study of the
literature on behavioral finance, it is believed that its perfect application could
make a successful investor making fewer mistakes. Several psychological and
behavioral factors influence investors in decision making. Various safeguards
are needed to control mental error and psychological roadblocks while invest
in stocks and mutual funds. A disciplined trading strategy is required to
control these mental roadblocks to all types of investors.
5.5 LIMITATIONS OF THE STUDY

The present study has measured the key factors of behavioural biases, big five personality traits and behavioural aspects in a limited geographical area. This study has been done in an urban region. Only three behavioural biases have been included in this study. Other behavioural biases such as cognitive dissonance bias, representativeness bias, endowment bias, availability bias, hindsight bias, framing bias, etc., have to be studied before making any generalisation of the findings.

5.6 DIRECTIONS FOR FUTURE RESEARCH

Behavioural finance, as a field, brings finance and psychology together. This field presents a lot of fresh opportunities and challenges mainly because it is relatively a new field of finance. This offers numerous opportunities or experimental studies, since there is an opportunity to focus on the human psychology. Behavioural finance is closely related to behavioural economics, which focuses on understanding the rationale behind economic decisions. In this study only three biases have been included. Other behavioural biases such as representativeness, cognitive dissonance, endowment, optimism, availability, confirmation, loss aversion, mental accounting, status quo, and framing can be studied. It can examine whether investor types such as institutions, mutual fund managers and international fund managers are susceptible to behavioural biases.

5.7 CONCLUSION

The purpose of this study is to understand the relationship between big five personality traits and behavioural aspects of the investors in capital market in India. Demographic variables like age, gender, income and educational qualifications of the investors play a vital role in deciding
investor’s behaviour. Behavioural biases of individual investors have influence on their investment decisions. The big five personality traits have relationship with recency and overconfidence biases. Gender plays a vital role in the investment decisions. Female respondents are more careful in their investment abilities. Behavioural aspects have an influence on behavioural biases of individual investors. Age has an influence on all the three behavioural biases. This indicates that investor has to alter their investment preferences depending on their age group. The study clearly shows that investors are biased. Therefore, their decisions are not rational. These biases are the reflections of their personality traits. The BB&K model is very useful to examine the traits, behavioural aspects and biases of the investors in Indian capital market.

Behavioral finance provides explanations for why investors make irrational financial decisions. It demonstrates how emotions and cognitive errors influence investors in the decision making process. The various causes that led to behavioral finance are conservatism bias, overconfidence bias, herd behaviour, recency bias, over and under reaction and loss aversions. In essence, behavioral finance approach investigates the behavioral patterns of investors and tries to understand how these patterns guide investment decision. Behavioral finance offers many useful insights for investment professionals and thus, provides a framework for evaluating active investment strategies for the investors.

Capital markets are growing all over the world. Every nation needs to attract capital for its growth and capital market is the best route to raise necessary capital. Individual investors play a major role in the capital market. But these individual investors are subjected to various behavioural biases, big five personality traits and behavioural aspects. So it is important to understand the behaviour of these individual investors so that one can manage their
perception and, thereby, control the volatility in the capital market. The major benefits of behavioural finance are as follows: i) Identifying and mapping individual investor behaviour leads to better understanding of the investor base. ii) Transparency leads to investor friendly strategies. iii) Make capital market less volatile. iv) Manage investors’ perceptions better and v) Manage irrational behaviour of individual investors.