UNIVERSITI PUTRA MALAYSIA

EFFECTS OF INSIDER TRADING ON MARKET EFFICIENCY AND VOLATILITY IN BURSA MALAYSIA

LYE WING FAH

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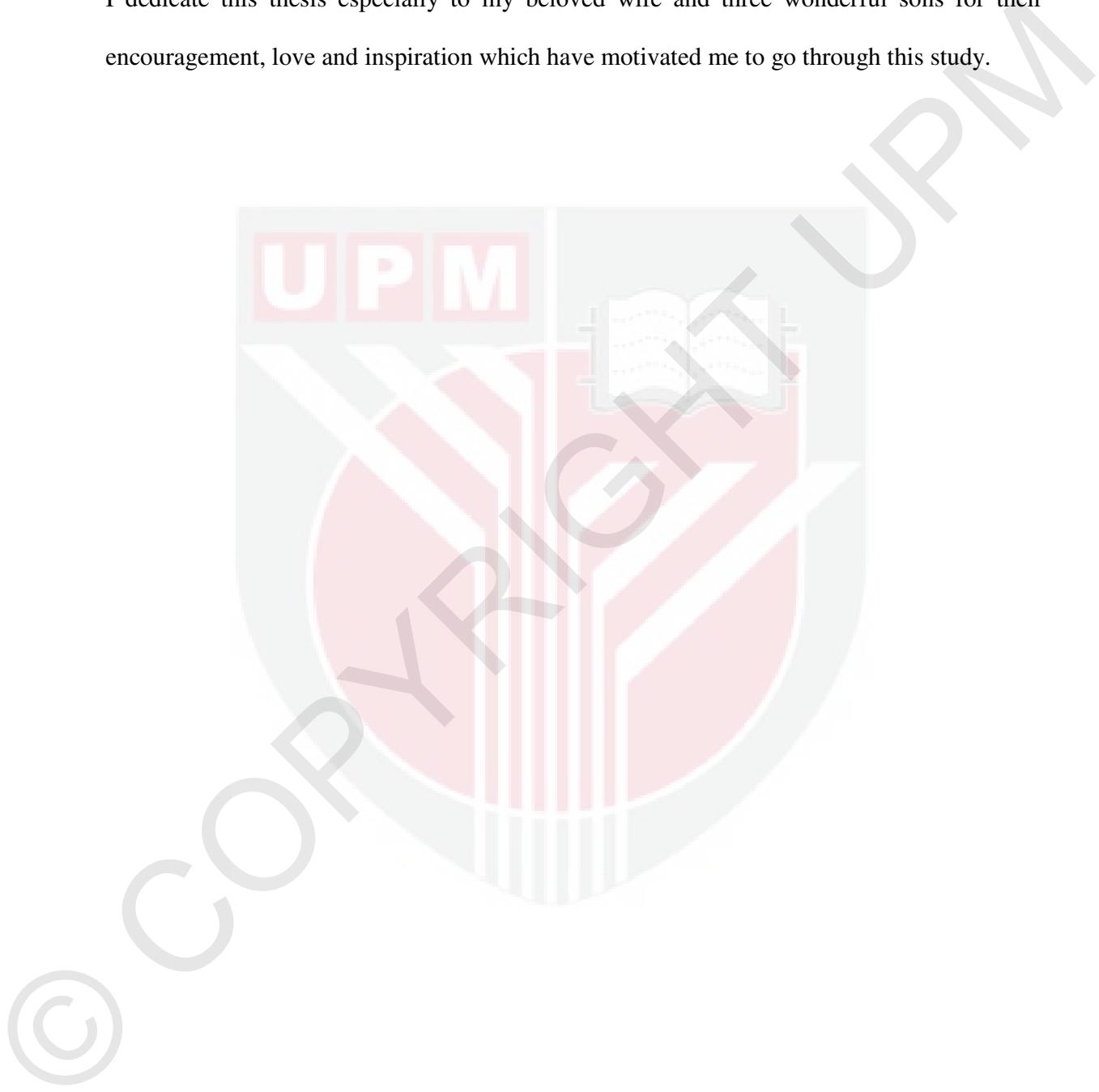
By

LYE WING FAH

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

March 2011

DEDICATION

I dedicate this thesis especially to my beloved wife and three wonderful sons for their encouragement, love and inspiration which have motivated me to go through this study.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy.

EFFECTS OF INSIDER TRADING ON MARKET EFFICIENCY AND VOLATILITY IN *BURSA MALAYSIA*.

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March 2011

Chairman: **Professor Annuar Md. Nasir, PhD**

Faculty: **Faculty of Economics and Management**

The general objective of this study is to investigate evidence for strong-form informational efficiency of Bursa Malaysia. It provides evidence for whether outside investors can use information about insider transactions to earn abnormal profits. Additionally, the study attempts to establish evidence for market volatility as a result of insider trades. These three objectives are examined in reference to the efficient market hypothesis, rational expectation theory, utility theory, random walk theory, noise theory and chaos theory. This study is important because of the investment implications of insider trading as they are of special interest to stock investors, analysts, policy-makers, regulators and to a certain extent, the academic community. Each group looks at insider trading from a different perspective and how investors and the market in general can benefit from insider activities. The contribution of the study is clarifying whether insider trading is beneficial or destructive to Bursa Malaysia.

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The research uses insider trading data of Bursa Malaysia sourced from Bloomberg, Singapore and I-capital Malaysia. The insider transactions involve filings made to Bursa Malaysia from 1 July 2003 to 30 June 2008. The number of insider transactions is 5799 which were transacted from 70 KLCI component stocks.

This study uses the market model to investigate the availability of abnormal profits to insiders and the GARCH model to study the effect of insider trading on the volatility of Bursa Malaysia. In order to examine whether insider trading exists in Bursa Malaysia and whether it is strong form inefficient, the average cumulative abnormal returns (ACAR) are plotted separately for insider buy and insider sell transactions. Generally, average cumulative abnormal returns from insider buy transactions tend to be positively sloped. After buying, share prices will still go up. Insider sell transactions also maximize returns prior to insiders disposing off their shares. After selling, the share prices will come down.

Numerous studies conclude that insiders earn significant abnormal profits by trading the securities of their own firms. Estimates of insiders' profits of these studies range from 3% to 30% during holding periods of eight months to three years. The result for insider buys is found to be within expectation. It enables insider buy to make approximately 3.2% abnormal profits from owning a security from event day up to 114 days.

However, the result turns out to be completely different for insider sells which is inconsistent with existing theory. After selling, there are still abnormal profits of 7.01% over 91 days. This suggests that there is collusion with a third party to make abnormal profits for

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insider sell. It is argued that the evidence is indicative of manipulation of the stock prices by insider collusion. The results of CAR also provide evidence that insider trading exists in Bursa Malaysia. The existence of insider profits has been considered as evidence inconsistent with the strong form of efficient market model. As the market is not able to price to fully reflect insider information of buy transactions, this means that there is still room for abnormal profit to be made even after the information is made public which is consistent with the Chaos Theory. Hence, Bursa Malaysia market is strong form inefficient.

There is also academic evidence showing that outsiders who mimic the trading activities of insiders cannot make abnormal profits. This evidence is inconsistent with anecdotal evidence frequently mentioned in the press which shows that those outsiders who mimic the trades of insiders can earn abnormal profits. Numerous studies also give the same conclusion. However, there are studies with evidence that outsiders who mimic insiders are unable to make abnormal profits. This is consistent with semi-strong form efficiency.

From the study, outsiders can mimic the action of insiders to earn average abnormal profit of 2.86% for a period of 100 days. As this is a serious exception to the efficient market hypothesis, these outsiders violate semi-strong form market efficiency.

The study also shows that insider trading does influence and affect the market volatility of 38% of insider trades. Knowing that insider trading is a criminal offence, 62% of insiders will ensure that their trading does not affect the volatility of the market. Insiders may disguise their trading with stock pooling and friendly syndicates. A pattern has emerged in Bursa Malaysia that stock prices drop more violently, stock prices drop more than go up and

there is also a tendency for stock prices to drop more often. With this discovered knowledge, insiders will go for piggy-backing on insider trades and trading intensity.

The study concludes that the unfairness and volatility of insider trading will cause loss of investor confidence. Insider trading is not beneficial and can have adverse effects on Bursa Malaysia.

Abstrak tesis yang dikemukakan kepada senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah.

KESAN DAGANGAN DALAMAN KE ATAS KEBERKESANAN DAN KEMERUAPAN PASARAN DALAM *BURSA MALAYSIA*

Oleh

LYE WING FAH

Mac 2011

Pengerusi :   **Professor Annuar Md Nasir, PhD**

Fakult :   **Fakulti Ekonomi dan Pengurusan**

Objektif kajian ini adalah untuk mengkaji bukti kecekapan maklumat Bursa Malaysia sama ada ianya mengandungi kecekapan bentuk kuat. Ia juga menyediakan bukti sama ada pelabur luar boleh menggunakan maklumat tentang transaksi dalaman yang sedia ada untuk mendapatkan keuntungan luar biasa, Tambahan pula, ia juga menunjukkan sama ada pendagangan dalaman mempengaruhi dan memberi kesan kepada ketidakstabilan pasaran Bursa Malaysia. Ketiga –tiga objektif mengkaji hipotesis kecekapan pasaran, teori jangkaan rasional, teori utiliti, teori perjalanan rawak, teori bising dan teori haru-hara. Kajian ini adalah penting kerana implikasi pelaburan oleh perdagangan dalaman seperti mana ianya adalah minat khas kepada pelabur saham, penyelidik, pembuat polisi, penyelia pasaran dan ahli akademik. Setiap kumpulan melihat perdagangan dalaman menerusi perbezaan perpektif dan bagaimana pelabur boleh menikmatinya daripada sumber maklumat dalaman. Sumbangan kajian ini adalah hasil keputusan daripada kesan perdagangan dalaman ke atas

ekonomi melalui tiga objektif ini adalah input penting untuk merangka undang-undang yang mampu menyekat perdagangan dalaman Bursa di Malaysia.

Penyelidikan ini menggunakan data Bursa Malaysia daripada Bloomberg, Singapore dan I-Capital Malaysia. Transaksi dalaman dicatat oleh Bursa Malaysia daripada 1 Julai 2003 hinga 30 Jun 2008. Bilangan Perdagangan dalaman adalah 5799 di mana ianya diambil daripada 70 komponen stok KLCI.

Kajian ini menggunakan model pasaran untuk mengkaji ketersediaan keuntungan luar biasa kepada orang dalam dan model GARCH untuk mengkaji kesan daripada perdagangan dalaman ke atas ketidakstabilan Bursa Malaysia. Untuk menentukan kewujudan perdagangan dalaman di Bursa Malaysia dan sama ada ianya ketidakecekapan bentuk kuat, purata jumlah pulangan luar biasa dirajahkan secara berasingan untuk transaksi belian dalaman dan transaksi jualan dalaman. Secara umumnya, purata jumlah pulangan luar biasa daripada transaksi belian lebih kepada kecerunan positif. Selepas belian, harga saham akan meningkat. Jualan dalaman juga memaksimumkan pulangan dengan menjual saham. Selapas jualan, harga saham akan menurun.

Banyak kajian menyimpulkan bahawa orang dalam mendapat keuntungan luar biasa yang signifikan dengan membuat perdagangan sekuriti milikan firma mereka sendiri. Jangkaan keuntungan orang dalam bagi kajian ini di adalah antara 3% hingga 30% sewaktu masa pegangan diantara 8 bulan hinga 3 tahun. Kita mendapati bahawa keputusan untuk belian dalaman adalah dalam jangkaan. Ini membolehkan belian dalaman untuk mebuat sehingga

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3.2% keuntungan luar biasa daripada memiliki satu sekuriti daripada hari berlaku sehinga hari ke-114.

Bagaimanapun, keputusan itu berubah sepenuhnya untuk jualan dalam di mana ia tidak konsisten dengan terori sedia ada. Selepas jualan, masih terdapat keuntungan luar biasa 7.01% selama 91 hari. Ini bermakna ada pakatan dengan pihak ketiga untuk membuat keuntungan luar biasa bagi jualan dalaman. Kita mempertikaikan bahawa bukti itu adalah menunjukkan manipulasi harga saham oleh pakatan orang dalam. Keputusan CAR juga membuktikan bahawa perdagangan dalaman wujud di Bursa Malaysia. Kewujudan keuntungan dalaman telah dipertimbangkan sebagai bukti tidak konsisten dengan model pasaran kecekapan bentuk kuat. Memandangkan pasaran tidak berupaya untuk mencerminkan sepenuhnya maklumat belian transaksi dalaman, ini bermakna masih ada ruang untuk keuntungan luar biasa boleh dicapai walapun selepas maklumat ini diberitahu secara umum di mana ianya konsisten dengan teori huru hara. Maka, pasaran Bursa Malaysia adalah tidak berkesan bentuk kuat.

Terdapat juga bukti akademik bahawa orang luar yang meniru aktiviti perdagangan dalaman tidak boleh membuat keuntungan luar biasa. Bukti ini tidak konsisten dengan bukti anekdot yang kerap disebut dalam akhbar. Akbar mempunya bukti anekdot yang menunjukkan bahawa orang luar yang meniru perdagangan dalaman juga boleh mendapatkan keuntungan luar biasa. Kajian membuat kesimpulan bawa orang luar yang meniru orang dalam boleh mendapatkan keuntungan luar biasa. Selepas itu, kajian memberikan bukti bahawa orang luar yang meniru orang dalam tidak boleh mendapatkan keuntungan luar biasa. Ini adalah konsisten dengan kecekapan bentuk separa kuat.

Daripada kajian ini, orang luar boleh meniru tindakan orang dalam untuk mendapatkan purata keuntungan luar biasa iaitu 2.86% untuk jangka masa 100 hari. Sepertimana orang luar disini yang meniru perdagangan dalaman memperolehi keuntungan luar biasa 2.86% adalah pengecualian serius kepada hipotesis kecekapan kerana mereka melanggar kecekapan pasaran bentuk separa kuat.

Kajian ini juga menunjukkan perdagangan dalaman ada mempengaruhi dengan memberi kesan kepada ketidakstabilan pasaran 38% daripada perdagangan dalaman. Dengan mengetahui bahawa perdagangan dalaman adalah kesalahan penayah 62% orang dalam akan memastikan bahawa perdagangan mereka tidak mempengaruhi ketidakstabilan pasaran. Mereka mungkin menyamar perdagangan mereka dengan kongsian saham dan sindikit. Ianya juga menemui timbulan corak dalam Bursa Malaysia apabila harga saham jatuh secara mendadak, harga saham jatuh lebih daripada naik dan ada kemungkinan yang harga saham jatuh lebih kerap. Dengan penemuan pengetahuan ini, orang dalam akan cuba mendapatkan sokongan pelahap ke atas perdagangan dalaman dan perdagangan keamatan.

Kajian ini menyimpulkan bahawa ketidakadilan dan kemeruapan perdagangan orang dalam akan menyebabkan hilangnya keyakinan pelabur . Perdagangan orang dalam tidak bermanfaat dan boleh member kesan buruk ke atas Bursa Malaysia.

ACKNOWLEDGEMENTS

I certify that an Examination Committee met on 4 March 2011 to conduct the final examination of Lye Wing Fah on his Doctor of Philosophy thesis entitled " Effects of Insider Trading on Market Efficiency and Volatility in Bursa Malaysia." in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination committee are as follows:

LAW SIONG HOOK, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

BANY ARIFFIN AMIN NOORDIN, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Internal Examiner)

CHENG FAN FAH, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Internal Examiner)

GRAEME NEWELL, PhD
Professor
Financial Markets, Property, Property Investment, Reits
School of Economics and Finance
Parramatta Campus
University of Western Sydney
Australia
(External Examiner)

_____

BUJANG BIN KIM HUAT, PhD
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

This thesis was submitted to the Senate of Universiti Putra Malaysia has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Annuar Md. Nassir, PhD
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

Taufiq Hassan Shah Chowdury, PhD
Assocoate Professor
Faculty of Economics and Management
Universiti Putra Malaysia.
(Member)

Sazali Zainal Abidin, PhD
Associate Professor
Department of Finance
Waikato Management School
University of Waikato
New Zealand.
(Member)

HASANAH MOHD GHAZALI. PhD
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institutions.

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LYE WING FAH

Date: 4 March 2011

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