



**THE EFFECT OF INTELLECTUAL CAPITAL,  
CORPORATE SOCIAL RESPONSIBILITY  
DISCLOSURE, AND GOOD CORPORATE  
GOVERNANCE ON THE VALUE OF  
MINING COMPANIES LISTED IN INDONESIA  
STOCK EXCHANGE**

PENGARUH MODAL INTELEKTUAL, PENGUNGKAPAN TANGGUNG  
JAWAB SOSIAL PERUSAHAAN, DAN GOOD CORPORATE  
GOVERNANCE PADA NILAI PERUSAHAAN PERTAMBANGAN YANG  
TERDAFTAR DI BURSA EFEK INDONESIA

**THESIS**

By:

Nadia Azalia Putri

120810201220

**UNIVERSITY OF JEMBER  
FACULTY OF ECONOMICS  
2016**



**THE EFFECT OF INTELLECTUAL CAPITAL, CORPORATE  
SOCIAL RESPONSIBILITY DISCLOSURE, AND GOOD  
CORPORATE GOVERNANCE ON THE VALUE OF MINING  
COMPANIES LISTED IN INDONESIA STOCK EXCHANGE**

PENGARUH MODAL INTELEKTUAL, PENGUNGKAPAN TANGGUNG  
JAWAB SOSIAL PERUSAHAAN, DAN GOOD CORPORATE  
GOVERNANCE PADA NILAI PERUSAHAAN PERTAMBANGAN YANG  
TERDAFTAR DI BURSA EFEK INDONESIA

**THESIS**

A Thesis submitted in Partial Fulfillment of the Requirement for the Award  
of Bachelor of Economics (Management)

By:

Nadia Azalia Putri  
120810201220

**UNIVERSITY OF JEMBER  
FACULTY OF ECONOMICS  
2016**

MINISTRY OF RESEARCH, TECHNOLOGY, HIGHER EDUCATION  
UNIVERSITY OF JEMBER-FACULTY OF ECONOMICS

**STATEMENT OF THESIS AUTHENTICITY**

Name :Nadia Azalia Putri  
Identification Number:120810201220  
Department :Management  
Concentration :Financial Management  
Thesis Title :The Effect Of Intellectual Capital, Corporate Social Responsibility Disclosure, And Good Corporate Governance On The Value Of Mining Companies Listed In Indonesia Stock Exchange

Certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text. I am aware of the potential consequences of any breach of the procedures and guidelines, e.g. cancellation of my academic award.

Jember, March 2016

Nadia Azalia Putri  
NIM. 120810201220

**SUPERVISOR'S APPROVAL**

Thesis Title :The Effect Of Intellectual Capital, Corporate Social Responsibility Disclosure, and Good Corporate Governance on The Value Of Mining Companies Listed In Indonesia Stock Exchange  
Name :Nadia Azalia Putri  
Identification Number:120810201220  
Faculty :Economics  
Department :Management  
Concentration :Financial Management  
Approval date :31<sup>st</sup> March 2016

Supervisor II

Supervisor I

Prof. Tatang AG., M.Buss.,Acc.,Ph.D.  
NIP. 19661125 199103 1 002

Prof. Dr. Istifadah, SE, MSi.  
NIP. 19661020 199002 2 001

Approved by,  
Head of Bachelor of Management Program

Dr. Ika Barokah S, S.E, M.M  
NIP. 19780525 2003122002

**APPROVAL OF THE EXAMINATION COMMITTEE**

THE EFFECT OF INTELLECTUAL CAPITAL, CORPORATE SOCIAL  
RESPONSIBILITY DISCLOSURE, AND GOOD CORPORATE  
GOVERNANCE ON THE VALUE OF MINING COMPANIES LISTED IN  
INDONESIA STOCK EXCHANGE

This thesis is prepared and compiled by:

**Name** : **Nadia Azalia Putri**  
**Identification Number** : **120810201220**  
**Department** : **Management**

It has been defended before the Examination Committee on the date:

And declared to fulfill all complete requirements to be accepted as graduate  
at the Faculty of Economics, University of Jember

**EXAMINERS:**

**The Chairperson** : **Drs. Marmono Singgih, M.Si** : (.....)  
**NIP. 19660904 199002 1 001**

**The Secretary** : **Drs. Sudaryanto, MBA., Ph.D** : (.....)  
**NIP. 19660408 199103 1 001**

**The Member** : **Dr. Purnamie Titisari SE., M.Si**: (.....)  
**NIP. 19750106 200003 2 001**



Approved by,  
Dean of Faculty of Economics  
University of Jember

**Dr. Moehammad Fathorrazi, S.E M.Si**  
**NIP. 19630614 199002 1 001**

## DEDICATION

This thesis is gratefully dedicated to:

1. The sake of Allah, my Creator and my Master
2. My great teacher and messenger, Muhammad SAW, who taught us the purpose of life.
3. My incredible family, Lilik Farida, Hari Murti, Ahsin Kusuma, Tuty Sumiati, and Bramantya Anggara who never stop giving of themselves in countless and coloring the deserted home.
4. My supervisors, Prof. Dr. Isti Fadah, M.Si.and Prof. Tatang Ary Gumanti, M. Buss. Acc.,Ph.D. and all of my tireless teachers from kindergarten till university for the direction, boost, and support.
5. The glaze on my donut, Bimantara Mahardhika.
6. My dearest insane pals in Bilingual Class batch 4 and LPME ECPOSE
7. My alma mater: Faculty of Economics, University of Jember.

**MOTTO**

“Go forth, whether light or heavy, and strive with your wealth and your lives in the cause of Allah. That is better for you, if you only knew.”

**(QS. At-Taubah: 41)**

“You are not here just to fill space or to be a background character in someone else’s movie. Consider this : nothing would be the same if you didn’t exist. Every place you have ever been and everyone you have ever spoken to would be different without you”

**(Anonim)**

“Don’t waste your time, or time will waste you”

**(Muse-Knight of Cydonia)**



## SUMMARY

**The Effect Of Intellectual Capital, Corporate Social Responsibility Disclosure, and Good Corporate Governance on The Value Of Mining Companies Listed In Indonesia Stock Exchange;** Nadia Azalia Putri; 120810201220; 2016; 65 pages; Management Department Faculty of Economics University of Jember

A company will always attempt to reach its goal by increasing its efficiency and effectiveness. One of the ways to achieve the goal is by improving Intellectual Capital (IC), Corporate Social Responsibility (CSR) and Good Corporate Governance (GCG). Intellectual capital is intellectual material that has been formalized, captured, and leveraged to produce higher valued asset. CSR is social involvement, responsiveness, and accountability of companies apart from their core profit activities. Whereas GCG is a healthy corporate principles to be applied in the management of the company that carried out solely in order to maintain the company's interests in order to achieve the aims and objectives of the company. This study was conducted with the aim of finding empirical evidence about the effect of Intellectual Capital, Corporate Social Responsibility, and Good Corporate Governance on the value of company using multiple linear regression.

Intellectual capital was proxied using three components of VAIC<sup>TM</sup>, those are Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). CSR disclosure is proxied using CSR index from Global reporting Index. Good Corporate Governance is proxied using independent commissioner, managerial ownership, audit committee, institutional ownership. Company value is proxied using Tobin's Q. This study used secondary data. The population consisted of mining companies listed in Indonesia Stock Exchange in the period of 2010-2014. The data were collected from annual reports of the companies. The sample consisted of 15 mining companies selected using purposive sampling. The hypotheses were tested using t-test.

The result showed that VACA, VAHU, and INSO positively and significantly affect company value. STVA and independent commissioner have positive but insignificant effect on company value. Audit committee and managerial ownership have negative and insignificant effect on company value.



## FOREWORD

First and foremost, I would like to express my greatest gratitude to Allah SWT, for all his gift so I can finish my thesis entitled “The Effect Of Intellectual Capital, Corporate Social Responsibility Disclosure, And Good Corporate Governance On The Value Of Mining Companies Listed In Indonesia Stock Exchange”.

I would like to express my deepest appreciation and sincerest thanks to the following people:

1. My first consultant, Prof. Dr. Istifadah, SE, MSi and my second consultant, Prof. Tatang AG., M.Buss., Acc., Ph.D for the guidance and valuable suggestions that helped me compile and finish my thesis.
2. The lecturers who have taught and given me a lot of knowledge.
3. My big family, my classmates, and all of LPME Ecpose members for their support.
4. Bimantara, for the laugh and sincere care.

Finally, I hope this thesis will provide some advantages to the readers. Any criticism, suggestions, and input will be appreciated to make this thesis better.

Jember, March 2016

Writer

**TABLE OF CONTENTS**

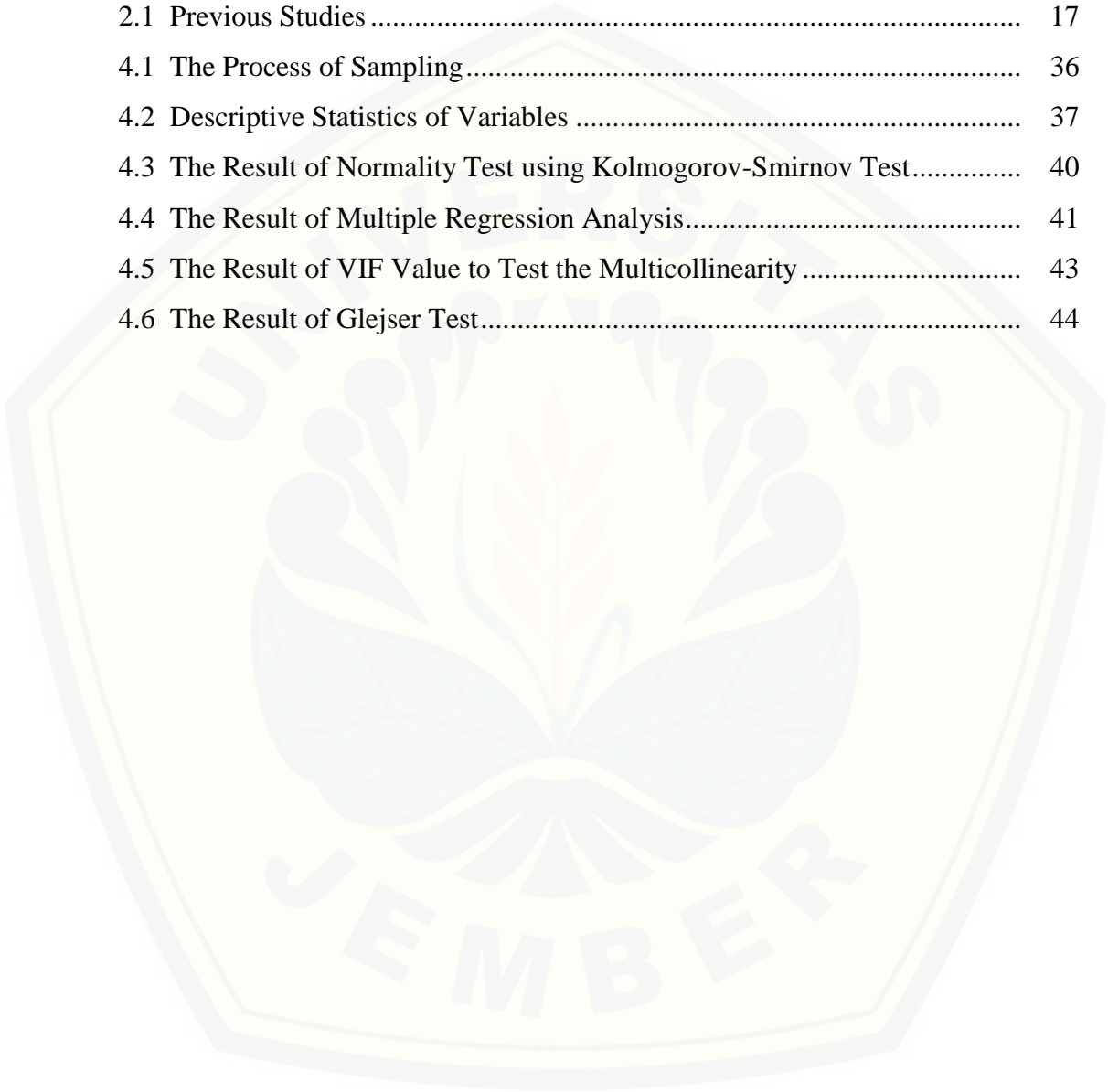
	Page
<b>COVER .....</b>	i
<b>STATEMENT OF THESIS AUTHENTICITY .....</b>	ii
<b>SUPERVISOR’S APPROVAL .....</b>	iii
<b>APPROVAL OF THE EXAMINATION COMMITTEE .....</b>	iv
<b>DEDICATION.....</b>	v
<b>MOTTO.....</b>	vi
<b>SUMMARY.....</b>	vii
<b>FOREWORD .....</b>	viii
<b>TABLE OF CONTENTS.....</b>	ix
<b>TABLE OF TABLES .....</b>	x
<b>TABLE OF FIGURES .....</b>	xi
<b>TABLE OF APPENDIX .....</b>	xii
<b>CH 1. PREFACE .....</b>	xiii
<b>1.1 Research Background.....</b>	1
<b>1.2 Problem Formulation .....</b>	1
<b>1.3 Research Goals .....</b>	5
<b>CH 2. LITERATURE REVIEW .....</b>	8
<b>2.1. Theoretical Review .....</b>	8
2.1.1 Intellectual Capital .....	8
2.1.2 Value Added Intellectual Coefficient (VAIC™).....	9
2.1.3 Corporate Social Responsibility .....	11
2.1.4 Corporate Social Responsibility Disclosure .....	12
2.1.5 Good Corporate Governance .....	12
2.1.6 Company’s Value .....	14
<b>2.2 Previous Studies .....</b>	15
<b>2.3 Conceptual Framework.....</b>	18

<b>2.4 Hypotheses Development</b> .....	19
<b>CH 3. RESEARCH METHOD</b> .....	23
<b>3.1. Research Design</b> .....	23
<b>3.2 Population and Sample</b> .....	23
<b>3.3 Types and Sources of Data</b> .....	23
<b>3.4 Operational Definition and Variable Measurement</b> .....	24
3.4.1 Identification of Variables .....	24
3.4.2 Operational Definition and Variable Measurement Scale..	24
<b>3.5 Method of Analysis</b> .....	26
3.5.1 The Measurement of Company’s Value.....	
3.5.2 The Measurement of Value Added Capital Employed (VACA) .....	26
3.5.3 The Measurement of Value Added Human Capital (VAHU) .....	27
3.5.4 The Measurement of Structural Capital Value Added (STVA) .....	27
3.5.5 The Measurement of Corporate Social Responsibility.....	28
3.5.6 The Measurement of Institutional Ownership .....	28
3.5.7 The Measurement of Independent Commissioner.....	28
3.5.8 The Measurement of Audit Committee.....	28
3.5.9 The Measurement of Managerial Ownership .....	28
3.5.10 Normality Test.....	28
3.5.11 Multiple Regression Analysis.....	29
3.5.12 Classical Assumption Test .....	30
3.5.13 Hypothesis Testing .....	32
<b>3.6 Problem Solving Framework</b> .....	33
<b>CH 4. RESULT AND DISCUSSION</b> .....	36
<b>4.1. General Description of Research Object</b> .....	36
<b>4.2 Data Analysis</b> .....	36
4.2.1 Descriptive Statistics Result .....	36
4.2.2 Normality Test of Data.....	39

4.2.3 Multiple Regression Analysis.....	41
4.2.4 Classical Assumption Test .....	42
4.2.5 Hypotheses Test (t-test).....	45
<b>4.3 Discussion .....</b>	<b>46</b>
4.3.1 The Effect of Value Added Capital Employed (VACA) on Company's Value .....	46
4.3.2 The Effect of Value Added Human Capital (VAHU) on Company's value .....	47
4.3.3 The Effect of Structural Capital Value Added on Company's value .....	48
4.3.4 The Effect of Corporate Social Responsibility (CSR) on Company's value .....	49
4.3.5 The Effect of Independent Commisioner on Company's value .....	51
4.3.6 The Effect of Managerial Ownership on Company's value .....	52
4.3.7 The Effect of Audit Committee on Company's value.....	54
4.3.8 The Effect of Institutional Ownership on Company's value .....	55
<b>4.4 Limitations .....</b>	<b>55</b>
<b>CH 5. CONCLUSION AND SUGGESTION.....</b>	<b>57</b>
<b>5.1. Conclusion .....</b>	<b>57</b>
<b>5.2 Suggestion.....</b>	<b>58</b>
<b>REFERENCES .....</b>	<b>59</b>
<b>APPENDIX .....</b>	<b>65</b>

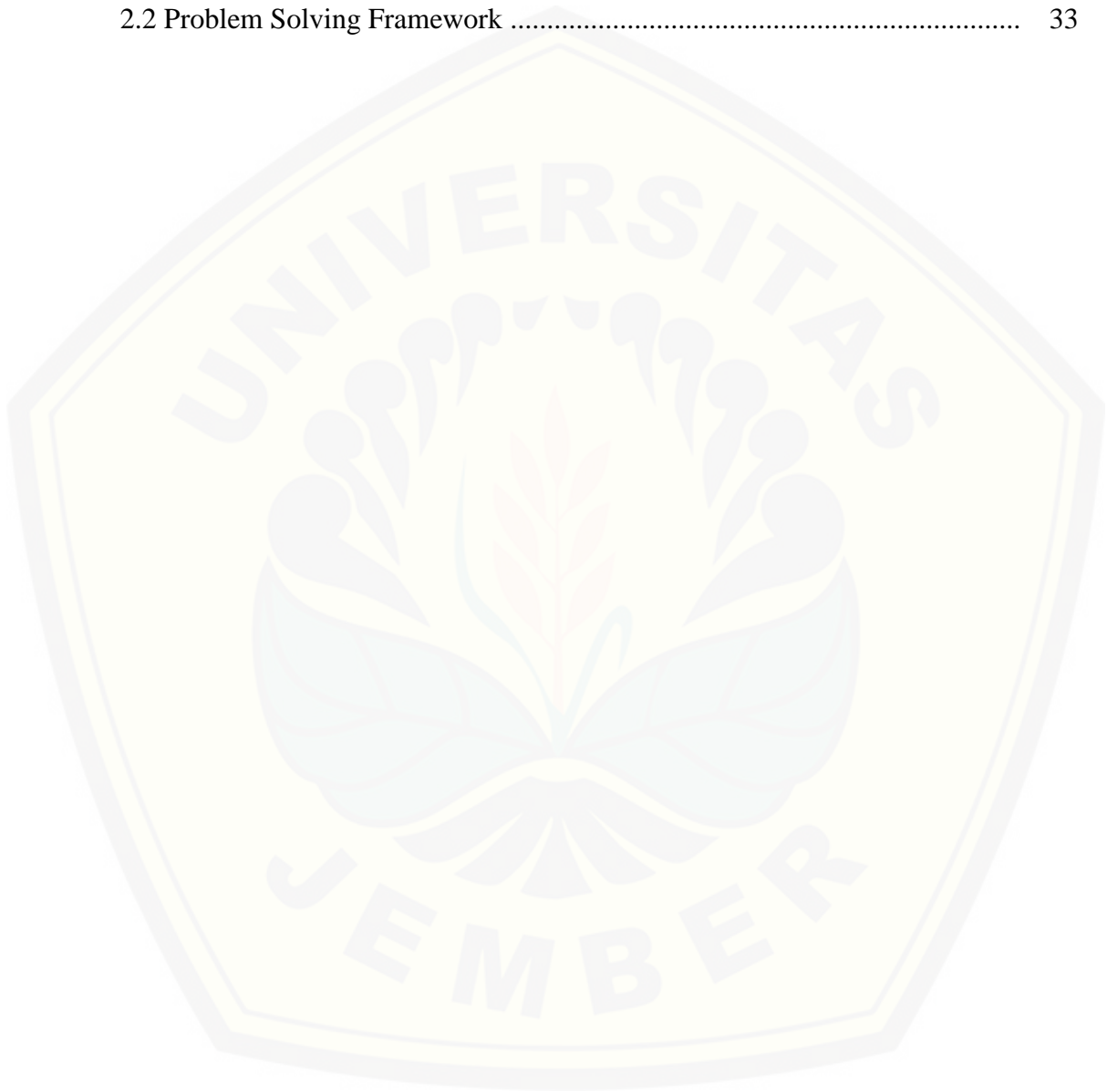
**TABLE OF TABLES**

	Page
2.1 Previous Studies .....	17
4.1 The Process of Sampling .....	36
4.2 Descriptive Statistics of Variables .....	37
4.3 The Result of Normality Test using Kolmogorov-Smirnov Test.....	40
4.4 The Result of Multiple Regression Analysis.....	41
4.5 The Result of VIF Value to Test the Multicollinearity .....	43
4.6 The Result of Glejser Test.....	44



**TABLE OF FIGURES**

	Page
2.1 Conceptual Framework .....	19
2.2 Problem Solving Framework .....	33





**TABLE OF APPENDIX**

1	Companies Selected as Research Sample .....
2	Indicator of Environmental Performance based on Global Reporting Initiative (GRI).....
3	Calculation Result of Variables .....
4	Descriptive Statistics of Variables .....
5	Result of Normality Test of Data .....
6	Result of Multiple Linear Regression Analysis .....
7	Result of Normality Test of Model .....
8	Result of Multicollinearity Test.....
9	Result of Heteroscedasticity test.....
10	Result of Autocorrelation Test .....
11	Result of Correlation Test.....

## CHAPTER I. PREFACE

### 1.1 Research Background

One of the main objectives of a company is to maximize its value. The value of the company itself is the price that potential buyer is willing to buy. The higher the value of company, the greater the prosperity of company owner from the proceeds (Husnan and Pudjiastuti, 2012:7). Company's value is the center of corporate finance, however, calculating value of a company is not easy. First, different companies should be valued differently (for example, public company vs. private company). Second, company's value depends on the aim of the valuation as well (one company can have several values, depending on the method). In the past, the company is evaluated through performance evaluation and firm tangible assets evaluation; today, type of assets named intangible assets is proposed to be used more for evaluating firms, generally these intangible assets call intellectual capital (Pouraghajan, et al, 2013).

Intellectual capital (IC) has strategic and crucial role within the company, because one of the efforts in achieving the company's goal is to increase its intellectual capital (Chen et al, 2010). Klein and Prusak (1996:12) defined intellectual capital as intellectual material that has been formalized, captured, and leveraged to produce a higher valued asset. Pulic (2000) described that intellectual capital consists of human capital and structural capital and it needs capital employed to achieve the value creation. Pulic (2000) also proposed the method to measure intellectual capital in a company using VAIC<sup>TM</sup> (Value Added Intellectual Capital Coefficient). This method uses an indirect approach to measure intellectual capital by measuring the efficiency of value added as result of the company's intellectual abilities. The main components of VAIC consist of the company's resources, those are physical capital (VACA- value added capital employed), human capital (VAHU-value added human capital), and structural capital (STVA-structural capital value added). According to Apriliani (2014), the implementation of intellectual capital is a new thing not only in Indonesia but also

in the global business environment. Only a few developed countries that have begun implementing this concept, such as America, England, Australia and Denmark.

In addition to the application of intellectual capital-based business for profit maximization, companies are also required to keep paying attention to the role of stakeholders, so the company should be able to develop Corporate Social Responsibility (CSR) program. Corporate sustainability will only be assured if the company cares about the social and environmental dimensions as well. It is a fact how local community resistance, in different places and time, comes to companies that are considered not pay attention to social, economic and environmental life aspects (Octavia, 2014).

According to Nurlela and Islahuddin (2008), CSR is conceptually developed since the 1980s triggered by at least 5 of the following: (1) the rise of "take over" phenomenon between corporations triggered by financial engineering skills, (2) the fall of Berlin Wall which is a symbol of the collapse of communism and the raise of capitalism, (3) the spread of multinational corporations operating in developing countries, resulting protest in order to pay attention to: human rights, social conditions and fair treatment of workers, (4) globalization and the shrinking role of public sector (government) almost all over the world have led to the growth of non-governmental organization (including professional associations) started from the issue of poverty until the concerns about the extinction of various species so that the ecosystem is getting unstable, (5) the company's awareness of the importance of brands and the company's reputation in bringing the company into a sustainable business.

The implementation of Good Corporate Governance (GCG) in a company is also required to maintain public trust. Based on Corporate Governance Perception Index (CGPI), GCG can be assessed through institutional ownership, independent commissioner, audit committee, and managerial ownership. GCG can be seen from the main purpose of a company not only through firm value but also how company achieves a predetermined profit target (Wahyuni et al, 2015). Through the profits, the company will be able to give dividends to shareholders,

enhance the company's growth, and maintain the viability of the company. Unfortunately, according to the survey conducted by McKinsey and Company and the Political and Economic Risk Consultancy (PERC) in 2010 showed that Indonesia occupied the lowest position in the implementation of Good Corporate Governance in Southeast Asia. This indicates a very unfavorable position for Indonesia. According to PERC, poor corporate governance threatens the entry of foreign investors to Indonesia (Sutedi, 2011:55).

This research is conducted on mining companies listed in Indonesia Stock Exchange period 2010-2014. According to Malinda (2015), mining companies in Indonesia have become one of the strategic industries that play significant role in national economic development. Based on data from Indonesia Mining Association in 2014, Indonesia was the sixth biggest country that is rich in mineral resources, ranging from coal, oil and gas, gold, tin, etc. However, the uncertainty of global economic conditions has caused some strategic sectors of national economy decreased, one of which is mining sector. Since the early of 2011 until now, the performance of mining companies continues to weaken up to 48% (CNN Indonesia, August 5<sup>th</sup>, 2015). According to BPS data, the declining productivity of mining companies in 1<sup>st</sup> quarter 2015 amounted to -1.23% and in 2<sup>nd</sup> quarter reached -5.87%. The weakening was due to the price of goods, especially coal mines which still continue to decline, then it caused many companies out of business.

Based on Global Industry Classification Standard (GICS) in Woodcock and Whiting (2009), mining sector is included in Low-Intellectual Capital Intensive Industries. So if there's significant effect of intellectual capital on the value of mining companies, it means that mining companies in Indonesia should encourage their intellectual capital, such as innovation and differentiation in their product. Additionally, mining activities in Indonesia are always related with environmental issues and health issues. Massive exploitation of natural resources are ecologically very alarming because of impacts that threaten the preservation of the environment and impede implementation of sustainable eco-development. In addition, the mining process is also bad for people health around mining

companies. Social responsibility of mining companies is certainly very necessary for the continuation of its business and to maximize the company's value in the eyes of investors. GCG is also necessary to improve the financial performance and enhance the company's value in the investor's perspective.

## 1.2 Problem Formulation

During its development, the company always tries to maintain their business advantage to increase its value, likewise mining companies in Indonesia. Potential mineral resources that is not supported by a good investment climate makes make mining company managers should look for strategies to increase the company's value. All this time, mining companies are still classified in the low-intellectual capital company, while companies in other sectors have been competing in implementing intellectual capital with the application of knowledge management (Setiawan, 2015). In fact, by increasing its intellectual capital, a company can increase its value (Chen et al, 2010). Pulic (2000) proposed the indirect method to measure intellectual capital in a company using VAIC<sup>TM</sup> (Value Added Intellectual Capital Coefficient). The main components of VAIC consist of the company's resources, those are physical capital (VACA - value added capital employed), human capital (VAHU-value added human capital), and structural capital (STVA-structural capital value added). Ming-Chin, Shu-ju, and Yuhchang (2010) examined the effect of VACA, VAHU, and STVA to the market value which is proxied using Market to Book Value (MtBV). The result showed that the VACA, VAHU, and STVA have positive impact on firm value (MtBV).

Mining companies are also closely related to environmental destruction issue because its business activities contact directly with the utilization of natural resources. In the era where people start concerning the environment, CSR is mandatory thing and not merely voluntary choice for companies. Logically, a company that discloses CSR in their financial statements will indicate that it cares about the environment and can enhance the company's stock price (Laras and Basuki, 2012). The result of previous studies on the relationship between CSR and corporate value shows mixed results. Priyatna and Imam (2012) found



that CSR disclosure positively affect firm value. In other side, Nurlela and Islahuddin (2008) found no effect of CSR on company's value . So does the research's result of Yosefa and Wondabio (2007) which states CSR negatively affects the company's value.

In addition to intellectual capital and CSR, there is one factor that also affect company's value, that is the implementation of GCG. According to FCGI (2001), GCG implementation in a company can be identified by knowing the percentage of institutional ownership, independent commissioner, managerial ownership, and the existence of audit committee. Those four aspects are considered capable to reduce agency problems within a company and increases the company's value (Bhojraj and Sengupta, 2003).

According to those empirical studies, the main problems to be discussed in this research is whether the variable of VACA, VAHU, STVA, CSR, institutional ownership, independent commissioner, audit committee, and managerial ownership affect the value of mining company listed in IDX period 2010-2014.

Based on the background that has been described, the problems formulation of this research are as follows:

1. Does Value Added Capital Employed (VACA) positively affect the value of mining company?
2. Does Value Added Human Capital (VAHU) positively affect the value of mining company?
3. Does Structural Capital Value Added (STVA) positively affect the value of mining company?
4. Does Corporate Social Responsibility (CSR) Disclosure positively affect the value of mining company?
5. Does institutional ownership positively affect the value of mining company?
6. Does independent commissioner positively affect the value of mining company?
7. Does audit committee positively affect the value of mining company?
8. Does managerial ownership positively affect the value of mining company?



## 1.3 Research Goals

Based on the problem formulation above, the goals of this research are:

1. To analyze the effect of Value Added Capital Employed (VACA) on the value of mining company
2. To analyze the effect of Value Added Human Capital (VAHU) on the value of mining company
3. To analyze the effect of Structural Capital Value Added (STVA) on the value of mining company
4. To analyze the effect of Corporate Social Responsibility (CSR) Disclosure on the value of mining company
5. To analyze the effect of institutional ownership on the value of mining company
6. To analyze the effect of independent commissioner on the value of mining company
7. To analyze the effect of audit committee on the value of mining company
8. To analyze the effect of managerial ownership on the value of mining company

## 1.4 Research Benefits

This research is expected to provide benefits to some parties, those are academics, for companies, investor, and potential investor.

1. For academics

Result of this study is expected to increase knowledge and insight into the field of financial management especially on how the influence of IC, CSR and GCG on the value of mining company listed on Indonesia Stock Exchange in 2010-2014.

2. For companies

This research is expected to be used as suggestion and consideration of company's decision making to increase the value of firms.

3. For investors and potential investors

This study is expected to give additional information to investors and potential investors before making investment choices of a company by looking at the value of the company.



## CHAPTER 2. LITERATURE REVIEW

### 2.1 Theoretical Review

#### 2.1.1 Intellectual Capital

Intellectual capital is all of firms' intangible assets which highlight itself through difference between market and book value of firms that relied on knowledge and can cause creating value in firm financial potential (Bontis, 2003). Intellectual capital is essentially defined as the knowledge assets that can be converted into value (Edvinsson and Sullivan, 1996). Stewart (1997) defined intellectual capital as new capital of organization where intellectual resources like knowledge, information and experience are as instrument for creating this capital. Fincham and Roslender (2003) called intellectual capital as hidden assets of firm where recognizing, measuring, and representing it in financial statement are difficult. Kamal et al. (2011) defined intellectual capital as net value added to firm assets.

We can argue from all represented definitions that intellectual capital is the use of knowledge, experience, and intangible asset at production or service which cause creating value for organization. Firm real value can increase with using intellectual capital in organization continuously.

Scientists and theorist of intellectual capital area believe that intellectual capital consists of three parts: (1) capital employed, (2) human capital, (3) structural capital. Capital employed includes all relationships between organization with people and other institutions for its survival. The concept of capital employed is the use of organization knowledge in marketing and relationship with costumer at business (Bontis et al., 2002). The increase of capital employed is possible through growing human and structural capital. Capital employed is the main factor in converting intellectual capital into market value and enhancing organization business performance.

The second is human capital. Bontis et al. (2002) described human capital as the ability of an organization for finding best solution and method from

knowledge and experience of its employers. This knowledge is at employers mind and human capital exit from organization since employers leave it, so human capital isn't owned organization. If knowledge and ability of employers are used effectively, it will cause improvement in efficiency, productivity and innovation in product and service. Human capital is a start of development stages, insight source and innovation source (Stewart, 1997). Human capital leads organizations to rely on knowledge, ability and experience of their employers for improving financial performance. Human capital consists of ability and experience of employers that is useful for organization's success.

The third is structural capital. Structural capital is the supportive infrastructure that enables human capital to function. Structural capital is owned by an organization and remains with an organization even when people leave. It includes patents, commercial signs, data base, organization chart and strategies. An organization that has strong structural capital has supportive culture for its employers that allow new experience, learning and failure experience to them (Bontis et al, 2002).

## 2.1.2 Value Added Intellectual Coefficient (VAIC <sup>TM</sup>)

Value Added Intellectual Coefficient (VAIC <sup>TM</sup>) method was developed by Pulic (2000) which is designed to provide information about the value creation efficiency of tangible assets and intangible assets of the company. VAIC <sup>TM</sup> is an instrument for measuring the performance of intellectual capital in the company. Firer and Williams (2003) in Chen et al (2010) pointed out two advantages of VAIC, which were that VAIC provides an easy-to-calculate, standardized, and consistent basis of measure, enabling effective comparative analysis across firms and countries, and data used in the calculation of VAIC are based on financial statements, which are usually audited by professional public accountants.

Pulic (2000) described that VA is calculated as the difference between the output (OUT) and the input (IN) with the following formula:

$$\mathbf{VA = OUT - IN (2.1)}$$

Description:

VA = Value Added

OUT = Output (total sales and other revenues)

IN = Input (sales cost and other costs except labor cost)

Pulic (2000) also explained that the value added can also be calculated from the accounts of the company as follows:

$$\mathbf{VA = OP + EC + D + A}$$

Description :

VA = Value Added

OP = operating profit

EC = employee costs

D = depreciation

A = amortization

Pulic (2000) explained that the process of value creation is influenced by the efficiency of Capital Employed (CE), Human Capital (HC), and Structural Capital (SC). Value Added Capital Employed (VACA) is measured using the following formula:

$$\mathbf{VACA = VA / CE (2.2)}$$

Description :

VACA = Value Added Capital Employed

VA = Value Added

CE = Capital Employed (funding available: net assets)

Value Added Human Capital (VAHU) is measured using the following formula:

$$\mathbf{VAHU = VA / HC (2.3)}$$

Description :

VAHU = Value Added Human Capital



VA = Value Added

HC = Human Capital (labor expenses)

Structural Capital Value Added (STVA) is measured using the following formula:

$$\text{STVA} = \text{SC} / \text{VA} \quad (2.4)$$

Description :

STVA = Structural Capital Value Added

SC = Structural Capital (VA-HC)

VA = Value Added

Where VAIC is the sum of VACA, VAHU, and STVA.

$$\text{VAIC} = \text{VACA} + \text{VAHU} + \text{STVA} \quad (2.5)$$

### 2.1.3 Corporate Social Responsibility

According to World Business Council for Sustainable Development (WBCSD), Corporate Social Responsibility (CSR) is the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large. Mc Williams and Siegel (2001) stated CSR is conventionally defined as the social involvement, responsiveness, and accountability of companies apart from their core profit activities and beyond the requirements of the law and what is otherwise required by government.

Corporate Social Responsibility (CSR) was first proposed by Howard R. Bowen in 1953. After that, CSR experienced a continuous development of the concept, the original CSR activities oriented on "philanthropy", it is now used as one of the company's strategy to increase corporate image that will also affect the company's financial performance as well as the importance of community development for the application of CSR.

Implementation of CSR is now growing rapidly, including in Indonesia, in response to the business world that see environmental and social aspects as an opportunity to improve competitiveness as well as part of the management of risks to the sustainability of its business activities. CSR substance is company's ability



to adapt to its environment, the community and stakeholders associated with local, national and global. In short, CSR implies that the company has a moral duty to be honest, obey the law, and upholds integrity (Ardianto et al., 2011: 35).

## 2.1.4 Corporate Social Responsibility Disclosure

This study tries to identify issues related to corporate social reporting based on Global Reporting Initiative (GRI) standard. GRI has pioneered and developed a comprehensive sustainability reporting framework that is widely used around the world ([www.globalreporting.org](http://www.globalreporting.org)). The indicators contained in GRI are as follows:

1. Economic Performance Indicators
2. Environmental Performance Indicators
3. Labor practices performance indicator
4. Human rights performance indicators
5. Social Performance Indicators
6. Product Performance Indicators

List of social disclosure based on GRI standards has also been used by Safitri (2014) because there is still no standard guidance about CSR disclosure in Indonesia. Therefore, the majority of companies that have been implementing CSR or compiling their sustainability reports still refer to GRI standard. This study only used environmental performance indicators because mining companies is highly related to environmental issue. Rae and Rouse (2001) stated that public opinion of natural resource extraction industries is influenced more by concerns over environmental performance than by performance in areas such as product pricing, quality, and safety. Environmental Performance Indicators consists of 30 items of statement, including the material used, waste effect, total emission, etc.

## 2.1.5 Good Corporate Governance

Basically, corporate governance can be defined as a system that regulates and controls the company to create value added to all stakeholders. Corporate governance arises because of the company's interest to assure the funding

(principal / investor) that funds invested are used appropriately and efficiently. In addition to corporate governance, the company provides assurance that the management (agent) acts in the best interest of the company.

The Decree of Minister of State / Head of Investment and Development of SOE No. 23 / M-PM.PBUMN / 2000 on the development of corporate governance practices in the Company (Persero), identifies that GCG is a healthy corporate principles to be applied in the management of the company that carried out solely in order to maintain the company's interests in order to achieve the aims and objectives of the company. Peter and John (2005) defined corporate governance as a set of provisions that enable the stockholders by exercising voting power to compel those in operating control of the firm to respect their interests. Based on those definitions, it can be concluded that GCG is a system that regulate, manage, and control the effort to increase the value of company, as well as a form of attention for shareholders, creditors, and society.

The application of corporate governance provide four benefits (FCGI, 2001), namely: (1) improve corporate performance through the creation process of making better decisions, improve the company's efficiency, and further increase service to stakeholders, (2) facilitate obtaining the funds finance cheaper and not rigid (because the trust factor) that will eventually increase corporate value, (3) restore the confidence of investors invest in Indonesia, and (4) the shareholders will be satisfied with as well as the performance of the company will increase shareholder's values and dividend.

Based on Forum for Corporate Governance in Indonesia (FCGI), GCG mechanisms can be measured through the number of institutional ownership, independent commissioner, audit committee, and managerial ownership. Institutional ownership is shareholding of the company owned by the institution such as insurance companies, banks, investment companies and others (Tarjo, 2008). Institutional ownership has significant importance in monitoring the management because it will encourage more optimal supervision. Independent commissioner is member of board of directors who are not affiliated with the Board of Directors, other board members, and controlling shareholders, as well as

free of business relationship or other relationship which could affect its ability to act independently or act solely in the interests of the company (Regulation number 40 year 2007 regarding Private Limited Company). Audit committee is a group of people chosen by the larger group that is responsible to assist the auditor in maintaining their independence from management (Tugiman, 1995:8). Managerial ownership is ownership by the management of the company, as measured by the percentage of the number of shares owned by management (Sujono , 2007).

## 2.1.6 Company's Value

The company's main purpose is to increase the company's value through increasing the prosperity of the owner or shareholders (Wahidawati, 2002). Company's value is very important because the high value of the company will be followed by high prosperity of shareholders (Brigham and Gapenski, 1996:22). The value of a company is reflected in its market value of shares. There are several ratios to measure the market value of companies, one of which is Tobin's Q. Tobin's Q ratio assessed can provide best information, because in Tobin's Q include all elements of debt and company equity (Tri, 2015). According to White et al. (2002) Tobin's Q can be formulated as follows:

$$Q = \frac{EMV + D}{EBV + D}$$

Description:

- Q = Company's value
- EMV = Equity Market Value, obtained by multiplying the closing price of shares at the end of the year with the number of outstanding shares at the end of the year
- EBV = Equity book value, which is derived from the difference between total assets of the company with total liabilities
- D = The book value of total debt

## 2.2 Previous Studies

There are already many that examined the influence of IC, CSR, and GCG on company's value, for example Garay and Maximiliano (2008) who examined the relationship between corporate governance and company's value in 46 Venezuelan companies period 2000-2002. The dependent variable is company's value proxied by Price to Book Value (PBV). The independent variables are GCG disclosure, Board of Directors, Ethics and Conflicts of Interest, and Shareholders' Rights. The results showed that Disclosure, Board of Directors, and Shareholders' Rights have positive effect on firm value but ethics and conflicts of interest has no effect on firm value.

Chen, Shu-ju, and Yuhchang (2010) analyzed the effect of IC using VAIC<sup>TM</sup> components which are proxied using VACA, VAHU, and STVA on the market value which is proxied using Market to Book Value (MtBV). This study is conducted on 4.254 Taiwanese public companies listed on Taiwan Stock Exchange period 1992-2002. The result showed that the VACA, VAHU, and STVA have positive impact on firm value (MtBV).

Karin and Luky (2010) examined the influence of environmental performance on financial performance using CSR disclosure as moderating variable. This study is conducted on 10 firms in mining, chemical, pharmaceutical, cement, pulp, and paper sectors listed in Indonesia Stock Exchange period 2006-2010 with 50 observations. Result indicates that (1) environment performance has positive effect on financial performance, (2) CSR disclosure is not able to strengthen the influence of environmental performance on financial performance.

Ramadhani and Hadiprajitno (2012) examined the effect of CSR on company's value with the percentage of managerial ownership as moderating variable. This study is conducted in manufacturing companies listed on Indonesia Stock Exchange period 2011-2011. Variables used in this study are the level of CSR disclosure as an independent variable, managerial ownership as moderating variable, and company's value (PBV) as dependent variable. Results of the study

revealed that CSR has no effect on firm value and managerial ownership variable has an influence as a moderating variable that strengthen the relationship between CSR and corporate value.

Priyatna and Imam (2012) analyzed the effect of CSR and corporate governance on the company's value listed on Indonesia Stock Exchange (IDX). Variables used in this study are CSR, independent commissioner, managerial ownership, audit committees, and institutional ownership as independent variables and company's value proxied by Tobin's Q as dependent variable. The results showed that independent commissioner and managerial ownership variables significantly effect the company's value, while the audit committee, CSR, and institutional ownership doesn't effect company's value .

Vincentius and Juniarti (2012) examined the effect of GCG on the value of company. GCG is proxied using GCG score and company's value is proxied using Tobin's Q. This study is conducted in 37 industrial companies listed on Indonesia Stock Exchange period 2007-2011. Results show that GCG does not affect the company's value.

Berzkalne and Zelgalve (2013) examined the effect of intellectual capital on firm value of 64 Baltic listed companies in Estonia, Latvia and Lithuania from 2005 to 2011. The independent variables were tested are Value Added Intellectual Capital Coefficient (VAIC<sup>TM</sup>) and the dependent variable is Tobin's Q. The analytical tool used is correlation analysis. Results show there's significant and positive relationship between the IC and company's value.



Table 2.1. Previous Studies

Researcher (Year)	Variables	Analysis Method	Conclusion
Garay and Maximiliano (2008)	Dependent Variable: Firm value (Price to Book Value) Independent Variables: Disclosure, Board of Directors, Ethics and Conflicts of Interest, and Shareholders' Rights	Multiple Linear Regression Analysis	Disclosure, Board of Directors, and Shareholders' Rights have positive effect on firm value but ethics and conflicts of interest has no effect on firm value
Chen, Shu-Ju, and Yuhcang (2010)	Dependent variable: Firm's Value (Market to Book Value Ratios) Independent Variables: VACA, VAHU, STVA	Multiple Linear Regression Analysis	VACA, VAHU, and STVA has positive impact on firm value
Karin and Luky (2012)	Dependent Variable: Financial Performance (NPM) Independent Variable: Environmental Performance (EP) Moderating Variable: CSR	Multiple Linear Regression Analysis	EP has a positive effect on financial performance and CSR can't strengthening the influence of EP to financial performance
Ramadhani and Hadiprajitno (2012)	Dependent Variable: company's value (PBV) Independent Variable: CSR Moderating variable : managerial ownership	Multiple Linear Regression Analysis	CSR has no effect on firm value and managerial ownership variable has an influence as a moderating variable that strengthen the relationship between CSR and corporate value.
Priyatna and Imam (2012)	Dependent Variable: company's value (Tobin's Q) Variabel independen : CSR, independent commissioner, managerial ownership, audit committee, and institutional ownership	Multiple Linear Regression Analysis	Independent commissioner and managerial ownership variables significantly effect the company's value, while the audit committee, CSR, and institutional ownership doesn't effect company's value .
Vincentius and Juniarti (2012)	Dependent Variable: company's value (MtBV) Independent variable: GCG score	Simple Linear Regression Analysis	GCG doesn't effect the company's value
Berzkalne and Zelgalve (2013)	Dependent variable: Firm's Value (Tobin's Q) Independent Variables: VAIC <sup>TM</sup>	Correlation Analysis	There's significant and positive relationship between IC and firm value

Source : Garay and Maximiliano (2008), Chen, Shu-ju, and Yuhcang (2010), Karin and Luky (2010), Ramadhani and Hadiprajitno (2012), Priyatna and Imam (2012), Vincentius dan Juniarti (2012), Berzkalne and Zelgalve (2013).



This research is to certain extent qualitatively similar to examine the effect of intellectual capital, corporate social responsibility and good corporate governance on company's value. The difference between this study and the previous researches are this study is trying to combine all the three variables (IC, CSR, and GCG) as independent variables that has never been studied before. The matrix of previous studies indicate that despite the variable and analysis tools used are similar, but the result is different. Therefore, the researcher tries to reexamine existed theories, but using different objects. The object of this is the mining company. The period of observation within a period of five years during 2010-2014.

### **2.3 Conceptual Framework**

Conceptual framework of this study is illustrated in Figure 2.1. Every business entity definitely wants to increase its company's value. The value of the company reflected by stock market value is strongly influenced by investment opportunities. The existence of investment opportunities can give a positive signal about the company's growth in the future. Buttressed by empirical research that has been done previously, the disclosure of financial and non-financial activities will ultimately enhance shareholder value. Therefore, in increasing the market value, a company should not only be reliable in its human resources, but also should care about the environment and the interest of shareholders. Therefore, the intellectual capital variables proxied using VACA, VAHU, and STVA, corporate social responsibility, and good corporate governance proxied using institutional ownership, independent committee, audit committee, and managerial ownership is supposedly having effect company's value

Based on the theoretical review that has been described before, the conceptual framework of this research is structured to facilitate in explaining the problem systematically. The conceptual framework in this study are as follows:

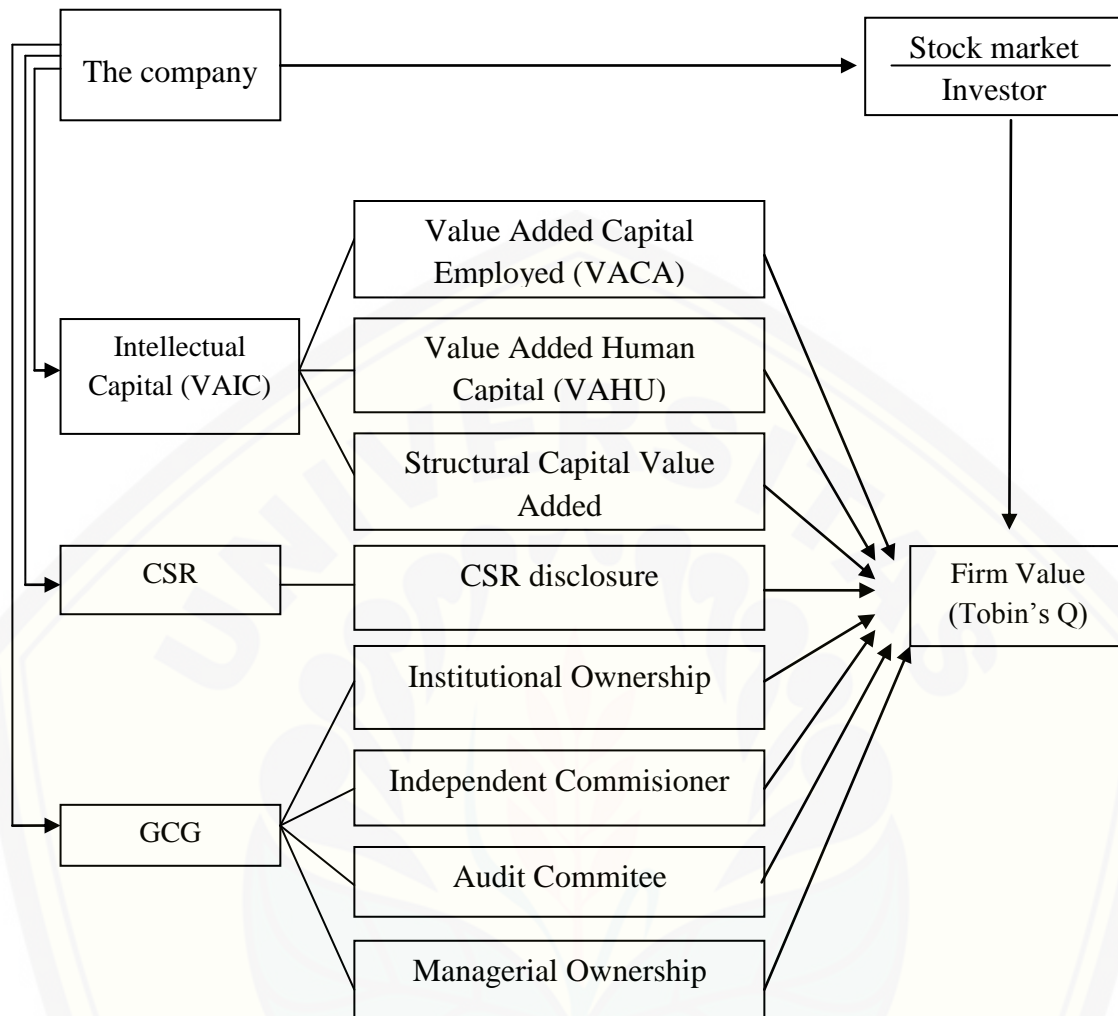


Figure 2.1. Conceptual Framework

The framework above illustrates that this study wants to examine the effect of IC components, among others VACA, VAHU, STVA; CSR and GCG components include Institutional Ownership, Independent Commissioner, Audit Committee, and Managerial Ownership of the company's value.

## 2.4 Hypotheses Development

### 2.4.1 The Effect of Intellectual Capital on Company's value

Pulic (2000) stated that firm's market value is created by capital employed and intellectual capital which consists of human capital and structural capital. No doubt that intellectual capital is a determinant of the company's value of and the

performance of national economy (Choo and Bontis, 2002). Intellectual capital has been recognized as an important resource that provides benefits for the creation of efficiency, effectiveness, productivity, and innovation of the company compared to physical capital and financial capital (Najibullah, 2005). Gede (2012) examined the effect of intellectual capital on the value of go public banking companies in Indonesia Stock Exchange. I Gede used Price to Book Value (PBV) in measuring the value of company and found that intellectual capital has positive effect on the value of the company.

VAIC<sup>TM</sup> is an aggregate measure of intellectual ability of a company, if an investor puts a different value for three components of VAIC<sup>TM</sup>, the Value added Capital Employed (VACA), Value added Human Capital (VAHU), and Structural Capital Value Added (STVA), then the three VAIC<sup>TM</sup> components model will have greater explanatory power of one aggregate model. Based on the theories and studies that have been done before the proposed hypotheses are:

H<sub>1</sub>: VACA positively affects the value of mining companies

H<sub>2</sub>: VAHU positively affects the value of mining companies

H<sub>3</sub>: STVA positively affects the value of mining companies

#### 2.4.2 The effect of CSR on company's value

The company's main purpose is to increase the company's value. Company's value will secure sustainable growth if the company pay attention to the economic, social and environmental dimension because sustainability is a balance between the interests of economy, environment and society. The dimensions are embeded in the application of CSR in the company as a form of accountability and concern for the environment around the company . The implementation of CSR will enhance shareholder value reflected in stock prices and corporate profits. Nurlela and Islahuddin (2008) stated that the presence of good CSR practice will lead investors to value the company. The explanation is based on the hypotheses formulated as follows:

H<sub>4</sub>: Corporate Social Responsibility positively affects on the value of the coal mining company.

## 2.4.3 The Effect of Good Corporate Governance on Company's value

Companies that have good corporate governance, not only will provide benefits for the company itself and protect the interests of investors, but also other parties who have a direct or indirect connection with the company. Through good corporate governance, the decision-making process will run better, so it will produce optimal decisions, can improve the efficiency and the creation of healthier corporate culture.

In this study, the mechanism of GCG application is proxied using independent commissioners, managerial ownership, institutional ownership, and the audit committee. Evans et al. (2002) examined the relationship between corporate governance structure and decrease in company's performance with sample of companies in Australia. He reported the results that there is no correlation between the ratio of independent commissioners to corporate performance. Fürst and Kang (2004) examined corporate governance and operating performance and they found positive relationship between independent commissioner with the company performance.

Bhojraj and Sengupta (2003) examined the effect of corporate governance on company's value. They used institutional ownership and independent commissioner as independent variables. The result is the percentage of institutional ownership and the proportion of independent commissioner is positively related to the company's value. It can be concluded that variable institutional ownership and independent commissioner affect company's value positively. Based on this reason, the hypothesis to test the effect of corporate governance on the value of the company is:

H<sub>5</sub>: Institutional ownership positively affects the value of the mining company.

H<sub>6</sub>: Independent commissioner positively affects the value of the mining company.

Studies using audit committee as independent variable are still rare. The study of Kotter and Silvester (2003) focused on the composition of board of directors and supervisory committee (audit committee and compensation committee) on the company in Australia. This study proves that there is a positive relationship between the proportion of independent directors and supervisory committee on the performance of companies with multiple regression analysis. Turley and Zaman (2004) examined the effect of corporate governance and audit committee, to evaluate and synthesize some previous research on corporate governance relating to the audit committee. The study reported that there's positive relationship between the existence of audit committee with the quality and performance of the company's financial statements. Based on these studies, the hypothesis to test the effect of corporate governance on the value of the company is:

H<sub>7</sub>: The audit committee positively affects the value of mining company.

One effort to reduce agency problem is by providing incentives for the agent or management. The incentives can be in a portion of the company's stock ownership for the managers (Isti, 2010). Borolla (2011) explains, if it is based on logic, shares ownership by managers will reduce the tendency to consume excessive perquisites. Isti (2010) explains this attempt is intended to balance the interests between the management and the shareholders (Isti, 2010). Through the majority proportion of shares owned by the company management, it will make the management can feel benefits from the decisions taken. Putri (2011) confirms manager who works to improve the welfare of the owner and himself in the structure of shares ownership will increase managerial performance which is accompanied by an increase in the company's value. Based on those explanations, it can be hypothesized as follows:

H<sub>8</sub>: Managerial ownership positively affects the value of mining company.



## CHAPTER 3. RESEARCH METHOD

### 3.1 Research Design

The type of this research is hypothesis testing research, the test is based on research hypotheses proposed according to theoretical and empirical studies. In particular, this study is conducted to examine the effect of VACA, VAHU, STVA, CSR, institutional ownership, independent directors, audit committees, and managerial ownership variables on the value of mining companies listed in Indonesia Stock Exchange 2010-2014 period using multiple linear regression analysis.

### 3.2 Population and Sample

The population in this study are mining companies listed in Indonesia Stock Exchange during the 2010-2014 period. The sampling method is purposive sampling with the following criteria:

1. All companies listed in Indonesia Stock Exchange and included in mining companies that publish annual report from 2009 to 2013 intended that the amount of data can fulfill the sample criteria.
2. The annual report contains complete data to calculate Tobin's Q, VACA, VAHU, STVA and show the information of CSR disclosure, institutional ownership, independent commissioner, audit committee, and managerial ownership.

### 3.3 Types and Sources of Data

Data used in this study is quantitative data gathered from company's financial statements of the years 2010-2014 includes balance sheet, income statement, and statement of disclosure of Corporate Social Responsibility (CSR) and Good Corporate Governance (GCG). The data is gathered from IDX official website ([www.idx.co.id](http://www.idx.co.id)).



### 3.4 Operational Definition and Variable Measurement

#### 3.4.1 Identification of Variables

a. Dependent Variables : Company's value (Tobin's Q)

b. Independent Variables :

1. Value Added of Capital Employed (VACA)
2. Value Added of Human Capital (VAHU)
3. Structural Capital Value Added (STVA)
4. Corporate Social Responsibility disclosure
5. Institutional Ownership
6. Independent Commissioner
7. Audit Committee
8. Managerial ownership

#### 3.4.2 Operational Definition and Variable Measurement Scale

a. Company's value (Tobin's Q)

Company's value is the investor's appreciation of the prospect of a company. In this research, company's value is measured using Tobin's Q. Tobin's Q is an indicator for measuring the company's performance, especially on the value of company, which shows management ability in managing the assets of the company. The company's value variable is measured using ratio scale.

b. Independent Variables:

1. Value Added of Capital Employed (VACA)

VACA is an indicator of the value added created on capital sought by companies efficiently (Ulum, 2008:89). The scale used is ratio scale.

2. Value Added Human Capital (VAHU)

VAHU shows how much value added can be generated by the funds spent on labor. This ratio shows the contribution made by every rupiah invested in human capital to the value added of an organization. The scale used is ratio scale.

### 3. Structural Capital Value Added (STVA)

This ratio measures the amount of capital structure needed to produce value added and an indication of how successful structural capital in the process of value creation in company. The scale used is ratio scale.

### 4. Corporate Social Responsibility

Achda (2007) defines CSR as the company's commitment to be responsible for the impact of its operations in the social, economic, and environmental dimension and continuing to ensure that the impact will give benefit to the community and environment. The disclosure of CSR is grouped into six categories according to categories of social information according to GRI (2006), those are environment, energy, health, safety of workers, product, and general community involvement indicator. This study uses only environment indicator. Environment indicator contains 9 sub-indicator and 30 items of statement. The sub-indicators are material, energy, water, biodiversity, waste, product, suitability, transportation, and conformity. The measurement scale is interval scale.

### 5. Institutional Ownership

Institutional ownership is shareholding company owned by the institution such as insurance companies, banks, investment companies and others (Tarjo, 2008). Institutional ownership is total of shares percentage owned by institutional who owned at least 5% of the company shares. The method to calculate the percentage of institutional ownership is by knowing the shares held by institution contained in financial statements. The measurement scale used is ratio scale and the unit of measurement is percentage (%).

### 6. Independent commissioner

Independent commissioner is member of board of directors who are not affiliated with the Board of Directors, other board members, and controlling shareholders, as well as free of business relationship or other relationship which could affect its ability to act independently or act solely in the interests of the company (Regulation number 40 year 2007 regarding Private Limited Company). Independent commissioner is a comparison of independent commissioner number

owned by a company with the total number of commissioners. The proportion of independent commissioner required by Bapepam kep-05 / PM / 2002, the minimum is 25% of the total members number or proportional to the number of minority shareholders. The measurement scale used is ratio scale, the unit of measurement is percentage (%)

## 7. Audit committee

Audit committee is a group of people chosen by the larger group to do a particular job or to perform specific tasks or a number Board of Commissioners member of the client company that is responsible to assist the auditor in maintaining their independence from management (Tugiman, 1995:8). The measurement scale is interval scale.

## 8. Managerial Ownership

Managerial ownership is the cumulative percentage of shares owned directly managers (Christiawan and Tarin, 2007). The proportion of managerial ownership is calculated by the percentage of shares held by managers attached in financial statements. The scale of measurement used is ratio scale and the unit of measurement is percentage (%).

## 3.5 Method of Analysis

### 3.5.1 The Measurement of Company's value

This study uses Tobin's Q ratio to measure company's value. According to White et al. (2002) ,Tobin's Q can be formulated as follows:

$$Q = \frac{EMV + D}{EBV + D}$$

Description:

Q = Company's value

EMV = Equity Market Value, obtained by multiplying the closing price of shares at the end of the year with the number of outstanding shares at the end of the year

EBV = Equity book value, which is derived from the difference between total assets of the company with total liabilities

D = The book value of total debt

### 3.5.2 The Measurement of Value Added Capital Employed (VACA)

VACA is value created by a unit of physical capital. According to the formula in previous chapter, the formula to calculate VACA is as follows (Pulic,2000):

$$VACA = \frac{VA}{CE}$$

Description:

VA = Output – Input

VACA = Value Added Capital Employed

VA = Value Added

CE = Capital Employed (available funds : net assets)

### 3.5.3 The Measurement of Value Added Human Capital (VAHU)

The formula to calculate VAHU is as follows (Pulic,2000):

$$VAHU = \frac{VA}{HC}$$

Description:

VAHU = Value Added Human Capital

VA = Value Added

HC = Human Capital (labor cost)

### 3.5.4 The Measurement of Structural Capital Value Added (STVA)

The formula to calculate STVA is as follows (Pulic,2000):

$$STVA = \frac{SC}{VA}$$

Description :

STVA = Structural Capital Value Added

SC = Structural Capital (VA-HC)

VA = Value Added

## 3.5.5 The Measurement of Corporate Social Responsibility

CSR disclosure is dummy variable. The total of environment indicator is 30 items. Each item is given score 1, so if the company reveals one item only, then the score obtained is 1. Thus, maximum score if company discloses all item categories disclosure of environmental responsibility is 30.

$$n(\text{CSR}) = \frac{\text{total of CSR disclosure}}{\text{maximum score}}$$

## 3.5.6 The Measurement of Institutional Ownership

The formula to measure institutional ownership is as follows:

$$\text{Institutional ownership} = \frac{\text{Number of shares owned by institutional investor}}{\text{Number of outstanding shares}}$$

## 3.5.7 The Measurement of Independent Commissioner

The formula to measure Independent Commissioner is as follows:

$$\text{Independent commissioner} = \frac{\text{number of company's independent commissioner}}{\text{number of board of commissioner}}$$

## 3.5.8 The Measurement of Audit Committee

Audit committee is measured by the number of audit committee in a company (Effendi, 2008: 25)

## 3.5.9 The Measurement of Managerial Ownership

The formula to measure Managerial Ownership is as follows:

$$\text{managerial ownership} = \frac{\text{number of shares held by manager}}{\text{number of outstanding shares}}$$

After obtaining the data of all variables for each mining company qualified, then the next step is to test the normality of the data that has been obtained.



### 3.5.10 Normality Test

Normality test is done to examine whether the collected data is normally distributed or not. Normality test used in this study is Kolmogorov Smirnov test.

The steps done to run normality test as follow:

- a. Formulate the hypothesis

Ho : Data is normally distributed

H1 : Data is not normally distributed

- b. Determine the level of significance

The level of significance used in this study is 5%.

- c. Make the conclusion

To conclude whether the data is normally distributed or not, it uses some criteria as follow:

1. If the significance level of Kolmogorov-Smirnov test  $> \alpha$ ,  $H_0$  is accepted and  $H_1$  is rejected, it means that data is normally distributed.
2. If the significance level of Kolmogorov-Smirnov test  $< \alpha$ ,  $H_0$  is rejected and  $H_1$  is accepted, it means that data is not normally distributed.

### 3.5.11 Multiple Regression Analysis

Multiple Regression Analysis is used to analyze the effect of VACA ( $X_1$ ), VAHU ( $X_2$ ), STVA ( $X_3$ ), CSR ( $X_4$ ), institutional ownership ( $X_5$ ), independent commissioner ( $X_6$ ), audit committee ( $X_7$ ), managerial ownership ( $X_8$ ) on the company's value ( $Y$ ). Multiple regression equation is as follows:

$$Y_{i,t} = a + b_1X_{1i,t} + b_2X_{2i,t} + b_3X_{3i,t} + b_4X_{4i,t} + b_5X_{5i,t} + b_6X_{6i,t} + b_7X_{7i,t} + b_8X_{8i,t} + e_{i,t}$$

Where:

$Y$  = Company's value (Tobin's Q)

$X_1$  = Value Added Capital Employed

$X_2$  = Value Added Human Capital

$X_3$  = Structural Capital Value Added

$X_4$  = Corporate Social Responsibility



$X_5$	= institutional ownership
$X_6$	= independent commissioner
$X_7$	= audit committee
$X_8$	= managerial ownership
$b_{1,2,3,4,5,6,7,8}$	= regression coefficient
$e$	= error

### 3.5.12 Classical Assumption Test

Classical assumption test is used to assess the existence of bias on regression analysis results. Three tests are performed, namely normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

#### a. Normality Test

Normality test is performed to examine whether the value of the regression residuals generated is normally distributed or not. Normality test used in this study is Kolmogorov Smirnov test. The steps done to run normality test as follow:

##### 1. Formulate the hypothesis

$H_0$  : Residual is normally distributed

$H_1$  : Residual is not normally distributed

##### 2. Determine the level of significance

The level of significance used in this study is 5%.

##### 3. Make the conclusion

To conclude whether the data is normally distributed or not, it uses some criteria as follow:

a. If the significance level of Kolmogorov-Smirnov test  $> \alpha$ ,  $H_0$  is accepted and  $H_1$  is rejected, it means that residual is normally distributed.

b. If the significance level of Kolmogorov-Smirnov test  $< \alpha$ ,  $H_0$  is rejected and  $H_1$  is accepted, it means that residual is not normally distributed.

## b. Multicollinearity test

Multicollinearity test is used to determine whether the regression model has correlation among its independent variables. A good regression models should not contain correlation among its independent variables. If the independent variables are correlated each other, then the variables are not orthogonal. Multicollinearity test is done by examining at the tolerance value and Variance Inflation Factor (VIF) .This method is proposed for detecting variables which lead to has multicollinearity. A regression model that is free of multicollinearity has VIF around number 1 and number 'tolerance' approaches 1. The limit of VIF is 10, if VIF under 10, then there is no multicollinearity symptoms or vice versa (Ghozali, 2011).

## c. Autocorrelation Test

Autocorrelation test aims to examine whether a linear regression model has no correlation among errors in period  $t$  with the error in period  $t-1$ . A good regression model is free from autocorrelation. It can be detected through doing Durbin-Watson test. Durbin Watson (DW) test as part of the non-parametric statistics may be used for autocorrelation level one and requires the intercept in a regression model, and there is no lag variables among the independent variables. DW test is carried out by making hypotheses:

1.  $H_0$  : autocorellation exists (  $r = 0$  ).
2.  $H_1$  : autocorellation does not exist (  $r \neq 0$  ).

Basis for decision making is as follows (Widarjono, 2005):

- a. If  $0 < DW < DL$ , then there is positive autocorrelation
- b. If  $DL < DW < DU$ , then then the test is inconclusive
- c. If  $DU < DW < 4-DU$ , then there is no autocorrelation
- d. If  $4- DU < DW < 4-DL$ , then the test is inconclusive
- e. If  $DW > 4-DL$ , then there is negative autocorrelation.

Description: DL = lower limit DW

DU = upper limit of DW

d. Heteroskedasticity test

Heteroskedasticity test aims to examine whether there is inequality residual variance from one observation to another observation in a regression model. Heteroskedasticity situation will lead to an inefficient assessment of regression coefficients and the results estimated could be less or more than is supposed. Thus, in order not to mislead the coefficient of the regression coefficients, then the Heteroskedasticity situation must be removed from the regression model. One way to identify the heteroskedasticity problem is by looking at the graph plot between the predicted value of the dependent variable (ZPRED) with residual (SRESID) (Ghozali, 2011).

3.5.13 Hypothesis Testing

The hypotheses are tested using the following process:

1. Formulate the hypothesis

The null and alternative hypothesis are as follows:

- a.  $H_{01}$  : VACA doesn't positively affect the value of mining company  
 $H_{a1}$  : VACA positively affects the value of mining company
- b.  $H_{02}$  : VAHU doesn't positively affect the value of mining company  
 $H_{a2}$  : VAHU positively affects the value of mining company
- c.  $H_{03}$  : STVA doesn't positively affect the value of mining company  
 $H_{a3}$  : STVA positively affects the value of mining company
- d.  $H_{04}$  : CSR doesn't positively affect the value of mining company  
 $H_{a4}$  : CSR positively affects the value of mining company
- e.  $H_{05}$  : Institutional ownership doesn't positively affect the value of mining company  
 $H_{a5}$  : Institutional ownership positively affects the value of mining company
- f.  $H_{06}$  : Independent commissioner doesn't positively affect the value of mining company  
 $H_{a6}$  : Independent commissioner positively affects the value of mining company

- g.  $H_{07}$  : Audit committee doesn't positively affect the value of mining company  
 $H_{a7}$  : Audit committee positively affects the value of mining company
- h.  $H_{08}$  : Managerial ownership doesn't positively affect the value of mining company  
 $H_{a8}$  : Managerial ownership positively affects the value of mining company

2. Select an appropriate test

The hypothesis in this study is tested using t-test to examine whether independent variables partially affect the dependent variable Determine the Level of Significance. Level of significance expected is  $\alpha= 5\%$  with confidence level=95%

- 3. Calculate t-test
- 4. Determine Probability value/ critical value
- 5. Compare probability with  $\alpha$  and make conclusion

The criteria to take the conclusion in this study are as follows:

- a. If p value  $> \alpha$  then  $H_0$  is accepted and  $H_a$  is rejected
- b. If p value  $< \alpha$  then  $H_0$  is rejected and  $H_a$  is accepted

**3.6 Problem Solving Framework**

The framework to solve the problem of this study is shown in Figure 2.2:

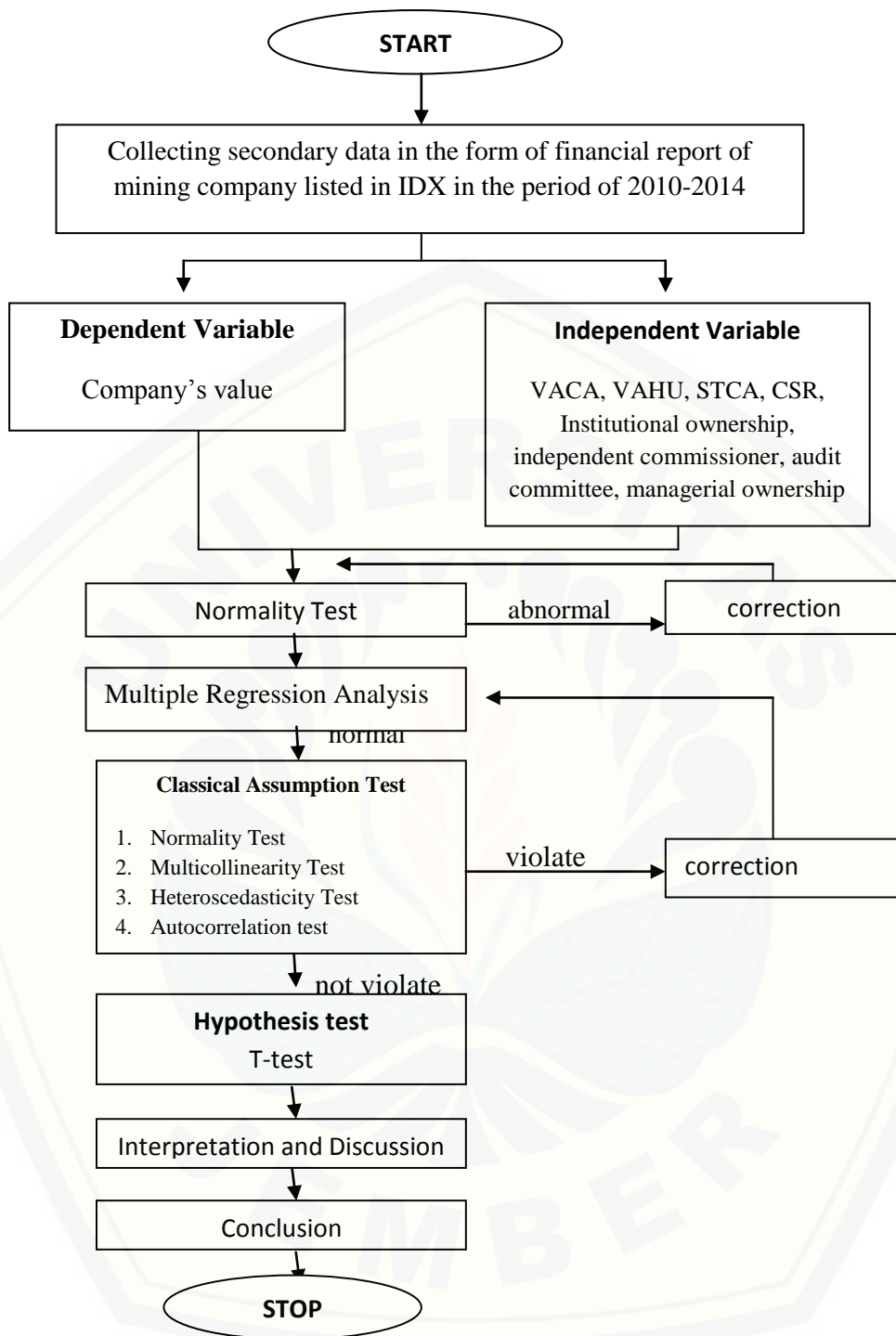


Figure 2.2 Problem Solving Framework

## Description:

1. The research is started
2. This research is begun by collecting secondary data from IDX in the form of mining company's financial report listed in IDX period 2010-2014.
3. Calculating all observed variables using SPSS
4. Running normality test from obtained data
5. If the data is normal, the next step is running multiple regression analysis. But if the data is not normal, we should correct it and run normality test again.
6. To make the regression model fulfill Best Linear Unbiased Estimator (BLUE) criteria, the next step is running classical assumption test. If the model violates BLUE criteria, we should correct it and run regression again.
7. After the regression model fulfill BLUE criteria, the next step is run hypothesis test using F-test and T-test
8. After we get the analysis result, the next step is discussion or explanation of it
9. Give the conclusion from the discussion
10. Stopping the research.



## CHAPTER 5. CONCLUSION AND SUGGESTION

### 5.1 Conclusion

This study aims to analyze the effect of value added capital employed, value added human capital, value added structural capital, corporate social responsibility disclosure, independent commissioner, managerial ownership, audit committee, and institutional ownership on the value of mining companies listed in Indonesia Stock Exchange period 2010-2014. Fifteen companies are elected as samples. The conclusion according to hypotheses testing is as follow:

1. Value Added Capital Employed (VACA) positively and significantly affects the company's value.
2. Value Added Human Capital (VAHU) positively and significantly affects the company's value.
3. Structural Capital Value Added (STVA) has positive but insignificant effect on the company's value.
4. Corporate Social Responsibility (CSR) has positive but insignificant effect on the company's value.
5. Independent commissioner has positive but insignificant effect on the company's value.
6. Managerial ownership has negative but insignificant effect on the company's value.
7. Audit committee has negative but insignificant effect on the company's value.
8. Institutional ownership positively and significantly affects the company's value.

## 5.2 Suggestion

Based on the result of hypotheses testing, analysis, and limitations, the suggestions proposed are as follow:

1. For mining companies

Companies are expected to figure out the information of this study results and understand about the factors that can affect the company's value, those are intellectual capital and GCG. This action can be fundamental for making decision.

2. For investor

Investors or potential investors are expected to understand the result of this study and figure out the other factors that can affect the company's value, so that it can be such a base before deciding an investment.

3. For academics and next researchers

This study needs to be followed up by next researchers to gain better result, it can be done by :

a. Extending the period of data

b. Using other proxies to explain the variables better, such as a proxy that covers all of human capital, structural capital, and relational capital for measuring intellectual capital. So the research and development expenditures can be included in the calculation. CSR is better done by measuring not only environmental aspect, but also economic and social performance. GCG is also better done by using GCG scorecard.

c. Using other sector of companies as sample.

## ACKNOWLEDGEMENT

- Abukosim, Mukhtaruddin, Ferina, and Nurcahya. 2014. "Ownership Structure and Firm Values: Empirical Study On Indonesia Manufacturing Listed Companies". *Journal of Arts, Science & Commerce*, Vol 5, issue 4, pp. 1-14.
- Adeneye, Babatunde and Ahmed, Maryam. 2015. "Corporate Social Responsibility and Company Performance". *Journal of Bussiness Studies Quarterly*, Vol. 7, Issues 1, pp. 1-13.
- Aldamen, Duncan, Kelly, Namara. And Nagel. 2012. "Audit Committe Characteristics And Fim Performance During The Global Financial Crisis". *Accounting and Finance Journals*, Vol. 52, pp 1-41.
- Apriliani, Rizka. 2011. "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perbankan Syariah di Indonesia". *Thesis*. Economics Faculty University of Diponegoro, Semarang.
- Ardianto, Elvinaro and Macfudz, Dindin . 2011. *Efek Kedermawanan Pebisnis dan CSR*. Jakarta : Elex Media Komputindo.
- Setiawan, Aziz . 2015. "Pengaruh Intellectual Capital Terhadap Return On Asset (ROA) Perusahaan (Studi Empiris pada Perusahaan Sektor Pertambangan yang terdaftar di Bursa Efek Indonesia (BEI) Tahun 2007-2012)". *Thesis*. Economics Faculty State University of Yogyakarta.
- Baert, Lieven and Rudi Vander Vennet. 2009. Bank Ownership, Firm Value and Firm Capital Structure in Europe. *Finess Working Paper D.2.2 page 1-55*.
- Berzkalne, Irina and Zelgalve, Elvira. 2013. "Intellectual Capital and Company Value". *Procedia- Social and Behavioral Science*. Vol. 10, pp 887-896.
- Bhojraj, Sanjeev and Sengupta, Partha. 2003. "Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors". *The Journal of Business*. Vol. 76, issue 3, pp. 455-476.
- Bontis, Nick. 1998. "Intellectual Capital: an Exploratory Study that Develops Measures and Models". *Management Decision*. Vol. 36 issue 2, pp. 63-76.
- Brigham, Eugene and Gapenski, Louis. 1996. *Intermediate Finance Management (5th ed.)*. Harbor Drive: The Dryden Press.
- Chen, Ming-Chin, Cheng, Shu-Ju, and Hwang, Yuhchang. 2010. "An Emprical Investigation of the Relationship between Intellectual Capital and Firms'

Market Value and Financial Performance”. *Journal of Intellectual Capital*. Vol. 6 issue: 2, pp.159 – 176.

Choo, Cun Wei. and Bontis, Nick. 2002. *The Strategic Management of Intellectual Capital and Organizational Knowledge*. New York: Oxford University Press.

Cotter, Julie and Silvester, Mark. 2003. “Board and Monitoring Committee Independence”. *Abacus*. Vol. 39, no. 2, pp. 211–32.

Dagiliene, Lina. 2013. “The Influence of Corporate Social Reporting to Company's Value in a Developing Economy”. *Procedia Economics and Finance*, Vol. 5 pp. 212-221.

Dahlia, L. and Siregar, V. S. 2008. “Pengaruh *Corporate Social Responsibility* terhadap Kinerja Perusahaan (Studi Empiris pada Perusahaan yang Tercatat di Bursa Efek Indonesia pada Tahun 2005 dan 2006)” *Simposium Nasional Akuntansi XI Pontianak*.

Edvinsson, Leif and Sullivan, Patrick. 1996. ‘Developing a model for managing intellectual capital’. *European Management Journal*. Vol. 14, pp.356–364.

Entika, Nova Lili. 2012. “Pengaruh Elemen Pembentuk Intellectual Capital terhadap Nilai Pasar dan Kinerja Keunagna pada Perusahaan Perbankan yang Terdaftar di BEI”. *Diponegoro Journal of Accounting*. Vol.1 pp 1-11.

FCGI, 2001. *Corporate Governance : Tata Kelola Perusahaan 1<sup>st</sup> Edition*. Jakarta: FCGI.

Fincham, Robin and Roslender, Robin. 2003. "Intellectual Capital Accounting as Management Fashion: A Review and Critique". *European Accounting Review, Taylor & Francis Journals*. Vol. 12, issue 4, pp 781-795.

Garay, Urbi and Maximiliano Gonzalez. 2008. "Corporate Governance and Firm Value: The Case of Venezuela". *Corporate Governance International Review*, Vol. 16, Issues 16, pp. 194-209.

Gideon, SB Boediono. 2005. Kualitas Laba: Studi Pengaruh Mekanisme Corporate Governance dan Dampak Manajemen Laba dengan Menggunakan Analisis Jalur. *Simposium Nasional Akuntansi VIII*, IAI, 2005.

Haniyah, Faricha Nurul and Priyadi, Maswar Patuh. 2014. “Pengaruh Intellectual Capital Terhadap Kinerja Perusahaan Otomotif Di Bursa Efek Indonesia”. *Jurnal Ilmu & Riset Akuntansi*, Vol. 3 Issues 5 pp 1-15.

Himmelberg, Charles P, Hubbard, R. Glenn, Palia, Darius. 1999. “Understanding The Determinants Of Managerial Ownership And The Link Between



Ownership And Performance”. *Journal of Financial Economics*, Vol. 53, pp 353-384.

Husnan, Suad and Pudjiastuti ,Enny. 2012. *Dasar-Dasar Manajemen Keuangan*. Yogyakarta: UPP AMP YKPN.

Isti, Fadah. 2010. “Faktor Penentu Dividen dan Biaya Keagenan serta Pengaruhnya pada Nilai Perusahaan”. *Jurnal Keuangan dan Perbankan*. Vol. XIV, issues. 3, pp. 391 -406.

Kamal, M.H.M., Mat, R.C., Rahim, R.A., Husin, N., and Ismail, I.. 2012. “Intellectual Capital and Firm Performance of Commercial Banks in Malaysia” *Asian Economic and Financial Review*. Vol. 2, Issues. 4, pp. 504-517.

Klein, D.A and Prusak, L. 1994. *Characterising Intellectual Capital*. Cambridge: Ernst and Young.

Laras, Surya Ramadhani and Basuki, Hadiprajitno. 2012. Pengaruh *Corporate Social Responsibility* terhadap Nilai Perusahaan Dengan Prosentase Kepemilikan Manajemen Sebagai Variabel Moderating Pada Perusahaan Manufaktur Yang Terdaftar di BEI. *Jurnal Akuntansi & Auditing* Vol. 8/No.2/Mei 2012: 95-189

Malelak, Mariana Ing and Basana, Sautma Ronni. “The Effect of Corporate Governance on Firm Performance: Empirical Evidence from Indonesia”. *Global Journal of Business and Social Science Review*, Vol 3, Issues 1, pp 335-342.

Malinda, Dwi Apriliane. 2015. Analisis Faktor-Faktor Yang Mempengaruhi Audit Delay (Studi Empiris Pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2008 - 2013). *Thesis*. Economics Faculty State University of Yogyakarta.

McClave, Benson and Sincich. 2011. *Statistik untuk Bisnis dan Ekonomi*. Jakarta: Erlangga.

McWilliams, A. and Siegel, D. 2001. “Corporate Social Responsibility: A Theory of the Firm Perspective”. *Academy of Management Review*. Vol 26 pp. 117-127.

Mueller, Elizabeth and Spitz, Alexandra. 2006. *Managerial Ownership and Firm Performance in German Small and Medium-Sized Enterprises*. London: Centre for Economic Performance.

Muhammad, Nik Maheran Nik and Ismail, Md Khairu Amin. 2009. “Intellectual Capital Efficiency and Firm’s Performance: Study on Malaysian Financial



Sectors”. *International Journal of Economics and Finance*. Vol. 1, No. 2. pp 23-35.

Najibullah, Syed. 2005. “An Empirical Investigation of The Relationship Between Intellectual Capital and Firms’ Market Value and Financial Performance : in Context of Commercial Banks of Bangladesh”. *Thesis*. Independent University Bangladesh.

Nurlela, Rika and Islahudin. 2008. “Pengaruh Corporate Social Responsibility terhadap Nilai Perusahaan dengan Prosentase Kepemilikan Manajemen sebagai variabel moderating (Studi Empiris Pada Perusahaan Yang Terdaftar di Bursa Efek Jakarta)”. *Thesis*. Economics Faculty University of Syiah Kuala.

Octavia, Helen dan Hermi. 2014. “Pengaruh Tanggung Jawab Sosial Perusahaan Terhadap Kinerja Perusahaan (Studi Empiris pada Perusahaan Manufaktur yang tercatat di BEI)”. *Jurnal Online Trisakti*. Vol 1, No. 1, Februari 2014. Available online on [www.online.fe.trisakti.ac.id](http://www.online.fe.trisakti.ac.id).

Priyatna, Bagus and Imam Subekti. 2012. “Pengaruh Corporate Social Responsibility Dan Good Corporate Governance Terhadap Nilai Perusahaan (Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia)”. *Jurnal Imliah Mahasiswa FEB Universitas Brawijaya*. Vol. 1 Issues 2 pp 1-10.

Pouraghajan, Abbasali, Ramezani, Aliakabr and Mohammadzeh, Sadollah. 2013. “Impact of Intellectual Capital on Market Value and Firms’ Financial Performance”. *World of Sciences Journal*. Vol.1 No. 12, pp.197-208.

Pulic, 2000. “MVA and VAIC Analysis of Randomly Selected Companies from Ftse 250,” Available online at [www.vaic-on.net/start.htm](http://www.vaic-on.net/start.htm) (accessed 29 March 2006), pp. 1-44.

Purnomo, Pek Karin and Luky Patricia Widianingsih. 2012. “The Influence of Environmental Performance on Financial Performance with Corporate Social Responsibility (CSR) Disclosure as a Moderating Variable: Evidence from Listed Companies in Indonesia,” *Review of Integrative Business and Economics Research*. Vol 1, issue 1, pp. 57-69.

Randy, Vincentius and Juniarti. 2013. “Pengaruh Penerapan Good Corporate Governance terhadap Nilai Perusahaan yang Terdaftar di BEI 2007-2011”. *Business Accounting Review*. Vol.1 No. 2.

Siallagan, Hamonangan and Machfoedz. 2006. Mekanisme Corporate Governance, Kualitas Laba dan Nilai Perusahaan. *Artikel Simposium Nasional Akuntansi (SNA) IX, Padang*, pp 16-29.

- Simoneti, Marko. 2004. "Managerial Ownership And Corporate Performance In Slovenian Post-Privatisation Period". *The European Journal of Comparative Economic*, Vol. 1, Issues 2, pp. 217-241.
- Stewart, Thomas. 1997. *Intellectual Capital: The New Wealth Of Organizations*,. New York : Nicholas Brealey Publishing, Business Digest.
- Suhartati, Titi, Warsini, Sabar, and Sixpria, Nedsal. 2011. Pengaruh Pengungkapan Tanggung Jawab Sosial dan Praktik tata Kelola Perusahaan terhadap Nilai Perusahaan. *Jurnal Ekonomi dan Bisnis* Vol. 10 Issues 2.
- Sutedi, Adrian. 2011. *Good Corporate Governance*. Jakarta: Sinar Grafika.
- Tahir, Safdar Hussain, Saleem, Muhammad, Arshad, Humaira. 2015. "Institutional Ownership And Corporate Value: Evidence From Karachi Stock Exchange (Kse) 30-Index Pakistan". *Praktični Menadžment*, Vol.6, issues 1, pp. 41-49.
- Thanatawee, Yordying. 2014. "Institutional Ownership and Firm Value in Thailand". *Asian Journal of Business and Accounting* ,Vol. 7 Issues 2, pp. 1-22.
- Tri, Puji Lestari Winne. 2015. Social Responsibility (CSR), Good Corporate Governance (GCG), dan Intellectual Capital (IC) Terhadap Nilai Perusahaan Dengan Menggunakan Metode Tobin's Q. *Thesis*. Bandung Islamic University.
- Trisnantasari, Ayu Novi. 2012. Pengaruh Corporate Governance pada Hubungan Pergantian Chief Executive Officer dengan Kinerja Perusahaan. *Jurnal Imliah Akuntansi dan Humanika*. Vol. 1 Issues 2, pp 1-16.
- Trisnowati, Yanuar and Fadah, Isti. 2014. "The Impact of Intellectual Capital on Bank's Market Value and Financial Performance in Indonesia Stock Exchange". *Social Science Research Network*. Available at SSRN: <http://ssrn.com/abstract=2408325>.
- Tugiman,Hiro. 1995. *Komite Audit*. Bandung: Eresco.
- Turley, Stuart and Zaman, Mahbub. 2007. "Audit Committee Effectiveness: Informal Processes and Behavioural Effects". *Accounting, Auditing, and Accountability Journal*. Vol 20 Issues 5, pp 1-25.
- Wahidahwati. 2002. "Pengaruh Kepemilikan Manajerial dan Kepemilikan Instutusional pada Kebijakan Hutang Perusahaan: Sebuah Perspektif Theory Agency". *Jurnal Riset Akuntansi Indonesia*. Vol. 5, Issues.1, pp.1-16.
- Wallace, Peter and Zinkin, John. 2006. *Mastering Business in Asia: Corporate Governance*. Singapore: Wiley India.

Weir, Charlie, David Laing, and Phillip J. McKnight. 2000. An Empirical Analysis of The Impact of Corporate Governance Mechanisms on The Performance of UK Firm. *The Analysis and Use of Financial Statements* : Third Edition. New York : John Wiley.

Woodcock,J., and H.R. Whiting. 2009. “Intellectual Capital Disclosure by Australian Companies.” *Presented on AFAANZ Conference, Adelaide, Australia* Juli 2009.

Yosefa, Sayekti and Wondabio, Ludovicus Sensi. 2007. “Pengaruh CSR Disclosure terhadap Earning Response Coefficient”. *Simposium Nasional Akuntansi X. Unhas Makassar 26-28 Juli 2007*.

Yudha, D. S. and Nasir, M. 2012. Analisis Pengaruh Intellectual Capital terhadap Kepercayaan dan Reaksi Investor: Studi Kasus Perusahaan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Akuntansi dan Keuangan*. Vol. 1 No. 2. pp. 62-79.

<http://www.cnnindonesia.com/ekonomi/20150805173030-85-70289/kinerja-sektor-tambang-minus-587-persen-di-semester-i/>. Accessed October 14<sup>th</sup> 2015.

**Appendix 1**

Companies Selected as Research Sample

No	Stock Code	Company Name
1	ADRO	Adaro Energy Tbk
2	BYAN	Bayan Resources Tbk
3	ITMG	Indo Tambangraya Megah Tbk
4	KKGI	Resource Alam Indonesia Tbk
5	MYOH	Samindo Resources Tbk
6	PKPK	Perdana Karya Perkasa
7	ELSA	Elnusa Tbk
8	ANTM	Aneka Tambang Tbk
9	INCO	Vale Indonesia Tbk
10	TMPI	Sigmatgold Inti Perkasa Tbk
11	CTTH	Citatah Tbk
12	ATPK	ATPK Resources Tbk
13	BUMI	BUMI Resources Tbk
14	HRUM	HARUM Energy Tbk
15	ARTI	Ratu Prabu Energi Tbk

## Appendix 2

### Indicator of Environmental Performance based on Global Reporting Initiative (GRI)

<b>Aspect: Materials</b>	
1	Materials used by weight or volume
2	Percentage of materials used that are recycled input materials.
<b>Aspect : Energy</b>	
3	Direct energy consumption by primary energy source.
4	Indirect energy consumption by primary source.
5	Energy saved due to conservation and efficiency improvements.
6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.
7	Initiatives to reduce indirect energy consumption and reductions achieved.
<b>Aspect : Water</b>	
8	Total water withdrawal by source
9	Water sources significantly affected by withdrawal of water.
10	Percentage and total volume of water recycled and reused.
<b>Aspect : Biodiversity</b>	
11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas
13	Habitats protected or restored.
14	Strategies, current actions, and future plans for managing impacts on biodiversity
15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk
<b>Aspect : Emissions, Effluents, And Waste</b>	
16	Total direct and indirect greenhouse gas emissions by weight
17	Other relevant indirect greenhouse gas emissions by weight.
18	Initiatives to reduce greenhouse gas emissions and reductions achieved.
19	Emissions of ozone-depleting substances by weight.
20	NO, SO, and other significant air emissions by type and weight
21	Total water discharge by quality and destination.
22	Total weight of waste by type and disposal method.
23	Total number and volume of significant spills.
24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally
25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water



	and runoff.
<b>Aspect : Products And Services</b>	
26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.
27	Percentage of products sold and their packaging materials that are reclaimed by category.
<b>Aspect : Compliance</b>	
28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations
<b>Aspect : Transport</b>	
29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.
<b>Aspect : Overall</b>	
30	Total environmental protection expenditures and investments by type.



**Appendix 3**

**Calculation Result of Variables**

1. The Calculation Result of VACA

Company	Year	VA=OUT-IN			VACA=VA/CE	
		OUT	IN	VA	CE	VACA
ADRO	2010	24,689,333,000	18,898,640,000	5,790,693,000	18,576,441,000	0.311722
	2011	33,535,936,937	26,059,469,861	7,476,467,076	22,202,027,273	0.336747
	2012	36,249,136,364	29,119,772,727	7,129,363,636	26,982,468,468	0.264222
	2013	40,062,707,317	35,288,707,317	4,774,000,000	38,709,670,732	0.123328
	2014	41,568,050,000	37,896,050,000	3,672,000,000	40,726,850,000	0.090162
BYAN	2010	8,777,324,000	7,292,293,000	1,485,031,000	2,939,406,000	0.505215
	2011	13,943,095,800	11,778,438,336	2,164,657,464	3,068,628,342	0.705415
	2012	13,887,206,612	12,739,748,058	1,147,458,553	6,988,152,282	0.164201
	2013	13,993,511,317	14,254,003,110	(260,491,793)	5,485,868,512	-0.04748
	2014	10,369,714,963	12,380,880,850	(2,011,165,888)	3,194,150,563	-0.62964
ITMG	2010	15,077,594,595	11,383,216,216	3,694,378,378	6,495,711,712	0.568741
	2011	21,713,463,636	16,133,810,811	5,579,652,826	9,030,783,784	0.617848
	2012	23,814,407,767	19,484,446,602	4,329,961,165	10,493,242,718	0.412643
	2013	26,678,170,732	24,070,512,195	2,607,658,537	10,956,963,415	0.237991
	2014	24,361,575,000	26,881,637,500	(2,520,062,500)	11,232,800,000	-0.22435
KKGJ	2010	969,354,917	727,982,428	241,372,489	306,844,296	0.786629
	2011	2,110,567,342	1,741,478,333	369,089,009	660,349,919	0.558929
	2012	2,095,065,058	1,753,267,573	341,797,485	711,639,233	0.480296
	2013	2,373,204,232	1,999,118,866	374,085,366	894,520,805	0.418196
	2014	1,420,914,313	1,499,265,488	(78,351,175)	1,244,608,638	-0.06295
MYOH	2010	691,212,357	626,266,022	64,946,335	158,378,934	0.410069
	2011	1,430,022,411	1,208,684,886	221,337,525	461,425,072	0.479682
	2012	1,795,260,005	1,574,575,598	220,684,407	271,057,107	0.814162
	2013	2,457,936,679	1,792,074,856	665,861,823	782,255,013	0.851208
	2014	3,031,386,535	2,073,815,864	957,570,671	1,003,309,826	0.954412
PKPK	2010	290,440,471	118,030,205	172,410,266	192,605,908	0.895145
	2011	389,723,325	104,317,394	285,405,931	189,686,346	1.50462
	2012	294,488,422	314,270,380	(19,781,958)	174,824,702	-0.11315
	2013	202,625,598	209,330,098	(6,704,500)	175,158,380	-0.03828
	2014	76,405,376	114,504,961	(38,099,585)	146,734,588	-0.25965
ELSA	2010	4,218,030,000	3,739,387,000	478,643,000	1,955,330,000	0.244789
	2011	4,730,356,000	4,464,213,000	266,143,000	1,904,825,000	0.13972
	2012	4,777,083,000	4,092,788,000	684,295,000	2,042,245,000	0.33507
	2013	4,111,973,000	3,221,458,000	890,515,000	2,285,114,000	0.389703
	2014	4,221,172,000	3,083,080,000	1,138,092,000	2,582,996,000	0.440609
ANTM	2010	8,744,300,219	5,178,385,045	3,565,915,174	9,583,550,411	0.372087
	2011	10,346,433,404	6,381,856,384	3,964,577,020	10,772,043,550	0.368043
	2012	10,449,885,512	7,506,161,291	2,943,724,221	12,832,316,056	0.229399
	2013	11,298,321,506	8,611,813,865	2,686,507,641	12,793,487,532	0.20999
	2014	9,420,630,933	7,664,835,272	1,755,795,661	11,929,561,267	0.14718

INCO	2010	11,602,936,364	5,189,645,455	6,413,290,909	15,271,272,727	0.419958
	2011	11,194,189,189	5,672,720,721	5,521,468,468	15,938,459,459	0.346424
	2012	9,391,524,272	6,800,893,204	2,590,631,068	16,712,951,456	0.155007
	2013	11,239,487,805	8,306,548,780	2,932,939,024	20,905,682,927	0.140294
	2014	12,976,025,000	7,828,187,500	5,147,837,500	22,316,912,500	0.23067
TMPI	2010	214,693,830	189,701,957	24,991,873	1,067,220,017	0.023418
	2011	202,760,565	174,375,360	28,385,205	955,303,721	0.029713
	2012	202,546,906	178,102,924	24,443,982	1,021,506,517	0.023929
	2013	180,247,633	154,038,199	26,209,434	1,024,915,684	0.025572
	2014	122,380,737	104,228,519	18,152,218	1,027,456,751	0.017667
CTTH	2010	152,559,965	68,127,835	84,432,130	75,076,025	1.124622
	2011	148,501,516	60,566,010	87,935,506	75,992,484	1.157161
	2012	161,783,288	56,743,090	105,040,198	78,751,784	1.333814
	2013	240,794,596	61,179,782	179,614,814	79,235,864	2.266837
	2014	206,226,258	41,316,619	164,909,639	80,250,182	2.054944
ATPK	2010	61,167,647	51,849,421	9,318,226	86,745,890	0.10742
	2011	135,460,620	112,253,122	23,207,498	38,642,862	0.600564
	2012	181,494,610	154,885,762	26,608,848	43,824,058	0.607174
	2013	409,411,286	312,289,431	97,121,855	1,121,217,431	0.086622
	2014	672,653,702	488,208,189	184,445,513	1,795,865,062	0.102706
BUMI	2010	26,608,424,727	16,243,611,712	10,364,813,016	11,988,890,909	0.864535
	2011	36,045,567,568	19,559,306,306	16,486,261,261	10,598,225,225	1.555568
	2012	36,655,514,563	24,807,475,728	11,848,038,835	3,807,271,845	3.11195
	2013	43,261,268,293	32,661,554,878	10,599,713,415	(3,694,621,951)	-2.86896
	2014	34,825,837,500	26,373,675,000	8,452,162,500	(9,163,012,500)	-0.92242
HRUM	2010	4,486,422,000	2,909,766,000	1,576,656,000	2,544,890,000	0.619538
	2011	7,296,631,000	2,974,211,000	4,322,420,000	3,556,981,000	1.215193
	2012	9,458,759,257	7,032,193,495	2,426,565,761	4,161,547,951	0.583092
	2013	10,208,289,634	8,067,184,646	2,141,104,988	4,816,768,293	0.444511
	2014	5,970,548,875	4,884,275,988	1,086,272,888	4,524,608,550	0.240081
ARTI	2010	335,114,392	170,401,469	164,712,923	795,290,254	0.20711
	2011	309,744,775	142,625,590	167,119,185	803,063,370	0.208102
	2012	449,486,392	246,986,794	202,499,598	853,750,021	0.237188
	2013	404,543,663	77,649,637	326,894,026	927,916,027	0.352288
	2014	357,566,721	117,830,209	239,736,512	967,412,481	0.247812

2. The Calculation Result of VAHU and STVA

Company	Year	VAHU=VA/HC		STVA=SC/VA	
		HC	VAHU	SC	STVA
				(VA-HC)	
ADRO	2010	740,775,000	7.82	5,049,918,000	0.87
	2011	994,684,685	7.52	6,481,782,391	0.87
	2012	1,197,218,182	5.95	5,932,145,455	0.83
	2013	1,609,439,024	2.97	3,164,560,976	0.66
	2014	1,646,800,000	2.23	2,025,200,000	0.55
BYAN	2010	343,215,000	4.33	1,141,816,000	0.77
	2011	425,755,518	5.08	1,738,901,945	0.80
	2012	553,697,777	2.07	593,760,777	0.52
	2013	597,048,878	-0.44	(857,540,671)	3.29
	2014	521,214,700	-3.86	(2,532,380,588)	1.26
ITMG	2010	405,306,306	9.12	3,289,072,072	0.89
	2011	536,936,937	10.39	5,042,715,889	0.90
	2012	541,844,660	7.99	3,788,116,505	0.87
	2013	780,865,854	3.34	1,826,792,683	0.70
	2014	666,700,000	-3.78	(3,186,762,500)	1.26
KKGI	2010	20,631,542	11.70	220,740,947	0.91
	2011	34,067,378	10.83	335,021,631	0.91
	2012	46,429,534	7.36	295,367,951	0.86
	2013	67,960,524	5.50	306,124,841	0.82
	2014	54,612,150	-1.43	(132,963,325)	1.70
MYOH	2010	34,360,910	1.89	30,585,425	0.47
	2011	28,188,250	7.85	193,149,275	0.87
	2012	56,865,990	3.88	163,818,417	0.74
	2013	71,797,098	9.27	594,064,725	0.89
	2014	116,321,089	8.23	841,249,582	0.88
PKPK	2010	30,033,070	5.74	142,377,196	0.83
	2011	51,693,295	5.52	233,712,636	0.82
	2012	43,390,782	-0.46	(63,172,740)	3.19
	2013	32,140,815	-0.21	(38,845,315)	5.79
	2014	12,331,714	-3.09	(50,431,299)	1.32
ELSA	2010	464,006,000	1.03	14,637,000	0.03
	2011	398,054,000	0.67	(131,911,000)	-0.50
	2012	520,395,000	1.31	163,900,000	0.24
	2013	651,378,000	1.37	239,137,000	0.27
	2014	747,149,000	1.52	390,943,000	0.34

ANTM	2010	628,835,117	5.67	2,937,080,057	0.82
	2011	936,878,854	4.23	3,027,698,166	0.76
	2012	920,996,263	3.20	2,022,727,958	0.69
	2013	1,070,706,960	2.51	1,615,800,681	0.60
	2014	979,300,745	1.79	776,494,916	0.44
INCO	2010	721,190,909	8.89	5,692,100,000	0.89
	2011	891,567,568	6.19	4,629,900,901	0.84
	2012	972,135,922	2.66	1,618,495,146	0.62
	2013	1,226,914,634	2.39	1,706,024,390	0.58
	2014	1,314,562,500	3.92	3,833,275,000	0.74
TMPI	2010	12,530,961	1.99	12,460,912	0.50
	2011	17,505,665	1.62	10,879,540	0.38
	2012	12,302,687	1.99	12,141,295	0.50
	2013	12,680,747	2.07	13,528,687	0.52
	2014	7,802,169	2.33	10,350,049	0.57
CTTH	2010	39,118,640	2.16	45,313,490	0.54
	2011	41,863,001	2.10	46,072,505	0.52
	2012	46,233,844	2.27	58,806,354	0.56
	2013	46,066,693	3.90	133,548,121	0.74
	2014	61,112,392	2.70	103,797,247	0.63
ATPK	2010	3,307,418	2.82	6,010,808	0.65
	2011	10,690,423	2.17	12,517,075	0.54
	2012	13,988,418	1.90	12,620,430	0.47
	2013	59,028,562	1.65	38,093,293	0.39
	2014	24,053,690	7.67	160,391,823	0.87
BUMI	2010	1,597,288,288	6.49	8,767,524,727	0.85
	2011	2,124,117,117	7.76	14,362,144,144	0.87
	2012	2,295,572,816	5.16	9,552,466,019	0.81
	2013	3,103,695,122	3.42	7,496,018,293	0.71
	2014	2,358,912,500	3.58	6,093,250,000	0.72
HRUM	2010	280,918,577	5.61	1,295,737,423	0.82
	2011	511,679,000	8.45	3,810,741,000	0.88
	2012	715,934,782	3.39	1,710,630,979	0.70
	2013	825,094,024	2.59	1,316,010,964	0.61
	2014	613,908,098	1.77	472,364,790	0.43
ARTI	2010	25,890,800	6.36	138,822,123	0.84
	2011	46,217,153	3.62	120,902,032	0.72
	2012	31,267,729	6.48	171,231,869	0.85
	2013	56,297,374	5.81	270,596,652	0.83
	2014	46,625,674	5.14	193,110,838	0.81



### 3. The calculation result of Corporate Social Responsibility Disclosure

Indicator	ADARO					BAYAN					ITMG				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	1	0	1	1	1	0	0	0	0	0	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
7	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
8	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
9	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
10	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
16	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
19	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
23	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>total</b>	<b>11</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>20</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>9</b>
<b>%</b>	<b>0.37</b>	<b>0.667</b>	<b>0.7</b>	<b>0.733</b>	<b>0.667</b>	<b>0.2</b>	<b>0.2</b>	<b>0.233</b>	<b>0.233</b>	<b>0.233</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.27</b>	<b>0.3</b>

Indicator	KKG					MYOH					PKPK				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
13	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
14	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
19	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
total	6	6	7	7	7	8	7	9	9	9	1	1	1	1	1
%	0.2	0.2	0.233	0.23	0.23	0.27	0.233	0.3	0.3	0.3	0.033	0.033	0.033	0.033	0.033

Indicator	ELSA					ANTAM					INCO				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
3	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
4	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
total	15	14	14	15	15	13	13	13	13	13	15	15	15	15	15
%	0.5	0.467	0.47	0.5	0.5	0.43	0.433	0.433	0.433	0.433	0.5	0.5	0.5	0.5	0.5

Indicator	TMPI					CTTH					ATPK				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
12	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
13	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
22	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
27	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
total	2	2	2	2	2	11	11	11	11	11	12	12	11	11	11
%	0.067	0.067	0.07	0.067	0.067	0.37	0.37	0.367	0.37	0.367	0.4	0.4	0.367	0.37	0.367

Indicator	BUMI					HRUM					ARTI				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
2	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
3	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
4	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
7	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
13	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
19	0	0	1	1	1	0	0	0	0	0	0	0	1	1	1
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
total	6	6	7	7	7	15	14	14	15	15	6	6	7	7	7
%	0.2	0.2	0.233	0.233	0.233	0.5	0.4667	0.467	0.5	0.5	0.2	0.2	0.233	0.233	0.233



## The Recapitulation of CSR disclosure

COMPANY	YEAR	CSR
_ADRO	2010	0.366666667
_ADRO	2011	0.666666667
_ADRO	2012	0.7
_ADRO	2013	0.733333333
_ADRO	2014	0.666666667
_BYAN	2010	0.2
_BYAN	2011	0.2
_BYAN	2012	0.233333333
_BYAN	2013	0.233333333
_BYAN	2014	0.233333333
_ITMG	2010	0.3
_ITMG	2011	0.3
_ITMG	2012	0.3
_ITMG	2013	0.266666667
_ITMG	2014	0.3
_KGGI	2010	0.2
_KGGI	2011	0.2
_KGGI	2012	0.233333333
_KGGI	2013	0.233333333
_KGGI	2014	0.233333333
_MYOH	2010	0.266666667
_MYOH	2011	0.233333333
_MYOH	2012	0.3
_MYOH	2013	0.3
_MYOH	2014	0.3
_PKPK	2010	0.033333333
_PKPK	2011	0.033333333
_PKPK	2012	0.033333333
_PKPK	2013	0.033333333
_PKPK	2014	0.033333333
_ELSA	2010	0.5
_ELSA	2011	0.466666667
_ELSA	2012	0.466666667
_ELSA	2013	0.5
_ELSA	2014	0.5
_ANTM	2010	0.433333333
_ANTM	2011	0.433333333
_ANTM	2012	0.433333333
_ANTM	2013	0.433333333
_ANTM	2014	0.433333333
_INCO	2010	0.5
_INCO	2011	0.5
_INCO	2012	0.5
_INCO	2013	0.5
_INCO	2014	0.5
_TMPI	2010	0.066666667
_TMPI	2011	0.066666667
_TMPI	2012	0.066666667
_TMPI	2013	0.066666667
_TMPI	2014	0.066666667
_CTTH	2010	0.366666667
_CTTH	2011	0.366666667
_CTTH	2012	0.366666667
_CTTH	2013	0.366666667
_CTTH	2014	0.366666667
_ATPK	2010	0.4
_ATPK	2011	0.4
_ATPK	2012	0.366666667
_ATPK	2013	0.366666667
_ATPK	2014	0.366666667
_BUMI	2010	0.2
_BUMI	2011	0.2
_BUMI	2012	0.233333333
_BUMI	2013	0.233333333
_BUMI	2014	0.233333333
_HRUM	2010	0.5
_HRUM	2011	0.466666667
_HRUM	2012	0.466666667
_HRUM	2013	0.5
_HRUM	2014	0.5
_ARTI	2010	0.2
_ARTI	2011	0.2
_ARTI	2012	0.233333333
_ARTI	2013	0.233333333
_ARTI	2014	0.233333333

4. The calculation result of INCO, MOWN, AUCO, INSO

COMPANY	YEAR	INCO	MOWN	AUCO	INSO
_ADRO	2010	0.333333	0.237072	3	0.5561
_ADRO	2011	0.333333	0.237072	3	0.5561
_ADRO	2012	0.333333	0.237072	3	0.5561
_ADRO	2013	0.333333	0.151541	3	0.5561
_ADRO	2014	0.333333	0.151224	3	0.5561
_BYAN	2010	0.4	0.6507	4	0.1
_BYAN	2011	0.4	0.65	3	0.1
_BYAN	2012	0.4	0.65	3	0.1
_BYAN	2013	0.4	0.65	3	0.1
_BYAN	2014	0.4	0.65	3	0.1
_ITMG	2010	0.166667	0.000047	3	0.650657
_ITMG	2011	0.166667	0.000178	3	0.650657
_ITMG	2012	0.166667	0.000121	3	0.650657
_ITMG	2013	0.166667	0.000137	3	0.650657
_ITMG	2014	0.166667	0.000137	3	0.650657
_KKG	2010	0	0.0017	1	0.6486
_KKG	2011	0	0.0017	1	0.6486
_KKG	2012	0.4	0.0017	3	0.6486
_KKG	2013	0.4	0.003305	3	0.6486
_KKG	2014	0.4	0.0033	3	0.6486
_MYOH	2010	0.333333	0.001	3	0.7423
_MYOH	2011	0.333333	0.001	3	0.7423
_MYOH	2012	0.333333	0.00025	3	0.7423
_MYOH	2013	0.333333	0.00025	3	0.7423
_MYOH	2014	0.333333	0.00025	3	0.7423
_PKPK	2010	0.333333	0.4157	3	0.09
_PKPK	2011	0.333333	0.4953	3	0.09
_PKPK	2012	0.333333	0.5532	3	0.09
_PKPK	2013	0.333333	0.5532	3	0.09
_PKPK	2014	0.333333	0.5532	3	0.09
_ELSA	2010	0.4	0.00001	4	0.7158
_ELSA	2011	0.4	0.00001	4	0.7158
_ELSA	2012	0.4	0.00001	4	0.7158
_ELSA	2013	0.4	0.00001	4	0.7158
_ELSA	2014	0.4	0.0009	4	0.7158
_ANTM	2010	0.5	5.36E-05	6	0.65
_ANTM	2011	0.285714	5.36E-05	6	0.65
_ANTM	2012	0.333333	5.36E-05	6	0.65
_ANTM	2013	0.333333	5.36E-05	6	0.65
_ANTM	2014	0.333333	5.36E-05	6	0.65

_INCO	2010	0.2	0.0002	3	0.7951
_INCO	2011	0.2	0.0002	3	0.7951
_INCO	2012	0.2	0.0002	4	0.7951
_INCO	2013	0.2	0.00035	4	0.7951
_INCO	2014	0.2	0.00035	4	0.7951
_TMPI	2010	0.333333	0.00015	3	0.077
_TMPI	2011	0.333333	0.00015	3	0.077
_TMPI	2012	0.333333	0.00015	3	0.077
_TMPI	2013	0.333333	0.00015	3	0.077
_TMPI	2014	0.333333	0.00018	3	0.077
_CTTH	2010	0.333333	0.658	3	0.5221
_CTTH	2011	0.333333	0.658	3	0.5221
_CTTH	2012	0.333333	0.653	3	0.5221
_CTTH	2013	0.333333	0.653	3	0.5221
_CTTH	2014	0.333333	0.653	3	0.5221
_ATPK	2010	0.333333	0	3	0.625
_ATPK	2011	0.333333	0.011	3	0.625
_ATPK	2012	0.333333	0.011	3	0.625
_ATPK	2013	0.333333	0.011	3	0.625
_ATPK	2014	0.333333	0.13	3	0.625
_BUMI	2010	0.571429	0.00089	4	0.2918
_BUMI	2011	0.571429	0.00089	4	0.2918
_BUMI	2012	0.571429	0.00089	3	0.2918
_BUMI	2013	0.571429	0.00078	3	0.2918
_BUMI	2014	0.571429	0.00078	3	0.2918
_HRUM	2010	0.4	0.00006	2	0.25
_HRUM	2011	0.4	0.00006	3	0.3
_HRUM	2012	0.4	0.00006	3	0.35
_HRUM	2013	0.4	0.0001	3	0.35
_HRUM	2014	0.4	0.0001	3	0.35
_ARTI	2010	0.333333	0.018	2	0.25
_ARTI	2011	0.333333	0.018	2	0.25
_ARTI	2012	0.333333	0.0176	2	0.25
_ARTI	2013	0.333333	0.0176	2	0.28
_ARTI	2014	0.333333	0.0165	2	0.28

5. The calculation result of TQ

company	desc	2010	2011	2012	2013	2014
ADRO	EMV+D	103,534,572,100	85,858,225,467	84,165,895,796	78,020,601,019	72,709,150,480
	EBV+D	40,600,921,000	51,445,100,000	74,284,041,600	53,870,296,000	51,309,184,000
	Q	<b>2.550054766</b>	<b>1.66892912</b>	<b>1.133027956</b>	<b>1.448304665</b>	<b>1.417078675</b>
BYAN	EMV+D	60,005,336,856	67,967,890,973	39,830,880,483	41,954,647,372	33,493,221,138
	EBV+D	8,372,906,000	14,511,341,473	18,534,999,883	14,166,540,415	19,584,860,663
	Q	<b>7.17</b>	<b>4.68</b>	<b>2.15</b>	<b>2.96</b>	<b>1.71</b>
ITMG	EMV+D	60,665,153,209	48,155,114,764	51,694,082,779	37,352,987,805	22,420,760,487
	EBV+D	9,817,171,171	14,220,486,486	14,477,902,913	16,179,951,220	16,341,850,000
	Q	<b>6.179494291</b>	<b>3.386319787</b>	<b>3.570550451</b>	<b>2.308597059</b>	<b>1.37198423</b>
KGGI	EMV+D	10,361,164,120	6,768,658,378	2,771,142,398	2,449,231,659	1,347,178,613
	EBV+D	1,306,844,296	971,226,505	1,007,781,631	1,293,752,463	1,244,608,638
	Q	<b>7.93</b>	<b>6.97</b>	<b>2.75</b>	<b>1.89</b>	<b>1.08</b>
MYOH	EMV+D	2,472,262,682	2,288,566,053	2,257,058,918	2,366,853,250	2,038,278,165
	EBV+D	350,785,366	423,309,608	1,292,581,025	1,815,818,263	2,031,097,095
	Q	<b>7.05</b>	<b>5.41</b>	<b>1.75</b>	<b>1.30</b>	<b>1.00</b>
PKPK	EMV+D	379,598,750	391,351,936	356,555,145	237,990,421	209,321,131
	EBV+D	467,804,659	471,838,283	396,379,847	361,548,802	303,255,720
	Q	<b>0.81</b>	<b>0.83</b>	<b>0.90</b>	<b>0.66</b>	<b>0.69</b>
BUMI	EMV+D	7,578,719,000	4,163,780,000	3,514,952,500	4,494,355,000	6,662,180,500
	EBV+D	3,695,249,000	4,389,950,000	4,294,557,000	4,370,964,000	4,245,704,000
	Q	<b>2.05</b>	<b>0.95</b>	<b>0.82</b>	<b>1.03</b>	<b>1.57</b>
ANTM	EMV+D	26,004,565,747	19,881,496,322	19,085,453,370	19,468,550,987	20,273,100,587
	EBV+D	12,218,889,770	15,201,235,077	19,708,540,946	21,865,117,391	22,044,202,220
	Q	<b>2.13</b>	<b>1.31</b>	<b>0.97</b>	<b>0.89</b>	<b>0.92</b>
INCO	EMV+D	53,079,602,295	37,671,894,213	29,288,706,672	33,244,139,071	36,019,227,860
	EBV+D	19,911,227,273	21,814,072,072	28,452,195,122	27,818,524,390	28,513,987,500
	Q	<b>2.665812688</b>	<b>1.72695378</b>	<b>1.029400598</b>	<b>1.195036034</b>	<b>1.263212585</b>
TMPI	EMV+D	1,195,010,146	1,096,132,552	2,882,592,144	3,190,024,313	2,832,663,062
	EBV+D	1,347,009,705	1,265,816,392	1,290,609,089	1,188,794,177	1,175,103,158
	Q	<b>0.89</b>	<b>0.87</b>	<b>2.23</b>	<b>2.68</b>	<b>2.41</b>
CTTH	EMV+D	213,170,837	229,648,666	261,460,490	330,190,472	374,423,584
	EBV+D	199,626,395	218,251,524	261,438,526	326,960,068	366,053,299
	Q	<b>1.067848954</b>	<b>1.052220219</b>	<b>1.00008401</b>	<b>1.009880118</b>	<b>1.022866302</b>
ATPK	EMV+D	215,847,124	210,997,231	224,953,340	1,923,388,150	1,825,598,838
	EBV+D	147,157,866	111,660,087	150,829,602	1,489,339,945	1,795,865,062
	Q	<b>1.47</b>	<b>1.89</b>	<b>1.49</b>	<b>1.29</b>	<b>1.02</b>
BUMI	EMV+D	114,918,407,727	100,963,388,243	79,850,257,456	95,340,154,146	94,757,889,293
	EBV+D	64,067,763,636	66,379,468,468	71,401,233,010	87,548,850,000	81,256,600,000
	Q	<b>1.79</b>	<b>1.52</b>	<b>1.12</b>	<b>1.09</b>	<b>1.17</b>
HRUM	EMV+D	25,225,284,000	19,583,625,950	17,221,268,745	8,479,412,878	5,531,542,325
	EBV+D	3,470,174,000	3,556,981,000	5,229,507,777	5,861,233,378	5,551,335,725
	Q	<b>7.27</b>	<b>5.51</b>	<b>3.29</b>	<b>1.45</b>	<b>1.00</b>
ARTI	EMV+D	451,592,570	513,212,758	969,694,621	933,324,279	964,626,485
	EBV+D	1,382,807,630	1,382,807,630	1,415,764,642	1,577,432,306	1,577,432,306
	Q	<b>0.33</b>	<b>0.37</b>	<b>0.68</b>	<b>0.59</b>	<b>0.61</b>

COMPANY	YEAR	TQ
_ADRO	2010	2.550055
_ADRO	2011	1.668929
_ADRO	2012	1.133028
_ADRO	2013	1.448305
_ADRO	2014	1.417079
_BYAN	2010	7.166608
_BYAN	2011	4.683777
_BYAN	2012	2.148955
_BYAN	2013	2.961531
_BYAN	2014	1.710159
_ITMG	2010	6.179494
_ITMG	2011	3.38632
_ITMG	2012	3.57055
_ITMG	2013	2.308597
_ITMG	2014	1.371984
_KGGI	2010	7.93
_KGGI	2011	6.969186
_KGGI	2012	2.749745
_KGGI	2013	1.893122
_KGGI	2014	1.082411
_MYOH	2010	7.047793
_MYOH	2011	5.406365
_MYOH	2012	1.746164
_MYOH	2013	1.303464
_MYOH	2014	1.003536
_PKPK	2010	0.811447
_PKPK	2011	0.82942
_PKPK	2012	0.899529
_PKPK	2013	0.658253
_PKPK	2014	0.690246
_ELSA	2010	2.050936
_ELSA	2011	0.94848
_ELSA	2012	0.818467
_ELSA	2013	1.02823
_ELSA	2014	1.569158
_ANTM	2010	2.128227
_ANTM	2011	1.307887
_ANTM	2012	0.968385
_ANTM	2013	0.890393
_ANTM	2014	0.919657

_INCO	2010	2.665813
_INCO	2011	1.726954
_INCO	2012	1.029401
_INCO	2013	1.195036
_INCO	2014	1.263213
_TMPI	2010	0.887158
_TMPI	2011	0.865949
_TMPI	2012	2.233513
_TMPI	2013	2.683412
_TMPI	2014	2.410565
_CTTH	2010	1.067849
_CTTH	2011	1.05222
_CTTH	2012	1.000084
_CTTH	2013	1.00988
_CTTH	2014	1.022866
_ATPK	2010	1.466773
_ATPK	2011	1.889639
_ATPK	2012	1.49144
_ATPK	2013	1.291437
_ATPK	2014	1.016557
_BUMI	2010	1.793701
_BUMI	2011	1.521003
_BUMI	2012	1.118332
_BUMI	2013	1.088994
_BUMI	2014	1.166156
_HRUM	2010	7.26917
_HRUM	2011	5.505688
_HRUM	2012	3.293096
_HRUM	2013	1.446694
_HRUM	2014	0.996434
_ARTI	2010	0.326577
_ARTI	2011	0.371138
_ARTI	2012	0.684926
_ARTI	2013	0.591673
_ARTI	2014	0.611517



Appendix 4

Descriptive Statistics of Variables

**Descriptive Statistics**

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
VACA	75	-2.8690	3.1119	.412570	.0821218	.7111953
VAHU	75	-3.8586	11.6992	3.9419E0	.3760101	3.2563432
STVA	75	-.4956	5.7939	.843860	.0882938	.7646469
CSR	75	.0333	.7333	.322222	.0192068	.1663360
INCO	75	.0000	.5714	.337905	.0123166	.1066647
MOWN	75	.0000	.6580	.138453	.0281258	.2435764
AUCO	75	1	6	3.21	.110	.949
INSO	75	.0770	.7951	.469764	.0285762	.2474773
TQ	75	.3266	7.9300	2.0588E0	.2092989	1.8125819
Valid N (listwise)	75					

Appendix 5

Result of Normality Test of Data

One-Sample Kolmogorov-Smirnov Test

		svACA	VACA	VAHU	STVA	CSR	INCOM	MOWN	AUCO	INSO	TQ
N		77	75	75	75	75	75	75	75	75	75
Normal Parameters <sup>a</sup>	Mean	.386157	-.052657	.000615	-.121540	.001336	.008535	.000120	.003546	.040682	-.253204
	Std. Deviation	...	...	1.0019E0	...	1.0002E0	1.0062E0	1.0024E0	1.0091E0	1.0311E0	...
Most Extreme Differences	Absolute	.134	.135	.090	.149	.117	.310	.388	.376	.201	.152
	Positive	.134	.135	.090	.143	.117	.200	.388	.376	.132	.152
	Negative	-.089	-.092	-.090	-.149	-.098	-.310	-.259	-.304	-.201	-.135
Kolmogorov-Smirnov Z		1.173	1.167	.779	1.295	1.012	2.681	3.364	3.253	1.744	1.314
Asymp. Sig. (2-tailed)		.127	.131	.579	.070	.258	.000	.000	.000	.005	.063

a. Test distribution is Normal.

## Appendix 6

### Result of Multiple Linear Regression Analysis

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510 <sup>a</sup>	.260	.171	.5093037

a. Predictors: (Constant), INSO, STVA, VACA, MOWN, AUCO, INCOM, CSR, VAHU

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.029	8	.754	2.905	.008 <sup>a</sup>
	Residual	17.120	66	.259		
	Total	23.148	74			

a. Predictors: (Constant), INSO, STVA, VACA, MOWN, AUCO, INCOM, CSR, VAHU

b. Dependent Variable: TQ

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.253	.067		-3.764	.000
	VACA	.063	.126	.068	2.498	.048
	VAHU	.190	.082	.341	2.313	.024
	STVA	.015	.251	.007	.062	.951
	CSR	.040	.080	.072	.501	.618
	INCOM	.155	.072	.278	.137	.136
	MOWN	-.029	.067	-.053	-.437	.664
	AUCO	-.034	.071	-.061	-.481	.632
	INSO	.005	.091	.009	2.052	.028

a. Dependent Variable: TQ

Appendix 7

Result of Normality Test of Model

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		75
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	.48098659
Most Extreme Differences	Absolute	.088
	Positive	.088
	Negative	-.055
Kolmogorov-Smirnov Z		.759
Asymp. Sig. (2-tailed)		.612

a. Test distribution is Normal.

Appendix 8

Result of Multicollinearity Test

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.253	.067		-3.764	.000		
	VACA	-.063	.126	-.068	-.498	.620	.610	1.640
	VAHU	.190	.082	.341	2.313	.024	.517	1.934
	STVA	.015	.251	.007	.062	.951	.901	1.110
	CSR	-.040	.080	-.072	-.501	.618	.543	1.842
	INCOM	-.155	.072	-.278	-2.137	.036	.662	1.511
	MOWN	-.029	.067	-.053	-.437	.664	.772	1.296
	AUCO	-.034	.071	-.061	-.481	.632	.688	1.452
	INSO	.005	.091	.009	.052	.958	.396	2.525

a. Dependent Variable: TQ

Appendix 9

Result of Heteroscedasticity test

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.344	.038		9.094	.000
	VACA	-.058	.071	-.101	-.811	.421
	VAHU	.114	.046	.333	2.466	.066
	STVA	.049	.141	.036	.350	.727
	CSR	-.051	.045	-.150	-1.135	.260
	INCOM	-.124	.041	-.365	-3.060	.063
	MOWN	-.019	.038	-.055	-.501	.618
	AUCO	-.031	.040	-.090	-.772	.443
	INSO	-.089	.051	-.267	-1.733	.088

a. Dependent Variable: RES2

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.0113	1.0372	.3359	.21015	75
Residual	-.40809	1.41496	.00000	.26989	75
Std. Predicted Value	-1.652	3.337	.000	1.000	75
Std. Residual	-1.428	4.951	.000	.944	75

a. Dependent Variable: RES2



Appendix 10

Result of Autocorrelation Test

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.510 <sup>a</sup>	.260	.171	.5093037	1.917

a. Predictors: (Constant), INSO, STVA, VACA, MOWN, AUCO, INCOM, CSR, VAHU

b. Dependent Variable: TQ

Appendix 11

Result of Correlation Test

Correlations

		VACA	VAHU	STVA	CSR	INCOM	MOWN	AUCO	INSO	TQ
VACA	Pearson Correlation	1	.341**	-.116	.039	-.027	.163	-.068	.107	.124'
	Sig. (1-tailed)		.001	.161	.370	.410	.081	.282	.181	.044
	N	75	75	75	75	75	75	75	75	75
VAHU	Pearson Correlation	.341**	1	-.155	.057	-.153	-.255*	-.243'	.234'	.423**
	Sig. (1-tailed)	.001		.092	.313	.095	.014	.018	.022	.000
	N	75	75	75	75	75	75	75	75	75
STVA	Pearson Correlation	-.116	-.155	1	-.349**	.029	.226'	-.137	-.314**	.019
	Sig. (1-tailed)	.161	.092		.001	.403	.025	.121	.003	.436
	N	75	75	75	75	75	75	75	75	75
CSR	Pearson Correlation	.039	.057	-.349**	1	-.094	-.180	.298**	.630**	.052
	Sig. (1-tailed)	.370	.313	.001		.212	.061	.005	.000	.327
	N	75	75	75	75	75	75	75	75	75
INCOM	Pearson Correlation	-.027	-.153	.029	-.094	1	-.234'	.253'	-.400**	.195
	Sig. (1-tailed)	.410	.095	.403	.212		.022	.014	.000	.147
	N	75	75	75	75	75	75	75	75	75
MOWN	Pearson Correlation	.163	-.255*	.226'	-.180	-.234'	1	-.121	-.298**	-.128
	Sig. (1-tailed)	.081	.014	.025	.061	.022		.150	.005	.137
	N	75	75	75	75	75	75	75	75	75
AUCO	Pearson Correlation	-.068	-.243'	-.137	.298**	.253'	-.121	1	.272**	-.264
	Sig. (1-tailed)	.282	.018	.121	.005	.014	.150		.009	.011
	N	75	75	75	75	75	75	75	75	75
INSO	Pearson Correlation	.107	.234'	-.314**	.630**	-.400**	-.298**	.272**	1	.051'
	Sig. (1-tailed)	.181	.022	.003	.000	.000	.005	.009		.032
	N	75	75	75	75	75	75	75	75	75
TQ	Pearson Correlation	.124'	.423**	.019	.052	.195	-.128	-.264	.051'	1
	Sig. (1-tailed)	.044	.000	.436	.327	.147	.137	.011	.032	
	N	75	75	75	75	75	75	75	75	75

\*\* Correlation is significant at the 0.01 level (1-tailed).

\* Correlation is significant at the 0.05 level (1-tailed).