THE PROBABLE FACTORS OF INSIDER TRADING IN MALAYSIAN FIRMS PRIOR TO ACQUISITION ANNOUNCEMENT

Majid Sarli
Putra Business School, University Putra Malaysia, Malaysia

Olivia Tan Swee Leng
Graduate School of Management, Multimedia University, Cyberjaya, Malaysia

Betsabeh Aghashahi
International Business School, Universiti Teknologi Malaysia,
Kuala Lumpur, Malaysia

Abduljalil Sarli
Faculty of Management, Universiti Teknologi Malaysia, Johor Baharu, Malaysia

ABSTRACT

The aim of this paper is to deliberate on the subject of nsider trading that is viewed as a financial crime as well as to identify major factors that can contribute to reducing it. In this case, this research is focuses on investigation of companies' acquisition announcements, which are listed from the traded volumes of Bursa Malaysia between 2008 and 2011. The study useda sample of considered thirty companies and their acquisition announcements are analyzed by examining their Average Cumulative Abnormal Volume Traded (ACAVT) to identify probable insider trading activities. The study affirms consequently, stronger laws, effective rules and regulations are recognized as efficient approaches to controlling insider trading at the financial markets, while the influencing factors on insider trading would be suggested as the proposed conceptual model for further research.

Key Words: *Insider trading; Financial crime; Bursa Malaysia*

Introduction

Financial crime usually involves fraud in various forms like corporate fraud, purported to occur in public or commercial sectors. It is the consequence of individuals or companies are taking advantage illegally as long as there are weaknesses to be exploited (Gottschalk, 2010). Hence, deficiencies that derive setbacks to controlling insider trading serve to illustrate the necessity of a effective laws to protect powerless or uninformed individuals.

Illegal insider trading refers generally to buying or selling a security, in breach of a fiduciary duty or other relationship of trust and confidence, while in possession of material, nonpublic information about the said security (the U.S Security and Exchange Commission). According to a study by Fama (1991), market efficiency proposition argues that one cannot consistently obtain returns higher than average market return on a risk-adjusted basis by considering public information at the time of investment and insider trading violates this proposition. Chae (2005) believed that insiders have informational advantages with respect to other financial market players. The benefits of taking advantage of accessed information lead to asymmetric distribution of information among investors; so the market will be inefficient while some (insider traders) have the potential to gain abnormal returns on their investments at the expense of normal investors. This skewed deal creates a danger of huge investment loss. In this regard, an increase the number of insider traders in the market causes to leave the normal investors with moral hazard and decrease investors' confidence in the market (Cho & Shaub, 1991).

Insider trading not only affects the financial market but also has impacts on corporations. According to Schafer & Ott (1992), insider trading discourages the corporation from positive investments, while insiders (e.g. managers) are allowed to get profit from the corporation's changing fortune. Managers that practice insider trading are more willing to choose risky investments to benefit from violent fluctuations in the firm's stock price. In this case, shareholders who are aware of this situation would be less supportive of further capital expenditure of the firm, which leads to the firm's direct investment to fall below its optimal level.

Moreover, insider trading has been existed in financial markets as long as stock markets have been in operation, but insider trading laws did not exist prior to Black Tuesday and the Great Depression in the United States (Herzel & Katz, 1987). Hence, there are initiatives in the countries to develop laws against insider trading. The study on insider trading has become a globally concerned topic to curtail this practice. The level of this concern is clear by rapid implementation of insider trading laws. Along this line, the number of countries that adopted this law before 1990 is only 34; but this number has increased to 87 by 2000 (Bhattacharya & Daouk, 2002). Nowadays, the vast majority of nations that possess organized securities markets have laws regulating insider trading and it is well developed in some countries like the United States, that is believed to have the most effective insider trading regulation in the world.

Insider trading law governance in Malaysia dates back to 1965 when in section 132A and 132B of the Companies Act this practice became prohibited. Part H, Chapter 9 of the Listing Requirements of Bursa Malaysia Securities Berhad also mentions insider trading as an illegal action. Under division 2 (Section 89-89P) in part IX of the Malaysian Securities Industries Act 1983, insider trading in its unlawful meaning is prohibited; considered as a crime and an insider defined as:

- 89E: A person is an insider if that person;

1. Possesses information that is not generally available which on becoming generally available a reasonable person would expect it to have a material effect on the price or the value of securities; and

2. Knows or ought reasonably to know that the information is not generally available.

Although insider-trading laws prohibit this action but the evidences of ongoing insider trading is troubling the investors mind. Current Malaysian law is generally considered as adequate in prohibiting insider-trading activities but the enforcement is not quite as satisfactory. Consequently, the prohibiting nature of insider trading laws demand more power and intention to implement them in order to reach and maintain a highly reliable and sound financial market (Kadir & Muhamad, 2012).

Insider trading usually occurs prior to price sensitive announcements such as mergers and acquisitions. Mergers and acquisitions by any initial reason affect the stock price of companies' especially the stock price of the target Company. With the knowledge that stock price of the target firm will increase by an announcement, insiders may engage in purchasing stocks of the target company secretly (Bender & Ward, 2005). Therefore, insider trading may increase the cost of takeover for bidder company at shareholders expense. This research only targets to study companies to find probable insider activities.

The novelty of this study is to probe the following research objectives:
Objective 1: To explore probable insider trading in the Malaysian stock market prior to acquisition announcements.

Objective 2: To determine the factors that serve to decrease the level of insider trading in Malaysian firms.

Event study is the method that is used to analyze the collected data. This method averages cumulative performance of stocks within the study period, while time (period) before and after the event has to be specified. The actual announcement day of acquisition is used to design an event window and the Average Cumulative Abnormal Volume Traded (ACAVT) is calculated to reveal probable insider trading activity in the sample.

The reminder of the paper is structured as follows. Section 2 provides an over view of insider trading literature. Section 3 is about methodology of the research and section 4 provides analysis and results. Section 5 is concludes the paper.

Literature

Debate over insider trading has a long history and there is still no agreement among researchers on whether insider trading harms financial markets and shareholders or it is instead beneficial. Generally, two views take fundamental debates on insider trading, which are impact of insider trading over the economy such as information quality and legal theories on insider trading like the soundness and fairness of financial markets.

Manne (1966) opened the debate over insider trading when he suggested that agency problems that shareholders and managers' face will be diminished if insiders were permitted to trade and profit from their own financial activities. Jensen and Meckling (1976) argued that deregulation of insider trading will lead to improvements in corporate decision-making; therefore, increasing firm value. Additionally, other researchers argued that insider trading increased efficiency in market information by releasing inside information (Jhon& Lang, 1991;Chau &Vayanos, 2008). Insider trading advocates believe that trades by insiders give signals to the market to prove or disprove rumors or information through corporations' public announcements (Chau & Vayanos, 2008).

Advocates of insider trading regulation on the other hand generally question fundamental arguments of deregulators. Regulators argue that there is no empirical evidence to show that deregulation of insider trading is the most efficient method of compensation for managers (Bainbridge, 1986). Regulators claim that the ability of managers to purchase stock limit managers compensation; therefore, compensation does not depend on value of information or contribution of information but on wealth. Thus, managers' ability to plan their own compensation is limited.

In addition, regulators believe that the compensation completely depends on external factors like structure of capital market, the level of risk for specific firm and the amount of outsider sale in average (Schafer & Ott, 1992). In addition, it cannot be ensured that the only producer of valuable information will be the only one who uses or takes advantage of it. For example, the manager, who creates news in favor of the corporation, is not the only person who might benefit from that news (Bainbridge, 1986). This issue leads to free-rider problem in unregulated insider trading.

Schafer and Ott (1992) argued that insider trading causes conflict of interest between shareholders and managers. They believed that insider trading is harmful for the corporation since it motivates managers to give priority to their own profit upon profit maximization for shareholders. An insider trader might not work for the corporation's best interests. Insider trading harms confidence of investors, which leads to a drop in the liquidity of security market, thus decreasing market efficiency (Fishman & Hagerty, 1992).

Read (2009) also argued for several reasons insider trading is an insidious activity and must be prohibited. A simple analysis of insider trading shows that early information receivers (insiders) have more rewards on their trading. However, four additional outcomes or features of insider trading can be mentioned that damages the market place or reduces the economic welfare (Read, 2009). First is the riskiness that creates insider trading, which is opposed to the innate uncertainty that is typically priced into the stocks for any investment. Second, insider trading can derive loss for non-insiders which is the profit that insiders have from unrevealed information. Third, is the unfair nature of insider trading. With ongoing insider trading activity, profits are higher for insiders and normal investors gain less profit, thus it depresses the rate of return in average for all investors in the stock market and makes it costly and difficult to raise capital for other investments. Finally, insider-trading activity in a market leads to the flight of good money from this market to a market with more transparency. This flight of investment and capital deters the market to make capital for other legal purposes.

Generally, effective laws and the efficient practice of insider trading laws is considered as the most credible method to control this crime (Durnev & Nain, 2007). Kabir and Vermaelen (1996) found in their research that after the introduction of restriction laws on insider trading, which bans insiders from trading two months earlier than earning announcements, trading volume decreased while the value of specific companies did not change. Frijns, Gilbert, and Tourani-Rad (2007) found that stronger laws lead to lower cost of insider trading. In particular, they found broader laws; laws that employ financial damage instead of criminal damage and laws that practiced stronger public regulation achieved the best results in controlling insider trading. Osaki (2009) believed that effective enforcement by the government is mandatory and critical to regulation of insider trading. Barnes (2011) argued that insider trading and market abuse are not even eliminated after insider trading law enforcement, but it continues at a high rate in the UK even though more provision and supervision on market are imposed through the Financial Services and Market Act 2000 (FSMA). Another issue that Barnes (2011) mentioned in his study is the lack of insider trading convictions in the UK. From 2005 till 2011, only 12 cases have been convicted in the UK while within this period, this rate in the US was 534 cases. This comparison magnifies the importance of enforcement

in law execution and not just regulation of law. Thevenot (2012) mentions a decrease in insider trading, as manager's perceived risk and punishment associated with detection of their illegal insider activity.

Various studies conducted on insider trading from different angles of this criminal activity expressed similar views. Although researchers are not unanimous on every single debated issue but collective wisdom and a majority of literatures discussed insider trading as a deceitful activity. The shortcomings in literature about insider trading in Malaysia and the importance of this issue encouraged us to conduct the current research. Effective regulation of this activity is highly recommended by researchers to control insider trading.

Methodology

The aim of this research is to uncover probable insider trading factors in the listed companies of Bursa Malaysia prior to acquisition announcements by investigation on the trading volumes of targeted companies.

The method of study in this research project is event study. Event study is founded on analysis of data and information around an event; in this particular research the event is acquisition announcements. Fama, Fisher, Jensen, and Roll (1969) are pioneers of the event study methodology. Many researchers focused on insider trading patterns prior to price sensitive announcements. Keowen and Pinkerton (1981) found that market reaction to upcoming mergers occurs earlier than the first public announcement. This reaction of the market is based on insider information. They showed that what could have been considered as a secret is traded in the market. However, their findings support a semi strong form of market efficiency hypothesis, as the majority of market reaction to merger completes a day after a public announcement.

An abnormal increase in trading volume turnover could be a sign for insider trading. Keowen and Pinkerton (1981) found that volume turnover increased as they approached the merger announcement. They mentioned that this increase in the amount of trading volume could be due to information leaked out. Meulbroek (1992) found that the volume turnover on days with insider

trading is higher than is expected. Another finding of Meulbroek (1992) is the responsibility of insiders for most of the abnormal trading volume. Ascioglu, McInish, and Wood (2002) found a noticeable increase in the volume of turnover in the 4 days prior to a merger announcement. Also, Clements and Singh (2011) examined the effect of takeover announcements on the trading patterns of targeted firms in the United States. They found a positive Cumulative Abnormal Return (CAR) and positive abnormal trading volume prior to investigated cases of successful takeover announcements. The combination of these findings leads them to conclude that informational asymmetry is likely to be occurring earlier than the official announcement. Clements and Singh (2011) also mentioned that insider trading prior to a successful takeover announcement exists in the market.

The literature provides a clue that insider trading has a positive relation with increase in trading volume. On the other hand, earlier researches stated that the likelihood of existing insider trading on approaching announcement day increases (Keowen & Pinkerton, 1981; Olmo et al., 2011). As abnormal volume turnover could be an indicator of probable insider trading activity, we test whether there is a significant abnormal volume turnover in the sample prior to merger and acquisition announcements.

Olmo, Pilbeam, and Pouliot (2011) showed that a majority of possible insider trading appears about 25 days earlier than public announcement. Besides, they also mentioned that all price movements before the announcement of price sensitive information are not due to insider activities and instead to other factors such as market manipulation and large position taking before the announcement influenced them. For the current study, if average daily abnormal volume turnover (ACAVT) in 21 working days of the stock market prior to an acquisition announcement was above 0, we take it as an evidence of probable insider trading activity or leaked information by insiders in the studied sample.

The sampling approach is carried out in three steps as multistage sampling by considering probability sampling as simple random sampling and stratified sampling. In the first phase, all announcements of listed companies in KLSE are reviewed to sort out the companies that have merger and acquisition announcement between 2008 and 2011and as the number of mergers within the period is so low, this study focuses on acquisition cases. These

companies are the companies that have been the target of acquisition. In the next phase, these companies are sorted based on relevance to this study and availability of trading volume per day prior to acquisition announcement. Sorted out companies are analyzed in the third phase to determine probable insider trading.

To detect probable insider trading, 30 companies were chosen for further analysis. These 30 announcements took place between 01 April 2008 and 17 October 2011. Data and information in the current study are secondary data that are publicly available. The data and information are obtained from online data sources and databases that are available such as Thomson Reuters data stream.

The actual announcement day of acquisition is used to design an event window and ACAVT would be calculated. The designated window for this study is 21 working days. The model of Chae (2005) is employed in this study to measure traded volume and obtain trading days with abnormal trading volume.

1. The day of merger and acquisition announcement is considered as day 0
2. Trading day after announcement is day 1 and consequently a trading day before is day -1
3. The Log Turnover is a logarithmic measure of traded volume per day divided to number of outstanding share
4. The Log Expected Turnover (EVT) is the mean of log turnover calculated for trading days t -84 to t -22 (It was 63 working days)
5. Abnormal Volume Turnover (AVT) is calculated from subtracting log expected turnover (EVT) from the log turnover.

To calculate ACAVT, the pre-announcement day was designated from day t-21 to t-1. ACAVT is generated by averaging AVT over the designated period. 21working days are considered as 1 month, which is consistent with other studies that used the event study method. The total event designated window is 84 working days

Log Turnover:

$$\tau\, i,t \;=\; ln\left(\frac{Trading\;\;Volume\;\;i,t}{Outstanding\;\;Shares\;\;i,t}\right) \qquad \text{(Equation 1)}$$

Log Expected Turnover:

$$\bar{\tau}\, i,t = \left(\frac{\sum_{t=-84}^{t=-22} \tau\; i,t}{63}\right) \qquad \text{(Equation 2)}$$

Abnormal Turnover (ξi,t) = Log turnover –Log Expected turnover

$$\xi\; i,t = \tau\; i,t - \bar{\tau}\; i,t \qquad \text{(Equation 3)}$$

Average Daily Cumulative Abnormal Volume Turnover (ACAVT)

$$ACAVT \;=\; \left(\frac{\sum_{t=-21}^{t=-1} \xi\;\; i,t}{21}\right) \qquad \text{(Equation 4)}$$

i = the share of under study company

t = time of event (days)

The equations are assessed to analyze the collected data of companies for each announcement separately. The goal of the tests is to measure ACAVT and to find whether ACAVT for each studied company is significantly more than zero. If the value of ACAVT was significantly more than zero, there is probable insider trading activity and vice versa.

Data Analysis and Results

The aim of this section is to evaluate probable insider trading activity prior to acquisition announcements in Bursa Malaysia. The data analysis is based on the work of Chae (2005) to get ACAVT of the data.

Besides calculation of abnormal turnover of the sample to identify probable insider trading, graphs of trading volume for 84 working days prior to announcement (Figure1) day and abnormal turnover for 21 days prior to announcement (Figure 2) are constructed for the sample to have better understanding of the trading pattern. 21 working days are considered as a month and 84 days consequently as 4 months for the current study. The

trading volume graph (Figure 1) illustrates the trading pattern of the studied companies prior to announcement and it helps to have a vision of how the upcoming announcement influence trading. High trade volume days in trading volume graphs are also investigated to identify the motive or reason for that high trading volume in that particular day. This investigation was conducted to identify any kind of news or announcement that could influence investors to increase their trading volume. The graph for abnormal volume turnover (Figure 2) also shows abnormal returns for 21 days prior to the announcement. This graph clarifies how many days within a working month prior to the announcement, abnormal turnover (probable insider trading) occurred.

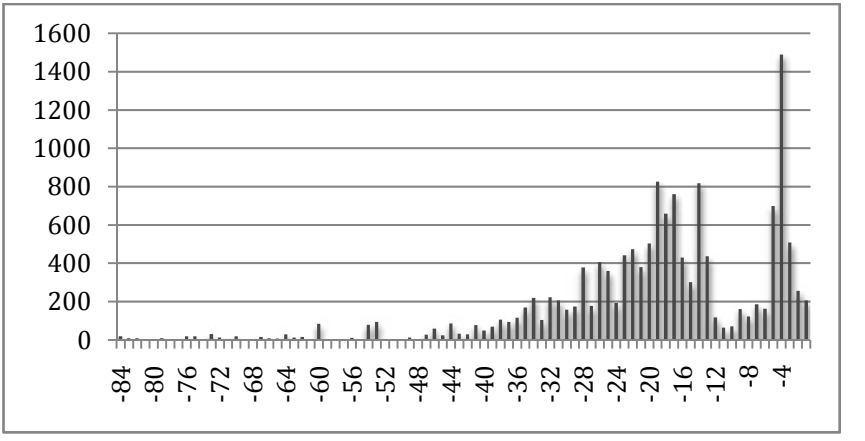

Figure 1: Trading Volume for 84 Working Days of a Sample

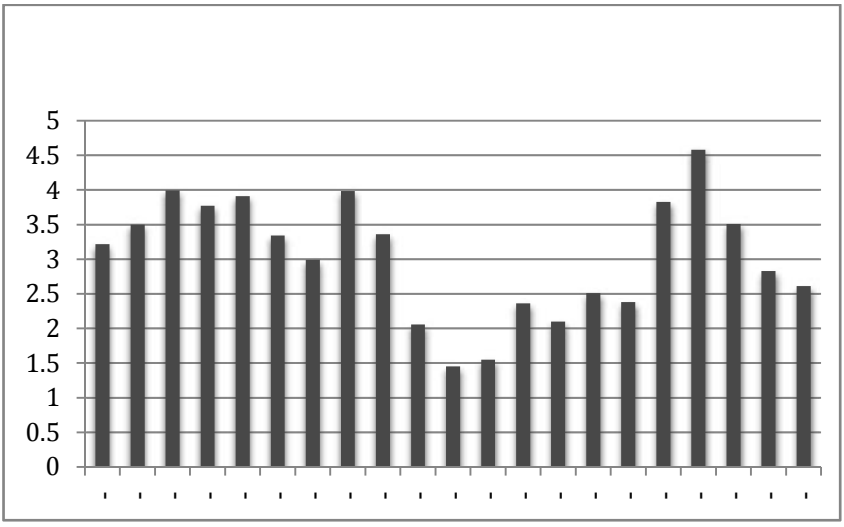

Figure 2: Abnormal Volume Turnover for 21 Working Days of a Sample

The goal of the current study as an academic research is to investigate the level of probable insider trading in Bursa Malaysia Due to legal implications, the identification of the studied companies would be kept confidential. To illustrate the method of analysis, we only described trading volume (Figure 1), abnormal turnover (Figure 2) and calculated ACAVT for only one of the studied sample.

In order to analyze the samples and calculate ACAVT, the trading volume event window for t-84 days and one day prior to announcement designated as t-1 is displayed in Figure 1. The vertical axis represents the daily volume traded in thousands and the horizontal axis represents the trading days. By visual inspection, the graph indicates large trading volumes in day's t-4, t-14 and t-19. For these three high volume days, databases such as emerging market information service (EMIS), Bursa Malaysia's website and the company's website have been searched and there was no evidence of important news or any kind of announcement prior to these three days.

Figure 2 illustrates abnormal volume turnover (AVT) between day's t-21 and t-1 for the same studied sample. The vertical axis is represented as the level of abnormal turnover and it is derived from the difference between log

turnover and log expected turnover. The horizontal axis is represented as focus days of study (one month window). The AVT graph shows that there are consistent abnormal traded volumes occurring for the designated study period. Visual inspection of the AVT graph indicates increased appetite for stocks of studied sample.

Investigation into high traded volume days information wise did not indicate any specific reason behind the abnormal increase of trading volume and consistent abnormal trading volumes for the designated window. This points to a strong probability of insider trading activity in stocks of studied firm prior to the investigated acquisition announcement. However, it should be reminded that an increase in trading volume of a particular stock, encourage other investors to increase their trade on that particular stock; thus, a high trading volume could also have been due to this phenomena and the market perception of investors. Calculated cumulative abnormal trading volume traded (ACAVT) for this particular sample is significantly above zero (3.040706156). Overall, the results derived from investigations revealed a high probability of insider trading in the studied sample.

As is clear in Table 1, 26.6 percent of analyzed acquisitions of firms that are listed by Bursa Malaysia have significant ACAVT values higher than zero for the studied period and raises suspicion on fraud and financial crime. These companies with the value of ACAVT higher than zero are companies with probable insider trading activity.

Table 1: Results Of ACAVT from the Studied Firms in Bursa Malaysia

Significant ACAVT above zero (Observed)	Significant ACAVT above zero (Percentage)	Mean ACAVT	SD
8	26.6 %	0.194557584	1.01801518

Conclusion

This study investigated traded volumes of Bursa Malaysia listed companies with acquisition announcements to identify probable insider trading activities prior to official announcements between 2008 and 2011. This research contributes to financial market players, investors, auditors and researchers who are concerned with financial fraud and insider trading. The objective of this research is to determine efficiency and confidence of the KLSE by investigating the presence of one subset of financial crime (insider trading) prior to acquisition announcements. For this purpose, 30 companies with published acquisition have been chosen to conduct sets of analysis on them.

The results from the calculation of ACAVT indicate that in 8 studied samples, elements of insider trading or information leaking are present. The calculated ACAVT ranged from the lowest value of - 1.4701 to the highest value of 3.0407 for all samples. Besides calculated ACAVT, observations on traded volume and investigations to recover announcements from databases and information sources raised suspicion to the existence of financial fraud in samples with high ACAVT. The fact that 26.6 % of acquisitions in Bursa Malaysia are suspected to have the possibility of financial crime raises doubts about the efficiency and transparency of this market.

Insider trading activity decreases the efficiency of the market, confidence of investors and is considered as a value destroyer activity; therefore, close observation of the market and monitoring insiders' activity prior to a merger or acquisition by Malaysian authorities is requisite.

In summing up, as this study mainly is focused on volume turnover, researchers should be alerted that increases in the trading volume of a particular stock in a stock market encourage other investors to increase their deal on that particular stock respectively; thus, high trading volume could also been due to this phenomena and not just insider trading. Consequently, stronger laws, effective rules and regulations are recognized as efficient approaches to controlling insider trading at the financial markets. Therefore, the following model is proposed for further research.

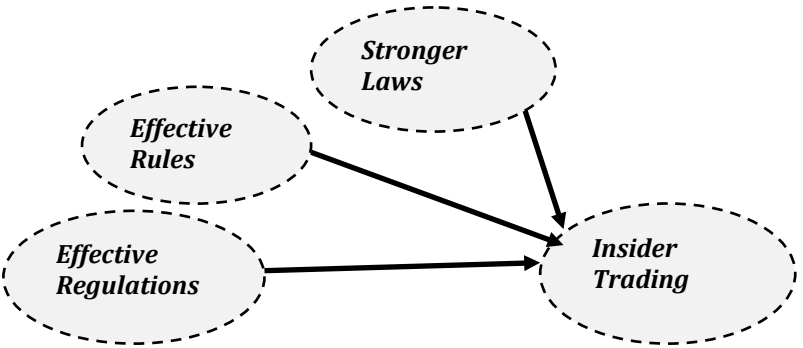

Figure 3: Proposed Conceptual Model for Further Research

References

Ascioglu, N. A., McInish, T. H., & Wood, R. A. (2002). Merger Announcements and Trading. *Journal of Financial Research, 25*(2), 263-278.

Bainbridge, s. M. (1986). The Insider Trading Prohibition: A Legal and Economic Enigma. *Florida Law Review, 38*, 35-68.

Barnes, P. (2011). Insider Dealing and Market Abuse: The UK's Record on Enforcement. *International Journal of Law, Crime and Justice, 39*, 174-189.

Bhattacharya, U., & Daouk, H. (2002). The world price of insider trading. *The Journal of Finance, 57*(1), 75-108.

Bender, R., & Ward, K. (2005). *Corporate Financial Strategy* (3rd ed.). Hungary: Elsevier Butterworth-Heinemann.

Chae, J. (2005). Trading Volume, Information Asymmetry, and Timing Information. *Journal of Finance, 60*, 413-442.

Chau, M., & Vayanos, D. (2008). Strong-form efficiency with monopolistic insiders. *The Review of Financial Studies, 21*(5), 2275-2306.

Clements, M., & Singh, H. (2011). An analysis of trading in target stocks before successful takeover announcements. *Journal of Multinational Financial Management, 21*, 1-17.

Durnev, A. A., & Nain, A. S. (2007). Does insider trading regulation deter private information trading? International evidence. *Pacific-Basin Finance Journal, 15*, 409-433.

Fama, E. F., Fisher, L., Jensen, M., & Roll, R. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review, 10*, 1-27.

Fama, E. F. (1991). Efficient capital markets: II. *The journal of finance, 46*(5), 1575-1617.

Fishman, M. J., & Hagerty, K. M. (1992). Insider trading and the efficiency of stock prices. *RAND Journal of Economics, 23*(1), 106-122.

Frijns, B., Gilbert, A., & Tourani-Rad, A. (2007). *Elements of Effective Insider Trading Laws*. Auckland University of Technology. Auckland, New Zealand.

Gilson, R. J., & Black, B. S. (1995). *The law and finance of corporate acquisitions* (2nd ed.). New York: Foundation Press.

Gottschalk, P. (2010). Categories of financial crime. Journal of Financial Crime, 17(4), 441-458.Herzel, L., & Katz, L. (1987). Insider trading: who loses? *Lloyds Bank Review, July*, 15-26. Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360. Jhon, K., & Lang, L. (1991).

Insider trading around dividend announcements: Theory and evidence. *Journal of Finance, 46*, 1361-1390.Kabir, R., & Vermaelen, T. (1996). Insider trading restrictions and the stock market: Evidence from Amsterdam Stock Exchange. *European Economic Review, 40*, 1951-1603.

Kadir, R., & Muhamad, S. (2012). Insider trading in Malaysia; towards an improved regulation. *International Journal of Law and Management, 54*(1), 78-86.

Keowen, A. J., & Pinkerton, J. M. (1981). Merger Announcements and Insider Trading Activity: An Imperical Investigation. *Journal of Finance, 36*, 855-869.

Manne, H. (1966). *Insider trading and the stock market*. New York: Free Press.

McGee, R. W. (2009). An Economic and Ethical Look at Insider Trading. In P. U. Ali & G. N. Gregoriou (Eds.), *Insider Trading, Global Development and Analysis* (pp. 35-48). Florida, United States: Taylor & Francis Group, LLC.Meulbroek, L. K. (1992). An Empirical Analysis of Illegal Insider Trading. *Journal of Finance, 47*(5), 1661-1699.

Olmo, J., Pilbeam, K., & Pouliot, W. (2011). Detecting the presence of insider trading via structural break tests. *Journal of Banking and Finance, 35*, 2820-2828.

Osaki, S. (2009). The Evolution of Insider Trading Regulations in Japan. In P. U. Ali & G. N. Gregoriou (Eds.), *INSIDER TRADING* Read, C. (2009). Market Inefficiencies and Inequities of Insider Trading—An Economic Analysis. In P. U. Ali & G. N. Gregoriou (Eds.), *INSIDER TRADING*

Schafer, H.-B., & Ott, C. (1992). Economic Effects of EEC Insider Trading Regulation Applied to Germany. *International Review of law and Economic, 12*(3), 357-375.

Thevenot, M. (2012). The factors affecting illegal insider trading in firms with violations of GAAP. *Journal of Accounting and Economics, 53*, 375-390.