

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 THE KUALA LUMPUR STOCK EXCHANGE**

A stock market is a place where offers to sell, purchases or exchanges of securities are regularly made and accepted, and where information concerning the prices of these securities is regularly provided. The capital market plays an important role in a nation's economic development, especially a developing country like Malaysia. It is regarded as a mechanism for the effective mobilisation of domestic funds to assist economic development and also for the efficient allocation of resources.

The securities market in Malaysia developed gradually when public trading of shares started on 9<sup>th</sup> May 1960. Stock trading modernized rapidly with the establishment of the Kuala Lumpur Stock Exchange (KLSE) on 2<sup>nd</sup> July 1973. The number of public listed companies grew from 262 in 1973 to 815 on December 2001. The KLSE is the only stock market in the country. The importance of KLSE has been acknowledged by the government with the establishment of the Securities Commission to oversee the sound development of the securities industry in Malaysia.

This public company limited by guarantee offers a central market-place for both local and foreign buyers and sellers to transact in such securities as ordinary and preferred shares, bonds, loan stocks, loan notes, property trust units, warrants, transferable subscription rights, and call warrants. Companies are listed on one of two boards – the *Main Board* and the *Second Board*. The former comprises large companies, while the latter consists of smaller firms whose paid-up capital does not exceed 20 million Malaysia Ringgit (RM20m).

The KLSE Main Board market efficiency has always been a subject of discussion among the investors. Neoh, *et al.* (1990) found that abnormal profits can be earned by using the Moving Average method and went on to question the validity of efficient market in Malaysia. On the other hand, Mansor (1989) found that stock prices do not move in random, therefore rejecting the efficient market hypothesis.

The availability of information to the public to enable investors to act fast and in accordance to change in any public listed company plays an important role in effective funds allocation of the nation. Hence, the stock market has to be operating in an efficient way in which stock prices must provide accurate signals so that funds can be allocated effectively. Efficiency means relevant information is readily reflected in security prices. This implies that past price trend cannot be used to predict future price direction.

## **1.2 THE RANDOM WALK THEORY**

Beginning in the late nineteenth century with the Charles Dow theory, many market analysts thought they could predict future stock prices by examining past transactions. As early as 1900, academic researchers such as the French statistician, Louis Bachelier began to suspect that past price movements did not greatly affect future movements. By 1960s, results suggested that price movements were nearly random. The new theory became known as the random walk hypothesis.

To describe stock prices as a random walk suggests that price movements cannot be expected to follow any type of pattern; that is, price movements are independent of one another. In order to find a theory for such behavior, researchers developed the concept of efficient markets.

## **1.3 THE EFFICIENT MARKET HYPOTHESIS**

Efficient market hypothesis postulates that all security prices are equal to its investment value at all time. A market in which security prices at any time fully reflect all available information is called “efficient” (Fama, 1970). Fama documented three levels of market efficiency.

The first hypothesis is the weak form efficient market hypothesis. The weak form efficient market hypothesis stipulates that historical price and volume data for securities contain no information which can be used to earn a trading profit above what could be attained with a naive buy-and-hold investment strategy. This hypothesis suggests that technical analysis is well recorded but worthless folklore.

Fama's semi-strong form efficient market hypothesis specifies that markets are efficient enough for prices to reflect all publicly available information. Consequently, only those insiders who have access to valuable information could earn a profit larger than what could be earned with a naive buy-and-hold strategy in a semi-strong form efficient market.

Fama's third hypothesis is called the strong form efficient market hypothesis. It claims that no one can make abnormal profit from publicly or privately available information. This information includes information available to persons who have monopolistic access. The rates of stock price changes are independent random variables.

#### **1.4 STOCK MARKET ANOMALIES**

Anomalies and seasonality of stock returns imply that the market is not efficient. The empirical evidences of anomalies in stock prices have raised concern on

the efficient market hypothesis. The existence of puzzling patterns in stock prices due to calendar timing and firm size have questioned the validity and suitability of not only the efficient market hypothesis, but also both the capital asset pricing model (CAPM) and arbitrage pricing theory (APT).

Various kinds of anomalies are found and some are re-tested using latest data. Some of the popular anomalies found are January effect, Chinese New Year (CNY) effect, firm size effect, turn-of-the-year effect, day-of-the-week effect, holiday effect, weekend effect and time-of-the-day effect. The studies of the day-of-the-week effect have been carried out by Cross (1973), Gibbons and Hess (1981), Rogalski (1984), Jaffe and Westerfield (1985a), Smirlock and Starks (1986), Martikainen and Puttonen (1996), Clare, *et al.* (1998), and Kok (2001).

Besides the day-of-the-week effect, detailed studies of the weekend effect have been carried out by French (1980), Lakonishok and Levi (1982), Keim and Stambaugh (1984), Wong and Ho (1986), and Connolly (1989). Lakonishok and Smidt (1988), Ziemba (1989) and Pettengill (1989) have all studied the holiday effect. Goh and Kok (2001) have been carried out the time-of-the-day effect on KLSE over the period from December 1997 to April 1999.

Anomalies that are related to this study include turn-of-the-year effect, firm size effect and month-of-the-year effect such as January effect and CNY effect. The January effect refers to high positive stock returns during first month of the year. The

CNY effect refers to pre-CNY rally that exists in stock markets where majority of the investors celebrate CNY. Firm size effect refers to the phenomenon whereby the average returns of small firm size stocks are substantially higher than large firm size stocks.

## **1.5 RESEARCH OBJECTIVES**

This study utilises historical data covering a 15-year period from January 1987 to December 2001 for the Kuala Lumpur Stock Exchange (KLSE) and for the analysis on stock returns. This study focuses on the seasonality of stock returns in the KLSE and has two research objectives. Firstly, this study aims to establish the pattern of seasonality in monthly stock returns. Months that have significantly high or low returns will be identified. Is there a January effect whereby stock returns in January are abnormally high? Secondly, this study will determine the relationship between seasonal stock returns and firm size. Is there a size effect whereby small firm size stocks outperform large firm size stocks?

Over the past three decades and especially during the 1990s, the KLSE has undergone major changes in terms of its market structure, trading infrastructure, rules and regulations, and information technological advancement to cater for the rapid growth of the Malaysian equity market. In addition, the integration of the Malaysian

stock market into the global financial markets especially during the 1990s has led to an even more complex and demanding trading environment not seen in the 1980s.

Therefore, the internal structural of Malaysian equity market changes in the 1990s and the integration of the Malaysian equity market into the international markets conducting a more up-to-date data to examine the return seasonality. The time period covered was further divided into two sub-periods to enable a closer examination on the return patterns during the two sub-periods.

This study also attempts to find the plausible cause(s) for the observed seasonal patterns. Since there is no capital gain tax imposed in Malaysia, the tax-loss selling hypothesis cannot be used to explain the January effect in the country although individuals and most institutions have a January-December tax year period. Instead, the anomaly might be best explained in the context of the global market integration as revealed by Aggarwal and Rivoli (1989), Ho (1990), Bekaert and Harvey (1995), Haugen and Jorion (1996), Fraser and Power (1997), Clare *et al.* (1998), Ackert and Anthanassakos (2000), Choudhry (2000), Soenen and Johnson (2000) and Bilson *et al.* (2000).

With respect to the Malaysian stock market both Bekaert and Harvey (1995) and Harvey (1995) find evidence to suggest that while many emerging markets are poorly integrated with developed capital markets, the Malaysian market is reasonably well integrated. With respect to the statistical properties of Malaysian stock returns,

Harvey (1995) finds that we can accept the null hypothesis of normally distributed returns for the developed stock markets in the study of Japan, United Kingdom and United States of America.

The integration increases the correlation between the Malaysian stock market with the overseas markets, thus, making the local market vulnerable to the volatility in the international markets. The 1997 Asian financial crisis gives strong indication on the susceptibility of the Malaysian market to external shocks that could only happen if there is a high level of correlation among the affected markets.

The January effect may also be explained by the “portfolio rebalancing” hypothesis, the “window dressing” hypothesis, and the “parking the proceeds” hypothesis based on the active participations of institutional investors comprising local and international fund managers in the Malaysian market. Meanwhile, the abnormal return observed in February particularly during the 1990s gives evidence of the CNY effect that is attributed to the dominant role of the ethnic Chinese investors.

## **1.6 SIGNIFICANCE OF THIS STUDY**

This study further extends the research effort in size effect and seasonality in stock returns which have been done on the local bourse. Firstly, the common stocks with ten years and above of listing on the KLSE are included in the analysis.



Secondly, the data covers a longer period of 15-year from January 1987 to December 2001. Thirdly, this study not only investigates the seasonality in stock returns but also the relationship between the seasonal returns and the firm size effect.

The findings of this study will be of great interest to investors, stock brokers, fund managers, KLSE and academicians. It will further enlighten our understanding on the behaviour of stock returns in the local bourse. Implications on investment strategy will be useful to stock investors.

## **1.7 ORGANIZATION OF THIS PAPER**

To be concise and coherent, the paper is organized in the following manner. Chapter one introduces the subject matter, specifies the research objectives and the significance of the study. Chapter two reviews the work done by other researchers in the field. Important findings are summarized.

Chapter three encompasses the research methodology of various statistical tests employed in the study; both parametric and non parametric. The parametric tests employed are One-sample t-test, One-way ANOVA  $F$  statistical test and Tukey test whilst the non parametric test employed is the Kruskal-Wallis test. Data collection, computation and statistical tests are explained.

In chapter four, the results from the data analysis are presented and summary statistics are tabulated. Finally, chapter five summarizes the important findings of this study and compare them with the results obtained by other researchers. The implications of the findings to theory and to stock investors are discussed. Also, areas for further research are identified.