

Chapter 1

Introduction

1.1. Background

The main hypothesis behind the study of behavioural finance is that people are frequently irrational or quasi-rational, and are repeatedly inconsistent in their decisions concerning financial matters relative to the tenets of classical economics and standard finance. Since the 1960's, research studies in behavioural finance had been gathering empirical evidence that showed how irrational people were when faced with financial dilemmas (De Bondt et al., 2008; Gao & Schmidt, 2005; van der Sar, 2004; Fromlet, 2001; Statman, 1999).

Some examples of irrational financial decision behaviour were examined by Prast (2004), who identified six financial puzzles, i.e.

- i. asset prices and exchange rates tended to under- and overreact to news (De Bondt & Thaler, 1985);
- ii. the average individual (amateur) investor who traded excessively tended to experience lower market returns (Barber & Odean, 2000);
- iii. when the market was hyped up, prices tended to respond more strongly to good news than to bad news, while the reverse occurred during times of market crisis (Kaminsky & Schmukler, 1999);
- iv. between 1926 and 1985, the equity premium between risk and risk-free assets in the United States, averaged about 6% per year, which implied an unrealistically high degree of risk aversion (Mehra & Prescott, 1985);

- v. investors had a tendency to sell winning trades too soon and hold losing trades too long, known as the disposition effect (Odean, 1998); and
- vi. investors preferred cash dividends, where in the absence of taxes, dividends and capital gains should substitute each other (Black, 1976).

Behavioural finance concepts had been used to provide the rationale for these actions.

In essence, behavioural finance is the application of psychology to financial behaviour, in an attempt to better understand and to explain how emotions and cognitive errors influence investors and the decision-making process under conditions of risk and uncertainty. Behavioural scientists deal in abstract psychological concepts such as judgmental heuristics and cognitive biases, and seek to fill the void between classical economics and psychology to “explain the what, why, and how of finance and investing, from a human perspective” (Ricciardi & Simon, 2000, p. 27).

The terms behavioural finance, behavioural economics, financial psychology, behavioural decision-making, judgement and decision-making, etc. have been used interchangeably to refer to this area of research. In this study the term behavioural finance will be used consistently throughout the report.

1.2. Problem Statement and Research Questions

It is assumed that investment professionals, who are financially trained, have more investing experience, have access to timely and better financial information and have the use of investment tools and technologies, will be more rational and less affected by behavioural biases. Yet, the repeated incidences of unauthorised speculative trading activities and reckless investment decisions that had resulted in massive losses to, and

sometimes the demise of, the financial institutions concerned, challenge this assumption. More recently, post-mortem analysis of the subprime mortgage crises that started in the United States and which had spread to the rest of the global economy revealed that investment professionals, despite their fiduciary obligation to act in the interest of their employers and/or clients at all times, were not able to self-regulate.

The problem statement, therefore, stresses the need to examine the motivation and drivers behind the irresponsible and irrational behaviour of investment professionals. It also raises the question whether the existing investment risk framework to manage market risk, credit risk and operational risk is adequate to ensure the viability of financial institutions and the stability of the marketplace.

With reference to the above problem statement, the research questions for this study are:

- Are there any differences in the financial decision-making behaviour between investment professionals and retail investors?
- Does experience mitigate the influence of behavioural biases?
- Are there any demographic and socio-economic predictors of financial decision-making behaviour?
- What is the role of emotions in investment behaviour? Do emotions play a major role or a supporting role to behavioural biases in financial decision-making behaviour?

1.3. Objective of Study

There is an old management adage that says you cannot manage what you do not measure. Hence, many experts in the financial services industry still mistake risk

measurement for risk management. The whole business premise of the risk management industry is predicated on minimising financial exposures and reducing monetary losses with the aim to help financial institutions avoid the problems of overexposure and excessive losses. The widely accepted best practices in financial risk management treat risk as a one-dimensional concept where the measurement of risk is objective. Nonetheless, most of the financial disasters witnessed had been caused by human failure and negligence, and where the detection of such errors in judgement will be more of an art than a science.

Financial risk specialists are now looking at research in behavioural finance in order to understand the causes behind people's behaviour rather than measuring the after-effects. Celati (2004) had proposed that any comprehensive risk management framework might need to bridge the gap that exists between the objective/quantitative side of risk measurement and the subjective/qualitative analysis of risk-taking behaviour based on insights from behavioural sciences and cognitive psychology.

Hence, the objective of this study is to examine the role of experience and selected socio-demographic factors in encouraging or discouraging irrational financial decision-making behaviour. It also attempts to identify the emotional triggers that work together with behavioural biases to cloud the judgement of investors. It is hoped that the findings of the study will be of use to risk practitioners who seek to develop a judgement risk framework to complement the existing frameworks to manage market, credit and operational risks.

The overall goal of behavioural finance research is to try to understand the way people conduct themselves so that they can observe their investment behaviour and be more

aware of the influences of behavioural biases on their decision-making process. At the end of the day, every one of us endeavours to make better and more effective decisions.

1.4. Research Approach

As the motivation behind this study is to gain a better understanding of the cognitive and emotional influences behind investor decision-making behaviour, the researcher is opting to adopt a mixed methods research approach. The quantitative data will be collected from a survey questionnaire and the qualitative data collected from case studies of selected rogue trading scandals. The researcher is of the view that the research problem can be better addressed if the analysis is carried out in both numerical and narrative formats, i.e. findings from the statistical analysis of self-reported behaviour from the survey will be supported by analysis of observed behaviour from the case studies.

The quantitative approach will be a cross-sectional study, where a structured questionnaire consisting of decision scenarios will be distributed on-line and by hand. Respondents will be chosen using a non-random snowball sampling technique. The reasons behind this choice of sampling design are:

- i. there is no data on the size of the target population, i.e. respondents who are investors or who have financial knowledge;
- ii. the researcher does not intend to generalise the findings to the total population; and
- iii. the statistical technique for data analysis, i.e. binomial logistic regression, makes no assumptions about the distribution of the sample population.

The case studies selected for the qualitative approach will be from high-profile rogue trading incidents widely reported in the print media. While the data collected will be from secondary sources, where possible, the analysis will be based on authorised reports from the regulators or appointed independent consultants for a more objective account of the incident.

1.5. Outline of the Report

The report will consist of six chapters. A brief outline for each of the following chapters is provided below.

Chapter 2

This chapter will review the literature on developments in behavioural finance research and will include discussions on prospect theory and regret theory. These are two of the main behavioural finance theories accepted for their ability to explain some of the anomalies observed in investment behaviour. The review will include empirical evidence of behavioural biases like the status quo bias, anchoring bias, mental accounting bias, disposition effect, endowment effect, house money effect, snakebite effect, breakeven effect and overconfidence effect. The review will also include studies on the relationship between socio-demographic characteristics and these behavioural biases.

Chapter 3

The discussion in this chapter will consist of a review of the conceptual framework on the role of learning and experience in decision-making. It will include a discussion on the research approach (a mixed methods research approach) and the issues behind this methodology. The chapter will also provide a description of the approaches taken in the collection of the quantitative and qualitative data for this study.

Chapter 4

The discussion in this chapter will focus on the findings from the survey, which will revolve around the questions below, and where items (ii) to (iii) are part of the research questions for this study.

- i. Are the survey results consistent with the predictions of prospect theory?
- ii. Are investment professionals more rational than retail investors?
- iii. Does experience mitigate the influence of behavioural biases?
- iv. Are there any demographic and socio-economic predictors of financial decision-making behaviour?

Chapter 5

The discussion in this chapter will focus on the analysis of the selected case studies. It will include a brief account of the events behind the rogue trading scandals, and will highlight some common characteristics of the rogue trading incidents. It will also include an analysis of the behavioural biases and emotional influences behind the conduct of the rogue traders in the case studies.

Chapter 6

The discussion in this concluding chapter will centre on the salient findings from the survey and case study analyses in an effort to suggest approaches for a judgement risk framework. The two main sections in this chapter will be on:

- i. the role of emotion in inhibiting learning from past failures in judgement; and
- ii. implications for the financial services industry, including suggestions to address the issue of judgement risk.

The chapter will close with contributions of the study to research on factors that have an impact on the degree of behavioural influences on the decision-making process under risk and uncertainty, as well as suggestions for future research.

1.6. Scope of Study

The focus of this study is with regard to irrational decision behaviour and not risk-taking behaviour, even though the decision scenarios in the survey questionnaire and the selected case studies illustrate elements of risk-taking. The definition of irrational behaviour in this study refers to decisions that do not abide by the tenets of standard finance theory. Furthermore, there is a difference between cognitive biases and risk tolerance. A cognitive bias refers to a flaw in judgment which is caused by memory, social attribution, and statistical errors. While risk tolerance refers to how much risk individuals are willing to take to achieve an investment goal. Investors are expected to take some risks on their investments in order to get a corresponding return. The higher the individuals' risk tolerance, the more risk these individuals are willing to take for a

higher return. Hence, it would be ‘irrational’ if investors do not want to take any risk and yet expect to obtain a reasonable return on their investments.

The experiments conducted in most behavioural finance research involved observing (i) the behaviour of individuals, and/or (ii) behaviour resulting from interactions between individuals. The scope of this study is on the former.

This research intends to provide empirical evidence on the role of experience on decision-making under risk and uncertainty using data collected from subjects who have experience in investing and/or have knowledge of investing. In particular, the findings of this study will focus on the similarities and differences in financial decision-making behaviour between investment professional and lay investors. Such knowledge will be useful in understanding investor behaviour and help in formulating a judgement risk framework. Judgement risk in this study refers to the risk of faulty human judgement in decision-making, where the thought processes and motivations behind investment decisions are clouded by behavioural biases.