THE EXISTENCE OF OVERCONFIDENCE AMONG INDIVIDUAL AND INSTITUTIONAL INVESTORS IN MALAYSIA

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A research project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF FINANCE (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT

DEPARTMENT OF ECONOMICS

APRIL 2011

DECLARATION

We hereby declare that:

(1) This UBFZ3026 Research Project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research report is 10291.

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Date: 14 APRIL 2011

ACKNOWLEDGEMENTS

First of all, we would like to thank Mr. David Ng Ching Yat of Department of Economics as our supervisor of this research paper for the tremendous support and valuable advice he has given to us. He was a great influence in bringing us to business and finance.

Secondly, we would also like to thank our family and relatives for all the love and encouragement, our friends for caring, sharing, and supporting. Last but not least, thank you to all the respondents who took some time to fill up our survey and their cooperation is very much appreciated.

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PREFACE

Senior group has done similar study among individual investors in Malaysia. However previous research work we have read about in this area of study concludes that inexperience institutional investors in the German Fund group yield higher and better returns compared to the much more seasoned counterparts. This is when intention to further investigate the relationship of both individual and institutional investor's demographic profile toward the trait and their tendency to exhibit the overconfident trait to understand the human psychological behavior in the decision making process comes about.

ABSTRACT

In this paper, we reviewed the Efficient Market Hypothesis (EMH) and the theory of behavioral finance with some past scientific research work relevant to these theories. Theoretically, investors are thought to be rational under EMH; however, some empirical studies show that people tend to be overconfident about the precision of their knowledge. A quantitative method has been used and a survey has been conducted for our research on overconfidence among individual investors and institutional investors in Malaysia with several demographic factors. This paper presents evidence that overconfidence was found among both the Malaysian individual investors and institutional investors in ethnicity and experience, respectively.

Keywords: Efficient Market Hypothesis (EMH), Overconfidence, demographics, Malaysia

Chapter 1: INTRODUCTION

1.1 Background of the research

In this new era, money has been the pivotal factor of all human activities. Depositing and investing are some of the most important monetary action tools to generate money. People can generate additional income by saving part of their money with the bank and subsequently use the money to make further investment rather than keeping their money under the pillow. The basic objective of investments is to get better returns from it. People manage their investments in the best possible way in order to attain this basic objective. They seek expert advice, observe trends of the price movements, and collect the relevant information from various sources. The stock market is an important component of a country's capital market. It is the place where stocks are traded with a view of generating long-term funds for corporations to make future investment and expansion. In addition, the performance of the stock market has a direct wealth effect not only on the investors' expenditure decisions but also their confidence level. Although an investment is a science that deals with the study of capital markets and is planned accordingly, investors' emotions play a major role here.

Efficient Market Hypothesis (EMH) was first introduced by Eugene Fama in 1965. He stated that financial markets are efficient and investors are rational, who are supposed to make investment decisions objectively using all the available information. He also stated that it is impossible to beat the market because prices already incorporate and reflect all relevant information. Thus, there is no ways to make abnormal returns. EMH theory is divided the theory into three categories; the weak-form efficiency, the semi-strong form efficiency, and the strong-form efficiency. Firstly, the weak-form holds that

past data on stock prices are of no use in predicting future price changes. In other words, technical analysis is useless, which focuses on a business' stock prices and the overall stock market trends. Secondly, the semi-strong form holds that publicly available info is fully reflected in securities prices. In other words, fundamental analysis is useless, which requires a close examination of financial statements of company to determine its current financial strength. Lastly, the strong-form holds that no information allowed investors to consistently earn abnormally high profits. In other words, even insider information is useless, which requires private information about a company's activities that has not been disclosed to the public. The EMH is strongly based on the assumption of semi-strong form efficiency in which price would reflect all available information in the market, including historical price and volume information, published accounting statements, information found in annual reports or press.

EMH is one of the most important paradigms in modern finance. It was generally believed that securities markets are extremely efficient in reflecting information about individual stocks and about the stock market as a whole. These findings form the basis for the early definitions of "Efficient Capital Markets". Fama (1970) presented the EMH theory in terms of a fair game model that a current market price fully reflects all publicly available information about a security and the expected return based upon this price is consistent with its risk. Nevertheless and since recent movements, the financial academic researchers' enthusiasm for EMH has become much weaker. Theoretically, investors are considered rational under EMH. However, more and more significant evidences suggest that investors do not trade rationally and make smart decisions all the time.

If people always assume that financial markets are efficient and investors are rational, why are there so many studies about investors' psychology?

Investment managers always want to make money for their clients and themselves. That is the reason they care about the psychology factor of financial market as well as investors. Behavioral finance is a relatively popular field in economics that has become a “hot topic” for investment professionals. Behavioral finance is of interest because it helps explain why and how markets might be inefficient. As a result, modern finance has as a building block of EMH. The EMH theory is associated with the idea of a “random walk hypothesis”. The idea of random walk is that if the flow of information is unimpeded and information immediately reflects the stock prices, then the next day’s price will reflect only the next day’s news and will be independent of the price changes today. In other words, stock price movements are unpredictable and there is no ways to know where the stock prices are headed to.

However, studies have recognized some of the existences of unexplained empirical results which contradict the EMH theory, these challenges also known as market anomalies. Market anomalies refer to that the markets are not expected to be efficient and the investors are not expected to behave rationally at all times. The recent pattern of investors’ rationality deviates from the norm from making rational decisions nowadays. Some examples of the anomalies include the January Effect, Day-of-the-Week Effect, and Size Effect. January Effect is refers to the tendency for small-stock prices to go up during the month of January, it might be because of the yearend bonuses that the investors received and tend to make investment. Furthermore, the Day-of-the-Week Effect means that stock returns are negative from the close of trading on Fridays until the close of trading on Monday. Finally, the Size Effect means that small firms can earn higher returns than large firms primarily due to the growth potential of small firms. Fama (1998) recognizes the existence of market anomalies, however, he argues that apparent

anomalies are random, unpredictable results,[1] and thus their existence imposes no conflict with the EMH.

Empirical evidence appears to strongly contradict the random walk hypothesis has recently spurred the development of what has come to be known as "behavioral finance". Shiller (1984) stated that sometimes they would buy or sell the same securities at roughly the same time because they imitate the judgments with other investors or listen to the market rumours. Considering investors may not always act in a wealth maximizing manner and that investors may have biased expectations, behavioral finance sought to be able to explain some of the anomalies affecting EMH that have been reported in the finance literature.

Behavioral finance attempts to illustrate why individuals systematically diverge from such rational behavior, challenging major assumptions of a number of conventional financial models such as Modern Portfolio Theory (MPT) and the EMH (Nofsinger 2005). In short, it combines the classical theories of economics and psychology. Researchers in cognitive psychology has documented that, people systematically make errors in judgement or mental mistakes under certain conditions. These mental mistakes can cause investors to form biased expectations regarding the future that, in turn, cause securities to be mispriced. According to Nofsinger (2005), behavioral finance explains how actual behavior of individuals in financial settings differs from rational behavior. Typical behavioral biases related to decision making include herding, hindsight, loss aversion, overconfidence, regret, mental accounting, and overreaction, anchoring, and framing. Our research paper only focuses on investors' overconfidence behavior because of the potential

[1] Malkiel (2003) implies that in a sense price is dependent on news and news by definition is unpredictable. Thus, price changes must be unpredictable.

adverse effects on decisions made by financial advisors with an overconfidence bias.

Overconfidence refers to the habit of overestimating one's ability to successfully perform a particular task and the investors tend to trade more of the riskier stocks because they underestimate the risks. According to Barber and Odean (2000), overconfidence causes an increase in trading volume and volatilities. Similarly, Barber and Odean (2001) states that overconfidence investors will increase their trading volume, which increases their transaction costs. As a result, it reduces their investment returns. Investors will increase their self-confidence and they will trade more in the market if they have gained in previous investments. The excessive trading volume will lead to an excessive volatility, which is an existence of a positive causal relation between lagged stock returns and current trading volume. As a result of overconfident, investors overreact to private information and under react to public information. Overreaction means that investors place too much weight on recent, new information while under reaction means investors place too little weight to recent, new information. Understanding the nature of overconfidence is crucial to the studies of motivation, resulting in behavioral patterns, and social interactions among agents.

A mental mistake or illusion presented by Kahneman and Riepe (1998) was overconfidence, optimism, and overreaction to chance events. In the real world, there are many phenomena can be explained by overconfidence. The findings of psychological researches demonstrate that most people think highly of their own abilities in many aspect and place great expectation on their own prospect. Overconfidence is frequently blamed for the misjudgement and poor performance since there are many cases that investors were underperformed after the success in the previous investment. Besides, the studies of Locke and Mann (2001), and Christoffersen and

Sarkissian (2002) have showed evidence that overconfidence of investors indeed decreases with experience. However, according to Heath and Tversky (1991) and Frascara (1999), they showed that experts are more likely to be overconfident than relatively inexperienced subjects. This result is confirmed by the analysis of experimental asset markets of Maciejovsky and Kirchler (2003), where the degree of overconfidence increases during the experiment.

This research paper presents an in depth discussion of behavioral finance theory that incorporates overconfident investors. Behavioral finance and our paper are both based on a simple model where the markets are determined by people, and people are driven by psychology and emotions on top of their intellectual ability. This refers to the fundamental basis of behavioral finance and this is the approach and process we follow for our analysis. Because a substantial literature in cognitive psychology establishes that people are usually overconfident and they are bombastic about the precision of their knowledge, thus, the main goal of this paper focuses on investigating investors' overconfidence behavior in Malaysia, both individual and institutional investors.

1.2 Problem Statement

There seems to be two groups of academic researchers, in which one continues to support the EMH which assert that stock markets are efficient and rule out the possibility of trading strategies based only on the currently available information that could yield excess returns. The other criticises the rationality assumption of the EMH and suggests that stock returns can be predicted with a fair degree of reliability due to the irrational behavior of investors. We are interested to see whether the individual and institutional investors themselves make the common mistakes suggested by overconfidence behavior. Behavioral finance questions whether the

behavioral assumptions underlying the EMH are true as the individual and institutional investors might be misled by their own emotions. By considering that investors may not always act in a wealth maximizing manner and that investors may have biased expectations, behavioral finance may be able to explain some of the anomalies to the EMH that have been reported in the finance literature.

1.3 Research Questions

The above-listed problem statements have led us to the following research questions:

1. Do individual and institutional investors exhibit behavioral traits of overconfidence?

2. If individual and institutional investors exhibit overconfidence traits above, is there evidence that such traits are caused by one or more of the demographic factors?

These questions will form the basis of our research and our aim is to answer these questions using empirical evidence obtained from our research.

1.4 Research Objectives

Again, the above-listed research questions have led us to the following research objectives:

1. To examine whether the individual and institutional investors exhibit behavioral traits of overconfidence.
2. To identify which of the demographic factors significantly show overconfidence among the individual and institutional investors.

1.5 Justification of Study

Behavioral finance is a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners. Clearly, this line of research could benefit from a more complete picture of how individual and institutional investors actually behave and how they differ from one another in the way they react to the same information.

The remainder of this paper is organized as follows; Chapter 2 discusses about the literature review of the study. In this chapter, we will present the Efficient Market Hypothesis, Behavioral Finance, and Overconfidence in details. Chapter 3 describes the method that we used to conduct the tests. Chapter 4 presents the empirical results of the evaluation. Chapter 5 presents the conclusion, recommendations and limitations.

Chapter 2: Literature Review

2.1 Introduction

This chapter reviews the literatures in relation to our research topic. The literatures consist of various journal articles, reference books and news articles. For instance, there are several research studies which are specifically focused on overconfidence. We also found several research articles that studies behavioral finance.

Based on these researches, we may further review, discuss and evaluate behavioral finance in order to obtain a better understanding. Besides that, the study on the efficiency market hypothesis and the random walk theory are also reviewed as they are strongly connected to overconfidence. In addition, we will study the factors that influence overconfidence. Investors' overconfidence might be influenced by several factors such as over optimism, hindsight bias, self-attribution and also individual characteristic. In addition, we have found that overconfidence behavior has an influence on investors' trading volume in the financial market.

2.2 Efficiency Market Hypothesis (EMH)

The efficient markets hypothesis (EMH) has been the central proposition of finance for nearly thirty years. The EMH was developed by Professor Eugene Fama at the University of Chicago Business School in the 1960s. The EMH is popularly known as the Random Walk Theory. Under the EMH, 'news' or information is defined as anything which may affect the share price that is not known in the present and appears randomly in the future. It is this 'random' information that will cause the share price to change in future, because random information, by its very nature, is unpredictable. Burton Malkiel (1973)

therefore notes that stock prices follow a random walk. The first time the term "efficient market" was used was in a 1965 paper by E.F. Fama who said that in an efficient market on the average, competition will cause the full effects of new information on intrinsic values to be reflected "instantaneously" in actual prices.

At that time, the rational expectations revolution in economic theory was in its first blush of enthusiasm, a fresh new idea that occupied the centre of attention. For a long time, the investors' full rationality was the main hypothesis of the most financial academic research. It was generally believed that securities markets were extremely efficient in reflecting information about individual stocks and about the stock market as a whole. The accepted view was that when information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Thus, because of its simplicity and its success to capture the stock prices movements, this famous investors' rationality hypothesis was for a long time supported by the financial academic researchers.

The EMH has two characteristic features. First, investors are assumed to have essentially complete knowledge of the fundamental structure of their economic. Secondly, investors are assumed to be completely rational information processors who make optimal statistic decisions.

The EMH is an appealing description of competitive market equilibriums. An efficient market impounds new information into prices quickly and without bias. (Bowman and Buchanan, 1995) Prices fully reflect available information. Security prices adjust before an investor has time to trade on and profit from a new a piece of information. Therefore this controversial economic theory states that it is impossible for investors to purchase undervalued stocks or sell stocks for inflated prices because share prices always reflect all relevant

information. It also means that it is impossible to consistently outperform the market by using any information that the market already knows, except by chance.

The EMH is an economic model which asserts that the stock market virtually instantaneously and perfectly assimilates all current information and any new information about the individual and company. EMH is a rather complex hypothesis which comes in three forms: the weak form, the semi-strong form, and the strong form.

2.2.1 Weak Form Efficiency

The weak form of the efficient markets hypothesis asserts that the current price fully incorporates information contained in the past history of prices only. Weak-form EMH stated that if technical analysis of past/historical prices is worthless; one should not be able to profit from using something that "everybody else knows".

There are literature tests on the weak form of market efficiency by examining the gains from technical analysis. They found out that relatively simple technical trading rules would have been successful in predicting changes in the Dow Jones Industrial Average. However, subsequent research has found that the gains from these strategies are insufficient to cover their transaction costs. Example: analysts collected data that are deemed relevant to actual performance. So, one of the relevant data growth rate will have impact in the technical analyst, but will not have direct contribution to actual growth. Simply saying analysts already make perfect use of the information in historical growth rate; historical growth taken separately should not be a predictor of actual growth.

2.2.2 Semi-strong Form Efficiency

The semi-strong-form of market efficiency hypothesis suggests that the current price fully incorporates all publicly available information. Semi-strong form EMH stated that fundamental analysis of publicly available information are worthless; this market efficiency requires the existence of market analysts who are not only financial economists that are able to comprehend implications of vast financial information, but also macroeconomists, experts adept at understanding processes in product and input markets. The “public” information may be relatively difficult to gather and costly to process.

2.2.3 Strong Form Efficiency

The strong form of market efficiency hypothesis states that the current price fully incorporates all existing information, both public and private (sometimes called inside information). Strong-form EMH suggested that all information including private information is worthless. The rationale for strong-form market efficiency is that the market anticipates, in an unbiased manner, future developments and therefore the stock price may have incorporated the information and is evaluated in a much more objective and informative way than the insiders.

With the EMH assumptions, the market is apparently efficient as all market participants make full use of the available investment information. Thus, each individual analyst could predict as well as other analyst as they are said to be rational. Hence, there would be no gain from considering more than one analyst’s judgment.

2.3 Anomalies in the EMH

Although the EMH has been going strong for nearly thirty years, but since recent moments, the financial academic researchers' enthusiasm for this hypothesis has become much weaker. EMH was challenged on both theoretical and empirical grounds especially after the detection of certain anomalies in the capital markets and its failure to explain the nooks and crannies in the market. To begin, it is difficult to sustain the case that people in general and investors in particular, are fully rational. Some of the main anomalies that have been identified are as follows:

2.3.1 The January Effect

The January effect is perhaps, the best-known example of anomalous behaviour in the security markets throughout the world. The year-end disturbance in the prices of small stocks that has come to be known as the January effect is arguably the most celebrated of the many stock market anomalies discovered during the past two decades. In other words, financial securities prices tend to increase in the month of January, causing investors to buy stock for lower prices before January and sell after their value increases.

Rozeff and Kinney (1976) were the first to document evidence of higher mean returns in January as compared to other months. Using NYSE stocks for the period 1904-1974, they find that the average return for the month of January was 3.48 percent as compared to only 0.42 percent for the other months. If this anomaly is exploitable and if the stock market is reasonably efficient, one would expect that an anomaly this well known would quickly disappear as investors attempt to exploit it. Evidence indicates, however, that the January effect is still going strong 17 years after its discovery. The magnitude of the effect has not changed significantly, and no significant trend portends its eventual disappearance.

2.3.2 The Weekend Effect

French (1980) was the first to analyze the daily returns of stocks for the period of 1953-1977 to find that there is consistent evidence that returns on Mondays are more negative than returns on any other day of the week. He notes that these negative returns are "caused only by the weekend effect and not by a general closed-market effect". A trading strategy, which would be profitable in this case, would be to buy stocks on Monday and sell them on Friday. Kamara (1997) shows that the S&P 500 has no significant Monday effect after April 1982, yet he finds the Monday effect undiminished from 1962-1993 for a portfolio of smaller U.S. stocks. Internationally, Agrawal and Tandon (1994) find significantly negative returns on Monday in nine countries and on Tuesday in eight countries, yet large and positive returns on Friday in 17 of the 18 countries studied.

2.3.3 Noise Trading

At the superficial level, many investors react to irrelevant information in forming their demand for securities; as Fischer Black(1986) put it, they trade on noise rather than information. People look not at the levels of final wealth they can attain but at gains and losses relative to some reference point, which may vary from situation to situation, and display loss aversion- a loss function that is steeper than a gain function. The empirical evidence provided by volatility tests suggest that movement of stock prices cannot be attributed merely to the rational expectations of investors, but also involves an irrational component. The irrational behaviour has been emphasized by Shleifer and Summers (1990) in their exposition of noise trading.

An observation of investors' trading strategies (such as trend chasing) in the market provides evidence for decision making being guided by "noise" rather

than by the rational evaluation of information. Further support is provided by professional financial analysts spending considerable resources in trying to predict both the changes in fundamentals and also possible changes in sentiment of other investors. "Tracking these possible indicators of demand makes no sense if prices responded only to fundamental news and not to investor demand. They make perfect sense, in contrast, in a world where investor sentiment moves prices and so predicting changes in this sentiment pays." [Shleifer and Summers, 26]

2.3.4 Over-reaction, Under-reaction and Momentum

Individuals systematically violate Bayes rule and other maxims of probability theory in their predictions of uncertain outcomes (Kahneman and Tversky 1973). In other words, investors tend to underreact to reliable information and overreact to unreliable information. For example, people often predict future uncertain events by taking a short history of data and asking what broader picture this history is representive of. They do not pay enough attention to the possibility that the recent history is generated by chance rather than by the 'model' they are constructing. These may lead investors astray.

2.4 Emergence of Behavioural Finance

In the 1970s, two psychologists called Daniel Kahneman and Amos Tversky developed the 'Prospect Theory' to study how people actually go about making decisions. This theory showed that our preferences can be inconsistent because we're influenced by the way choices are presented to us. Richard Thaler, an economist at the University of Chicago acknowledged a potential inconsistency when he and a friend were given tickets to a basketball game but decided to skip it because of a snowstorm. His friends agreed they would have gone if they had paid for the tickets themselves. This proves that it is our human characteristics which make us prone to error, irrationality and emotion. Thus Thaler began collecting and formally categorising such anomalies.

In the 1990s, a lot of the focus of academic discussion shifted away from these econometric analyses of time series on prices, dividends and earnings towards developing models of human psychological biases on the investors' decisions and reactions. With the new theory and evidence, behavioural finance has emerged as an alternative view of financial markets and argues that the anomalous price patterns discussed above are a consequence of investor irrationality. Behavioural finance helps explain why and how markets might be inefficient and exploits the irrational nature of investors. The base of behavioural finance is that humans often depart from rationality in a consistent manner and most of our investment decisions are influenced to some extent by our prejudices and perceptions that do not meet the criteria of rationality. In forecasting, for example, investors tend to be overly confident in their accuracy, place undue emphasis on recent experience, and anchor their expectations using others' predictions.

In other words, the field of Behavioural Finance uses scientific models to explain how people make financial decisions in the real world, rather than in

theory. Behavioural Finance shows how our human psychology influences our financial decisions and it identifies the consistent, predictable mistakes humans make when investing. Classical economics sees us as 'rational agents' who always behave in a logical way and take related information into account before making a decision, and whose preferences are stable and consistent over time.

Not only does behavioural finance seek to explain and predict behaviour based upon mass psychology principles but also individual psychology principles. For example, Tversky and Kahneman (1992) found that individuals value a loss to a greater degree than a gain which is referred to as loss aversion. Another individual psychological principle found in the empirical literature is the disposition effects in which individuals tend to sell winners too soon and hold onto losers too long (Shrefrin and Statman, 1995). The disposition effect has also been found to occur among professional traders (Garvey and Murphy, 2004). Furthermore, in keeping with psychological feedback theory, the emotions of fear and greed which Lo (2005) categorizing as "extreme emotional reactions" dampens our ability to reason and respond rationally.

More importantly, limitations arising from human traits which make rational economic behaviour in an EMH sense an impossible dream. Herbert Simon, an early behavioural theorist used the term "bounded rationality" to describe the limitations of homo sapiens. Homo sapiens, unlike their economic counterparts homo economus, argued Simons, act for various reasons to "satisfice" rather than "maximise" their pursuits. In other words, Simons identifies a trade-off between the emotional stresses and strains of seeking and comprehending additional information to acting on that which enables one to get by, or as described by Prentice, "rational ignorance".

These individuals take actions that would be judged by most people as very reasonable. They use intuition in a sophisticated way to decide on actions in complex situations. However, a number of experiments indicate that there are many settings where intuition goes wrong. Behavioural finance argues that financial markets present such settings to investors and that small mistakes investors make cause market prices to deviate from what theories based on full rationality would predict.

2.5 Overconfidence

Overconfidence is a complex phenomenon with various aspects. Glaser and Weber (2003) differentiate between four different manifestations of overconfidence: miscalibration, better- than-average-effect, illusion of control and over optimism.

In Lichtenstein, Fischhoff and Philips's study in 1982, people tend to overestimate the precision of their knowledge. Therefore, they are miscalibrated in estimating and forecasting by providing too narrow confidence intervals. It is stated equivalently, underestimation of the variances of information signal.

The excess of confidence can also explain the better-than-average effect where people overestimate their competences and are too confident about their capacities. They put too much weight to their attitude, opinions, as well as to their capacities to treat information. All these research in psychology highlights the individual cognitive errors of understanding and reasoning which conceives that human beings are contained in habits, beliefs, and opinions. This concludes that individuals cannot behave completely in the correct way, which will limit their capacities to treat and to solve, and more especially to foresee and to anticipate.

Under this view, people believe that their abilities are above average (better than average effect; Svenson (1981)), Taylor and Brown (1988), they think that they can control random tasks, and they are excessively optimistic about the future (illusion of control and unrealistic optimism; Langer (1957), Langer and Roth (1957)).

2.5.1 Over-optimism

Overconfidence is greatest for difficult tasks, for forecasts with low predictability, and for undertaking lacking fast and clear feedback as according to Lichtenstein, Fischhoff and Philips's study in 1982. The study of Odean in 1998 indicates that the forecasting and estimating returns on financial markets are not easy tasks and the available feedback is blurred as the market prices of assets are affected by noise. Thus, there is high chance to observe the overconfidence behavior in the domain of financial market.

In fact, optimism is a psychological bias and makes investors underestimate the probability of bad outcome. Some psychological observation indicates that optimists tend to exaggerate their abilities to control over the unknown events. Besides, the studies of De Long et al (1990) presents that noise traders demand more risky assets when they are optimistic. They drive the price of risky assets up, so they earn lower returns. This is called the 'price pressure'. That is to say, the price pressure makes prices of risky assets higher and noise traders' returns lower when noise traders are more bullish.

Internet bubble is one of a good example of optimism. During the 1990's investors are overoptimistic about the prospects of Internet companies. They underestimate the risk of chasing the Internet companies as well as the probability of losing money due to their optimistic belief. To be specific, the cognitive misperception urges investors to make irrational decisions thus influence the movement of the Internet stocks go up and down. A survey made by Thaler (1999) also consists with the optimistic beliefs about Internet companies' performances. There is an empirical result fitting with the cognitive misperception. Based upon the investigation of professional investors, the intrinsic values of a portfolio with five Internet stocks were only fifty percent of their market values.

2.5.2 Hindsight bias

An individual suffers from hindsight bias when he evaluates past decisions without taking into account the fact that he now has information unavailable at the time. Hindsight bias causes investor to think that events are more controllable than they really are, and tend to be overconfident. Therefore, they extrapolate from their past experiences to predict what is likely to happen in the future.

The study of De Bondt and Thaler (1985) shows the evidences of overconfidence for investor in investment decision. As Bondt and Thaler (1985) compare the performances of two groups of companies, the companies on the basis of poor and good performance in the past periods. They find that the returns of poor performance companies are higher than those with a good performance. Investors are likely to predict the future earnings of those companies base on their past performance, thus undervaluing those companies with a poor performance in the past. Consequently, the companies with a poor past performance become cheaper, so bound up and earn higher returns thereafter.

2.5.3 Self-attribution

The literature on both psychology (Kahneman and Tversky, 2000) and behavioral finance (Hirshleifer, 2001; Baker et al., 2006) suggest that self-attribution is an important source of overconfidence. Some models assume that the degree of overconfidence change over the time in the way that it increase as a function of past investment success due to biased self-attribution. Langer and Roth (1975) sum this up as ‘heads I win, tails it’s chance.’ Gains are taken by the investor as proof of his know-how while the losses are because of random aspects of economic and stock market

processes. Based on Gervais and Odean (1998) investor overconfidence results from self-serving attribution bias. Due to their tendency to take too much credit for their successes, they become overconfident. Inexperienced but successful investors are most prone to overconfidence as they self-attribute their success solely to their abilities.

2.5.4 Individual Characteristic

Graham, Campbell and Huang (2006) and Glaser, Weber and Langer (2007) report the level of overconfidence in the domain of financial market is different across individuals. According to Bradley (1981), people with higher degree of expertise in the area of a general knowledge question are likely to have unrealistically high expectations of the probability of answering correctly. Professional investment managers tend to overestimate probabilities of outcomes that are positive to the respondent and to underestimate undesired outcome as refer to Olsen (1997). Russo and Schoemaker (1992) report that money managers tend to formulate too narrow 90% confidence intervals in a questionnaire about meta-knowledge. Participants' subjective confidence intervals in their sample contain the correct solutions only in about half of the cases instead of 90% as required.

Deaves, Lueders and Schroeder (2005) present similar evidence in the domain of financial markets as the confidence intervals of the participants in their samples of professionals capture significantly less realized returns for economic forecasts than required. Furthermore, Glaser, Weber and Langer (2003) find that professionals are more overconfident then students about their trend recognition abilities although they do not provide more accurate estimation.

Psychologists find that in areas such as finance men are more overconfident than women. Lundeberg, Fox and Puncochar (1994) present that while both men and women exhibit overconfidence, men are generally more overconfident then women. According to Lewellen, Lease, and Schlarbaum's (1997) report, men spend more time and money on security analysis. They rely less on their brokers, trade more, believe that returns are more highly predictable, and estimate higher possible returns than do women. Thus, men behave more like overconfident investors than women. Several studies confirm that differences in confidence are greatest for tasks perceived to be in the masculine domain where men tend to feel more competent than women do in financial matters as refer to Deaux and Emswiller (1974); Lenney (1977). Likewise, Lenney (1977) argues that gender differences in self-confidence depend on the lack of clear and ambiguous feedback. When feedback is "unequivocal and immediately available, women do not make lower ability estimates than men. However, when such feedback is absent or ambiguous, women seem to have lower opinions of their abilities and often do under estimate relative to men." In fact, feedback in the stock market is ambiguous and this becomes the reason to expect men to be more confident than women about their ability to make common stock investments.

In addition, Korniotis and Kumar (2007) show that overconfidence decrease with age.

2.6 The Effect of Overconfidence on Trading Volume

In reality, it is never be easy to bring together the trading volume and the trading needs of a rational investor. There is no doubt that a rational investor will periodically make contribution and withdrawals from his or her investment portfolio, in order to rebalance the portfolio and trade to minimize taxes.

The theoretical models developed by Odean (1998) and Gervais and Odean (2001) suggest that overconfident investors will more readily engages in trading than they would if they were rational investors, thereby overestimating their expected profits and continually getting involved in costly trading which is risky. Overconfident investors apparently believe that they have superior information, even when this is not actually the case. Based on Daniel, Hirshleifer and Subrahmanyam (1998), overconfident investors also misperceive the true probabilities of market situations and over- or under-react it.

Several other papers investigate investor overconfidence in various contexts. De Long, Shleifer, Summers and Waldmann (1991) examine the profit of traders who underestimate risk when prices are exogenous. Kyle and Wang argue that investors are often overconfident which lead them to trade too aggressively. Hirshleifer, Subrahmanyam and Titman (1994) suggest that overconfidence can encourage the herding phenomenon of analyst/ traders in security market.

Odean (1999) examines this overconfidence by analyzing trading activities of individual investors at a large discount brokerage firm. He finds that investors do trade more aggressively than fully rational behavior would suggest, even after controlling for relevant factors like liquidity demands, portfolio diversification, risk management, and tax implications. Furthermore, Glaser and Weber (2003) find that overconfident investors trade more frequently. They find that investors' gains from this frequent trading generally fall short if their expectation and, at time, may not even be sufficient to offset trading costs.

As reference to Grosman and Stiglitz (1980), rational investors only trade and only purchase information when doing so, will increase their expected utility.

On the other hand, overconfident investors lower their expected utility by trading too much, for the reason that they hold unrealistic beliefs about how high their returns will be and how precisely these can be estimated. In addition, they expend too many resources such as money and time on investment information according to Odean (1998). All these findings are inconsistent with rationally and not easily explained in the absence of overconfidence.

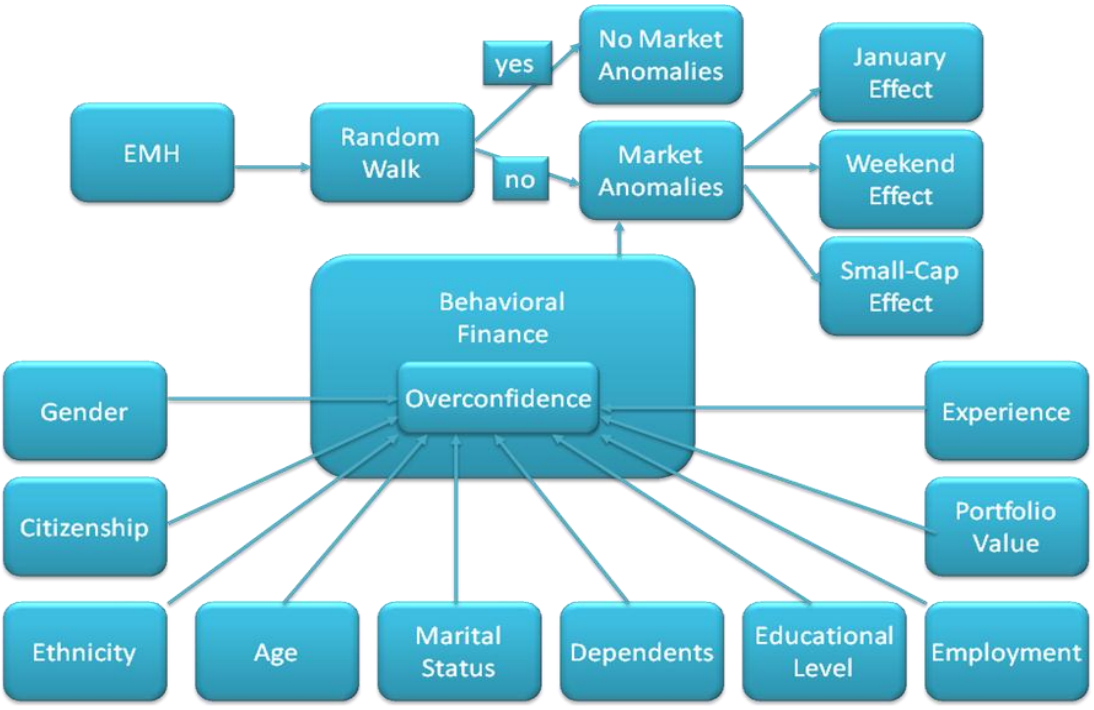
Chapter 3: RESEARCH METHOD

3.1 Introduction

Research framework and the practical elements of the research will be discussed in this chapter. It discusses what method is being applied to suit the aim and nature of the research. Questionnaire is design in a way ensure the research questions are addressed. Methods of data collection and argument on the rationale for adopting method are discussed. Subsequently, a discussion on the feasibility of how the data collection was conducted. Lastly, the techniques to carry out data analysis are discussed.

3.2 Research Framework

Figure 3.1 Research Framework



3.3 Method of research

We have conducted a primary research by constructing a set of questionnaire that tested on the existing of overconfidence among individual and institutional investors in Malaysia. The question is adopted from various sources then reconstructed into the questionnaire.

Questionnaires are then distributed to the targeted group of individual and institutional investors. 293 out of 300 individual investors responded. 35 out of 50 institutional investors responded. The response rate for individual investors and institutional investors are 98% and 70%.

These questionnaires serve the purpose of collecting raw data required for the data analysis in the later part. Before the raw data is used for analyzing the results, Cronbach Alpha Reliability Test is used to test on the reliability of the questionnaire. The results are as below. The alpha value for individual investors is 0.830 while the alpha value for institutional investors is 0.743.

3.4 Sampling method

Accidental sampling is applied to individual investors. Questionnaires are distributed to the investors as they walk in to the investment bank and immediately collect back once the questionnaire are completed by the respondent. We have a limited attempt of 300 respondents, to assure that this group of sample is an accurate representation of some larger group or population. Convenience samples have flaws like difficulty in generalizing the results, underrepresented and overrepresented. However, this sampling method is most feasible and attainable due to the time constrain.

Purposive sampling is applied to the institutional investor. The sample is chosen based on their expertise and they would be appropriate for the study. Questionnaires were e-mailed in 15th December 2010 to each of 50 institutional investor selected for the study, accompanied by an approval letter. Recipients were requested to complete the questionnaire and to return it to our personal mailbox as soon as possible before the due date 31ts January 2011. Two weeks before due date, a reminder was sent to each recipient of the questionnaire. One week before due date a replacement questionnaire was mailed to all non-respondents. The second e-mail serves as a means of reminder to respondent to complete the survey before the due without going to great expense. It also contributes to the likelihood of increasing the initial response rate, generally less response rate at the first mailing. For this reason, we avoid constructing a complex and lengthy questionnaire.

3.5 Variable and Measurement

In the questionnaire, respondents are required to choose their answer from a rating scale of 1- 7. We categorize 1-3 as to not showing overconfidence, 4 as to neutral and 5-7 as to showing overconfidence among individual and institutional investors.

For Question1, 2 & 5:

In question 1, 2 and 5, investor irrationality and overconfidence behavior were tested. Apparently, if respondents choose 5-7, meanings they deem that their past performance record is due to their skills and abilities, this also means that they would increase trading volume and make suggestion to others on his investment decision.

For Question 3 & 4:

In questions 3 and 4, market conditions or financial decision making is not the focus. In contrast, it is a control question designed to reveal the general validity of the received responses. If the respondents choose 1-3 respondents consider themselves under the average; 4 average; 5-7 over the average driving skill and job performance. For the group that falls under 5-7 are believed to be over optimism whereby they tend to over exaggerate their skills and biased in the direction towards positive end results. Hence, the expected responses should indicate that a majority believe themselves has over the average driving skills and job performance (Kahneman Riepe, 1998).

For Question 6:

In question 6 a person's confidence levels are tested. The market is said to be uncertain, if a persons shows confident in their ability to predict the future market condition will be likely to believe own expectations. By displaying a

confident in anticipating the market returns, irrationality or overconfidence traits of the investors are suggested.

For Question 7,8 &9:

Questions 7-9 focuses on a range of tools and sources of information the respondent used for their investment decisions. The alternatives available are examples of internal and external influences. The purpose of this ranking is to provide us information regarding the factors that underline the investment decision. How influential media and family are considered among the external influences can point towards several tendencies, such as following the herd, having low confidence in ones judging ability or having overconfidence. Ranking of the different internal and external influences creates a picture of the decision-making balance. (Kamran. S, Karl. and S, Thom. S, 2008)

3.6 Data Analysis

3.6.1 Statistical Package Social Science (SPSS) 17.0 for Window Student Version

The data analysis section included examining the questionnaire for completeness and keying the raw data into (SPSS) 17.0 for Window Student Version then processed and analyzed the data collected. Those incomplete questionnaires were taken out from the analysis.

3.6.2 Frequency Distribution

Frequency distributions are graphical presentation that summarizes grouping of data divided into mutually exclusive classes and the frequency class of occurrences in the data collected. In our study, the frequency distribution is used to analyze the respondent's demographic factor such as gender, citizenship, ethnicity, age group, marital status, dependent, experience,

educational level, portfolio value, and experience. In SPSS 17.0 for Window Student Version Computer, frequency distribution is one of the most common means of summarizing a set of data. Frequency analysis is particularly useful for describing discrete categories of data collected from likert-scale and easier to interpret the type of the variables.

3.6.3 Descriptive Statistics.

Descriptive statistic involves summarizing distribution of the scores in percentage form then developing tabular or graphical presentation. This percentage describes the existence of overconfidence among individual investor and institutional investor in Malaysia. Besides, the table of descriptive statistic provides summary statistic include measures of central tendency of the data, and more importantly, the dispersion of the data around this central tendency. The result was analyzed from the sample size instead of the population.

3.6.4 Bivariate correlation

The bivariate correlation is used to investigate the relationship between two variables. The correlations between the variables provide a basis for determining the relationship and the possible causes of important results that appear the need for further investigation.

Independent t-test is use to test on variable that have two or less than two classes like: gender. One way ANOVA test is use to test on variable that have more than two classes like: citizenship, ethnicity, age group, marital status, dependent, experience, educational level, portfolio value, and experience.

3.7 Individual investors

Hypothesis 1

Ho: There is no evidence of overconfidence among Malaysian individual investors.

H1: There is evidence of overconfidence among Malaysian individual investors.

Hypothesis 2

Ho: Gender does not affect overconfidence among Malaysian individual investors.

H1: Gender does affect overconfidence among Malaysian individual investors.

Hypothesis 3

Ho: Citizenship does not affect overconfidence among Malaysian individual investors.

H1: Citizenship does affect overconfidence among Malaysian individual investors.

Hypothesis 4

Ho: Ethnicity does not affect overconfidence among Malaysian individual investors.

H1: Ethnicity does affect overconfidence among Malaysian individual investors.

Hypothesis 5

Ho: Age does not affect overconfidence among Malaysian individual investors.

H1: Age does affect overconfidence among Malaysian individual investors.

Hypothesis 6

Ho: Marital Status does not affect overconfidence among Malaysian individual investors.

H1: Marital Status does affect overconfidence among Malaysian individual investors.

Hypothesis 7

Ho: Dependent does not affect overconfidence among Malaysian individual investors.

H1: Dependent does affect overconfidence among Malaysian individual investors.

Hypothesis 8

Ho: Educational Level does not affect overconfidence among Malaysian individual investors.

H1: Educational Level does affect overconfidence among Malaysian individual investors.

Hypothesis 9

Ho: Employment does not affect overconfidence among Malaysian individual investors.

H1: Employment does affect overconfidence among Malaysian individual investors.

Hypothesis 10

Ho: Portfolio Value does not affect overconfidence among Malaysian individual investors.

H1: Portfolio Value does affect overconfidence among Malaysian individual investors.

Hypothesis 11

Ho: Experience does not affect overconfidence among Malaysian individual investors.

H1: Experience does affect overconfidence among Malaysian individual investors.

3.8 Institutional investor

Hypothesis 1

Ho: There is no evidence of overconfidence among Malaysian institutional investors.

H1: There is evidence of overconfidence among Malaysian institutional investors.

Hypothesis 2

Ho: Gender does not affect overconfidence among Malaysian institutional investors.

H1: Gender does affect overconfidence among Malaysian institutional investors.

Hypothesis 3

Ho: Citizenship does not affect overconfidence among Malaysian institutional investors.

H1: Citizenship does affect overconfidence among Malaysian institutional investors.

Hypothesis 4

Ho: Ethnicity does not affect overconfidence among Malaysian institutional investors.

H1: Ethnicity does affect overconfidence among Malaysian institutional investors.

Hypothesis 5

Ho: Age does not affect overconfidence among Malaysian institutional investors.

H1: Age does affect overconfidence among Malaysian institutional investors.

Hypothesis 6

Ho: Marital Status does not affect overconfidence among Malaysian institutional investors.

H1: Marital Status does affect overconfidence among Malaysian institutional investors.

Hypothesis 7

Ho: Dependent does not affect overconfidence among Malaysian institutional investors.

H1: Dependent does affect overconfidence among Malaysian institutional investors.

Hypothesis 8

Ho: Educational Level does not affect overconfidence among Malaysian institutional investors.

H1: Educational Level does affect overconfidence among Malaysian institutional investors.

Hypothesis 9

Ho: Employment does not affect overconfidence among Malaysian institutional investors.

H1: Employment does affect overconfidence among Malaysian institutional investors.

Hypothesis 10

H0: Portfolio Value does not affect overconfidence among Malaysian institutional investors.

H1: Portfolio Value does affect overconfidence among Malaysian institutional investors.

Hypothesis 11

Ho: Experience does not affect overconfidence among Malaysian institutional investors.

H1: Experience does affect overconfidence among Malaysian institutional investors.

Chapter 4: ANALYSIS AND RESULTS

4.1 Introduction

This chapter covered the findings from the questionnaire survey we have conducted and the information obtained from the statistical data generated using SPSS. It started by descriptive analysis on demographics of the respondents which categorized into individual and institutional investor.

4.2 Descriptive Analysis

4.2.1 Demographics Analysis on Individual Investors

The demographics of individual investors are shown in the tables below.

4.2.1.1 Gender

Table 4.1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	148	50.5	50.5	50.5
	Female	145	49.5	49.5	100.0
	Total	293	100.0	100.0	

Male and female are almost equal in numbers. Survey questionnaire were distributed to male and female respondents in order to obtain a more balance gender representation of individual investors.

Table 4.2 Gender-Overconfidence

	Male			Female		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	28	39	81	25	26	94
X2	49	37	62	43	40	62
X3	26	52	70	33	52	60
X4	22	41	85	28	51	66
X5	44	36	68	28	42	75
X6	44	55	49	44	55	46
X7	23	33	92	21	29	95
X8	18	33	97	12	27	106
X9	22	38	88	26	37	82
	276	364	692	260	359	686
	21%	27%	52%	20%	27%	53%

The result above showed that more than half of men and women scored high on overconfidence. This would mean that both genders are more likely to exhibits overconfidence. This proved that women tend to show overconfidence slightly more as compared to men.

4.2.1.2 Citizenship

Table 4.3: Citizenship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malaysian	290	99.0	99.0	99.0
	Permanent Resident	2	.7	.7	99.7
	Foreigner	1	.3	.3	100.0
	Total	293	100.0	100.0	

The sample subjects were all Malaysian with the exception of two permanent residents and one foreigner. The majority of Malaysian who responded to the survey accurately reflected the geographic scope of this research which covered only Malaysia.

We decided to skip this analysis because 99% of the respondents are Malaysian while remaining consists of permanent residents and foreigner.

4.2.1.3 Ethnicity

Table 4.4 Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	24	8.2	8.2	8.2
	Chinese	248	84.6	84.6	92.8
	Indian	20	6.8	6.8	99.6
	Others	1	.4	.4	100.0
	Total	293	100.0	100.0	

More than 80% of our respondents are Chinese. Malays and Indians are in 8.2% and 6.8% while other ethnicity constituted only 0.3%. This may not truly reflect Malaysia's actual investor population. The survey questionnaires were distributed randomly among Malaysia's investors. However, the response rates from Malays and Indians was disappointed. Thus, we decided to skip this analysis as this would not have a fair representation of Malaysia population.

4.2.1.4 Age

Table 4.5 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	12	4.1	4.1	4.1
	26-35	90	30.7	30.7	34.8
	36-45	89	30.4	30.4	65.2
	46-55	82	28.0	28.0	93.2
	>55	20	6.8	6.8	100.0
	Total	293	100.0	100.0	

Our respondents skewed toward the working adults with a majority of them belonging to the 26 to35 year old category followed by 35 to 45 year old category. There are 28% of our respondents belonging to 45 to 55 year old.

Table 4.6 Age-Overconfidence

	18-25			26-35			36-45		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	2	0	10	12	21	57	22	23	44
X2	5	3	4	23	29	38	33	23	33
X3	2	5	5	16	36	38	21	29	39
X4	3	4	5	10	35	45	24	23	42
X5	1	4	7	17	25	48	24	26	39
X6	4	5	3	30	38	22	23	37	29
X7	1	1	10	13	18	59	17	23	49
X8	2	0	10	10	19	61	8	22	59
X9	2	1	9	13	26	51	17	23	49
	22	23	63	144	247	419	189	229	383
	20%	22%	58%	18%	30%	52%	24%	28%	48%

	46-55			>55		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	14	17	51	3	4	13
X2	24	19	39	7	3	10
X3	16	30	36	4	4	12
X4	10	27	45	3	3	14
X5	23	19	40	7	4	9
X6	23	25	34	8	5	7
X7	10	17	55	3	3	14
X8	9	16	57	1	3	16
X9	13	23	46	3	2	15
	142	193	403	39	31	110
	19%	26%	55%	22%	17%	61%

The results showed that overconfidence is high among all of the age groups.

4.2.1.5 Marital Status

Table 4.7 Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	114	38.9	38.9	38.9
	Married	144	49.1	49.1	88.1
	Widower	14	4.8	4.8	92.8
	Divorced	21	7.2	7.2	100.0
	Total	293	100.0	100.0	

Almost half of our respondents are married adults, which followed by 38.9% of the single adults. Widowed and divorced respondents were minority in our response group.

Table 4.8 Marital Status-Overconfidence

	Single			Married		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	22	25	67	22	33	89
X2	37	29	48	44	38	62
X3	17	46	51	33	46	65
X4	21	35	58	20	47	77
X5	23	26	65	34	45	65
X6	29	50	35	45	49	50
X7	19	21	74	20	31	93
X8	9	21	84	16	28	100
X9	19	34	61	21	32	91
	196	287	543	255	349	692
	19%	28%	53%	20%	27%	53%

	Widower			Divorced		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	4	5	5	5	2	14
X2	6	3	5	5	7	9
X3	5	5	4	4	7	10
X4	5	3	6	4	7	10
X5	6	3	5	9	4	8
X6	6	3	5	8	8	5
X7	2	3	9	3	7	11
X8	1	4	9	4	7	10
X9	2	5	7	6	4	11
	37	34	55	48	53	88
	29%	27%	44%	25%	28%	47%

The results above showed that single and married respondents tend to be more overconfident as compared to widowed and divorced respondents. We suggested that this may due to the investors' age and risk profile.

4.2.1.6 Dependent

Table 4.9 Dependent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	93	31.7	31.7	31.7
	One	50	17.1	17.1	48.8
	Two	99	33.8	33.8	82.6
	Three	30	10.2	10.2	92.8
	More than three	21	7.2	7.2	100.0
	Total	293	100.0	100.0	

Most of the respondents have two dependents or less than two dependents. The number tapped off as number of dependents increase.

Table 4.10 Dependent-Overconfidence

	None			One			Two		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	18	20	55	6	14	30	19	19	61
X2	28	27	38	16	13	21	32	26	41
X3	17	35	41	11	17	22	19	34	46
X4	16	32	45	7	17	26	15	32	52
X5	15	24	54	13	10	27	27	27	45
X6	29	37	27	15	20	15	30	38	31
X7	13	18	62	9	8	33	15	22	62
X8	7	17	69	7	12	31	10	20	69
X9	14	25	54	7	15	28	20	20	59
	157	235	445	91	126	233	187	238	466
	19%	28%	53%	20%	28%	52%	21%	27%	52%

	Three			>Three		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	5	7	18	5	5	11
X2	9	7	14	7	4	10
X3	7	9	14	5	9	7
X4	7	5	18	5	6	10
X5	11	7	12	6	10	5
X6	6	10	14	8	5	8
X7	1	10	19	6	4	11
X8	3	7	20	3	4	14
X9	4	8	18	3	7	11
	53	70	147	48	54	87
	20%	26%	54%	25%	29%	46%

The result showed that overconfidence is present in most of the dependent categories.

4.2.1.7 Education

Table 4.11 Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	12	4.1	4.1	4.1
	Secondary School	53	18.1	18.1	22.2
	A-Level/Diploma/UEC/STPM	61	20.8	20.8	43.0
	Degree	122	41.6	41.6	84.6
	Masters	44	15.0	15.0	100.0
	PhD	1	0.4	0.4	
	Total	293	100.0	100.0	

More than two thirds of the respondents have at least an education degree followed by A-levels, diploma, UEC or STPM, secondary school, and Master. We suggest that this represents educated batch of respondents.

Table 4.12 Education-Overconfidence

	Primary School			Secondary School			A-Levels/Diploma/UEC/STPM		
	No	Neutral	Yes	No	Neutral	Yes	No	Neutral	Yes
X1	2	2	8	8	13	32	8	14	39
X2	4	2	6	20	13	20	19	13	29
X3	1	5	6	13	15	25	11	20	30
X4	2	5	5	9	19	25	10	18	33
X5	4	3	5	15	16	22	10	19	32
X6	4	4	4	19	18	16	18	26	17
X7	2	1	9	12	15	26	9	11	41
X8	0	3	9	9	13	31	6	11	44
X9	0	3	9	12	15	26	11	16	34
	19	28	61	117	137	223	102	148	299
	18%	26%	56%	25%	28%	47%	19%	27%	54%

	Degree			Master			PhD		
	No	Neutral	Yes	No	Neutral	Yes	No	Neutral	Yes
X1	24	30	68	11	6	27	0	0	1
X2	33	37	52	16	12	16	0	0	1
X3	21	53	48	13	10	21	0	1	0
X4	21	41	60	8	9	27	0	0	1
X5	30	33	59	12	7	25	1	0	0
X6	28	47	47	18	15	11	1	0	0
X7	14	28	80	6	7	31	1	0	0
X8	9	28	85	6	5	33	0	0	1
X9	16	30	76	9	11	24	0	0	1
	196	327	575	99	82	215	3	1	5
	18%	30%	52%	25%	21%	54%	33%	12%	55%

The results above showed that overconfidence is relatively high among those with primary school level. This may mean that lesser educated investors tend to be overconfidence as compared to highly educated investors.

4.2.1.8 Employment

Table 4.13 Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full-Time	228	77.8	77.8	77.8
	Part-time	15	5.1	5.1	82.9
	Retired	33	11.3	11.3	94.2
	Homemaker	7	2.4	2.4	96.6
	Unemployed	8	2.7	2.7	99.3
	Student	2	.7	.7	100.0
	Total	293	100.0	100.0	

Three quarters of the respondents are employed in full-time condition. We decided to skip this analysis as this may not be as much use to accurately reflect the employment condition in Malaysia.

4.2.1.9 Portfolio Value

Table 4.14 Portfolio Value

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< RM5,000	31	10.6	10.6	10.6
	RM5,001-RM25,000	60	20.5	20.5	31.1
	RM25,001-RM45,000	43	14.7	14.7	45.7
	RM45,001-RM65,000	28	9.6	9.6	55.3
	RM65,001-RM85,000	25	8.5	8.5	63.8
	RM85,001-RM100,000	25	8.5	8.5	72.4
	>RM100,000	81	27.6	27.6	100.0
	Total	293	100.0	100.0	

Almost half of our respondents have portfolio value worth RM45, 000 or less, followed by 27.6% of those who hold portfolio value more than RM100, 000.

Table 4.15 Portfolio Value-Overconfidence

	< RM 5,000			**RM 5,001 - RM25,000**			**RM 25,001 -RM 45,000**		
	No	Neutral	Yes	No	Neutral	Yes	No	Neutral	Yes
X1	5	5	21	13	14	33	8	6	29
X2	9	9	13	17	16	27	14	13	16
X3	8	8	15	12	25	2	10	17	16
X4	6	6	19	9	22	29	8	16	19
X5	7	7	17	10	17	33	13	11	19
X6	14	14	3	20	23	17	13	16	14
X7	5	5	21	10	16	34	2	12	29
X8	4	4	23	4	13	43	5	6	32
X9	4	4	23	11	15	34	6	12	25
	62	62	155	106	161	273	79	109	199
	22%	22%	56%	20%	30%	50%	20%	28%	52%

	RM 45,001 - RM 65,000			RM 65,001 - RM 85,000		
	No	Neutral	Yes	No	Neutral	Yes
X1	3	6	19	4	7	14
X2	12	5	11	10	4	11
X3	9	9	10	4	10	11
X4	7	7	14	4	7	14
X5	6	7	15	5	5	15
X6	7	11	10	10	9	6
X7	7	6	15	6	6	13
X8	5	6	17	1	4	20
X9	7	8	13	3	7	15
	63	65	124	47	59	119
	25%	26%	49%	21%	26%	53%

	RM 85,001 - RM 100,000			> RM 100,000		
	No	Neutral	Yes	No	Neutral	Yes
X1	5	8	2	15	19	47
X2	5	8	12	25	22	34
X3	1	9	15	15	27	39
X4	3	7	15	13	20	48
X5	7	7	11	24	19	38
X6	7	8	10	17	29	35
X7	1	6	18	13	13	55
X8	1	8	16	10	14	57
X9	3	6	16	14	19	48
	33	67	125	146	182	401
	15%	30%	55%	20%	25%	55%

The results above showed that overconfidence is relatively high among all the portfolio values.

4.2.1.10 Experience

Table 4.16 Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<5 years	90	30.7	30.7	30.7
	6-10 years	72	24.6	24.6	55.3
	11-15years	61	20.8	20.8	76.1
	16-20 years	43	14.7	14.7	90.8
	>20 years	27	9.2	9.2	100.0
	Total	293	100.0	100.0	

Two thirds of our respondents have 15 years of investing experience or less. This can be related to their relatively young ages.

Table 4.17 Experience-Overconfidence

	< 5 years			6 - 10 years			11 - 15 years		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	16	19	55	12	14	46	10	16	35
X2	27	24	39	28	20	24	13	17	31
X3	20	36	34	18	26	28	6	25	30
X4	17	37	36	12	25	35	11	16	34
X5	16	31	43	19	16	37	14	16	31
X6	35	37	18	21	32	19	8	24	29
X7	10	22	58	17	16	39	7	9	45
X8	9	22	59	9	12	51	6	12	43
X9	14	21	55	13	23	36	9	16	36
	164	249	397	149	184	315	84	151	314
	20%	31%	49%	23%	28%	49%	15%	28%	57%

	16 - 20 years			> 20 years		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	10	10	23	5	6	16
X2	13	13	17	11	3	13
X3	10	7	26	5	10	12
X4	6	6	31	4	8	15
X5	12	10	21	11	5	11
X6	12	12	19	12	5	10
X7	5	9	29	5	6	16
X8	3	9	31	3	5	19
X9	10	8	25	2	7	18
	81	84	222	58	55	130
	21%	22%	57%	24%	23%	53%

The results showed that overconfidence trait increases as investing experience increases. This proved that the tendency of respondents with longer investing experience to exhibit overconfidence.

4.2.2 Demographics Analysis on Institutional Investors

The demographics of individual investors are shown in the tables below.

4.2.2.1 Gender

Table 4.18 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	22	62.9	62.9	62.9
	Female	13	37.1	37.1	100.0
	Total	35	100.0	100.0	

Almost two thirds of the respondents are males. However, we cannot infer that Malaysia's institutional investor population is a male-dominated area

Table 4.19 Gender-Overconfidence

	Male			Female		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	7	10	5	3	5	5
X2	16	6	0	10	3	0
X3	1	2	19	2	3	8
X4	1	1	20	0	2	11
X5	19	1	2	10	0	3
X6	5	12	5	1	8	4
X7	5	3	14	4	1	8
X8	0	3	19	1	2	10
X9	0	7	15	1	4	8
	54	45	99	32	28	57
	27%	23%	50%	27%	24%	49%

The results above showed that half of the men scored higher in overconfidence, which slightly higher than women who scored 49% in overconfidence trait.

4.2.2.2 Citizenship

Table 4.20 Citizenship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malaysian	35	100.0	100.0	100.0

Our sample subjects are all Malaysian as it was able to accurately reflect our geographic scope of research which covers only Malaysia. Therefore, we decided to skip this analysis.

4.2.2.3 Ethnicity

Table 4.21 Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	10	28.6	28.6	28.6
	Chinese	20	57.1	57.1	85.7
	Indian	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

More than half of our respondents are Chinese followed by Malays. Indians are almost half of the numbers of Malays. This may not be the true reflection of Malaysian's actual institutional investors' population.

Table 4.22 Ethnicity-Overconfidence

	Malay			Chinese			Indian		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	4	4	2	5	9	6	1	2	2
X2	6	4	0	15	5	0	5	0	0
X3	1	0	9	1	4	15	1	1	3
X4	1	0	9	0	1	19	0	2	3
X5	8	0	2	16	1	3	5	0	0
X6	2	3	5	2	15	3	2	2	1
X7	2	0	8	6	4	10	1	0	4
X8	0	3	7	1	1	18	0	1	4
X9	0	3	7	1	5	14	0	3	2
	24	17	49	47	45	88	15	11	19
	27%	19%	54%	26%	25%	49%	33%	25%	42%

The results above showed that overconfidence traits existents among all the ethnicity.

4.2.2.4 Age

Table 4.23 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	26-35	10	28.6	28.6	28.6
	36-45	21	60.0	60.0	88.6
	46-55	4	11.4	11.4	100.0
	Total	35	100.0	100.0	

Our respondents are heavily skewed towards matured institutional investors with a majority of them belonging to 36-45 years old category followed by 26-35 years old category. This explained the respondents' experience where majority of them have 6 to 15 years of experiences.

Table 4.24 Age-Overconfidence

	26-35 years			36-45 years			46-55 years		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	3	3	4	7	8	6	0	4	0
X2	7	3	0	15	6	0	4	0	0
X3	1	3	6	2	2	17	0	0	4
X4	0	2	8	1	1	19	0	0	4
X5	8	0	2	17	1	3	4	0	0
X6	2	5	3	3	13	5	1	2	1
X7	3	2	5	5	2	14	1	0	3
X8	1	1	8	3	10	8	1	0	3
X9	1	2	7	0	8	13	0	1	3
	26	21	43	53	51	85	11	7	18
	29%	23%	48%	28%	27%	45%	31%	19%	50%

The results showed that overconfidence is relatively high among those with 46 to 55 years old.

4.2.2.5 Marital Status

Table 4.25 Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	17	48.6	48.6	48.6
	Married	18	51.4	51.4	100.0
	Total	35	100.0	100.0	

Almost half of our respondents are married, followed by those who are single. However, there is no widowed and divorced respondent.

Table 4.26 Marital Status-Overconfidence

	Single			Married		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	5	7	5	5	8	5
X2	15	2	0	11	7	0
X3	1	2	14	2	3	13
X4	0	3	14	1	0	17
X5	15	0	2	14	1	3
X6	2	11	4	4	9	5
X7	6	2	9	3	2	13
X8	1	1	15	0	4	14
X9	1	5	11	0	6	12
	46	33	74	40	40	82
	30%	22%	48%	25%	25%	50%

The results showed single and married respondents are both showed overconfidence traits, with a slightly high percentage among married respondents.

4.2.2.6 Dependent

Table 4.27 Dependent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	15	42.9	42.9	42.9
	One	9	25.7	25.7	68.6
	Two	3	8.6	8.6	77.1
	Three	4	11.4	11.4	88.6
	> Three	4	11.4	11.4	100.0
	Total	35	100.0	100.0	

More than half of the respondents have none dependent or one dependent, followed by equal percentage of respondents with three or more than three dependents.

Table 4.28 Dependent-Overconfidence

	None			One			Two		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	5	5	5	1	6	2	2	1	0
X2	13	2	0	7	2	0	0	3	0
X3	1	3	11	0	2	7	1	0	2
X4	0	2	13	0	1	8	0	0	3
X5	13	0	2	9	0	0	0	1	2
X6	3	10	2	1	6	2	0	2	1
X7	6	3	6	2	0	7	0	1	2
X8	1	1	13	0	1	8	0	1	2
X9	1	5	9	0	1	8	0	2	1
	43	31	61	20	19	42	3	11	13
	32%	23%	45%	25%	23%	52%	11%	41%	48%

	Three			> Three		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	0	2	2	2	1	1
X2	3	1	0	3	1	0
X3	0	0	4	1	0	3
X4	0	0	4	1	0	3
X5	4	0	0	3	0	1
X6		0	3	1	2	1
X7	1	0	3	0	0	4
X8	0	2	2	0	0	4
X9	0	2	2	0	1	3
	9	7	20	11	5	20
	25%	19%	56%	30%	14%	56%

The results showed that overconfidence increases as number of dependent increases.

4.2.2.7 Education

Table 4.29 Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A-Levels/Diploma/UEC/STPM	3	8.6	8.6	8.6
	Degree	23	65.7	65.7	74.3
	Master	9	25.7	25.7	100.0
	Total	35	100.0	100.0	

All our respondents have at least an education level of A-level or equivalent, until the highest level of Master. This represents a very educated batch of respondents, while majority of them are holding degree level.

Table 4.30 Education-Overconfidence

	A-Levels/Diploma/UEC/STPM			Degree			Master		
	No	Neutral	Yes	No	Neutral	Yes	No	Neutral	Yes
X1	0	1	2	8	8	7	2	6	1
X2	1	2	0	18	5	0	7	2	0
X3	0	0	3	1	5	17	2	0	7
X4	0	0	3	0	2	21	1	1	7
X5	0	0	3	2	1	1	8	0	1
X6	0	2	1	4	13	6	2	5	2
X7	0	1	2	7	3	13	2	0	7
X8	0	0	3	1	3	19	0	2	7
X9	0	1	2	1	8	14	0	2	7
	1	7	19	61	48	98	24	18	39
	4%	26%	70%	29%	23%	48%	30%	22%	48%

The results above showed that overconfidence is significantly higher among those with only A-levels or equivalent. This result suggested that the tendency to overconfidence increases with lower education. This would also suggest that increased education level does help institutional investor to react rationally, and thus, make better judgments.

4.2.2.8 Employment

Table 4.31 Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full Time	35	100.0	100.0	100.0

All the respondents are employed in full-time condition. This may be true reflection of Malaysian institutional investors as all of them are full time

employed. However, we decided to skip this analysis as this may not be as much use to our research.

4.2.2.9 Portfolio Value

Table 4.32 Portfolio Value

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM5,001-RM25,000	1	2.9	2.9	2.9
	RM85,001-RM100,000	3	8.6	8.6	11.4
	>RM100,001	31	88.6	88.6	100.0
	Total	35	100.0	100.0	

More than three quarters of our respondents are dealing with large portfolio value, which are more than RM100, 000. It may be true reflection of institutional investors as they are generally handling more than one portfolio, and also larger portfolio values.

Table 4.33 Portfolio Value-Overconfidence

	RM 5,001 – RM25,000			**RM 85,001 – RM100,000**			**>RM100,000**		
	No	Neutral	Yes	No	Neutral	Yes	No	Neutral	Yes
X1	0	0	1	0	2	1	10	13	8
X2	0	1	0	2	1	0	24	7	0
X3	0	0	1	0	1	2	3	4	24
X4	0	0	1	0	0	3	1	3	27
X5	0	0	1	2	0	1	27	1	3
X6	0	0	1	0	1	2	6	18	7
X7	0	0	1	1	1	1	8	3	20
X8	0	0	1	0	0	3	1	5	25
X9	0	0	1	0	0	3	1	11	9
	0	1	8	5	6	16	81	65	123
	0%	11%	89%	19%	22%	59%	30%	24%	46%

The results above showed that overconfidence declines as portfolio value increases. It suggests that those institutional investors with larger portfolio values are more likely be rational when making investing decisions.

4.2.2.10 Experience

Table 4.34 Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<5 years	4	11.4	11.4	11.4
	6-10 years	8	22.9	22.9	34.3
	11-15 years	18	51.4	51.4	85.7
	16-20 years	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

More than half of the respondents have 11-15 years of investing experiences. This may be related to respondents' age.

Table 4.35 Experience-Overconfidence

	<5 years			6-10 years		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	3	0	1	0	6	2
X2	4	0	0	6	2	0
X3	1	2	1	0	0	8
X4	0	1	3	0	1	7
X5	4	0	0	1	1	6
X6	2	1	1	0	6	2
X7	2	0	2	3	1	4
X8	1	1	2	0	0	8
X9	1	1	2	0	1	7
	18	6	12	10	18	44
	50%	17%	33%	14%	25%	61%

	11-15 years			16-20 years		
	No	**Neutral**	**Yes**	**No**	**Neutral**	**Yes**
X1	6	9	3	1	0	4
X2	12	6	0	4	1	0
X3	1	3	14	1	0	4
X4	0	0	18	1	1	3
X5	14	1	3	4	0	1
X6	14	0	4	0	3	2
X7	4	2	12	0	1	4
X8	0	3	15	0	1	4
X9	0	8	10	0	1	4
	51	32	79	11	8	26
	31%	20%	49%	24%	18%	58%

The results above showed that the tendency to overconfidence increases as investing experience increases. Those respondents with less than 5 years of investing experience tend to be not exhibit overconfidence traits. We do not deny that it may be due to a majority of them are lack in investing experience and indecisive. Thus, they tend to be rational when making investment decisions.

4.3 Hypothesis Testing

4.3.1 Is There Evidence of Overconfidence Among Malaysian Individual Investors?

Ho: There is no evidence of overconfidence among Malaysian individual investors.

H1: There is evidence of overconfidence among Malaysian individual investors.

The results of the 9 overconfidence questions which were used to test the evidence of overconfidence traits among Malaysian individual investors are as follow:

Table 4.36 Overconfidence Questions Count among Individual Investors

Tendency To Overconfidence	No	Neutral	Yes
Q1: Increase trading volume	53	65	175
Q2: Suggest to follow	92	77	124
Q3: Better driver	59	104	130
Q4: Job performance	50	92	151
Q5: Past performance of fund managers	72	78	143
Q6: Ability to anticipate market returns	88	110	95
Q7: Recommendation	44	62	187
Q8: Past performance of market	30	60	203
Q9: Own intuition	48	75	170
Total	**536**	**723**	**1378**
Weighted Average in percentage (%)	**21%**	**27%**	**52%**

The results above showed that almost half of our respondents skewed towards overconfidence when they responded to our questions above. There

are twenty one percent of the respondents showed no overconfidence traits while the remaining twenty seven percent respondents took neutral path when answering the questionnaire.

From the results, we conclude that there is evidence of overconfidence among Malaysia individual investors as fifty two percent of the respondents showed positive overconfidence traits. Also, the survey questionnaires were distributed randomly and performed on an individual basis, thus, none of the respondents were able to compare the feedback with each other.

4.3.2 Is There Evidence of Overconfidence Among Malaysian Institutional Investors?

Ho: There is no evidence of overconfidence among Malaysian institutional investors.

H1: There is evidence of overconfidence among Malaysian institutional investors.

The results of the 9 overconfidence questions which were used to test the evidence of overconfidence traits among Malaysian individual investors are as follow:

Table 4.37 Overconfidence Questions Count among Institutional Investors

Tendency To Overconfidence	No	Neutral	Yes
Q1: Increase trading volume	10	15	10
Q2: Suggest to follow	26	9	0
Q3: Better driver	3	5	27
Q4: Job performance	1	3	31
Q5: Past performance of fund managers	29	1	5
Q6: Ability to anticipate market returns	6	20	9
Q7: Recommendation	9	4	22
Q8: Past performance of market	1	5	29
Q9: Own intuition	1	11	23
Total	**86**	**73**	**156**
Weighted Average in percentage (%)	**27%**	**23%**	**50%**

The results above showed that half of our respondents skewed towards overconfidence when they responded to our questions above. There are twenty seven percent of the respondents showed no overconfidence traits

while the remaining twenty three percent respondents took neutral path when answering the questionnaire.

From the results, we conclude that there is evidence of overconfidence among Malaysia institutional investors as fifty two percent of the respondents showed positive overconfidence traits.

4.3.3 Is There Evidence That The Presence of Overconfidence Among Individual Investors Is Affected By Demographic Factors?

Ho: The presence of overconfidence among individual investors is not affected by demographic factors.

H1: The presence of overconfidence among individual investors is affected by demographic factors.

Table 4.38 Independent-Sample T-Test Significance Value

Demographic	Sig.
Gender	0.416

Table 4.39 ANOVA F-value and Significance Value

Demographic	F-value	Significance Value
Citizenship	2.148	0.119
Ethnicity	2.168	**0.092****
Age	1.036	0.389
Marital Status	1.389	0.246
Dependent	0.440	0.780
Education	0.308	0.908
Employment	1.056	0.385
Portfolio value	0.477	0.825
Experiences	0.757	0.554

** Significantly at 10% confidence interval.

4.3.4 Is There Evidence That The Presence of Overconfidence Among Institutional Investors Is Affected By Demographic Factors?

Ho: The presence of overconfidence among institutional investors is not affected by demographic factors.

H1: The presence of overconfidence among institutional investors is affected by demographic factors.

Table 4.40 Independent-Sample T-Test Significance Value

Demographic	Sig.
Gender	0.888

Table 4.41 ANOVA F-value and Significance Value

Demographic	F-value	Significance Value
Citizenship	-	-
Ethnicity	0.726	0.492
Age	0.263	0.771
Marital Status	0.681	0.415
Dependent	0.946	0.451
Education	2.045	0.146
Employment	-	-
Portfolio value	2.085	0.141
Experiences	3.673	**0.023***

*Significantly at 5% confidence interval.

4.4 Summary of Research Results

Based on the ANOVA F-values and significance results showed at above, we made the following conclusion:

Gender

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by gender, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by gender, among institutional investors.

Citizenship

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by citizenship, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by citizenship, among institutional investors.

Ethnicity

At a 10% confidence interval, we accept null hypothesis as there is sufficient evidence to conclude that overconfidence is affected by ethnicity, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by ethnicity, among institutional investors.

Age

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by age, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by age, among institutional investors.

Marital Status

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by marital status, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by marital status, among institutional investors.

Dependent

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by dependent, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by dependent, among institutional investors.

Education

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by education, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by education, among institutional investors.

Employment

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by employment, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by employment, among institutional investors.

Portfolio value

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by portfolio value, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by portfolio value, among institutional investors.

Experience

At a 5% confidence interval, we accept null hypothesis as there is insufficient evidence to conclude that overconfidence is affected by experience, among individual investors.

At a 5% confidence interval, we accept null hypothesis as there is sufficient evidence to conclude that overconfidence is affected by experience, among institutional investors.

Chapter 5: CONCLUSIONS & RECOMMENDATIONS

5.1 Results and Conclusion

We found that overconfidence is evident among individual and institutional investors in Malaysia. According to Statman, M., Thorley, S. & Vorkink K. (2003), New York Stock Exchange exhibits overconfidence behavior. Although our data showed individual investors are tend to be more overconfidence than institutional investors, but the results were not statistically significant.

We found that ethnicity is the significant demographic factor among individual investors. However, we cannot conclude that overconfidence is more prevalent toward Malay because of the limitation in distribution questionnaire. Our data also found that those with lower education level tend to be more prevalent to overconfidence behavior. Although it is evident that experience individual investor are more overconfidence.

Institutional investors with higher level or education, bigger portfolio value and more experience showed lesser evidence of overconfidence but it is only statistically significant for the experience. According to Menkhoff, Schmidt, and Brozynski (2005), institutional investors with lesser experiences tend to be more overconfidence in making investment decision. However, our findings show otherwise as there are more evidence of overconfidence among lesser experience investors. Overconfidence among institutional investors in different age group and dependent is statistically inconclusive.

5.2 Limitations of Study

5.2.1 Limitation of Survey

The most significant problem of conducting a survey is the possibility that one is using it for the wrong reasons (Saunders et al., 2007). As a result, it might lead to a bias and inaccurate information of our research results. Furthermore, the impersonality issues are difficult to handle when it comes to questionnaires. We have done our best by calling the mutual funds companies in Malaysia and stress the importance of their cooperation. Precision and honesty from the respondents can vary considerably. Besides, the compilation and testing phase of a high-quality questionnaire is time demanding. In addition, Denscombe (1998) stated that the problem of non-response will always be present no matter how well the survey is compiled.

5.2.2 Limitation of Time

As we all know, a good research study will require a huge investment in the researchers' time, for example, some studies can go on for years. However, our investigation on research problem is constrained by the due date of our course assignment.

5.3 Recommendations for Further Research

Behavioral Finance is a highly interesting field of science and we recommend researchers with an interest to continue where we left off. However, it should be considered that it is not an easy field to grasp and research.

5.3.1 Ethnicity Variable as Controlling Variable

We recommend future researchers to conduct a similar study but try to emphasize on ethnicity as controlling variable rather than gender to represent the real population in Malaysia. Besides, the questionnaires of study should be equally distributed to all races in Malaysia.

5.3.2 Cross-Sectional Absolute Deviation (CSAD) Model

We also suggest researchers to use CSAD model for further research. This model was developed by Chang et al. (2000), where they used CSAD in a non-linear regression specification to examine the relation between level of equity return dispersions and the overall market return. Thus, researchers could use this more powerful approach to detect overconfidence based on equity return behavior as Chang et al. (2000) proposed this new model to detect herding based on equity return behavior.

5.3.3 Investigate Other Behavioral Finance Attributes

Lastly, researchers should investigate other behavioral finance attributes to better understand the market anomalies. Considering the complexity of behavioral finance, researchers could conduct a qualitative study. This would yield the possibility to go more in depth and examine the underlying factors of the dilemmas that behavioral finance discusses. Such a study could add more information to the question, for example, *why professional investors behave irrationally?* Since the professionals are

well-educated, we believe that this question would be an attractive issue to the researchers for their further studies.

Appendix

Pie Chart A.1 Gender-Individual Investors

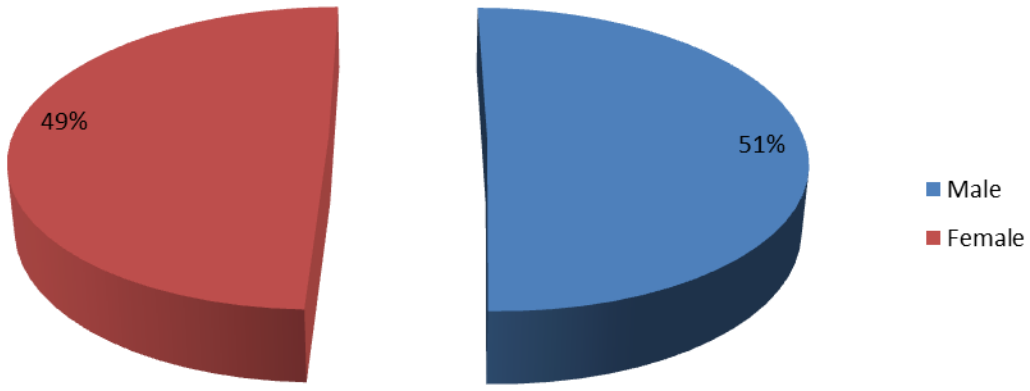


Table A.1 Gender-Individual Investors

	Observed N	Expected N	Residual
Male	148	146.5	-1.5
Female	145	146.5	1.5
Total	293		

Pie Chart A.2 Gender-Institutional Investors

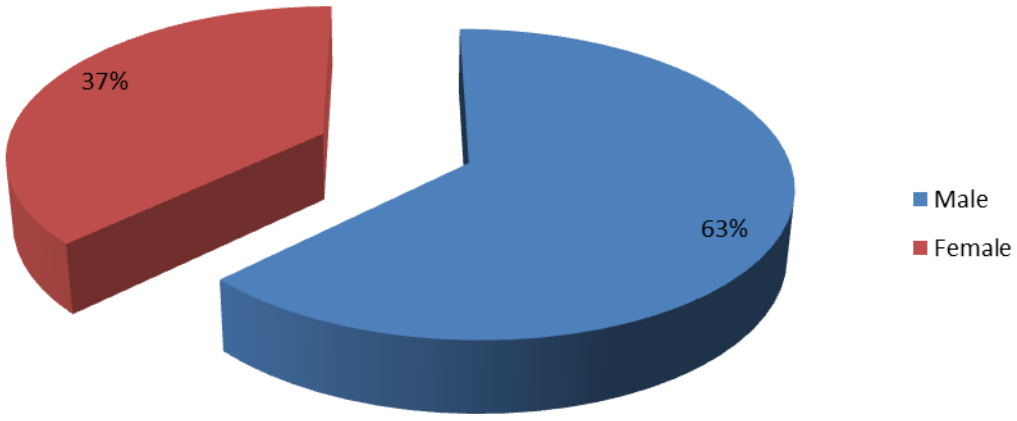


Table A.2 Gender- Institutional Investors

	Observed N	Expected N	Residual
Male	22	17.5	-4.5
Female	13	17.5	4.5
Total	35		

Pie Chart A.3 Citizenship-Individual Investors

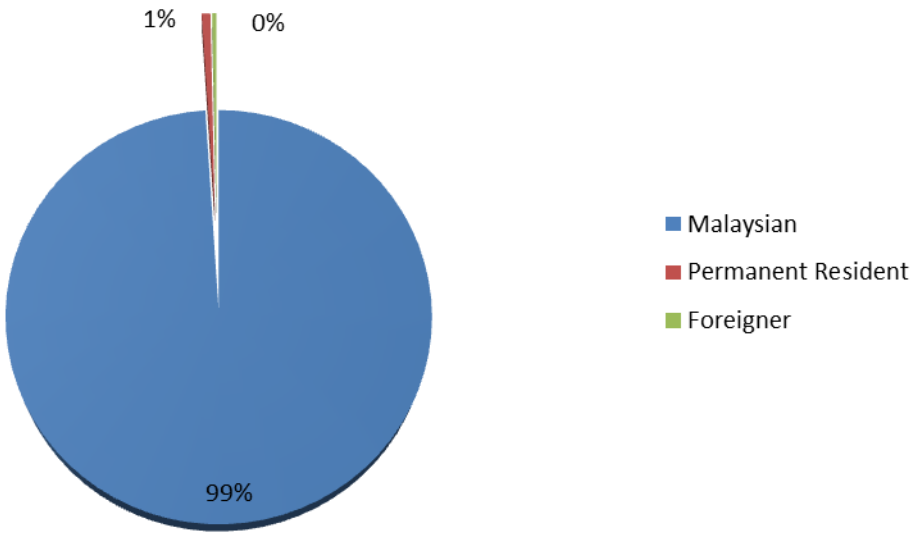


Table A.3 Citizenship-Individual Investors

	Observed N	Expected N	Residual
Malaysian	290	97.67	-192.33
Permanent Residence	2	97.67	95.67
Foreigner	1	97.67	96.67
Total	293		

Pie Chart A.4 Citizenship-Institutional Investors

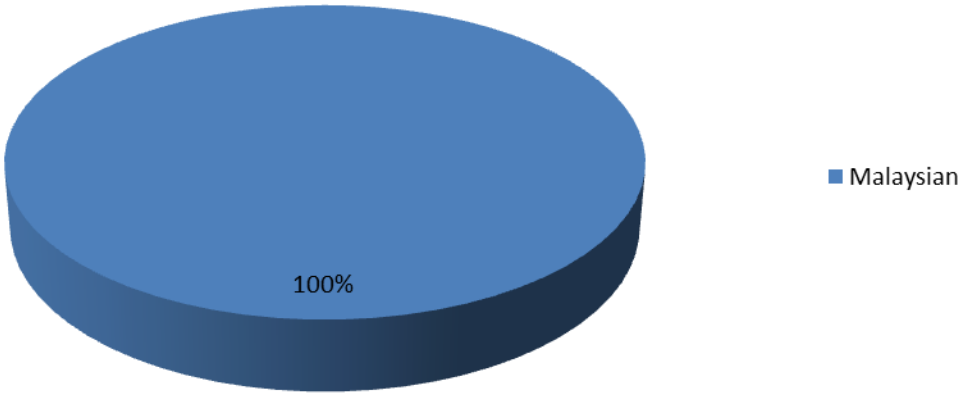


Table A.4 Citizenship-Institutional Investors

	Observed N	Expected N	Residual
Malaysian	35	11.67	-23.33
Permanent Residence	0	11.67	11.67
Foreigner	0	11.67	11.67
Total	35		

Pie Chart A.5 Ethnicity- Individual Investors

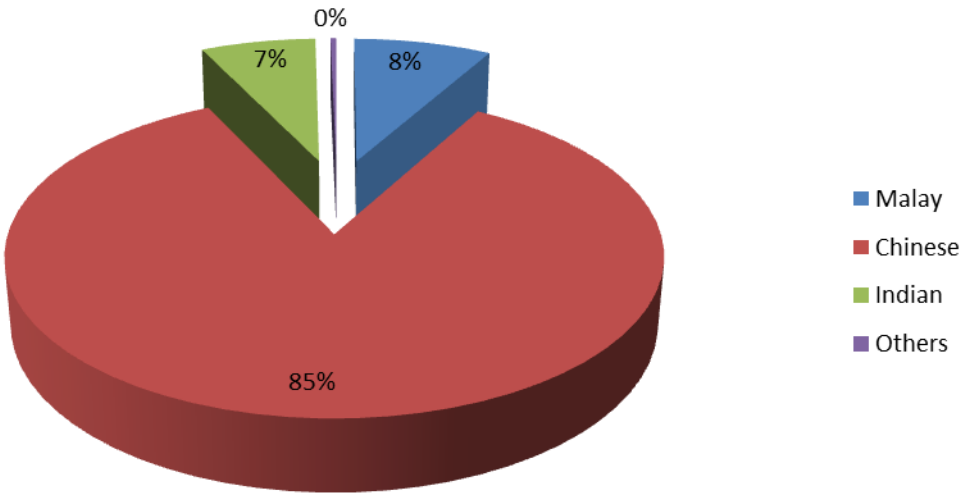


Table A.5 Ethnicity-Individual Investors

	Observed N	Expected N	Residual
Malay	24	73.25	49.25
Chinese	248	73.25	-174.75
Indian	20	73.25	53.25
Other	1	73.25	72.25
Total	293		

Pie Chart A.6 Ethnicity-Institutional Investors

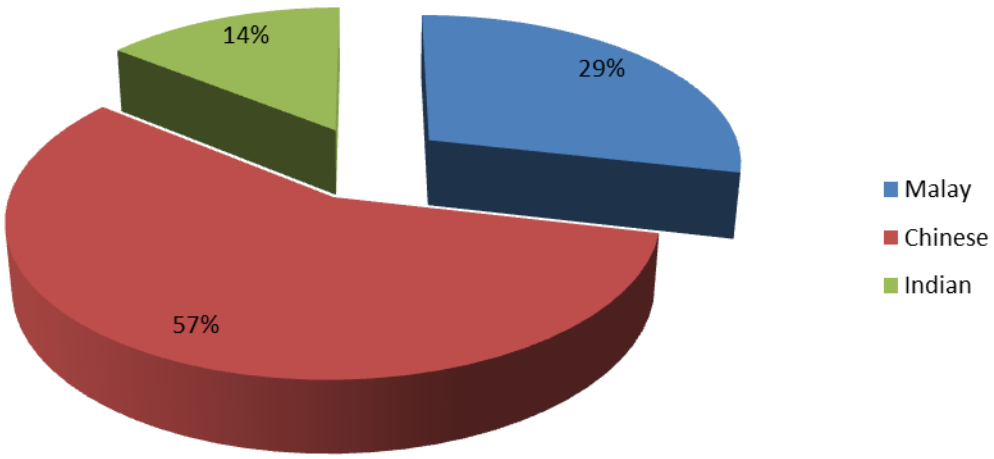


Table A.6 Ethnicity- Institutional Investors

	Observed N	Expected N	Residual
Malay	10	8.75	-1.25
Chinese	20	8.75	-11.25
Indian	5	8.75	3.75
Other	0	8.75	8.75
Total	35		

Pie Chart A.7 Age- Individual Investors

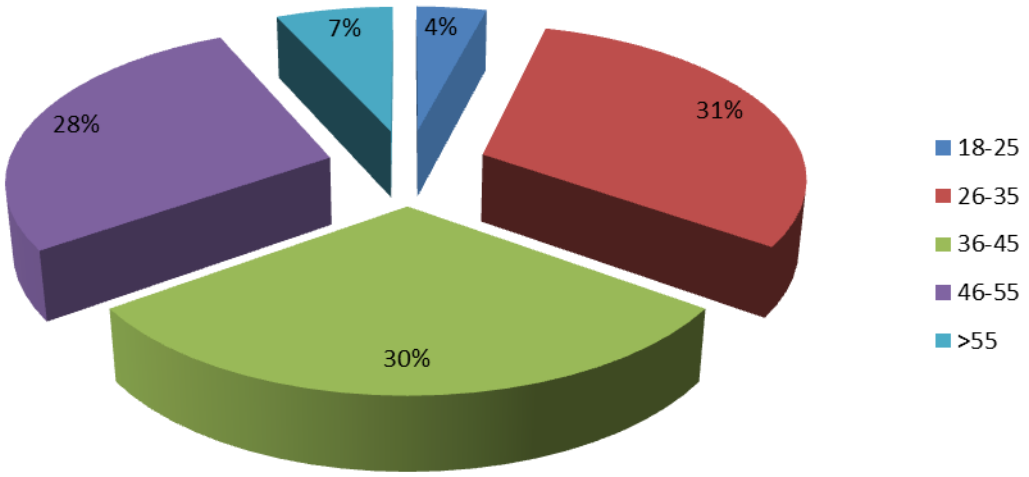


Table A.7 Age-Individual Investors

	Observed N	Expected N	Residual
18-25	12	58.6	46.6
26-35	90	58.6	-31.4
36-45	89	58.6	-30.4
46-55	82	58.6	-23.4
>55	20	58.6	38.6
Total	293	58.6	

Pie Chart A.8 Age-Institutional Investors

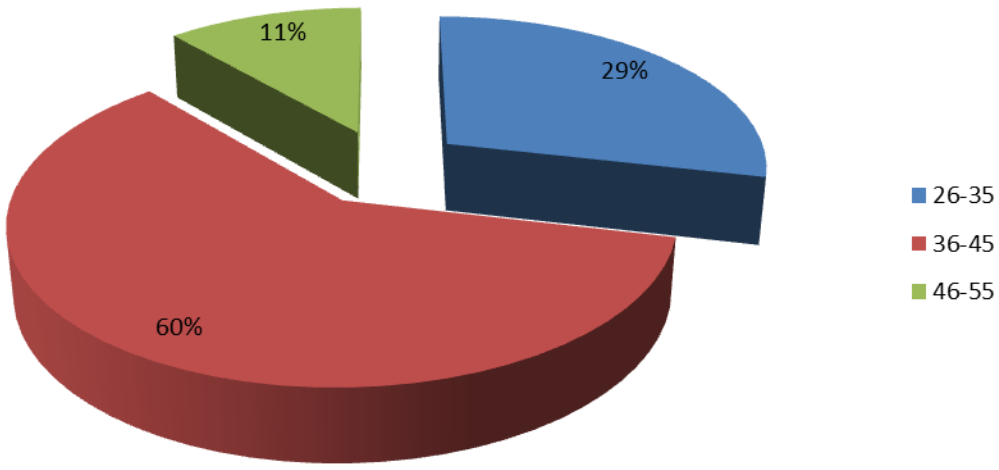


Table A.8 Age-Institutional Investors

	Observed N	Expected N	Residual
18-25	0	7	7
26-35	10	7	-3
36-45	21	7	-14
46-55	4	7	3
>55	0	7	7
Total	35		

Pie Chart A.9 Marital Status- Individual Investors

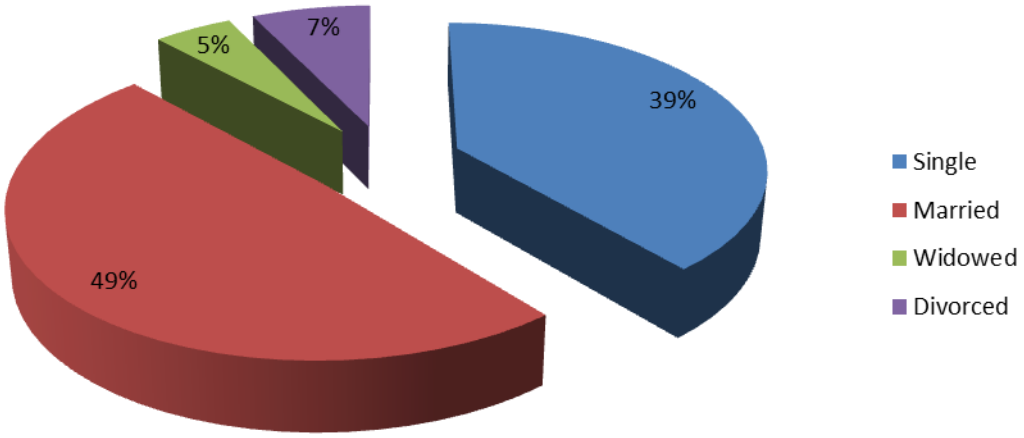


Table a.9 Marital Status- Individual Investors

	Observed N	Expected N	Residual
Single	114	73.25	-40.75
Married	144	73.25	70.75
Widowed	14	73.25	59.25
Divorced	21	73.25	52.25
Total	293		

Pie Chart A.10 Marital Status-Institutional Investors

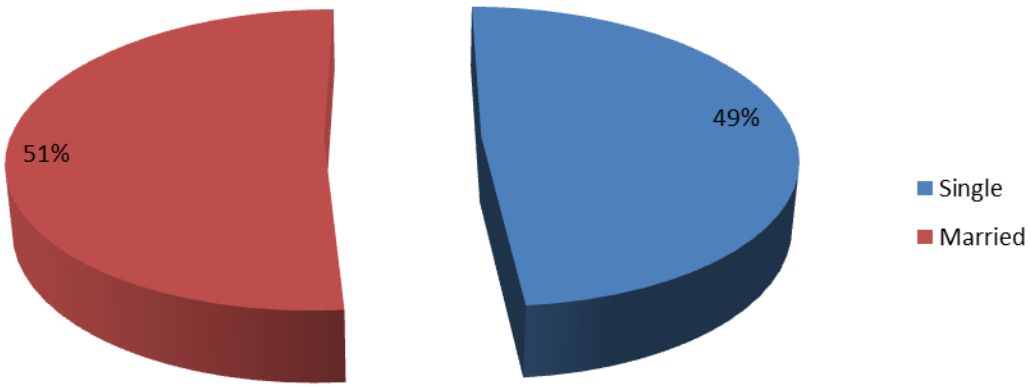


Table A.10 Marital Status-Institutional Investors

	Observed N	Expected N	Residual
Single	17	8.75	-8.75
Married	18	8.75	-9.25
Widowed	0	8.75	8.75
Divorced	0	8.75	8.75
Total	35		

Pie Chart A.11 Dependent- Individual Investors

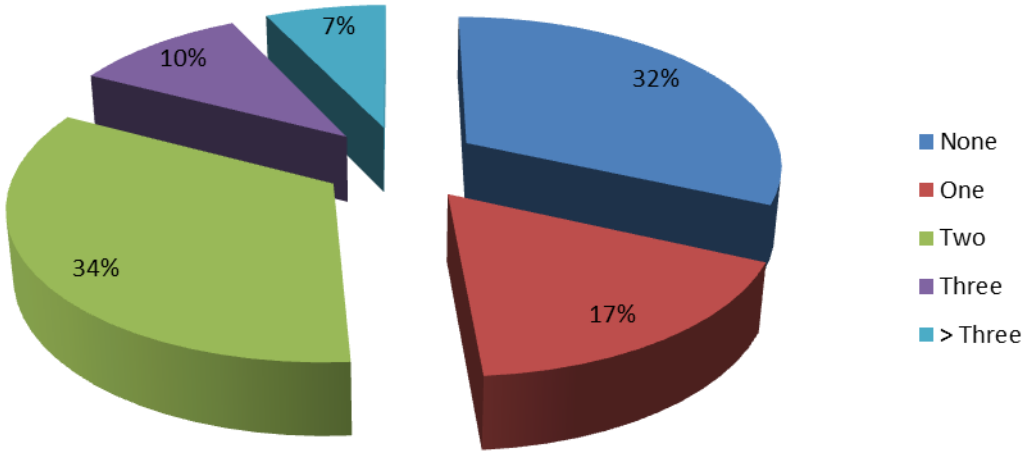


Table A.11 Dependent-Individual Investors

	Observed N	Expected N	Residual
None	93	58.6	-34.4
One	50	58.6	8.6
Two	99	58.6	-40.4
Three	30	58.6	28.6
> Three	21	58.6	37.6
Total	293		

Pie Chart A.12 Dependent-Institutional Investors

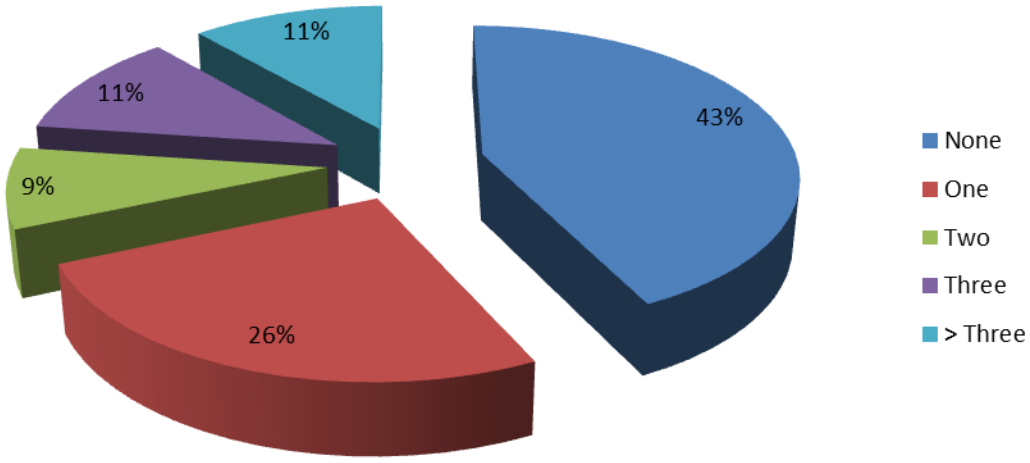


Table A.12 Dependent-Institutional Investors

	Observed N	Expected N	Residual
None	15	7	-8
One	9	7	-2
Two	3	7	4
Three	4	7	3
> Three	4	7	3
Total	35		

Pie Chart A.13 Education- Individual Investors

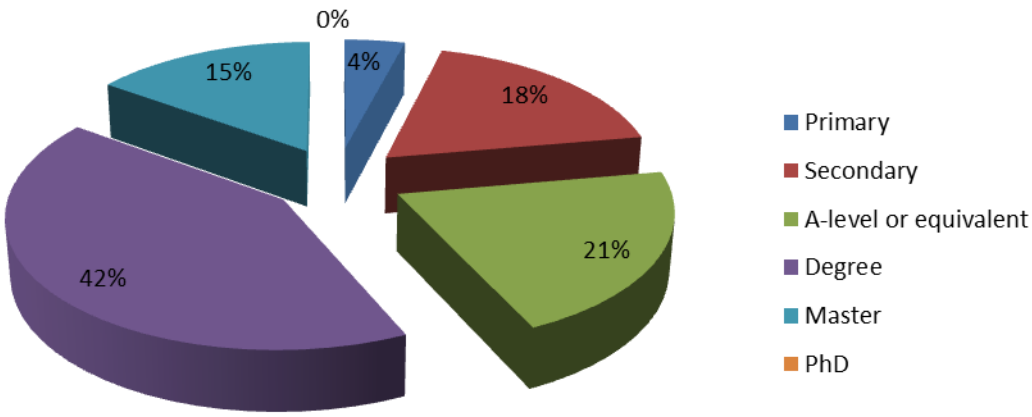


Table A.13 Education-Individual Investors

	Observed N	Expected N	Residual
Primary	12	48.83	36.83
Secondary	53	48.83	-4.17
A-level or equivalent	61	48.83	-12.17
Degree	122	48.83	-73.17
Master	44	48.83	4.83
PhD	0	48.83	48.83
Total	293		

Pie Chart A.14 Education-Institutional Investors

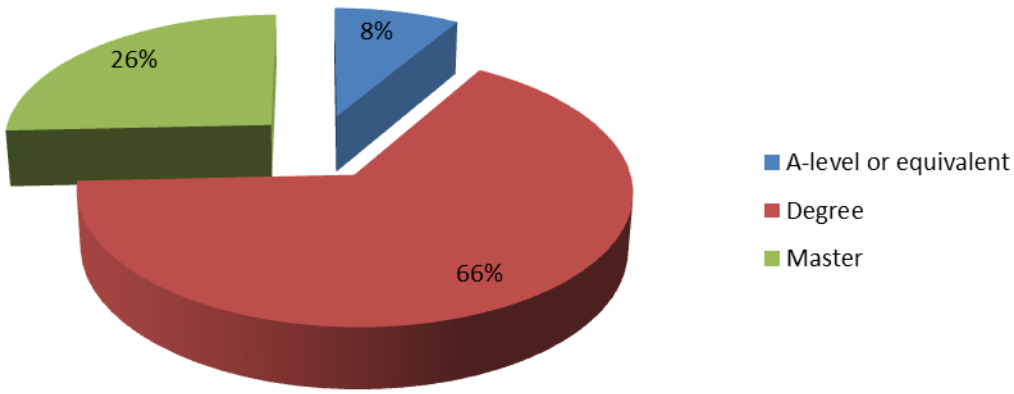


Table A.14 Education-Institution Investors

	Observed N	Expected N	Residual
Primary	0	5.83	5.83
Secondary	0	5.83	5.83
A-level or equivalent	3	5.83	2.83
Degree	23	5.83	-17.17
Master	9	5.83	-3.17
PhD	0	5.83	5.83
Total	35		

Pie Chart A.15 Employment- Individual Investors

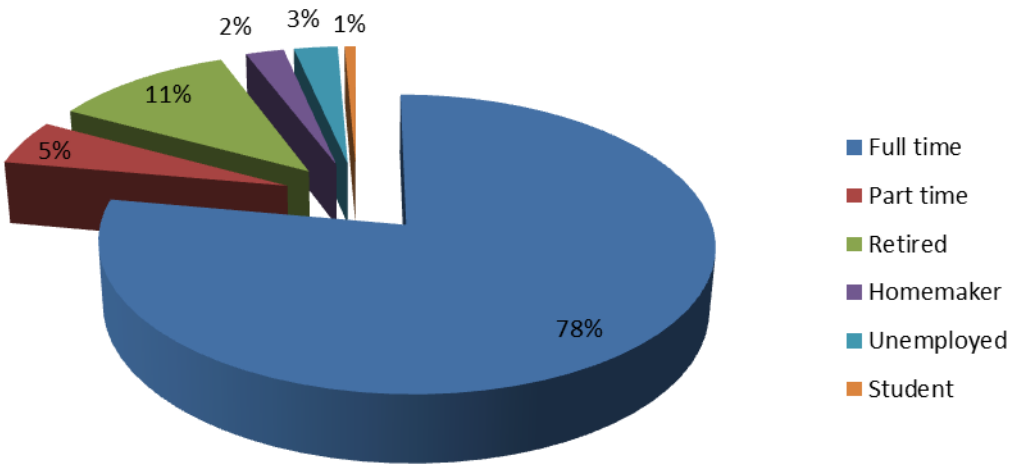


Table A.15 Employment- Individual Investors

	Observed N	Expected N	Residual
Full time	228	48.83	-179.17
Part time	15	48.83	33.83
Retired	33	48.83	15.83
Homemaker	7	48.83	41.83
Unemployed	8	48.83	40.83
Student	2	48.83	46.83
Total	293		

Pie Chart A.16 Employment-Institutional Investors

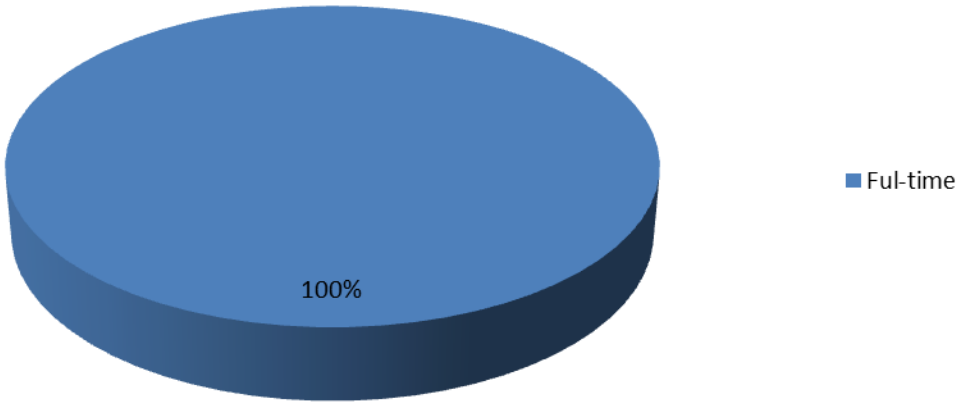
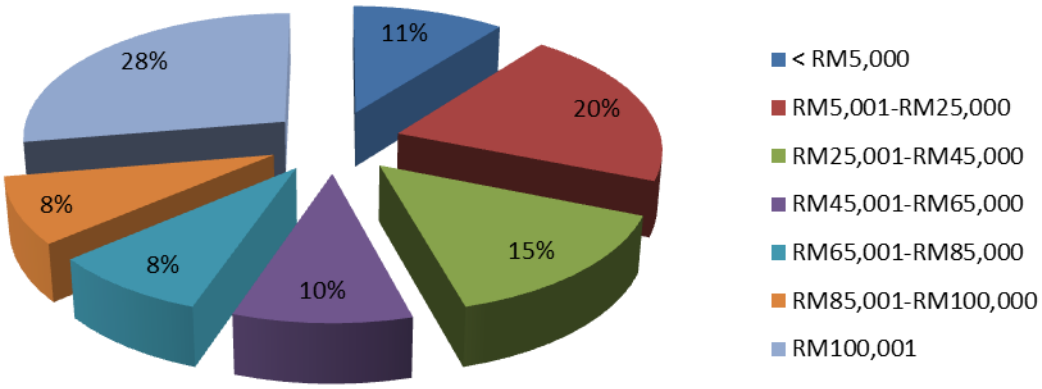


Table A.16 Employment- Institutional Investors

	Observed N	Expected N	Residual
Full time	35	5.83	-29.17
Part time	0	5.83	5.83
Retired	0	5.83	5.83
Homemaker	0	5.83	5.83
Unemployed	0	5.83	5.83
Student	0	5.83	5.83
Total	35		

Pie Chart A.17 Portfolio Value- Individual Investors



TableA.17 Portfolio Value-Individual Investors

	Observed N	Expected N	Residual
<RM5,000	31	41.86	10.86
RM5,001-RM25,000	60	41.86	-18.14
RM25,001-RM45,000	43	41.86	-1.14
RM45,001-RM65,000	28	41.86	13.86
RM65,001-RM85,000	25	41.86	16.86
RM85,001-RM100,000	25	41.86	16.86
>RM100,000	81	41.86	-39.14
Total	293		

Pie Chart A.18 Portfolio Value-Institutional Investors

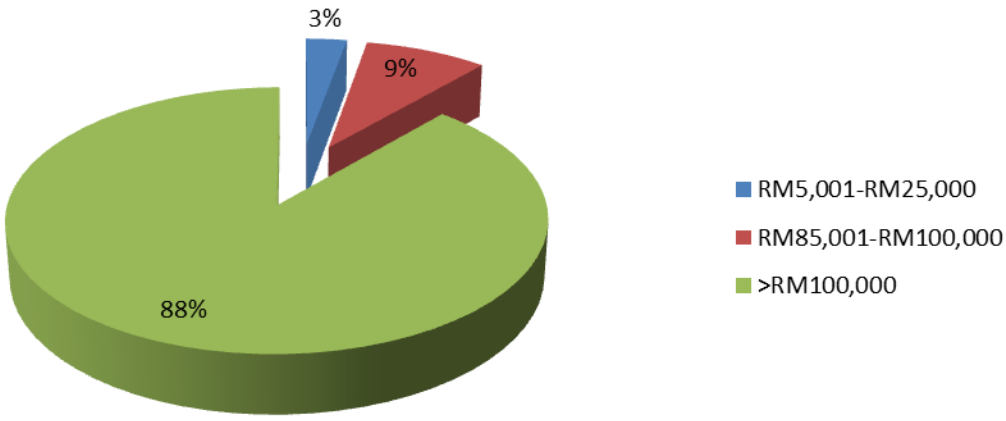


Table A.18 Portfolio Value-Institutional Investors

	Observed N	Expected N	Residual
<RM5,000	0	5	5
RM5,001-RM25,000	1	5	4
RM25,001-RM45,000	0	5	5
RM45,001-RM65,000	0	5	5
RM65,001-RM85,000	0	5	5
RM85,001-RM100,000	3	5	2
>RM100,000	31	5	-26
Total	35		

Pie Chart A.19 Experience- Individual Investors

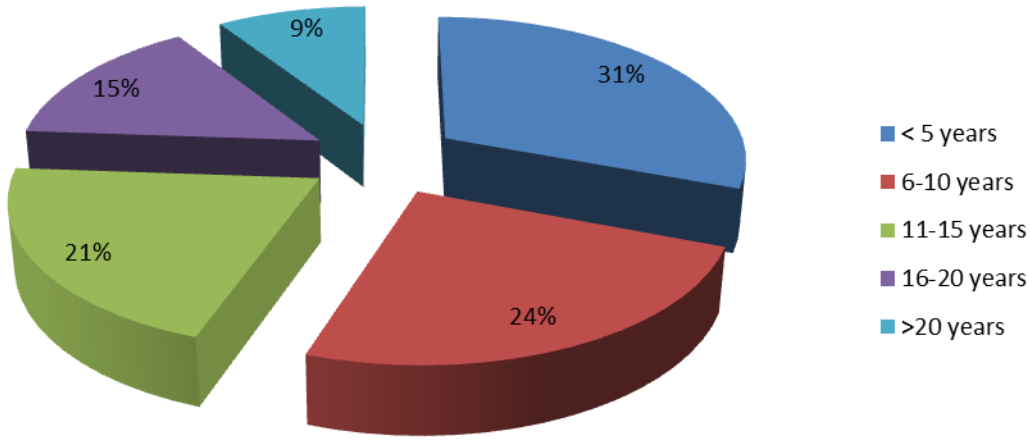


Table A.19 Experiences- Individual Investors

	Observed N	Expected N	Residual
< 5 years	90	58.6	-31.4
6-10 years	72	58.6	-13.4
11-15 years	61	58.6	-2.4
16-20 years	43	58.6	15.6
>20 years	27	58.6	31.6
Total	293		

Pie Chart A.20 Experience-Institutional Investors

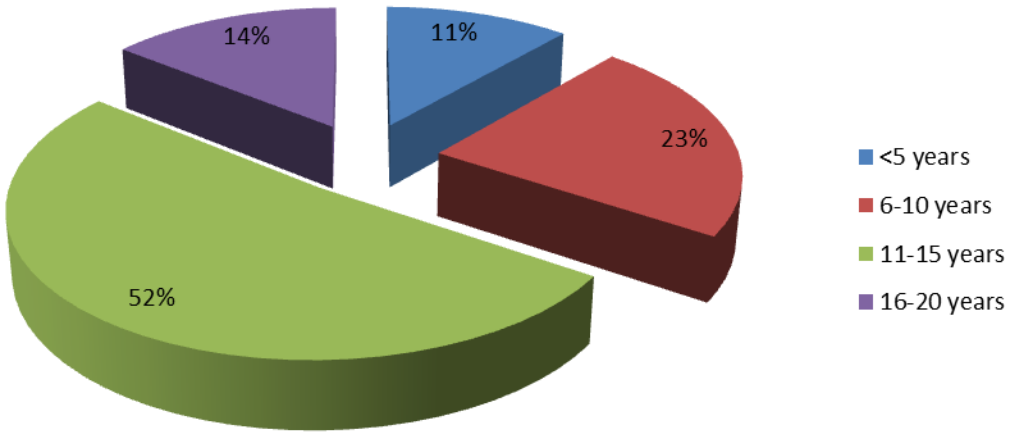


Table A.20 Experience-Institutional Investors

	Observed N	Expected N	Residual
< 5 years	4	7	3
6-10 years	8	7	-1
11-15 years	18	7	-11
16-20 years	5	7	2
>20 years	0	7	7
Total	35		

Bar Chart A.1 Overconfidence Summary (Individual Investors)

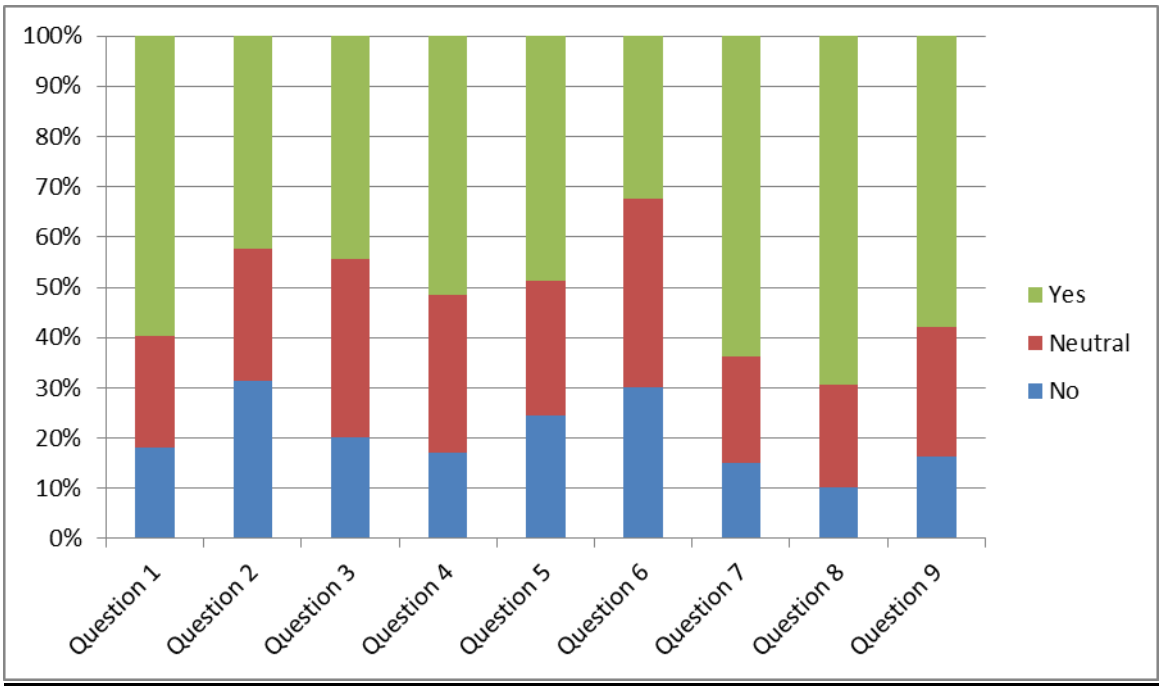


Table A.21 Question 1 (Individual Investors)

	Observed N	Expected N	Residual
No	53	97.67	44.67
Neutral	65	97.67	32.67
Yes	175	97.67	-77.33
Total	293		

Table A.22 Question 2 (Individual Investors)

	Observed N	Expected N	Residual
No	92	97.67	5.67
Neutral	77	97.67	20.67
Yes	124	97.67	-26.33
Total	293		

Table A.23 Question 3 (Individual Investors)

	Observed N	Expected N	Residual
No	59	97.67	38.67
Neutral	104	97.67	-6.33
Yes	130	97.67	-32.33
Total	293		

Table A.24 Question 4 (Individual Investors)

	Observed N	Expected N	Residual
No	50	97.67	47.67
Neutral	92	97.67	5.67
Yes	151	97.67	-53.33
Total	293		

Table A.25 Question 5 (Individual Investors)

	Observed N	Expected N	Residual
No	72	97.67	25.67
Neutral	78	97.67	19.67
Yes	143	97.67	-45.33
Total	293		

Table A.26 Question 6 (Individual Investors)

	Observed N	Expected N	Residual
No	88	97.67	9.67
Neutral	110	97.67	-12.33
Yes	95	97.67	2.67
Total	293		

Table A.27 Question 7 (Individual Investors)

	Observed N	Expected N	Residual
No	44	97.67	53.67
Neutral	62	97.67	35.67
Yes	187	97.67	-89.33
Total	293		

Table A.28 Question 8 (Individual Investors)

	Observed N	Expected N	Residual
No	30	97.67	67.67
Neutral	60	97.67	37.67
Yes	203	97.67	-105.33
Total	293		

Table A.29 Question 9 (Individual Investors)

	Observed N	Expected N	Residual
No	48	97.67	49.67
Neutral	75	97.67	22.67
Yes	170	97.67	-72.33
Total	293		

Bar Chart A.2 Overconfidence Summary (Institutional Investors)

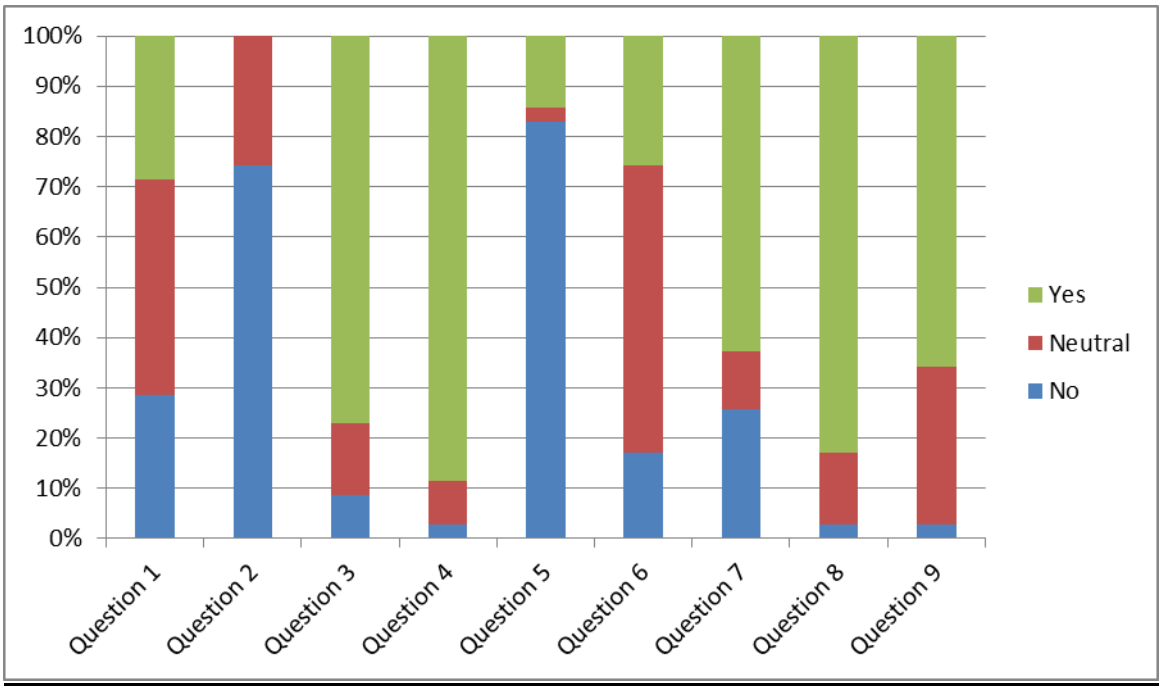


Table A.30 Question 1 (Institutional Investors)

	Observed N	Expected N	Residual
No	10	11.67	1.67
Neutral	15	11.67	-3.33
Yes	10	11.67	1.67
Total	35		

Table A.31 Question 2 (Institutional Investors)

	Observed N	Expected N	Residual
No	26	11.67	-14.33
Neutral	9	11.67	2.67
Yes	0	11.67	11.67
Total	35		

Table A.32 Question 3 (Institutional Investors)

	Observed N	Expected N	Residual
No	3	11.67	8.67
Neutral	5	11.67	6.67
Yes	27	11.67	-15.33
Total	35		

Table A.33 Question 4 (Institutional Investors)

	Observed N	Expected N	Residual
No	1	11.67	10.67
Neutral	3	11.67	8.67
Yes	31	11.67	-19.33
Total	35		

Table A.34 Question 5 (Institutional Investors)

	Observed N	Expected N	Residual
No	29	11.67	-17.33
Neutral	1	11.67	10.67
Yes	5	11.67	6.67
Total	35		

Table A.35 Question 6 (Institutional Investors)

	Observed N	Expected N	Residual
No	6	11.67	5.67
Neutral	20	11.67	-8.33
Yes	9	11.67	2.67
Total	35		

Table A.36 Question 7 (Institutional Investors)

	Observed N	Expected N	Residual
No	9	11.67	2.67
Neutral	4	11.67	7.67
Yes	22	11.67	-10.33
Total	35		

Table A.37 Question 8 (Institutional Investors)

	Observed N	Expected N	Residual
No	1	11.67	10.67
Neutral	5	11.67	6.67
Yes	29	11.67	-17.33
Total	35		

Table A.38 Question 9 (Institutional Investors)

	Observed N	Expected N	Residual
No	1	11.67	10.67
Neutral	11	11.67	0.67
Yes	23	11.67	-11.33
Total	35		

Appendix 4.62 Overconfidence-Gender (Individual Investors)

Ho: Gender does not affect overconfidence among Malaysian individual investors.

H1: Gender does affect overconfidence among Malaysian individual investors.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Overconfidence	Male	148	4.5195	.93827	.07713
	Female	145	4.6069	.89896	.07465

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Overconfidence	Equal variances assumed	.036	.850	-.814	291	.416	-.08738	.10739	-.29873	.12398
	Equal variances not assumed			-.814	290.856	.416	-.08738	.10734	-.29864	.12388

Appendix 4.63 Overconfidence-Citizenship (Individual Investors)

Ho: Citizenship does not affect overconfidence among Malaysian individual investors.

H1: Citizenship does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Malaysian	290	4.5728	.91648	.05382	4.4669	4.6787	1.89	7.00
Permanent Resident	2	3.9444	.07857	.05556	3.2385	4.6503	3.89	4.00
Foreigner	1	2.8889	.	.	.	.	2.89	2.89
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.596	2	1.798	2.148	.119
Within Groups	242.747	290	.837		
Total	246.343	292			

Appendix 4.64 Overconfidence-Ethnicity (Individual Investors)

Ho: Ethnicity does not affect overconfidence among Malaysian individual investors.

H1: Ethnicity does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Malay	24	4.8843	1.03636	.21155	4.4466	5.3219	2.33	7.00
Chinese	248	4.5394	.90402	.05741	4.4264	4.6525	1.89	7.00
Indian	20	4.5500	.86928	.19438	4.1432	4.9568	3.22	6.44
Others	1	2.8889	.	.	.	.	2.89	2.89
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.421	3	1.807	2.168	.092
Within Groups	240.922	289	.834		
Total	246.343	292			

Appendix 4.65 Overconfidence-Age (Individual Investors)

Ho: Age does not affect overconfidence among Malaysian individual investors.

H1: Age does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	12	4.6481	.76370	.22046	4.1629	5.1334	3.44	6.00
26-35	90	4.6333	.89021	.09384	4.4469	4.8198	2.33	7.00
35-45	89	4.4007	.91542	.09703	4.2079	4.5936	1.89	7.00
45-55	82	4.6138	.98753	.10905	4.3968	4.8308	2.33	7.00
>55	20	4.7056	.83248	.18615	4.3159	5.0952	2.78	6.11
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.493	4	.873	1.036	.389
Within Groups	242.849	288	.843		
Total	246.343	292			

Appendix 4.66 Overconfidence-Marital Status (Individual Investors)

Ho: Marital status does not affect overconfidence among Malaysian individual investors.

H1: Marital status does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Single	114	4.5809	.85506	.08008	4.4222	4.7396	2.33	7.00
Married	144	4.6142	.92113	.07676	4.4625	4.7659	1.89	7.00
Widower	14	4.1429	1.00561	.26876	3.5622	4.7235	2.67	6.00
Divorced	21	4.3915	1.13454	.24758	3.8751	4.9080	2.33	7.00
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.503	3	1.168	1.389	.246
Within Groups	242.840	289	.840		
Total	246.343	292			

Appendix 4.67 Overconfidence-Dependent (Individual Investors)

Ho: Dependent does not affect overconfidence among Malaysian individual investors.

H1: Dependent does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None	93	4.6153	.83720	.08681	4.4429	4.7877	3.11	7.00
One	50	4.5778	.92827	.13128	4.3140	4.8416	2.78	7.00
Two	99	4.5522	1.00558	.10107	4.3516	4.7527	1.89	7.00
Three	30	4.5778	.88716	.16197	4.2465	4.9090	2.67	6.33
Four and more	21	4.3228	.90055	.19652	3.9128	4.7327	2.78	6.44
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.495	4	.374	.440	.780
Within Groups	244.847	288	.850		
Total	246.343	292			

Appendix 4.68 Overconfidence-Education (Individual Investors)

Ho: Education does not affect overconfidence among Malaysian individual investors.

H1: Education does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Primary	12	4.6019	.66744	.19267	4.1778	5.0259	3.33	6.00
Secondary	53	4.5052	.98048	.13468	4.2350	4.7755	3.11	6.44
A-Level/Diploma/UEC/STPM	61	4.5902	.95958	.12286	4.3444	4.8359	1.89	7.00
Degree	122	4.6166	.88844	.08044	4.4573	4.7758	2.33	7.00
Masters	44	4.4394	.95700	.14427	4.1484	4.7303	2.78	7.00
PhD	1	4.3333	.	.	.	.	4.33	4.33
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.315	5	.263	.308	.908
Within Groups	245.028	287	.854		
Total	246.343	292			

Appendix 4.69 Overconfidence-Employment (Individual Investors)

Ho: Employment does not affect overconfidence among Malaysian individual investors.

H1: Employment does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Full-Time	228	4.6189	.90963	.06024	4.5002	4.7376	1.89	7.00
Part-time	15	4.4444	.97951	.25291	3.9020	4.9869	2.33	5.89
Retired	33	4.3232	.94704	.16486	3.9874	4.6590	2.67	6.33
Homemaker	7	4.2540	.97016	.36669	3.3567	5.1512	3.11	6.00
Unemployed	8	4.3194	.80220	.28362	3.6488	4.9901	3.22	5.78
Student	2	5.0556	1.33565	.94444	-6.9447	17.0559	4.11	6.00
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.449	5	.890	1.056	.385
Within Groups	241.894	287	.843		
Total	246.343	292			

Appendix 4.70 Overconfidence-Portfolio Value (Individual Investors)

Ho: Portfolio value does not affect overconfidence among Malaysian individual investors.

H1: Portfolio value does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
< RM5,000	31	4.4444	.83838	.15058	4.1369	4.7520	2.33	6.00
RM5,001-RM25,000	60	4.5667	.91755	.11845	4.3296	4.8037	2.67	7.00
RM25,001-RM45,000	43	4.6486	.97407	.14854	4.3488	4.9484	3.11	7.00
RM45,001-RM65,000	28	4.4127	.93788	.17724	4.0490	4.7764	1.89	6.11
RM65,001-RM85,000	25	4.4933	.93077	.18615	4.1091	4.8775	2.33	6.56
RM85,001-RM100,000	25	4.7556	1.00769	.20154	4.3396	5.1715	3.11	7.00
>RM100,000	81	4.5734	.89709	.09968	4.3750	4.7718	2.33	6.44
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.441	6	.407	.477	.825
Within Groups	243.902	286	.853		
Total	246.343	292			

Appendix 4.71 Overconfidence-Experience (Individual Investors)

Ho: Experience does not affect overconfidence among Malaysian individual investors.

H1: Experience does affect overconfidence among Malaysian individual investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
>5 years	90	4.5481	.86865	.09156	4.3662	4.7301	2.67	7.00
6-10 years	72	4.4769	.96242	.11342	4.2507	4.7030	1.89	7.00
11-15years	61	4.7359	.94306	.12075	4.4944	4.9774	2.33	6.56
16-20 years	43	4.5401	.90514	.13803	4.2615	4.8186	2.33	7.00
>20 years	27	4.4856	.94238	.18136	4.1128	4.8584	2.78	6.44
Total	293	4.5628	.91850	.05366	4.4572	4.6684	1.89	7.00

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.562	4	.640	.757	.554
Within Groups	243.781	288	.846		
Total	246.343	292			

Appendix 4.72 Overconfidence-Gender (Institutional Investors)

Ho: Gender does not affect overconfidence among Malaysian institutional investors.

H1: Gender does affect overconfidence among Malaysian institutional investors.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Overconfidence	Male	22	4.2576	.29772	.06347
	Female	13	4.2222	.85947	.23837

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Overconfidence	Equal variances assumed	4.485	.042	.177	33	.860	.03535	.19944	-.37040	.44111
	Equal variances not assumed			.143	13.723	.888	.03535	.24668	-.49473	.56543

Appendix 4.73 Overconfidence-Citizenship (Institutional Investors)

Ho: Citizenship does not affect overconfidence among Malaysian institutional investors.

H1: Citizenship does affect overconfidence among Malaysian institutional investors.

Warnings

There are fewer than two groups for dependent variable Overconfidence. No statistics are computed.

Appendix 4.74 Overconfidence-Ethnicity (Institutional Investors)

Ho: Ethnicity does not affect overconfidence among Malaysian institutional investors.

H1: Ethnicity does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Malay	10	4.4111	.55196	.17455	4.0163	4.8060	3.67	5.33
Chinese	20	4.2056	.60781	.13591	3.9211	4.4900	1.78	4.78
Indian	5	4.0667	.35660	.15947	3.6239	4.5094	3.56	4.56
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.466	2	.233	.726	.492
Within Groups	10.270	32	.321		
Total	10.736	34			

Appendix 4.75 Overconfidence-Age (Institutional Investors)

Ho: Age does not affect overconfidence among Malaysian institutional investors.

H1: Age does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
26-35	10	4.1333	.97119	.30712	3.4386	4.8281	1.78	5.33
36-45	21	4.2910	.29287	.06391	4.1577	4.4243	3.67	4.78
46-55	4	4.2778	.34546	.17273	3.7281	4.8275	3.78	4.56
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.173	2	.087	.263	.771
Within Groups	10.562	32	.330		
Total	10.736	34			

Appendix 4.76 Overconfidence-Marital Status (Institutional Investors)

Ho: Marital status does not affect overconfidence among Malaysian institutional investors.

H1: Marital status does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Single	17	4.1634	.74237	.18005	3.7817	4.5451	1.78	5.33
Married	18	4.3210	.31632	.07456	4.1637	4.4783	3.67	4.78
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.217	1	.217	.681	.415
Within Groups	10.519	33	.319		
Total	10.736	34			

Appendix 4.77 Overconfidence-Dependent (Institutional Investors)

Ho: Dependent does not affect overconfidence among Malaysian institutional investors.

H1: Dependent does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None	15	4.0444	.69363	.17910	3.6603	4.4286	1.78	4.78
One	9	4.4198	.39196	.13065	4.1185	4.7210	3.89	5.33
Two	3	4.5556	.19245	.11111	4.0775	5.0336	4.44	4.78
Three	4	4.2778	.41076	.20538	3.6242	4.9314	3.78	4.67
> Three	4	4.3333	.57378	.28689	3.4203	5.2463	3.67	5.00
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.203	4	.301	.946	.451
Within Groups	9.533	30	.318		
Total	10.736	34			

Appendix 4.78 Overconfidence-Education (Institutional Investors)

Ho: Education does not affect overconfidence among Malaysian institutional investors.

H1: Education does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A-Levels/Diploma/UEC/STPM	3	4.8519	.12830	.07407	4.5331	5.1706	4.78	5.00
Degree	23	4.1787	.62831	.13101	3.9070	4.4504	1.78	5.33
Master	9	4.2099	.31644	.10548	3.9666	4.4531	3.67	4.56
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.217	2	.608	2.045	.146
Within Groups	9.519	32	.297		
Total	10.736	34			

Appendix 4.79 Overconfidence-Employment (Institutional Investors)

Ho: Employment does not affect overconfidence among Malaysian institutional investors.

H1: Employment does affect overconfidence among Malaysian institutional investors.

Warnings

There are fewer than two groups for dependent variable Overconfidence. No statistics are computed.

Appendix 4.80 Overconfidence-Portfolio Value (Institutional Investors)

Ho: Portfolio value does not affect overconfidence among Malaysian institutional investors.

H1: Portfolio value does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
RM5,001-RM25,000	1	5.0000	.	.	.	.	5.00	5.00
RM85,001-RM100,000	3	4.6667	.61864	.35717	3.1299	6.2035	4.11	5.33
>RM100,001	31	4.1792	.53953	.09690	3.9813	4.3771	1.78	4.78
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.238	2	.619	2.085	.141
Within Groups	9.498	32	.297		
Total	10.736	34			

Appendix 4.81 Overconfidence-Experience (Institutional Investors)

Ho: Experience does not affect overconfidence among Malaysian institutional investors.

H1: Experience does affect overconfidence among Malaysian institutional investors.

Descriptives

Overconfidence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
>5 years	4	3.4722	1.20142	.60071	1.5605	5.3840	1.78	4.56
6-10 years	8	4.4444	.47140	.16667	4.0503	4.8385	4.11	5.33
11-15 years	18	4.2963	.26404	.06223	4.1650	4.4276	3.78	4.78
16-20 years	5	4.3556	.46081	.20608	3.7834	4.9277	3.67	4.78
Total	35	4.2444	.56192	.09498	4.0514	4.4375	1.78	5.33

ANOVA

Overconfidence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.815	3	.938	3.673	.023
Within Groups	7.920	31	.255		
Total	10.736	34			

UNIVERSITI TUNKU ABDUL RAHMAN
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Bandar Sungai Long Campus
Jalan Sungai Long, 43000 Kajang, Selangor Darul Ehsan
Phone: 03-90194722 Fax: 03-90197062

29th October 2010

TO WHOM IT MAY CONCERN

Dear Sir / Madam,

We hereby confirm that the following students are in Year 3 Trimester 2 pursuing a degree course in Bachelor of Finance (Hons) at Universiti Tunku Abdul Rahman (UTAR):

Name:	I.D. No.	H/P No.
1. Chin Fei Sun	08UBB04818	016-7959633
2. Chung Pei Ching	08UBB04360	016-2775438
3. Jessica Quek Huey-Cher	08UBB06006	012-9312392
4. Mei Chian Hwa	08UBB07672	012-2973310

As part of their subject coursework requirement (UKFZ3026 RESEARCG PROJECT), they are required to conduct a research project mainly: "**The Existence of Overconfidence among Individual and Institutional Investors in Malaysia**" and they have selected your organization to assist them in the said research by allowing them to collect the necessary data.

In conjunction with the above matter, we would appreciate your support and assistance by allowing them to collect the necessary data/information.

Please to not hesitate to contact anyone of the named students if you require further information.

Thank you for your cooperation.

Yours sincerely,

Mr Chong Shyue Chuan
Head, Department of Economics (Senior Lecturer)
Faculty of Accountancy and Management

UNIVERSITI TUNKU ABDUL RAHMAN

(UTAR)

Faculty of Accountancy and Management

(FAM)

Bachelor of Finance (Hons)

UBEZ 2013 RESEARCH METHOD

SURVEY QUESTIONNAIRE

TITLE: OVERCONFIDENCE AMONG MALAYSIAN INDIVIDUAL AND INSTITUTIONAL INVESTORS

We are students from Universiti Tunku Abdul Rahman and we are carrying out this survey for our final year project. More specifically, we are researching how herding and overconfidence behavior affects investment decisions.

This questionnaire consists of 4 sections and should take about 5-10 minute to answer. In each question choose the alternative that best reflects your own opinion or experiences. Your answers will greatly help in contributing to the research on herd and overconfidence behavior. All answer will be handled anonymously and confidentially.

SURVEY QUESTIONNAIRE

Personal Background

1. Gender:

   ❑ Male ❑ Female

2. Citizenship:

   ❑ Malaysian ❑ Permanent Resident ❑ Foreigner

3. Ethnicity:

   ❑ Malay ❑ Chinese ❑ Indian ❑ Others: _____

4. Age Group:

   ❑ 18-25 ❑ 26-35 ❑ 36-45 ❑ 46-55 ❑ 56 and above

5. Marital Status:

   ❑ Single ❑ Married ❑ Widower ❑ Divorced

6. How many dependents do you have? *(please do not include employed members of your household)*

   ❑ None ❑ One ❑ Two ❑ Three ❑ Four or more

7. Highest level of education *(please select one only)*

   ❑ Primary ❑ Secondary ❑ A-Levels/Diploma/UEC/STPM
   ❑ Degree ❑ Masters ❑ PhD

8. Which of the following best describes your current employment situation? *(please select one only)*

   ❑ Full-time ❑ Part-time ❑ Retired
   ❑ Homemaker ❑ Unemployed ❑ Student

Investment Background

1. Portfolio Value:
   - ❑ Less than RM5, 000
   - ❑ RM5, 001 – RM25, 000
   - ❑ RM25, 001– RM45, 000
   - ❑ RM45, 001– RM65, 000
   - ❑ RM65, 001– RM85, 000
   - ❑ RM85, 001– RM100, 000
   - ❑ > RM100, 001

2. Experience in stock market
   - ❑ Less than 5 years
   - ❑ 6-10 years
   - ❑ 11-15 years
   - ❑ 16-20 years
   - ❑ 21 years and above

3. What kind of stocks do you prefer? *(You may select more than one)*
   - ❑ Blue-chips stocks
   - ❑ Speculative stocks
   - ❑ Growth stocks
   - ❑ Income stocks
   - ❑ Tech stocks
   - ❑ Cyclical stocks
   - ❑ Defensive stocks

4. You are offered the opportunity to buy into a speculative property venture for $2, 000. You have a 50% chance of getting back $10, 000 within 5 years and/or a 50% chance of losing your money.
   - ❑ Definitely
   - ❑ Maybe
   - ❑ Probably not

	1 Not Important	2	3	4	5	6	7 Very Important
Overconfidence (Please indicate the extent to which you agree with each of the following)							
1) Would you increased your trading volume based on continuous gains from investment?	❑	❑	❑	❑	❑	❑	❑
2) Would you suggest others to follow you if you did well in past investment?	❑	❑	❑	❑	❑	❑	❑
3) Are you a better driver than average?	❑	❑	❑	❑	❑	❑	❑
4) Are you above average at your job?	❑	❑	❑	❑	❑	❑	❑
5) How strong do you agree the past performance of a hedge fund manager will affect the future prospects of investment strategy?	❑	❑	❑	❑	❑	❑	❑
6) Are you able to anticipate the end of good or poor market returns at the Kuala Lumpur Stock Exchange?	❑	❑	❑	❑	❑	❑	❑
How important of the following factors when making investment decision?							
7) Recommendation, advice and forecasts from professional investors.	❑	❑	❑	❑	❑	❑	❑
8) Overall past performance of the market.	❑	❑	❑	❑	❑	❑	❑
9) Own intuition of future performance.	❑	❑	❑	❑	❑	❑	❑
Risk aversion (How important are the factors indicated below?)							
A) Risk and cost factor							
A1) Cost cutting at the operations level	❑	❑	❑	❑	❑	❑	❑
A2) Technological advancement at firm level	❑	❑	❑	❑	❑	❑	❑
A3) Investor's tolerance for risk	❑	❑	❑	❑	❑	❑	❑
A4) Political stability	❑	❑	❑	❑	❑	❑	❑
A5) Unemployment rate	❑	❑	❑	❑	❑	❑	❑

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