CHAPTER I
INTRODUCTION

The stock market can be viewed as a system of human interactions (Hirschey and Nofsinger, 2008). Every part of the investment process includes people interacting with one another. Investors exchange and discuss stocks market information with neighbours, relatives, friends, and colleagues. Advice is sought from advisors, analysts, bankers, and planners. Hence, investment decision-making of individual investors can be conceptualized as a complex decision-making behaviour.

1.1 Background

Investment decisions of investors are influenced by rational or irrational factors which contribute to the efficiency or inefficiency of security markets. The inefficiency is generally attributed to behavioural biases of investors. Individual investors’ are more prone to behavioural biases than institutional investors (Shanthikumar, 2004). Individual investor behaviour is documented in Odean (1998, 1999), Barber and Odean (2000, 2001) amongst others. All these studies show that individual investors are characterised by excessive trading and susceptibility to behavioural biases.

The primary aim of this study is to understand the underlying factors that affect the trading behaviour of individual investors. Though a number of research studies have been carried out in understanding individual investor behaviour, application of behavioural models has not been attempted seriously.

Social attitude, personality trait and other concepts referring to behavioural dispositions are important to predict and explain human behaviour and have been emphasized by early scholars in their research (Campbell, 1963; Sherman and Fazio, 1983; Ajzen, 1988).
Among all the theoretical frameworks that have been adopted to examine the decision-making processes of investors, the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) and the Theory of Planned Behaviour (TPB) (Ajzen, 1985; 1991) have been found to be the popular behavioural models. Hence, an attempt is made in this research to explain the trading behaviour of individual investors by using the TRA and TPB.

Determinants of trading behaviour of individual investors had been the main focus of the growing area of finance known as ‘behavioural finance’. Behavioural finance focuses on the individual attributes, psychological or otherwise, that shape common financial and investment practices (Ritter, 2003). According to Ricardi and Simon (2000), ‘behavioural finance attempts to explain and increase the understanding of the reasoning patterns of investors, including the emotional processes involved and the degree to which they influence the decision-making process. Essentially, behavioural finance attempts to explain the what, why and how of finance and investing, from a human perspective’.

Unlike traditional assumptions of expected utility maximization with rational investors in efficient markets, behavioural finance assumes that people are normal (Barberis and Thaler, 2003). Research in behavioural finance provides an evidence that investors' financial decisions are affected by internal and external behavioural factors (Shefrin, 2000; Shleifer, 2000).

Investors tend to be overconfident in their judgements (Odean, 1998). Combined with overconfidence, over optimism also make investors to indulge in excessive trading. Three psychological phenomena are used to explain the errors of overconfidence and overoptimism: self-attribution bias, the illusion of knowledge, and the illusion of control (Barber and Odean, 2001, 2002). Further, investors have problem with representativeness
and sample size which leads to difficulties in drawing conclusion with available information (Shefrin, 2000)\textsuperscript{16}. Investors stick to initial opinion and values without updating new information, called anchoring (Kahneman and Tversky, 1974)\textsuperscript{19}.

Social influence and interactions with other people also cause investors to behave irrationally. Investors may make common mistakes in a herd manner because of social influences and the force of media news. The media plays two roles; they set the stage for market moves and they also instigate the moves themselves (Shiller, 2000)\textsuperscript{20}. Also, the internet has shaped the way of trading by investors. Internet-based trading is found to increase the trading frequency of individual investors (Barber and Odean, 2000)\textsuperscript{21}.

Personality theorists (McDougall, 1932\textsuperscript{22}; Davidson and Griffin, 2003\textsuperscript{23}) have documented that individual traits of a person motivate his behaviour. Internal orientation and risk-behaviour (Mc.Inish, 1982)\textsuperscript{24} are found to be strongly associated. Investors who placed orders online are found to be actively involved in trading (Barber and Odean, 2002)\textsuperscript{18}. Staal (2004)\textsuperscript{25} reported ways by which stress can affect human performance. Also, risk is a factor that shapes individuals’ decision, including financial and investment decisions (Lipe, 1998\textsuperscript{26}; Yang and Qiu, 2005\textsuperscript{27}). Indeed, most economic decisions are driven by primitive individual utility functions, including particular preferences for risk (Doubleday, 2002\textsuperscript{28}). Thus, understanding the risk tolerance of individuals is imperative in understanding individuals’ decisions. This aspect has also been examined in the present study.

Several studies provided evidence that demographic characteristics influence investors’ decisions. Financial risk tolerance increases with age (Morin and Suarez, 1983)\textsuperscript{29}; Females have lower preference to risk than males (Grable, 2000)\textsuperscript{30}; Risk tolerance increases with
education (Haliassos and Bertaut, 1995)\textsuperscript{31}; Unmarried investors are more risk tolerant than married (Roszkowski, Snelbecker and Leimberg, 1993)\textsuperscript{32} and risk tolerance increases with income and wealth (Cohn et al, 1975)\textsuperscript{33}.

Despite interest shown by researchers in the behavioural finance area in the late 1980’s, the number of empirical research studies which identify the underlying factors of trading behaviour of individual investors are not adequate. Also, research pertaining to the combined effect of personality, social, cognitive, demographic and risk factors on trading behaviour are also found to be small in number. Hence, an attempt has been made in this study to identify the factors affecting the trading behaviour and construct a model that encompasses such factors.

1.2 Statement of the Problem

Investors are rational, in the sense that they make decisions according to axioms of expected utility theory, they have stable preferences and their forecasts about future are unbiased. Financial markets are effective given that nobody is able to systematically beat the market, and the security prices reflect only utilitarian characteristics (Statman, 1999a)\textsuperscript{34}. These two assumptions of investors’ rationality and market efficiency have dominated the standard theory of finance. Economic models of human behaviour based on the two assumptions are simple and elegant, but more and more research studies show that they are incomplete and unrealistic. If investors are rational, that is, if they are making financial choices with respect to fundamentals, no difference should be observed between actual stock prices and the fundamental value. However, Shefrin (2000)\textsuperscript{16} has documented that stock prices deviate from fundamental values for long period.
The ability of behavioural models in finance to explain asset returns rests on three key assumptions. Firstly, a group of investors must deviate from rationality in their trading activity. Secondly, these errors must be sufficiently systematic across the group to avoid them being diversified away upon aggregation. Thirdly, there must be some limits to arbitrage that prevent rational investors immediately correcting any resulting mispricing of stocks (Jackson, 2003). While adequate literature has addressed the issue of deviations from rationality and limits to arbitrage, relatively little empirical research has focused on the individual investor’s deviations from rationality.

The aggregation of errors plays a key role in behavioural models where the existence of a group of commonly acting irrational investors is evoked. Shleifer (2000) argues that errors should aggregate based on the systematic nature of the behavioural biases demonstrated by Kahneman and Tversky (1982) and others. However, as most of the research work is experimental based, it becomes important to examine the existence of behavioural bias in real-life financial settings where agents typically face strong economic incentives. Among all investor groups, individual investors seem to be susceptible to behaviourally induced errors. For example, the research studies cited earlier show that individuals appear to trade excessively (Barber and Odean, 2000); engage in feedback trading (Wang et al, 2005) and sell stocks that outperform those they purchase (Bange, 2000). Individuals are also likely to have access to fewer resources relative to institutional investors when making their investment decisions. Some individual investors reduce this problem via trading through brokerage firms where they receive investment advice. Others trade via internet where they receive no investment advice.
Recently, individual investors have started trading too often and to their detriment. Though frequent trading may be profitable for brokerage firms, it is not profitable for most individual investors. The more actively investors trade, the less they earn. It is reported that 20 percent of investors who traded most actively earned an average net annual return which is 7.2 percentage points lower than that of the least active investors (Barber and Odean, 2000)\(^5\).

In this background, the study has raised the following research questions:

i) What are the factors that affect the individual investor’s trading behaviour especially trading frequency?

ii) To what extent these factors influence the behaviour of individual investors?

iii) Do the demographic factors affect risk tolerance and trading behaviour?

iv) Does the risk tolerance drive the investors’ trading behaviour?

v) Can behavioural models explain investors’ trading behaviour?

These questions help to define the focus, significance, and objectives of the study. The present study addresses the factors that influence the trading behaviour like attitude, intention, personality, cognitive, and social factors that are commonly researched and utilized in the process of decision making. Risk tolerance and selected demographic factors are also considered.
1.3. Objectives

Based on the research questions raised in the previous section, the objectives of the study have been framed as follows:

i) To study the impact of demographic factors on risk tolerance levels of individual investors.

ii) To examine the impact of personality, social, cognitive factors, risk tolerance level and demographic factors on attitude towards trading.

iii) To analyse the impact of attitude, perceived behavioural control, and subjective norms on intention towards trading.

iv) To study the impact of intention, demographic factors, and risk tolerance on trading behaviour.

v) To measure the direct and indirect effects of the variables relating to attitude, intention and trading behaviour.

vi) To develop the predictor variable set for attitude towards trading and trading behaviour.

1.4 Hypotheses

The following hypotheses are set to be empirically tested to study the above mentioned objectives:

1) There is no association between demographic factors and risk tolerance levels.

2) There is no relationship between personality factors and attitude towards trading.

3) There is no relationship between social factors and attitude towards trading.

4) There is no relationship between cognitive factors and attitude towards trading.
5) There is no relationship between risk tolerance levels and attitude towards trading.
6) There is no association between demographic factors and attitude towards trading.
7) There is no relationship between attitude and intention towards trading.
8) There is no relationship between perceived behavioural control and intention towards trading.
9) There is no relationship between subjective norms and intention towards trading.
10) There is no relationship between intention towards trading and trading behaviour.
11) There is no relationship between risk tolerance levels and trading behaviour.
12) There is no association between risk tolerance levels and trading behaviour.
13) There is no difference between demographic variables and trading behaviour.

1.5 Significance

The study would be useful to the financial advisors who guide their client regarding various financial solutions including investment in stock market. The financial advisors generally assess the risk profile of their clients but ignore the psychological, social and personality factors that govern their financial decisions. It would help financial advisors to assess their clients from psychological point of view and advise them accordingly.

The study on trading behaviour of individual investors would highlight various types of bias to which individual investors are susceptible to while trading in stock market. Further, it shows the relationship between various types of bias and frequent trading behaviour. It would help the individual investors to understand if they are rational or biased during trading. It would also help the individual investors to understand whether frequent trading is good for them. The study also tries to unravel the impact of
demographic factors like gender, age, marital status, education, occupation, and income on trading behaviour of the individual investors.

The research would facilitate the wealth management service providers to create asset allocation and execute investment program designed to mitigate behavioural biases. This would help the service providers to add value and achieve a competitive edge against their competitors and remain successful in the long run.

1.6 Limitations

The following are the limitations pertaining to the present study.

i) The study is limited to active individual investors in Coimbatore City only. By active, it is meant that investors who show an interest towards trading and have knowledge of financial markets.

ii) Snowball sampling technique has been used in this study to select the respondents for collection of data. This technique, being a non-probability sampling method does not represent the entire population.

iii) The variables used in the study are drawn from the literature on behavioural finance, TPA and TPB. However, the existence of other external factors cannot be ruled out.
1.7 Operational Definitions

In this section, the operational definition of various terms used in the study has been provided as follows:

**Behavioural Finance:** A part of finance, which seeks to understand and predict systematic financial market implications of psychological decision processes. ‘Behavioural Finance’ closely combines individual behaviour and market phenomena and uses knowledge from both the psychological field and financial theory (Fromlet, 2001)\(^3\)

**Individual Investor:** Individuals who buy and sell small quantities of securities for himself or herself in secondary market.

**Active Investor:** Active investor is the one who actively participates in stock trading rather than being passive. Any investor who makes at least one transaction, either by buying of stocks or selling of stocks, in a week is considered as a active investor.

**Attitude towards trading:** Attitude refers to individual’s investors favourable or unfavourable feelings towards trading.

**Intention towards trading:** Intention refers to how much of effort individual investors exert in order to perform the trading behaviour.

**Trading Behaviour:** Trading behaviour means the frequency of trading made by individual investor. Every buy and every sell transaction is considered separately as one transaction.

**Personality factors:** Self-esteem, emotional experience, ambitious, self-efficacy, internal orientation, stress management, and active involvement are termed as personality factors.

**Social factors:** Media, Social Interactions and Internet constitute the social factors.
**Cognitive factors:** Over-confidence, herd behaviour, self attribution, excess sensitivity to rumours, over optimism, familiarity bias, conservatism, availability heuristics, illusion of control, disposition effect, mental accounting, and anchoring are the cognitive factors considered in the study.

**1.8 Scheme of Chapterisation**

The thesis has been arranged in six chapters. The first chapter presents the introduction of the study along with the research problem, objectives, significance and limitations of the study. It also gives an outline of the various chapters proposed in the study. The second chapter consists of the principal theories and central concepts of behavioural finance relevant to this study. It provides a brief description of the personality, social and cognitive factors that influence individual investors’ trading behaviour. Further, the concepts related to risk tolerance and its significance in individual investors decision making are also presented. It describes the two models used in the study namely the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TRB).

The previous research studies related to the topic of study have been compiled and reported in the third chapter. The fourth chapter explains the general approach and methodology applied in the study. It describes in detail the research design used for the study, data sources, the sample selection, the instrument design, and tools used for analysis. The fifth chapter discusses the empirical research conducted with reference to the objectives of the study. The results obtained from the analysis of the data are provided. The final chapter presents the summary of findings and conclusion of the study along with the implications for future research.
References


22 McDougall, W., (1932), ‘Of the Words Character and Personality’, Character and Personality, 1, 1, 3 - 16.


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