# INTERACTION ROLE OF INDEPENDENT AUDIT COMMITTEE AND WOMEN DIRECTORS ON BOARD INDEPENDENCE AND PRIVATE INFORMATION-BASED TRADING IN MALAYSIA

**KHONG JIUNN SHYAN**

**UNIVERSITI SAINS MALAYSIA**

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**by**

**KHONG JIUNN SHYAN**

**Thesis submitted in fulfillment of the requirements**
**for the Degree of**
**Master of Arts (Finance)**

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## ABSTRAK

Perdagangan berasaskan maklumat peribadi (*PIBT*) atau perdagangan orang dalam masih kekal sebagai satu isu kritikal di Malaysia hari ini walaupun wujudnya undang-undang perdagangan orang dalam. Sememangnya peraturan perdagangan orang dalam masih tidak cukup menangani isu *PIBT*. Antara faktor lain yang boleh mengurangkan isu *PIBT*, bilangan pengarah bebas merupakan faktor yang penting. Berdasarkan teori agensi, perdagangan atas maklumat peripadi akan mengakibatkan konflik agensi. Dalam hal ini, pengarah bebas sebenarnya dapat menyumbang untuk mengurangkan konflik tersebut. Walau bagaimanapun, kita masih perlu mengkaji saluran mana dapat meningkatkan pemantauan pengarah bebas terhadap aktiviti *PIBT*. Dengan menggunakan sampel 811 syarikat senarai awam di Main Board Bursa Malaysia dari tahun 2009 hingga 2017, tesis ini mengkaji keberkesanan pengarah bebas, dan sama ada peranan statutori pengarah bebas (jawatankuasa audit bebas) dan ciri demografi pengarah (pengarah wanita) dapat mengukuhkan peranan pengarah bebas dalam pengurangan isu *PIBT*. Tambahan kepada analisis data panel statik, kajian ini juga menggunakan dinamik model untuk megatasi masalah endogenitas dan isu *PIBT* yang berterusan. Hasil penemuan menunjukkan pengarah bebas memang signifikan secara statistik untuk mengurangkan masalah *PIBT*. Selain itu, jawatankuasa audit bebas dan pengarah wanita juga mempunyai kesan interaksi yang negatif dan signifikan. Ini mencadangkan kedua-dua faktor ini boleh menguatkan keberkesanan pengarah bebas untuk mengurangkan masalah *PIBT*.

**INTERACTION ROLE OF INDEPENDENT AUDIT COMMITTEE AND WOMEN DIRECTORS ON BOARD INDEPENDENCE AND PRIVATE INFORMATION-BASED TRADING IN MALAYSIA**

## ABSTRACT

Private information-based trading (*PIBT*) or insider trading still remained as one of the crucial issues in Malaysia today despite the presence of insider trading law. Indeed, regulation on insider trading alone is not sufficient to address the *PIBT* issue. Among the other aspect that would help to mitigate the *PIBT* issue, number of independent director can be one important factor. Based on the agency theory, tradings on private information will causes agency conflict. In this regard, independent directors can actually contribute to reduce this conflict. However, there is a need to study through which channel independent directors can reinforce their monitoring over the *PIBT* activities. Using a sample of 811 public listed companies from the Main Board of Bursa Malaysia from year 2009 to 2017, this study investigated the effect of board independence, as well as whether statutory role of independent directors (independent audit committee) and demographic characteristics of directors (women directors) could contribute in strengthening the role of board independence in mitigating the *PIBT* issue. In addition to the static panel data analyses, this study also utilizes dynamic generalized method of moment estimators to resolve the endogeneity problem and persistent *PIBT* issue. The findings indicated that independent directors are statistically significant in mitigating *PIBT*. Besides, independent audit committee and women directors also having negative and significant interaction effects. This suggests that both factors could strengthen the effect of board independence in mitigating *PIBT*.

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# CHAPTER 1

# INTRODUCTION

## 1.1 Introduction

This chapter first presents an overview of the background of this study followed by the problem statement. Then, the research questions and research objectives are outlined in the next section. The significance and contribution of this study are being discussed thereafter. Lastly, this chapter ends with a brief explanation of the organisation of the whole study.

## 1.2 Background of the Study

In general, stock market serves two main purposes. First, the stock market serves as a common platform for companies who wish to raise funds from public investors to establish new business ventures or to further expand their businesses. Second, the stock market serves as a trading place for investors to buy and sell stocks issued by companies that offer investors the opportunity to share the profits earned by the invested companies. Thus, it is an unalterable fact that the stock market plays a significant role in supporting the development of the industries in a country that ultimately affects the economy of the country. Based on the statistics reported by The World Bank, the World Development Indicators show that the total global stock market capitalization has increased by about \$27.76 trillion (or 53.93%) from year the 2010 to 2017. Additionally, according to the latest value in the year 2017, the value of global stock market capitalization was about \$79.23 trillion which was around 112% of the world's Gross

Domestic Product (GDP).[1] If GDP represents the size of the economy of a country, then the stock market has occupied most of the size of a country's economy or maybe more than that, in fact, stock markets have become the "main income" for the majority of the countries. Therefore, governments always pay close attention to the stock market to ensure that the integrity or the fairness of the stock market is guaranteed so that both existing listed companies and investors could be protected. Furthermore, a fair stock market may also draw more companies to list in the stock market and attract more investors to invest, as a result, boost the business of the companies and economy of a country in a greater context. Nevertheless, maintaining the integrity and the fairness of the stock market is often the most challenging part for the securities regulators.

Prior finance scholars state that a market of high integrity should free from prohibited trading behaviours such as, insider trading and market manipulation (Bhattacharya, Daouk, Jorgenson, & Kehr, 2000; Comerton-Forde & Rydge, 2006a; Harris, Aitken, Berkeley, Overdahl, & Venkataraman, 2011) as well as a market where stock prices reflect all the available information in order for investors to trade in a fair and informationally efficient market (Comerton-Forde & Rydge, 2006b; Margotta, 2011). As can be seen, the idea of market integrity is in conjunction with the concept of market efficiency and maintaining both market integrity and market efficiency is contemporaneously executed by many country's securities regulators. For instance, the mission of the Securities and Exchange Commission of the United States is to protect investors, facilitate capital formation, and maintain fair and efficient markets.[2] Similarly, in Malaysia, the Securities Commission was established to promote fair,

[1] Source: World Development Indicators, The World Bank. URL: http://wdi.worldbank.org/table/5.4. Accessed on 27 April 2019.
[2] Source: About the SEC, U.S. Securities and Exchange Commission. URL: https://www.sec.gov/Article/whatwedo.html. Accessed on 28 April 2019.

efficient, secure and transparent capital market, and facilitate a competitive and innovative capital market.[3]

Based on the notion of Capital Asset Pricing Model (CAPM) and Efficient Market Hypothesis (EMH), if the market is efficient, the stock price should reflect its' fundamental value due to the incorporation of all its' material information that has been publicly released (Avgouleas, 2005). As such, market efficiency allows investors to make a sensible decision based on the information disclosed, hence, investors could allocate their capital efficiently and pay not more than the inherent value of the stocks. However, the existence of insider trading violates the norm of the Efficient Market Hypothesis (Masson & Madhavan, 1991).

Supposed in an efficient market, it is merely impossible for investors to earn above-average profits or beat the market based on any new information obtained, because any new information would be immediately incorporated into the stock price once the new information has been announced before the investors could trade on it. Nonetheless, past studies documented that corporate insiders are able to earn superior profits in trading their company's stock (Givoly & Palmon, 1985; Jaffe, 1974b; Seyhun, 1986). Some scholars argue that those corporate insiders probably exploit their informational advantages by trading on the private information ahead of the official announcement in order to earn sound return. For instance, if insiders possess positive (negative) private information and buy (sell) the stock before the information officially announced, they could earn substantial returns after the information is publicly released when stock price rises (drops) after incorporating the positive (negative) information. Bodie, Kane, and Alan (2013) assert that if stock markets contain insider trading, we

[3] Source: About the SC, Securities Commission Malaysia. URL: https://www.sc.com.my/about/about-the-sc. Accessed on 28 April 2019.

shall not expect markets and stock prices to be strong-form efficient where stock prices impound all public and private information. Therefore, such private information-based trading or insider trading was seen as unfair and illegal trading behaviour, hence it was banned by governments worldwide.

In the research domain, the issue of insider trading is not new. Among the academic research, there are different interpretations of the term “insider trading”, as a result, it is difficult to find a consistent and precise definition. Besides, other similar terms such as “informed trading” and “private information trading” have also been used in other studies which make it more difficult to explain the discrepancy. Hence, in order to avoid any confusion and to be more precise, this study uses the term “private information-based trading”, whereas the terms “insider trading” and “informed trading” stated in this study shall refer to the same interpretation of illegal trading activities conducted by any party who exploit on material private information that is yet to announce.

Despite the contradictory views on the impacts of insider trading and the debates still ongoing, regulators and most of the academicians affirm that trading on material private information which is not officially announced could indeed undermine the market efficiency (Carlton & Fischel, 1982; Fishman & Hagerty, 1992; Keenan, 2000), create an unfair competition in the stock market (Cho & Shaub, 1991; Lekkas, 1998; Shaw, 1990) that eventually deter uninformed investors (Brunnermeier, 2005) and impair the market integrity (Huss & Leete, 1987). Thus, most countries have established a list of regulations to deter private information-based trading or insider trading in order to sustain market integrity and promote better investor protection. However, although governments devoted so many efforts in strengthening and enforcing the investor protection regulations, the amount of insider trading cases worldwide is not decreasing

(Lye, 2017). The ineffective laws thence motivated prior studies to shift their attention to analyse the role of corporate governance in mitigating the insider trading issue (Wasiuzzaman & Lim, 2017).

On top of the consequences caused by insider trading, trading on private information triggers the agency conflicts between shareholders and the company managements, thus prior studies often link agency theory with insider trading. For example, Easterbrook (1985) and Moore (1990) claim that insider trading worsens the agency conflicts between shareholders and managers when shareholders unable to monitor or control the insider's discretionary trading behavior. The authors denote that managers with superior inside knowledge could manipulate private information and trade on the expenses of uninformed shareholders to earn significant personal profits, hence exposes the uninformed investors to unanticipated informational risk (Wasiuzzaman & Lim, 2017) and give rise to the agency cost (Beny, 2006). In addition, corporate insiders who are in possession of material private information also tend to choose risky projects so that to increases the volatility of stock prices and therefore, the insiders could trade and gain benefits on short term price movements (Kraakman, 1991; Newman, 1998; Padilla, 2002). Furthermore, studies also prove that corporate insiders are likely to monopolize the private information and time their trades to avoid accusation (Beny, 2006; Posner, 1977). Such information obstructing behaviour would, in turn, negatively affects a firm's efficiency and creates agency issue (Haft, 1981). Thus, the agency conflicts due to the opportunistic behavior of corporate insiders who exploit their informational advantages to pursue their personal benefits through trading on material private information, as a result, stimulate the board governance to strengthen their control and monitoring over the behavior of corporate insiders to protect the interests of shareholders.

One of the most influential principles on corporate governance, 'G20/OECD Principles of Corporate Governance' introduced by the Organisation for Economic Co-operation and Development (OECD) covers five main categories, such as the responsibility of the firm, ownership structure and control rights, the structure of board and management, auditing, and information disclosure.[4] This principle has eventually become an international benchmark for more than 60 countries worldwide (OECD, 2015) and listed companies in those countries are required to follow the governance standards set, such as the number of independent directors onboard. For example, companies listed on New York Stock Exchange (NYSE) are required to have a majority of independent directors on board as independent directors[5]; in London Stock Exchange, a company should have at least two independent directors[6], similarly, listed companies in Kuala Lumpur Stock Exchange (KLSE) must have at least, two independent directors, or one-third of its board consists of independent directors whichever amount is higher[7].

In academic research, the effects of board independence on firms have gathered the attention of scholars. In the studies of Daily, Dalton, and Rajagopalan (2003) and Tsipouri and Xanthakis (2004), the authors state that corporate governance is mainly introduced as a mechanism to resolve company's agency issues and La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) claim that shareholders should be protected against the expropriation by the insiders. Apparently, corporate governance concerns

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[4] Source: Corporate Governance, Wikipedia. URL: https://en.wikipedia.org/wiki/Corporate_governance#cite_note-55. Accessed on 30 April 2019.
[5] Source: Section 3 Corporate Responsibility, NYSE. URL: http://wallstreet.cch.com/LCMTools/PlatformViewer.asp?selectednode=chp_1_4_12_4&manual=%2Flcm%2Fsections%2Flcm-sections%2F. Accessed on 30 April 2019.
[6] Source: London Stock Exchange, Listing Process. URL: https://www.londonstockexchange.com/companies-and-advisors/main-market/companies/listing/ process.htm. Accessed on 30 April 2019.
[7] Source: CHAPTER 15 – CORPORATE GOVERNANCE, Bursa Malaysia. URL: http://customer.bursamalaysia.com:8080/ACE/Pages/AceChapter15.aspx. Accessed on 30 April 2019.

and emphasizes the interest of shareholders, in addition, Fama (1980) asserts that in order to have quality and sound corporate governance, the board of directors is a critical element to align the interest of shareholders and managements, and alleviate the agency problems that occurred in a company, for example, in this study, the issue of private information-based trading. According to Brickley and Zimmerman (2010) and Wang, Xie, and Zhu (2015), the role of directors basically expressed into advisory and monitoring functions, where all the directors could contribute in advisory function, while monitoring function is most likely fall under the duties of independent directors. The reason is independent directors, also known as outside directors, do not involve in a company's operation and are independent of company management (Kim, Mauldin, & Patro, 2014). This suggests that, the neutral position of independent directors are less likely to involve in any conflict of interest and are able to offer unprejudiced judgements, hence, make them more trustworthy to hold the monitoring role (Fama, 1980; Rosenstein & Wyatt, 1997; Terjesen, Couto, & Francisco, 2016). Studies reveal that independent directors could enhance board effectiveness through monitoring and protecting the interest of shareholders (McWilliams & Sen, 1997; Rosenstein & Wyatt, 1990). Other scholars also exhibit that degree of board independence does create an impact on board decision and firm performance (Barnhart, Marr, & Rosenstein, 1994; Byrd & Hickman, 1992). On the other hand, from the perspective of corporate information, independent directors are proven to act on the interest of shareholders by ensuring better information disclosure (Fama & Jensen, 1983; Klein, 2002a), greater transparency (Beekes & Brown, 2006; Eng & Mak, 2003) and lower information asymmetry (Brown & Hillegeist, 2007; Verrecchia & Weber, 2006). Some findings also denote that companies with more independent directors on board are less likely to have illegal financial conduct~~s~~, such as financial fraud (Fich & Shivdasani, 2007; Srinivasan, 2005).

Many scholars have emphasized the importance of independent directors in safeguarding the interests of shareholders either from the sense of corporate governance, or information disclosure. Since the insider trading regulations seem~~s~~ not to be quite effective in deterring the issue of private information-based trading, this research hence would like to study the effectiveness of firm-level governance, particularly from the view of board independence on this issue. In addition, the oversight role that involves financial reporting and disclosure which affects the information symmetry between shareholders and companies, also falls under the responsibilities of the audit committee (Peasnell, Pope, & Young, 2005). Studies found that the presence of independent directors on the audit committee generates better monitoring effect and more credible financial statements. (McMullen & Raghunandan, 1996; Pucheta‐Martínez & De Fuentes, 2007; Song & Windram, 2004). Despite the statutory role of independent directors has an impact, Carter, Simkins, and Simpson (2003) reveal that statutory diversity alone is not sufficient, demographic attributes of directors, such as gender, skills and experience of directors, must be considered to complement the governance practices (Barney, 1991; Hillman, Nicholson, & Shropshire, 2008). Among the demographic characteristics, the gender of directors has been one of the most common attributes being studied thoroughly among the academicians. Women directors are generally known as the stricter monitor (Abad, Lucas-Pérez, Minguez-Vera, & Yagüe, 2017), risk-averse (Jianakoplos & Bernasek, 1998) and more ethical directors (Krishnan & Parsons, 2008; Labelle, Makni Gargouri, & Francoeur, 2010) as compared to men directors. Overall, this study, therefore intends to investigate the potential of independent audit committees and women directors, interacting with independent directors, in mitigating private information-based trading.

### 1.3 Problem Statement

Stock market is extremely important for an emerging country like Malaysia to grow and expand the economy, therefore the securities regulator named the Securities Commission Malaysia (SC) was established to systematically regulate the capital markets in Malaysia with the aim~~s~~ to promote market integrity and protect the interests of investors. However, despite the great efforts from regulators in governing the capital markets, illicit trading behaviour such as insider trading still very much present in the stock market of Malaysia.

Based on figure 1.1 which refers to the annual report 2010 issued by Securities Commission Malaysia, there are 79 active investigation files and out of these active investigations, 44% or around 35 cases are related to insider trading. The number of insider trading cases continue to increase on the following years – 54% (or 35 case) in year 2011, 61% (or 37 cases) in year 2012, 71% (or 39 cases) in year 2013 and 76% (or 46 cases) in year 2014, but the number of insider trading cases slightly decreased from year 2015 (74% or 43 cases) until 2017 (56% or 29 cases). However, based on figure 1.2, we can observe that although the total number active investigations were on a decreasing trend, over the past few years, insider trading cases have comprised the largest portion of the investigations as compared to other offenses such as market manipulation, securities fraud, and unlicensed activities.

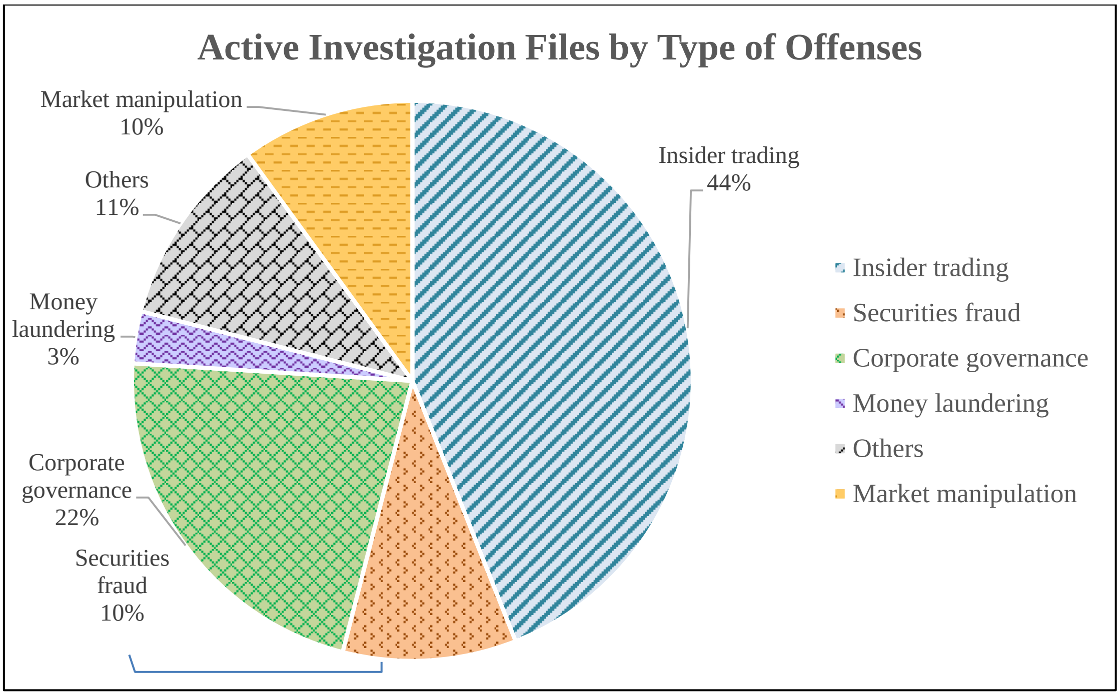


**Figure 1.1: Active investigation files by type of offenses**
Souces: Malaysia Securities Commission Annual Report 2010

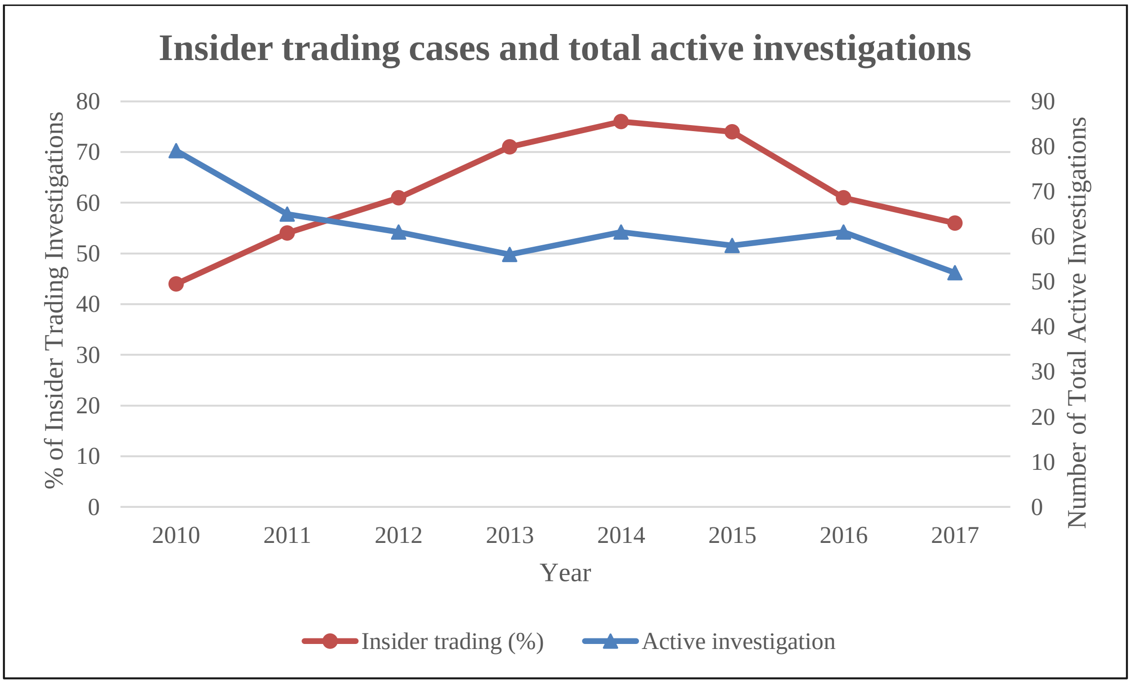


**Figure 1.2: The number of total active investigations and percentage of insider trading investigations in Malaysia from the year 2010 to 2017**
*Sources: Malaysia Securities Commission Annual Report*

One of the examples of insider trading prosecution in year 2017 was, the former investment banker from Maybank Investment Bank Berhad, Mr. Goh Keng Huat who was convicted to insider trading by acquiring 851,600 units of shares of Road Builder Holdings Berhad (RBH) while in possession of private information regarding to the proposed acquisition of RBH by IJM Corporation Berhad (IJM). Mr. Goh has been sentenced for a six months jail and was being fined for RM1 million for his crime.[8]

However, these insider trading cases reported represent only a partial part of the whole private information-based trading issue as there are still many undiscovered and hidden insider trading that investigators are unable to unearth. “Insider trading is very rampant, yet few get arrested. You could aware that there is insider trading when the company’s share price suddenly rises or drops before the company releases an announcement. And this happens frequently,” according to an anonymous senior securities analyst during a press interview with a journalist from the STAR newspaper.[9] Take the share price of Ann Joo Resources Berhad as an example. Prior to the official dividend announcement on 29 April 2019, the share price struck about 10% on 22 April 2019, from RM1.69 per share increased significantly to RM1.859 per share with a substantial trading volume of 7.40 million shares.[10] In this case, we could assume that there is a possibility that some corporate insiders possessed the private information related to dividend distribution and trade on it before the official announcement in order to gain benefit after the announcement is released. Moreover, the abilities of insiders to utilize more sophisticated trading method and strategically time their trading activities have even make the investigators more difficult to detect them (Del Brio & Perote,

[8] Source: Ex-investment banker jailed, fined RM1m for insider trading, The STAR online. URL: https://www.thestar.com.my/business/business-news/2018/04/10/ex-investment-banker-jailed-fined-rm1m-for-insider-trading/. Accessed on 4 May 2019.

[9] Source: Bearing down on insider trading, the STAR online. URL: https://www.thestar.com.my/news/nation/2016/03/20/bearing-down-on-insider-trading/. Accessed on 4 May 2019.

[10] Source: i3 investor.com. URL: https://klse.i3investor.com/servlets/stk/annent/6556.jsp. Accessed on 4 May 2019.

2007; Fan, Hu, & Jiang, 2012; Giambona & Golec, 2010; McInish, Frino, & Sensenbrenner, 2011).

As a matter of fact, Malaysia was one of the few countries on the globe to officially pass the insider trading law by the 1970s and first implemented in the year 1996 (Bris, 2005). The insider trading laws were formerly enacted under several acts such as Companies Act 1965, Securities Industry Act 1983, Futures Industry Act 1993 and Services Act 2007 before the laws were consolidated under the Capital Market & Services Act (CMSA) in the year 2007. In addition, the capabilities of the acts in enforcing insider trading regulations have been scrutinized and enhanced over the decades. Despite this, the amount of insider trading or private information-based trading events have not been decreasing over the years. Prior studies and real events have indicated that the existence of insider trading or private information-based trading would tarnish the reputation of a company and impair the market integrity (Gao, Lisic, & Zhang, 2014; Huss & Leete, 1987). If this issue remains unsolved or continues to deteriorate, it may causes investors to lose faith (Ausubel, 1990; Maug, 2002) and stay away from Malaysia's stock market (Cinar, 1999) which eventually raise the cost of capital and affect the economy of the country (Bhattacharya & Daouk, 2002; Du & Wei, 2004). While the enforcement of regulations may be ineffective in reducing the insider trading issue, the companies perhaps could limit the opportunistic insiders from trading on private information through strengthening their firm-level governance. Supporting this statement, this study borrows a quote from Tan Sri Ramon Navaratnam, the chairman of the Asian Strategy and Leadership Institute Centre of Public Policy Studies, who once said that "good governance and integrity should not be limited to the government but also adopted by the private sector."

According to Associate Professor Dr. Ahmed Razman Abdul Latiff, the business development manager of Putra Business School, directors should uphold a strong sense of integrity and place the objectives of the company beyond their personal interests. He added that directors should perform their fiduciary duties to the company and always behave in good faith.[11] Indeed, directors hold strong responsibilities in safeguarding the trusts that shareholders assigned to them. This suggests that not only directors themselves should not involve~~s~~ in any misconduct such as insider trading, but they also have to monitor and ensure that other corporate insiders do not participate in any managerial misbehaviors. In line with the monitoring hypothesis, ~~a~~ sound corporate governance and stringent monitoring are proven to restrain insider trading (Fidrmuc, Korczak, & Korczak, 2013). Among all the directors in the corporate board, independent directors are commonly known for playing the most important role in monitoring companies owing to their independence (Fama & Jensen, 1983; John & Senbet, 1998). The effectiveness of independent directors in deterring financial misconduct and protecting the interests of shareholders have sparked interest among academicians (McWilliams & Sen, 1997; Rosenstein & Wyatt, 1990). The findings of Ajinkya, Bhojraj, and Sengupta (2005), Chen and Jaggi (2000) and Karamanou and Vafeas (2005) demonstrate that a higher degree of board independence is generally associated with greater disclosures. The greater corporate disclosure would reduce information asymmetry (Heflin, Shaw, & Wild, 2005) which then would reduce the chances of private information-based trading (Huddart, Ke, & Shi, 2007), as a result preserve the shareholder value. Both Klein (2002a) and Chen, Cheng, and Wang (2015)

[11] Source: 'Those involved in insider trading should quit', New Straits Times. URL: https://www.nst.com.my/business/2019/04/480162/those-involved-insider-trading-should-quit. Accessed on 5 May 2019.

also agreed that the presence of independent directors can deter financial misconduct like earning management problems, thereby enhance the informativeness (Petra, 2007). Beasley (1996) further note that a corporate board with greater independence is also effective in deterring financial statement fraud. Nonetheless, some scholars argue that a higher level of board independence does not necessarily contribute to better governance. For example, Fosberg (1989) observed that the monitoring function would be diminished if the independent directors being hired are incompetent and Petra (2005) claims that the effect of board independence would become less evident when the corporate board is dominated by management.

Although extensive studies have been done in researching the influences of board independence, there are limited studies found in the literature investigating the impact of board independence on the specific issue of private information-based trading especially in the context of Malaysia. Thus, this motivates the current study to investigate the potency of board independence within the public listed companies of Malaysia in deterring the private information-based trading events by using a more latest longitudinal data. This study is grounded on the notion of agency theory, which emphasizes the significance of board independence in monitoring and sustaining corporate governance to prevent agency problem like private information-based trading in company and to promote investor protection (Bebchuk & Fried, 2003; Dalton, Daily, Ellstrand, & Johnson, 1998; Shleifer & Vishny, 1997). Furthermore, rather than constraining the search within the scope of board independence, it would be favourable to explore other potential corporate governance mechanisms that can reinforce the effect of board independence to protect the interest of shareholders and diminish private information-based trading.

The potentiality of the independent audit committee and women directors are examined in this study as they are known to play a critical role~~s~~ in addressing agency issues, and also stipulate better investor protection by limiting managerial misconduct and reducing information asymmetry. Dechow, Sloan, and Sweeney (1996) reveal that the audit committee provides a high level of monitoring especially on financial reporting. Empirical studies support that the audit committee enhances the information transparency and reduces fraudulent financial reporting or financial scandals, hence reduce the information asymmetry issue (Abbott, Park, & Parker, 2000; Beasley, 1996; DeFond & James Jiambalvo, 1991). Some studies denote that the position of the audit committee should be held by independent directors in order to enhance the effectiveness of monitoring (McMullen, 1996; Menon & Williams, 1994; Verschoor, 1992; Verschoor & Liotta, 1990; Wallace, 1985; Wolnizer, 1993). Moreover, women directors are proven to be ethical concerns and risk averse, hence they are more likely to report fraudulent events (Cohen, Pant, & Sharp, 1998; Ibrahim, Angelidis, & Tomic, 2009; Jianakoplos & Bernasek, 1998). Gul, Srinidhi, and Ng (2011) also claim that board with gender diversity would enhance stock price informativeness by encouraging better information disclosure and transparency.

This study, thus attempts to study the potential of the independent audit committee and women directors in relation to board independence in mitigating private information-based trading. In sum, on top of emphasizing corporate governance from the perspective of board independence, this study proposes to resolve the agency issue from the insight of the statutory position of independent directors (i.e. independent audit committee) and demographic attributes (i.e. gender) of directors.

## 1.4 Research Questions

Based on the notion that firm-level governance is significant in alleviating the problem of information asymmetry and restraining corporate insiders' opportunistic behaviour, this study, hence intends to address the following research questions:

1) What is the impact of board independence on private information-based trading?
2) Does the independent audit committee significantly affects the relationship between board independence and private information-based trading?
3) Does women directors significantly affects the relationship between board independence and private information-based trading?

## 1.5 Research Objectives

In line with the research questions, the research objectives of this study are as follow:

1) To investigate the effect of board independence on private information-based trading.
2) To investigate the interaction effect of the independent audit committee on the relationship between board independence and private information-based trading.
3) To investigate the interaction effect of women directors on the relationship between board independence and private information-based trading.

## 1.6 Significance of the Study

The insider trading issue, or more generally, private information-based trading issue is a serious national problem as the integrity of the stock market is the main factor for the economic development of an emerging country like Malaysia. Therefore, this study has been conducted to highlight this issue and with the aims of contributing some values to relevant parties. In our humble opinion, the results of this study would be significant to certain groups, mainly shareholders, firms and government.

First, from the point of view of shareholders, the results of this study may serve as an important reference for them to monitor the corporate insiders if they found that there is a great extent of private information-based trading activities within the firms. Furthermore, shareholders could analyse whether independent directors, independent audit committee and women directors being appointed are effective in mitigating the private information-based trading issues and maximizing the shareholders' value. While for investors, this study could be a beneficial and valuable reference for them when constructing their investment portfolio. If a company is poorly governed and contains serious insider trading issues, it may push the investors away as investors are more likely to avoid problematic companies.

Second, as this study includes independent audit committees and women directors as interaction variables, firms are able to evaluate the conditions which may strengthen the effects of board independence in mitigating private information-based trading. For instance, firms may find that board with independent directors and women directors are ideal board composition and this may influence their strategy in selecting directors and constructing the corporate board. In turn, firms will enhance their corporate governance and reduce the private information-based trading issues. As a result, firms could protect their reputation and images, most importantly, sustain the confidence of investors towards the firms.

Third, due to the fact there are insufficient studies illustrating the current private information-based trading issue in Malaysia, empirical results of this study would allow the policymakers and regulators to have a better understanding on the circumstance of the private information-based trading issue in this country. Since the insider trading prosecution maybe just part of the whole issue as there are still many insiders continue to exploit private information and trade on it without being detected, this study examines the element of speculative trading within the companies shares which may provide~~s~~ an insight to the regulators regarding the extent of private information-based trading within the companies. Besides, this study also highlights the importance of firm-level governance, particularly from the view of board independence, statutory and demographic diversity. When the government observes the importance of these factors in addressing the private information-based trading issue, it may assist~~s~~ them in constructing a better policy and imposes rules to enforce firms' compliance to improve their firm-level governance, hence raise the confidence of investors and attract more investors.

## 1.7 Contribution of the Study

### 1.7.1 Theoretical Contribution

Literature reviews on insider trading issue are manifold. This is probably due to the insider trading issue has been around for decades and research has been done from numerous aspects. However, to the extent of our knowledge, there are limited studies which analyse the impact of firm-level corporate governance, particularly from the view of board independence on the issue of insider trading or the private information-based trading. Thus, the first contribution that this study wishes to offer is to examine the effect of board independence on private information-based trading issue, and enrich existing literature that has typically investigated the insider trading issue from the firm-level corporate governance viewpoint. In addition, this study offers new insight into the effect of the statutory role of independent directors and demographic characteristics of directors instead of just focusing on board independence. Past studies suggested that statutory board attributes are presumed to ensure board's better representation in monitoring role in order to protect the interests of minority shareholders, whereas demographic diversity plays an important role to complement board's statutory characteristics and improve the monitoring effectiveness of board (Ben‐Amar, Francoeur, Hafsi, & Labelle, 2013; Erhardt, Werbel, & Shrader, 2003; Fama & Jensen, 1983). For example, Gull, Nekhili, Nagati, and Chtioui (2018) claim that audit committee independence is commonly known as one of the best statutory characteristics for corporate governance, while Ben‐Amar et al. (2013) refer gender-diverse board as demographic diversity and the authors assert that women directors tend to possess stricter monitoring ability (Adams & Ferreira, 2009). Thus, in line with the study by Ben‐Amar et al. (2013), this study further explores the interaction effects of the statutory role of independent directors and demographic characteristics of directors on mitigating the private information-based trading issue. Furthermore, using agency theory to explain the impact of the independent directors in the board on private information-based trading behaviour, and the interaction effect of independent audit committee and women directors, this study provides a more comprehensive explanation which aims to offer a bigger image on the monitoring mechanism of the corporate board.

Next, past empirical studies found that there is an endogenous relationship between corporate governance structure and the firm's information environment. For instance, Armstrong, Guay, and Weber (2010) discover that the transparency of financial reporting will determine how the firm should design their corporate governance structure, whereas DeFond, Hann, and Hu (2005) claim that firm's governance structure plays a critical role in affecting their financial reporting practices and disclosures. Thus, the endogeneity issue complicates the direction of causality between corporate governance and the information environment. Therefore, this study utilizes the dynamic generalized method of moments (GMM) estimations which allow this study to resolve the endogeneity issue between firm-level governance and private information-based trading, thereby contribute to the empirical studies by explaining the relationship between corporate governance and firm's information environment.

### 1.7.2 Practical Contribution

This study emphasizes on Malaysia instead of developed countries as investigated in other literature. Setting in Malaysia is fairly different as many public listed companies in Malaysia are led by the majority of family directors and directors with a political background, as a consequence, it may provide~~s~~ an opportunity for directors to involve in rent-seeking (Benjamin, Wasiuzzaman, Mokhtarinia, & Rezaie Nejad, 2016). While independent directors and women directors are generally proved to be directors contribute to the firm-level corporate governance particularly in monitoring role, results in this study will show whether independent directors, independent directors in audit committee and women directors have certain magnitude of monitoring effect in public listed companies in Malaysia to strengthen the firm-level corporate governance and address rent-seeking behaviors like private information-based trading or insider trading. On top of that, this study also hopes to extend the existing literature that examine corporate governance or financial issues in Malaysia.

Furthermore, according to Grishchenko, Litov, and Mei (2002) and Zhou (2012), corporate insiders may persistently exploit long-lived private information through insider trading. This implies that the private information trading issue may be a long term issue instead of just a temporary problem. Hence, it is crucial to investigate whether the private information-based trading problem in Malaysia is persistent in the long term. In order to figure out whether the private information-based trading problem in Malaysia is persistent, this study adopts the dynamic GMM estimation to provide an insight whether private information-based trading is persistent in Malaysia and if yes, whether firm-level governance mechanisms (e.g. board independence, audit committee independence and women directors) have a dynamic influence towards the private information-based trading issue both in short term and long term.

Lastly, there are many research in the literature that examine the insider trading issue using different proxies. For instance, some scholars measure insider trading from the perspective of stock price informativeness (Yu, Li, Tian, & Zhang, 2013) or share abnormal returns (Bhattacharya & Marshall, 2012), whereas other scholars compute insider trading volume (Meulbroek, 1992) or the probability of informed trading (Byun, Hwang, & Lee, 2011) to proxy for insider trading. However, most of these studies estimate the insider trading issue from single facet only, which is either from share prices or trading volumes. Unlike prior studies, this study employs a more comprehensive measure of private information-based trading which introduced by Llorente, Michaely, Saar, and Wang (2002) that take into consideration ~~of~~ realized transaction~~s~~ data and both aspects of share prices and trading volumes. The same estimation has been applied in other studies as well, such as Reeb, Zhang, and Zhao (2012), Durnev and Nain (2007), and Ferreira and Laux (2007). Moreover, the firm-level governance data such as board independence, independent audit committee and women directors in the corporate board from the year 2009 to 2017 for public listed companies in Malaysia are all hand-collected. This research therefore able to present the extent of realized private information-based trading in Malaysia and also illustrates the true image of firm-level governance especially the board independence level, audit committee independence level and gender diversity level of firms in Malaysia.

## 1.8 Interpretation of Key Terms

This section provides the interpretation of key terms used in this study.

- **Private information-based trading** is interpreted as the illegal trading events executed by any party (insiders or outsiders) who exploit the material private information that has not been disseminated through proper channels.
- **Board independence** is interpreted as the proportion of independent directors in the corporate board which presents the degree of board independence of a company.
- **Independent audit committee** is interpreted as independent directors holding audit committee position within a corporate board which then present the degree of audit committee independence of a company.
- **Women directors** are interpreted as the female directors being assigned to the board which then presents the degree of gender diversity in the corporate board within a company.

## 1.9 Organization of the Study

This study comprises of five chapters. The first chapter presents a brief overview of the study and the next chapter provides a review of literature that relevant to this study. Chapter 3 begins with the research framework, followed by the methodology utilised in this study. The fourth chapter displays the results of the analysis and finally, the last chapter concludes the whole study by including discussion, limitation of this study and suggestion for future implication.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Introduction

This chapter reviews on the literature related to private information-based trading, board independence, audit committee, board gender diversity as well as the rationales of their relationships. Section 2.2 provides the overview of private information-based trading, including the incentives and consequences of private information-based trading. The agency problem of private information-based trading, on the basis of agency theory, is also discussed in this section. This is followed by a review on the board independence and a discussion on the reasoning of its relationship with private information-based trading in Section 2.3. The relationships between board independence, independent audit committee, and private information-based trading are discussed in Section 2.4, whereas Section 2.5 discusses the nexus between board independence, women directors, and private information-based trading. Finally, Section 2.6 lists out the summary of hypothesis.

## 2.2 Review of Private Information-based Trading

Based on the word "private information-based trading", it may literally defined as trading (buying or selling) on a company's securities with the access of material private information. In finance literature, other close terms like "insider trading" (Dai, Fu, Kang, & Lee, 2016; Fishman & Hagerty, 1992; Hillier, Korczak, & Korczak, 2015; Sawicki & Shrestha, 2008; Wasiuzzaman & Lim, 2017) and "informed trading" (Chen, 2018; Collin‐Dufresne & Fos, 2015; Feng, Wang, & Zhang, 2017; Sung, Johnson, & McDonald, 2016; Valseth, 2016) were often seen and used to describe the similar matter.

From the theory perspective, the “disclose or abstain” principle grounded from the classical theory of insider trading narrates that, corporate insider’s trading on company’s stock is fraudulent when his transaction is on the basis of nondisclosure material private information and when he fails to disclose those information due to his fiduciary relationship with his counterparty - corporate’s shareholders (Acoba, 1998; Hensley, 1969). This is to say, corporate insiders in possession of corprate’s material private information, are obliged to either disclose it or abstain from trading it, else they would be found guilty for breaching a fiduciary duty. (Ausubel, 1990; Du & Wei, 2004).

In legal context, the United States is known as the pioneer in development of insider trading legislations since 1930s (Lekkas, 1998). Learning from the case of *Chiarella v. United States, 445 U.S. 222 (1980)*, the U.S. Supreme Court awared that noncorporate insiders, e.g. Chiarella, an employee of a financial printer who owe no fiduciary duties would also probably be informed or came into possession of private information while handling corporate takeover bids documents and trade on target companies’ stock.[12] Therefore, subsequent to *Chiarella* case, the jury decided to revise the law and propose the misappropriation theory to extend insider trading liability to corporate “outsiders” who possess the material insider information by any chance, instead of disclosing it, exploit the information and gain profits. (Aldave, 1984; Gubler, 2016; Quinn, 2003).

Henceforth, to date, under the jurisdiction of Securities and Exchange Commission of the United States, any individual (insiders or outsiders) or entity which trade on private information or inside information that was not being disclosed will be convicted of violating Section 10(b) of the Securities Exchange Act of 1934 and Rule

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[12] *See Chiarella v. U.S., 445 U.S.* at *235-37 (1980).*

10b-5, hence penalised. Followed by the United States, insider trading legislation has been enforced in most of the countries with securities market in order to protect the capital market and uninformed investors (Bhattacharya & Daouk, 2002). In this instance, at least, Malaysia is no exception. Later in September 2007, like the concept of U.S. insider trading law, Bursa Malaysia Securities Berhad in Malaysia passed the Capital Market & Services Act (CMSA) and stated the description for market misconducts including illegal trading under Part V of CMSA to govern insider trading in the country.

Nevertheless, not all insider trading and informed trading are illegal. For instance, corporate insiders like directors, executives, managers, officers and employees were often being granted company stocks or stock options as compensation and trade on it (Aboody & Kasznik, 2000; Carlton & Fischel, 1982; Henderson, 2011; Leland, 1992; Leland & Pyle, 1977). Empirical evidences contended that by permitting such insider trading can acutally motivate officers to be more innovative (Manne, 1966), encourage more risk taking and create value to the company (Bebchuk & Fershtman, 1994; Carlton & Fischel, 1982; Inci, 2012). Therefore, the law set a condition which stated that, if such insider tradings were conducted in accordance with the "disclose or abstain" princple under the securities laws and were filed within the stipulated periods, hence might not constitute prohibited insider trading (Aktas, De Bodt, & Van Oppens, 2008; Newkirk & Robertson, 1998; Wang, 1980).

On the other hand, from the viewpoint of informed trading, despite there is a rich body of empirical studies that investigate informed trading, most of these studies focus on trades that are motivated by firm-specific nonpublic or private information (Chen, 2018; Collin - Dufresne & Fos, 2015; Grégoire & Huang, 2008; Kitamura, 2016; Perotti & Von Thadden, 2003; Sung et al., 2016; Valseth, 2016). In other research,