OWNERSHIP STRUCTURE AND THE PROBABILITY OF FINANCIAL REPORTING FRAUD

A THESIS

Presented as a Partial Fulfilment of the Requirements to Obtain the Bachelor Degree in Accounting Department

By:

NADHIRA FITRIANI

Student Number: 15312468

INTERNATIONAL PROGRAM

FACULTY OF ECONOMICS

UNIVERSITAS ISLAM INDONESIA

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DECLARATION OF AUTHENTICITY

Hereby I declare to the originality of this thesis; I have not presented someone's work to obtain my university degree, nor have I presented anyone else's words, ideas, or expression without any of the acknowledgements. All quotations are cited and listed in the reference of this thesis. If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.

Yogyakarta, May 27th 2019

Researcher,

Nadhira Fitriani

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بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

Assalamu'alaikum Warrahmatullah Wabarakatuh.

All perfect praise is due to Allah ﷻ, the Lord of the World. I bear witness than none is worthy of worship but Allah ﷻ, alone with no partners. And I bear witness that Muhammad ﷺ is His Messenger, may Allah ﷻ exalt his mention.

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Nadhira Fitriani

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ABSTRACT

OWNERSHIP STRUCTURE AND THE PROBABILITY OF FINANCIAL REPORTING FRAUD

This study aims to determine the influence of ownership structure, namely managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership on the probability of financial reporting fraud. This research is a quantitative study with a sample of 353 manufacturing companies listed in Indonesia Stock Exchange (IDX) during the period of 2013 until 2017. The sampling technique was purposive sampling, while the data collection method used data from the company's financial report taken from Indonesia Capital Market Directory or the company's official website. The result of this study indicated that managerial ownership, institutional ownership, and foreign ownership have a negative and significant effect on the probability of financial reporting fraud. On the other hand, family ownership and public ownership have no effect to the probability of financial reporting fraud.

Keywords: *Ownership Structure, Managerial Ownership, Institutional Ownership, Foreign Ownership, Family Ownership, Public Ownership, Probability of Financial Reporting Fraud.*

ABSTRAK

STRUKTUR KEPEMILIKAN DAN PROBABILITAS KECURANGAN LAPORAN KEUANGAN

Penelitian ini bertujuan untuk mengetahui pengaruh struktur kepemilikan, yaitu kepemilikan manajerial, kepemilikan institusional, kepemilikan asing, kepemilikan keluarga, dan kepemilikan public terhadap probabilitas kecurangan laporan keuangan. Penelitian ini merupakan penelitian kuantitatif dengan sampel sebanyak 353 perusahaan manufaktur yang terdaftar pada Bursa Efek Indonesia selama periode 2013 sampai 2017. Teknik pengambilan sampel adalah menggunakan *purposive sampling*, serta metoda pengumpulan data adalah menggunakan data perusahaan yang didapat melalui laporan keuangan perusahaan dan diakses melalui direktori pasar modal Indonesia atau *website* resmi perusahaan. Hasil penelitian ini menunjukkan bahwa kepemilikan manajerial, kepemilikan institusional, dan kepemilikan asing berpengaruh negative dan signifikan terhadap probabilitas kecurangan laporan keuangan. Sedangkan, kepemilikan keluarga dan kepemilikan public tidak berpengaruh terhadap probabilitas kecurangan laporan keuangan.

Kata kunci: *Struktur Kepemilikan, Kepemilikan Manajerial, Kepemilikan Institusional, Kepemilikan Asing, Kepemilikan Keluarga, Kepemilikan Publik, Probabilitas Kecurangan Laporan Keuangan*

CHAPTER I

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

In this era, many information, such as the economic condition of a country, can be easily accessed and obtained at any time and in anywhere around the world due to its fast dissemination as the result of current technologies. A similar thing seems also to be happened in public companies who have many kinds of stakeholders, for example investors, creditors, and many more. This phenomenon can be proven through the trend of many public companies nowadays disclosing their financial and non-financial information using electronic-based documents in their accessible website. These financial and non-financial information usually are combined in a document namely a financial report.

Essentially, a financial report includes the description of all accounting activities of a company which can be used as a reference by internal and external parties to make decisions (Affan, 2017). Based on the Statement of Financial Accounting Concept (SFAC) No. 2, if a financial report meets the qualitative characteristics of understandable, relevant, reliable, and comparable, the use of financial reporting will be more vivid. According to IAI (2009), financial statement has a primary objective to provide information regarding financial position, performance and changes in financial statement of a company. Moreover, Affan, et.al. (2017) explained that a good quality financial report pronounces the actual state of the company and can be used to predict the state of the company in the

future. Thus, it is necessary for internal and external users in guiding the company towards better directions.

The increasing competition among industries have made several companies to window-dress their financial reports to be more representable in the eyes of shareholders. The phenomenon of window-dressing can be explained because there is a difference in the interest between managers and shareholders. The difference will push manager to commit earnings management to engineer the results of financial reporting which will affect the quality of financial reporting at the end. When a financial report is window-dressed, then it will affect the reliability of the financial report. The increasing occurrence of fraudulent financial reporting have attracted many parties, such as publics, investors, creditors, and other stakeholders.

According to Hayes, et.al. (2014) stated that fraudulent financial reporting is an intentional misstatement which is relevant to auditor. It is an act of omission of amounts and disclosures in financial statements in order to deceive financial statement users (Hayes, Wallage, & Gortemaker, 2014). Fraudulent financial reporting is mainly caused as the result of management's effort to deceive financial statement users by managing earnings especially for the company's performance and profitability. Furthermore, it is also explained that actions like inappropriate adjustment tend to be increasing until it can result in fraudulent financial reporting as the pressures to meet market expectations and the desires to maximise executive compensation to become higher. Ravisankar, et.al. (2011) as cited in Huang, et.al.

(2016) stated that fraudulent financial reports are committed to increase the price of share or to get loans from banks.

There are many cases of accounting scandals which had happened several years ago. Enron scandal happened in 2001 had given lost to its shareholders for as much as $74 billion (CNN Library, 2018). WorldCom scandal happened in 2002 had created estimated losses of $107 billion, the investigation process revealed that the executives were inflated the assets of WorldCom for about $11 million using dodgy accounting (Kottasova, 2015). Those scandals are forms of fraudulent financial reporting which have been done by the internal parties, such as management of the company.

Even a report from Association of Certified Fraud Examiners (ACFE) according to its global study year 2014 stated that, the median loss which had been created by fraudulent financial reporting is the biggest losses compared to other fraud factors such as asset misappropriation and corruption, but it is sadly increasing each year (Association of Certified Fraud Examiners, 2014). Meanwhile, the study in Indonesia which was done also by ACFE in 2016 showed that financial reporting fraud has the lowest percentage as the cause and of losing money, but it is noted that there are not many disclosures about the crime (ACFE Indonesia, 2016). In the report of 2016, it is explained that the loss resulting from fraudulent financial reporting is still big although it has the smallest percentage overall. It is proven by the survey showing that for about 40% (4 out of 10) respondents said the loss for fraudulent financial reporting is above IDR 10 billion.

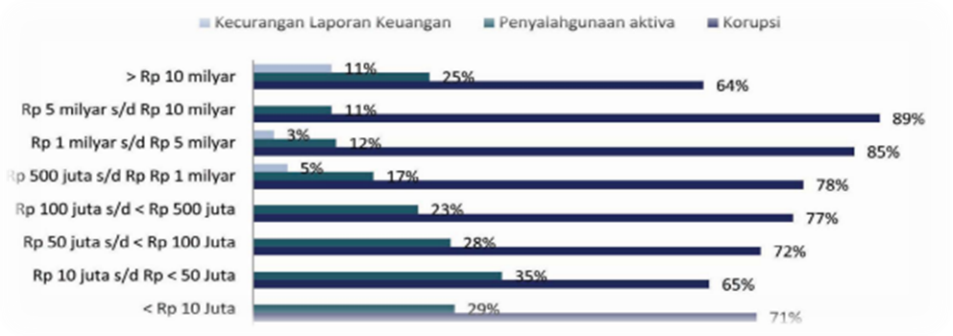

Figure 1.1 Loss due to fraud based on the kind of fraud

Source: ACFE, Indonesia Fraud Survey (2016)

Meanwhile, the case of fraudulent financial reporting in Indonesia comes from one of the biggest pharmaceutical companies which is PT Kimia Farma. In 2001, it was announced that its net income was IDR 132 billion, after there had been a re-audit of its financial statements which showed that there was only IDR 100 billion being left on its income. Then, it was revealed that the ex-Director of PT Kimia Farma had overstated the net income for the book year of 2001. The auditor of PT Kimia Farma was said to be lax in examining the financial statement and experienced decrease in its reputation. The case of PT Kimia Farma should become an alarm for Indonesia policy regulators and accountant firms to pay more attention in fraudulent financial reporting and not just in corruption cases.

Fajaryani (2015) explained that Indonesia as a developing country cannot be separated from the case of financial reporting with low integrity. Similar cases also occur in mining companies like PT Arutmin Indonesia, PT Kaltim Prima, and its parent company (Bumi Resources Ltd.). Those companies were suspected to bring about their sales reports which gave loss to the country for as much as USD 620.49 million. Indonesia has corruption as the main biggest reason of fraud. A

relevant study of Zainal, et.al. (2013) stated that due to its image as the corruption country and the promising financial performance, Indonesia is becoming more interesting as the fact that a study revealed the endemic culture of corruption to influence corporate governance (Zainal, Rahmadana, & Zain, 2013). Corporate governance includes the structure of the company, for example management of the company, board of directors, audit committee, and so forth. Meanwhile, the high percentage of corruption in Indonesia showed that there are crises of integrity in Indonesia which are including individuals from any kinds of position. Thus, there should be requisite control systems and a working environment which upholds personal honesty and fairness to prevent the occurrence of fraud.

Additionally, a report issued by Association of Certified Fraud Examiners (ACFE) in 2018, showed that Indonesia had 29 cases out of 220 cases of fraud done by management in Asia-Pacific region which makes it to be the third country which have big number of cases. Nevertheless, it is stated by Djankov, et.al. (2008) as cited in Ratmono (2017) that Indonesia is included as the cluster of code law countries with a weak level of investor protection and two tiers board system in its corporate governance. On the other hand, it is explained in Syamsudin (2017) that the characteristics of investors or shareholders in Indonesia tend to be more speculative and capital gain-oriented which will cause the expected return will be too high. Additionally, Tarjo (2008 & 2010) as cited in Tarjo (2015) confirmed that *go public* companies, especially the manufacturing industry, can manipulate their profit. On the other hand, recently the government of Indonesia still tries to increase investment in manufacturing industries. It has been stated in Nurdiniah

(2017), in the era of the seventh president of Indonesia, the manufacturing industry has a very important role in national development of economy. It is proven by in the third quarter in 2013, despite slowdown in the economy as the result of global crisis, the manufacturing sector still continued to experience growth which increased to 6.83% compared to the same period in the previous year. It is also proven in the report from ACFE that manufacturing companies are the most victimized by occupational fraud (fraud done by management or employee) with 38 cases in Asia-Pacific region (ACFE, 2018).

There could be several reasons of fraudulent financial reporting. In auditing world, it can be looked in the fraud triangle theory which consists of three elements, those are perceived pressure, perceived opportunity, and the ability to rationalized the fraud. The fraud triangle is a model which was introduced by Cressey in 1953. It is a model for explaining factors that cause someone to commit occupational fraud or is composed of three components which can possibly lead to fraudulent behaviours. The first element explained that fraud can occur if someone has an *incentive* or *pressure* to commit fraud due to financial or other types of needs. The second element will be more likely to the situation which might be conducive to commit fraud, for example weak internal control system, poor security over a company's property, and unclear policies related to acceptable behaviours (Huang, Lin, Chiu, & Yen, 2017). Then, the third element which is rationalization means the response of accepting this behaviour for various reasons. Meanwhile, Albrecht, et.al. (2009) discussed 9 factors which can cause the *perfect fraud storm* such as a booming economy, decay of moral values, misplaced incentives, high analysts'

expectations, high debt levels, focused on accounting rules rather than principles, greed, lack of auditor independence, and educator failures (Albrecht, Albrecht, Albrecht, & Zimbelman, 2009).

Agency theory explains the background of the probability of fraudulent financial reporting by the existence of information asymmetry between agent (management) and the principal (shareholders). In Syamsudin (2017) and Apriada (2016) stated that go-public companies have a purpose to maximize the welfare of shareholders. By maximizing the welfare of shareholders, it is expected that other prospective investors will be interested to put their capital in the company. Moreover, it is stated in Apriada (2016) that ownership structure will give a significant effect towards the sustainability of a company and affects its performance and quality in order to achieve its main objective to maximize company's value. In other words, principals or shareholders provide facilities and funding for the company's operation needs. Meanwhile, agents or managers are obliged to manage the company to achieve favourable earnings. Hence, agents will get salary, bonus, and other kinds of remuneration in return of their work. This condition leads to agency conflict when agents are too interested to get earnings from financial compensation and principals are more interested in getting higher profit. The difference of interest will cause several problems in a company such as agency cost, capital structure policy, and the behaviour of manager (individualistic, opportunistic, and self-interest) (Listyawati, 2016).

Prasetyo (2012) as cited in Listyawati (2016) stated that there are several alternatives to reduce problems which have been caused by agency conflict, those

are inclusion of management shares ownership, increasing *dividend pay-out ratio*, funding from debt, and institutional ownership. Moreover, Syamsudin (2017) added that corporate governance is required to hinder the effect of power concentration by management and is established to create an effective and a balance system to the authority distribution between shareholders, directors, managements, and other lower-level stakeholders. Besides, it has been said by several studies that ownership structure, especially institutional ownership, can reduce the conflict between principals and agents due to the capability to control to oversee or monitor the management.

Some studies were conducted to investigate financial reporting fraud problem. In Indonesia, the researchers are Pamungkas (2018), Nurdiniah (2017), Ratmono (2017), Syamsudin (2017), Annisya, et.al. (2016), Listyawati (2016), Suryanto (2016), Yulia and Basuki (2016), Manurung and Hardika (2015), and Mardiana (2015). Meanwhile studies from overseas were done by Ghafoor (2018), Cumming (2017), Wang, et.al. (2017), Yang, et.al. (2017), Hoberg (2017), Huang, et.al. (2017), Cormier (2016), Hussain, et.al. (2016), Lau (2016), Nia, et.al. (2016), Rahman, et.al. (2016), Smaili and Labelle (2016), Arshad (2015), Blankley, et.al. (2015), Hamid, et.al. (2015), and Wu, et.al. (2014). Those researchers generally indicated that fraud is influenced by several factors, such as corporate governance (Board of directors and its characteristics, audit committee and its characteristics, ownership structure, ownership concentration), leverage, profitability, stability, liquidity, tax aggressiveness, political connections, and many more.

Pamungkas, et.al. (2018) used fraud diamond model to study the relationship between corporate governance and accounting fraud. The independent variables are financial stability, ineffective monitoring, change in auditor, and change in direction. They found that change in direction opens opportunities to fraud. Meanwhile, institutional ownership is found to weaken the relationship between change in direction and accounting fraud. Another research which used fraud diamond model was done by Annisya, et.al. (2016). Pressure is proxied by financial stability, external pressure (leverage), and financial target (ROA), opportunity is proxied by nature of industry, rationalization is proxied by audit opinion, and capability is proxied by change in directorship. It is found that only financial stability can give positive effect towards financial statement fraud. Manurung and Hardika (2015) also used almost the same variables mentioned in the previous research. However, they found that only capability which is proxied by change in directorship affects financial reporting fraud.

Nurdiniah and Pradika (2017) studied the effect of good corporate governance, KAP reputation, company size, and leverage on the integrity of financial statements. It was found that leverage and institutional ownership do not have any relationship towards the integrity of financial statement. On the other hand, Ratmono (2017) tried to prove whether fraud triangle model can explain fraudulent financial reporting. Pressure is proxied by several variables like gross profit margin, net profit margin, sales change, asset change, operating cash flows ratio, sales to account receivable, sales to total asset, inventory to total asset, loss, managerial ownership, return on assets, leverage, and many more. Meanwhile,

opportunity is proxied by change in account receivable and inventory ratio, audit committee independence and expertise, number of directors leaving, and others. Also, rationalization is proxied by auditor change and report. From the study, it was found that there is a positive significant relationship between pressure and opportunity towards financial reporting fraud.

Syamsudin (2017) studied the relationship of ownership structure (domestic ownership, foreign ownership, and public ownership) towards financial statement fraud. The theory used in this study was agency theory and fraud triangle model with pressure as the aspect being studied. However, the researcher had found that there is no research studied about the relationship of all kinds of ownership structure towards financial reporting fraud. Listyawati (2016) studied the effect of financial leverage, liquidity, profitability, independent directors' existence, audit committee, and external auditor's classification towards financial statement fraud. It was found that leverage and capital turnover influence fraudulent financial reporting, while other factors do not. Next, Yulia and Basuki (2016) found that only personal financial need affects someone to do financial statement fraud. Finally, Mardiana (2015) found that family ownership and foreign ownership are negatively affecting financial reporting fraud, audit firm reputation has no effect to it.

Ghafoor, et.al. (2018) studied the likelihood of financial reporting fraud by implementing fraud triangle model. Tax aggressiveness and financial distress which are the proxies for pressure are positive towards financial reporting fraud. Institutional ownership, particularly dedicated one, reduces the likelihood of

financial reporting fraud, yet family ownership seems have no effect on financial reporting fraud. Board independence, audit committee effectiveness, and the existence of female on board reduce the likelihood of financial reporting fraud. Also, rationalization proxied by prior violations and change of auditor is significantly affecting financial reporting fraud.

Huang, et.al. (2017) indicated that the highest weight of fraud triangle dimension is pressure/ incentive, the second is opportunity, and the last is attitude/ rationalization. Wang, et.al. (2017) found that managerial ability leads to the reduction of occurrence in financial reporting fraud, also it will be more influential in non-connected firms rather than politically connected one. Yang, et.al. (2017) found that companies with high shareholding concentration will be less likely to commit financial reporting fraud. Also, state-owned companies seem not to have any significant probability to commit financial reporting fraud. Audit tenure shows a negative significant relation to financial reporting fraud and the characteristics of regulators have positive impacts to it. Cormier, et.al. (2016) found that firms with external block holders, less independent directors, and a big 4 auditor are less likely to engage in financial misreporting. Hussain (2016) found that the percentage of family ownership is significantly negative to financial misstatement. Nia, et.al. (2016) found that there are significant relationships between institutional ownership and CEO influence to financial reporting fraud.

There are several consistent variables in the study. Corporate governance which was studied by Al-Qadasi, et.al. (2018), Pamungkas (2018), Cormier (2016) had a negative effect towards financial reporting fraud. Other variables are

existence of founder in the board, audit committee size, ownership structure, domestic ownership, liquidity, audit industry specialization, and operating cycle. Furthermore, audit committee independence by Yang, et.al. (2017) and Hamid (2016) was found to be higher in fraudulent companies. Tax aggressiveness was studied by Ghafoor, et.al. (2018), Rahman, et.al. (2016), and Aris, et.al. (2015) who found that fraudulent companies tend to avoid the payment of taxes. Lastly, political connections which was studied by Hashmi, et.al. (2018), Ghafoor, et.al. (2018), Wang, et.al. (2017), and Wu, et.al. (2014) have a significant positive effect to fraudulent financial reporting.

However, there are also several inconsistent variables, which are size of the board, audit committee expertise, CEO duality in the board, state ownership, associated company ownership, ownership concentration, financial leverage, financial stability, audit delay, pressure, opportunity, rationalization, and capability, also change in auditor. However, this study will focus on the ownership structure which are managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership. Managerial ownership is found to be inconsistent. It is proven by the research by Yulia and Basuki (2016) who found a positive significant relationship between managerial ownership and financial reporting fraud. It is supported by Apriada, et.al. (2016) who found that there is a negative relation between managerial ownership and firm value. Meanwhile, Affan (2017), Rosyida and Subowo (2016), and Fajaryani (2015) found no effect of it towards financial statement fraud.

Institutional ownership is said by many studies to reduce the probability of financial reporting fraud. Still, there are many differences in the findings of several researchers. Nia, et.al. (2016) found that there is a negative relationship between institutional ownership and fraudulent financial reporting. It is supported by Pamungkas, et.al. (2018) who found that it can decrease the effect of change in direction towards accounting fraud and Fajaryani (2015) who found that institutional ownership can minimize the opportunistic action by management. Meanwhile, Ghafoor, et.al. (2018) found that institutional ownership is lower in fraudulent companies.

Foreign ownership has negative effect to financial reporting fraud through the study of Syamsudin (2017) and Mardiana (2015). Meanwhile, Affan, et.al. (2017) found that it is positively related to real earnings management, which means that it will result to lower quality of financial reporting. Next, family ownership is found to be negatively significant to fraudulent financial reporting according to studies by Hashmi, et.al. (2018), Hussain, et.al. (2016), and Mardiana (2015). However, Ghafoor, et.al. (2018) found a positively insignificant effect of family ownership towards financial reporting fraud. Then, public ownership will reduce the probability of financial reporting fraud based on Syamsudin (2017). Meanwhile, Yasser (2017) found that public ownership will positively associate to low financial reporting quality.

Profitability is found to have a different effect towards financial reporting fraud. Huang, et.al. (2017), Hoberg (2017), and Rahman, et.al. (2016) found that there is a positive relation between financial misreporting and profitability. On the

other hand, Pamungkas, et.al. (2018), Listyawati (2016), and Annisya (2016) found no relationship between those two variables. Then, related to company size, Syamsudin (2017) found that company size has a positive significant impact towards financial reporting fraud. Meanwhile, Gamez (2016) and Wu, et.al. (2014) found that there is a significant negative relationship between company size and the likelihood of fraud. After that, financial distress is found to be significant and positive towards financial reporting fraud. Independence of board of directors was found to have no effect to fraud through studies by Yang, et.al. (2017), Huang, et.al. (2017), Listyawati (2016), and Manurung and Hardika (2015). Though, Ghafoor, et.al. (2018) and Cormier, et.al. (2016) found companies which engage less in financial reporting fraud have fewer independent directors and these findings are contradictory to Wu, et.al. (2014) who found a negative association between those two variables. Finally, well-reputable audit firms which are included in the Big4 tend to engage less with companies who misreport its financial statements. It is different from studies by Smaili and Labelle (2016) and Mardiana (2015) who found no relationship of audit firm reputation to financial reporting fraud.

Mardiana (2015) suggested to include financial ratios like profitability to predict its relationship to financial reporting fraud. Meanwhile, Fajaryani (2015) suggested to study the relationship of audit firm reputation to financial reporting fraud. The weakness of previous studies is that there is still no research studying the relationship between the elements of all kinds of ownership structure and financial reporting fraud. This means that several elements like institutional

ownership is being studied separately with other elements like public ownership, foreign ownership, family ownership and managerial ownership to know their relationship towards financial reporting fraud. For instance, the study by Syamsudin (2017) only included foreign ownership, domestic ownership (as a kind of institutional ownership), and public ownership to examine the effects of those variables to financial reporting fraud.

Meanwhile, Hussain, et.al. (2016) studied family ownership to the occurrence of financial misstatement, Ghafoor, et.al. (2018) studied institutional ownership and family ownership to fraud, Ratmono (2017) and Yulia and Basuki (2016) studied managerial ownership to financial reporting fraud. Additionally, Nia, et.al. (2016) Wu, et.al. (2014) studied the relationship between institutional ownership and financial statement fraud. Lastly, Mardiana (2015) studied the effects of foreign ownership and family ownership to financial reporting fraud in Indonesia. Therefore, the researcher is interested in conducting a study which integrates kinds of ownership structure mentioned before namely managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership to financial reporting fraud in Indonesia through a study entitled **"OWNERSHIP STRUCTURE AND THE PROBABILITY OF FINANCIAL REPORTING FRAUD"**.

1.2. RESEARCH PROBLEMS

This study aims to answer the following problems:

1. Does managerial ownership affect the probability of financial reporting fraud?
2. Does institutional ownership affect the probability of financial reporting fraud?
3. Does foreign ownership affect the probability of financial reporting fraud?
4. Does family ownership affect the probability of financial reporting fraud?
5. Does public ownership affect the probability of financial reporting fraud?

1.3. RESEARCH OBJECTIVES

The purposes of this study are to:

1. Analyze the influence of managerial ownership to the probability of financial reporting fraud.
2. Analyze the influence of institutional ownership to the probability of financial reporting fraud.
3. Analyze the influence of foreign ownership to the probability of financial reporting fraud.
4. Analyze the influence of family ownership to the probability of financial reporting fraud.
5. Analyze the influence of public ownership to the probability of financial reporting fraud.

1.4. RESEARCH CONTRIBUTIONS

The contributions of this research are for:

1. Academics

This study contributes to the body of knowledge in financial reporting fraud and financial misstatement literature, as well as the growing literature on forensic accounting. It is expected to acknowledge academicians related to the effect of all kinds of ownership structure, as part of corporate governance and internal control system, to the involvement of financial reporting fraud which has not been studied before. Previous studies from Syamsudin (2017) only examined the relationship between domestic ownership (as institutional ownership), foreign ownership and public ownership to financial reporting fraud. Meanwhile, other studies related to financial reporting fraud, such as Hussain, et.al. (2016) studying about family ownership and Yulia and Basuki (2016) studying about managerial ownership, have ownership variables which are being studied separately. Therefore, this study is also expected to become the breakthrough for future studies to examine the relationship between those kinds of ownership structure if they are integrated to determine the effects to the probability of financial reporting fraud.

2. Practice:

a. Auditors

The result of this study may facilitate external auditors to consider the possibility of financial misstatement which comes from fraudulent act possibly done by interested parties in a company. Meanwhile, for the internal auditors, this study will give the consideration to establish effective monitoring systems for the company which has an opportunity to conduct financial reporting fraud.

b. Other financial statement users

It is expected that this study can be a tool for other financial statement users, such as investors and creditors, to assess the probability of financial reporting fraud. Therefore, risks will be minimized as of the users of financial information are more attentive in making decisions.

c. Regulators

The findings may help regulatory bodies such as Indonesian Stock Exchange, Financial Service Authority, and others in formulating guidelines related to inspections and investigative focus and paying particular attention for companies with specific ownership structure to improve the enforcement of law in detecting financial misstatement caused by financial reporting fraud.

1.5. SYSTEMATICS OF WRITING

This research is designed into following chapters:

CHAPTER 1: INTRODUCTION

In this chapter, it includes the general description of research by explaining the background of the study, problem formulation, research contributions, and systematics of writing.

CHAPTER 2: REVIEW OF RELATED LITERATURE

This chapter incorporates the review of previous studies which can give the in-depth research information and can relate to specified theories. Thus, it includes, literature review, basic theory, research model, and hypothesis development.

CHAPTER 3: RESEARCH METHOD

The third chapter of this study discusses the method of conducting the research by including the explanation of variables used, population and sample determination, data collection and analysis methods (statistical tools used to analyze the data).

CHAPTER 4: DATA ANALYSIS AND DISCUSSIONS

This chapter explains about the result of findings and discussions related to the research analysis.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

Finally, the last chapter of this study summarizes the research contents into conclusion section. Additionally, this part will contain recommendations and suggestions for future studies.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. LITERATURE REVIEW

2.1.1. Financial Statement Fraud

The fast-paced economic condition grows the interest towards audit quality. Audit quality is very important to enhance the quality and reliability of financial statements. Based on the past financial crisis events, accountants especially auditors put audit quality as a going concern issue. Several studies stated that audit quality can be defined as the probability of no material misstatements in the financial statements. In addition, the credibility of financial information and the higher audit quality results of being more accurate information. A lower audit quality showed that there could be some inconsistencies for the information given to shareholders, thus it might indicate some intended deceiving action done by one or more self-interested parties.

Based on the Statement of Accounting Standards No. 99, financial statement fraud is a non-deliberate action which is done to produce material misstatements in a financial report as the audit subject. According to Ernst & Young (2004) as cited in Syamsudin, et.al. (2017), that fraud is an intended action which aims for fulfilling one's interest and is usually done by management, employee, or other parties through providing false information to the financial statement. Albrecht and Albrecht (2003) as cited in Yulia, et.al. (2016) stated that, fraud is classified into five kinds, namely:

1. Embezzlement of employee or occupational fraud, is a kind of fraud done by subordinates to their superior.
2. Management fraud, is a fraud done by management to the shareholders, creditors, or other parties who use the financial statement.
3. Investment scam, is a fraud done by individuals to the investors.
4. Vendor fraud, is a fraud which is done by an organization/ individual who supplies goods/ services to the organization/ individual who uses the goods/ services, or no shipment of goods though the payment has been made.
5. Customer fraud, is a kind of fraud which is done by the customer who buys the goods/ services from an organization.

According to International Federation of Accountants as cited in Hussain (2016), financial misstatement is "differences between the amount, classification, presentation or disclosure of a reported financial statement item and the amount, classification, presentation or disclosure that is required for the item to be in accordance with the applicable financial reporting framework" (Hussain, Sanusi, Mahenthiran, & Hasnan, 2016). Financial statement fraud, commonly known as management fraud, is an intentional act of misrepresentation, misstatement, or omission of financial information in order to give misleading information for the stakeholders of a company about the company's financial strength. Elliot and Willingham as cited in Yulia and Basuki (2016) stated that, "the deliberate fraud committed by management that injures investors and creditors through materially misleading" (Yulia & Basuki, 2016). Meanwhile, based on ACFE or *Association of Certified Fraud Examiners* (2014) as stated in Reskino & Anshori (2015), stated

that financial statement fraud is a depiction or presentation of a company's financial condition which is intentionally mislead by a deliberate misstatement or an omission of value/ amount or a disclosure in the financial statement which is purposively done to deceive financial statement users (Reskino & Anshori, 2015).

According to SAS No. 99, there are two types of financial statement fraud, namely:

1. Financial reporting fraud, is mentioned as an intentional or a negligence in the amount of disclosure of financial report which is designed to mislead the users.
2. Misappropriation of assets, comes from the theft of an entity's assets, the result of which is that the financial statements are not presented in accordance with GAAP in all material respects (Steffen, 2017).

Furthermore, there could be several reasons which are possibly background financial reporting fraud, for example: excessive pressure from/ within organization, control issues/ unwillingness to share duties, or employee's wheeler dealer attitude. Those reasons which become the red flags of financial reporting fraud were discussed by ACFE Report 2014 by showing the percentage for each indicator, for example, the pressure of an organization as much as 26.4% is higher than other types of fraud, which are corruption and asset misappropriation (Association of Certified Fraud Examiners, 2014). Misappropriation of assets can be done in several ways, taken from Steffen (2017), those are the theft of (1) cash on hand from sales, payment of receivables and refunds, (2) inventory and other assets through asset requisition and transfer, purchasing and receiving

arrangements, (3) fraudulent payments correlated to, like billing, payroll, expense reimbursement, and many more.

> "As stated in Suryanto (2016), several actions indicating fraudulent financial reporting are:
> - Manipulation, falsification, or alteration of accounting records and documents supporting financial statements;
> - Significant misinterpretation or misinformation in financial statements;
> - Misapplication of accounting principles related to amount, classification, presentation, and disclosure.
>
> He also added that the illegal agreement between independent auditor and management in which it is suggested to do job rotation for independent auditor to prevent the situation (Suryanto, 2016)."

Steffen (2017) added that financial reporting fraud can be occurred from financial and nonfinancial misstatement. Non-financial misstatement is related to falsifying or manipulating data, information, documents, or disclosures. Financial misstatements are generated from actions of overstating assets and revenues, as well as understating liabilities and expenses. The example of overstating revenue practice is early or late recognition of real transactions or events, like recording revenues prematurely. Meanwhile, for the understatement of expense is like the manipulation of inventory valuation which can decrease cost of goods sold through increasing ending inventory. According to Ball (2009) as cited in Lau, et.al. (2016), financial reporting fraud is an earnings management practice which shows the incapability of managers to comply with generally accepted accounting standards and breach relevant securities laws. It is supported in Hussain, et.al. (2016) stated that companies which tolerate the exercise of earnings management in their financial reporting will likely increase the probability of financial misstatements.

There are many opinions about which parties are being responsible for financial reporting fraud in a company. First, auditor is responsible to uncover fraud within a company. Second, management of a company has the responsibility to detect and prevent fraudulent activities in a company. In the externalities' point of view, financial reporting fraud can give undeserved benefits to the company and management while the rest of stakeholders which are investors and creditors could suffer loss. The existence of financial reporting fraud to deceive investors can decrease the quality of a financial report. Thus, financial reporting fraud could give bad impacts to the company, even it will put the company down to bankruptcy.

Fraud in financial statements also could affect stakeholders of the company, for example, the employee could lose their job or could not get allowances, investors' confidence in investing their money in the company could be shaken, and many more. Additionally, according to wells (2005) in Syamsudin, et.al. (2017) also stated that financial reporting fraud is very harmful because, (1) It can destroy the reliability, quality, materiality, and integrity in the reporting process, (2) It can danger the integrity and objectivity of auditor profession, mainly for internal and external auditor, (3) It can bring the capital market's confidence down towards the financial reliability, (4) There will be inefficiency in the capital market, and (5) The effect of economic development and national prosperity decreases.

2.1.2. Factors Influencing Financial Reporting Fraud

There have been several researches which are related to the factors which determine the occurrence of financial statement fraud (fraudulent financial

reporting). The researchers are Cumming, et.al. (2018); Pamungkas, et.al. (2018); Ghafoor, et.al. (2018); AlQadasi & Abidin (2018); Alzeaideen & Al-Rawash (2018); Hashmi, Brahmana, & Lau (2018); Ratmono (2017); Yang, Jiao, & Buckland (2017); Wang, Chen, Chin, & Zheng (2017); Hoberg & Lewis (2017); Huang, Lin, Chiu, & Yen (2017); Affan (2017); Syamsudin, Imronudin, Utomo, Prakoso, & Praswati (2017); Mahboub (2017); Nurdiniah & Pradika (2017); Suryanto (2016); Rashidah, et.al. (2016); Lau & Ooi (2016); Fernández-Gámez, García-Lagos, & Sánchez-Serrano (2016); Cormier, et.al. (2016); Smaili & Labelle (2016); Cao, Chen, & Higgs (2016); Hussain, et.al. (2016); Annisya, Lindrianasari, & Asmaranti (2016); Cristina & Pinto (2016); Madhani (2016); Rosyida & Subowo (2016); Yasser, Mamun, & Ahmed (2016); Yulia & Basuki (2016); Listyawati (2016); Kadek & Suardhika (2016); Nia, et.al. (2016); Mardiana (2015); Tarjo & Herawati (2015); Hamid, Othman, & Rahim (2015); Arshad, Iqbal, & Omar (2015); Aris, et.al. (2015); Blankley, Hurtt, & MacGregor (2015); Manurung & Hardika (2015); Atik Fajaryani (2015).

Related to financial reporting fraud, there are several factors which affect a company to be involved a financial reporting case. The factors are corporate governance which includes board of directors and its characteristics (like the existence of independent directors, board size, gender diversity, CEO duality, the existence of founder in the board) and audit committee and its characteristics (like audit committee independence and expertise and also audit committee size), ownership structure (family ownership, managerial ownership, institutional ownership, state ownership, associated company ownership, public ownership,

foreign ownership, domestic ownership) and ownership concentration, company size, financial condition (leverage, profitability, stability, liquidity), tax aggressiveness, political connections, audit delay, pressure, opportunity, rationalization, capability, change in auditor, audit firm reputation, audit firm specialization, and operating cycle.

2.1.2.1. Corporate Governance

Corporate governance is a system in which a company is directed and controlled. Salehi, et.al. (2017) stated that the distribution of rights and responsibilities between different stakeholders in a company which are affecting and have been affected by the company is called corporate governance (Salehi, et.al., 2017). Moreover, they explained that corporate governance system gives the rules and procedures of decision-making process such as goal setting, designing control system of shareholders' return of capital, and many more. As stated in Al-Qadasi, et.al. (2018), corporate governance is a set of interrelated mechanisms which has aimed to align the conflict of interest between principals and agents, in addition it has strategic and institutional complementarities and also it depends on certain combinations, like ownership structure. According to Madhani (2016), the classifications of corporate governance system across the world, based on degree of ownership and control and the identity of controlling shareholders, are the outsider system (widely dispersed ownership) and the insider systems (more concentrated ownership and control).

Syamsudin, et.al. (2017) stated that, "corporate governance is required to prevent the concentration of power within management and to create a balance and

an effective system to counterpoise the power of distribution of authority between shareholders, board of directors, management and the lower level of other stakeholders" (Syamsudin, Imronudin, Utomo, Prakoso, & Praswati, 2017). Further explanation which is based on the substitution scenario stated that, a stronger internal monitoring environment can be a substitute for auditor's work, therefore the demand of higher extended audit service will be lowered. Alzeaideen, et.al (2018) stated the effective internal monitoring and governance system, within each company and in the economy as a whole, should enable safety of the economic action by providing the degree of confidence. On the other side, the complimentary view claimed that monitoring mechanisms complement each other, which means that more investment in one mechanism can give a significant effect to the other. Thus, a company with good corporate governance will tend to hire a specialist auditor.

Nowadays, the discussion of the establishment of proper corporate governance to enhance the quality of financial reporting and accounting income has been widely considered for the arrangement of regularities. Corporate governance mechanism consists of two groups, those are internal company (ownership structure and corporate control structure) and external company (law and market of corporate control) (Affan, 2017). Proper corporate governance is likely to be essential for the optimum application of resources, enhancement of responsiveness, transparency, and protecting the rights of stakeholders. Based on Apadore and Noor (2013), stated that it is necessary to determine the efficiency and effectiveness in corporate governance to improve the safeguarding for the

company specifically and shareholders commonly. Syamsudin, et.al. (2017) also stated that corporate governance plays a crucial role in increasing the efficiency of capital market through establishing efficiency and effectiveness in the company's operation, the growth of revenues and employees' integrities, and financial reporting reliability. Based on Farma and Jensen (1983) as cited in Smaili and Labelle (2016) stated that, there are three crucial corporate governance players, which are board of directors, audit committee, and auditor.

A finding by Al-Qadasi, et.al. (2018) showed that there is a positive significant impact of efficient corporate governance and the demand of audit quality. Pamungkas, et.al. (2018) found that board of commissioners can moderate the relationship between change in direction and financial statement fraud. It means that it weakens the relationship between those two by aligning the interests of ownership and management. Supported by Cormier, et.al. (2016) who found that Governance- board and audit control reduce the likelihood of firm engaged in financial misreporting, but the effectiveness of specific corporate governance mechanisms cannot be viewed in a contextual vacuum.

2.1.2.2. Board of Director and Characteristics

Generally, board of directors is known as a group of individuals who are elected by shareholders. Board of directors has a responsibility to set policies to management of a company and to make decisions to major issues, for example hiring or firing executives, dividend policies, and executive compensations, in a company. A statement by Fama and Jensen (1983) as stated in Smaili and Labelle (2016) showed that "The major responsibility of board of directors is to look after

the operation in a company as it is said as the highest level in a control mechanism" (Smaili & Labelle, 2016). Commonly, there are two kinds of directors, those are: Inside director is a director who has experienced related to company's value added and is interested in the issues of shareholders, officers, and employees.

Inside directors can improve the ability to control and to monitor a company's performance and set its strategies by contributing an inside director's expertise and insight for the company activities (Mobbs, 2008). Also, outside director is an individual who is indirectly included as the member of the company and is not contractually bounded. However, this type of director does not become the representative of any shareholders. The example of outside director is a director from a different industry which usually shares his experiences and perspectives to the board. Therefore, board of directors can influence the effectiveness of the quality of financial reporting through its composition and characteristics. As it has been known, corporate governance, especially, can assist in monitoring fraud done by management.

Board of directors is a part of corporate governance which has duties in order to control and supervise the work of management (agent). It plays as the trusted people which are appointed by numbers of shareholders (principal) to safe their wealth in the company. One of the characteristics might have been had on board of directors is independent directors. It is assumed that independent commissioner will possess integrity and strong independence, thus any kind of influence from management will not affect which will result in the efficiency and effectiveness in

controlling. As the result, it is expected that financial statement will not mislead users in decision making.

There are several differences in the findings of the effect of board of directors' independence towards fraudulent financial reporting. Based on Ghafoor, et.al. (2018) that independence of board of director can prevent the presence of fraud as it is providing a strong monitoring function. The finding is similar to Smaili and Labelle (2016) which found a negative significant impact of independence to financial statement fraud. Pamungkas, et.al. (2018) found that independent commissioners can reduce the relationship between change in direction and financial statement fraud. Yasser (2017) found that independence board has positively associated to financial reporting quality. It is suggested that independent directors will assist corporate board to be more reactive to investors, expectedly it will enhance the company's compliance of the disclosure requirements which will result in improving quality of financial reporting (Mahboub, 2017).

On the other hand, Yang, Jiao, & Buckland (2017) and Huang, Lin, Chiu, & Yen (2017), Listyawati (2016), and Manurung & Hardika (2015) stated that there is no relation between independence of the board towards fraud detection. Yulia, et.al. (2016) found that there is no relationship between financial statement fraud and independent commisionaires in the banking sector in Indonesia because the condition of ineffective monitoring does not happen to exist as of the tight regulations determined by government. This is also supported by Pamungkas, et.al. (2018) who found no effect of ineffective monitoring to financial statement fraud.

A different finding by Cormier, et.al. (2016) stated that firms with less independent directors are less to engage in fraudulent financial reporting. Mahboub (2017) found that there is an insignificant negative relationship between board of director independence and financial reporting quality. Meanwhile, Wu, et.al. (2014) found that the proportion of independent directors associates significantly negative to the likelihood of fraud. Ghafoor, et.al. (2018) found that board independence is less in fraudulent companies. Nurdiniah, et.al. (2017) found that there is a significantly positive relationship between independent directors and integrity in financial statement.

Next, board size is anticipated to have several effects to financial reporting quality. Board size is the number of members in the board. Several studies claimed that a greater board size will affect to better disclosure quality of a financial report. It is furtherly explained by Haji and Ghazali (2013) as cited in Mahboub (2017) that higher quality of financial reporting can be obtained by having larger board size as it will provide more competence and knowledge to the company which can affect to better monitoring capability. Meanwhile, several other studies also claimed that the lesser the members in a board, the better the communication and communication build, hence resulting in a high-quality financial report. Mahboub (2017) found that there is a positive significant relationship between financial reporting quality and board size. Wu, et.al. (2014) also found that board size is marginally significant to the likelihood of fraud. Yasser, et.al. (2016) found that there is a positive relationship between financial reporting quality and board size.

Also, Nurdiniah, et.al. (2017) found that there is an insignificant negative relationship between board size and integrity of financial statements.

Finally, gender diversity in the board of directors is also one of the aspect to be studied in order to find the relationship to mitigate fraud. For example, several countries, like Belgium, France, Iceland, India, Israel, Italy, Norway, and Spain, have introduced a value to regulation related to mandating minimum percentage of females on board of directors (Cumming, Johan, & Peter, 2018). Meanwhile, several literatures believed that the existence of female on board can reduce the likelihood of fraud and improve the company's performance. It is explained in Ghafoor, et.al. (2018) that women offer diversification in boardroom, help informed decisions, and demand diverse perspectives. Therefore, the aspects mentioned before could lower opportunities for fraudulent acts through increasing the monitoring and oversight function of the board. Ghafoor, et.al. (2018) found that there is a significant negative relationship between female on board and fraudulent companies.

A common pratice in directorate status which can hamper the independence of directorate is the duality of CEO/chairman (Yang, Jiao, & Buckland, 2017). Several literatures argued that the dual appointment will give too much power to the individual. A situation which may contribute to financial fraud in chinese firms is when the CEO cannot perform the chairman's monitoring function due to his personal interest. Yang, et.al. (2017) found that there are more than half of the fraud companies being studied, the directorate chairman person also serves as the CEO. It is supported by the finding of Smaili and Labelle (2016) who found that

companies that restate their financial statements and are allowed to re-file have the CEO who is also the chair of the board of directors. Wang, et.al. (2017) also found a significant positive relationship between fraudulent financial reporting and the duality of CEO and chairman of board of director. On the other hand, Nia, et.al. (2016) found that there is no significant correlation between CEO duality and fraudulent financial reporting.

Some argues that the existence of founder on the firm's boards can influence the occurrences of financial mistatements. Hasnan, et.al. (2013) as cited in Hussain, et.al. (2016) explained that founders are the first persons which build the business and leave a deep imprint in the culture of the business. Some literatures said that founders have a vision for the success of the firm. However, several findings also stated that companies which tend to tolerate financial statements are usually managed by the founders or influenced by the culture from the founders. It can happen because the founders face extreme pressures related to expected results to ensure the survival of the companies which may cause the founders to turn-a-blind-eye (Hussain et al., 2016). Hussain, et.al. (2016) found that there is a positive significant relationship between the existence of founder in the board and the financial statement restatement.

2.1.2.3. Audit Committee and Characteristics

In the concept of good corporate governance, there is also an audit committee. Audit committee existence is expectedly reducing and preventing the opportunistic behavior and demotivates management to perform fraudulent practices. Thus, this system in corporate governance should have strong

independence as of overseeing management actions and ensuring whether the company's activities has been carried out on appropriate legislation, rules, and norms (Nurdiniah & Pradika, 2017). According to Ratmono (2017), audit committee has a role to ensure the quality of financial reporting of a company. Hamid (2015) also stated that audit committee has been given the task for a more effective oversight role through assisting board of directors.

Several characteristics of audit committee is explained as follows. First, audit committee independence is the independent member of audit committee which comes from the outside. Several studies stated that a company with an independent audit committee tends not to be involved in fraudulent actions as of the function of the audit committee is to supervise the managers to do their job righteously. Thus, there has to be a negative relation between audit committee independence and financial reporting fraud. A finding by Yang, et.al. (2017) is puzzling because they claimed that fraudulent companies tend to have higher audit committee in Chinese listed firms. Meanwhile, Hamid, et.al. (2015) found that the independence of audit committee cannot guarantee companies for not being reprimanded for failure related to continuous disclosure.

Next, the expertise of audit committee. Based on the Financial Service Authority Regulations No. 55/POJK.04/2015 regarding the establishment and guidelines for audit committee implementation, in article 7-point e, is stated that there is an obligation to have at least a member who has an educational background and an expertise in accounting and finance. According to Ratmono (2017), the assumption is to reach the performance effectiveness. Additionally, financial/

accounting expert can guide other members in audit committee to identify questions which should be given to manager and external auditors. Therefore, it can increase the financial report quality. It is proven by the study of Ratmono (2017). It is also supported by the finding of Ghafoor, et.al. (2018) that audit committee expertise and the number of meetings will increase the audit committee effectiveness, furthermore the effectiveness of audit committee is found to be less in fraudulent companies. Listyawati (2016) found that there is no significant relation between financial statement fraud and audit committee expertise. The reason is that the existence of effective monitoring benefited from the expertise of audit committee cannot be settled to decrease financial statement fraud. Smaili and Labelle (2016) found that there is a significant difference between non-compliance companies and control companies in the respect of the existence of financial experts on the board and audit committee, whereas the fraudulent companies have fewer financial experts in their audit committee. Meanwhile, Hamid, et.al. (2016) found that audit committee with financial knowledge still found to have fraudulent financial reporting.

Then, audit committee size is one of the characteristics of audit committee. Several researches stated that the greater the number of members in the audit committee, the greater also the effectiveness of supervision so that the management will have no chance to commit in fraud. Based on the Regulation No. 55/POJK.04/2015 in the article 13 also stated that there should be at least 1 meeting in every 3 months, which means that in a year there should be at least 4 meetings held by audit committee. Then, studies claimed that the greater the number of

meetings held will increase the effectivity of the audit committee to supervise in order to minimize the fraud. Nurdiniah, et.al. (2017) found that there is no relationship between audit committee size and the integrity in financial reporting.

2.1.2.4. Ownership Structure

Ownership structure is one of the most important corporate governance characteristics of listed companies. Studies showed that the literature on ownership structure has focused on three dimensions: ownership structure, insider ownership, and owner's identity. Moreover, many have said that the pattern of ownership structure has a crucial role in determining the company's performance. Based on Madhani (2016) that there are two main components of ownership structure, which are concentration and composition. Concentration discusses the power of shareholders (principal) distributed used to influence the managers (agents).

Additionally, according to Madhani (2016) that, there are two major types of ownership structure and control, which are pyramidal and cross ownership. Pyramidal-ownership is the process of controlling a company through a chain of ownership relations, while cross-shareholding is through having shares in another company at the same business. Cumming, et.al. (2018) claimed that the frequency and severity of misconduct in corporations and financial markets can be determined by a variety of ownership structures and incentive. They also explained that equity incentives can substantially increase the likelihood of committing fraud and other agency problems. Mahboub (2017) found that there is a positive significant relationship between financial reporting quality and ownership

structure. He used a percentage of shares not held by known or concentrated shareholders to calculate ownership structure.

a) Family Ownership

According to Shiri, et al. (2018), family ownership is one of the most traditional socioeconomic institutions to have been recognized and includes three factors in the type of business, which are: family, ownership, and management (Mousavi Shiri, Salehi, Abbasi, & Farhangdoust, 2018). They also added that family owners in such companies not only have managerial and entrepreneurship skills but also should be benefited from life skills, for example communications at a high level. There might be general characteristics embodied in family companies, which are: a large portion of shares is usually owned by one or more major shareholders from a family and the executive and the operational positions are commonly assigned to family members. According to Yasser (2017), many companies are usually controlled by families or the state in East Asian countries. Some argued that there could be an agency conflict between family owners and managers or between family owners and other minority shareholders in the family-owned companies.

Additionally, Shiri, et.al. (2018) pointed out two opposing perspectives related to this kind of ownership structure which are: First, family owners have the capability to exert significant influence and control over managers, as the result any managerial misbehavior and expropriation can be prevented. It might happen by several reasons, for example, on condition of the share of the managers exceeds a threshold, they may be persuaded to provide a more reliable financial statement.

The first perspective, based on Hashmi, et.al. (2018), is related to the agency theory which predicts that family companies provide superior financial reporting quality because of the alignment between private incentive and company's interest which discourages manipulative actions which could harm reputation and long-term goals of the company. Second, the superiority and significant control of family owners to major shareholders can facilitate private misconduct. The preservation of family interests takes priority over protecting the interest of shareholders can mitigate the risk of conflict of interest. Yang (2010) as cited in Hashmi, et.al. (2018) integrates this second perspective into management entrenchment theory which explains that the domination of family members in management positions directly and indirectly can cause an expropriation of resource within family companies.

Based on Hashmi, et.al. (2018) family firms is significantly affecting financial reporting quality. Hussain, et.al. (2016) found that there is a significantly negative relationship between financial statement restatement and family ownership. It is supported by Mardiana (2015) who found that there is a significant negative relationship between family ownership and fraudulent financial reporting. On the other hand, Ghafoor, et.al. (2018) found that there is an insignificant positive relationship between family ownership and fraudulent companies. Meanwhile, Affan et.al. (2017) found that there is no effect of family ownership to both accrual earnings management and real earnings management.

b) Managerial Ownership

According to Rosyida and Subowo (2016), ownership structure can be presented through the size of the leadership (manager) of a company by the owners

(shareholders) of the company. These shareholders generally will assign administrators who are used to be called by management who have the main responsibility for the company's day-to-day operations. The difference of interest between manager and shareholders can build conflict. The conflict can be resulted from the pressure of capital market. Thus, a company which has a great managerial ownership tends to opt for methods in accounting which can decrease the quality of financial reporting. Finally, the financial report will be unreliable as of it does not reflect the real condition. Hence, it might create fraud which will be difficult to be detected. Jensen and Meckling (1976) as cited in Fajaryani (2015) stated that a great number of shares owned by the management, such as directors and commissionaires who are actively involved in decision making, can align the interest of management and other shareholders. Thus, the greater the managerial ownership, the greater also the performance expectedly to be resulted to fulfil shareholders' interest including the manager.

Affan, et.al. (2017) and Rosyida and Subowo (2016) found that there is no relationship between managerial ownership and financial reporting quality in Indonesia. The reason is only a small number of managerial ownerships in companies. Rosyida and Subowo (2016) also proved that the statement of *Accounting Principle Board* about shareholders with the ownership concentration below 20% will never give a significant influence to the company. Yulia, et.al. (2016) determined the effect of ownership of shares owned by managements, directors, or commissionaires which is significantly positive towards financial statement fraud in the banking sector in Indonesia. The reason is due to the small

number of shares owned by them which gives influence to the managerial regulation stated by the company. Meanwhile, Fajaryani (2015) found that there is no relation between managerial ownership and integrity of financial statements. It is because the ownership that they had will not be enough to participate in decision making. Meanwhile, Apriada, et.al. (2016) found that there is a negative effect of managerial ownership towards firm value.

c) State Ownership

State ownership is an involvement-type of ownership for the reason that governments have the power of policy setting, implementation, and reputation apart from the legal property right point of view (Syamsudin, et.al., 2017). According to Sapenza (2004) as cited in Cristina and Pinto (2018) stated that, there are three main views which support the government ownership, which are: social, agency, and political. Additionally, based on the social and agency views, due to market failures, the purpose of state-owned companies is to maximize social welfare. Thus, the objective pursued by managers should be social welfare (social views). In agency view, managers tend to have low-powered incentive which can generate to misallocation and inefficiency. Also, there might be a political interference which becomes the constraint for managers. Yasser (2017) stated that some studies have found the effect of state ownership to provide higher firm efficiency than private industries in some industries (Yasser & Al Mamun, 2017). However, some would have said that state ownership is inefficient and bureaucratic. The reason could be originated from the politicians who pursue personal objectives rather than social welfare.

According to Cristina and Pinto (2018) stated that, “state-owned firm managers lack incentives to maximize corporate profitability and efficiency as the firm is total or partially owned by the state (Cristina & Pinto, 2016)”. Additionally, several literatures discussed that it could give the ambiguity of ownership, control, property rights, agency issues, profits and welfare objectives. The lender’s demand for high-quality financial reporting may be lower because of government protection and political connection with the companies. Therefore, it can reduce the incentive to manage the earnings. Meanwhile, several studies have proven that there is less conservatism in the state-owned companies. It is also assumed that due to political roles, political-connected managers tend to suppress negative news around political events. Managers in these companies could have a higher incentive to engage in earnings management to cover the expropriation of political purposes.

Yasser (2017) found that in Pakistan, there is a negative impact of state ownership towards firm performance. On the opposite, Cristina and Pinto (2018) claimed that there is no significant effect of state ownership and earnings management. However, if the relationship is interacted to capital market force, the public state-owned companies will give higher earnings management than the non-public listed one. Thus, it could mean that the managers may have incentive to benefit politically-connected companies and to give a better company’s performance.

d) Associated Company Ownership

Groups’ headquarters are assumed to better able to monitor and access to information regarding the holding companies. Thus, it can create the internal

capital market facility. Based on Perroti and Gelfer (2001) as cited in Yasser, et.al. (2016), business groups can facilitate capital allocation among group members when the capital market is underdeveloped. It has been found by Yasser (2017) that the relation between associated company ownership and firm performance is negative in Pakistan. However, it is found that there is a positive relation of associated company ownership and financial reporting quality in Malaysia. Prior to Yasser, et.al. (2016) stated that associated company or corporate ownership has no effect toward financial reporting quality.

e) Public Ownership

It has been known that public ownership is among the largest block holders in many emerging countries. As taken from Syamsudin, et.al. (2017) that, public ownership is the percentage of shares proportion which is owned by public investors. The presence of public investors will cause the manager or the related company to give accountable information to the public. Some studies have claimed that public ownership will affect the better prospect for company's management system due to supervision of larger shareholders towards the company. The relationship which is explained is that the highest percentage of company's public ownership will suppress management to disclose a timely information because it will influence the value of the economic decision.

Yasser (2017) claimed that public ownership is negatively associated with financial reporting quality in Pakistan, while in Malaysia it is found that there is a positive relation. Prior, Yasser, et.al. (2016) found that there is a positive significant impact of public ownership in developed economies, whereas in

developing countries the effect is not significant but positive. Syamsudin (2017) found that public ownership will reduce the probability of fraudulent financial statement as of the power of external control is getting stronger.

f) Institutional Ownership

The common characteristic of institutional investors by most people is sophisticated investors who have higher skills in acquiring and processing information compared to individual investors, thus the existence can optimize control function and is not easily to be deceived (Atik Fajaryani, 2015). It is included as an important external control mechanism affecting corporate governance. Wu (2014) posited that large shareholders will likely to offer the potential for the increased monitoring of a company's management. Moreover, other shareholders also can get benefit from this monitoring shareholder without any additional costs. Affan (2017) explained that the increase in the shareholdings by institutions, which usually in large amount, can minimize the agency costs through the reduction of shareholders. Several findings through studies have claimed that there is an active role of institutional ownership in monitoring and disciplining managerial discretion and in controlling the reporting process. Thus, there will be less occurrence of discretionary accrual or decreases the likelihood of fraud or increases in the informativeness of the earnings.

Gillian and Starks (2003) as cited in Wu, et.al. (2014) added that, the large shareholders can indirectly influence management through the threat of divesting their shares. Based on Yasser (2017), a recent literature about the difference of incentives to monitor managers of institutional investors depends on the

investment scope (Yasser & Al Mamun, 2017). Many studies related to this discussion have met several conclusions. Long-term investors with substantial ownership tend to effectively monitor merger and acquisition decision. On the contradiction, short-term investors give the option to achieve value-decreasing mergers and acquisitions. In addition, based on Syamsudin, et.al. (2017) that the bigger the structure of institutional ownership, the bigger also the monitoring activity to institutional investors. As the result, there will be prevention of the presence of actions which might become the opportunities for management to do fraud in a company.

Based on the finding, Yasser (2017) stated that institutional ownership has no effect towards firm performance. However, in prior studies by Affan, et.al. (2017) and Yasser, et.al. (2016) stated that institutional ownership has a positive significant impact towards financial reporting quality in developing countries. Supported by Nia, et.al. (2016) who found that there is a significant negative relationship between institutional ownership and fraudulent financial reporting. However, Affan, et.al. (2017) also found that institutional ownership has a positive direction on real earnings management, which means that it will decrease the quality of financial reporting. Meanwhile, Alzeaideen, et.al. (2018) and Rosyida and Subowo (2016) found that there is a significant and positive relationship between institutional ownership and audit quality measured by audit firm size and financial reporting quality. Supported by Apriada, et.al. (2016), the finding is that institutional ownership has a positive effect towards firm value. Fajaryani (2015) found that institutional ownership can minimize the opportunistic action by

management through optimizing control towards managerial performance. Pamungkas, et.al. (2018) also found that institutional ownership can decrease the effect of change in direction towards accounting fraud. It is in accordance with Ghafoor, et.al. (2018) who found that institutional ownership, both dedicated and transient investors, are lower in fraudulent companies. Oppositely, Nurdiniah, et.al. (2017) found that there is no effect of the integrity of financial statement and institutional ownership.

g) Domestic Ownership

Domestic ownership is ownerships of shares which are held by local institutions, for example bank, insurance, and others. Syamsudin (2017) stated that, the greater the domestic ownership, the greater also the effectivity of controlling the opportunistic actions might be done by management. Additionally, control will cause management to be more cautious for all levels of activities, for example optimizing debt in order to prevent financial distress and financial risk at the lower level activity so that simultaneously would minimize the fraudulent actions in the reporting. Moreover, it is claimed that domestic ownership represents the voice of society which contains criticism over company's performance, in which it can influence the trust of shareholders. Syamsudin (2017) found that domestic ownership has a significant negative relationship to fraudulent financial statement.

h) Foreign Ownership

According to Syamsudin, et al. (2017), foreign ownership is the proportion of shares which is claimed by foreign companies as shareholders who are abroad. Some studies explained that a company which has a foreign ownership structure

will be more likely to have information asymmetry because of the limitation in language and geographical location. However, others have argued that foreign ownership will encourage better corporate governance system and will boost stronger internal system to protect outside parties, thus would benefit the company's management system. The following condition can be resulted from the action to push management to give transparency in financial reporting.

Yasser (2017) found that there is no relationship between foreign ownership and firm performance. Yasser, et.al. (2016) found that there is a positively significant impact of foreign ownership to financial reporting quality in developing countries. Meanwhile, Syamsudin, et.al. (2017) and Mardiana (2015) stated that there is a significant negative relationship to fraudulent financial statement. On the other side, Alzeaideen, et.al. (2018) found that there is a significantly positive relationship between foreign ownership and audit quality. Meanwhile, Affan, et.al. (2017) found no effect of foreign ownership to financial reporting with accrual earnings management indicators. However, they also found that there is a positively significant relationship between foreign ownership and real earnings management, which means that it can result to lower quality of financial reporting.

2.1.2.5. Ownership Concentration

Sanda, et.al (2005) as cited in Yasser (2017) stated that, ownership concentration can be defined as the proportion of firm's shares owned by the major shareholders (Yasser & Al Mamun, 2017). They also added that ownership concentration can be measured by the fraction owned by the five largest

shareholders or the significant shareholders. In the alignment view, insider shareholders can be a part of management and also able to monitor the managers' activities directly. Meanwhile, Al-Qadasi, et.al. (2018) stated that the major shareholders can play a significant role in the decision-making process. Thus, an assumption will say that there is a good signal of good control and governance structure because the company's major shareholders are the one who holds a large proportion of shares and participates in the company's strategy direction. Consequently, these shareholders will demand a higher audit quality to monitor their investment.

Furthermore, several studies have claimed that an increase in insider ownership can reduce the opportunity of manager to misleading investors through actively participating in operations and decision making. As the result, it will improve the company's value and avoids the presence of entrenchment problem. It is also stated that usually insider controlling shareholders are in senior managerial positions who have no incentive to deceive investors through manipulating financial results. Several researches stated that major outsider shareholders, representatives on the board of directors with a high level of participation, enable to control the actions of manager and safeguard the interests of the minority shareholders, in which would protect their reputation. Thus, it has monitoring responsibilities, major shareholders also can induce managers to invest more in internal and external monitoring to provide reliable earnings information. On the other side, the minor shareholders also want to have an extra audit service due to their awareness to protect themselves from the expropriation of major

shareholders. Several past researches claimed the reason is because insider controlling shareholders can also make self-dealing investment in order to increase their wealth, at the expense of the minority shareholders. The extent of expropriation which is also known as tunneling, according to Madhani (2016), is the process of benefiting major shareholders through a systematic transfer of cash flows, profit, asset, and equity. Thus, major shareholders tend to delay the related information disclosure which makes the minority shareholders unable to get the adequate information. Moreover, controlling shareholders can manipulate the adverse result of tunneling resources.

Yasser (2017) found that there is a negative impact of ownership concentration towards earnings management. Priori, Yasser, et.al. (2016) also found that ownership concentration by measuring the percentage of one, two, three, five, and ten largest shareholders has a positive effect towards financial reporting quality. Wang, et.al. (2017) also found that when shares are held by the largest shareholders, there will be less likelihood of financial reporting fraud. Wu, et.al. (2014) also found that there is a significant negative relationship between the largest shareholder and the likelihood of fraud. It is in accordance with the findings from Al-Qadasi, et.al. (2018). Additionally, Yang, et.al. (2017) found that fraud cases exhibit less concentrated shareholding. Alzeaideen, et.al. (2018) found there is a positive relationship between ownership concentration and audit quality, but not significant. Meanwhile, Madhani (2016) confirmed that there is no significant relationship between ownership concentration and disclosure practices.

2.1.2.6. Company Size

According to Fery and Jones (1979) as cited in Syamsudin (2017) stated that firm size describes the size of a company which is related to how big the capital employed, how much assets owned, and, even, how much items sold, or how the market capitalization was. It has been claimed that a large size firm tends to have more public demand. As it gets more public demands, a large size firm is probably more under scrutiny. Thus, it is expected that the larger firm will disclose more higher quality information (Mahboub, 2017). On the other side, according to Nurdiniah (2017), small companies are likely to conduct earnings management to always give a presentable healthy and good performing condition. Moreover, the bigger the size of capital and asset used, consequently it would determine the target and other company's goals which can give pressure to the management.

Pressure given by shareholders will push the management to report the financial statement timely yet will affect the fraudulent intention in financial reporting. There are many measurements used to calculate company size, for example by using the natural logarithm of total assets. In the study of Syamsudin, et.al. (2017), it is stated that the greater the use of company's assets, then shareholders will also put stricter supervision and control, in which this will decrease the financial statement fraud.

It is found by Syamsudin (2017) that firm size has a positive significant impact towards financial statement fraud. Yasser (2017) found that there is a negative relationship between firm size and financial reporting quality. Moreover, it is explained that a large company will have much more pressure which

encourages fraudulent activities in profit level, target, and company's future prospects. Mahboub (2017) stated that there is an insignificant positive relationship between financial reporting quality and firm size. On the other hand, Rosyida and Subowo (2016) found that there is a positive significant relationship between firm size and financial reporting quality. It is supported by Gamez (2016) who found that companies with unqualified opinion are larger in size and Wu, et.al. (2014) who found that there is a negative significant relationship between firm size and the likelihood of fraud. Supported by Nurdiniah, et.al. (2017) and Fajaryani (2015), they found that there is a significant positive relationship between company's size and integrity in financial statements. Fajaryani (2015) explained that it is because the more attention given by the public even the market to disclose honestly in order to give public accountability.

2.1.2.7. Financial Leverage

Financial leverage shows the proportion of debt used by a company in order to finance its activities. Leverage is generally known as the investment strategy of using borrowed funds to increase the potential return of an investment. One of the pressure most commonly experienced by a company is the necessity to obtain additional debt or external financing resources in order to be competitive as of portions of shareholders might be reluctant to use their full investment as the main capital in the company's operation because it could produce a higher risk. It is explained in Nurdiniah, et.al. (2017) that high level leverage companies will give more extensive information to lure investors rather than low-level companies.

However, Fajaryani (2015) explained that companies with higher leverage will have higher risks also. Hence, investors (shareholders) tend to demand higher returns which can lead to earnings management as it has been discussed by debt covenant hypothesis. She also stated, according to Watts and Zimmerman (1990), that the higher leverage can indicate the higher possibilities to debt requirements violations. The manager will be pushed to disclose low integrity financial statements by selecting accounting procedures which can move the future earnings to the current period.

Additionally, according to Zare, et.al. (2013) as cited in Mahboub (2017) that the creditors need more information from companies with huge debts as of higher leverage may direct to higher agency cost. Furthermore, a smaller proportion of debt will be more preferable by many creditors because it showed that the higher chance to repay the company's borrowings. Some studies used financial leverage as the control variable, for example a study by Al-Qadasi, et.al. (2018). Moreover, Alzeaideen, et.al. (2018) explained that there were prior studies about the conflict between shareholders and bondholders regarding wealth transfer. This problem is expected to be solved by debt agreements establishment, but several managers tend to manipulate earnings in order to avoid or to delay. For this reason, debtholders, to secure their rights, may pressure management to hire a high-quality auditor.

A study by Wang, et.al. (2017) and Listyawati (2016) stated that financial leverage is positively affecting the financial reporting fraud. Thus, higher proportion of leverage will lead to the higher indication of fraudulent actions

towards the financial statement of a company (Listyawati, 2016). It is in accordance with the finding of Ghafoor, et.al. (2018), Hoberg & Lewis (2017), Huang, et.al. (2017), Lau & Ooi (2016), and Wu, et.al. (2014). Ghafoor, et.al. (2018) stated that fraudulent firms are usually in the condition of financial distress which can bring the reputational loss and loss of investors' trust so that financial distress can increase the incentives of firms to misreport the information.

Oppositely, Hussain, et.al. (2016); Annisya, Lindrianasari, & Asmaranti (2016); Tarjo & Herawati (2015); and Manurung & Hardika (2015) found that there is no relationship between financial leverage and fraudulent financial reporting. Cristina and Pinto (2018) stated that there is a positive, not significant,relationship between leverage and earnings management. Meanwhile, Alzeaideen, et.al. (2018) stated that there is a positive relationship between audit quality and corporate debt, showing that the probability of fraudulent financial reporting is lower. Supported by Al-Qadasi, et.al. (2018) and Nurdiniah, et.al. (2017) found that there is no relationship between leverage and audit quality and the integrity in financial statement. Meanwhile, Fajaryani (2015) found that there is a negatively significant relationship between leverage and integrity of financial statements. On the other hand, Mahboub (2017) found that there is a significant relationship between leverage and financial reporting quality in the banking sector.

2.1.2.8. Financial Target

Companies with poor performances are motivated to misreport its financial statements (Huang et al., 2017). It might be affected by the pressure received by the company to have a good performance. Financial target can be associated to

profitability. Profitability is the capability of a company to generate earnings related to its associated expenses. It is argued that companies with a higher performance will likely provide a high quality of information as it will increase their reputation and avoid under-estimation in the future (Madhani, 2016). Contradictory, as stated by Hoberg and Lewis (2017), "Managers might respond to incentives to conceal details that might increase detection, and incentive to grandstand growth and performance to increase the positive impact the manipulation has on the firm's outcomes" (Hoberg & Lewis, 2017). It is related to the misbehaving way of managers in order to enlarge their compensation (Mahboub, 2017). Thus, financial target can be an indicator of fraudulent financial reporting.

Return on Asset can be used to be the proxy for financial target. Based on Skousen, et.al. (2009) as cited in Yulia, et.al. (2016) that Return on Asset (ROA) is the measurement of operational performance which is commonly used to determine the efficiency of assets employed. The higher ROA, the higher profit of the company and the better the condition of company if it is seen from the use of assets.

There are several findings related to the effect of financial target towards financial reporting fraud. Huang, et. al. (2017) and Rahman, et.al. (2016) stated that there is a positive relationship between financial target and misreporting. It is supported by Hoberg, et.al. (2017) who found that companies involved in AAERs are more profitable and engage in less investment. On the contrary, Gamez, et.al. (2016) showed that there is a negative relationship between financial target and

financial statement fraud, or companies with unqualified audit opinion are more productive, profitable, liquid, and solvent. At last, Pamungkas, et.al. (2018), Listyawati (2016), Annisya, et.al. (2016), Cristina & Pinto (2016), Yulia, et.al. (2016) and Manurung & Hardika (2015) showed that there is no relationship between those variables. Ratmono (2017) found that there is a negative insignificant relation between financial reporting fraud and return on asset (ROA). Meanwhile, Mahboub (2017) stated that there is an insignificant negative relationship between profitability and financial reporting quality. Wu, et.al. (2014) found that more profitable companies tend to report reliable financial report. However, Apriada, et.al. (2016) found no relationship between profitability which is computed by return on equity (ROE) and company's value.

2.1.2.9. Financial Stability

The value of a company will increase in the view of investor, creditor, and public when the company is in the stable position. Yulia, et.al. (2016) and Annisya, et.al. (2016) used the ratio of asset change as the proxy for financial stability. Meanwhile according to SAS No. 99, there will be pressure to conduct financial statement fraud for the manager when the financial and profitability stabilities are threatened by the condition of economic, industry, or operating entity (Yulia & Basuki, 2016). Additionally, it is explained by Annisya, et.al. (2016) that stable financial conditions can decrease the risk of financial statement fraud. A such condition can be seen by tracing back the asset change which has not much differences from before. Thus, it can bring pressure to the manager in order to

disclose a stable condition on its asset change and good for its shareholders and the future investors.

Yulia, et.al. (2016) and Manurung & Hardika (2015) found that the effect of financial stability is not significant towards discretionary accruals. They explained that when the asset of a company increased, it means that there is growth to the assets, third party's fund, or an increase of credit in the banking sector for 2008-2013. Meanwhile, Annisya, et.al. (2016) found that there is a significantly positive relationship between financial stability and financial statement fraud by investigating real estate companies in Indonesian Stock Exchange.

2.1.2.10. Liquidity

Liquidity is the capability of company to pay off current debt obligations without raising external capital. It is explained by Kreutzfeldt dan Wallance (1986) as cited in Listyawati (2016) that the problem in liquidity can give a significant influence in the materiality of financial statements. The problem can occur as the result of when a big company has a high certainty level of cash ratio and quick ratio flow, or when the company is supported by large-funding and distributes dividend continuously. Thus, the tendency of the financial reporting can be minimized. Hoberg and Lewis (2017) explained that companies committing to revenue fraud found to under-disclose discussions of liquidity. Listyawati (2016) found that there is no relationship between liquidity and financial statement fraud.

2.1.2.11. Financial Distress

Based on Wruck (1990) as cited in Hussain (2016), financial distress is the situation of not meeting the current obligation due to insufficient cash flow. Some

literatures claimed that poor financial performance can be an indicator of false financial statements. Furthermore, managers tend to engage in financial misstatements because of pressures from shareholders and analysts' prospect or not performing good financial performance, which is normally called as financial distress. In other words, to secure their job, the management tends to take unethical action to more opportunistic and aggressive methods to improve the appearance of financial statement, for example through inflating the firm's profit and increase the share market valuation. Additionally, it is found by Arshad, et.al. (2015) that liquidity ratios have financial distress predictive ability.

Wu, et.al. (2014) found that loss-making companies tend to positively engage in financial reporting fraud. Arshad, et.al. (2015) found that 83.3% failed firms classified in PN17 and GN3 in Bursa Malaysia which are financially distressed tend to manipulate their financial statements, meanwhile only 41.7% non-failed firms showed that financially distressed firms tend to manipulate their financial statements.

2.1.2.12. Tax Aggressiveness

According to Frank (2009) as cited in Sunaryo (2016), tax aggressiveness is the act of decreasing the amount of taxable income through tax planning either classified or not classified as tax evasion. Moreover, Frank (2009) as cited in Ghafoor (2018) stated that aggressive in tax reporting is usually conducted by aggressive financial reporting firms. Several literatures stated that firms overpay their taxes to avoid suspicions from regulatory bodies and investors.

Ghafoor, et.al. (2018) found that there is a significantly positive relationship between tax aggressiveness and fraudulent companies. Meanwhile, Aris, et.al. (2015) stated that fraudulent financial statement may be perpetrated to avoid payment of taxes. It is said in Rahman, et.al. (2016) that prior to fraud year, fraud firms aggressively manage their earnings upwards to reduce high tax burden.

2.1.2.13. Political Connections

According to several studies, the development of political connections in a business can be explicit and implicit. Based on Hashmi, et.al. (2018), explicit connections exist due to personal ties between politicians and business, for example when a politician becomes a major shareholder in a company, then the company will develop the explicit connections. The study also added that implicit connections are obtained from the friendships between senior management of the company and political figures or the donations and campaign contributions given by the company at the time of elections. According to Wu, et.al. (2014), politically connected firms whose board members, top manager, or major shareholders have relationships with high-level government officials may reap benefits from the government. The benefits can be in the form of a higher initial public offerings (IPO) price, favorable tax treatment, and others. A literature from Gounopulos, et.al. (2017) as cited in Cumming (2017) found the growing evidence on the value of political contributions to financial outcomes.

Several studies have claimed that a political connected company have a poor financial reporting quality. Political connections tend to distort the fundamental objectives of managers of maximizing shareholders wealth.

Furthermore, according to Faccio (2010) as stated in Hashmi, et.al. (2018) that there will be an adverse effect caused by political influences on the accounting and internal control systems of a company. Additionally, companies with dominated political influence are motivated to report inferior quality earnings in order to avoid legal and outside intervention. On the other side, Wu, et.al. (2014) also claimed that political connected managers can act as an external control mechanism in order to maintain the value of their political connections and also their reputation to the government.

Hashmi, et.al (2018) found that there is a significant negative relationship between financial reporting quality and political connections. However, Wu, et.al. (2014) also claimed that political connections will decrease the incidence of regulatory enforcement actions against fraud, which means that political connections tend not to expose companies to enforcement actions. Those previous findings are in accordance with Ghafoor, et.al. (2018) that political connections are high in fraudulent companies compared to non-fraudulent one. Wang, et.al. (2017) stated that political connections have an insignificant positive effect to fraudulent financial reporting, but when there is interaction between managerial ability and political connections, it is found that managerial ability is more prominent to reduce the likelihood of fraudulent financial reporting in non-connected firms.

2.1.2.14. Audit Delay

To enhance its objective of providing useful decision towards financial statement users, a financial statement should be understandable, relevant, reliable, and comparable. Relevant information in financial statement could be obtained if

the timeliness is in accordance with the time when the information is required instead it will be useless. As the consequence, delay in financial statement can increase the uncertainties related to investor's decision. Delay can reduce the relevance of information in the financial statement.

Audit delay, also known as audit report lag, is the length of time between the end period of accounting year in a financial statement and the published audited financial statement. According to Ashton, et.al. (1997) as cited in Suryanto (2016), stated that "it refers to the length of time of audit completion which is from the end of fiscal year until the date when the audited report issued" (Suryanto, 2016). Tiono, et.al. (2013) stated that management will be responsible if there is any scheduling lag in which it can influence the audit delay. Scheduling lag is the length of time between the end of fiscal year of a company and the start of auditor's fieldwork. On the other hand, fieldwork lag and reporting lag are determined by the auditor as the party who will do the fieldwork and will make the auditor's report. Furthermore, Dryer and McHugh as cited in Suryanto (2016) discussed three criteria of delay, which are preliminary lag showing the interval of days between the dates of financial statement and the dates the final report are received, auditor's report lag showing the interval of days between the dates of financial statement and the dates of auditor's report are signed, and total lag representing the interval of days between the dates of financial statements and the date of audited report is published. Several literatures claimed that the collusion between management and independent auditors can cause fraudulent financial reporting. Additionally, the need of job rotation of independent auditor is important.

Blankley, et.al. (2015) explained that companies with unexpected delays in their audits had a greater likelihood of future restatements due to the time pressure which can undermine the effectiveness of the additional audit effort.

There are several points of views related to the effect of audit delay to fraudulent financial reporting. According to Suyanto (2016), audit delay is negatively significant towards fraudulent financial reporting. He found that the quality of the audit is linked to the length of completion of an audit process. On the other hand, in order to produce a good quality of audit report, an auditor needs time to carefully examine the financial statement given by the company. Thus, it delays the announcement of the audited financial statement. He stated that auditors could detect and prevent fraudulent financial reporting as they have more time in examining the financial statements. Thus, the probability of fraudulent financial reporting done by the internal party of the company could be decreased.

It is contradictory with the finding of Cao, Chen, & Higgs (2016) that "late filing firms are associated to low quality of financial report after it has been matched with the comparable timely firms, it is proven by the higher level of discretionary accruals and the greater number of subsequent restatement". Additionally, according to Blankley, Hurtt, and McGregor (2015) found that the higher the audit report lag, the higher also the likelihood of future restatement, caused by the time pressure experienced by the auditor.

2.1.2.15. Pressure

Pressure is one of the variables which is well-known as a component of fraud triangle model. It is a model which is introduced by Cressey in 1953. Pressure

is a condition which is expected to present at the time of financial reporting fraud. Pressure can be experienced by management because of several factors, for example, when the manager is in the need of money to meet personal needs, like medication cost, or when the manager's family is demanding more to reach at the economic success stage, or when the manager has a wheeler-dealer attitude/ luxurious lifestyle.

According to Ratmono, et.al. (2017), they stated that if the rewards are in the form of annual bonuses, it will induce manager to manipulate earnings to get the bonus. They also added that pressure can also happen because the company's performance is below the industry's average. Thus, manager is pressured because he will be accused of not being capable in maximizing the utilization of assets used. Moreover, the bad performance will influence the potential investor to not invest in the company. The study used several proxies to measure pressure, which are gross profit margin, net profit margin, change in sales and account receivable, operating cash flows on assets, sales to account receivable, sales to total asset, inventory to total asset, experienced of loss, negative operating cash flows, growth in company assets compared to growth in industrial assets, leverage, free cash flows, percentage of shares owned by manager, proportion of shares owned by managers above 5%, and ROA. However, the proxies used show the significance between fraud and non-fraud companies are net profit margin, sales to asset, net operating cash flow, and ROA.

According to SAS no.99 as cited in Annisya, et.al. (2016), there are several conditions which can press someone to conduct financial statement fraud, such as:

financial stability, external pressure, personal financial needs, and financial target. According to Huang, et.al. (2017), poor performance (measured by return on assets, return on equity, Tobin's q, at least two annual net losses, at least two annual negative cash flows from operations) and the need for external financing (measured by debt to equity ratio and {cash from operations-mean capital expenditures}/current assets) are the main dimensions of pressure.

Based on the result of Ratmono (2017), pressure which is proxied by sales to asset is significantly negative towards financial reporting fraud. It means that a good ability to use asset is indicating that the company can produce certain business volumes for the size of the investment of the total assets. This finding is in accordance with Listyawati (2016) who found a negative relationship between these two variables. Yulia, et.al. (2016) found that there is no relationship between free cash flows as a proxy of external pressure to financial statement fraud. Additionally, Yang, et.al. (2017) found that fraud firms suffer from more regulation pressures which may exhibit fraudulent behaviours to present a good performance.

2.1.2.16. Opportunity

Opportunity is one of the components in fraud triangle model. It relates to the condition that financial reporting fraud can happen if there is an opportunity or a chance for managers or other third parties to manipulate information in the financial report. For example, the amount of several accounts in financial statements can be determined by a company through estimation, like uncollectible receivables and obsolete inventories. Moreover, according to Gagola (2011) as

cited in Ratmono (2017) that a weak internal control system can increase the opportunity. Additionally, information asymmetry between principal and agent will lead to manipulation of transaction which will result in financial reporting fraud. There are several proxies to measure opportunity, based on Ratmono (2017), which are change in account receivable and inventory, audit committee independence, audit committee expertise, audit committee size, numbers of audit committee's meetings, numbers of directors leaving the company. Meanwhile, Annisya, et.al. (2016) used the proxy of nature of industry, particularly changes in inventories to measure opportunity. Additionally, as cited in Huang, et.al. (2017) that,

> "there are several examples of risk factors provided by SAS No. 99 that increases the opportunity to commit fraudulent financial reporting, namely: nature of industry or the entity's operation (e.g. significant, complex or related party transactions), ineffective monitoring of management, organizational complexity (e.g. one that involves several legal entities), and ineffective controls due to a lack of monitoring of controls or circumvention of controls. However, insufficient board oversight is the most important fraud detection (Huang et al., 2017)".

Ratmono (2017) found that there is a significant negative relationship between financial reporting fraud and opportunity which is proxied by audit committee expertise. In addition, Listyawati (2016) found that there is no relation between financial statement fraud and audit committee expertise. Annisya, et.al. (2016) found that there is no relationship between financial statement fraud and nature of industry as the proxy of opportunity. Manurung & Hardika (2015) used the ratio of receivable in business as the proxy of nature of industry to determine its effect towards financial statement fraud, the result shows no effect.

2.1.2.17. Rationalization

According to Rustendi (2009) as cited in Ratmono (2017) that rationalization can be related to the attitude and character of someone justifying the ethical values that are actually not good. The crisis of integrity will create one's mindset of doing the right things although it is not. For example, the justification to do earnings management as of the manager will think that the action he is doing is also done by other managers in other companies. Thus, he will think that it is normal. The proxies used in Ratmono (2017) to measure rationalization are auditor report and auditor change. Annisya, et.al. (2016) used the audit opinion as the rationalization proxy. It is explained that auditors give the opinion based on the audited company's condition. One of the opinions is the unqualified with explanatory language. Annisya, et.al. (2016) stated that the opinion means a tolerance-form from the auditor for earnings management. Thus, it will encourage management to rationalize the action because it has been tolerated by auditors. Huang, et.al. (2017) stated that the category "CPA change" is the most important dimension in attitude/ rationalization.

Ratmono (2017) found that there is no relationship between rationalization and financial reporting fraud. Annisya, et.al. (2016) found that there is no relationship between financial statement fraud and audit opinion as the proxy of rationalization. Pamungkas, et.al. (2018) found there is a relationship between financial statement fraud and change in auditor. Ghafoor, et.al. (2018) found that prior violations are higher in fraudulent companies.

2.1.2.18. Capability

In some literatures, it is explained that capability is the factor which affects financial statement frauds. Capability means one's attempts to commit fraud in order to achieve certain purposes. The old literature of Wolfe and Hermanson (2014) as cited in Annisya, et.al. (2016) stated that fraud could not be happened without the right person at the right time to conduct every detail in the fraudulent action. There are several characteristics concerning capability in fraud, namely: position/ function, brains, confidence/ ego, coercion skills, effective lying and immunity to stress. It is also claimed in Annisya, et.al. (2016) that the position of CEO, director, and head of division are suited to those mentioned characteristics. They used the proxy of change in directorship which can cause stress period for the company and lead to fraudulent actions. Pamungkas, et.al. (2018) also added that during transition period resulted from the change in direction, a company will not be performing at its best due to adjustments and conflict of interests which is generally to politically motivated and comes from certain parties.

Annisya, et.al. (2016) found that there is no relationship between financial statement fraud and directorship change. Meanwhile, Pamungkas, et.al. (2018) found a significantly positive relationship between change in direction as the proxy of capability and financial statement fraud, which means that change in direction can cause stress period, adaptation and adjustment which gives the opportunity towards fraud. Cumming (2017) and Manurung and Hardika (2015) supported Pamungkas, et.al. (2018) which stated the positive and significant effect.

2.1.2.19. Change in Auditor

Skousen, et.al. (2009) as cited in Ratmono (2017) stated that the incidence of audit failure will increase at the time of auditor change in a company. The reason is the detection risk will be high for the new auditor as of the condition of unknowing the company entirely and the limitation in the audit period. This is supported by several studies, for example Pamungkas, et.al. (2018), claimed that fraud happens during the first and second year of auditor's tenure. Also, one of the indications of fraud is the change of auditors in two years period. Thus, the higher the auditor turnover, the higher also the accounting fraud rate (Pamungkas, Ghozali, & Achmad, 2018). In the agency theory, audit quality and audit tenure seem to be an important part of audit effectiveness. Thus, it is very important to identify the irregularities within the company (Smaili & Labelle, 2016). It is stated by many literatures that fraudulent activity happened during the first until the second year of audit tenure. As quoted by Smaili & Labelle (2016), auditor changes can be the red flags for fraudulent financial reporting.

There are several results for the change in auditors. Change in auditor has a positive significant effect towards fraudulent financial report, reported by Ghafoor, et.al. (2018) and Smaili and Labelle (2016). Yang, et.al. (2017) found that there is a significant difference of audit tenure in which the non-fraudulent companies have longer tenures of accounting firms. On the other hand, Pamungkas, et.al. (2018), Ratmono (2017), and Manurung & Hardika (2015) stated that there is no effect of change in auditor towards fraudulent financial reporting. Meanwhile, Dyck, et.al. (2014) as cited in Cumming (2017) suggested that there

could be essential benefits to rotate auditors concerning the detection of more fraud.

2.1.2.20. Audit Firm Reputation

In order to boost up the confidence of investors, the information in the financial report must be audited by an auditor or a public accountant to keep its integrity (Nurdiniah & Pradika, 2017). According to Financial Service Authority regulation no. 29/POJK.04/2015, there is a statement that the issuer should publish a regular annual report accompanied by the audited report from independent external auditors. A well-reputable external auditor is assumed to increase the credibility and integrity of financial statement which is being audited. It is because an external auditor is likely to provide assurance that the financial statements are free of material misstatement. Accounting firms with good reputation are likely to provide effective auditing services because of the advantage they had, like professional personnel and circumstances (Yang et al., 2017). Cao, et.al. (2016) stated that when facing unanticipated increases in audit scopes, large offices have more capacity to increase staff and are more likely to have a quality review partner in the same office.

Nurdiniah, et.al. (2017) found a positively significant relationship between audit firm reputation and integrity in financial statement. Meanwhile, Listyawati (2016), Smaili and Labelle (2016) and Mardiana (2015) found that the presence of external auditor has no influence towards financial statement fraud. Meanwhile, Cao, et.al. (2016) found that large Big 4 offices are more likely to have the capacity level to handle complex issues under time constraints. Thus, they are a critical unit

for audit quality enhancement. This is supported by Wang, et.al. (2017) and Cormier, et.al. (2016) who found that companies with the Big 4 auditor are less likely to be found in engaging financial misreporting.

2.1.2.21. Audit Industry Specialization

Rozania, et.al. (2013) as cited in Fajaryani (2015) stated that audit industry specialization is the method to give differences for an accounting public firm from others due to tight competition in the public accountant profession and the issuance of regulations in several industries. Thus, it is assumed that the audit quality will be high when the auditors are getting used to audit different clients in the same industry because of the improvement of knowledge and competence. However, it is also explained that there could be change in auditor due to high cost to employ specialized auditors. Fajaryani (2015) found that there is a positive relationship between integrity of financial statements and audit industry specialization. Thus, the experience and competence owned by the specialized auditors will give an easiness to detect materiality in financial statements which can indicate whether there is fraud or not.

2.1.2.22. Operating Cycle

Several literatures claimed that a company's operating cycle will affect the quality of financial reporting. As stated by Dechow & Dichev (2002) as cited in Rosyida and Subowo (2016), it is because the longer the operating cycle, the greater also the possibility of uncertainties, estimation, and estimation errors which, at the end, will lead to lower quality in accrual. Thus, the possibility of financial reporting fraud will be greater also. Rosyida and Subowo (2016) found

that there is a negative relationship between operating cycle of a company and financial reporting quality. It means that the longer the operating cycle will reduce the quality of financial report because there will be errors in estimations.

2.2. REVIEW OF PREVIOUS LITERATURE

Some results of the variables discussed above showed the same finding that factors which are consistent are corporate governance taken from the finding of Al-Qadasi, et.al. (2018), Pamungkas, et.al. (2018), and Cormier, et.al. (2016), and gender diversity in the board of directors researched by Ghafoor, et.al. (2018). Then, the other factors are, the existence of the founders in the board of directors by Hussain, et.al. (2016), audit committee independence researched by Yang, et.al. (2017) and Hamid, et.al. (2015), audit committee size by Nurdiniah, et.al. (2017), ownerhip structure by Mahboub (2017), domestic ownership by Syamsudin (2017), liquidity by Listyawati (2016), tax aggressiveness studied by Ghafoor, et.al. (2018), Aris, et.al. (2015), Rahman, et.al. (2016), political connections studied by Hashmi, et.al (2018), Ghafoor, et.al. (2018), Wang, et.al. (2017), Wu, et.al. (2014), audit industry specialization studied by Fajaryani (2015), and, lastly, operating cycle taken from the study by Rosyida and Subowo (2016).

Factors which are not consistent with the result towards financial reporting fraud are board of director independence studied by Ghafoor, et.al. (2018), Pamungkas, et.al. (2018), Yasser (2017), Mahboub (2017), Yang, Jiao, & Buckland (2017), Huang, Lin, Chiu, & Yen (2017), Nurdiniah, et.al. (2017), Listyawati (2016), Smaili and Labelle (2016), Yulia, et.al. (2016), Cormier, et.al.

(2016), Manurung & Hardika (2015), and Wu, et.al. (2014), board size studied by Mahboub (2017), Wu, et.al. (2014), Yasser, et.al. (2016), and Nurdiniah, et.al. (2017), audit committee expertise studied by Ghafoor, et.al. (2018), Listyawati (2016), Ratmono (2017), Smaili and Labelle (2016), and Hamid, et.al. (2016), CEO duality in the board by Yang, et.al. (2017), Wang, et.al. (2017), Smaili and Labelle (2016), and Nia, et.al. (2016).

Then, the other factors are family ownership which is not consistent studied by Hashmi, et.al. (2018), Ghafoor, et.al. (2018), Affan et.al. (2017), Hussain, et.al. (2016), and Mardiana (2015), managerial ownership studied by Affan, et.al. (2017), Rosyida and Subowo (2016), Yulia, et.al (2016), Apriada, et.al. (2016), and Fajaryani (2015), institutional ownership studied by Pamungkas, et.al. (2018), Ghafoor, et.al. (2018), Alzeaideen, et. al. (2018), Yasser (2017), Nurdiniah, et.al. (2017), Affan, et.al. (2017), Yasser, et.al. (2016), Nia, et.al. (2016), Rosyida and Subowo (2016), Apriada, et.al. (2016), and Fajaryani (2015), state ownership researched by Cristina and Pinto (2018) and Yasser (2017), associated company ownership researched by Yasser, et.al. (2017) and Yasser, et.al. (2016), public ownership researched by Yasser (2017), Syamsudin (2017), and Yasser, et.al. (2016), foreign ownership researched by Alzeaideen, et.al. (2018), Yasser (2017), Syamsudin, et.al. (2017), Affan, et.al. (2017), Yasser, et.al. (2016), and Mardiana (2015), and ownership concentration researched by Alzeaideen, et.al. (2018), Qadasi, et.al. (2018), Yasser (2017), Wang, et.al. (2017), Yang, et.al. (2017), Madhani (2016), Yasser, et.al. (2016), and Wu, et.al. (2014). Finally, company size studied by Syamsudin (2017), Yasser (2017), Mahboub (2017), Nurdiniah, et.al.

(2017), Rosyida and Subowo (2016), Gamez (2016), Fajaryani (2015), and Wu, et.al. (2014)

Other inconsistent variables are financial leverage studied by Cristina and Pinto (2018), Alzeaideen, et.al. (2018), Ghafoor, et.al. (2018), Al-Qadasi, et.al. (2018), Wang, et.al. (2017), Hoberg & Lewis (2017), Huang, et.al. (2017), Nurdiniah, et.al. (2017), Lau & Ooi (2016), Listyawati (2016), Hussain, et.al. (2016); Annisya, Lindrianasari, & Asmaranti (2016); Tarjo & Herawati (2015); and Manurung & Hardika (2015), and Fajaryani (2015), financial target studied by Pamungkas, et.al. (2018), Ratmono (2017), Mahboub (2017), Huang, et. al. (2017), Hoberg, et.al. (2017), Gamez, et.al. (2016), Rahman, et.al. (2016), Listyawati (2016), Annisya, et.al. (2016), Cristina & Pinto (2016), Yulia, et.al. (2016) Apriada, et.al. (2016), Manurung & Hardika (2015), and Wu, et.al. (2014), financial stability studied by Yulia, et.al. (2016), Annisya, et.al. (2016), and Manurung & Hardika (2015).

In addition, factors influencing financial reporting fraud and found to be inconsistent are audit delay considered by Suyanto (2016), Cao, Chen, & Higgs (2016), and Blankley, Hurtt, and McGregor (2015), pressure considered by Ratmono (2017), Yang, et.al. (2017), Yulia, et.al. (2016), and Listyawati (2016), opportunity considered by Ratmono (2017), Listyawati (2016), Annisya, et.al. (2016), and Manurung & Hardika (2015), rationalization considered by Pamungkas, et.al. (2018), Ghafoor, et.al. (2018), Ratmono (2017), and Annisya, et.al. (2016), capability considered by Pamungkas, et.al. (2018), Cumming (2017), Annisya, et.al. (2016), and Manurung and Hardika (2015). Finally, from the

external auditor side, there are several findings related to the factors of change in auditor by Ghafoor, et.al. (2018), Pamungkas, et.al. (2018), Ratmono (2017), Yang, et.al. (2017), Smaili and Labelle (2016), Manurung & Hardika (2015), and Dyck, et.al. (2014) and audit firm reputation by Nurdiniah, et.al. (2017), Wang, et.al. (2017), Smaili and Labelle (2016), Cao, et.al. (2016), Cormier, et.al. (2016), and Mardiana (2015).

There are several researches which discuss about the effect of ownership structure to financial reporting fraud. However, the researcher has found that there are only small numbers of researches which specifically studied about the relationship between ownership structure and financial reporting fraud. Syamsudin, et.al. (2017) specifically studied the relationship of the phenomenon of corporate governance (foreign ownership, domestic ownership, and public ownership) in detecting financial statement fraud. Meanwhile, Ghafoor, et.al. (2018) tried to find the effect of institutional investor and family ownership as the element of opportunity in the fraud triangle model. The study by Ratmono, et.al. (2017) tried to prove whether fraud triangle theory can explain the fraudulent financial reporting phenomenon. One of the proxies to represent pressure is managerial ownership which is found to have no significance to financial reporting fraud.

Yang, et.al. (2017) studied the determinants of financial fraud in Chinese listed companies, one of the determinants to be studied is the effect of top five shareholders and state ownership. Hussain, et.al. (2016) studied the relationship between the occurrence of financial misstatement and the effect of family

ownership, the existence of the founder in the board, and earnings management. Additionally, Yulia and Basuki (2016) studied about the financial statement fraud phenomenon happened in Indonesian banking sector. The indicators for the independent variables are total asset change ratio for financial stability, free cash flow for external pressure, managerial ownership for personal financial need, return on asset (ROA) for financial target, number of independent commissionaires for ineffective monitoring.

Wu, et.al. (2014) studied the effect of political connections and institutional ownership to financial statement fraud. Nia, et.al. (2016) studied the relationship between fraudulent financial reporting and institutional ownership and CEO characteristics (CEO influence and CEO duality). Meanwhile, Mardiana (2015) studied the relationship between foreign ownership, family ownership, audit firm reputation, and financial distress to financial reporting fraud in Indonesia. After reviewing several literatures, there has not been found a research which studied the relationship between all kinds of ownership structure towards financial reporting fraud.

A research by Cumming, Johan, and Peter (2018) suggested to consider the role of the board of directors in mitigating effects of misconduct. Ghafoor, et.al. (2018) suggested the future research to study the condition to which incentives and pressure might lead to fraud and earnings management. Meanwhile, Suryanto, et.al. (2016) recommended to add variables like tenure to know the relationship of it to fraudulent financial reporting. Additionally, Yulia and Basuki (2016) suggested to include the variable of nature of industry, change in auditor, and

rationalization. Meanwhile, Fajaryani (2015) suggested to add other independent variables like auditor reputation and audit tenure to study their relationship to the integrity of financial reporting. Hussain, et.al. (2016) suggested that there might be factors that can influence the likelihood of financial statement fraud such as related party transaction and board independence. Meanwhile, Mardiana (2015) suggested to use variables included in the financial factors such as financial ratios and profitability levels to test their effects to financial reporting fraud.

Based on the weaknesses, suggestions, and summaries from the previous studies, this study will focus on the inconsistent variables and on suggestions given by the previous researchers: managerial ownership, institutional ownership, foreign ownership, family ownership and public ownership are found as the inconsistent variables which will be studied in this research. Moreover, the researcher has found that there has not been any research which studies about the relationship of kinds of ownership structure specifically to financial reporting fraud.

Correspondingly, this study will also include the auditor firm reputation based on the suggestion from Fajaryani (2015). Also, financial ratios such as profitability as what it has been suggested by Mardiana (2015). Financial target (profitability) is inconsistent based on studies by Pamungkas, et.al. (2018), Ratmono (2017), Huang, et.al. (2017), Hoberg, et.al. (2017), Gamez, et.al. (2016), Rahman, et.al. (2016), Listyawati (2016). Additionally, corporate governance elements like independent directors will also be included as what it has been suggested by Hussain, et.al. (2016). The researcher has seen several variables, like

profitability, corporate governance (board of directors' independence), audit firm reputation, and company size can be used as the control variable to the effect between ownership structure towards financial reporting fraud.

RESEARCH MODEL

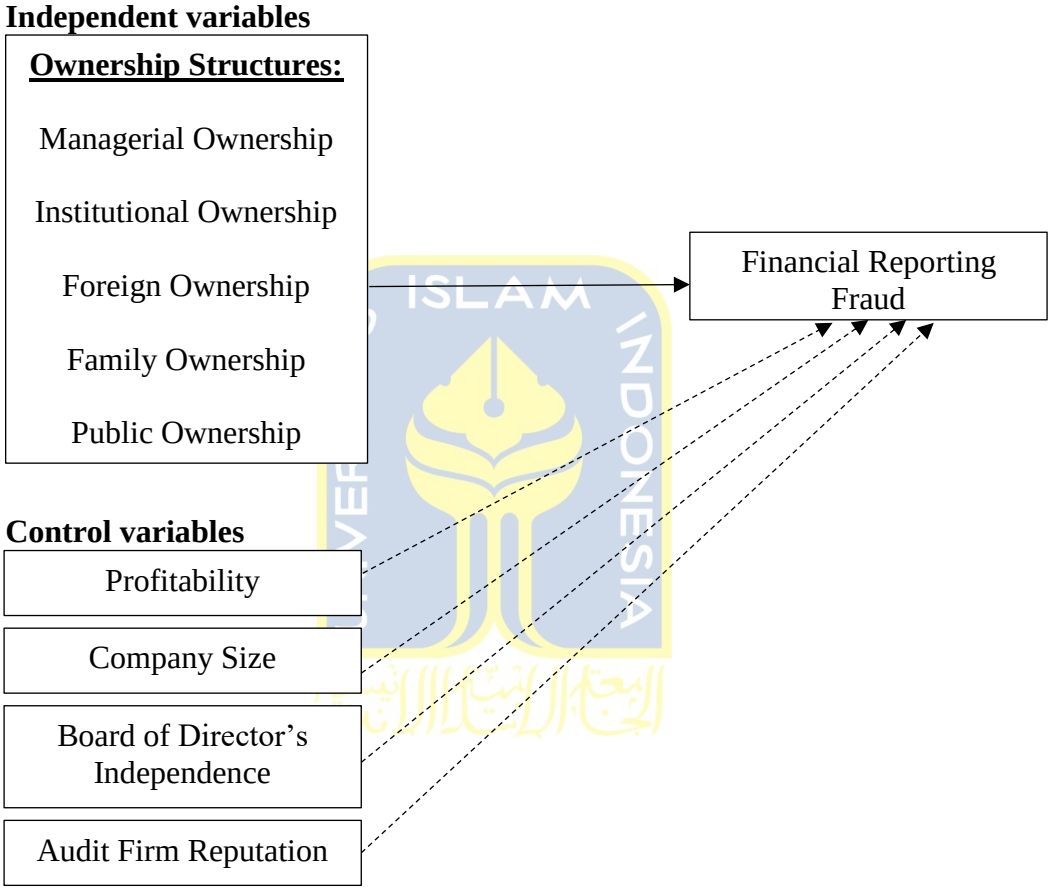

Figure 2.1 Research Model

2.3. THEORETICAL FRAMEWORK

2.3.1. Agency Theory

Agency theory explains the relations between managers (agents) and owners (principals) based on a contract. It exists when one or more principals hire another person, said as agent, on its behalf. This theory also explained that in a

business, a manager is responsible for optimizing the return of his principal. In order to fulfil his responsibility, a manager should be competent to be a good decision maker. However, as it is explained by Ujiyantho and Pramuka (2007) as cited in Yulia and Basuki (2016) that a manager also, on the other hand, has an interest in maximizing his welfare.

As the consequence, there is a possibility of conflict of interest in which there is a difference between principal and agent interest (Yulia & Basuki, 2016). This unfavourable situation might give impacts to the earnings quality which becomes the next agency problem. To reduce the conflict between the principal and agent, regular financial reporting can be a good tool in monitoring the performance of a manager. Furthermore, according to Salehi, et.al. (2015) that, auditing is very required based on the background explained in agency theory. Auditor through the auditing process will inspect the financial reporting which is served by management to the owners. Commonly, stakeholders, for example investor, would like to have information in order to give better decisions. Thus, to prevent the asymmetry in the information, a financial reporting should include the important information based on established rules and standards. Meanwhile, according to Eisenhardt (1989) as cited in Manurung and Hardika (2015) that,

> "there are 3 assumptions of agency theory of human nature:
> 1. Humans are generally selfish (self-interest)
> 2. They have limited power of thought related to the future perception (rationality)
> 3. Humans always avoid risk, which in the result to information asymmetry."

Furthermore, this explanation supports the role of auditor in giving the credibility of a financial report. Based on The Accounting Association Committee on Basic Auditing (1973) as stated in Salehi, et.al. (2017) that auditing should create value to the information and should be certain of the position of the audit report users as the value added recipients (Salehi, Moradi, & Paiydarmanesh, 2017). Additionally, an agency theory will ensure the shareholders' power to monitor managerial actions and set relevant boundaries if those actions are not auspicious. As it is stated in Zainal, et.al. (2013) that agency conflicts could also be minimized by setting up corporate governance due to the absence of shareholders in monitoring managerial activities.

2.3.2. Fraud Triangle Theory

In 2002, AICPA issues SAS No. 99 about the regulation of financial statement fraud detection. Then, fraud triangle by Cressey (1953) becomes the basis of SAS No. 99. Fraud Triangle theory explains three conditions which always exist in the fraudulent incident, which are pressure, opportunity, and rationalization. Moreover, as it is cited in Yulia and Basuki (2016):

> "According to Cressey (1953) that the explanations of fraud triangle components are:
> - Pressure: the existence of incentive/ pressure/ necessity in doing fraud.
> - Opportunity: there should be a situation which opens widely the opportunity to do fraud.
> - Rationalization: the existence of behaviour, character, or series of values which allow certain parties to do fraudulent action, or people who are involved in extremely pressing environment in which making them to rationalize fraud actions."

Additionally, extra elaborations are explained in fraud triangle theory, as cited from Reskino and Anshori (2015), that commonly pressures are coming from financial stability, external pressure, personal financial needs, and financial targets, while opportunity might come from nature of industry, ineffective monitoring, organizational structure and internal control, and rationalization comes from the management knowledge (Reskino & Anshori, 2015).

2.4. HYPOTHESES DEVELOPMENT

2.4.1. Managerial ownership and the probability of financial reporting fraud

Jensen and Meckling (1976: 339) as cited in Fajaryani (2015) explained that managerial ownership is ownership of shares which is owned by directors and commissioners who are active in the decision-making processes and are believed to harmonize the interests between management and shareholders. Many literatures stated that the greater the managerial ownership will encourage managers to enhance their performance and fulfill the shareholders' expectations which include the managers. Moreover, this situation made the managers want to have reliable information as it will affect their investments' return. Inevitably, managers will try to prevent any kind of fraudulent behavior to present good information disclosure. Alves (2012) as cited in Affan (2017) found that the behavior of engineering profit will be reduced by managerial ownership. Meanwhile, by using agency theory, the conflict of interest can be decreased by the mechanism of ownership structure like managerial ownership (Affan, 2017). It is also explained by several literatures that the managerial ownership makes the manager to work as the owner of the company

and to focus on the firm performance. Thus, there will be an alignment between managers' and shareholders' interests and agency problem can be minimized.

However, Fanani, et.al. (2009) as cited in Rosyida and Subowo (2016) stated that managerial ownership might have no significant impact as there is a high pressure from the capital market which induces managers to use accounting method which can decrease financial reporting quality. This statement is also supported the opinion that when a manager holds only a small percentage of ownership, it will induce them to manipulate earnings to get his personal interest. This is supported by Yulia and Basuki (2016) who found that there is a positive significant relationship between managerial ownership and financial statement fraud. On the other side, Rosyida and Subowo (2016) and Fajaryani (2015) found no relationship between managerial ownership and the integrity of financial statement. Therefore, based on the agency theory, the hypothesis used is:

H_{A1}: Managerial ownership negatively affects the probability of financial reporting fraud.

2.4.2. Institutional ownership and the probability of financial reporting fraud

Institutional investment includes the number of ordinary shares available to banks, insurers, investment institutions, and other institutions which are engaged in investment activities (Nia, Bahadori, & Hajalizadeh, 2016). This kind of investor is claimed to be comparatively advantageous as of their capability in information collection and process to the company's performance and future earnings. According to Bushee (1988: 7) as cited in Fajaryani (2015), the incentive of

managers which is to satisfy their own interests can be reduced by the existence of institutional ownership. Velury and Jenkins (2006) as cited in Yasser (2016) stated that agency theorists claimed that institutional ownership can become an important governance system for monitoring. It is because ownership is the source of power which can be used to support or oppose the existence of management. Thus, the distribution of power will become more relevant in a company.

Moreover, institutional ownership can also minimize the agency cost which is proven by Nurdiniah (2017) stated that institutional investors will encourage and monitor management to concentrate on efforts to enhance the company's performance. Thus, this could reduce the probability of fraudulent behaviors. Additionally, as explained by Syamsudin (2017) that a significant amount of institutional ownership has the capability to monitor managerial behavior in managing the company. It is claimed that by its significant amount, there will be more efficiency in controlling actions which may not give the opportunity for the management to manipulate. Crutchley (1999) in Syamsudin (2017) added that management will be more attentive in using debt to anticipate financial distress and financial risk and minimize the fraudulent behavior.

Syamsudin (2017) found that there is a negative relationship between financial reporting fraud and institutional ownership. By the existence of institutional ownership, the performance of management in a company can be optimally watched over and manager will tend to hinder decision which can bring loss to shareholders. It is supported by Pamungkas, et.al. (2018), Ghafoor, et. al. (2018), Nia, et.al. (2016), and Fajaryani (2015). Ghafoor, et.al. (2018) found less

percentage of institutional ownership in fraudulent companies. However, it is different from the findings by Affan, et.al. (2017) and Nurdiniah (2017). Affan, et.al. (2017) found that institutional ownership tends to compromise financial reporting quality as the result of the lack supervision of manager's behavior of manipulating corporate profit by using real earnings management. Based on the literatures of agency theory and the findings of previous studies, therefore:

H_{A2}: Institutional ownership negatively affects the probability of financial reporting fraud.

2.4.3. Foreign ownership and the probability of financial reporting fraud

Foreign ownership is ownership of shares possessed by multinationals (Mardiana, 2015). According to Syamsudin (2017), when a company has this kind of ownership, it means that the company has expanded its business into a larger area. Wiranata and Nugrahanti (2013) in Affan (2017) specified that the greater shares owned by foreign parties, the greater also number of the foreign party allocated the significant position, such as board of directors, in the company to align the interests of management and shareholders, resulting in improving the quality of financial report. It has been claimed in Mardiana (2015), foreign companies have better information system to meet internal needs as well as the greater request on the foreign-based companies, such as customers, suppliers, and others. This characteristic will make the company having foreign ownership to have less opportunity to commit fraud. Therefore, foreign ownership will demand management to be transparent in the financial report to maximize controls and minimize fraudulent actions.

Based on the agency theory, foreign ownership will minimize the agency conflict between two parties by aligning their interests. It is because a strong ownership or block-holders can closely monitor the behaviors of the managers and control their activities to improvise the company's performance. According to Syamsudin (2017) and Mardiana (2015), this affects negatively to financial reporting fraud. Mardiana (2015) explained that foreign ownership would boost companies to implement high corporate governance standards and better protect the minority shareholders which can give less occurrence of fraudulent behaviors. As what has been mentioned before, Syamsudin (2017) also supported that there will be control to the company exercised by foreign companies over the protection of shares management and financial reporting which obliges management to be more transparent in the reporting. Shleifer and Vishny (1997) as cited in Syamsudin (2017) added that this corporate governance mechanism works for convincing the foreign parties concerning profit on the capital investment given to the company as well as the action of manager by not embezzling or using the capital for non-profitable projects.

Also, Syamsudin (2017) also stated that foreign parties will be more capable in having qualified auditors to test the reliability of the financial report. Meanwhile, according to Affan (2017), there is no effect of foreign ownership and the manipulative action through accrual earnings management, yet foreign ownership reacts positively to real earnings management, which is a new mean of earnings management. It is explained that foreign shareholders will be less able to supervise the managers' behaviors due to geographical distance and ignorance on

local conditions. Based on the agency theory related to the remedies of the agency problem and previous findings, then:

H_{A3}: Foreign ownership negatively affects financial reporting fraud.

2.4.4. Family ownership and the probability of financial reporting fraud

Based on La Porta (1999) as cited in Affan (2017) that family ownership is the most dominated kind of ownership structure in developing countries, particularly Indonesia. Morck and Yeung (2003) as cited in Mardiana (2015) stated that family ownership is an ownership in a company which is owned by responsible heirs or by members of a family who are in the process of transferring controls to the heirs. According to Cascino, et.al. (2010) as cited in Hashmi (2018), agency theory predicting the concentration of family ownership can lead to superior financial reporting quality, which means that fraudulent actions can be hindered. The domination of family members in a family company will align the private interest and the company's interest by monitoring closely the behaviors of managers to reduce agency cost and controlling activities in the company. The incentive of alignment will discourages family management to manipulate earnings which can hamper the family reputation and long-term performance (Hashmi, Brahmana, & Lau, 2018). This is supported by alignment theory stated that the likelihood of fraud will be lesser as they will be strong monitor by the founding family members (Ghafoor, Zainudin, & Mahdzan, 2018).

On the other hand, an entrenchment effect is the one to be feared. This effect is caused by the conflict between controlling (majority) and non-controlling (minority) shareholders offering the opportunities of family shareholders to

expropriate the wealth of minority shareholders by controlling over management and decision policies. According to Fama and Jensen (1983) as cited in Hussain, et.al. (2016), this kind of company is less efficient as there will be incentive to expropriate wealth from the minorities. This situation might be improper when the majority shareholders tried to maximize their wealth rather than others. It is because the major shareholders are having higher voting power and can take any decision for their own benefits.

Hussain, et.al. (2016) and Mardiana (2015) found that there is a significant negative relationship between family ownership and financial reporting fraud. Hussain, et.al. (2016) explained that the presence of family ownership is negatively significant to financial misstatement. The relationship will be positive when there is an interaction between family ownership and earnings management. Hussain, et.al. (2016) implied that family owners engage in aggressive financial reporting to sustain their reputation which will increase the financial misstatement. Another explanation is that the strong bond between family members and the top management who can be their family creates the incentive to engage in opportunistic behavior and earnings management. Mardiana (2015) clarified that the concentration of family ownership can actively monitor and discipline managers which will promote the quality of financial statements presentation and reduce the likelihood of financial reporting fraud. Meanwhile, Ghafoor, et.al. (2018) found a positive but not significant relationship between family ownership and fraudulent companies. As stated before, there are many family firms in developing countries, including in Indonesia, these families will try to retain their

reputations to be good. By the alignment view in the agency theory and the previous findings, then:

H_{A4}: Family ownership negatively affects the probability of financial reporting fraud.

2.4.5. Public ownership and the probability of financial reporting fraud

Nugraheni (2009: 356) as cited in Yulia and Basuki (2016) explained that public ownership is represented by the comparison of number of shares owned by public investors (other outside parties instead of management which do not have any special relationship). Riyanto and Toolsema (2008) as cited in Yasser (2016) stated that public ownership will positively affect firm value and can stipulate the classy financial reporting. It is claimed by many literatures that the greater the public ownership, the more also the pressure for the management to disclose detail information to hinder the effect of information asymmetry. Moreover, Jensen (1993) in Syamsudin (2017) stated that public ownership will cause better management systems because the monitoring function is done by many shareholders. Agency theory also claimed that one of the remedies to minimize the agency problem is by strong ownership. In Indonesia, the concentration of public ownership in several public listed companies is considered high. Thus, it is expected that it can act as another monitoring tool to reduce the agency cost.

Otherwise, management will be pushed to always perform good in order to keep the investor's trust. Then, due to high pressure from public, management can conduct any fraudulent behavior to cover bad performance by manipulating it, which is the pressure perspective in the fraud triangle model. Syamsudin (2017)

stated that ownership structure is negative to financial statement fraud. It means that the greater the public ownership had by a company, the stronger the power from outside to control the company's activity. Public ownership has a strong power in the company through the use of mass media. It can represent the voice of public regarding critiques to the company's performance. When there is a bad critique, it can reduce the trust of other shareholders/ investors.

Furthermore, it is also stated by Fama and Jensen (1983) as cited in Syamsudin (2017) that the company's management system will be better as there will be supervisions from many shareholders. Then, public ownership will press managers to provide complete and transparent information in a timely manner to be useful in decision making. Therefore, the act of doing fraud in the financial statement can be lowered. It is contradicted by the finding by Yasser (2017) that it can lower the quality of financial reporting. It is because investors do not have the ability to analyze financial statements which is based on unusual accruals. Hence, there will be no reaction. Based on the theory explained above and the previous study conducted in Indonesia, then:

H_{A5}: Public ownership negatively affects the probability of financial reporting fraud.

CHAPTER 3

RESEARCH METHOD

3.1. TYPE OF STUDY

The researcher used quantitative approach to conduct the research because numerical data were used in the statistics. The data are the sample of population which are taken from the secondary data or presented by other parties. Finally, the data will be reused and analysed for different purpose as the secondary data.

3.2. POPULATION AND SAMPLE

According to Kothari (2015), 'Population' or 'Universe' constitutes all items in any field of inquiry. Meanwhile, sampling is defined as the selection of some parts of an aggregate or totality based on the judgement or interpretation about the totality made (Kothari, 2015). The populations of this research are all companies listed in the Indonesia Stock Exchange for the fiscal year of 2013 until 2017. The population of this research is limited on the manufacturing companies and includes several sectors like basic industry and chemicals, consumer goods industry, and miscellaneous industry. The sampling method used in this research is non-random sampling which is purposive sampling. Purposive sampling method is used by considering specific characteristics established by the researcher and all samples taken as a part of this research having several criteria, including:

1. Manufacturing companies listed in Indonesian Stock Exchange for the year 2013-2017.

2. Companies published their annual financial reports as of December 31, 2013 until December 31, 2017.
3. Companies reported their financial reports in their own websites or Indonesia Stock Exchange website during the period of 2013 until 2017.
4. Companies' financial reports provided the data needed for the variable of the research.
5. The currency used in the financial statements is IDR (Indonesian Rupiah).

3.3. DATA COLLECTION METHOD

This research used secondary data taken from companies' annual report, particularly on financial statements, for the year of 2013 up to 2017 which are presented by Indonesia Stock Exchange. Meanwhile, other information can be directly accessed from each company's official website. The data were obtained from the Indonesia Capital Market Directory (ICMD), which is Indonesia Stock Exchange official website at www.idx.co.id.

Data collection method used in this research was the documentation, which means that the data were derived from documents that have already been existed and provided by collecting, recording, and counting data related to the research on the secondary data from annual reports to obtain certain samples.

3.4. RESEARCH VARIABLES

3.4.1. Dependent Variable

The dependent variable in this research is fraudulent financial reporting (FFR). The measurement of FFR will be explained below:

3.4.1.1. Fraudulent Financial Reporting

According to Kothari, dependent variable is a variable which is depending on or affected by other variables (Kothari, 2015). Thus, a dependent variable must become the main focus of the research as the other variables' effect to the dependent variable. In this research, the dependent variable used is fraudulent financial reporting, which is commonly abbreviated by FFR. FFR is measured by the model Altman Z-Score. Altman Z-Score is a model to predict companies' financial distress. Based on Pustylnick (2011), Nia (2015), and Mahama (2015) as cited in Zaki (2017), it can be used as a measurement to determine that companies are more likely to manipulate its financial statements. Meanwhile, it is proven by the study of Bhavani and Mehta (2017) that Altman Z-Score model was very effective in detecting fraudulent financial statement through the study of Toshiba case. This research used a dummy variable for financial distress, in which the value of 1 was given to the firms' Z-Score which is less than 1.81, and 0 value if otherwise. The researcher followed the calculation from the studies of Bhavani and Mehta (2017), Bhavani and Amponsah (2017), and Nia, et.al. (2016):

$$Z=1.2X1+1.4X2+3.3X3+0.6X4+1.0X5 \quad (3.1)$$

Where:

X1 =Working capital to total assets

[an entity incurring persistent losses have lessening current assets to total assets (Altman (1968) as cited in Bhavani and Amponsah (2017)]

X2 = Retained earnings to total assets [to measure earnings capacity of entities]

X3 = Earnings before interests and taxes to total assets
[earnings prowess of assets to derive entity's worth leading to bankruptcy in the event liabilities exceed assets (Altman (1968) as cited in Bhavani and Amponsah (2017)]

X4 = Market value of equity to total liabilities
[entity's assets can weaken in value before liabilities are greater than assets (Altman (1968) as cited in Bhavani and Amponsah (2017)]

X5 = Net sales to total assets
[an entity's ability to generate assets using its assets (Altman (1968) as cited in Bhavani and Amponsah (2017)]

Z = Overall index (the lower a firm's Z-score, the higher its probability of bankruptcy)

3.4.2. Independent Variables

3.4.2.1.Managerial Ownership

Based on Fajaryani (2015), managerial ownership is the proportion of shares which is possessed by management, such as managers, directors, and commissioners, who is active in the decision-making activity. According to Yulia, et.al. (2016), managerial ownership can be calculated through shares owned by management divided by the common outstanding shares or by using the cumulative percentage of ownership in the firm held by insiders. Affan (2017), Rosyida and Subowo (2016), and Fajaryani (2015) used the same calculation.

Managerial ownership=% of shares held by management (3.2)

3.4.2.2.Institutional Ownership

Based on Nia, et.al. (2016), institutional ownership is the sum of a company's shares percentage which is owned by banks, insurances, financial institutions, holding firms, and state-owned organizations/ institutions/ firms.

According to Ujiyantho and Pramuka (2007) as cited in Affan (2017), the indicator to measure institutional ownership is the percentage of shares owned by the institution over all outstanding shares. In this research, it will use the percentage of shares owned by domestic institutions. Alzeaideen (2018), Pamungkas (2018), Nurdiniah (2017), Rosyida and Subowo (2016), and Fajaryani (2015) used the same calculation for this variable.

Institutional ownership=% of shares held by institutions (3.3)

3.4.2.3.Foreign Ownership

Mardiana (2015) explained that foreign ownership is the ownership shares which is possessed by multinationals. Meanwhile, Farooque, et.al. (2007) as cited in Affan (2017) stated that foreign ownership is a portion of shares which is owned by foreign investors, such as individuals, legal entities, governments, and their sections of foreign status over the total amount of outstanding shares. Additionally, the indicator of this variable is the percentage of foreign ownership (Alzeaideen, 2018; Affan, 2017; Mardiana, 2016).

Foreign ownership=% of shares held by foreign (3.4)

3.4.2.4.Family Ownership

According to Dewi (2016), family company is one which family owns enough equity to exert control over strategy and is involved in top management position. Mardiana (2015) stated that this variable is measured by the percentage of family ownership in the ten largest shareholders. Affan (2017) used the percentage of shares owned by family over the outstanding shares.

Family ownership=% of shares held by family (3.5)

3.4.2.5.Public Ownership

Based on Syamsudin (2017), public ownership is the percentage of shares proportion owned by public investor. This research used the measurement taken from Syamsudin (2017) and Yasser (2016).

Public ownership=% of shares held by public (3.6)

3.4.3. Control Variables

3.4.3.1.Profitability

Profitability is the proxy for financial target. Return on Assets (ROA) is a measurement to calculate the level of profitability. Return on assets (ROA) is the comparation between net income and total assets. According to Skousen (2009) as cited in Yulia and Basuki (2016), ROA is widely used to measure operational performance and to show how the asset efficiency is. The measurement of ROA as in the research of Pamungkas (2018), Mahboub (2017), Ratmono (2017), Yulia and Basuki (2016), and Rahman, et.al. (2016) is:

$$\text{ROA}=\frac{\text{Net Income}}{\text{Total Assets}} \quad (3.7)$$

3.4.3.2.Company Size

According to Ardi Murdoko and Lana (2007, 2) as cited in Fajaryani (2015) that the size of a company can be measured from its total assets. In this research, the company size variable will be calculated by natural logarithms of total assets taken from the study of Yasser (2017), Mahboub (2017), Rosyida and Subowo (2016), and Fajaryani (2015).

$$\text{Size}=\text{Log (Total Assets)} \quad (3.8)$$

3.4.3.3.Board of Director's Independence

Independence of the board of director can be calculated by several proxies as stated in Smaili and Labelle (2016) that the proxies are (1) the proportion of independent directors in the board or the audit committee, (2) number of seats of directors in the board, or (3) separation between chairperson of the board and the CEO (Smaili & Labelle, 2016). Independence commissioners are people who do not have good affiliated relationship with the controlling shareholders, directors or other commissioners. According to Effendi (2008) as stated in Yulia and Basuki (2016), an independent director cannot have dual responsibilities in the affiliated company and he/she should understand the acts which regulate the capital market (Yulia & Basuki, 2016). Hence, the existence of independent director or commissioner is expected to improve the control of company's performance which can decrease fraud. In this research, the proxy which is used is the proportion of non-executive directors on the board of a company (Yasser, 2017; Mahboub, 2017; Smaili and Labelle, 2016).

$$\text{Indp}=\frac{\text{Total number of independent directors on a board}}{\text{Total number of directors on a board}} \quad (3.9)$$

3.4.3.4.Audit Firm Reputation

The big4 auditor is a group of four large professional accountant firms, which are currently Ernst & Young, Deloitte and Touche, KPMG, and PwC. In this research, audit firm reputation used dummy variable, where the number 1 was given to the financial statements of a company being audited by the member of the

Big4. Otherwise, it is 0. This measurement is referenced from Nurdiniah (2017), Smaili and Labelle (2016), and Mardiana (2015).

3.5. ANALYSIS METHOD

Data were analysed by using SPSS 22.

3.5.1. Descriptive Statistics

This research will conduct a simple statistical description which includes the number of samples, maximum value, minimum value, mean, and standard deviation. Mean measures the central tendency of the data or its average. Meanwhile, standard deviation measures how the spread out of the data.

3.5.2. Logistics Regression Model

This study will be analysed by using logistic regression method. The reason is the dependent variable is included as non-metric data, collected in the binary scales. Thus, the logistic regression equation would be:

$$\log(\text{Fraud}) = \alpha + \beta1(\text{MO}) + \beta2(\text{IO}) + \beta3(\text{FO}) + \beta4(\text{FAO}) + \beta5(\text{PO}) + \boldsymbol{\beta6}(\boldsymbol{ROA}) + \boldsymbol{\beta7}(\boldsymbol{Size}) + \boldsymbol{\beta8}(\boldsymbol{Indp}) + \boldsymbol{\beta9}(\boldsymbol{AR}) + \boldsymbol{e} \quad (3.10)$$

Where:
Log (Fraud) = Financial Reporting Fraud
MO = Managerial Ownership
IO = Institutional Ownership
FO = Foreign Ownership
FAO = Family Ownership
PO = Public Ownership
α = Constant; *e* = error
Control variable: ROA= Return on Asset, Size= Company Size, Indp= Board of Director's independence, AR= Audit Firm Reputation.

According to Ghozali (2011) as cited in Pamungkas (2018), the normality testing for the dependent variable is ignored in logistic regression. Moreover, the problem of heteroscedasticity is also ignored because the independent variables are the combination of non-metric and continuous data.

3.5.3. Good of Fit Test and Hypotheses Testing

3.5.3.1.Overall Model Fit Test

This test is used to ascertain how good the regression model is once fitted to the data. The deviance -2 log-likelihood (-2LL) statistics will measure how much variations in the logistic regression model. Thus, the higher the value, the less accurate the model. To be explained, it compares the difference in the probability of predicted outcome and the actual outcome for each case and provides a measure of total error in the model. The decrease will be compared to Chi-Square table or by examining the *Omnibus test of Model Coefficient* which compares the significance value in Chi-Square to the significance value 0.05. Thus, if the value is less than 0.05, it means that at least one of the independent variables contributes to the prediction of outcome.

3.5.3.2.Determination Coefficient (R^2)

The determination of coefficient is the measure of the goodness-of-fit of a regression, it is also usually called as the coefficient of multiple correlation (Watson & Teelucksingh, 2002). It can identify how the variability of dependent variable can be explained by the variability of independent variables. The interval of R^2 is between 0 and 1. Watson (2002) also explained that the perfect fit is represented by R^2 equals to 1. On the other side, if the R^2 equals to zero, this is the

worst possible fit which means that there is no fit at all of the variances in dependent variable which can be explained by the independent variable. Furthermore, Nagelkerke R square is modified from the coefficient of Cox and Snell to ensure its value varies from 0 to 1 (Mardiana, 2015).

3.5.3.3.Feasibility of Regression Model

This research also used Hosmer and Lemeshow model to test whether or not the model is an adequate fit to the data. The null hypothesis is the hypothesized model fit to the data, otherwise the null hypothesis is rejected if the hypothesized model does not fit. The value of goodness of fit tests, if the probability ≤ 0.05, then the null hypothesis is rejected.

3.5.3.4.Hypotheses Testing (Wald test)

Wald test is done to partially examine whether or not the explanatory variables are significantly influencing the dependent variable. The result will be significant if the value of the test is less than 0.05. In order to determine whether hypothesis is proved or not, it can be done by referring to its probability value. Thus:

- If the significance probability is ≤ 0.05, the research hypothesis is accepted and the null hypothesis is rejected. If it is *Wald* test, it means that partially independent variables affect the dependent variable.
- If the significance probability is > 0.05, the research hypothesis is rejected and the null hypothesis is accepted. If it is *Wald* test, it means that partially the independent variables do not affect the dependent variable.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1. GENERAL EXPLANATION OF RESEARCH OBJECT

This research is done to investigate ownership structure to the probability of financial reporting fraud. The dependent variable in this research is financial reporting fraud probability. Meanwhile, the independent variables are managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership.

The sample used in this research are manufacturing companies listed in Indonesia Stock Exchange during the year 2013 up to 2017. The samples used the companies' financial reports ended at the end of the year (December). The samples obtained in this research will be shown in the Table 4.1 as follows.

Table 4.1 Data Samples

Description	**Number of Companies**	**Period (Year)**	**Total Number of Analysed Data**
Manufacturing companies fulfilled the sampling criteria	75	5	375
Outlier data			(22)
Total data proceeded			353

Based on the samples taken for the study, there are 74 companies which are indicated to commit fraud, while the rest of 279 companies are non-fraud. The details for fraud companies are presented in the Table 4.2 below.

Table 3.2 The Number of Companies which Probably Committed Fraud

No.	Sector	2013	2014	2015	2016	2017	Total
1	Consumer goods Industry	3	2	4	2	4	15
2	Basic Industry and Chemicals	8	6	9	8	7	38
3	Miscellaneous Industry	3	2	7	5	4	21
Total		14	10	20	15	15	**74**

Meanwhile, the description is shown in the Figure 4.1:

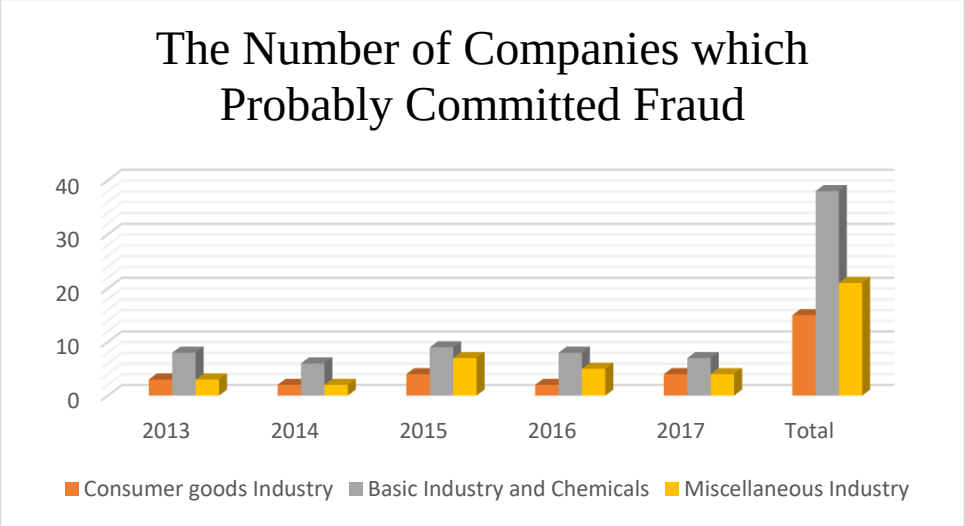

Figure 4.1 Year to Year Number of Companies which Probably Committed Fraud

Mostly, the probability of financial reporting fraud happened in basic industries and chemical sectors for the manufacturing companies during the period of 2013-2017. Also, there was an increase in the number of the likelihood of financial reporting fraud in consumer goods industry in 2017. However, there was only a slight decrease for basic industry and chemicals and miscellaneous industry.

4.2. DESCRIPTIVE STATISTICS ANALYSIS

Descriptive statistics analysis gives the description about the data. This study used this analysis to represent the minimum value, maximum value, mean (average), and standard deviation. The result of descriptive statistics in this research can be seen in the Table 4.3 below.

Table 4.3 Descriptive Statistics

	n	Minimum	Maximum	Mean	Std. Deviation
Fraud	353	0	1	.21	.408
Managerial Ownership	353	.00000	.89450	.0514574	.14105449
Institutional Ownership	353	.00000	1.05336	.4306587	.32155156
Foreign Ownership	353	.00000	.98960	.3442834	.33450795
Family Ownership	353	.00000	.87320	.2695071	.32194418
Public Ownership	353	.01040	.81870	.2487548	.15127941
Profitability	353	-.22230	.40184	.0596031	.09598985
Company Size	353	10.98563	14.47077	12.3387069	.72918962
Board of Director's Independence	353	.00000	.66667	.2002765	.14754500
Audit Firm Reputation	353	0	1	.41	.492
Valid N (listwise)	353				

Source: Data Output (2019)

From the data presented in the Table 4.3, the descriptive analysis for each variable are as the following:

1. Fraud has a minimum value of 0, which means that the company's score showed the company's probability to not commit fraud. Meanwhile, the maximum value is 1 which shows that there is a probability for a company to do fraud. The mean for financial reporting fraud is 21%, which means the risk level of fraud occurred in manufacturing companies listed in IDX during 2013-2017. The standard deviation of fraud is 0.408 which is

relatively high. Skousen and Twedt (2009) as cited in Annisya (2016) stated that if the average value is low yet the standard deviation is high, then the potential for fraud will be high also. Thus, the probability of fraud occurrence in manufacturing companies listed in IDX is quite high.

2. Managerial ownership has a minimum value of 0, which means that there is none in the management position which has ownership of shares. Meanwhile, the maximum value of 89.45% obtained from PT Beton Jaya Manunggal (BTON) for the year 2016 and 2017. The mean for managerial ownership is 0.0514574, while the standard deviation is 0.14105449 which shows that the dispersion of the data is quite high.

3. Institutional ownership has a minimum value of 0, which means that the company does not have local institutions, foundations, banks, or others as the shareholder of the company. There are several companies which do not have this kind of ownership such as the company with the code ADES, BAJA, DVLA, JPRS, KBRI, MAIN, and so forth in which the majority of the shareholders is the family members and/ or foreign based companies. Meanwhile, the maximum value of 1.05336 is obtained from INAF in 2017 in which the number of institutional shareholders is calculated from the sum of the controlling and non-controlling shareholders which are local-based institutions. The mean of 0.4306587 and the standard deviation of 0.32155156 indicated that the data are somewhat clustered around the mean or homogenous data.

4. Foreign ownership has a minimum value of 0, which means that there is no ownership of abroad shareholders. The maximum value is 0.98960 obtained from tobacco manufacturer namely Bentoel Group (RMBA) for the year 2013-2015. The mean of 0.3442834 and the standard deviation of 0.33450795 showed that the data are reasonably dispersed.
5. Family ownership has a minimum value of 0, which means that there is no ownership of family in the shareholding structure of a company. A maximum value of 0.87320 was obtained from PT Gunawan Dianjaya Steel (GDST) in which the family ownership is taken from the direct ownership of the family members and indirect ownership from the company controlled by the family. The mean of 0.2695071 and the standard deviation of 0.32194418 meant that the data are quite dispersed.
6. Public ownership has a minimum value of 0.01040, which is owned by a tobacco manufacturer namely Bentoel Group (RMBA) during the year 2013-3015. The maximum value of this variable is 0.81870 obtained from PT Bumi Teknokultura Unggul (BTEK) in 2015. The mean of this variable is 0.2487548 and the standard deviation is 0.1512794, meaning that the data are homogenous.
7. The control variables in this study are profitability, company size, board of director's independence, and audit firm reputation. The minimum value for profitability (ROA) is -0.22230 obtained from a tobacco manufacturer with the company code RMBA, showing that the company had an unprofitable experience. Meanwhile, the maximum value is 0.40184 obtained from PT

Unilever Indonesia in 2014. The mean for this variable is 0.0596031, which means that the ability of the companies to generate profit from their assets is 5.96%. The standard deviation is 0.09598985.

Company size has a minimum value of 10.98563 obtained from PT Kedaung Indah Can (KICI) in 2014 and a maximum value of 14.47077 from a company with the company code ASII in 2017. The mean for the company size is 12.3387069 in the manufacturing industries during 2013 up to 2017. Meanwhile, the standard deviation is 0.72918962.

Then, board of director's independence has a minimum value of 0, which means that there is no statement related to independent director had by the company and also this mostly occurred in 2013 when several companies had no independent director in the previous year. The maximum value is 0.66667. The mean is 0.2002765 and the standard deviation is 0.14754500.

Finally, audit firm reputation has a minimum value of 0, which means that the company was audited by a non-Big4 audit firm. The maximum value is 1, meaning that the company was audited by one of the Big4 audit firm. The mean for this variable is 0.41 and the standard deviation is 0.492, showing that data are reasonably dispersed.

4.3. TEST OF GOOD OF FIT AND HYPOTHESES TESTING

In this research, the hypothesis tests were done simultaneously and partially. The partial hypothesis testing was done by using *Wald* test. Meanwhile,

the test to examine the effect of all independent variables simultaneously was done through overall model fit test.

4.3.1. Overall Model Fit Test

This model is used to assess whether the data used fits to the model or not. This test is presented in the Omnibus Tests of Model Coefficients which compares the significance of Chi-Square to the significance value of 0.05. The result is presented in Table 4.4 below.

Table 4.4 Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	194.106	9	.000
	Block	194.106	9	.000
	Model	194.106	9	.000

Source: Data Output (2019)

Based on the result shown by the Table 4.4 above, the significance value of the Chi-Square is 0.000 which is smaller than the significance value of 0.05. Thus, it means that at least one of the independent variables contributes to the prediction of the outcome or the current model outperforms the null model. On the other words, it can be concluded that managerial ownership, institutional ownership, foreign ownership, family ownership, public ownership, profitability, company size, board of director's independence, and audit firm reputation simultaneously affect the probability of financial reporting fraud.

4.3.2. Wald Test

In this test, the hypothesis testing was done individually or partially. This test was done by putting each of the independent variables namely managerial

ownership, institutional ownership, foreign ownership, family ownership, public ownership, profitability, company size, board of director's independence, and audit firm reputation to the probability of financial reporting fraud. This test was done to know the relationship of each independent variable to the dependent variable. The results of *Wald* test are presented in the Table 4.5 below.

Table 4.5 Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	MO	-12.018	3.962	9.200	1	.002	.000
	IO	-5.182	2.460	4.435	1	.035	.006
	FO	-7.465	2.628	8.070	1	.004	.001
	FAO	-.399	.695	.329	1	.566	.671
	PO	-3.359	2.592	1.680	1	.195	.035
	ROA	-41.955	6.106	47.208	1	.000	.000
	Size	1.712	.470	13.284	1	.000	5.540
	Indp	2.048	1.324	2.392	1	.122	7.751
	AR	.085	.553	.024	1	.877	1.089
	Constant	-16.238	5.855	7.691	1	.006	.000

a. Variable(s) entered on step 1: MO, IO, FO, FAO, PO, ROA, Size, Indp, AR.

Source: Data Output (2019)

Based on the Table 4.5, the result for the partial or individual hypothesis testing is as follows:

1. The value of *Wald* for managerial ownership is 9.200 (sig. = 0.002). The significance value is less than the significance level which is 0.05 (5%). Thus, it can be concluded that the hypothesis is accepted which means that managerial ownership has a significant effect towards financial reporting fraud. Also, managerial ownership variable which has a negative sign means that the increase in the managerial ownership will decrease the

potential of a company to commit fraud which can result in financial reporting fraud.

2. The value of *Wald* for institutional ownership is 4.435 (sig. = 0.035). The significance value of 0.035 is less than the standard level of significance which is 0.05 (5%). Thus, institutional ownership is significantly affecting financial reporting fraud. The negative sign showed that the relationship between these two variables is negative, which means that the bigger the amount of institutional ownership, the smaller also the probability of a company to have financial reporting fraud. Meanwhile, the value of *odd ratio* which is 0.006 means that the increase in the institutional ownership of a company will affect the probability of a company to not commit fraud as much as 0.006 times rather than a company which does not experience an increase in its institutional ownership.

3. The value of *Wald* for foreign ownership is 8.070 (sig. = 0.004). The significance value of 0.004 is less than the standard significance level of 0.05 (5%). Thus, the null hypothesis is rejected and the H_{A3} is accepted that existence of foreign ownership will have a significant effect in financial reporting fraud. Also, the negative sign showed the negative relationship, which means that the increase amount of foreign ownership will reduce the likelihood of a company to do financial reporting fraud. Meanwhile, the value of *odd ratio* is 0.001 which means that the increase in foreign ownership will affect the probability of a company to have financial reporting fraud as much as 0.001 lower than other companies who do not.

4. The value of *Wald* for family ownership is 0.329 (sig. = 0.566). The significance value is greater than the standard significance value which is 0.05 (5%). Thus, the family ownership does not have a significant effect towards financial reporting fraud, although the relationship between those two variables is negative.
5. The value of *Wald* for public ownership is 0.329 (sig. = 0.195). The significance value is greater than 0.05 (5%) as the standard of significance level. Thus, the H_{A5} should be rejected because public ownership does not have a significant effect towards financial reporting fraud. The negative sign showed that the increase in public ownership will decrease the likelihood of financial reporting fraud, though it is not too significant.
6. The value of *Wald* for profitability (ROA) is 47.208 (sig. = 0.000), which showed that the significance level is less than 0.05. It means that the return on assets has a significant effect towards financial reporting fraud. It is also indicated from the result that there is a negative relation between return on assets generated by companies and the tendency to commit financial reporting fraud.
7. The value of *Wald* for company size is 13.284 (sig. = 0.000), which is the significance level is less than 0.05 (5%), meaning that this variable has a significant effect towards financial reporting fraud. The positive sign for this variable means that the bigger the size of the company, the bigger also the probability of the company to commit financial reporting fraud. The value of *odd ratio* which is 5.540 means that the bigger the size of the

company will affect the probability of a company to do financial reporting fraud for 5.540 times bigger than the smaller-sized companies.

8. The value of *Wald* for board of director's independence is 2.392 (sig. = 0.122). The significance value is bigger than 0.05 (5%), which means that the board of director's independence has no significant effect towards financial reporting fraud. There is a positive relationship between board of director's independence and financial reporting fraud, which is the bigger the number of independent directors in board, the bigger also the potential of a company to commit fraud.
9. The value of *Wald* for audit firm reputation is 0.024 (sig. = 0.877). The significance value is greater than 0.05 (5%). Thus, audit firm reputation does not have a significant effect towards financial reporting fraud. There is a positive relationship which means that the company which was audited by the Big4 auditors will likely conduct financial reporting fraud although it is not significant. In other words, audit firm reputation has no effect towards financial reporting fraud.

4.3.3. Determination of Coefficient (R^2)

Determination of coefficient is used to know how much the variability of dependent variable is or to know how great the influences of independent variables on dependent variable are. Determination coefficient in logistic regression can be recognized from the *Nagelkerke R Square* presented in the Table 4.6 below.

Table 4.6 Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	168.402[a]	.423	.659

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Source: Data Output (2019)

The value of *Nagelkerke R-Square* is 0.659, which means that the variability of dependent variable which can be explained by the independent variables is 65.9%. Meanwhile, the rest of it which is 34.1% is explained by other independent variables that are not used in this research.

4.3.4. Feasibility of Regression Model

This test is used to know whether the empirical data fit the model. The overall compatibility or feasibility of the regression model in this context used *Hosmer and Lemeshow* test with the following criteria:

a. If the value of Hosmer and Lemeshow is ≤ 0.05, it means that there is a significant difference between the model and observed data. Thus, the *goodness of fit* is bad because the model cannot predict the observed values.

b. If the value of Hosmer and Lemeshow is > 0.05, it means that the model is able to predict its observed values or it can be stated that the model can be accepted because it fits to the observed data.

The result of *Hosmer and Lemeshow* test is presented in the Table 4.7.

Table 4.7 Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5.204	8	.736

Source: Data Output (2019)

In the presented Table 4.7, the Chi-square value is 5.204 with the significance value (p) as much as 0.736. Based on the result, the significance value is greater than 0.05. Thus, it is concluded that the model can predict its observed values or the model is accepted because it fits to the observed data.

4.3.5. Logistic Regression Test

Based on the result of logistic regression, then the equation for this regression is presented as follows:

Fraud= -16.238 -12.018MO -5.182IO -7.465FO- 0.399FAO -3.359PO

- 41.955ROA+ 1.712Size+ 2.048Indp+ 0.085AR

Where:
Fraud = Financial Reporting Fraud
MO = Managerial Ownership
IO = Institutional Ownership
FO = Foreign Ownership
FAO = Family Ownership
PO = Public Ownership
α = Constant; *e* = error
Control variable: ROA= Return on Asset, Size= Company Size, Indp= Board of Director's independence, FD= Financial Distress, AR= Audit Firm Reputation.

4.4. DISCUSSIONS

4.4.1. Managerial Ownership to the Probability of Financial Reporting Fraud

Based on the analysis that has been conducted, the B value is -12.018 which showed the relation between managerial ownership and financial reporting fraud. It indicated the negative relation between managerial ownership and financial reporting fraud. In addition, it also shows 0.002 (<0.05) for its significance value and *Wald statistic* value of 9.200 which is greater than Chi-Square value of 3.841.

Based on the hypothesis formulation in the previous section, it can be inferred that H_{01} is rejected, and correspondingly, H_{A1} is accepted. Therefore, managerial ownership has a negative and significant effect towards financial reporting fraud. It indicated that the higher the percentage of managerial ownership, the lower the company's probability to commit financial reporting fraud.

In the context of this research, managerial ownership refers to the ownership of shares which is possessed by the management (member of board of directors and commissioners) who is actively involved in the decision making process (Atik Fajaryani, 2015). The management has responsibilities for the company's day to day operation. Based on the agency theory, the agency problem occurs as the result of the separation of ownership from control, duration of managerial involvement, information asymmetry, and moral hazard (Panda & Leepsa, 2017). The managers' responsibility to look after the company makes them aware related to all information about the business. Meanwhile, the owners depend upon the managers for the information, as the consequence the information may not reach the owners in the exact meaning.

On the other side, Sem (1987) and Williamson (1985) as cited in Panda & Leepsa (2017) stated that the human rationality behavior explains the agent's self-satisfying behavior as the rationality of human action to maximize their own needs. Thus, the separation of ownership from control can lead to the misalignment of interests between principals and agents due to lack of proper monitoring. The existence of managerial ownership can become the one of the remedies of agency problem as it will increase the managers' affiliation to the firm. The managerial

ownership makes the manager work as the owner of the company and focus on the firm performance. Accordingly, it will encourage managers to enhance their performance and fulfill the shareholders' expectations which include the managers. Moreover, this situation made the managers want to have reliable information as it will affect their investments' return. Unavoidably, managers will try to improve control and to prevent any kind of fraudulent behavior to present good information disclosure. Thus, there will be an alignment between managers' and shareholders' interests and agency problem can be minimized.

Accordingly, this research analysis reported antithesis one from previous studies that result in a positive correlation and no significant relationship. Subsequently, this negative correlation also contradicts the result of the studies conducted by Yulia and Basuki (2016), Rosyida and Subowo (2015), and Fajaryani (2015). Yulia and Basuki (2016) found that there is a significant positive relationship between managerial ownership and the probability of financial reporting fraud in Indonesian banking sector. They explained that it will affect the managerial discretion which will be applied by the company. Rosyida and Subowo (2015) and Fajaryani (2015) found that there is no relationship between managerial ownership and the integrity of financial statement. The reason is that there is only a small percentage for managerial ownership. Hence, the manager tends to have less contribution in decision making.

4.4.2. Institutional Ownership to the Probability of Financial Reporting Fraud

Based on the analysis that has been conducted, the B value is -5.218 showing the relation between institutional ownership and financial reporting fraud. It indicates the negative relation between institutional ownership and financial reporting fraud. In addition, it also shows 0.035 (<0.05) as its significance value and *Wald statistic* value of 4.435 which is greater than Chi-Square value of 3.841. Based on the hypothesis formulation in the previous section, it can be inferred that H_{02} is rejected, and correspondingly, H_{A2} is accepted. Therefore, institutional ownership has a negative and significant effect towards financial reporting fraud. It indicated that the higher the percentage of institutional ownership, the lower the company's probability to commit financial reporting fraud.

According to Nia, et.al. (2016), institutional ownership refers to the amount of a company's shares percentage which is owned by banks, insurances, financial institutions, holding firms, and state-owned organizations, institutions, and firms. In comparison with other investors, institutional ownership relates to the professional investors which have advantage in data collection and analysis. These investors usually collect and investigate the information on companies and their future earnings easily. Based on Burkart, Gromb, & Panunzi (1997) as cited in Panda & Leepsa (2017), a remedy to minimize agency problem can be realized through the presence of a strong owner or block-holders which can closely monitor the behaviour of manager and control their activities in order to improve the firm value. The causes of agency problem between principal and agent are separation

of ownership and control, information asymmetry, and risk preference (Panda & Leepsa, 2017). The presence of institutional ownership can lower the information asymmetry and higher the understanding of risk preference as most of the professional investors will have a comparative advantage to collect and process the investee (company). Thus, it can improve the control within the company as it is stated by Bushee (1988: 7) as cited in Fajaryani (2015), the incentive of managers which is to satisfy their own interests can be reduced by the existence of institutional ownership. Velury and Jenkins (2006) as cited in Yasser (2016) stated that agency theorists claimed that institutional ownership can become an important governance system for monitoring. This is supported through the study of Panda and Leepsa (2017) which stated that ownership structure has a significant role in reducing agency cost.

Agency cost is known as internal costs attached with the agent due to the misalignment of interest between principal and agent, one of the components in agency cost is monitoring cost. Thus, institutional ownership cost is effective in reducing agency cost as it will improve the monitoring function in a company. Additionally, as explained by Syamsudin (2017) that a significant amount of institutional ownership has the capability to monitor managerial behavior in managing the company. It is claimed that by its significant amount, there will be more efficiency in controlling actions which may not give the opportunity for the management to manipulate a financial report. The performance of management in a company can be optimally watched over and manager will tend to hinder decision which can bring loss to shareholders.

This negatively-significant correlation of institutional ownership and financial reporting fraud is consistent with the findings by Pamungkas, et.al. (2018), Ghafoor, et.al. (2018), Nia, et.al. (2016), and Fajaryani (2015). The study from abroad such as by Nia, et.al. (2016) explained the confirmation of their finding to the agency theory. They also added that the existence of institutional ownership will reduce the factors of earnings management which will subsequently reduce the probability of fraud. Furthermore, due to its risk preference, large institutions tend to demand more oversight on managers. Supported by Fajaryani (2015) that institutional investor can optimize the management's performance which can minimize the opportunistic action could be done by the management. However, it is opposed to the findings by Affan, et.al. (2017) and Nurdiniah (2017). Affan, et.al. (2017) finding that institutional ownership tends to compromise financial reporting quality as the result of the lack supervision of manager's behavior.

4.4.3. Foreign Ownership to the Probability of Financial Reporting Fraud

Based on the analysis that has been conducted, the B value is -7.465 which shows the relation between foreign ownership and financial reporting fraud. It indicates the negative relation between foreign ownership and financial reporting fraud. In addition, it also shows 0.004 (<0.05) as its significance value and *Wald statistic* value of 8.070 which is greater than Chi-Square value of 3.841. Based on the hypothesis formulation in the previous section, it can be inferred that H_{03} is rejected, and correspondingly, H_{A3} is accepted. Therefore, foreign ownership has a negative and significant effect towards financial reporting fraud. It indicated that

the higher the percentage of foreign ownership, the lower the company's probability to commit financial reporting fraud.

According to Mardiana (2015), foreign ownership is ownership of shares owned by overseas investors. It is stated in Yasser (2016) that in this emerging market overseas investors can be effective monitors of managers due to their demand on the higher standards of financial disclosure. This kind of ownership structure has characteristics of having better information system to meet the internal needs (Mardiana, 2015) and the greater possibility to occupy management's position in a company if the ownership percentage is high (Affan, 2017). These characteristics will make the company having foreign ownership have less opportunity to commit fraud. Moreover, Mardiana (2015) explained that foreign ownership would boost companies to implement high corporate governance standards and better protect the minority shareholders which can give less occurrence of fraudulent behaviors.

Based on the agency theory, foreign ownership will minimize the agency conflict between agents and principals by aligning their interests. It is because a strong ownership or block-holders can thoroughly monitor the behaviors of the managers and control their activities to improvise the company's performance (Panda & Leepsa, 2017). Thus, it should be also reducing the agency cost because of its monitoring function. Shleifer and Vishny (1997) as cited in Syamsudin (2017) added that this corporate governance mechanism works for convincing the foreign parties concerning profit on the capital investment given to the company

as well as the action of manager by not embezzling or using the capital for non-profitable projects.

This negatively-significant correlation of foreign ownership and financial reporting fraud is consistent with the findings by Syamsudin (2017), Yasser, et.al. (2016), and Mardiana (2015). Yasser, et.al. (2016) stated that institutional ownership is positively associated to financial reporting quality in developing countries. Meanwhile, Mardiana (2015) explained that foreign ownership demands companies to implement better corporate governance standards and protects the minority shareholders. Thus, companies will be less likely to commit fraud. However, it is opposed to the findings by Affan, et.al. (2017) which found that a significant influence of foreign ownership and real earnings management which can indicate the probability of fraud. It is explained that foreign shareholders will be less able to supervise the managers' behaviors due to geographical distance and ignorance on local conditions.

4.4.4. Family Ownership to the Probability of Financial Reporting Fraud

Based on the analysis that has been conducted, the B value is -0.399 which shows the relation between family ownership and financial reporting fraud. It indicates the negative relation between family ownership and financial reporting fraud. In addition, it also shows 0.566 (>0.05) as its significance value and *Wald statistic* value of 0.329 which is less than Chi-Square value of 3.841. Based on the hypothesis formulation in the previous section, it can be inferred that H_{04} is accepted, and correspondingly, H_{A4} is rejected. Therefore, family ownership has no effect towards financial reporting fraud. It indicated that the higher the

percentage of family ownership will not have any influence to the probability to commit financial reporting fraud.

Morck and Yeung (2003) as cited in Mardiana (2015) stated that family ownership is an ownership in a company which is owned by responsible successors or by members of a family who are in the process of transferring controls to the successors. In addition, the characteristics involved in a family company are the existence of large portions of shares which is owned by individual or several family members or other companies controlled by the family members and the assignment of management occupation to family members. Based on the agency theory, ownership structure can become the remedy for agency problem, one of the type of it is family ownership (Panda & Leepsa, 2017). The shares ownership of family members in a family company will align the private interest and the company's interest by monitoring closely the behaviors of managers which can reduce agency cost and controlling activities in the company. Consequently, the incentive of alignment will discourage family management to manipulate financial information which can hamper the family reputation and long-term performance (Hashmi et al., 2018). Ghafoor, et.al. (2018) statement supported the previous sentence, "the alignment theory claimed that the likelihood of fraud will be reduced because the management will be monitored by the founding family members".

The agency problem between principal showed the conflict between controlling (majority) and non-controlling (minority) shareholders offering the opportunities of family shareholders to expropriate the wealth of minority shareholders by controlling over management and decision policies. This situation

may be inappropriate when the majority shareholders tried to maximize their wealth over the others as the result of having higher voting power to take any decision for their own benefits. In this context of this research, the result shows a negative sign, but it is not significant. Affan, et.al. (2017) explained that the implementation of IFRS has required the management to provide a more detailed disclosure. “The reported disclosure should be in accordance with the actual data and information which can be used for decision making, accordingly, it is expected to reduce information asymmetry” (Affan, 2017). As the result, it will minimize the management to create policies which can lead to opportunistic action easily. Furthermore, Affan, et.al. (2017) stated that family ownership structure in manufacturing companies listed in IDX cannot control the actions of the management in running the company.

This negatively-insignificant correlation of family ownership and financial reporting fraud is consistent with the findings by Affan, et.al. (2017) which stated that there is no relationship between family ownership to both accrual and real earnings management, which can affect the quality of financial reporting and indicate the probability to manipulate financial information. They stated that the shares held by family are quite low. However, it is opposed to the findings by Ghafoor, et.al. (2018), Hussain, et.al. (2016), and Mardiana (2015). Hussain, et.al. (2016) and Mardiana (2015) found that there is a significant negative relationship between family ownership and financial reporting fraud. Hussain, et.al. (2016) explained that the family owners considered their reputation which discourages them from aggressively managing the financial information. Supported by

Mardiana (2015) that family ownership can promote the quality of financial statements because they can freely monitor and discipline managers. Meanwhile, Ghafoor, et.al. (2018) found an insignificant positive relation. They explained that it is due to the difference in the ethical behavior between family companies and non-family companies. Thus, Coffee (2005) as cited in Ghafoor, et.al. (2018) stated that the nature of fraud is different in different governance systems.

4.4.5. Public Ownership to the Probability of Financial Reporting Fraud

Based on the analysis that has been conducted, the B value is -3.359 which shows the relation between public ownership and financial reporting fraud. It indicates the negative relation between public ownership and financial reporting fraud. In addition, it also shows 0.195 (>0.05) as its significance value and *Wald statistic* value of 1.680 which is less than Chi-Square value of 3.841. Based on the hypothesis formulation in the previous section, it can be inferred that H_{05} is accepted, and correspondingly, H_{A5} is rejected. Therefore, public ownership has no effect towards financial reporting fraud. It indicated that the higher the percentage of public ownership will not have any influence to the probability to commit financial reporting fraud.

Nugraheni (2009: 356) as cited in Yulia and Basuki (2016) explained that public ownership is represented by the comparison of number of shares owned by public investors (other outside parties instead of management which do not have any distinct relationship). As cited before from Panda & Leepsa (2017), that the remedy to conquer the agency problem is through having a strong owner or concentrated ownership or the block-holders, or outside ownership to closely

monitor the manager's behavior which can reduce the agency cost. Therefore, the management will be pressured to disclose more detailed information which can prevent the effect of information asymmetry. Public ownership can be said as a strong ownership because of the high concentration of ownership for this type of ownership structure. Thus, it is expected that it can also function as a strong monitor for management. Additionally, Syamsudin, et.al. (2017) stated that public ownership has a strong power in the company through the use of mass media. It can represent the voice of public regarding critiques to the company's performance. When there is a bad critique, it can reduce the trust of other shareholders/ investors.

Accordingly, this research analysis reported antithesis one from previous studies that result in a negative correlation and positive significant relationship. Subsequently, this non-significant correlation also contradicts to the result of the studies conducted by Yasser, et.al. (2017) and Syamsudin (2017). Yasser, et.al. (2017) found a negative correlation between public ownership and financial reporting quality in Pakistan. They stated that managers are the best-informant regarding alternative uses for funds from investors. They added that the absence of the ability of analyzing financial statement will make public do not react to the unusual accruals. Meanwhile, Syamsudin (2017) found a negative correlation because there is a pressure from public investors to provide the information completely and transparently. The reason of the finding of this study could be as the fact that public ownership consists mostly of shareholders with the share ownership percentage below 5% and/ or 10%. Thus, it does not have any significant influence to decision making done by the management. Another reason

is that there could be absence of the ability of many public investors to analyze the financial information provided by the company where they invested.

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CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter contains the conclusions of research findings and discussions, research limitations, and recommendations for further studies.

5.1 CONCLUSIONS

The reason of the researcher conducted this research is because of the increasing number of financial reporting fraud from year to year reported by *Association of Certified Fraud Examiners* in 2014 and then updated in 2016. Although financial reporting fraud is the least category of fraud to be happened, it still contributes to the biggest losses in companies. Indonesia is known for its endemic culture of corruption which can indicate to the crises of integrity. Meanwhile, based on the recent report of ACFE in 2018, Indonesia is the third country which has the biggest number of fraud cases done by the management or employee for about 29 cases in Asia-Pacific region. A requisite control system should be enhanced to prevent the likelihood of financial reporting fraud. One of the control systems which can be used, according to theory, is ownership structure.

This research studied about ownership structure, namely managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership to the likelihood of financial reporting fraud. It was conducted by using logistic regression method which comprises 353 manufacturing companies listed in Indonesian Stock Exchange (IDX) for the period of 2013-2017. Based on the hypothesis testing which has been done, it is concluded that:

1. Managerial ownership has a negative and significant effect on the probability of financial reporting fraud.
2. Institutional ownership has a negative and significant effect on the probability of financial reporting fraud.
3. Foreign ownership has a negative and significant effect on the probability of financial reporting fraud.
4. Family ownership has no effect on the probability of financial reporting fraud.
5. Public ownership has no effect on the probability of financial reporting fraud.

5.2. RESEARCH IMPLICATIONS

This research may, suggestively, give the interested parties information to make decisions and take relevant actions related to factors that influence financial reporting fraud.

1. Academicians

Academicians (i.e. students, scholars, and researchers) could take responsive actions to give more practical academic support to present more information related to this literature, which can be done by:

a. Conducting further researches and studies regarding factors influencing the likelihood of financial reporting fraud to obtain more updated information. It is noticeable that there is still no research which studies about the relationship of types of ownership

structure (managerial ownership, institutional ownership, foreign ownership, family ownership, and public ownership) simultaneously to the probability of financial reporting fraud which can be the breakthrough for future research to study further about the effects. This have been proven by the model of studies done by Ghafoor, et.al. (2018), Ratmono, et.al. (2017) Syamsudin (2017), Hussain, et.al. (2016), Yulia and Basuki (2016), and so forth which investigated each type of ownership structure separately from others. It is noticeable also that this study can fulfil the recommendations from Mardiana (2015) to include company's profitability as the financial ratio to consider its influence to financial reporting fraud, and from Hussain, et.al. (2016) to include board independence as the influencing factor of financial misstatement. Thus, this study should be useful to contribute in the growing literature in financial reporting fraud and forensic accounting.

b. Presenting the results of the research as the teaching materials to understand the factors influencing financial reporting fraud. The forensic accountant educators can introduce the effect of ownership structure to financial reporting fraud.

2. Auditors

a. External auditors

The finding of the type of audit firm reputation which is included in the big 4 or not hopefully can remind the external auditors, both large and small scale, in considering the possibility of financial reporting fraud. Thus, external auditors should not loosen up their professional skepticism to support the audit procedure, as this research proved that audit firm reputation does not have any significant influence to financial reporting fraud.

b. Internal auditors

The ownership structure and board of director's independence in this research hopefully can become the consideration of companies having potential for committing financial reporting fraud. This research proved that managerial ownership, institutional ownership, and foreign ownership have negative and significant influences to the likelihood of financial reporting fraud. Meanwhile, board independence, family ownership, and public ownership have no effect to financial reporting fraud. Therefore, these findings hopefully can assist internal auditors to consider the establishment of effective monitoring systems referenced from the company's ownership structure which can reduce the agency cost. Meanwhile, board of director's independence is found to have positive yet insignificant influences to the likelihood of financial reporting fraud. Thus,

internal auditors need to detect the effectiveness of board independence to improve its monitoring function.

3. Other financial statement users

By understanding the variables in this research which are managerial ownership, institutional ownership, foreign ownership, family ownership, public ownership, profitability, company size, board of director's independence, and audit firm reputation, it is expected that the variables can be used by the other financial statement users such as investors, management, government, etc. as the consideration to analyze the financial statement and to make economic decisions. This research proved that profitability has negative and significant effects to the likelihood of financial reporting fraud. Then, more profitable companies will tend to disclose more reliable information than others. Also, company size should not be the indicator that the company presents reliable information because this study has proven the positive and significant relation. Hence, the financial statement users should be attentive in investing their capital by selecting good companies.

4. Regulators

The study hopefully can help regulatory bodies such as Indonesian Stock Exchange, Financial Service Authority, and others to give insight for policy makers by expanding the understanding of corporate governance. The effectiveness of corporate governance, depending on the elements involved, will be differ. The findings found that managerial ownership,

institutional ownership, and foreign ownership can become an effective tool to monitor the company in order to disclose reliable information. In addition, it is expected to assist the regulatory bodies to start to investigate the factors of ineffective monitoring by family ownership and public ownership, as well as the board of director's independence.

5.3. RECOMMENDATIONS

The recommendations from the researcher are:

a. The future research is suggested to use the other measurements as the proxy of the probability of financial reporting fraud for example P Score model, or others.
b. The future research is suggested to include other financial ratios, excluding profitability.
c. The future research is recommended to use other data collection methods such as interview to get more realizable and accurate data.

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APPENDICES

APPENDIX 1

List of Company Samples

Company 's Code	Sector	Specification	Year
ADES	Consumer goods Industry	Food and Beverage	2013-2016
AISA	Consumer goods Industry	Food and Beverage	2013-2017
AKPI	Basic Industry and Chemicals	Plastics & Packaging	2013-2016
ALDO	Basic Industry and Chemicals	Pulp & Paper	2013-2017
ALKA	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
ALMI	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
ALTO	Consumer goods Industry	Food and Beverage	2013-2017
AMFG	Basic Industry and Chemicals	Ceramics, Glass, Porcelains	2013-2017
APLI	Basic Industry and Chemicals	Plastics & Packaging	2013-2017
ARNA	Basic Industry and Chemicals	Ceramics, Glass, Porcelains	2013-2017
ASII	Miscellaneo us Industry	Automotive & Components	2013-2017
AUTO	Miscellaneo us Industry	Automotive & Components	2013-2017
BAJA	Basic Industry and Chemicals	Metal & Allied Products	2013

BRNA	Basic Industry and Chemicals	Plastics & Packaging	2013, 2015, 2016, 2017
BTEK	Consumer goods Industry	Food and Beverage	2015-2017
BTON	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
CPIN	Basic Industry and Chemicals	Animal Feed	2013-2017
DLTA	Consumer goods Industry	Food and Beverage	2013-2017
DPNS	Basic Industry and Chemicals	Chemicals	2013-2017
DVLA	Consumer goods Industry	Pharmaceuticals	2013-2017
EKAD	Consumer goods Industry	Pharmaceuticals	2013-2017
ETWA	Basic Industry and Chemicals	Chemicals	2014-2017
GDST	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
GGRM	Consumer goods Industry	Tobacco	2013-2017
GJTL	Miscellaneous Industry	Automotive & Components	2013-2017
HMSP	Consumer goods Industry	Tobacco	2013-2017
ICBP	Consumer goods Industry	Food and Beverage	2013-2017
IGAR	Basic Industry and Chemicals	Plastics & Packaging	2013-2017

IMAS	Miscellaneous Industry	Automotive & Components	2013-2017
INAF	Consumer goods Industry	Pharmaceuticals	2013-2017
INAI	Basic Industry and Chemicals	Metal & Allied Products	2013, 2015, 2016, 2017
INDF	Consumer goods Industry	Food and Beverage	2013-2017
INDS	Miscellaneous Industry	Automotive & Components	2013-2017
INTP	Basic Industry and Chemicals	Cement	2013-2017
JECC	Miscellaneous Industry	Cable	2013-2017
JPFA	Basic Industry and Chemicals	Animal Feed	2013-2017
JPRS	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
KAEF	Consumer goods Industry	Pharmaceuticals	2013-2017
KBLI	Miscellaneous Industry	Cable	2013-2017
KBLM	Miscellaneous Industry	Cable	2013-2017
KBRI	Basic Industry and Chemicals	Pulp & Paper	2013-2017
KDSI	Basic Industry and Chemicals	Pulp & Paper	2013-2017
KIAS	Basic Industry and Chemicals	Ceramics, Glass, Porcelains	2013, 2014, 2015, 2017
KICI	Miscellaneous Industry	Houseware	2013-2017
KLBF	Consumer goods Industry	Pharmaceuticals	2013-2017

KRAH	Miscellaneous Industry	Machinery and Heavy Equipment	2013-2017
LMSH	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
MAIN	Basic Industry and Chemicals	Animal Feed	2013-2017
MBTO	Consumer goods Industry	Cosmetics and Household	2013-2017
MERK	Consumer goods Industry	Pharmaceuticals	2013-2017
MLBI	Consumer goods Industry	Food and Beverage	2014-2015
MLIA	Basic Industry and Chemicals	Ceramics, Glass, Porcelains	2013-2017
MRAT	Consumer goods Industry	Cosmetics and Household	2013-2017
MYOR	Consumer goods Industry	Food and Beverage	2013-2017
MYTX	Miscellaneous Industry	Textile, Garment	2013-2017
NIPS	Miscellaneous Industry	Automotive & Components	2013-2017
PICO	Basic Industry and Chemicals	Metal & Allied Products	2013-2017
PSDN	Consumer goods Industry	Food and Beverage	2013-2017
PYFA	Consumer goods Industry	Pharmaceuticals	2013-2017
RMBA	Consumer goods Industry	Tobacco	2013, 2014, 2015, 2017
ROTI	Consumer goods Industry	Food and Beverage	2013-2017

SIDO	Consumer goods Industry	Pharmaceuticals	2013-2017
SIPD	Basic Industry and Chemicals	Animal Feed	2013-2017
SKLT	Consumer goods Industry	Food and Beverage	2013-2017
SKBM	Consumer goods Industry	Food and Beverage	2013-2017
SMSM	Miscellaneous Industry	Automotive & Components	2013-2017
SMGR	Basic Industry and Chemicals	Cement	2013-2017
TCID	Consumer goods Industry	Cosmetics and Household	2013-2017
TOTO	Basic Industry and Chemicals	Ceramics, Glass, Porcelains	2013-2017
TRIS	Miscellaneous Industry	Textile, Garment	2013-2017
TSPC	Consumer goods Industry	Pharmaceuticals	2013-2017
UNVR	Consumer goods Industry	Cosmetics and Household	2013-2017
ULTJ	Consumer goods Industry	Food and Beverage	2013-2016
YPAS	Basic Industry and Chemicals	Plastics & Packaging	2013-2017

APPENDIX 2

Data Result

Fraud	Managerial Ownership	Institutional Ownership	Foreign Ownership	Family Ownership	Public Ownership	ROA	Company's Size	Board Independence	Audit Firm Reputation
0	0.00000	0.00000	0.91940	0.00000	0.08060	0.12619	11.64450	0.25000	0
0	0.00000	0.00000	0.91940	0.00000	0.08060	0.06144	11.70318	0.25000	0
0	0.00000	0.00000	0.91940	0.00000	0.08060	0.05027	11.81506	0.25000	0
0	0.00000	0.00000	0.91520	0.00000	0.08480	0.07290	11.88507	0.33333	0
0	0.00000	0.34465	0.43611	0.00000	0.44290	0.06906	12.70077	0.25000	0
0	0.00000	0.27558	0.67662	0.00000	0.37900	0.05130	12.86758	0.33333	0
1	0.00000	0.27630	0.66409	0.00000	0.36980	0.04125	12.95718	0.33333	0
0	0.00000	0.29376	0.64479	0.00000	0.36950	0.07772	12.96635	0.33333	0
1	0.00000	0.28853	0.54377	0.00000	0.37620	-0.09706	12.94075	0.25000	0
1	0.00000	0.37886	0.38805	0.15050	0.34870	0.01661	12.31902	0.60000	1
1	0.00000	0.42272	0.38217	0.15050	0.34870	0.01558	12.34773	0.60000	1
1	0.00000	0.38005	0.39037	0.15050	0.34870	0.00959	12.45987	0.60000	1
1	0.00000	0.49920	0.26989	0.15050	0.34870	0.02003	12.41762	0.60000	1
0	0.14320	0.58410	0.03870	0.72730	0.27270	0.07493	11.47926	0.33333	0
0	0.14320	0.58410	0.04140	0.72730	0.27280	0.05903	11.55244	0.33333	0
0	0.14320	0.58410	0.04140	0.72730	0.27270	0.06579	11.56349	0.33333	0
0	0.14320	0.58410	0.00000	0.72730	0.27270	0.06149	11.61313	0.33333	0
0	0.14570	0.58410	0.00000	0.72730	0.27020	0.05822	11.69784	0.33333	0

0	0.00070	0.16040	0.78870	0.00000	0.05020	-0.00130	11.38366	0.00000	0
0	0.00070	0.16040	0.78870	0.00000	0.05020	0.01086	11.38895	0.00000	0
0	0.00070	0.16040	0.78870	0.00000	0.05020	-0.00813	11.16025	0.33333	0
0	0.00012	0.16360	0.77660	0.00000	0.09170	0.00378	11.13551	0.33333	0
0	0.00012	0.93070	0.00510	0.00000	0.06920	0.05048	11.48460	0.33333	0
1	0.01604	0.75970	0.00000	0.71080	0.22420	0.00949	12.43966	0.40000	0
1	0.01604	0.76480	0.00000	0.71590	0.21920	0.00061	12.50683	0.40000	0
1	0.01604	0.76480	0.00000	0.71590	0.21900	-0.02449	12.34025	0.40000	0
1	0.01604	0.84460	0.00340	0.71590	0.21900	-0.04641	12.33305	0.40000	0
1	0.01680	0.80380	0.04400	0.71590	0.21840	0.00355	12.37590	0.40000	0
1	0.02250	0.80730	0.00000	0.55830	0.17020	0.00803	12.17682	0.33333	0
1	0.02250	0.80730	0.00000	0.55830	0.17020	-0.00818	12.09309	0.33333	0
1	0.02240	0.81140	0.00000	0.55770	0.16620	-0.02063	12.07197	0.33333	0
1	0.02240	0.81140	0.00000	0.44370	0.32890	-0.02275	12.06636	0.33333	0
1	0.02240	0.75810	0.00000	0.39890	0.45280	-0.05665	12.04508	0.50000	0
0	0.40840	0.41180	0.43860	0.00000	0.14960	0.09560	12.54893	0.45455	1
0	0.40870	0.41190	0.43860	0.00000	0.14950	0.11705	12.59311	0.45455	1
0	0.40960	0.41280	0.43860	0.00000	0.14860	0.07994	12.63046	0.09091	1
0	0.40960	0.42840	0.54460	0.00000	0.14860	0.04731	12.74075	0.09091	1
0	0.40970	0.42920	0.53390	0.00000	0.15170	0.00615	12.79712	0.09091	1
0	0.00000	0.57110	0.26790	0.57110	0.17000	0.00620	11.48229	0.00000	1
0	0.28280	0.59280	0.00140	0.84930	0.15070	0.03525	11.43636	0.33333	1
0	0.25610	0.62730	0.00130	0.84410	0.15590	0.00601	11.48942	0.33333	1
0	0.26550	0.62730	0.00150	0.85360	0.14640	0.07985	11.49758	0.33333	1

0	0.26730	0.58920	0.00140	0.85530	0.14470	0.03102	11.60064	0.25000	1
0	0.00000	0.13920	0.36540	0.00000	0.49540	0.20938	12.05509	0.00000	1
0	0.00000	0.13940	0.40900	0.00000	0.45160	0.20780	12.10009	0.33333	1
0	0.00000	0.13970	0.34120	0.00000	0.51910	0.04977	12.15557	0.33333	1
0	0.37320	0.13970	0.00000	0.37320	0.48710	0.05921	12.18843	0.33333	1
0	0.37320	0.17270	0.38170	0.37320	0.10530	0.07630	12.20449	0.25000	1
0	0.00040	0.05110	0.92460	0.00000	0.49850	0.10419	14.33040	0.00000	1
0	0.00030	0.04640	0.93160	0.00000	0.49860	0.09374	14.37297	0.00000	1
0	0.00040	0.05480	0.91640	0.00000	0.49850	0.06361	14.38994	0.10000	1
0	0.00040	0.05210	0.92100	0.00000	0.49850	0.06989	14.41806	0.09091	1
0	0.00040	0.08030	0.89570	0.00000	0.49850	0.07835	14.47077	0.11111	1
0	0.00064	0.83921	0.13173	0.00000	0.20000	0.08385	13.10098	0.00000	1
0	0.00021	0.83346	0.13990	0.00000	0.20000	0.06651	13.15779	0.00000	1
0	0.00000	0.82965	0.14163	0.00000	0.20000	0.02250	13.15652	0.12500	1
0	0.00000	0.81319	0.15637	0.00000	0.20000	0.03308	13.16472	0.12500	1
0	0.00000	0.81320	0.15637	0.00000	0.20000	0.03711	13.16915	0.12500	1
0	0.73930	0.00000	0.00000	0.73930	0.26070	-0.09149	11.92579	0.25000	0
1	0.09440	0.51420	0.00000	0.00000	0.39140	-0.01086	12.05120	0.00000	0
1	0.06580	0.62530	0.00000	0.00000	0.30890	-0.00393	12.26026	0.66667	0
1	0.05090	0.64980	0.00000	0.00000	0.29930	0.00606	12.31988	0.66667	0
1	0.05090	0.65860	0.16170	0.00000	0.29940	-0.09074	12.29334	0.33333	0
0	0.00000	0.34590	0.12670	0.00000	0.81870	0.00055	11.69495	0.50000	0
0	0.00000	0.00000	0.73470	0.00000	0.26530	0.00046	12.68839	0.25000	0
1	0.00000	0.00000	0.54220	0.00000	0.45780	-0.00807	12.72477	0.25000	0

0	0.09580	0.01960	0.79870	0.00000	0.08890	0.14695	11.24585	0.00000	0
0	0.09580	0.01960	0.79870	0.00000	0.08590	0.04381	11.24094	0.33333	0
0	0.09580	0.01960	0.79870	0.00000	0.08590	0.03453	11.26273	0.33333	0
0	0.89450	0.01960	0.00340	0.81830	0.08590	-0.03370	11.24869	0.33333	0
0	0.89450	0.01960	0.00380	0.81830	0.08590	0.06197	11.26364	0.33333	0
0	0.00000	0.55530	0.35250	0.55530	0.44470	0.16084	13.19651	0.00000	1
0	0.00000	0.55530	0.35380	0.55530	0.44470	0.08372	13.31937	0.14286	1
0	0.00002	0.55530	0.36510	0.55530	0.44470	0.07424	13.39243	0.14286	1
0	0.00002	0.63180	0.35825	0.55530	0.44470	0.09194	13.38390	0.14286	1
0	0.00003	0.62560	0.36660	0.55530	0.44470	0.10182	13.38957	0.14286	1
0	0.00000	0.31460	0.64720	0.00000	0.15420	0.31198	11.93804	0.00000	1
0	0.00000	0.31810	0.64640	0.00000	0.15420	0.29041	11.99649	0.20000	1
0	0.00000	0.32390	0.64700	0.00000	0.15410	0.18496	12.01633	0.20000	1
0	0.00000	0.32710	0.64090	0.00000	0.15410	0.21248	12.07838	0.20000	1
0	0.00000	0.32710	0.64100	0.00000	0.15420	0.20865	12.12738	0.20000	1
0	0.05711	0.51230	0.15240	0.05712	0.27870	0.26061	11.40887	0.25000	0
0	0.05711	0.51180	0.08460	0.05712	0.34650	0.05400	11.42955	0.25000	0
0	0.05711	0.51180	0.08680	0.05712	0.34420	0.03592	11.43852	0.25000	0
0	0.05711	0.51180	0.08680	0.05712	0.34420	0.03380	11.47148	0.25000	0
0	0.05711	0.51180	0.08680	0.05712	0.34420	0.01933	11.48924	0.25000	0
0	0.00000	0.00000	0.92660	0.00000	0.07340	0.10571	12.07557	0.00000	1
0	0.00000	0.00000	0.92660	0.00000	0.07340	0.06546	12.09211	0.14286	1
0	0.00000	0.00000	0.92660	0.00000	0.07340	0.07840	12.13871	0.14286	1
0	0.00000	0.00000	0.92460	0.00000	0.07540	0.09931	12.18508	0.12500	1

0	0.00000	0.00000	0.92460	0.00000	0.07540	0.09888	12.21508	0.12500	1
0	0.00000	0.75450	0.00000	0.00000	0.24550	0.11482	11.53606	0.00000	0
0	0.00000	0.75450	0.00000	0.00000	0.24550	0.09908	11.61421	0.33333	0
0	0.00000	0.75450	0.00000	0.00000	0.24550	0.12071	11.59072	0.33333	0
0	0.00000	0.76320	0.00000	0.00000	0.23680	0.12909	11.84665	0.33333	0
0	0.00000	0.77080	0.05190	0.00000	0.23190	0.09563	11.90133	0.33333	0
1	0.00080	0.36080	0.12070	0.00000	0.51770	-0.10679	12.12419	0.25000	0
1	0.00060	0.36080	0.12070	0.00000	0.51790	-0.16825	12.12474	0.25000	0
1	0.00000	0.36080	0.12070	0.00000	0.51850	-0.05910	12.06406	0.25000	0
1	0.00000	0.36080	0.12070	0.00000	0.51850	-0.11441	12.04711	0.25000	0
0	0.00010	0.10670	0.87310	0.10680	0.02010	0.07712	12.07609	0.20000	0
0	0.00010	0.10680	0.87310	0.10680	0.02000	-0.01029	12.13182	0.20000	0
1	0.00010	0.10680	0.87310	0.10680	0.02000	-0.04663	12.07333	0.20000	0
0	0.87330	0.10680	0.00080	0.87320	0.01990	0.02521	12.09955	0.20000	0
0	0.87330	0.10680	0.00050	0.87320	0.01990	0.00799	12.10956	0.20000	0
0	0.00920	0.75550	0.00000	0.76470	0.23530	0.08635	13.70561	0.00000	1
0	0.00920	0.75550	0.00000	0.76470	0.23530	0.09267	13.76508	0.14286	1
0	0.00920	0.75550	0.00000	0.76470	0.23530	0.10161	13.80281	0.14286	1
0	0.00673	0.83000	0.12100	0.76220	0.23780	0.10600	13.79901	0.14286	1
0	0.00673	0.83500	0.11700	0.76220	0.23780	0.11617	13.82452	0.14286	1
0	0.00097	0.00110	0.59700	0.00000	0.40300	0.00784	13.18613	0.09091	1
0	0.00106	0.00110	0.59500	0.00000	0.40500	0.01682	13.20528	0.07692	1
1	0.00943	0.00110	0.59500	0.00000	0.39440	-0.01789	13.24327	0.07692	1
1	0.01128	0.00110	0.59510	0.00000	0.39250	0.03351	13.27179	0.07692	1

1	0.01128	0.00110	0.59510	0.00000	0.39250	0.00248	13.25986	0.10000	1
0	0.00000	0.98180	0.00000	0.00000	0.01820	0.39477	13.43782	0.00000	1
0	0.00000	0.98180	0.00000	0.00000	0.01820	0.35873	13.45302	0.14286	1
0	0.00000	0.92500	0.00000	0.00000	0.07500	0.27264	13.57991	0.14286	1
0	0.00000	0.95770	0.03030	0.00000	0.07500	0.30023	13.62847	0.12500	1
0	0.00000	0.95955	0.02927	0.00000	0.07500	0.29370	13.63489	0.12500	1
0	0.00000	0.80530	0.00000	0.80530	0.19470	0.10509	13.32772	0.11111	1
0	0.00000	0.80530	0.00000	0.80530	0.19470	0.10163	13.39638	0.11111	1
0	0.00000	0.80530	0.00000	0.80530	0.19470	0.11006	13.42424	0.11111	1
0	0.00000	0.87150	0.12120	0.80530	0.19470	0.12564	13.46093	0.11111	1
0	0.00000	0.89850	0.09890	0.80530	0.19470	0.11206	13.49996	0.11111	1
0	0.00000	0.05400	0.79420	0.00000	0.15180	0.11130	11.49796	0.33333	0
0	0.00000	0.05400	0.79420	0.00000	0.15180	0.15690	11.54394	0.33333	0
0	0.00000	0.05400	0.79420	0.00000	0.15180	0.13392	11.58426	0.33333	0
0	0.00000	0.05400	0.79420	0.00000	0.15180	0.15770	11.64292	0.20000	0
0	0.00000	0.05400	0.79420	0.00000	0.15180	0.14108	11.71014	0.20000	1
1	0.00000	0.18050	0.71490	0.00000	0.10460	0.02784	13.34860	0.00000	1
1	0.00000	0.18050	0.71490	0.00000	0.10460	-0.00286	13.37054	0.00000	1
1	0.00000	0.18170	0.71490	0.00000	0.10340	-0.00090	13.39552	0.00000	1
1	0.00000	0.26015	0.73484	0.00000	0.10340	-0.01221	13.40881	0.00000	1
1	0.00000	0.24004	0.75325	0.00000	0.10340	-0.00205	13.49659	0.00000	1
1	0.00000	0.80660	0.00000	0.00000	0.19340	-0.04189	12.11211	0.00000	0
0	0.00000	0.85101	0.01240	0.00000	0.19340	0.00093	12.09633	0.00000	0
0	0.00000	0.84470	0.00950	0.00000	0.19340	0.00428	12.18574	0.00000	0

0	0.00000	0.97880	0.01040	0.00000	0.12890	-0.01257	12.14039	0.33333	0
0	0.00000	1.05336	0.00656	0.00000	0.12282	-0.03025	12.18466	0.33333	0
1	0.00190	0.67210	0.00000	0.60940	0.32600	0.00655	11.88416	0.00000	0
1	0.00500	0.67260	0.00000	0.61250	0.32230	0.02151	12.12394	0.00000	0
1	0.00710	0.67260	0.00000	0.61460	0.32020	0.02655	12.12679	0.00000	0
1	0.00880	0.71540	0.01220	0.61630	0.32020	0.03184	12.08419	0.20000	0
0	0.00020	0.00000	0.50070	0.00020	0.49910	0.04375	13.89261	0.11111	1
0	0.00020	0.00000	0.50070	0.50090	0.49910	0.05121	13.93419	0.11111	1
0	0.00020	0.00000	0.50070	0.50090	0.49910	0.04039	13.96299	0.10000	1
0	0.00020	0.15150	0.83360	0.50090	0.49910	0.06409	13.91474	0.10000	1
0	0.00020	0.14900	0.83350	0.50090	0.49910	0.05851	13.94418	0.10000	1
0	0.00440	0.88110	0.00000	0.00000	0.11450	0.06720	12.34173	0.00000	0
0	0.00440	0.88110	0.00000	0.00000	0.11450	0.05592	12.35844	0.00000	0
1	0.00440	0.88110	0.00000	0.00000	0.11450	0.00076	12.40721	0.00000	0
0	0.00440	0.88110	0.00000	0.00000	0.11450	0.02000	12.39397	0.00000	0
0	0.00440	0.88110	0.00000	0.00000	0.11450	0.04668	12.38643	0.00000	0
0	0.00000	0.13030	0.51000	0.00000	0.35970	0.18838	13.42500	0.00000	1
0	0.00000	0.13030	0.51000	0.00000	0.35970	0.18259	13.46067	0.11111	1
0	0.00000	0.13030	0.51000	0.00000	0.35970	0.15763	13.44151	0.11111	1
0	0.00000	0.07350	0.92650	0.00000	0.49000	0.12837	13.47930	0.11111	1
0	0.00000	0.05624	0.94185	0.00000	0.49000	0.06443	13.46035	0.11111	1
1	0.00000	0.70150	0.20000	0.52570	0.09850	0.01819	12.09336	0.00000	0
0	0.00000	0.70150	0.20000	0.52570	0.09850	0.02244	12.02632	0.00000	0
1	0.00000	0.70150	0.20000	0.52570	0.09850	0.00181	12.13305	0.00000	0

0	0.00000	0.70150	0.20000	0.52570	0.09850	0.08343	12.20063	0.00000	0
0	0.02430	0.70150	0.20000	0.00000	0.09850	0.04323	12.28510	0.00000	0
0	0.00000	0.00000	0.57510	0.57510	0.42300	0.04295	13.17370	0.20000	0
0	0.00000	0.00000	0.57510	0.57510	0.42300	0.02447	13.19674	0.20000	0
0	0.00000	0.00000	0.57950	0.57950	0.41860	0.03057	13.23450	0.20000	0
0	0.00000	0.00000	0.62980	0.51000	0.36840	0.11280	13.28445	0.20000	0
0	0.01520	0.01610	0.91410	0.51550	0.36810	0.05253	13.32405	0.20000	1
0	0.15535	0.00000	0.68400	0.15535	0.16000	0.03996	11.57581	0.00000	0
0	0.15535	0.00000	0.68420	0.15535	0.16050	-0.01868	11.56934	0.25000	0
0	0.15535	0.00000	0.68420	0.15535	0.16000	-0.06053	11.56022	0.33333	0
0	0.83956	0.00000	0.00000	0.83956	0.16050	-0.05485	11.54570	0.33333	0
0	0.83956	0.00000	0.00000	0.83956	0.16050	-0.04167	11.55316	0.33333	0
0	0.00166	0.90025	0.00000	0.00000	0.09809	0.08724	12.39304	0.00000	0
0	0.00152	0.90025	0.00000	0.00000	0.09823	0.07969	12.47249	0.00000	0
0	0.00140	0.92950	0.03360	0.00000	0.09820	0.07817	12.51004	0.00000	0
0	0.00000	0.95294	0.01239	0.00000	0.09975	0.05888	12.66394	0.00000	0
0	0.00127	0.96244	0.00745	0.00000	0.09848	0.05441	12.78506	0.00000	0
0	0.00000	0.49680	0.24040	0.00000	0.26260	0.05500	12.12614	0.20000	1
0	0.00000	0.30730	0.23570	0.00000	0.45720	0.05240	12.12625	0.16667	1
0	0.00000	0.00000	0.57520	0.00000	0.42480	0.07435	12.19084	0.16667	1
0	0.00000	0.22600	0.66150	0.00000	0.41300	0.17865	12.27217	0.33333	1
0	0.00000	0.00000	0.55070	0.00000	0.44930	0.11911	12.47911	0.20000	1
0	0.00000	0.74080	0.06240	0.00000	0.19680	-0.00457	11.81577	0.00000	0
0	0.00000	0.74110	0.06240	0.00000	0.19680	-0.01062	11.81107	0.33333	0

0	0.00000	0.82530	0.00000	0.00000	0.17470	0.01950	11.81583	0.33333	0
0	0.00000	0.86790	0.01580	0.00000	0.17590	0.03104	11.80556	0.25000	0
0	0.00000	0.85930	0.01050	0.00000	0.18450	0.03562	12.09174	0.33333	0
1	0.00000	0.15750	0.12760	0.00000	0.71490	-0.03070	11.89694	0.66667	0
1	0.00000	0.00000	0.75000	0.00000	0.25000	-0.01349	12.11371	0.33333	0
1	0.00000	0.00000	0.75000	0.00000	0.25000	-0.10697	12.16314	0.50000	0
1	0.00000	0.00000	0.75000	0.00000	0.25000	-0.08132	12.10165	0.50000	0
1	0.00000	0.00000	0.75000	0.00000	0.25000	-0.10733	12.06864	0.50000	0
0	0.02470	0.75700	0.00000	0.78170	0.24500	0.04234	11.92954	0.25000	0
0	0.04810	0.75680	0.00000	0.80490	0.24320	0.04672	11.97872	0.25000	0
0	0.04810	0.75680	0.00000	0.80490	0.24320	0.00974	12.07081	0.25000	0
0	0.04820	0.76240	0.00780	0.80500	0.19510	0.04126	12.05777	0.33333	0
0	0.04820	0.79010	0.00800	0.83260	0.19740	0.05192	12.12329	0.33333	0
0	0.00000	0.01930	0.96310	0.00000	0.01760	0.03319	12.35620	0.00000	0
0	0.00000	0.01930	0.96310	0.00000	0.01760	0.03921	12.37154	0.25000	0
0	0.00000	0.01930	0.96310	0.00000	0.01760	-0.07707	12.32723	0.14286	0
0	0.00000	0.01930	0.96310	0.00000	0.01760	-0.04826	12.24738	0.16667	1
0	0.00230	0.43620	0.39440	0.00000	0.16710	0.07548	10.99253	0.33333	0
0	0.00230	0.43620	0.39440	0.00000	0.16710	0.04862	10.98563	0.33333	0
1	0.00230	0.43620	0.39440	0.00000	0.16710	-0.09714	11.12656	0.33333	0
1	0.00230	0.43620	0.39440	0.00000	0.16710	0.00260	11.14554	0.33333	0
0	0.00230	0.43620	0.39740	0.00000	0.16420	0.05319	11.17441	0.33333	0
0	0.00010	0.68531	0.30460	0.56720	0.43290	0.17414	13.05366	0.20000	1
0	0.00010	0.67791	0.31490	0.56720	0.43290	0.17071	13.09430	0.20000	1

0	0.00010	0.68732	0.30200	0.56660	0.43320	0.15024	13.13661	0.20000	1
0	0.00010	0.67645	0.30230	0.56510	0.43500	0.15440	13.18259	0.20000	1
0	0.00010	0.67745	0.29080	0.56780	0.43230	0.14764	13.22053	0.16667	1
0	0.00001	0.83150	0.00000	0.83151	0.16850	0.09648	11.51750	0.33333	0
0	0.00001	0.83150	0.00000	0.83151	0.16850	0.06622	11.68055	0.33333	0
0	0.00001	0.90160	0.00001	0.83151	0.16850	-0.01377	11.74315	0.33333	0
0	0.00001	0.90150	0.00000	0.83151	0.26190	0.00138	11.77722	0.33333	0
0	0.00001	0.90150	0.01000	0.83151	0.25190	-0.08322	11.81020	0.33333	0
0	0.25610	0.00000	0.32220	0.00000	0.42170	0.10150	11.15136	0.00000	0
0	0.25150	0.00000	0.32220	0.00000	0.42630	0.05291	11.14587	0.33333	0
0	0.25580	0.00000	0.32220	0.00000	0.42200	0.01453	11.12640	0.33333	0
0	0.23700	0.00000	0.32220	0.00000	0.44080	0.03840	11.21173	0.33333	0
0	0.20640	0.00000	0.32220	0.00000	0.47140	0.08046	11.20727	0.33333	0
0	0.00000	0.00000	0.59100	0.59100	0.40900	0.10912	12.34526	0.14286	0
0	0.00000	0.00000	0.51480	0.51480	0.48520	-0.02401	12.54792	0.12500	0
0	0.00000	0.00000	0.57090	0.57090	0.42910	-0.01567	12.59792	0.12500	0
0	0.00000	0.01186	0.93400	0.57240	0.42760	0.07404	12.59326	0.12500	0
0	0.00000	0.00577	0.93740	0.57270	0.42730	0.01196	12.60983	0.12500	1
0	0.00100	0.67748	0.00000	0.67818	0.32250	0.02642	11.78659	0.25000	0
0	0.00100	0.67750	0.00000	0.67820	0.32250	0.00472	11.79196	0.25000	0
0	0.00100	0.67750	0.00000	0.67820	0.32250	-0.02166	11.81218	0.25000	0
0	0.00080	0.67750	0.00000	0.67810	0.32170	0.01241	11.85123	0.25000	0
1	0.00080	0.67750	0.00000	0.67810	0.32170	-0.03163	11.89247	0.25000	0
0	0.00001	0.01000	0.94250	0.00000	0.07300	0.25173	11.84320	0.00000	1

0	0.00000	0.01360	0.93870	0.00000	0.13350	0.20985	11.85528	0.00000	1
0	0.00000	0.00410	0.94130	0.00000	0.13350	0.22216	11.80730	0.20000	1
0	0.00000	0.00330	0.93960	0.00000	0.13350	0.20680	11.87153	0.20000	1
0	0.00000	0.00320	0.93850	0.00000	0.13350	0.17081	11.92789	0.20000	1
0	0.00000	0.00000	0.81780	0.00000	0.18220	0.35628	12.34851	0.25000	1
0	0.00000	0.00000	0.81780	0.00000	0.18220	0.23653	12.32240	0.25000	1
1	0.00060	0.68040	0.00000	0.26100	0.31960	-0.06593	12.85672	0.00000	1
1	0.00060	0.69690	0.00000	0.26730	0.30320	0.01733	12.85825	0.00000	1
1	0.00060	0.69940	0.08320	0.26830	0.21680	-0.02188	12.85283	0.16667	1
1	0.00030	0.69940	0.15640	0.26830	0.14390	0.00117	12.88782	0.16667	1
1	0.08600	0.69940	0.00000	0.35400	0.21460	0.00916	12.71489	0.16667	1
0	0.00000	0.71260	0.08960	0.71260	0.19780	-0.01524	11.64304	0.00000	0
0	0.00000	0.71260	0.08910	0.71260	0.19830	0.01478	11.69791	0.00000	0
0	0.00000	0.71260	0.08910	0.71260	0.19830	0.00210	11.69644	0.33333	0
0	0.00000	0.71260	0.08960	0.71260	0.19780	-0.01149	11.68398	0.33333	0
0	0.00000	0.71470	0.16100	0.71260	0.08910	-0.00258	11.69667	0.33333	0
0	0.00000	0.43510	0.15838	0.32930	0.67070	0.10438	12.98721	0.40000	0
0	0.00000	0.40236	0.11312	0.32930	0.67070	0.03982	13.01246	0.40000	0
0	0.00000	0.43591	0.12887	0.32930	0.67070	0.11022	13.05472	0.40000	0
0	0.25220	0.64880	0.09170	0.84290	0.15710	0.10746	13.11134	0.40000	0
0	0.25220	0.65390	0.08680	0.84290	0.15710	0.10934	13.17365	0.40000	0
1	0.00000	0.20950	0.58770	0.00000	0.20280	-0.02376	12.32128	0.00000	0
1	0.00000	0.20950	0.58770	0.00000	0.20280	-0.07753	12.30991	0.00000	0
1	0.00000	0.20950	0.58770	0.00000	0.20280	-0.13571	12.28877	0.25000	0

1	0.00000	0.20950	0.58770	0.00000	0.20280	-0.22009	12.20945	0.25000	0
1	0.00000	0.77530	0.03650	0.00000	0.22470	-0.08283	12.53892	0.00000	0
0	0.10900	0.37110	0.00000	0.48010	0.51940	0.04242	11.90222	0.00000	0
0	0.03370	0.62900	0.00000	0.49680	0.31820	0.04154	12.08165	0.33333	0
1	0.03370	0.62900	0.00000	0.49680	0.31820	0.01982	12.18969	0.33333	0
1	0.06010	0.44670	0.19520	0.48760	0.40410	0.03694	12.24992	0.33333	0
1	0.06080	0.55986	0.19064	0.48850	0.37630	0.02321	12.27883	0.33333	0
0	0.00040	0.19520	0.76880	0.17890	0.05910	0.02485	11.79337	0.00000	0
0	0.00040	0.20390	0.76400	0.17890	0.05910	0.02578	11.79701	0.00000	0
0	0.00040	0.19520	0.76880	0.17940	0.05990	0.02472	11.78232	0.00000	0
0	0.00040	0.19520	0.76880	0.17890	0.05900	0.02154	11.80521	0.00000	0
0	0.00040	0.48190	0.48730	0.46040	0.05990	0.02336	11.85748	0.50000	0
0	0.01652	0.18425	0.57565	0.17500	0.27908	0.03127	11.83368	0.00000	1
0	0.01392	0.25165	0.46927	0.17396	0.27908	-0.04538	11.79304	0.16667	1
1	0.01392	0.25165	0.46927	0.17396	0.27908	-0.06870	11.79267	0.16667	1
1	0.01392	0.68009	0.09870	0.64330	0.27910	-0.05608	11.81544	0.20000	1
0	0.04582	0.67993	0.02090	0.64330	0.35680	0.04653	11.83947	0.20000	1
0	0.23080	0.53850	0.00000	0.76930	0.23070	0.03538	11.24333	0.00000	0
0	0.23080	0.53850	0.00000	0.76930	0.23070	0.01539	11.23738	0.00000	0
0	0.23080	0.53850	0.00000	0.76930	0.23070	0.01930	11.20399	0.33333	0
0	0.23080	0.53850	0.00000	0.76930	0.23070	0.03080	11.22288	0.33333	0
0	0.11540	0.53870	0.00160	0.76930	0.23070	0.04467	11.20293	0.33333	0
1	0.00000	0.00000	0.98960	0.00000	0.01040	-0.11288	12.96530	0.00000	1
1	0.00000	0.00000	0.98960	0.00000	0.01040	-0.22230	13.01075	0.25000	1

1	0.00000	0.00000	0.98960	0.00000	0.01040	-0.12935	13.10268	0.25000	1
0	0.00000	0.00000	0.92480	0.00000	0.07520	-0.03409	13.14871	0.25000	1
0	0.00000	0.31500	0.39250	0.58000	0.29250	0.08669	12.26071	0.16667	1
0	0.00000	0.31500	0.39250	0.58000	0.29250	0.08800	12.33100	0.16667	1
0	0.00000	0.31504	0.39256	0.58008	0.29240	0.09997	12.43238	0.16667	1
0	0.00000	0.37500	0.61620	0.56625	0.30623	0.09583	12.46533	0.20000	1
0	0.00000	0.35100	0.63940	0.46560	0.29720	0.02969	12.65892	0.20000	1
0	0.32400	0.00000	0.00000	0.81000	0.19000	0.13754	12.47004	0.25000	0
0	0.32400	0.00000	0.00000	0.81000	0.19000	0.14716	12.45046	0.20000	0
0	0.32400	0.00000	0.00000	0.81000	0.17600	0.15646	12.44655	0.20000	0
0	0.24300	0.00000	0.00000	0.81000	0.18200	0.16084	12.47532	0.20000	0
0	0.00000	0.81000	0.00000	0.81000	0.18200	0.16902	12.49944	0.20000	0
1	0.00000	0.15560	0.25670	0.00000	0.58770	0.00265	12.49909	0.20000	0
1	0.00000	0.15560	0.25670	0.00000	0.58770	0.00074	12.44730	0.14286	0
1	0.00000	0.57270	0.00000	0.57270	0.42730	-0.16113	12.35156	0.20000	0
1	0.00000	0.84220	0.00000	0.84220	0.15780	0.00508	12.40946	0.25000	0
1	0.00000	0.91541	0.02506	0.85240	0.14760	-0.15847	12.35019	0.25000	0
0	0.00120	0.38720	0.59040	0.26120	0.04000	0.03788	11.47999	0.00000	0
0	0.00120	0.38720	0.59040	0.26120	0.04000	0.04970	11.52058	0.00000	0
0	0.00240	0.38720	0.59040	0.26240	0.04000	0.05321	11.57647	0.25000	0
0	0.00240	0.38720	0.59040	0.26400	0.07000	0.03633	11.75453	0.25000	0
0	0.00770	0.38770	0.59040	0.26930	0.05950	0.03610	11.80365	0.20000	0
0	0.01700	0.35400	0.45500	0.10900	0.17400	0.11708	11.69693	0.16667	0
0	0.03110	0.32780	0.48040	0.11590	0.16070	0.13720	11.81260	0.16667	0

0	0.03110	0.32780	0.47700	0.11590	0.16410	0.05252	11.88337	0.16667	0
0	0.04080	0.32780	0.47830	0.12560	0.15300	0.02251	12.00072	0.12500	0
0	0.02210	0.23200	0.59600	0.12030	0.15000	0.01595	12.21033	0.12500	0
0	0.08328	0.61825	0.22011	0.64407	0.41870	0.20621	12.23073	0.20000	1
0	0.08328	0.61110	0.22711	0.64407	0.41870	0.24092	12.24289	0.20000	1
0	0.08328	0.60005	0.23815	0.64407	0.41870	0.20779	12.34637	0.20000	1
0	0.07996	0.68519	0.15286	0.64061	0.41870	0.22273	12.35310	0.20000	1
0	0.07982	0.67132	0.16739	0.64032	0.41900	0.22731	12.38798	0.20000	1
0	0.00000	0.60940	0.38220	0.00000	0.48990	0.17388	13.48845	0.14286	1
0	0.00001	0.60740	0.38600	0.00000	0.48990	0.16243	13.53548	0.14286	1
0	0.00003	0.61590	0.36970	0.00000	0.48990	0.11861	13.58153	0.14286	1
0	0.00000	0.60270	0.37770	0.00000	0.48990	0.10254	13.64569	0.14286	1
0	0.00003	0.60270	0.37767	0.00000	0.48994	0.04173	13.68987	0.14286	1
0	0.00142	0.16127	0.69300	0.00000	0.27900	0.10925	12.16612	0.53846	1
0	0.00136	0.14626	0.69000	0.00000	0.27900	0.09406	12.26793	0.06667	1
0	0.00136	0.17046	0.69000	0.00000	0.27800	0.26150	12.31850	0.13333	1
0	0.00142	0.17018	0.68800	0.00000	0.27800	0.07417	12.33947	0.13333	1
0	0.00142	0.16335	0.68800	0.00000	0.27800	0.07584	12.37324	0.14286	1
0	0.00000	0.56700	0.40300	0.00000	0.03800	0.13547	12.24209	0.00000	1
0	0.00000	0.56700	0.40120	0.00000	0.03800	0.14492	12.30692	0.09091	1
0	0.00000	0.54500	0.39700	0.00000	0.07600	0.11692	12.38731	0.09091	1
0	0.00000	0.54460	0.40230	0.00000	0.07640	0.06530	12.41186	0.09091	1
0	0.00000	0.54500	0.39830	0.00000	0.07600	0.09869	12.45125	0.09091	1
0	0.00000	0.69980	0.00000	0.69980	0.30020	0.10734	11.65225	0.25000	0

0	0.00000	0.67070	0.00000	0.67070	0.32930	0.06861	11.71925	0.33333	0
0	0.01080	0.66950	0.13800	0.67650	0.33040	0.06520	11.75917	0.33333	0
0	0.00700	0.66950	0.09130	0.67650	0.33050	0.03941	11.80598	0.25000	0
0	0.00701	0.66820	0.00000	0.66820	0.33180	0.02605	11.73637	0.25000	0
0	0.00097	0.77340	0.00000	0.00000	0.22660	0.11807	12.73303	0.00000	0
0	0.00081	0.77520	0.00000	0.00000	0.22480	0.10447	12.74762	0.09091	0
0	0.00068	0.78160	0.00000	0.00000	0.21840	0.11008	12.79829	0.09091	0
0	0.00059	0.78420	0.00000	0.00000	0.21580	0.08283	12.81861	0.10000	0
0	0.00045	0.78920	0.00000	0.00000	0.21080	0.07496	12.87128	0.10000	0
0	0.00001	0.00000	0.85000	0.00000	0.15000	0.40100	13.12542	0.00000	1
0	0.00001	0.00000	0.85000	0.00000	0.15000	0.40184	13.15475	0.00000	1
0	0.00001	0.14835	0.85000	0.00000	0.15000	0.37202	13.19673	0.11111	1
0	0.00001	0.05310	0.93580	0.00000	0.15000	0.38163	13.22390	0.10000	1
0	0.00000	0.05240	0.93780	0.00000	0.15000	0.37049	13.27661	0.10000	1
0	0.17800	0.63450	0.09500	0.39200	0.35600	0.11564	12.44896	0.00000	0
0	0.17890	0.64600	0.09500	0.39300	0.35520	0.09714	12.46495	0.33333	0
0	0.17890	0.66760	0.09500	0.39300	0.35520	0.14777	12.54900	0.33333	0
0	0.11490	0.74210	0.00000	0.32890	0.51410	0.16744	12.62728	0.33333	0
1	0.00352	0.89469	0.00000	0.00000	0.10179	0.01014	11.78808	0.33333	0
0	0.00352	0.89469	0.00000	0.00000	0.10179	-0.02787	11.50582	0.33333	0
0	0.00352	0.89469	0.00000	0.00000	0.10179	-0.03539	11.44590	0.50000	0
0	0.00352	0.89469	0.00000	0.00000	0.10179	-0.03901	11.44756	0.50000	0
0	0.00352	0.89469	0.00000	0.00000	0.10179	-0.04777	11.48222	0.50000	0

APPENDIX 3

LOGISTIC REGRESSION ANALYSIS (SPSS 21)

Case Processing Summary

Unweighted Cases[a]		n	Percent
Selected Cases	Included in Analysis	353	100.0
	Missing Cases	0	.0
	Total	353	100.0
Unselected Cases		0	.0
Total		353	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
Non Fraud	0
Fraud	1

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
	Observed		Fraud		Percentage Correct
			Non Fraud	Fraud	
Step 0	Fraud	Non Fraud	279	0	100.0
		Fraud	74	0	.0
	Overall Percentage				79.0

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.327	.131	103.015	1	.000	.265

Variables not in the Equation

			Score	Df	Sig.
Step 0	Variables	MO	7.821	1	.005
		IO	.716	1	.398
		FO	2.327	1	.127
		FAO	1.474	1	.225
		PO	2.335	1	.126
		ROA	89.832	1	.000
		Size	.587	1	.443
		Indp	8.198	1	.004
		AR	4.745	1	.029
	Overall Statistics		125.835	9	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	194.106	9	.000
	Block	194.106	9	.000
	Model	194.106	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	168.402[a]	.423	.659

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5.204	8	.736

Classification Table[a]

Observed			Predicted		
			Fraud		Percentage Correct
			Non Fraud	Fraud	
Step 1	Fraud	Non Fraud	260	19	93.2
		Fraud	26	48	64.9
	Overall Percentage				87.3

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	MO	-12.018	3.962	9.200	1	.002	.000
	IO	-5.182	2.460	4.435	1	.035	.006
	FO	-7.465	2.628	8.070	1	.004	.001
	FAO	-.399	.695	.329	1	.566	.671
	PO	-3.359	2.592	1.680	1	.195	.035
	ROA	-41.955	6.106	47.208	1	.000	.000
	Size	1.712	.470	13.284	1	.000	5.540
	Indp	2.048	1.324	2.392	1	.122	7.751
	AR	.085	.553	.024	1	.877	1.089
	Constant	-16.238	5.855	7.691	1	.006	.000

a. Variable(s) entered on step 1: MO, IO, FO, FAO, PO, ROA, Size, Indp, AR.

Descriptives

Descriptive Statistics

	n	Minimum	Maximum	Mean	Std. Deviation
Fraud	353	0	1	.21	.408
Managerial Ownership	353	.00000	.89450	.0514574	.14105449
Institutional Ownership	353	.00000	1.05336	.4306587	.32155156
Foreign Ownership	353	.00000	.98960	.3442834	.33450795
Family Ownership	353	.00000	.87320	.2695071	.32194418
Public Ownership	353	.01040	.81870	.2487548	.15127941
Profitability	353	-.22230	.40184	.0596031	.09598985
Company Size	353	10.98563	14.47077	12.3387069	.72918962
Board of Director's Independence	353	.00000	.66667	.2002765	.14754500
Audit Firm Reputation	353	0	1	.41	.492
Valid N (listwise)	353				