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INVESTIGATING THE INFLUENCE OF PSYCHOLOGICAL BIASES ON THE INVESTMENT DECISIONS OF THE MALAYSIAN INVESTORS

BY

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ABSTRACT

This study investigates the influence of psychological biases on the investment decisions of both retail investors and fund managers in Malaysia. The study also explains the investment decision behaviours of the Malaysian retail investors and fund managers and how both have been mitigating the influence of psychological biases during their investment decisions. The yardstick which motivate this study is the fact that Malaysian stock market has drawn global attention, particularly after counteracting 1997 stock market crash and Southeast Asian financial crisis. An indication that both local and foreign investors are optimistic about this stock market. However, it has been argued that Malaysian market is not fully developed because investors are easily overreacted to economic development, market rumours, and speculative political issues. Other studies have shown that investors in Malaysia are influenced by psychological biases. As such, it is important for investors to be aware of how these biases influence investment decisions, especially when viewed from the point that these biases could lead to the market downturn and subsequently harm individuals, mutual fund, college endowments, pension funds, etc. More importantly, this study also reveal whether one group of investors is more influenced compared to the other group – investor type, gender, monthly income, investment experience, and trading frequency. To this end, the researcher adopts mixed methods research approach – survey questionnaire and interview – to collect data from the Malaysian retail investors and fund managers. Having exposed investors to these biases, the quantitative results indicate that there is no difference between retail investors and fund managers, between male and female, between low income earners and high income earners, between low investment experience and high investment experience, and between fewer annual trading frequency and more annual trading frequency in Malaysia. In addition, the qualitative results reveal that fund managers investment decisions processes are more comprehensive compared to retail investors. Though fund managers acknowledge the influence of psychological biases on the investment decisions; they have been using different and comprehensive approaches to mitigate such influences during investment decisions processes compared to retail investors.

خلاصة البحث

تبحث هذه الدراسة تأثير التحيزات النفسية على القرارات الاستثمارية المستثمرين الأفراد ومديري الصناديق في ماليزيا. تبين الدراسة أيضًا سلوك قرارات الاستثمار للمستثمرين الماليزيين ومديري الصناديق وكيف تم تخفيف تأثير التحيز النفسي خلال قراراتهم الاستثمارية. المقياس الذي حفز هذه الدراسة حقيقة هو أن سوق الأوراق المالية الماليزية قد جذب الانتباه العالمي ، لا سيما بعد مواجهة انهيار سوق الأسهم في عام 1997 والأزمة المالية في جنوب شرق آسيا. مؤشر على أن المستثمرين المحليين والأجانب متفائلون عن سوق الأوراق المالية هذا. ومع ذلك ، فقد قيل إن السوق الماليزي لم تتطور بشكل كامل لأن المستثمرين يبالغون في رد فعلهم بسهولة تجاه التنمية الاقتصادية وشائعات السوق والقضايا السياسية المضاربة. وقد أظهرت دراسات أخرى أن المستثمرين في ماليزيا يتأثرون بالتحيز النفسي. وعلى هذا النحو ، من المهم أن يعرف المستثمرون كيف تؤثر هذه التحيزات على قرارات الاستثمار ، خصوصا عند النظر إليها من حيث أن هذه التحيزات يمكن أن تؤدي إلى تراجع السوق وبالتالي إلحاق الأذى بالأفراد ، والصناديق المشتركة ، وأوقاف الكليات ، وصناديق التقاعد ، إلخ. وأهم من ذلك، تكشف هذه الدراسة أيضًا إذا كانت مجموعة معينة من المستثمرين أكثر تأثراً مقارنة بالمجموعة الأخرى بنظر إلى- نوع المستثمر ، والجنس ، والدخل الشهري ، والخبرة الاستثمارية ، وتكرار التداول. تحقيقا لهذه الغاية ، يتبنى الباحث منهج بحث أساليب مزدوجة - استبيان ومقابلة - لجمع البيانات من المستثمرين الماليزيين ومديري الصناديق. بعد تتعرض المستثمرين لهذه التحيزات، تشير النتائج الكمية إلى أنه لا يوجد فرق بين المستثمرين الأفراد ومديري الصناديق، وبين الذكور والإناث ، وبين ذوي الدخل المنخفض والعاملين الدخل المرتفع ، وبين خبرة الاستثمار المنخفضة والخبرة الاستثمارية العالية ، وبين أقل من المعدل السنوي. تردد التداول والمزيد من التردد التجاري السنوي في ماليزيا. وبالإضافة إلى ذلك ، تكشف النتائج النوعية عن أن عمليات قرارات الاستثمار الخاصة بمديري الصناديق أكثر شمولاً بالمقارنة مع المستثمرين الأفراد. وعلى الرغم التأكيد من مديري الصناديق بتأثير التحيز النفسي على قرارات الاستثمار؛ لقد تم استخدام أساليب مختلفة وشاملة للتخفيف من هذه التأثيرات أثناء عمليات قرارات الاستثمار مقارنة مع المستثمرين الأفراد.

APPROVAL PAGE

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DECLARATION

I hereby declare that this dissertation is the result of my own investigation, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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This dissertation is dedicated to almighty Allah whose divine sustenance made everything easy for me throughout this journey

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Investigating the influence of psychological biases on both institutional and retail investors has been an oft-studied topic in the domain of finance, especially since last three decades. Arguably, the interest in behavioural finance – a fusion of finance, psychology, and sociology – is not by happenstance; rather, it has developed overtime due to the need to study how financial decisions by households and organisations are truly made. Behavioural finance investigates the psychological aspect of financial decision makers and provides explanations to the irrationality of investors in their investment decisions making process.

Based on psychological and sociological theories and perspectives, behavioural models are developed to examine the financial markets inefficiencies and provide explanations to investors' behaviours and market anomalies (Dash & Mahakud, 2015; Muradoglu & Harvey, 2012). Since the antecedent study of Tversky and Kahneman (1974) on judgment under uncertainty, academicians and practitioners, such as economists and financial practitioners, have begun to use psychological theories to explain financial market participants' behaviours and market anomalies. The then emerging approach of finance reproaches the financial markets' participants from being rational to, at least, bounded rationality (Boussaidi, 2013; Chang, Huang, Chang, & Lin, 2015), and its encomium within the academia and practitioners has eventually led to the emergence of behavioural finance (Boussaidi, 2013).

The established standard financial theory – a normative approach – is based on different assumptions that prescribe how decisions should be made rather than

describing how they are actually made (Bazerman & Moore, 2009). However, investors in this less than perfect world are bounded in their rationality because; they (investors) do not have access to all relevant information; have unlimited mathematical and cognitive capacities; and possess limited experience and knowledge useful for making investment decisions. Moreover, investors are susceptible to psychological biases (psychological biases are discussed in details in the chapter that follows) in their quest for information or, dealing with uncertainties that are related to investment decisions (Kumar, 2012).

Also, Bazerman and Moore (2009) assert that investors' judgments are bounded in their rationality and the better way to improve our understanding on how to make a good decision is to describe and explain how actual decisions are made by the practitioners. To this end, behavioural finance investigates the effect of cognitive, social and emotional factors on investor's economic decisions. It helps to understand the behaviour of investors, and why and how markets behave the way they do. With good understanding of market sentiment and psychological aspect of markets, market agents would probably improve in decision making.

Furthermore, investors' decisions in most cases deviate from rational or logical decisions as suggested by the standard finance theory – standard finance theory is also known as traditional finance, neoclassical or, modern finance theory (henceforth, standard finance theory), but lean towards being influenced by various psychological biases. As such, presence of these biases in investors while making investment decision would, to certain extent, influence their rationality and subsequently impact on the actual investment decisions made (Kumar & Goyal, 2015). In addition, the prospect theory, developed by Kahneman and Tversky (1979), suggests that investors' decisions are based on potential gains or losses, rather than the final outcomes.

Generally speaking, the underlining assumptions of standard finance theory are: capital markets are efficient, investors are rational, and it is quite impossible to outperform the market over a long period of time. Standard finance theories, such as portfolio theory by Markowitz (1959), capital structure decision by Modigliani and Miller (1958), option pricing by Black and Scholes (1973), arbitrage theory of capital asset pricing by Ross (1976), etc. are resting on the above assumptions (McMahon, 2006). Unlike standard finance theory which claim that investors tend to maximise wealth and minimise risks at all time, behavioural finance argues that investors are not fully rational; it emphasises that investors are susceptible to psychological preconceptions or biases, and these biases have great influence on the way financial information are being utilised.

Specifically, behavioural finance argues that cognitive errors influence investment decisions and that investors need to fully comprehend these biases when making investment decisions (Subash, 2012). While making investment decisions, investors are encircled with uncertainties with respect to the quality and quantity of information available to them. This is not only because of limited access to financial information, but due to investors' cognitive limitation. With this situation, the rationality of investors in uncertain contexts could be questioned; it is so since investors in such situation sometimes tend to think that other investors are better informed and possessed other important information that they are lacking. Consequently, some investors abandon their findings and follow others – something called information cascade, or deduce from other investors' information before making their decisions (Fernández et al. 2011).

According to Statman (2008), what comes to the minds of people when they think about standard finance are the Capital Asset Pricing Model (CAPM) and mean-

variance portfolio theory since both are elegant in their form. Unbeknownst to majority that the elegant CAPM has been replaced by the messy three-factor model which is based on the notion that expected return is a function of equity market capitalisation and the ratio of book value to market value in addition to beta.

Moreover, even the three-factor model has turned into four-factor model in addition to momentum, and five-factor model in addition to liquidity. In Statman's (2008) view, there is likelihood for the list to grow even further. However, as elegant as these theories are, few investors apply them when building up portfolio or making investment decisions in general. For this reason, it is more pertinent to use models which actually describe the real people in the real markets when researching on investors, and these models are confined in behavioural finance.

Meanwhile, behavioural models are less elegant than the standard finance models, but they are much closer to reality. Testable hypotheses and empirical assessments are offered by behavioural finance and these hypotheses could be supported or rejected in different economic settings and circumstances (Statman, 2008). For instance, testable "disposition effect" hypothesis, which state that investors are disposed to holding on to losing stocks, was offered by Statman and Shefrin (1985). Researchers from different economic settings can therefore use empirical evidences to reject or support this hypothesis; though evidences around the world support it as discussed later.

Certainly, it is impossible to detach investors' personality from the investment decisions that they make. Essentially, it is useful for investors to understand their financial personalities; that is, why they make financial decisions, and how they are fundamentally likely to react in a common condition of uncertainty. Understanding these by investors are particularly required because, appropriate way to temper on the irrational components of investment decisions while satisfying individual needs and

preferences are captured therein. It is intriguing to know that behavioural finance provides an effective way to understand individual personality in an unconventional, very complex, and different perspective. Hence, several feelings of human emotional complexities, such as fear, panic, anxiety, envy, euphoria, greed, satisfaction, ambition, or vanity are all residing in behavioural finance (Birău, 2012).

From another perspective, the past financial crises, such as 1997 southeast financial crisis, 1998 Russian financial crisis, and devastating 2008 global financial crisis which originated from USA and have profound effect on the world economy, resulting into global recession, have caught majority of economists, financial analysts and economic forecasters operating at most influential seat in governments as well as financial institutions unaware (Subash, 2012). Even with their complex forecasting instruments and elegant models, economist and other financial agents are almost completely failed to foresee the financial crisis and madness of market actors (Shefrin, 2010). The basis of these problems as noted in literature is blindness to certain elements of human nature by the standard finance theorists (Shefrin, 2010; Shiller, 2015; Subash, 2012).

Consecutive failures of standard theories have generated questions like: are people (individual and institutional investors) really rational? Or are people driven by emotion, such as fear, greed, or psychological biases that could lead to bad decisions? Accordingly, these issues, as raised by finance behaviourists, have made it really essential to understand the behaviours of people whose actions ultimately driving the financial market (Shefrin, 2010). More so, extant literatures also reveal that in the existing global financial perspective, psychological factors certainly influence the investment decisions (Lai et al., 2013; Kahneman & Tversky, 1979; Kumar & Goyal, 2015; Sengupta, 2015; De Bondt et al., 2013). They argue that human nature is

perfectible, but it is not perfect due to the fact that investors deviate from rational behaviour in most cases, leading to illogical decisions (Birău, 2012).

Although investors might be immune to different strategies for investing based on technical and fundamental analyses or, even having capacity to research the market information in an analytical and rational manner; their personal traits, such as personality, cognition and emotion, social factors and experiences, may have a significant effect on the decisions that is actually made. For instance, those with recent capital gains experiences tend to be bold in taking more risks or more aggressive than investors with recent loss experiences (Chen et al., 2011). Also, investment on some stocks in certain industries might be driven by characteristics, like volume, returns, momentum, the kind of firms in an industry, the location of such firm, and being Shari'ah compliant (Chen et al., 2012).

Owing to their important roles in the capital market, the effects of psychological biases on the investment decisions of institutional[1] and retail[2] investors are one area that occupies the interest of both academicians and practitioners. Looking at the investment dispositions of individual and institutional investors, they are viewed differently by the financial economist because of information asymmetry evidenced between them (Duong et al., 2009; Lin et al., 2007). It is more likely for each group to have unique characteristics while making investment decision.

Specifically, Kaniel et al. (2008), Bazerman and Moore (2009), Ahmed (2014), Hou (2012), and others point out that institutional investors are perceived to be better informed and tend to have a rather long time investment horizon. Retail investors are in contrast viewed as unsophisticated traders, who by nature prefer short term investment

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[1] Institutional investors are also referred to as portfolio managers in this study.
[2] Retail investors are also called individual investors; the researcher will henceforth use both words interchangeably throughout this study.

perspective, often thought of as the proverbial noise traders in the market and are deeply involved in making sentiment-driven investment decisions based on their own cognitive biases.

These views, as regard to how retail and institutional investors are characterised, have never been accepted by majority of economists, finance professors, and practitioners. Intellectually, the basic tenet of investing in stock is buy low and sell high in order to make more money; despite this, retail investors have been characterised as notoriously bad market timers (Nofsinger, 2014). However, Nofsinger notes that the above characteristics are not limited to retail investors alone; institutional investors' errors during the periods of economic turmoil are also laid bare. While attempting to describe all factors impacting investment prices in mind, institutional investors developed elaborate models and rely on them, their overconfidence on these models lead them to assume greater risk; unbeknownst to them that they are risking the life of their firms. Also, Shiller (2015) affirms the above statement in his revised version of "Irrational Exuberant":

> "…. Many individual investors think that institutional investors dominate the market and that these "smart money" investors have sophisticated models to understand prices — superior knowledge. Little do they know that most institutional investors are, by and large, equally clueless about the level of the market. In short, the price level is driven to a certain extent by a self-fulfilling prophecy based on similar hunches held by a vast cross-section of large and small investors and reinforced by news media that are often content to ratify this investor-induced conventional wisdom" (p. 26).

Conventionally, stock markets has always been seen as the best investment avenue and would always be, even when it is overpriced by historical standards (Shiller, 2015). It is an essential mechanism for capital allocation in a mix or free market economy. Despite the recorded achievement of free market economy, the 2008 financial crisis and those before it has bare the unchecked behaviours of market participants