Chapter 6
SUMMARY, CONCLUSION AND IMPLICATIONS

This chapter includes the major findings drawn from the analysis of the data, implications of the study, limitations of the present study, and suggestions for educational practice and for further research.

6.1 Summary

The present investigation is based on the predictions that investment decision making is a function of psychological (cognitive abilities, emotional intelligence and self-esteem) and demographic factors (age and gender). A variety of experimental paradigms have generated converging evidence that cognitive abilities, emotional intelligence and self-esteem influence stock market participation of the investors. Both in theoretical and experimental research, it was also reported that variables like cognitive abilities, emotional intelligence, self-esteem, age and gender affects the behavioural biases such as loss aversion and regret of the investors.

The main questions of interest in the present investigation were: First, do behavioural biases vary as function of psychological and demographic factors of the investors? Second, do cognitive abilities, emotional intelligence and self-esteem influence stock market participation of the investors? Third, do behavioural biases (loss aversion and regret) and risk preferences act as mediating factors between the effect of cognitive abilities, emotional intelligence and self-esteem on stock market participation of the investors? Last, do factors such as gender and age differences effect behavioural biases and investment decision making of the investors?

In order to answer the above questions, the present study was conducted in three psychological dimensions (cognitive abilities, emotional intelligence and self esteem). For measuring cognitive abilities subjects performed the general ability test (GAMA). Trait emotional intelligence questionnaire and Rosenberg self-esteem scale were used to measure emotional intelligence and self-esteem respectively. Loss aversion was measured by lottery choice task experiment and the level of regret was measured by giving regret inducing situation followed by decision regret scale. The extent of stock market participation and risk preferences of the individuals were studied by eliciting information regarding their investments using a questionnaire.
A 2x2x2 factorial design was used for all the independent variables studied. A 2 (Gender: male, female) x 2 (Age: 25-40 years, 41-55 years) x 2 (Cognitive abilities: high, low); 2 (Gender: male, female) x 2 (Age: 25-40 years, 41-55 years) x 2 (Emotional Intelligence: high, low); 2 (Gender: male, female) x 2 (Age: 25-40 years, 41-55 years) x 2 (Self-esteem: high, low) designs were used.

In order to find a pathway, a mediational analysis was also conducted using AMOS 21.0. The analysis of the data revealed that behavioural biases and investment decision making of the investors varied as a function of cognitive abilities, emotional intelligence and self-esteem. It was found that individuals with low cognitive abilities are more prone to behavioural biases (loss aversion, regret) as compared to individuals with high cognitive abilities. It was also found that the individuals with low cognitive ability show less stock market participation and had fewer risk preferences in their investments. The results of the present study showed that individuals with low emotional intelligence show more loss aversion, regret as compared to individuals with low emotional intelligence. Moreover, individuals with low emotional intelligence participate less in stocks and prefer less risk in their investments. A further finding of the study was that individuals with low self-esteem show more loss aversion and regret as compared to individuals with low self-esteem. Similarly to above, individuals with low self-esteem participate less in stocks and prefer less risk in their investments as compared to individuals with high self-esteem.

Significant age difference was also found for behavioural biases and stock market participation. It was found that individuals with the age group 41-55 years showed more loss aversion, regret and as compared to individuals with the age group 25-40 years. It was also found that individuals with the age group 41-55 years participate more in stocks and had fewer risk preferences in their investments as compared to individuals with the age group 25-40 years. However, simple effect analysis of ANOVA revealed that individuals of age group 41-55 years participate more in stocks in case of the males while it is opposite in the case of females. Gender was also found to be important determinant of behavioural biases and investment decision making. The present study showed that females regret more, prefer less stocks and fewer risk in their investments as compared to males. However, regarding loss aversion no significant difference was found between males and females.
Path analysis in all the experiments proved that loss aversion, regret and risk preferences act as mediating factors between the effect of cognitive abilities, emotional intelligence and self-esteem on stock market participation of the investors. The same was true for the demographic variables such as age and gender as well.

6.2 Conclusion

The main goal of this study was to propose a mediational model for explaining the path between psychological factors and stock market participation of the investors. The results of the present study provide an integration of several important aspects such as cognitive abilities, emotional intelligence and self-esteem, loss aversion, regret, risk preferences and stock market participation of the investors by examining their interactions and relationships. Although it has been demonstrated that stock market participation, risk aversion and behavioural biases vary as functions of psychological factors, yet the process underlying this behavior was still unclear.

The present study advances the previous findings by studying impact of the wide range variables on stock market participation of the investors. It shows the process/path through which psychological factors and demographic variables influence stock market participation of the investors which was not found in the previous studies. It can be concluded from the results of the present study that the psychological factors (cognitive abilities, emotional intelligence, self-esteem) and demographic variables (age and gender) influence stock market participation of the investors through loss aversion, regret and risk preferences of the investors.

6.3 Implications of the study

The findings of this study have both theoretical and practical implications. Investors’ biases play a crucial role in predicting their own behavior for their stock market participation. The figures (2, 3, 4, 5 and 6) constructed in the present study can be applied in the context of the investors before they evaluate the stocks of the company. As human beings, investors are emotional in nature and this emotional effect can be stronger when companies are seen appealing to investors (Ali, 2011) Therefore, the investors must be cautious about their own behavioural biases before evaluating and selecting any company for their investments. Second, there are specific psychological antecedents to biases that shape investors’ overall affective evaluation of stock market. Among these antecedents, cognitive abilities, emotional intelligence
and self-esteem of the investors are significantly related to biases which further strongly influence their investment decisions. Therefore, it is important to identify antecedents of behavioural biases which influence investors’ investment decisions indirectly through them.

This study shows that investment decisions are very much influenced by investors’ own characteristics. Investment industry should consider these individual differences while taking investment decisions for their investors and should not consider all their investors as homogenous groups. Instead, the investment industry should take into account the psychological characteristics of the each investor such as cognitive abilities, emotional intelligence and behavioural biases individually and apply this knowledge while developing the portfolio for achieving the financial goals of the investors.

Similarly, not only the investment industry but also individual financial advisors should take into account the impact of cognitive abilities, emotional intelligence, self-esteem on financial decision making while formulating investment portfolios of their various investors. Further, practitioners, researchers, family economists and resource management professionals should design financial products according to the profile and characteristics of every individual. For example, if the advisor studies the psychological characteristics along with their risk profile of the investors and he/she finds that the individual has high cognitive abilities, emotional intelligence and self esteem, advisor can advise aggressive portfolio (high risk assets) for that investor since individuals having high cognitive abilities, emotional intelligence and self esteem were found to prefer more risk in their investment as indicated in the present study and vice versa.

Further, the present study will help investors in understanding their biases and to overcome them to maximize their returns. It will further assist investors in taking portfolio decisions and in understanding the factors affecting their performance. It will also make them aware of the effect of cognitive abilities, emotions and self-esteem on their psychological biases which can subsequently affect their performance in the stock market. Therefore, even the regulatory bodies such as the Securities Exchange Board of India, can enhance the development of the stock market by offering more seminars related to various psychological determinants of investment decision making to financial intermediaries such as stockbrokers, fund managers, and
others. It consequently can enhance peoples’ awareness of their characteristics and biases that influence their own investment decisions.

For example 2, let’s assume that an investor purchased stock/share of a particular company and he suffered a huge loss, and he regrets for his decision. As a result, even when he finds that the same company’s share price has gone up after few years, he still refuse to buy shares of this company because of his prior experience. In this context, if the person is made aware about his regret bias which has stopped him unconsciously from buying this company’s stocks, he could take a rational decision.

We know that the information received from financial advisors influences perceptions as well as investors’ motivation to invest in stock market (Georgarakos & Inderst, 2011). Therefore, investors would not only be cognizant about their own psychological biases but they should also be cautious while selecting their investment managers in their investment decisions. Investment companies and other financial institutions may also be benefitted while recruiting the fund managers whose decisions can influence the profits of their esteemed customers.

Methodologically, this study provides a good base for other studies in this area. There is a lot of fluctuation in stock market participation since 2008 stock market crash in India and there are very few studies highlighting the impact of psychological characteristics on investment decision making of the investors in India. The researcher believes this study have shed some light and raised some important questions in the area of investment decision making in India.

Finally, such findings will increase the predictive power of the finance models regarding the psychological characteristics of an individual that can lead to successful investment decisions. This knowledge would be certainly of interest to financial planners, stockbrokers, lay investors, institutional investors and others who run and use financial services for investment decision making. Therefore, it is important that we must stimulate research in this area so as to improve the financial well-being of the individuals.
6.4 Limitations of the study and Suggestions for Further Research

The present research carried out to study the influence of psychological characteristics on investment decision making of the investors. The full implications of the study can be ascertained only when it is supplemented by other studies. The following aspects may be incorporated in future research undertaking.

1. The study was confined to the northern part of India. Therefore, future research can focus on different regions of the country. This will help in making the comparison among regions. The researcher is not expecting any change in the models across India. However, the researcher would like to find out whether the models constructed and tested in the present study can be applied in the different states of India also. Since each state has a different culture.

2. In the present research, the data was collected only from the retail investors, therefore similar research can be attempted on institutional investors as well in future.

3. Since the present research was related to financial investments which are highly confidential, there are possibilities of hiding vital information by the investors. As a result, checking the honesty of the participants’ responses was beyond the capacity of the researcher.

4. The present study used the non probability sampling technique for collecting data. Therefore, probability sampling can be applied in future research undertaking.

5. Similar research can be attempted by taking other behavioural biases such as Herding bias and Recency bias as mediators.

The summary clearly revealed that cognitive abilities, emotional intelligence and self-esteem are strong and important determinants of investment decision making. The present research would be certainly of interest to financial planners, stock brokers, lay investors, institutional investors and others who run and use financial services for investment decision making. The investigator would consider herself amply rewarded if the findings of the study are used by future researchers and practitioners for increasing the profitability of the investors and for conducting more extensive research related to this crucial area.
Publications from the current investigation:

