

# CHAPTER 4 RESEARCH RESULTS

## 4.1 Empirical results

In this chapter, the results and findings on the three hypotheses will be discussed in turn starting from hypothesis 1 through to hypothesis 3.

### Test for Hypothesis 1: Insider trading exists in the Kuala Lumpur Stock Exchange.

The cumulative market adjusted returns are plotted separately for purchases and disposals in Figure 1 and Figure 2.

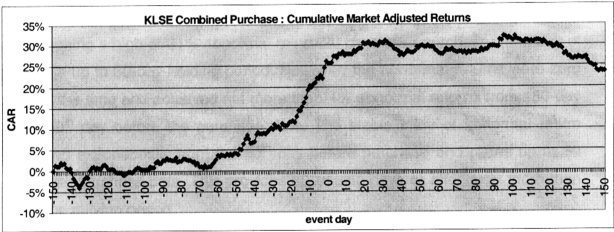


Figure 1 Purchases: cumulative adjusted market return

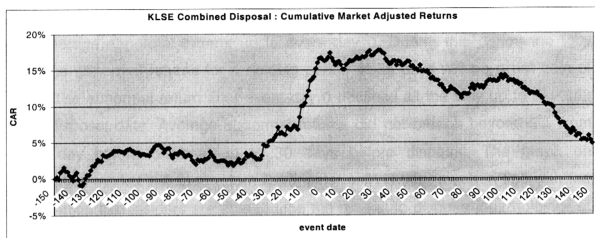


Figure 2 KLSE Disposals: cumulative adjusted market return

Figure 1 shows that on average, insiders stand to gain approximately 6% average abnormal returns (starting at 25% abnormal return from day of purchase and reaching a high of 31% abnormal return 30 days after purchase) from day of purchase up to 30-day holding period. However, the abnormal returns were zero most of the time and achieved not more than 4% abnormal returns from 150-day up to 60<sup>th</sup> day before the purchase date. The stable state of abnormal return increased exponentially from the 50<sup>th</sup> day before purchase and rallies up to 30 days after purchase date. This provides 80 trading days or effectively more than 4 months rallying period.

The trend of the graph in figure 1 is very much within reasonable expectation of an "insider buy" where the price of the stock is expected to increase after purchase and reach a plateau thereafter. The abnormal return remained stagnant from day 30 after purchase onwards and starts to decline from day 120 onwards. The graph shows that the abnormal return began to loose ground 30 days after purchase.

Figure 2 shows an interesting trend of abnormal return for "insider sell" where the average abnormal return reached 17% on transaction date i.e. event day 0. Prior

to event day 0, the stock prices rallied from day 35 before disposal date with a 3% average abnormal returns up to event day 0. During this period the total average abnormal returns for a holding period of 35 days will be a net gain of 14%. The abnormal return after event day 0 declined all the way up to day 150 after disposal date. Average abnormal returns did not breach beyond 5% from 150<sup>th</sup> day before disposal up to 30 days before disposal. The graph on cumulative market adjusted return for "insider sell" is very much in line with the expectation that insiders are able to time the market to dispose their holdings at the peak of stock price in order to maximise their gain on such trades.

Both the graph on "insider buy" and "insider sell" confirmed that insider trading exists in the KLSE. Although it is difficult to ascertain when exactly the insiders purchase the stocks before they disposed their stock, the results very clearly shows that insiders sell their stock to maximise on their abnormal returns. This further strengthened the conclusion that there is evidence of insider trade especially based on empirical testing for insider sell. This indicates that insiders can predict abnormal future stock price changes.

As for "insider buy", the results showed that insiders purchase stock prior to an abnormal rise in stock prices. However, the average abnormal return cumulatively rose 50 days before insider started to purchase the stocks. Although this observation is quite consistent to the logic that an insider will purchase at a low and sell at the high, the observation here did not show that insiders bought at the lowest point to maximise on the returns. Nevertheless, the insiders still manage to make a gain of 6% average abnormal return.

Figure 1 demonstrates that if stocks were purchased at the 50<sup>th</sup> day pre insiders purchase, where average abnormal return is near 0%, an investor stands to gain more than 30% abnormal return if he / she holds the stock for more than 4 months. But it will be quite difficult to time the market 50 days trading days before insiders trade more so in identifying the true insiders trades. Further studies may

have to be carried out to examine on how to time the market pre insider purchases. The difficulty in identifying true insider may partially explain for purchases not made at the lowest point of the abnormal return to maximise on the returns from the trade. The true insiders may have bought at the lowest point of the abnormal returns.

Overall the results confirmed Jeng, Metrick and Zeckhauser (1999) findings that insider purchasers earns abnormal returns but sale portfolio does not earn abnormal returns after transaction date. This is similar to Lakonishok and Lee (1998) findings that market on average do well when insiders buy and markets do poorly when insiders sell. Insider trading seems to predict market movements and could be used as a tool to time the market. However, this study contradict with Lakonishok and Lee (1998) other findings that very little market movement is observed when insiders trade and when they report their trades to the SEC. This contradiction can be explained by Fishman and Hagerty (1995) findings that an insider's expected trading profit can be higher with disclosure. The rationale put forward by the authors is that an insider with no fundamental information has the incentive to disclose his/her trade as he wants to move the price. However, an insider with fundamental information does not have the incentive to disclose his/her trade as he does not want to move the price. Thus, mandatory disclosure can have an effect on the market and will move the price and creates a profitable subsequent trade.

**Test for Hypothesis 2: The insider traders are able to earn a higher abnormal return on the KLSE Second Board compared to KLSE Main Board.**

Hypothesis 1 reveals that there are insider trades on the KLSE but there remains a question of whether the abnormal returns earned is more significant in the KLSE Main Board or Second Board. In order to find out whether insiders traders can earn a more significant abnormal return on the KLSE Main Board or Second



Board, the insiders purchases and disposals are segregated out in figure 3 to figure 6 below.



Figure 3 KLSE Main Board insider purchases

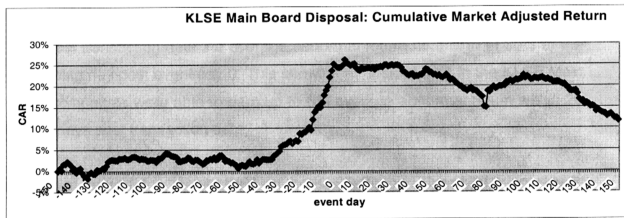


Figure 4 KLSE Main Board insider sales

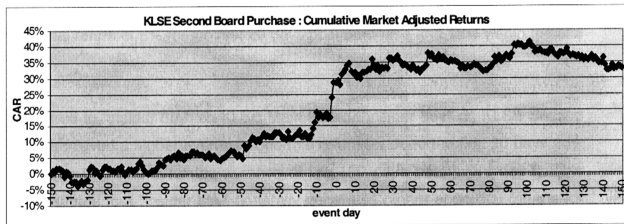


Figure 5 KLSE Second Board insider purchases

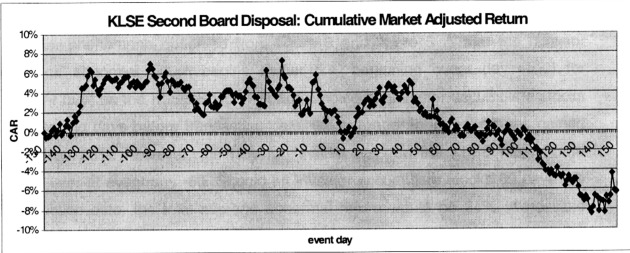


Figure 6 KLSE Second Board insider sales

Figure 3 shows that at the point of transaction date, average abnormal return is 24%. Post transaction date the average abnormal return hit a high of 30% at the 20<sup>th</sup> trading day post event day 0. This shows that "insider buy" in the KLSE Main Board companies were able to earn up to 6% average abnormal return within 20 trading days post transaction date.

Looking at figure 5 for "insider buy" on the KLSE Second Board, at event day 0, the average abnormal return is 28% and hit a high of 41% at day 100. However for the first 20 trading days post transaction date, the highest average abnormal return achieved is only 36%. Hence, an insider stands to gain an average abnormal return of 8% for the first 20 days post purchase and 13% within the first 100 days.

Compared to "insider buy" on KLSE Main Board, "insider buy" on KLSE Second Board achieved a higher average abnormal return for up to the first 20 days post event day 0 and also for the duration of the 150 days post event day 0. This demonstrates that "insider buy" generally generates higher abnormal returns for companies listed on the KLSE Second Board as compared to companies listed on the KLSE Main Board.

Another phenomena observed from figure 3 and figure 5 is that the rally for average abnormal return begins earlier (i.e. beginning event day -100) for "insider buy" on the KLSE Second Board. Should an investor accumulate stocks 100 trading days before transaction date, the average abnormal returns gained would be 28%. However, the rally for "insider buy" on the KLSE Main Board starts later at event day -60. Should an investor accumulate stocks 60 days pre transaction date, the total average abnormal return would be 24%. A possible reason for the rally could be that true insiders began cumulating the stocks earlier than registered insiders.

Referring to figure 4, the analysis on "insider sell" on the KLSE Main Board reveals that insiders maximised their average abnormal returns by selling at the height of 25% at event day 0. As it is not possible to find out the purchase date for the disposals and hence the holding period for the stocks, a theoretical holding period of 10 and 30 days pre transaction date and 10 post transaction date will be analysed. The average abnormal return for event day -10 is 15% and 6% for event day -30. Hence, the net gain on will be 10% and 19% respectively for a 10 day and 30 day holding period. On event day 10, the cumulative abnormal return is approximately 23%, hence a net lost position is recorded for 10 days post transaction date. In fact, there is no gain post transaction date as the average cumulative abnormal return is less than 25%.

Generally, the graph (figure 6) on "insider sell" for companies on the KLSE Second Board does not reveal any consistent trend or pattern. A closer analysis of the graph shows that at event day 0, the average abnormal return is 2% but within 10 trading days post event day 0 the abnormal return nose dived to -0.78%. Therefore, should the stocks on KLSE Second Board be held post event day 0, the potential lost could be up to 2.78% negative returns. Although the graph on "insider sell" does not indicate that insiders can maximise abnormal

return at the point of disposal, it does indicate that insiders are able to avoid a loss within a span of up to 10 days.

Figure 4 and 6 demonstrates that insider trades have more significant impact on the KLSE Main Board for "insider sale" in maximising abnormal returns. However, "insider sell" on the KLSE Second Board have the ability to avoid losses up to 10 trading days horizon.

**Test for Hypothesis 3: Outside investors can use the publicly available information about insider transactions to earn abnormal profits.**

Insiders are required to make mandatory disclosures to the regulatory authorities on change in their interest in companies listed on the KLSE within 14 days, latest, from date of actual insider trades. A short horizon of 30 days can be used to analyse to see whether outside investors can use the publicly available information about insider transactions to earn abnormal profits based on published purchases and disposals of shares by registered insiders. The graphs of the results on average abnormal profit earned are depicted in figure 7 for insider disposals and figure 8 for insider purchases.

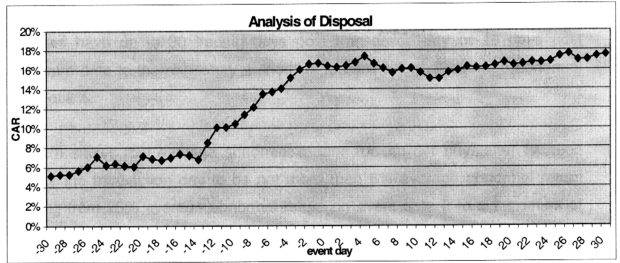


Figure 7 KLSE 30-day window insider disposals

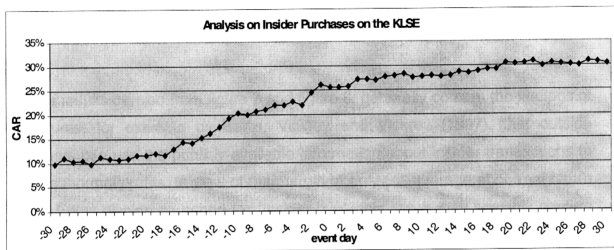


Figure 8 KLSE 30-day window insider purchases

Figure 7 shows that average abnormal returns for "insider sell" after fourteen days of the transaction day are not more than 2% average abnormal return. The graph shows that a trader can only gain up to a maximum of 18% average abnormal return from the 14<sup>th</sup> day up to the 30<sup>th</sup> trading day post transaction day. After netting off the 16% average abnormal return on the 14<sup>th</sup> day, the net average abnormal return should only be 2% average abnormal return. Therefore, it can be inferred that after public disclosure of disposal by insiders, uninformed outsiders have up to 30 trading days post transaction day or 16 days post disclosure date to the regulatory authorities to earn a further average abnormal return of 2%.

Figure 8 shows that average abnormal returns for "insider buy" after fourteen days of the transaction day to be not more than 6% average abnormal return (ranging from 25% average abnormal return on event date 0 to a maximum of 31% abnormal return). Therefore, it can be inferred that after public disclosure of purchases by insiders, uninformed outsiders by mimicking the action of insiders can earn an average abnormal return of 6% up to 30 trading days post

transaction day or 16 days post disclosure date to the regulatory authorities. Nevertheless, the margin as in the case of "insider sell" is rather small and should transaction costs be taken into account, such margin may possibly be wiped out.

These results derived from figure 7 and figure 8, generally confirm the findings of literatures, for example by Bettis, Vickrey and Vickrey (1997), that outside investors can use the publicly available information about insider transactions to earn abnormal profits. In view of the margin of only 6% average abnormal return gained post disclosure period for "insider buy", this result may possibly confirm the study by Seyhun (1986) and Rozeff and Zaman (1988) which found that net of transaction costs, outsiders do not benefit by imitating insiders.