

Chapter 5

Summary and Conclusion

5.1 Restatement of Objective of Study

The primary objective of this study was to examine empirically the existence of day of the week seasonality in the KLSE Second Board. This included investigation of the pattern of seasonality and testing for a Monday effect, if seasonality is found to exist in the Second Board. This was carried out using statistical tests such as the Oneway ANOVA test, Tukey test and Kruskal-Wallis test. The study was conducted on 31 Second Board stocks as well as on the Second Board Index and the Main Board Composite Index.

5.2 Conclusion Reached on the Existence of Day-of-the-Week Effect

The main findings of the study showed that of the 31 stocks analysed, only 9 of the stocks were found to exhibit day-of-the-week effect with 8 of them at significance level of 5% and 1 at significance level of 1%. When these 9 stocks were subjected to the Tukey's test to determine pairs of groups which have means that are significantly different, only 3 stocks have pairs of groups which are significant at the 5% level. The findings of the Tukey's test showed that Setegap has average Friday returns which are significantly different from Monday and Thursday returns, while GFB has average Monday returns which are significantly different from Wednesday and Friday returns, and Jaya has average Monday returns which are

significantly different from Wednesday returns. Since the number of stocks which exhibited the day-of-the-week effect is very much less than 50% of the stocks analysed we cannot conclude that individual stocks on the Second Board generally exhibited the day-of-the-week effect.

The Second Board index and the Main Board Index were similarly tested and the findings showed that both the indices exhibited strong day-of-the-week effect at significance level of 1%. When the data was divided into sub-periods, from 2 January 1992 to 31 December 1993 and from 3 January 1994 to 15 September 1995, the findings showed mixed results. The results indicated seasonality effect for the Second Board Index in the first sub-period but not in the second sub-period whilst the Composite Index had reverse findings that is seasonality in the second sub-period but not in the first sub-period. Thus, the day-of-the-week effect for the Second Board Index for whole study period was strongly influenced by the returns of the first sub-period while the day-of-the-week effect for the Main Board Composite Index was highly influenced by the returns of the second sub-period.

5.3 Conclusions Reached on the Pattern of the Seasonality

The daily mean returns distribution showed that 12 out of the 31 stocks analysed have lowest (and negative) returns on Monday, 9 have lowest (and negative) returns on Thursday, 8 have lowest (and negative) returns on Tuesday and 2 have lowest (and negative) returns on Friday. When the results are viewed purely on negative returns, 26 out of the 31 stocks have negative returns at the beginning of the week (i.e. Monday and Tuesday). This represents almost 84% of the stocks analysed. Out of the 12 stocks with lowest (and negative) returns on Monday and

8 on Tuesday, it is found that 5 of the Monday mean returns are significantly different from the average mean returns of the other days while only 1 of the Tuesday returns is significantly different from the other days.

On the other hand, 20 of the sample stocks were found to have highest (and positive) Friday returns, 7 have highest (and positive) Wednesday returns, 3 have highest (and positive) Monday returns and 1 has highest (and positive) Thursday return. When the number of stocks with high (and positive) Thursday returns and Friday returns are added up, the total number of stocks which exhibit high (and positive) returns at the end of the week (i.e. Thursday and Friday) is 21 or 68% of the sample stocks. Of the 20 stocks with high (and positive) returns, only 6 are found to have mean returns that are significantly different from the other days and only 1 stock out of the 7 stocks with high (and positive) Wednesday returns has mean return that is significantly different from the other days. Based on the findings above we can conclude that, in general, individual stocks on the Second Board exhibit low (and negative) returns at the beginning of the week and high (and positive) returns at the end of the week with the majority occurring on Friday.

The findings for the Second Board Index and the Main Board Composite Index showed that both indices exhibited low (and/or negative) returns on Monday and Tuesday and high (and positive) returns on Friday. Only the Composite Index has Monday mean returns that is significantly different from the other days whilst the Second Board Index has the Friday mean returns that is significantly different. The findings for the first sub-period are generally similar to that of the whole study period except the significance level differed. For the second sub-period, both indices exhibited very low (and negative) Monday returns and high (and positive) returns on Friday. However, only the Friday returns for the Second Board Index is significant

at 5% level.

When the findings of the daily average returns distribution of the Second Board and the Main Board Composite Index of this study were compared with findings of other countries, it is found to be consistent i.e. generally low (and negative) Monday returns and high (and positive) Friday returns.

5.4 Possible Explanations of Day-of-the-Week Effect

While the focus of this study is just to examine the existence of seasonality and not on the causes, possible explanations of the causes have been put forward in other studies. Some of the plausible explanations include:

Settlement Effect

It is argued that the time taken from the date of transaction to payment date could be an explanation for the seasonality effect. In Malaysia it takes up to 7 trading days before an investor is paid after a selling transaction. Therefore, an investor who transacts on Monday can expect to be paid on the following Wednesday while another investor who transacts on Friday can only hope to be paid on the Wednesday after next, i.e., a total of 11 calendar days compared with the Monday investor who will be paid within 9 calendar days. Therefore the Friday investor will require a higher return than a Monday investor to compensate for the longer waiting period. This explanation may not be applicable in this study since all the sample stocks since November 1992 are placed under the Central Depository System which reduces settlement time to within 4 days. Besides, Jaffe and Westerfield (1985b) in their studies of U.K., Canada and Japan found that settlement procedures cannot explain the weekly seasonal at all.

Information Effect

Some researchers put forward the explanation that companies that have bad news to announce tended to do so during the weekend after the market has closed. This, they believe, will allow the investors to have time to *digest* the bad news. As such when the market reopens on Monday, the impact of the bad news would be less but not totally eliminated. This argument, however, has not satisfactorily explained the negative Monday returns because when investors become aware of the practice by companies, they would have discounted this factor in their pricing.

Trading Pattern of Individual and Institutional Investors

There are conflicting findings with regards to the relationship between weekly seasonality and the trading patterns of individual and institutional investors. The study by Lakonishok and Maberly (1990) concluded that individual investors tended to carry out more selling transactions than buying transactions on Monday thus explaining the low Monday returns. Sias and Starks (1995), however, do not concur with the findings of Lakonishok and Maberly (1990) and counter with their findings which show securities with substantial institutional holdings exhibited significantly greater turnover seasonality than comparable-sized securities with substantial individual investors holdings.

Measurement Errors

It has been suggested that the higher Friday returns and lower Monday returns could be a result of random errors committed on Friday and Monday, respectively. However, findings by Keim and Stambaugh (1984) and also Jaffe and Westerfield (1985b) have dismissed this

suggestion.

5.5 Implication of Study Findings

The findings of seasonality in the KLSE Second Board has cast doubts that it may not be *weak form* efficient as concluded by Lee (1995) in her study. The possibility to predict the pattern of the stock returns by analysing past price data goes against the foundation of *weak form* efficiency. However, it is generally accepted that, when the transaction cost is factored into the 'equation', it is unlikely for an investor to derive abnormal returns even with the knowledge of this pattern of price behaviour.