AN EMPIRICAL STUDY: CHARACTERISTICS OF BUSINESS ENTITIES AND CORPORATE GOVERNANCE ON RISK DISCLOSURE PRACTICES

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Abstract. This paper investigates the association between the characteristics of business entities, corporate governance, and practices of risk disclosure. Notably, the objective of this paper is to examine the impact of the characteristics of business entities and corporate governance on risk disclosure in non-financial companies. The samples used in this study included 312 non-financial companies registered on the Indonesia Stock Exchange. The hypothesis testing in this paper using regression analysis. The results of this paper indicate that the size of the audit committee (SAC), the availability of risk monitoring or risk management committees (RMC) and the quality of external auditors (AUD) are significantly associated with corporate risk disclosure practices (CRD). These empirical results show that the presence of risk monitoring committee, the quality of external auditors, and the size of the audit committee are the main factors determining the extent of risk disclosure, especially for non-financial companies listed on the Indonesia Stock Exchange. This paper also shows that the age of business entities has a negative impact on corporate risk disclosure practices.

Keywords: characteristics, business entity, corporate governance, risk disclosure, non-financial companies.

JEL Classification: M21, M40, M41.

Introduction

Every company cannot be separated from the existence of a risk which becomes the attention of stakeholders to avoid accounting fraud. The occurrence of accounting frauds has caused investors as interested parties lose confidence in the credibility of the information issued by the companies. The company must be able to do decent management to avoid the occurrence of loss. In an effort, a company faced to maintain the growth and developing transparency to disclose information. Disclosure of information in an open and honest in all things can influence user trust information on performance management of a company. Risk disclosure within the company is one of the essential parts for companies that conduct risk control or management. Dobler (2008) stated that the company disclosure is so substantial, especially in the nonfinancial sector companies. Therefore,

required the implementation of good corporate governance by doing the process include identification, evaluation, and control of the risks being faced and conducts oversight of the risk management process so that uncertainties can be suppressed at the lowest level that can be accepted by the company. The topic of risk disclosure in Indonesia has developed since the promulgation of the Bank Indonesia Regulation No.8/4/PBI/2006 concerning The Practice of Good Corporate Governance. Monks and Minow (2011) stated that corporate governance describes the relationships of company parties to run the task in determining the direction and performance.

The study of risk disclosure has recently become a topic of particular concern in the accounting literature. This topic attracted the attention of investors because of fraudulent cases of large companies such as Enron and Worldcom

(Oorschoot in Suhardjanto 2011). Even regulators and professional bodies have paid attention to risk disclosure practices by introducing guidelines and regulations to encourage companies to disclose risk information. Risk information is a substantive component of management comments that is useful for investors in decision making as described in IFRS (IFRS 2010). If an investor fails to identify the crucial actual risk factors of the company, investors cannot assess the correct level of risk of these companies. So that causes investors to make the wrong investment decisions that can end up in significant losses or disasters for investors (Abdullah et al. 2015).

Risk disclosure is one part of the declaration of qualitative information listed in the Notes to Financial Statements. Improvements in risk disclosure have even become an essential part of corporate governance reform (Madrigal et al. 2015) due to increasing business complexity and changes in the business context that have created uncertainty for the company's sustainability in the future (Abid and Shaiq 2015). Risk information can help reduce capital costs and allow companies to describe their awareness to manage these risks (Linsley and Shrives 2006). Risk disclosure is also one of the essential aspects of implementing risk management because it helps users of financial statements to assess current and future risks (Abraham and Cox 2007, Miihkinen 2013). Besides, it can help in the process of making investment decisions by evaluating information disclosed by the company; and increasing accountability for its impact on management (stewardship), investor protection and the usefulness of financial reporting (Elzahar and Hussainey 2012). So that when a financial crisis occurs, the main focus of attention is directed at the interests and problems related to risk reporting.

Amid the increasing need for disclosure of risk information and the benefits of disclosure, it has motivated previous research to study the relationship between general company characteristics and risk disclosure. Bamber et al. showed that a supervisor, head of the department with a background in financial (economic) and accounting education make more appropriate disclosures. Said et al. (2013) found that there was a significant relationship between the background of the CEO and the level of environmental disclosure. The variable of the audit committee size has a significant positive impact on exposure (Li et al. 2008, Li et al. 2012, Madi et al. 2014); does not affect risk disclosure (Elzahar and Hussainey 2012). The frequencies of audit committee meetings (MAC) has positively significantly related to the extent of corporate disclosure (Li et al. 2008, Li et al. 2012, Taliyang and Jusop 2011, Ettredge et al. 2011, Allegrini and Greco 2013, Talpur et al. 2018). Al-Maghzom et al. (2016) also show that audit committee meetings more often motivate banks to disclose more risk information. Research results (Meizaroh and Lucyanda 2011) showed that the availability of the risk management committee related to corporate risk

disclosure and had a significant effect on risk management disclosures (Buckby et al. 2015). Types of auditors significantly associated to risk disclosure (Oliveira et al. 2011, Lopes and Rodrigues 2007, Mokhtar and Mellett 2013, Abid and Shaiq 2015, Carmona et al. 2016, Elshandidy and Neri 2015); no significant (Al-Mutawaa and Hewaidy 2010) with the disclosure. Status of ownership associated to risk disclosure (Meizaroh and Lucyanda 2011, Abraham and Cox 2007); voluntary disclosure (Gunawan and Susanto 2004); disclosure of intellectual capital (White et al. 2007); social responsibility disclosure (Siregar and Bachtiar 2010). Other studies indicated there is no influence of ownership status on corporate risk disclosure (Elzahar and Hussainey 2012, Probohudono et al. 2013) voluntary disclosure (Allegrini and Greco 2013).

Some studies showed a significant positive correlation between business entity age and compulsory disclosure (Owusu-Ansah and Yeoh 2005, Owusu-Ansah 1998, Al-Shammari et al. 2008); voluntary disclosure (White et al. 2007); there is no significant correlation between business entity age and corporate exposure (Bukh et al. 2005, Al-Mutawaa and Hewaidy 2010, Talpur et al. 2018). The level of risk significantly associated with risk disclosure (Hassan 2009, Probohudono et al. 2013, Oliveira et al. 2011); intellectual capital disclosure (White et al. 2007); not significantly associated with social responsibility disclosure (Siregar and Bachtiar 2010). This paper investigates the association between the characteristics of the business entity, corporate governance, and practices of risk disclosure. The risk model in this paper based on a model developed by the Institute of Chartered Accountants in England and Wales (ICAEW) which is also used by previous researchers (Mokhtar and Mellett 2013, Miihkinen 2013).

The occurrence of information asymmetry and the importance of risk disclosure in financial reporting, encourage researchers to conduct this research. Besides, risk disclosure is still an under-researched area despite the high demand from investors and shareholders for risk management disclosures. Also, the findings show a positive trend in the development of risk disclosure practices in Malaysia from 2001 to 2011 are insufficient and must be improved (Zadeh et al. 2016). Previous researchers have examined the relationship between corporate governance and risk disclosure. However, the results of his research are still diverse (inconsistent). Companies in their activities have risks and face different dangers so that exposure to information risk also tends to vary or differ. Therefore this researcher fills these gaps.

This research contributes to providing theoretical benefits as literature in explaining the relationship between corporate governance, company characteristics, and the level of risk disclosure that can provide ideas or ideas for academics to conduct further research. Policy contributions for users

of accounting information can be used as consideration in making investment decisions or giving credit to companies, especially those that carry out risk reporting and as information to implement sound and good corporate governance.

The remainder of this paper then provides an overview of relevant company risk disclosure literature; theoretical arguments and development of research hypotheses; comprehensive research design to answer research questions, the results of applying this design are presented and conclude with conclusions and suggestions.

1. Literature review and hypotheses development

Agency theory states that if there is a disjunction between two parties, owners and managers as the principal and as an agent, then it would create the agency problems because each side will always try to maximize the function of their utility (Jensen and Meckling 1976). This theory in the implementation of risk disclosure was able to explain the submission of reliable information about the risks by managers to users of accounting information. Morris (1987) stated that the signaling theory related to asymmetric information in markets. Besides that, the signaling approach to the practice of risk disclosure describes the activities of company managers disclose risk information, including the owner of the company. Risk disclosure is an essential practice in the company to reduce the external costs of the company (Linsley and Shrives 2006) and help users of financial statements to assess the current or the future risks in order optimize revenue (Abraham and Cox 2007). The regulation that requires disclosing information risk as follows: 1) SFAS No. 60 (Revision 2016); 2) Decision of Chairman of the Indonesian Regulatory Authority for the Indonesian of Financial Statement No. KEP-431/BL/2012; and 3) Bank Indonesia regulations No. 14/14/PBI/2012.

Corporate governance is accountability for how to manage and control the company with a healthy and tasty. The corporate governance mechanism is essential in monitoring the company and harmonizing the interests of managers and shareholders in the capital market (Chakraborty et al. 2018). Choi and Meek (2011) told that corporate governance is a relationship between the management, the board of commissioners, directors, investors, and stakeholders who did the arrangements and guidance in carrying out the business activities of the company. Corporate governance is expected to prevent the manager from doing the cheating and being able to repair the achievement of the company. Ararat et al. (2010) stated that the diversity of directors illustrates the difference between the board of directors with respect to the attribute that can explain the difference in attitude and opinion; cause a variety of cognitive styles, thus enriching knowledge, wisdom, ideas, while Williams and O'Reilly (1998) stated that approaches for company boards would ultimately improve the quality of decision-making.

The board of commissioners formed a committee to help out the implementation of its work, including the audit committee that gives a view of the problem of accounting, financial reporting and the internal oversight system, the explanation as well as the independent auditor (Egon in FCGI 2000). Evaluate on a regular basis can support the development of an enterprise. One of the evaluations conducted in a company is an audit by the auditor. Subramaniam et al. argued that the auditor is a key to external oversight mechanism of the organizations and being the center of attention in particular risk management. Disclosure is a means of accountability in various fields. The quality of accounting information is closely related to the level of disclosure and is also influenced by the characteristics of a business entity. Elzahar and Hussainey (2012) showed that the firm characteristics were affecting the risk disclosure. It so important for foreign investors to conduct an assessment of the prospects in the long term (DiMaggio and Powell 1983). Corporate climate change can lead to the emergence of real risks and damage to the investment portfolio so that investors need risk information to consider the impact of information on their investment (Krishnamurti and Velayutham 2018).

The educational background/qualification of president director and corporate risk disclosure

Wallace and Coocke (1990) stated that the board of directors with accounting education and business would likely conduct a more extensive disclosure level because they are more aware of their business. Expertise is a significant predictor in the risk management disclosure model (Buckby et al. 2015). Bamber et al. (2010) showed that managers or head of a department with educational of financial and accounting background do more precisely disclosure. The best educational background of a manager within a company can be an essential factor in the practice of the disclosure (Said et al. 2018) and found that there was a significant relationship between the background of the CEO and the level of environmental disclosure (Said et al. 2013). Haniffa and Cooke (2002) explained that the educational experience does not affect the exposure. Based on the description and study of previous findings above, the hypothesis in this paper is as follows:

H1: Educational background or qualification of president director positively associated with corporate risk disclosure.

1.1. Size of the audit committee and corporate risk disclosure

The existence of an audit committee is significant in increasing the value of annual reports and reducing information asymmetry (Talpur et al. 2018) and is part of the internal control system in corporate governance (Al-Maghzom et al. 2016). Cotter and Silvester (2008) stated the supervisory function is not only crucial in the structure and

composition of the council, but also for committees of business entity, especially in decision making. More the number of audit committee members, the company will improve the information disclosure (Ho and Wong 2001). The results of the prior study showed that the size of the audit committee has a significant positive effect on disclosure (Li et al. 2012, Li et al. 2008, Madi et al. 2014); positively and significantly influence the voluntary disclosure of corporate governance (Talpur et al. 2018); does not affect risk disclosure (Elzahar and Hussainey 2012). The next hypothesis in this paper is as follows:

H2: The size of the audit committee is positively associated with corporate risk disclosure.

1.2. The frequency of audit committee meetings and corporate risk disclosure

Audit committee activity is reflected in the number of audit committee meetings during one financial year (Talpur et al. 2018). The holding of the meeting can help the committee exchanged information, including the risk of the company to allow the identification and minimizes the risk of doing. The results showed that the frequency of audit committee meetings has a significant positive effect on the corporate disclosure level (Li et al. 2008, Li et al. 2012, Allegrini and Greco 2013, Taliyang and Jusop 2011, Ettredge et al. 2011); positively and significantly influence the voluntary disclosure (Talpur et al. 2018). Previous findings (Al-Maghzom et al. 2016) also show that audit committee meetings more often motivate banks to disclose more risk information. Based on the description above, the next hypothesis in this paper is as follows:

H3: The frequency of audit committee meetings is positively associated with corporate risk disclosure.

1.3. Risk monitoring/management committee and corporate risk disclosure

The company that owns the committee of risk monitoring or management are likely to evaluate internal oversight more effectively. They will operate independently with audit committees and work more effectively in carrying out the responsibility of overseeing risk management (Buckby et al. 2015) including ensuring risk disclosures are more complete and useful for stakeholders. The risk committee is considered as a governance mechanism for managing company risk, embracing risk and communicating risks with various stakeholders effectively (Nahar et al. 2016). Results of Meizaroh and Lucyanda (2011) showed that the availability of the risk management committee associated with corporate risk disclosure; has a significant effect on risk management disclosures (Buckby et al. 2015). Based on these, the next hypothesis in this paper is as follows:

H4: The availability of risk monitoring/management committee is positively associated with corporate risk disclosure.

1.4. The quality of external auditor and corporate risk disclosure

For the sake of reputation, auditors tend to demand higher disclosure (Chalmers and Godfrey 2004). Companies that use the services of the Big Four will get higher pressure (Chen et al. 2009) and influence disclosure (Dunn and Mayhew 2004). The company's financial statements audited by reputable independent auditors can also increase the level of investor confidence (Elshandidy and Neri 2015). The results of the prior study showed evidence that the type of audit firm is positively significantly associated with risk disclosure (Lopes and Rodrigues 2007, Mokhtar and Mellett 2013, Oliveira et al. 2011, Abid and Shaiq 2015, Carmona et al. 2016, Elshandidy and Neri 2015); has no significant effect (Al-Mutawaa and Hewaidy 2010) on corporate disclosure. Neifar and Jarboui (2018) also found evidence that the type of external auditor had a significant effect on operational risk information that included disclosure of voluntary Islamic banks. Based on the description above, the next hypothesis in this paper is as follows:

H5: The quality of external auditor is positively associated with corporate risk disclosure.

1.5. Status of business entity and corporate risk disclosure

Khan et al. (2013) stated that companies whose shares consist of foreign ownership tend to disclose the information to the decision-making process. The research showed that foreign-based companies have voluntary disclosure quality in the annual report are higher than domestic companies (Gunawan and Susanto 2004). Foreign-based companies change the behavior of in running operation to keep the reputation (Fauzi 2008, Simerly in Machmud and Djakman 2008). Based on the description above, the next hypothesis in this paper is as follows:

H6: Status of the business entity is positively associated with corporate risk disclosure.

1.6. Age of business entity and corporate risk disclosure

Disclosure of company information varies from time to time (Talpur et al. 2018). Therefore the age of the company can also be a factor that influences company disclosures including risk information. The company had long-standing (Bukh et al. 2005) have a smaller risk than the younger ones. The new company (younger) trying to reduce skepticism and enhance investor confidence (Haniffa and Cooke 2002). Based on the description above, the next hypothesis in this paper is as follows:

H7: Age of business entity is negatively associated with corporate risk disclosure.

2. Methods of research

2.1. Population and method of sampling

In this study data collected based on annual reports of non-financial sector companies listed on the Indonesia stock exchange at the end of 2014. There were 420 non-financial companies listed on the Indonesian Stock Exchange. The sampling method in this paper used the purposive sampling. Based on the criteria have defined, the number of samples used was 312 non-financial companies (100 manufacturing and 212 non-manufacturing). The sampling process in this paper follows Table 1 below.

Table 1. Sample selection (source: data processing)

No	Description	Total
1	Companies (non-financial sector) listed in Indonesia Stock Exchange (2014)	420
2	The company does not publish an annual report for the 2014 period	(8)
3	The company presents report does not end on December 31	(5)
4	Companies with incomplete data	(95)
Final Sample		312

2.2. Measurement of variables

Corporate risk disclosure in this paper is the dependent variable. The risk models used were based on the prior model developed by the Institute of Chartered Accountants in England and Wales (ICAEW) which also used the previous researchers (Mokhtar and Mellett 2013, Miihkinen 2013). Disclosure categorized in 6 (six) categories include financial risk; operational risk; empowerment risk; information processing and technology risk; integrity risk; and strategic risk with a total item 40 (see in Table 2). The measurement used scoring (Amran et al. 2009) with a score of 1 for the items disclosed and 0 if not revealed (not disclosed). The equation of risk disclosure index is as follows:

$$CRD = \frac{\text{The number of risk disclosure that the company was done}}{\text{Total corporate risk disclosure items}}.$$

Measurement of independent and control variables in this paper used measures such as in the following Table 3:

2.3. Data analysis methods

Data analysis used in this paper were a statistical analysis of multiple linear regression. Regression testing must be free from the classical assumptions (in this paper include normality of residual data, multicollinearity, and

Table 2. Risk disclosure items (source: Miihkinen 2013, Mokhtar and Mellett 2013)

Financial risk	*Information processing and technology risk*
1. Commodity	
2. Going concern	21. Integrity
3. Capital cost	22. Access
	23. Availability
Operational risk	24. Infrastructure
4. Customer satisfaction	
5. Product development	*Integrity risk*
6. Efficiency and performance	25. Management and employee fraud
7. Sourcing	26. Illegal actions
8. Stock obsolescence	27. Reputation
9. Product and service failure	28. Risk management policy
10. Environmental	29. Risk management organization
11. Health and safety	
12. Brande name erosion	
13. Management process	
14. Price fluctuation of the factor of production	*Strategic risk*
	30. Environmental scan
15. The interruption in the delivery chain	31. Industry
	32. Bussines portfolio
	33. Competitors
	34. Pricing
Empowerment risk	35. Valuation
16. Leadership and management	36. Planning
	37. Lifecycle
17. Outsourcing	38. Performance measurement
18. Performance incentives	39. Regulatory
19. Change readiness	40. Sovereign and political
20. Communications	

Table 3. Variables, acronyms, and measurement (source: authors' modification)

Variables/Acronyms	Measurement
Educational background of president director (EDU)	1 = Business/finance and 0 = Otherwise
Size of the audit committee (SAC)	Number of audit committee member
The frequency of audit committee meetings (MAC)	Number of audit committee meetings
Risk monitoring/management committee (RMC)	1 = There is a committee and 0 = No
The quality of external auditor (AUD)	1 = Big Four and 0 = Otherwise
Status of the business entity (STS)	1 = Foreign ownership and 0 = Otherwise
Age of the business entity (AGE)	LN listing age of the business entity
Leverage (LEV)	Debt to asset ratio

heteroscedasticity). The model of regression in this study is as follows:

$$CRD = \beta_0 + \beta_1 EDU + \beta_2 SAC + \beta_3 MAC + \beta_4 RMC + \beta_5 AUD + \beta_6 STS + \beta_7 AGE + \beta_8 LEV + \varepsilon,$$

where *CRD* is the index of corporate risk disclosure; *EDU* is educational background/expertise of director; *SAC* is the

size of the audit committee; *MAC* is the frequency of audit committee meetings in one year; *RMC* is the availability of a monitoring/risk management committee; *AUD* is the quality of external auditor; STS is status of the business entity; *AGE* is business entity age; and *LEV* is leverage.

3. Result and discussion

3.1. Descriptive analysis

Descriptive statistics in this paper describes data that have been obtained which is useful to provide information from a group of data. In general, the statistical data of this research variables are shown in the following table summary:

Table 4. Descriptive statistics of risk disclosure (source: authors' calculation)

Variable	N	Min	Mean	Median	Max	Std. Deviation
CRD	312	0.03	0.22	0.20	0.90	0.12

Note: all companies.

Based on Table 4 above, the descriptive statistics show that the non-financial companies which consist of 312 companies on average do risk disclosure of 0.22 or 22%. This indicates that Indonesia non-financial companies still have a shallow awareness of disclosing risks. This is probably due to the nature of the disclosure which is always voluntary (not required/mandatory).

Table 5. Descriptive statistics of independent variables (source: authors' calculation)

Variables	N	Min	Mean	Median	Max	Std. Deviation
SAC	312	2.00	3.11	3.00	6.00	0.47
MAC	312	1.00	7.13	5.00	59.00	7.08
AGE	312	1.00	13.71	13.50	35.00	8.98
LEV	312	0.02	0.54	0.49	7.69	0.54

Notes: SAC is the size of the audit committee as measured by indicators of a large number of audit committee within the company; MAC is the frequency of audit committee meetings as measured by the frequency number of meetings in a year; AGE is business entity age as measured by indicators of the natural logarithm based on the listing in Indonesia Stock Exchange on the date the company listed on the Stock Exchange, December 31, 2014 (in years); and LEV is the level of leverage as measured using debt to asset ratio.

Based on the descriptive statistics Table 5 above, the average of the audit committee size is three persons, the average frequency of audit committee meetings is seven times, the standard age of business entity is 14 years, and the average of leverage is 54%.

Table 6 shows that president of directors with educational background or expertise in business/finance of 68,91% and educational background or qualification on non-business

Table 6. Statistics of nominal independent variables (source: authors' calculation)

Variables	Percentage of Sample
Educational background/expertise of president director (EDU): 1. Business or financial 2. Otherwise	68.91 31.09
Risk monitoring/management committee (RMC): 1. There are Committee 2. No Committee	15.06 84.94
External Auditor Quality (AUD): 1. *Big Four* 2. Otherwise	41.03 58.97
Firm status (STS): 1. Foreign ownership 2. Otherwise	18.91 81.09

Notes: EDU is educational background measured by dummy 1 if the president director has an educational background/expertise in business or finance and 0 for otherwise; RMC is the existence of a risk monitoring committee as measured with dummy 1 if there is a risk monitoring committee within the company and 0 otherwise; AUD is the quality of external auditors as measured by dummy 1 if the company in this study audited by the accounting firm that affiliated with an international accounting firm (Big Four) and 0 if otherwise; and STS is the status of a business entity as measured by dummy 1 if the company belonging to foreign ownership and 0 if otherwise

of 31,09%. This table also shows that companies that have a risk monitoring/management committee of 15,06% and who do not have a risk monitoring/management committee of 84,94%. The composition of the company with the kind of big four auditors of 41,03% and type of auditor other than the big four of 58,97%. The base of companies with foreign ownership of 18,91% and the other 81,09%.

3.2. Hypotheses testing

Hypothesis testing studies conducted to test the hypotheses of the research that has been put forward before. Testing was carried out by multiple regression analysis. The results of hypothesis testing in this study summarized in the following table:

Table 7 above shows that the adjusted value of R^2 is 20.50%. This value indicates that as much as 20.50% of the dependent variable in this study is corporate risk disclosure can be explained by the independent variables and the rest of the 79.50% (100%–20.50%) explained by other factors outside this research model. This table also shows that significant variables related to corporate risk disclosure are the size of the audit committee, the availability of risk monitoring committees, the quality of an external auditor, and the age of a business entity.

Table 7. Results of testing hypotheses (source: authors' calculation)

Variables	Predic-tion	Model (CRD)		Conclusion
		Coeffi-cient	Signi-ficance	
Constants		0.137	0.002[**]	
EDU	+	0.000	0.981[**]	Not supported
SAC	+	0.031	0.025[**]	Supported
MAC	+	0.001	0.515[**]	Not supported
RMC	+	0.100	0.000[**]	Supported
AUD	+	0.033	0.011[**]	Supported
STS	+	−0.025	0.107[**]	Not supported
AGE	−	−0.020	0.002[**]	Supported
LEV	±	0.012	0.272[**]	
$R^2 = 0.225$ Adjusted $R^2 = 0.205$				
F Value = 10.998 F Significant = 0.000 N = 312				

** Significant at the level of 0.01 and * Significant at the level of 0.05

Notes: **CRD** is corporate risk disclosure; **EDU** is educational background measured by dummy 1 if the president director has an educational background/qualification in business or finance and 0 for otherwise; **SAC** is audit committee size as measured by indicators of a large number of audit committee within the company; **MAC** is the frequency of audit committee meetings as measured by the number of frequency of audit committee meetings in a year; **RMC** is the availability of a risk monitoring committee as measured with dummy 1 if there is a risk monitoring committee within the company and 0 otherwise; **AUD** is the quality of an external auditor as measured by dummy 1 if the companies audited by the accounting firm that affiliated with an international accounting firm (Big Four) and 0 if otherwise; **STS** is the status of a business entity as measured by dummy 1 if the companies belonging to foreign ownership and 0 if otherwise; **AGE** is age of a business entity as measured by indicators of the natural logarithm based on the listing in Indonesia Stock Exchange on the date, the company listed in Indonesia Stock Exchange, December 31, 2014 (in years); and **LEV** is the level of leverage as measured by debt to asset ratio.

3.3. Discussion

3.3.1. The educational background/qualification of president director and corporate risk disclosure

Educational background/qualification of president director (EDU) is not associated with corporate risk disclosure (H1 is not supported). The result of this research supports previous research (Haniffa and Cooke 2002) that found that educational background does not affect the disclosure. This Effect indicates that the educational background is not the only variable (primary factor) which will influence the decision in doing risk disclosure. The opposite effect of this research with the proposed hypothesis possibly because education is not only obtained through a formal channel. The educational background in this study is explicitly limited in the field of economics and business only, but there

is the possibility of education company directors following business categories that can support the going concern of the company. Additionally, the capacity of this board of supervisors can also be affected by other things like training and experience which could influence decisions in providing advice such as corporate risk disclosure.

3.3.2. The size of the audit committee and corporate risk disclosure

The size of the audit committee (SAC) is significantly positively associated with corporate risk disclosure (H2 supported). The result of this paper is consistent with the previous findings (Li et al. 2008, Li et al. 2012, Madi et al. 2014) showed that the audit committee size has a significant positive effect on risk disclosure. This finding indicates the magnitude of the audit committee of the company owned by creating opportunities for the committee members to share or exchange information. So that it can reduce the action of beneficial management, including risk disclosure.

3.3.3. The frequency of committee audit meetings and corporate risk disclosure

The frequency of audit committee meetings (MAC) is not significantly associated with corporate risk disclosure (H3 not supported). The finding of this paper supports the statement (Menon and Williams 1994) that the frequency of meetings of the audit committee is not an indicator of carrying out tasks effectively and in contrast to previous studies (Li et al. 2008, Li et al. 2012, Allegrini and Greco 2013, Taliyang and Jusop 2011, Al-Maghzom et al. 2016, Talpur et al. 2018).

3.3.4. Risk monitoring/management committee and corporate risk disclosure

Risk monitoring/ management committee (RMC) is significantly positively associated with corporate risk disclosure (H4 supported). This result is consistent with previous findings (Meizaroh and Lucyanda 2011, Buckby et al. 2015) who discovered the availability of the risk management committee has a significant positive effect on corporate risk disclosure. These findings indicate that the availability of a risk monitoring/risk management committee within a company can be more effectively evaluate internal controls particularly concerning corporate risk. This effectiveness is because of members of the risk monitoring committee assess and follow up on the possibility of a risk occurring. The existence of a risk monitoring committee assists the commissioner in carrying out the risk management supervision function and assessing risks, thereby enhancing the quality of risk assessment and encouraging the company on risk disclosure.

3.3.5. The quality of external auditors and corporate risk disclosure

The external auditor quality (AUD) is significantly positively associated with corporate risk disclosure (H5 supported). The result of this paper is consistent with previous research (Lopes and Rodrigues 2007, Oliveira et al. 2011, Mokhtar and Mellett 2013, Abid and Shaiq 2015, Carmona et al. 2016, Elshandidy and Neri 2015). This indicates that external auditors audit the company with an international affiliate (Big Four) tend to do broader risk disclosure as it gets pressure from auditors as forms in maintaining a reputation. This finding also indicates that the auditor is the key to the external oversight mechanism of the organization and becomes the center of attention, especially for risk management. Auditor plays a role in improving effectiveness and creates good corporate governance.

3.3.6. Status of business entity and corporate risk disclosure

Ownership status (STS) is not significantly associated with corporate risk disclosure (H6 not supported). This research is inconsistent with previous findings (Gunawan and Susanto 2004) which found that foreign-based companies have higher exposure compared to domestic companies. This research supported previous findings (Said et al. 2018). This means that the status of foreign ownership of the company is not associated with corporate risk disclosure. This is likely to happen because the company is worried about losing investors if it discloses the risks because it is essential for foreign investors to conduct a long-term assessment of the company's prospects.

3.3.7. Age of business entity and corporate risk disclosure

The Variable of business entity age (AGE) is negatively associated with corporate risk disclosure (H7 supported). The result of this paper is consistent with all the previous statement (Bukh et al. 2005, Haniffa and Cooke 2002) but is not compatible with the results of previous studies (Al-Shammari et al. 2008, White et al. 2007). This is likely due to the regulation that is issued or the tendency of companies to entice the interest of potential investors.

Leverage variable indicates there is no significantly associated with corporate risk disclosure. This result conflicts with previous research (Hassan 2009) which found that the debt to the asset has a significant effect on risk disclosure.

3.4. Sensitivity analysis

This research was tested back separately into two categories based on the type of industry (manufacturing and non-manufacturing). The results of the sensitivity testing are shown in the following table summary:

Table 8. Sensitivity analysis (source: authors' calculation)

Variable	Prediction	Manufacturing		Non-manufacturing	
		CRD		CRD	
		Coef	Sig	Coef	Sig
Constants		0.285	0.000**	0.067	0.248**
EDU	+	−0.017	0.354**	0.004	0.835**
SAC	+	0.001	0.975**	0.047	0.013**
MAC	+	−0.000	0.971**	0.001	0.642**
RMC	+	0.119	0.000**	0.086	0.000**
AUD	+	0.017	0.326**	0.048	0.005**
STS	+	−0.016	0.371**	−0.011	0.633**
AGE	−	−0.034	0.000**	−0.012	0.181**
LEV	±	0.001	0.972**	0.015	0.251**
R^2		0.286		0.223	
Adjusted R^2		0.223		0.192	
F Value		4.546		7.283	
F Significant		0.000		0.000	
N		100		212	

** Significant at the level of 0.01 and * Significant at the level of 0.05

Notes: **CRD** is corporate risk disclosure; **EDU** is educational background measured by dummy 1 if the president director has an educational background/qualification in business or finance and 0 for otherwise; **SAC** is audit committee size as measured by indicators of a large number of audit committee within the company; **MAC** is the frequency of audit committee meetings as measured by the number of frequency of audit committee meetings in a year; **RMC** is the availability of a risk monitoring committee as measured with dummy 1 if there is a risk monitoring committee within the company and 0 otherwise; **AUD** is the quality of an external auditor as measured by dummy 1 if the companies audited by the accounting firm that affiliated with an international accounting firm (Big Four) and 0 if otherwise; **STS** is the status of a business entity as measured by dummy 1 if the companies belonging to foreign ownership and 0 if otherwise; **AGE** is age of a business entity as measured by indicators of the natural logarithm based on the listing in Indonesia Stock Exchange on the date, the company listed in Indonesia Stock Exchange, December 31, 2014 (in years); and **LEV** is the level of leverage as measured by debt to asset ratio.

Sensitivity analysis based on Table 8 above, the variables that have a significant association on risk disclosure for the manufacturing company category are variable risk monitoring committee (RMC) and age (AGE). Variables that have a substantial effect on risk disclosure of these types of non-manufacturing companies are the variable of the size of the audit committee (SAC), the availability of a risk monitoring committee (RMC), and the quality of external auditor (AUD). Table 8 shows that the adjusted R^2 value of 22.30% of manufacturing companies and 19.20% of the non-manufacturing companies. These values indicate that the independent variables included in this study had a more significant influence on corporate risk disclosure in the manufacturing sector than the non-manufacturing sector.

Conclusions and suggestions

This paper investigates the association between firm characteristics, corporate governance, and practices of corporate risk disclosure on non-financial companies. The non-financial companies which consist of 312 companies on average do risk disclosure of 22%. This shows that Indonesia non-financial companies have still low awareness of disclosing the risks. The test results indicate that the educational background/qualification of president directors, the frequency of audit committee meetings, a status of the business entity and leverage are not significantly associated with corporate risk disclosure practices. Size of the audit committee, the availability of a risk monitoring, and quality of external auditor are significantly positively related to the practice of corporate risk disclosure while the age of business entity is significantly negatively associated with corporate risk disclosure practices. The variables of corporate governance and characteristics of business entities in this paper are only able to explain of 20.50% variable of corporate risk disclosure. These empirical results show that committee of risk monitoring or risk management, the quality of external auditor, and the size of the audit committee are primary factors of risk disclosure practices in non-financial companies listed on the Indonesia Stock Exchange.

This paper has several limitations that cannot be avoided by the researcher and can affect the research results. The period of observation in this study only one year, so it does not allow for generalized with the other research. Further research should use a more extended observation period, such as three or five (year) observations to find out the relationship or special events influences corporate risk disclosure. Decision making on risk disclosure practices is determined by the interpretations of researchers, to allow the occurrence of differences in assessment due to researchers. Decision making on risk disclosure should be discussed with the experts so as not to misinterpret and carry out simulations before collecting data for better reliability.

The variables used in this paper are limited only on educational background/qualification of the president director, the size of the audit committee, the frequency of audit committee meetings, the availability of risk monitoring or management committee, quality of external auditors, a status of the business entity, and age of business entity. Further research can add variables or other factors that may affect to corporate risk disclosure such as the gender diversity council or board of directors; government ownership; and the committee on corporate social responsibility or sustainability of efforts to further strengthen the research model to predict risk disclosure.

This paper investigates the association between business entity characteristics, corporate governance, and corporate risk disclosure practices where risk disclosure in this research is seen in general not specific. Further research should investigate the relationships between business entity characteristics, corporate governance, and corporate risk disclosure based on categories or dimensions. The results of this paper cannot be generalized and compared with other countries because the research results using purposive sampling to ensure the existence of the corporate risk disclosure. Further research may use different methods to provide the presence of the risk disclosure of companies such as random sampling. The study only focused on the company's annual report. Further research can do, not just focus on the development of the annual report but also through other statements that may provide information such as the company's interim reports or the company's website.

Acknowledgements

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APPENDIX

Table A1. List of Sample (source: authors' sampling of Indonesian Stock Exchange)

No	Code	Listed companies	No	Code	Listed companies
1	ABMM	ABM Investama Tbk.	39	BISI	BISI International Tbk.
2	ACST	Acset Indonusa Tbk.	40	BKDP	Bukit Darmo Property Tbk
3	ADES	Akasha Wira International Tbk.	41	BKSL	Sentul City Tbk.
4	ADHI	Adhi Karya (Persero) Tbk.	42	BLTA	Berlian Laju Tanker Tbk
5	ADMG	Polychem Indonesia Tbk	43	BLTZ	Graha Layar Prima Tbk.
6	ADRO	Adaro Energy Tbk.	44	BMSR	Bintang Mitra Semestaraya Tbk
7	AISA	Tiga Pilar Sejahtera Food Tbk.	45	BMTR	Global Mediacom Tbk.
8	AKPI	Argha Karya Prima Industry Tbk.	46	BNBR	Bakrie & Brothers Tbk.
9	AKRA	AKR Corporindo Tbk.	47	BRAM	Indo Kordsa Tbk.
10	ALDO	Alkindo Naratama Tbk.	48	BRAU	Berau Coal Energy Tbk.
11	ALKA	Alakasa Industrindo Tbk	49	BRMS	Bumi Resources Minerals Tbk.
12	AMFG	Asahimas Flat Glass Tbk.	50	BRNA	Berlina Tbk.
13	AMRT	Sumber Alfaria Trijaya Tbk.	51	BSDE	Bumi Serpong Damai Tbk.
14	ANJT	Austindo Nusantara Jaya Tbk.	52	BTEK	Bumi Teknokultura Unggul Tbk
15	ANTM	Aneka Tambang (Persero) Tbk.	53	BTEL	Bakrie Telecom Tbk.
16	APEX	Apexindo Pratama Duta Tbk.	54	BTON	Betonjaya Manunggal Tbk.
17	APII	Arita Prima Indonesia Tbk.	55	BUDI	Budi Starch & Sweetener Tbk.
18	APLN	Agung Podomoro Land Tbk.	56	BULL	Buana Listya Tama Tbk.
19	APOL	Arpeni Pratama Ocean Line Tbk.	57	BUMI	Bumi Resources Tbk.
20	ARII	Atlas Resources Tbk.	58	BWPT	Eagle High Plantations Tbk.
21	ARNA	Arwana Citramulia Tbk.	59	BYAN	Bayan Resources Tbk.
22	ARTI	Ratu Prabu Energi Tbk	60	CASS	Cardig Aero Services Tbk.
23	ASGR	Astra Graphia Tbk.	61	CINT	Chitose Internasional Tbk.
24	ASII	Astra International Tbk.	62	CKRA	Cakra Mineral Tbk.
25	ASRI	Alam Sutera Realty Tbk.	63	CMNP	Citra Marga Nusaphala Persada Tbk.
26	ASSA	Adi Sarana Armada Tbk.	64	CMPP	Rimau Multi Putra Pratama
27	ATPK	Bara Jaya International Tbk.	65	COWL	Cowell Development Tbk.
28	AUTO	Astra Otoparts Tbk.	66	CPGT	Citra Maharlika Nusantara Corpora Tbk.
29	BAPA	Bekasi Asri Pemula Tbk.	67	CPIN	Charoen Pokphand Indonesia Tbk
30	BATA	Sepatu Bata Tbk.	68	CPRO	Central Proteina Prima Tbk.
31	BBRM	Pelayaran Nasional Bina Buana Raya	69	CSAP	Catur Sentosa Adiprana Tbk.
32	BCIP	Bumi Citra Permai Tbk.	70	CTBN	Citra Tubindo Tbk.
33	BEST	Bekasi Fajar Industrial Estate Tbk.	71	CTRA	Ciputra Development Tbk.
34	BHIT	MNC Investama Tbk.	72	CTRP	Ciputra Property Tbk.
35	BIMA	Primarindo Asia Infrastructure Tbk.	73	CTRS	Ciputra Surya Tbk.
36	BIPI	Benakat Integra Tbk.	74	CTTH	Citatah Tbk.
37	BIPP	Bhuwanatala Indah Permai Tbk.	75	DART	Duta Anggada Realty Tbk.
38	BIRD	Blue Bird Tbk.	76	DEWA	Darma Henwa Tbk.
77	DGIK	Nusa Konstruksi Enjiniring Tbk.	116	GMTD	Gowa Makassar Tourism Development Tbk.

No	Code	Listed companies	No	Code	Listed companies
78	DILD	Intiland Development Tbk.	117	GOLD	Golden Retailindo Tbk.
79	DKFT	Central Omega Resources Tbk.	118	GPRA	Perdana Gapura Prima Tbk.
80	DLTA	Delta Djakarta Tbk.	119	GREN	Evergreen Invesco Tbk.
81	DOID	Delta Dunia Makmur Tbk.	120	GWSA	Greenwood Sejahtera Tbk.
82	DPNS	Duta Pertiwi Nusantara Tbk.	121	HDTX	Panasia Indo Resources Tbk.
83	DSFI	Dharma Samudera Fishing Industries	122	HERO	Hero Supermarket Tbk.
84	DSNG	Dharma Satya Nusantara Tbk.	123	HMSP	H.M. Sampoerna Tbk.
85	DSSA	Dian Swastatika Sentosa Tbk	124	HRUM	Harum Energy Tbk.
86	DUTI	Duta Pertiwi Tbk	125	IATA	Indonesia Transport & Infrastructure Tbk.
87	DVLA	Darya-Varia Laboratoria Tbk.	126	IBST	Inti Bangun Sejahtera Tbk.
88	DYAN	Dyandra Media International Tbk.	127	ICBP	Indofood CBP Sukses Makmur Tbk.
89	EKAD	Ekadharma International Tbk.	128	ICON	Island Concepts Indonesia Tbk.
90	ELSA	Elnusa Tbk.	129	IGAR	Champion Pacific Indonesia Tbk.
91	ELTY	Bakrieland Development Tbk.	130	IIKP	Inti Kapuas Arowana Tbk.
92	EMTK	Elang Mahkota Teknologi Tbk.	131	IMAS	Indomobil Sukses Internasional Tbk.
93	ENRG	Energi Mega Persada Tbk.	132	INAF	Indofarma Tbk.
94	EPMT	Enseval Putera Megatrading Tbk.	133	INCO	Vale Indonesia Tbk.
95	ERAA	Erajaya Swasembada Tbk.	134	INDF	Indofood Sukses Makmur Tbk.
96	ERTX	Eratex Djaja Tbk.	135	INDR	Indo-Rama Synthetics Tbk.
97	ESSA	Surya Esa Perkasa Tbk.	136	INDS	Indospring Tbk.
98	ETWA	Eterindo Wahanatama Tbk	137	INDX	Tanah Laut Tbk.
99	EXCL	XL Axiata Tbk.	138	INDY	Indika Energy Tbk.
100	FASW	Fajar Surya Wisesa Tbk.	139	INKP	Indah Kiat Pulp & Paper Tbk.
101	FISH	FKS Multi Agro Tbk.	140	INPP	Indonesian Paradise Property Tbk.
102	FMII	Fortune Mate Indonesia Tbk	141	INRU	Toba Pulp Lestari Tbk.
103	FORU	Fortune Indonesia Tbk	142	INTA	Intraco Penta Tbk.
104	FPNI	Lotte Chemical Titan Tbk.	143	INTD	Inter-Delta Tbk
105	FREN	Smartfren Telecom Tbk.	144	INTP	Indocement Tunggal Prakasa Tbk.
106	GAMA	Gading Development Tbk.	145	IPOL	Indopoly Swakarsa Industry Tbk.
107	GDST	Gunawan Dianjaya Steel Tbk.	146	ISAT	Indosat Tbk.
108	GDYR	Goodyear Indonesia Tbk.	147	ITMG	Indo Tambangraya Megah Tbk.
109	GEMA	Gema Grahasarana Tbk.	148	ITTG	Leo Investments Tbk.
110	GEMS	Golden Energy Mines Tbk.	149	JAWA	Jaya Agra Wattie Tbk.
111	GGRM	Gudang Garam Tbk.	150	JECC	Jembo Cable Company Tbk.
112	GIAA	Garuda Indonesia (Persero) Tbk.	151	JIHD	Jakarta International Hotels & Development Tbk.
113	GJTL	Gajah Tunggal Tbk.	152	JKSW	Jakarta Kyoei Steel Works Tbk.
114	GLOB	Global Teleshop Tbk.	153	JPFA	Japfa Comfeed Indonesia Tbk.
115	GMCW	Grahamas Citrawisata Tbk.	154	JPRS	Jaya Pari Steel Tbk
155	JSMR	Jasa Marga Tbk.	194	MIDI	Midi Utama Indonesia Tbk.
156	JTPE	Jasuindo Tiga Perkasa Tbk.	195	MKPI	Metropolitan Kentjana Tbk.
157	KBLI	KMI Wire & Cable Tbk.	196	MLBI	Multi Bintang Indonesia Tbk.
158	KBLM	Kabelindo Murni Tbk.	197	MLIA	Mulia Industrindo Tbk
159	KBLV	First Media Tbk.	198	MLPL	Multipolar Tbk.
160	KBRI	Kertas Basuki Rachmat Indonesia Tbk.	199	MLPT	Multipolar Technology Tbk.

No	Code	Listed companies	No	Code	Listed companies
161	KIAS	Keramika Indonesia Assosiasi Tbk.	200	MNCN	Media Nusantara Citra Tbk.
162	KICI	Kedaung Indah Can Tbk	201	MPMX	Mitra Pinasthika Mustika Tbk.
163	KIJA	Kawasan Industri Jababeka Tbk.	202	MPPA	Matahari Putra Prima Tbk.
164	KKGI	Resource Alam Indonesia Tbk.	203	MRAT	Mustika Ratu Tbk.
165	KLBF	Kalbe Farma Tbk.	204	MSKY	MNC Sky Vision Tbk.
166	KOBX	Kobexindo Tractors Tbk.	205	MTDL	Metrodata Electronics Tbk.
167	KOIN	Kokoh Inti Arebama Tbk	206	MTLA	Metropolitan Land Tbk.
168	KPIG	MNC Land Tbk.	207	MYOH	Samindo Resources Tbk.
169	KRAH	Grand Kartech Tbk.	208	MYOR	Mayora Indah Tbk.
170	KRAS	Krakatau Steel (Persero) Tbk.	209	MYRX	Hanson International Tbk.
171	LCGP	Eureka Prima Jakarta Tbk.	210	NELY	Pelayaran Nelly Dwi Putri Tbk.
172	LEAD	Logindo Samudramakmur Tbk.	211	NIKL	Pelat Timah Nusantara Tbk.
173	LION	Lion Metal Works Tbk.	212	NIRO	Nirvana Development Tbk.
174	LMPI	Langgeng Makmur Industri Tbk.	213	NRCA	Nusa Raya Cipta Tbk.
175	LMSH	Lionmesh Prima Tbk.	214	OKAS	Ancora Indonesia Resources Tbk.
176	LPCK	Lippo Cikarang Tbk	215	PALM	Provident Agro Tbk.
177	LPIN	Multi Prima Sejahtera Tbk	216	PBRX	Pan Brothers Tbk.
178	LPKR	Lippo Karawaci Tbk.	217	PDES	Destinasi Tirta Nusantara Tbk
179	LPLI	Star Pacific Tbk.	218	PGAS	Perusahaan Gas Negara (Persero) Tbk.
180	LPPF	Matahari Department Store Tbk.	219	PGLI	Pembangunan Graha Lestari Indah Tbk.
181	LRNA	Eka Sari Lorena Transport Tbk.	220	PJAA	Pembangunan Jaya Ancol Tbk.
182	LSIP	PP London Sumatra Indonesia Tbk.	221	PKPK	Perdana Karya Perkasa Tbk
183	MAIN	Malindo Feedmill Tbk.	222	PLAS	Polaris Investama Tbk
184	MAMI	Mas Murni Indonesia Tbk	223	PLIN	Plaza Indonesia Realty Tbk.
185	MBAP	Mitrabara Adiperdana Tbk.	224	PNSE	Pudjiadi & Sons Tbk.
186	MBSS	Mitrabahtera Segara Sejati Tbk.	225	POOL	Pool Advista Indonesia Tbk.
187	MBTO	Martina Berto Tbk.	226	PRAS	Prima Alloy Steel Universal Tbk.
188	MDLN	Modernland Realty Ltd Tbk	227	PSKT	Red Planet Indonesia Tbk.
189	MDRN	Modern Internasional Tbk.	228	PTBA	Tambang Batubara Bukit Asam (Persero)
190	MEDC	Medco Energi International Tbk.	229	PTPP	Indo Straits Tbk.
191	META	Nusantara Infrastructure Tbk.	230	PTRO	PP (Persero) Tbk.
192	MFMI	Multifiling Mitra Indonesia Tbk.	231	PTSP	Petrosea Tbk.
193	MICE	Multi Indocitra Tbk.	232	PUDP	Pioneerindo Gourmet International Tbk.
233	PWON	Pakuwon Jati Tbk.	273	SULI	SLJ Global Tbk.
234	RAJA	Rukun Raharja Tbk.	274	TALF	Tunas Alfin Tbk.
235	RALS	Ramayana Lestari Sentosa Tbk.	275	TAXI	Express Transindo Utama Tbk.
236	RANC	Supra Boga Lestari Tbk.	276	TBIG	Tower Bersama Infrastructure Tbk.
237	RBMS	Ristia Bintang Mahkotasejati Tbk.	277	TBMS	Tembaga Mulia Semanan Tbk.
238	RICY	Ricky Putra Globalindo Tbk	278	TCID	Mandom Indonesia Tbk.
239	RMBA	Bentoel Internasional Investama Tbk.	279	TELE	Tiphone Mobile Indonesia Tbk.
240	RODA	Pikko Land Development Tbk.	280	TFCO	Tifico Fiber Indonesia Tbk.
241	ROTI	Nippon Indosari Corpindo Tbk.	281	TGKA	Tigaraksa Satria Tbk.
242	RUIS	Radiant Utama Interinsco Tbk.	282	TINS	Timah (Persero) Tbk.
243	SAFE	Steady Safe Tbk	283	TIRA	Tira Austenite Tbk

No	Code	Listed companies	No	Code	Listed companies
244	SCMA	Surya Citra Media Tbk.	284	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.
245	SDMU	Sidomulyo Selaras Tbk.	285	TLKM	Telekomunikasi Indonesia (Persero) Tbk.
246	SDPC	Millennium Pharmacon International Tbk.	286	TMAS	Pelayaran Tempuran Emas Tbk.
247	SGRO	Sampoerna Agro Tbk.	287	TOBA	Toba Bara Sejahtra Tbk.
248	SIAP	Sekawan Intipratama Tbk	288	TOTL	Total Bangun Persada Tbk.
249	SILO	Siloam International Hospitals Tbk.	289	TOTO	Surya Toto Indonesia Tbk.
250	SIMP	Salim Ivomas Pratama Tbk.	290	TOWR	Sarana Menara Nusantara Tbk.
251	SIPD	Sierad Produce Tbk.	291	TPIA	Chandra Asri Petrochemical Tbk.
252	SKBM	Sekar Bumi Tbk.	292	TPMA	Trans Power Marine Tbk.
253	SKLT	Sekar Laut Tbk.	293	TRAM	Trada Maritime Tbk.
254	SKYB	Skybee Tbk.	294	TRIO	Trikomsel Oke Tbk.
255	SMAR	Smart Tbk.	295	TRIS	Trisula International Tbk.
256	SMBR	Semen Baturaja (Persero) Tbk.	296	TRST	Trias Sentosa Tbk.
257	SMCB	Holcim Indonesia Tbk.	297	TURI	Tunas Ridean Tbk.
258	SMDM	Suryamas Dutamakmur Tbk.	298	ULTJ	Ultra Jaya Milk Industry & Trading
259	SMDR	Samudera Indonesia Tbk.	299	UNIC	Unggul Indah Cahaya Tbk.
260	SMGR	Semen Indonesia (Persero) Tbk.	300	UNSP	Bakrie Sumatra Plantations Tbk.
261	SMMT	Golden Eagle Energy Tbk.	301	UNTR	United Tractors Tbk.
262	SMRA	Summarecon Agung Tbk.	302	UNVR	Unilever Indonesia Tbk.
263	SMRU	SMR Utama Tbk.	303	VIVA	Visi Media Asia Tbk.
264	SMSM	Selamat Sempurna Tbk.	304	VOKS	Voksel Electric Tbk.
265	SONA	Sona Topas Tourism Industry Tbk.	305	WAPO	Wahana Pronatural Tbk.
266	SPMA	Suparma Tbk.	306	WEHA	Weha Transportasi Indonesia Tbk.
267	SRIL	Sri Rejeki Isman Tbk.	307	WIKA	Wijaya Karya Tbk.
268	SRSN	Indo Acidatama Tbk	308	WINS	Wintermar Offshore Marine Tbk.
269	SRTG	Saratoga Investama Sedaya Tbk.	309	WSKT	Waskita Karya (Persero) Tbk.
270	SSIA	Surya Semesta Internusa Tbk.	310	WTON	Wijaya Karya Beton Tbk.
271	STAR	Star Petrochem Tbk.	311	YPAS	Yanaprima Hastapersada Tbk
272	SUGI	Sugih Energy Tbk.	312	ZBRA	Zebra Nusantara Tbk

Table A2. Data tabulation (source: authors' calculations)

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
1	ABMM	0.4	1	3	9	0	1	1	1.10	0.82
2	ACST	0.43	0	3	3	0	1	0	0.69	0.56
3	ADES	0.23	1	3	3	0	0	1	3.04	0.41
4	ADHI	0.43	0	2	11	1	0	0	2.40	0.83
5	ADMG	0.23	1	3	4	0	1	0	3.04	0.37
6	ADRO	0.6	1	3	6	0	1	0	1.79	0.49
7	AISA	0.33	0	4	3	1	0	0	2.89	0.51
8	AKPI	0.23	1	3	3	0	1	0	3.09	0.53
9	AKRA	0.35	1	3	4	0	1	0	3.00	0.6
10	ALDO	0.13	1	3	6	0	0	0	1.39	0.55
11	ALKA	0.13	1	3	4	0	0	0	3.22	0.74
12	AMFG	0.2	1	4	12	1	1	1	2.94	0.19
13	AMRT	0.23	1	3	4	0	1	0	1.79	0.79
14	ANJT	0.4	0	3	4	1	1	0	0.69	0.15
15	ANTM	0.28	1	4	12	1	1	0	2.83	0.46
16	APEX	0.33	1	3	5	0	1	0	0.69	0.97
17	APII	0.2	0	3	5	0	0	1	0.00	0.52
18	APLN	0.15	0	3	14	1	1	0	1.39	0.64
19	APOL	0.33	1	3	3	0	0	0	2.20	3.25
20	ARII	0.15	0	2	4	0	0	0	1.10	0.68
21	ARNA	0.3	1	3	12	0	1	1	1.10	0.28
22	ARTI	0.1	0	2	5	0	0	0	2.48	0.45
23	ASGR	0.3	1	3	14	0	1	0	3.22	0.45
24	ASII	0.13	0	4	7	0	1	0	3.22	0.49
25	ASRI	0.18	1	3	6	0	0	0	1.95	0.62
26	ASSA	0.4	1	3	5	0	1	0	0.69	0.67
27	ATPK	0.23	1	3	4	0	0	1	2.56	0.35
28	AUTO	0.1	1	3	6	0	1	0	2.83	0.3
29	BAPA	0.18	0	3	2	0	0	0	1.95	0.43
30	BATA	0.05	1	3	5	0	1	1	3.50	0.45
31	BBRM	0.28	0	3	7	0	0	0	0.69	0.41
32	BCIP	0.08	1	3	4	0	0	0	1.61	0.58
33	BEST	0.23	1	3	7	0	0	0	1.10	0.22
34	BHIT	0.15	1	3	4	0	1	0	2.83	0.53
35	BIMA	0.25	1	3	8	0	0	0	3.00	2.86
36	BIPI	0.2	1	3	8	0	0	0	1.61	0.66
37	BIPP	0.25	0	3	4	0	0	0	2.94	0.27
38	BIRD	0.1	0	3	2	0	0	0	0.00	0.5
39	BISI	0.35	0	3	7	0	1	0	2.08	0.14
40	BKDP	0.28	1	3	4	1	0	0	2.08	0.28
41	BKSL	0.25	1	3	12	0	0	0	2.83	0.37
42	BLTA	0.13	0	3	7	0	1	0	3.22	2.7
43	BLTZ	0.35	0	3	3	0	0	0	0.00	0.21

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
44	BMSR	0.18	1	3	4	0	0	1	2.71	0.62
45	BMTR	0.35	1	3	4	0	1	0	2.94	0.37
46	BNBR	0.75	1	3	8	1	0	0	3.22	1.19
47	BRAM	0.38	1	3	5	0	1	0	3.18	0.42
48	BRAU	0.43	1	3	9	1	1	0	1.39	1.02
49	BRMS	0.43	0	4	7	0	0	0	1.39	0.38
50	BRNA	0.28	1	4	4	1	1	0	3.22	0.28
51	BSDE	0.2	0	3	5	0	0	0	1.95	0.34
52	BTEK	0.15	1	3	6	0	0	0	2.40	0.82
53	BTEL	0.33	1	3	12	1	0	0	2.20	1.51
54	BTON	0.15	0	3	5	0	0	0	2.56	0.16
55	BUDI	0.15	0	3	4	0	0	0	3.00	0.63
56	BULL	0.25	1	3	4	0	0	0	1.39	0.57
57	BUMI	0.33	0	3	8	1	0	0	3.18	1.11
58	BWPT	0.08	1	3	5	0	0	0	1.61	0.58
59	BYAN	0.43	0	3	8	1	1	0	1.79	0.78
60	CASS	0.25	1	3	4	0	0	0	1.10	0.55
61	CINT	0.3	1	3	7	0	0	0	0.00	0.2
62	CKRA	0.1	1	3	6	0	0	1	2.77	0.02
63	CMNP	0.35	1	4	11	1	1	0	3.00	0.3
64	CMPP	0.03	0	3	12	0	0	0	3.00	0.77
65	COWL	0.25	0	3	4	0	0	0	1.95	0.63
66	CPGT	0.1	1	3	5	0	0	0	0.69	0.76
67	CPIN	0.15	1	5	32	0	1	1	3.53	0.48
68	CPRO	0.03	1	3	12	0	1	0	2.08	0.87
69	CSAP	0.23	0	3	4	0	1	0	1.95	0.75
70	CTBN	0.23	1	3	4	0	1	0	3.22	0.44
71	CTRA	0.13	1	3	4	0	1	0	3.04	0.51
72	CTRP	0.23	1	3	5	1	1	0	1.95	0.45
73	CTRS	0.2	1	3	4	0	1	0	2.77	0.51
74	CTTH	0.18	0	3	6	0	0	0	2.94	0.78
75	DART	0.15	1	3	12	1	1	1	3.22	0.37
76	DEWA	0.45	1	3	11	0	0	1	1.95	0.27
77	DGIK	0.15	0	3	5	0	0	0	1.95	0.46
78	DILD	0.18	1	3	17	0	0	1	3.14	0.5
79	DKFT	0.05	1	3	6	0	0	0	2.83	0.05
80	DLTA	0.1	1	3	3	0	1	1	3.43	0.23
81	DOID	0.23	1	3	4	0	0	1	1.39	0.9
82	DPNS	0.18	1	3	4	0	0	0	3.18	0.12
83	DSFI	0.23	1	3	8	0	0	0	2.71	0.56
84	DSNG	0.2	0	3	5	0	1	0	0.69	0.68
85	DSSA	0.43	1	3	9	0	0	0	1.61	0.36
86	DUTI	0.25	1	3	5	0	0	0	3.00	0.22
87	DVLA	0.25	0	4	4	0	1	1	3.00	0.24

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
88	DYAN	0.1	1	3	4	0	0	0	0.69	0.46
89	EKAD	0.1	1	3	5	0	0	0	3.18	0.34
90	ELSA	0.33	1	4	16	1	1	0	1.95	0.39
91	ELTY	0.38	1	3	11	1	0	0	2.94	0.48
92	EMTK	0.18	1	3	9	0	1	0	1.61	0.18
93	ENRG	0.23	0	3	4	1	0	0	2.40	0.59
94	EPMT	0.2	0	3	4	1	1	0	3.00	0.43
95	ERAA	0.03	1	2	11	0	1	0	1.10	0.51
96	ERTX	0.18	0	3	4	0	0	1	3.18	0.73
97	ESSA	0.28	1	3	4	0	1	0	1.10	0.28
98	ETWA	0.23	1	3	4	0	0	0	2.89	0.77
99	EXCL	0.38	1	4	7	1	1	1	2.20	0.78
100	FASW	0.15	0	3	14	0	1	0	3.00	0.71
101	FISH	0.23	1	3	4	0	1	0	2.56	0.74
102	FMII	0.2	1	2	5	0	0	1	2.71	0.38
103	FORU	0.05	0	3	4	0	0	0	2.40	0.49
104	FPNI	0.23	1	3	4	0	1	1	2.56	0.64
105	FREN	0.28	1	3	3	0	0	0	2.08	0.78
106	GAMA	0.08	1	3	3	0	0	0	1.10	0.21
107	GDST	0.18	1	3	5	0	0	1	1.61	0.36
108	GDYR	0.18	1	3	4	0	1	1	3.53	0.54
109	GEMA	0.1	1	3	4	0	0	0	2.48	0.6
110	GEMS	0.28	1	3	5	0	1	0	1.10	0.21
111	GGRM	0.15	0	3	6	0	1	0	3.18	0.43
112	GIAA	0.4	1	3	31	1	1	0	1.39	0.7
113	GJTL	0.18	1	3	11	0	1	0	3.22	0.63
114	GLOB	0.13	1	3	4	0	1	0	1.10	0.69
115	GMCW	0.25	1	3	5	0	0	0	3.00	0.82
116	GMTD	0.3	1	3	4	0	0	0	2.64	0.56
117	GOLD	0.28	1	2	4	0	0	0	1.61	0.15
118	GPRA	0.2	1	3	4	0	0	0	1.95	0.41
119	GREN	0.18	1	3	4	0	0	1	1.61	0.27
120	GWSA	0.33	1	3	4	0	1	0	1.10	0.14
121	HDTX	0.18	1	3	13	0	0	0	3.22	0.85
122	HERO	0.15	1	3	12	0	1	0	3.22	0.34
123	HMSP	0.23	1	3	3	0	1	1	3.18	0.52
124	HRUM	0.35	1	3	5	0	1	0	0.69	0.18
125	IATA	0.25	1	3	6	0	0	0	2.08	0.47
126	IBST	0.28	1	3	8	0	0	0	0.69	0.21
127	ICBP	0.2	1	3	6	0	1	0	1.39	0.4
128	ICON	0.08	1	3	2	0	0	0	2.30	0.45
129	IGAR	0.13	0	3	4	0	0	0	3.18	0.25
130	IIKP	0.15	0	3	4	0	0	0	2.48	0.04
131	IMAS	0.15	1	3	6	0	1	0	3.04	0.71

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No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
132	INAF	0.23	1	3	16	1	0	0	2.64	0.53
133	INCO	0.3	1	4	5	0	1	1	3.22	0.24
134	INDF	0.2	1	3	9	0	1	1	3.04	0.52
135	INDR	0.13	1	3	4	0	1	1	3.18	0.59
136	INDS	0.13	1	3	5	0	0	0	3.18	0.2
137	INDX	0.05	1	3	1	0	0	1	2.64	0.03
138	INDY	0.28	1	3	4	1	1	0	1.61	0.6
139	INKP	0.2	0	3	9	0	0	0	3.18	0.63
140	INPP	0.13	1	3	4	0	0	0	2.30	0.46
141	INRU	0.13	1	3	2	0	0	1	3.22	0.61
142	INTA	0.23	1	3	6	0	1	0	3.04	0.84
143	INTD	0.15	1	3	4	0	0	0	3.22	0.47
144	INTP	0.18	1	3	4	0	1	1	3.22	0.14
145	IPOL	0.33	1	3	5	0	0	1	1.61	0.46
146	ISAT	0.9	0	5	5	1	1	0	3.00	0.73
147	ITMG	0.33	1	3	12	1	1	1	1.95	0.31
148	ITTG	0.05	0	3	3	0	0	0	2.56	0.04
149	JAWA	0.13	1	3	5	0	0	0	1.39	0.57
150	JECC	0.1	0	3	17	0	0	0	3.09	0.84
151	JIHD	0.08	1	3	7	0	0	0	3.43	0.28
152	JKSW	0.15	1	3	6	0	0	0	2.83	2.38
153	JPFA	0.2	0	3	4	0	0	1	3.22	0.66
154	JPRS	0.25	1	3	12	0	0	1	3.22	0.04
155	JSMR	0.4	1	3	17	1	0	0	1.95	0.64
156	JTPE	0.18	0	3	4	0	0	0	2.56	0.57
157	KBLI	0.25	1	3	4	0	1	0	3.14	0.3
158	KBLM	0.13	1	3	3	0	0	0	3.14	0.55
159	KBLV	0.03	0	3	4	0	0	0	2.71	0.28
160	KBRI	0.25	1	3	5	0	0	0	1.95	0.48
161	KIAS	0.28	0	3	6	0	0	1	3.00	0.1
162	KICI	0.18	0	3	4	0	0	0	3.04	0.19
163	KIJA	0.15	0	3	9	0	0	0	3.00	0.45
164	KKGI	0.15	0	3	5	0	0	0	3.18	0.27
165	KLBF	0.4	0	3	4	1	1	0	3.14	0.21
166	KOBX	0.1	0	3	5	0	0	0	1.10	0.68
167	KOIN	0.2	1	3	6	0	0	0	1.95	0.78
168	KPIG	0.33	1	3	4	0	0	0	2.71	0.2
169	KRAH	0.43	0	3	4	0	0	0	0.00	0.61
170	KRAS	0.4	1	4	21	1	1	0	1.39	0.66
171	LCGP	0.25	1	3	4	0	0	0	2.08	0.07
172	LEAD	0.3	1	3	5	1	1	0	0.00	0.5
173	LION	0.15	1	3	3	0	0	1	3.04	0.26
174	LMPI	0.1	0	3	12	0	0	0	3.00	0.51
175	LMSH	0.25	0	3	4	0	0	0	3.22	0.17

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
176	LPCK	0.18	0	3	4	0	0	0	2.83	0.38
177	LPIN	0.15	1	3	3	0	0	0	3.22	0.25
178	LPKR	0.5	1	3	4	0	0	0	2.94	0.53
179	LPLI	0.13	1	3	4	0	0	0	3.22	0.05
180	LPPF	0.23	1	3	4	1	1	1	3.22	0.95
181	LRNA	0.23	0	3	2	0	0	0	0.00	0.24
182	LSIP	0.33	1	3	4	0	1	0	2.94	0.17
183	MAIN	0.03	1	5	4	0	1	1	2.20	0.69
184	MAMI	0.05	1	3	5	0	0	0	3.04	0.22
185	MBAP	0.15	0	3	2	0	1	0	0.00	0.43
186	MBSS	0.28	1	4	4	1	1	0	1.39	0.28
187	MBTO	0.2	1	2	37	0	0	0	1.39	0.27
188	MDLN	0.28	1	3	9	0	0	0	3.09	0.49
189	MDRN	0.28	1	3	12	0	1	0	3.14	0.43
190	MEDC	0.3	0	3	5	1	1	1	3.00	0.66
191	META	0.1	1	3	7	0	0	1	2.56	0.42
192	MFMI	0.05	1	3	4	0	0	0	1.39	0.07
193	MICE	0.08	1	3	6	0	0	0	2.20	0.2
194	MIDI	0.33	1	3	4	0	1	0	1.39	0.76
195	MKPI	0.23	0	3	4	0	0	0	1.79	0.5
196	MLBI	0.13	1	3	5	0	1	1	3.04	0.75
197	MLIA	0.18	1	3	12	0	1	0	3.04	0.82
198	MLPL	0.13	1	3	4	0	0	0	3.22	0.55
199	MLPT	0.3	1	3	4	0	0	0	0.69	0.65
200	MNCN	0.35	1	3	4	0	1	0	2.08	0.31
201	MPMX	0.1	1	3	7	0	1	0	0.69	0.62
202	MPPA	0.18	1	4	4	0	0	0	3.09	0.51
203	MRAT	0.18	1	3	3	0	0	0	2.94	0.23
204	MSKY	0.33	1	3	4	0	1	0	1.10	0.73
205	MTDL	0.18	1	3	5	0	1	0	3.22	0.57
206	MTLA	0.4	0	3	4	0	1	1	1.39	0.37
207	MYOH	0.15	1	3	5	0	1	1	2.64	0.79
208	MYOR	0.25	0	3	5	0	0	0	3.22	0.6
209	MYRX	0.18	1	3	6	0	1	0	3.18	0.15
210	NELY	0.15	0	3	10	0	0	0	0.69	0.23
211	NIKL	0.38	1	4	7	0	1	0	1.61	0.71
212	NIRO	0.23	1	3	5	0	0	0	0.69	0.43
213	NRCA	0.3	0	3	4	0	0	0	0.69	0.46
214	OKAS	0.3	1	4	7	1	1	0	2.20	0.85
215	PALM	0.18	1	3	7	0	0	0	0.69	0.6
216	PBRX	0.08	1	3	10	0	0	0	3.18	0.44
217	PDES	0.03	1	3	2	0	0	0	1.95	0.49
218	PGAS	0.33	1	5	44	1	1	0	2.40	0.52
219	PGLI	0.18	1	3	28	0	0	0	2.71	0.18

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
220	PJAA	0.18	0	3	48	0	0	0	2.40	0.44
221	PKPK	0.08	0	3	3	0	0	0	2.08	0.52
222	PLAS	0.2	1	3	3	0	0	0	2.64	0.35
223	PLIN	0.18	1	3	48	0	1	0	3.14	0.48
224	PNSE	0.38	0	3	9	0	0	0	3.22	0.33
225	POOL	0.23	1	3	6	0	1	0	3.18	0.14
226	PRAS	0.2	0	3	4	0	0	0	3.22	0.47
227	PSKT	0.2	1	3	3	0	0	0	2.94	0.58
228	PTBA	0.48	0	4	59	1	1	0	0.00	0.41
229	PTPP	0.4	0	4	27	0	0	0	1.61	0.84
230	PTRO	0.13	1	3	4	1	1	1	3.22	0.59
231	PTSP	0.03	0	3	12	0	0	1	3,04	0,45
232	PUDP	0,35	1	3	4	0	0	0	3.00	0.28
233	PWON	0.23	0	3	5	0	1	0	3.22	0.51
234	RAJA	0.2	1	3	4	1	0	0	2.20	0.52
235	RALS	0.2	1	4	4	0	1	0	2.89	0.26
236	RANC	0.3	1	3	3	0	0	0	1.10	0.48
237	RBMS	0.13	0	3	24	0	0	0	2.83	0.15
238	RICY	0.2	1	3	4	0	0	0	2.83	0.66
239	RMBA	0.1	1	3	4	0	1	0	3.22	1.14
240	RODA	0.3	1	3	4	0	0	0	2.56	0.31
241	ROTI	0.23	1	4	4	0	1	1	1.61	0.55
242	RUIS	0.23	1	3	12	0	0	0	2.20	0.75
243	SAFE	0.25	1	3	3	0	0	0	3.00	7.69
244	SCMA	0.23	1	3	12	0	1	0	2.48	0.26
245	SDMU	0.08	0	3	10	0	0	0	1.39	0.48
246	SDPC	0.1	1	4	4	1	0	0	3.22	0.77
247	SGRO	0.3	1	3	4	1	1	0	2.08	0.45
248	SIAP	0.08	0	3	1	0	0	0	1.79	0.04
249	SILO	0.33	1	3	4	0	0	0	0.00	0.42
250	SIMP	0.35	1	3	9	0	1	1	1.39	0.46
251	SIPD	0.2	1	3	4	0	0	0	2.89	0.54
252	SKBM	0.18	1	3	4	0	0	0	0.69	0.51
253	SKLT	0.1	1	3	4	0	0	0	3.43	0.54
254	SKYB	0.2	1	3	5	0	0	1	1.61	0.6
255	SMAR	0.33	1	3	11	0	0	0	3.09	0.63
256	SMBR	0.38	0	3	4	0	0	0	0.69	0.07
257	SMCB	0.05	1	3	5	0	1	1	2.83	0.49
258	SMDM	0.23	0	3	4	0	0	1	2.94	0.3
259	SMDR	0.15	0	3	8	0	1	0	2.71	0.53
260	SMGR	0.43	0	5	12	1	1	0	3.18	0.27
261	SMMT	0.18	1	3	4	0	1	1	2.48	0.37
262	SMRA	0.25	1	3	4	0	1	0	3.22	0.61
263	SMRU	0.1	1	3	2	0	0	0	1.10	0.5

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
264	SMSM	0.2	0	3	4	0	1	0	2.89	0.34
265	SONA	0.25	1	3	4	0	0	0	3.14	0.4
266	SPMA	0.2	0	3	5	0	0	0	3.00	0.62
267	SRIL	0.08	1	3	3	0	0	0	0.69	0.67
268	SRSN	0.13	0	4	6	0	0	0	3.09	0.29
269	SRTG	0.35	1	3	11	0	1	0	0.69	0.29
270	SSIA	0.2	1	3	8	0	0	0	2.89	0.49
271	STAR	0.05	1	3	5	0	0	0	1.39	0.37
272	SUGI	0.2	1	3	4	0	0	1	2.56	0.45
273	SULI	0.2	1	3	12	0	1	0	3.04	1.41
274	TALF	0.23	0	3	4	0	0	0	0.00	0.24
275	TAXI	0.08	1	3	4	0	0	0	0.69	0.7
276	TBIG	0.23	0	3	5	0	0	0	1.39	0.81
277	TBMS	0.15	0	3	4	0	1	1	3.04	0.89
278	TCID	0.2	1	4	14	0	1	1	3.04	0.31
279	TELE	0.2	1	3	4	0	0	0	1.10	0.5
280	TFCO	0.1	0	3	4	0	1	1	3.56	0.15
281	TGKA	0.28	1	3	4	0	1	0	3.22	0.7
282	TINS	0.4	0	4	3	1	1	0	2.94	0.42
283	TIRA	0.05	1	3	5	0	0	0	3.04	0.61
284	TKIM	0.2	0	3	9	0	0	0	3.22	0.66
285	TLKM	0.63	0	6	38	1	1	0	2.94	0.39
286	TMAS	0.15	0	3	12	0	1	0	2.48	0.67
287	TOBA	0.2	1	3	9	0	1	0	1.10	0.53
288	TOTL	0.3	1	3	10	0	0	0	2.08	0.68
289	TOTO	0.18	1	3	12	1	1	1	3.18	0.39
290	TOWR	0.35	1	3	4	0	1	0	1.61	0.73
291	TPIA	0.3	1	3	12	0	1	0	1.95	0.55
292	TPMA	0.05	0	3	4	0	0	0	0.69	0.54
293	TRAM	0.28	1	3	4	0	0	0	1.79	0.63
294	TRIO	0.28	1	3	6	0	1	0	1.79	0.74
295	TRIS	0.33	1	3	9	0	0	0	1.10	0.41
296	TRST	0.15	0	3	4	0	1	0	3.22	0.46
297	TURI	0.2	1	4	4	0	1	0	3.00	0.46
298	ULTJ	0.25	1	3	3	0	0	0	3.22	0.22
299	UNIC	0.15	0	3	6	0	1	1	3.22	0.39
300	UNSP	0.4	1	3	4	1	0	0	3.22	0.76
301	UNTR	0.28	0	3	4	0	1	0	3.22	0.36
302	UNVR	0.18	1	3	4	0	1	1	3.50	0.68
303	VIVA	0.13	1	3	2	1	0	0	1.10	0.57
304	VOKS	0.13	0	3	6	0	1	1	3.18	0.67
305	WAPO	0.23	1	3	4	0	0	0	2.64	0.86
306	WEHA	0.3	1	3	2	0	0	0	2.08	0.66
307	WIKA	0.15	1	6	18	0	0	0	2.30	0.69

No	Code	Variables								
		CRD	EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV
308	WINS	0.18	0	3	11	0	0	0	1.39	0.47
309	WSKT	0.2	1	4	22	1	0	0	0.69	0.77
310	WTON	0.23	0	4	4	0	0	0	0.00	0.41
311	YPAS	0.2	0	3	4	0	0	0	1.95	0.49
312	ZBRA	0.05	0	3	3	0	0	0	3.14	0.38

Table A3. Big four accounting firms and affiliations in Indonesia

No	Big Four Accounting Firms	Affiliation in Indonesia
1	Deloitte Touche	KAP Osman Bing Satrio & Eny
2	PricewaterhouseCoopers (PWC)	KAP Tanudiredja, Wibisana, Rintis & Rekan
3	Ernst & Young (EY)	KAP Purwantono, Suherman & Surja
4	Klynveld Peat Marwick Goerdeler (KPMG)	KAP Sidharta &Widjaja

Table A4. Descriptive statistics (source: authors' calculations)

	N	Minimum	Maximum	Mean	Std. Deviation
CRD	312	.03	.90	.2225	.11593
SAC	312	2.00	6.00	3.1154	.46707
MAC	312	1.00	59.00	7.1346	7.07887
AGE	312	1.00	35.00	13.7147	8.97829
LEV	312	.02	7.69	.5406	.53590
Valid N (listwise)	312				

Table A4. Statistics of educational background (source: authors' calculations)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Otherwise	97	31.1	31.1	31.1
	Bisiness/Finance	215	68.9	68.9	100.0
	Total	312	100.0	100.0	

Table A5. Statistics of the existence of risk monitoring committee (source: authors' calculations)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	265	84.9	84.9	84.9
	Yes	47	15.1	15.1	100.0
	Total	312	100.0	100.0	

Table A6. Statistics of external auditor quality (source: authors' calculations)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Big Four	184	59.0	59.0	59.0
	Big Four	128	41.0	41.0	100.0
	Total	312	100.0	100.0	

Table A7. Statistics of firm status (source: authors' calculations)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Otherwise	253	81.1	81.1	81.1
	Foreign ownership	59	18.9	18.9	100.0
	Total	312	100.0	100.0	

Table A8. Normality tests of residuals (source: authors' calculations)

		Unstandardized Residual
N		312
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.10205451
Most Extreme Differences	Absolute	.042
	Positive	.042
	Negative	−.028
Test Statistic		.042
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction		
d. This is a lower bound of the true significance		

Table A9. Collinearity Diagnostics (source: authors' calculations)

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	EDU	.973	1.028
	SAC	.819	1.221
	MAC	.880	1.136
	RMC	.847	1.181
	AUD	.874	1.144
	STS	.918	1.089
	AGE	.948	1.055
	LEV	.982	1.019

Dependent Variable: CRD

Table A10. Heteroscedasticity tests (source: authors' calculations)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	−6.980	.991		−7,044	.000
	EDU	.138	.288	.027	.478	.633
	SAC	.450	.311	.090	1.446	.149
	MAC	−.008	.020	−.024	−.393	.695
	RMC	.533	.399	.082	1.335	.183
	AUD	.253	.286	.053	.886	.377
	STS	−.572	.350	−.096	−1.633	.103
	AGE	−.222	.143	−.089	−1.546	.123
	LEV	−.076	.248	−.017	−.305	.760

Table A11. Summary of tests (source: authors' calculations)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474[a]	.225	.205	.10339
Predictors: (Constant), LEV, MAC, AGE, EDU, AUD, STS, RMC, SAC				

Table A12. Hypotheses testing (source: authors' calculations)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.137	.044		3.107	.002
	EDU	.000	.013	.001	.023	.981
	SAC	.031	.014	.126	2.246	.025
	MAC	.001	.001	.035	.652	.515
	RMC	.100	.018	.310	5.640	.000
	AUD	.033	.013	.139	2.568	.011
	STS	−.025	.016	−.085	−1.619	.107
	AGE	−.020	.006	−.165	−3.182	.002
	LEV	.012	.011	.056	1.100	.272
Dependent Variable: CRD						

Table A12. Correlations matrix (source: authors' calculations)

		EDU	SAC	MAC	RMC	AUD	STS	AGE	LEV	CRD
EDU	Pearson Correlation	1	.001	.249**	.170**	.393**	.211**	−.100	−.152**	.057
	Sig. (2-tailed)		.990	.000	.003	.000	.000	.079	.007	.316
	N	312	312	312	312	312	312	312	312	312
SAC	Pearson Correlation	.001	1	−.027	−.025	−.008	.110	.094	.030	.069
	Sig. (2-tailed)	.990		.637	.655	.895	.053	.096	.603	.227
	N	312	312	312	312	312	312	312	312	312
MAC	Pearson Correlation	.249**	−.027	1	.302**	.319**	.227**	.038	.080	−.017
	Sig. (2-tailed)	.000	.637		.000	.000	.000	.498	.157	.760
	N	312	312	312	312	312	312	312	312	312
RMC	Pearson Correlation	.170**	−.025	.302**	1	.242**	.124*	−.046	−.008	−.013
	Sig. (2-tailed)	.003	.655	.000		.000	.028	.416	.891	.825
	N	312	312	312	312	312	312	312	312	312
AUD	Pearson Correlation	.393**	−.008	.319**	.242**	1	.232**	−.020	.008	.030
	Sig. (2-tailed)	.000	.895	.000	.000		.000	.721	.887	.600
	N	312	312	312	312	312	312	312	312	312
STS	Pearson Correlation	.211**	.110	.227**	.124*	.232**	1	.180**	.101	−.019
	Sig. (2-tailed)	.000	.053	.000	.028	.000		.001	.074	.744
	N	312	312	312	312	312	312	312	312	312
AGE	Pearson Correlation	−.100	.094	.038	−.046	−.020	.180**	1	.194**	−.072
	Sig. (2-tailed)	.079	.096	.498	.416	.721	.001		.001	.206
	N	312	312	312	312	312	312	312	312	312
LEV	Pearson Correlation	−.152**	.030	.080	−.008	.008	.101	.194**	1	.057
	Sig. (2-tailed)	.007	.603	.157	.891	.887	.074	.001		.317
	N	312	312	312	312	312	312	312	312	312
CRD	Pearson Correlation	.057	.069	−.017	−.013	.030	−.019	−.072	.057	1
	Sig. (2-tailed)	.316	.227	.760	.825	.600	.744	.206	.317	
	N	312	312	312	312	312	312	312	312	312
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										