THE EFFECT OF CORPORATE SUSTAINABILITY DISCLOSURE ON FINANCIAL PERFORMANCE IN ASEAN COUNTRIES

PROMPORN POOWADIN

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY PROGRAM IN BUSINESS ADMINISTRATION

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ABSTRACT

The main purpose of the study was to investigate the extent of corporate sustainability disclosures and financial performance from 2010 to 2014. To study the relationship between the extent of GRI disclosures and the financial performance, a GRI guideline was developed to identify GRI practices in ASEAN companies: Thailand, Malaysia, Indonesia, the Philippines, and Singapore.

The process was employed to develop an index based on six GRI indicators: economic, environmental, labor, society, human rights, and product responsibility. The financial performance measurements included: return on assets, return on equity, and net sales. Secondary data from 260 ASEAN listed companies were analyzed using Multiple Linear Regression at the statistically significant level of 0.05.

The results illustrated that corporate sustainability disclosures had a significant relationship with financial performance. The result of asset returns related to GRI disclosure at the environmental level and product responsibility. The result of returns on equity related to GRI disclosure at the environmental level. The net sales result related to GRI disclosure at the environment and labor level. Additionally, the results showed that the sustainability disclosure of environment information had an impact on financial performance. These findings help to understand that corporate sustainability disclosure is an important driver mechanism for organizations to make their learning more efficient, effective, and sustainable.

Keywords: corporate sustainability disclosure, global reporting initiative, financial performance

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Promporn poowadin

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CHAPTER 1
INTRODUCTION

This dissertation is a report on corporate sustainability disclosure and its relationship to financial performance in ASEAN. The study is centered on the Global Reporting Initiative (GRI)'s distribution of their sustainability reporting guidelines in ASEAN. The first chapter of the dissertation presents the background and a statement of the problems. Following this, the purpose of the study, research questions and hypotheses, and the theoretical perspective are introduced. The chapter ends with the definition of terms, and notes the significance of the study**.**

1.1 Background and Statement of the Problems

There was no corporate sustainability reporting rules that companies could use to formulate their sustainability reports before the year 2000, companies decided what to disclose based on their discernment of the stakeholders' information needs. (Solomon and Lewis, 2002). In 2000, the Global Reporting Initiative (GRI) distributed their sustainability reporting guidelines, these guidelines were revised in 2002 and the latest version – commonly referred to as the "G3" were issued in 2006. The guidelines are voluntary; according to GRI (2006), the main strength of the sustainability reporting guidelines is that the guidelines were formulated through a multi-stakeholder process. According to the GRI website, the GRI works with over 30,000 stakeholders from over 80 countries to advance sustainability reporting. Morhardtet. al. (2002) found that the GRI guidelines were superior compared to other guidelines.

KPMG (2008) found that of the companies surveyed - more than 75 percent of the 250 companies on the Fortune Global500 list (G250) and about 70 percent of the 100 largest companies by revenue from 22 countries (N100) used GRI : The countries were Australia, Brazil, Canada, Czech Republic, Denmark, Finland, France, Hungary, Italy, Japan, Mexico, Norway, Portugal, Romania, South Africa, South Korea, Spain, Sweden, Switzerland, The Netherlands, United Kingdom and United States:

The GRI (2006) offers a corporate sustainability reports that is equipped, using its guidelines, for several purposes including a comparison of sustainability

performance of firms. According to Christofi, A., Christofi, P., (2012) GRI has been important for improving the quality of social and environmental reports and also a driver. The Sustainability Reporting Guideline. GRI have three forms of explanatory disclosure information (1) Organization Profile (2) Management approach and (3) Performance-related indicators (Dan Dhaliwal, 2014).

The indicators of GRI G3 performance are: Economic/financial: revenues, operating costs, employee compensation, donations and community investments, Environmental; impact on living/non-living natural systems, emissions, effluents, waste, biodiversity, and environmental compliance, and social disclosure such as impact on human rights, labor practices, benefits, training, education, health, safety, diversity, equal opportunity, procurement practices with regard to anti-corruption and anti-trust practices (Dan Dhaliwal, 2014).

Table 1.1 Show the breakdown of the N100 companies according to country. The table shows that 88 percent of the N100 companies in Japan prepared sustainability reports compared to only 14 percent of the N100 companies in the Czech Republic.

Table 1.1 Breakdowns of N100 Companies According to Country

Country	Percentage
Japan	88
United Kingdom	84
United States	73
Canada	60
Netherlands	60
Sweden	59
Italy	59
Spain	59
Brazil	56
Portugal	49
France	47
South Korea	42
Finland	41

Table 1.1 Breakdowns of N100 Companies According to Country (Cont.)

Country	Percentage
Australia	37
Switzerland	28
South Africa	26
Hungary	25
Norway	25
Romania	23
Denmark	22
Mexico	17
Czech Republic	14

Source**:** KPMG (2008)

Corporate Social Responsibility ("CSR") is a strategic engagement, a key to organizational success as it is an important practice that can influence the three rudiments of the Triple Bottom Line and also contribute to the long-term health and sustainability.

However in CSR, there is no "one size fits all" it can influence economic, environmental and social factors in diverse ways. The effective CSR policy necessarily considers arrangements within the organization's business strategy, commercial added value, and sustainability of impact. The benefits of an actual CSR approach to organization can include: Stronger performance and profitability, improved relations with the investment community and access to capital, enhanced employee relations and company culture, risk management and access to social opportunities and stronger relationships with communities and legal regulators.

The AEC (Economic Community) goal is of regional economic incorporation. The AEC envisages the following key characteristics: 1) a single market and production base, 2) a highly competitive economic region, a region of equitable economic development, and 3) a region completely integrated into the global economy.

The ASEAN members published views on how to endorse CSR in ASEAN, as well as in corporate agendas, in the ASEAN Socio – Cultural Community (ASCC)

Blueprint. The Workshop underlined that an inter sartorial approach needs to be sought in ASEAN as CSR has numerous dimensions – environmental, social, labor, or human rights. The participants proposed ways on how a regional CSR framework could be developed and recognized that CSR has become a significant business agenda item globally and regionally. Suggesting the promotion the of CSR in ASEAN be through a healthy interface between regulatory authorities, businesses, and civil society.

The GRI created and developed a comprehensive Sustainability Reporting Framework that is extensively used around the world. The Framework allows all organizations to account and report their economic, environmental, labor, human rights, societal and product responsibility performance in the six key areas of sustainability (GRI, 2006).

The Reporting Framework which includes the Reporting Guidelines, Sector Guidelines and other resources enables greater organizational transparency in economic, environmental, labor, human rights, societal, and product responsibility performance. This transparency and accountability builds stakeholders' trust in an organizations. The framework and principals lead to many other benefits. Many of organizations around the world, of all sizes and sectors, use GRI's Framework in order to understand and communicate their sustainability performance (GRI, 2006).

This research study examines the sustainability disclosure of companies in ASEAN members states following the requirements of the GRI G3 guidelines for ASEAN.

1.2 Research Problem

The research problem of this study is to facilitate the GRI in achieving their objectives of continuous development and application of their sustainability reporting guidelines. "The GRI believes that sustainability reports prepared based on their guidelines can be used to benchmark organizational performance, demonstrate organizational commitment to sustainable development, and compare organizational performance over time" (Moldan, B., Janouskova, S., Hak, T., 2012). Therefore, GRI is deemed to have achieved its objectives when companies in ASEAN use their sustainability reporting guidelines and that all the requirements set out in the guidelines

are fully complied with, including the complete disclosure of the prescribed economic, environmental, labor, human rights, and societal and product responsibility performance indicators.

The significant problems in respect of Sustainability reporting GRI framework in ASEAN is that there are so few companies taking part. Therefore, if those companies doing the Sustainability reporting using the GRI framework and benchmark for performance can show that the results are positive as indicated by the GRI and is confirmed, it would enhance all companies' performance in ASEAN.

1.3 Purpose of the Study

From the background research and theoretical perspective, this study on corporate sustainability disclosure in ASEAN has two purposes, as follows:

1.3.1 To analyze the sustainability disclosure in ASEAN countries.

1.3.2 To investigate the relationship between sustainability disclosure level and financial performance.

1.4 Research Questions and Hypothesis

1.4.1 To what extent different ASEAN countries disclose their corporate sustainability performance according to GRI framework.

1.4.2 Is there the relationship between the sustainability disclosure level and financial performance?

Hypotheses

The hypotheses developed are indicated in their hypothetical form for analysis.

- Hypothesis 1: There is a difference in disclosure level of sustainability performance information among ASEAN countries.
    - Hypothesis 1a: There is a difference in disclosure level of economic performance information among ASEAN countries.
    - Hypothesis 1b: There is a difference in disclosure level of environmental performance information among ASEAN countries.
    - Hypothesis 1c: There is a difference in disclosure level of labor performance information among ASEAN countries.

- Hypothesis 1d: There is a difference in disclosure level of human right performance information among ASEAN countries.
- Hypothesis 1e: There is a difference in disclosure level of societal performance information among ASEAN countries.
- Hypothesis 1f: There is a difference in disclosure level of product responsibility performance information among ASEAN countries.

- Hypothesis 2: There is a positive relationship between the disclosure level of sustainability performance information and return on assets.
- Hypothesis 3: There is a positive relationship between the disclosure level of sustainability performance information and return on equity.
- Hypothesis 4: There is a positive relationship between the disclosure level of sustainability performance information and net sales.

1.5 Theoretical Perspective

The theoretical basis of the study is adjustment political economy theory, legitimacy theory, stakeholder theory and institutional theory, which will be explained briefly below.

Firstly, Gray, Owen and Adams (1996) propose that, a general theory be recognized as Legitimacy Theory and Stakeholder Theory by way of political economy theory. Political Economy Theory recognizes a company's annual reports and understands the company uses it to serve two main purposes 1) advance favorably economically influential stakeholders and 2) weaken the economically weak stakeholders. Companies' can selectively disclose convincing evidence and not reveal others in the annual reports at the command of stakeholders.

The physical battles that happen within cultures are a major focal point of Political Economy Theory. Cooper and Sherer (1984) propose that, when studying accounting as an influence in a conflict it could be measured and explain the influence of accounting reports on the distribution of prosperity and power in society.

Secondly, Legitimacy Theory proposes that companies repeatedly struggle to safeguard that which society perceives. They are effective within society's expectations as Lindblom (1994) explains when society's opinions is that their processes are

legitimate. It should be accepted by that society's that their forecasts are not considered misleading. Consequently, when the societal expectations change, companies are also expected by society to respond to the new expectations. (Oliver, 1991). Lindblom (1994) Reflecting the legitimacy is the situation where legitimacy is measured as a process that a company experiences and adapts to so that it is perceived by the culture as legitimate.

Finally, Institutional Theory inspects the procedures and performance of a company and clarifies why companies inside a specific organizational field possess similar procedures and performance. Institutional Theory accounts for the perception of legitimacy (DiMaggio and Powell, 1983).Nevertheless, though the Legitimacy Theory discusses how a company uses conventional strategies and guidelines to attain legitimacy, Institutional Theory discusses how companies accepts procedures and acts to attain it. Carpenter and Feroz (2001) define Institutional theory's proposals as an additional lens with which to analysis economic reserve dependency incentives for accounting rule choice. Oliver (1991) suggests the Institutional theory interprets an organization as functioning inside a social framework of standards, ethics, and taken for-granted norms about what establishes suitable or acceptable economic performance.

1.6 Definition of Terms

The definition of specific terms and phrases for purpose of this current research are as follows.

Global Report Initiative.GRI is The Global Reporting Initiative (GRI) and leading organizations in the sustainability field. GRI endorses the use of sustainability reporting as a method for organization to develop greater sustainability and contribute to sustainable improvement (GRI, 2006).

Corporate Sustainability Reporting. Corporate Sustainability Reporting is a company or organization's report published concerning environmental, economic, labor, human rights, societal and product responsibility impacts produced by everyday activities. Sustainability reports offer the organization standards and a governance model, and provide the link between its strategies and its obligation to a sustainable economy (GRI, 2006).

Financial Performance. Financial Performance is a particular account of how well a firm uses its resources from its main manner of business to create profit over a set period of time. This account is similarly used as a general account of a firm's comprehensive financial health over a period of time. Therefore it can be used to assess comparable firms across the same business or to compare industries or sectors in combination (GRI, 2006).

Sustainability Performance Information. Sustainability Performance records the maintenance of the organization's high performance in relation to financial indicators, management and environmental factors. Successful organizations maintain their performance as an expression of both internal and external contests over time, rather than just achieving high performance levels over the short-term or during good economic phases (GRI, 2006).

Disclosure. Disclosures and transparency of information about the significance of sustainability reporting including the completeness, relevance, sustainability context, accuracy, comparability, clarity and timeliness (J.M. Moneva et al., 2006).

ASEAN .The Association of Southeast Asian Nations (ASEAN) is a regionally-based international organization with ten members; Thailand, Singapore, Malaysia, Indonesia, Philippines, Vietnam, Cambodia, Laos, Myanmar and Brunei Darussalam (Asean.org, Retrieved 6November 2014).

1.7 Delimitations and Limitations of the Study

This research used secondary data obtained from the sustainability reports presented in formats for GRI G3 and G4 guidelines for listed companies on the stock exchanges of Thailand, Malaysia, Indonesia, Philippines and Singapore during 2010 – 2014 financial years. The sustainability reports were collated from annual reports, sustainability reports of companies and financial data obtained from www.globalreporting.org that maintains a sustainability disclosure database by region and countries in ASEAN**.** This research collected the data from five of the ten country members in ASEAN; Thailand, Malaysia, Indonesia, Philippines and Singapore because in the five countries members; Laos, Cambodia, Vietnam, Myanmar and

Brunei, the companies listed on the stock exchange do not use the GRI G3 and G4 guidelines for disclosure.

The populations of all company on the stock exchange of Thailand, Malaysia, Indonesia, Philippines and Singapore was selected. The samples was 52 companies in ASEAN that disclosed using GRI G3 and G4 guidelines during the year 2010 – 2014. The study limited itself to a purposive variety and this practice may reduce any generalizations generated by the results.

1.8 Significance of the Study

A study of corporate sustainability disclosure and its relationship to financial performance in ASEAN is important for several reasons.

1.8.1 The results of this research present empirical evidence of corporate sustainability disclosure concerning companies in ASEAN countries using the GRI G3 and G4 guidelines. The study developed multiple regression models to explain more accurately the relationships between sustainability disclosure information: economic, environmental, labor, human rights, societal and product responsibility performance, information and financial performance.

1.8.2 The results of this research can be used as evidence that supports legitimacy theory.

1.8.3 The results of this research can be used as evidence that supports Institutional theory.

1.8.4 This study contributed empirically to the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) relating to the regulation **for corporate governance standards.**

1.8.5 The results of this research can be used as a justification for the improvement of corporate sustainability reporting legislations by Governments.

CHAPTER 2
LITERATURE REVIEW

2.1 The History of Corporate Sustainability Reporting

Corporate sustainability reporting originated in the early 1990s, when some companies, mostly large multinationals in many countries, began to disclose, in annual reports, the environmental and social impacts of their operations. ICAEW (2004) reported that it became common practice for companies to report on their social performance, the disclosure by companies on the environmental and social aspects of the performance were largely their environmental and social policies, practices and the impacts of the operations. These disclosures were made mainly in the companies' annual reports. However, as the quantity of disclosure became extensive, some companies began to make their environmental and social performance disclosures in a separate report that was dedicated to these matters (ibid).

The annual reports were published by the company and had restricted distribution, also the summary of the environmental and social impacts of the company's operations were in financial statements of the company. In 1990s, a separate report became widespread. In 2017 the corporate reporting of environmental and social impacts of many companies were issued on their websites. The companies use their websites to publicly communicate with their stakeholders on environmental and social subjects.

Research studies provide evidence of companies disclosing environmental and social performance information before the 1990s. Hogner (1982) reported verification that US Steel in the United States has been building social disclosures since 1905. Neimark (1992) found social disclosures made by General Motors in the United States as of 1916. Adams and Harte (1998) have found verification of banks and retailers in the England practicing social reporting since 1935. Guthrie and Parker (1989) studied that Broken Hill Proprietary, a company in Australia, which began to provide social disclosures since 1885. Unerman (2000a, b) found evidence of Shell, an Anglo-Dutch company, social disclosures on an annual basis since 1897.

Conventionally, the term of environmental and social reporting is widely used; other related terms that are commonly used are triple bottom line reporting or sustainability reporting. Elkington (1998) explains companies use triple bottom line reporting as the reporting of economic, environmental and social performance information. In 1990s the idea of corporate reporting of economic, environmental and social performance emerged from the concept of sustainable development as a primary agenda of many countries and multinational companies. There are a number of definitions of sustainable development. The most often definition cited is ‘ development that meets the needs of the current world without compromising the ability of future generations to meet their own needs.’ (World Commission on Environment and Development, 1987).

Corporate sustainability reporting is a means for report users to assess whether companies’ operations are sustainable. The companies are appraised to be sustainable, if they achieve good economic, environmental and social performance. Companies are judged to be sustainable if they are profitable and their operations have a minimum - preferably zero – impact on the earth’s biosphere, and this complies with the expectations of society; such a company’s future is sanctioned by society. On the other hand, if companies are evaluated to be indefensible, then they will be penalized by society. The penalty may comprise the cancellation of the company’s license to continue its operations in the community.

Corporations are facing growing pressure to be answerable and transparent and to disclose a broad diversity of information about practices, as well as their sustainability. Sustainability is an “emotionally-charged” topic and its meaning may be different between individuals and corporation. For the purposes of this study, we define sustainability reporting as the ‘communications which corporations make concerning their corporate social responsibility (CSR) activities, including social and environmental impacts in addition to financial performance.’

2.2 Concepts of Sustainability

The discussion at several forums regarding economic expansion and the impact on the environment and forums concerning economic development and

humanity gave rise to the concept of sustainability in the 1970s. There was a broad understanding that economic development should be sustainable, having a minimal unwanted impact on people particularly and upcoming generations (ibid). At present, many assert this to be a theoretic ideal. In reality, sustainable development cannot be attained within a short time frame; it is a long-term agenda (Ernst & Young., 2002).

Today, sustainable development is part of the culture. Therefore, society expects companies, governments, non-government organizations and other institutions to provide sustainability performance information so that it can assess whether their processes are sustainable (Godfrey, 2007).

The amplification of stated guidelines important to the reporting entity has limitations and is a multifaceted challenge to that which has become a necessary obligation. To overcome these limitations, the GRI is developing a concept of operational practicality as well as a sequential notion, concerning the reporting organization stakeholders, in order to explain the direct and indirect economic, environmental and social impacts of the reporting object. Limiting information only to some portion of the activity or the possibility of organizational action suggests hiding the actual unsustainability of the organization (J.M. Moneva et al., 2006).

It is necessary for systems to establish a set of values "essential to producing a balanced and reasonable report on an organization's economic, environmental, and social performance" (GRI, 2002, Part B: Reporting Principles). This is reinforced by the AA1000 Standard of the Institute of Social and Ethical Accountability (ISEA) which is strongly prejudiced to organizational benefits (Owen, Swift, Humphrey, & Bowerman, 2000). They used stakeholder discourse to classify the issues and the impacts that most affect business performance. This procedure is institutionalized when its Annual Reports are prepared for shareholders ignoring present and potential employees, business partners, NGOs and other stakeholders affected by the processes, a group of diverse spectators with quite different information requirements (Charl de Villiers, Chris J. van Staden., 2011).The reports cover the physical subjects recognized during the actions with stakeholders and research activities.

The foundations of the new reporting framework are three principles: transparency, comprehensiveness and audit ability (ibid).The first two represents

preliminary facts of the reporting procedure, and the audit principle is the masterpiece of accountability. The principle of inclusiveness puts the stakeholder's appointment as the key to a high quality sustainability report. However it remains problematic to define, for numerous reporting companies have a broad diversity of potential stakeholders. Thus, a company's approach to stakeholder discourse is very varied: BBVA focused its efforts on four stakeholders; shareholders, customers, employees and suppliers, nonetheless at present there is no thorough information about this process.

The principle of audit ability is based on the traditional accounting principle of verifiability. GRI recognizes the need to develop external assurance as a way to augment the trustworthiness of sustainability reports (GRI, 2002,). These three rudimentary principles are supported by eight balancing values arranged into three categories: what information to report, quality and reliability and the convenience of reported information. The outcome of a sustainable development report can be set in the sustainability setting principles included in the "what information to report" category. This principle proposes that organizations "should seek to place its performance in the larger context of ecological, social, or other limits or constraints, where such context adds significant meaning to the reported information"(Esquer-Peralta, J., 2007).

The intensification of the reporting process and its limits is a multifaceted challenge. To describe these limits: the GRI is coming to a view of controlled measurement as well as a sequential dimension, regarding the reporting organization's stakeholders, instruction and explanation for direct and indirect economic, environmental and social impacts of the reporting object (Bebbington, 2001). The relationship between the organization and instruction level setting is vital a one, as the juries of the European Sustainability Reporting Awards (ESRA) proposed; that is an overlooked issue: Companies that influence stakeholders in emerging countries should widen the scope of their reports and include more information on their view of corporate social responsibility, and the way they contribute to stakeholders in these developing countries (Arago´n-Correa, J. and Rubio-Lo´pez, E., 2007).

Discounting this position, the remaining ones indicate a circumscribed understanding of traditional financial accounting principles. The preparation of the principles recognized in the 2002 guidelines has resulted in a minimal reorganization of

the preexisting principles, maintaining most of the deficiency of accounting principles within the Sustainable Development framework, but the' wholeness principle' has serious problems of information excess, because that is so difficult to classify the important issues (ESRA, Report of the Judges, 2003).

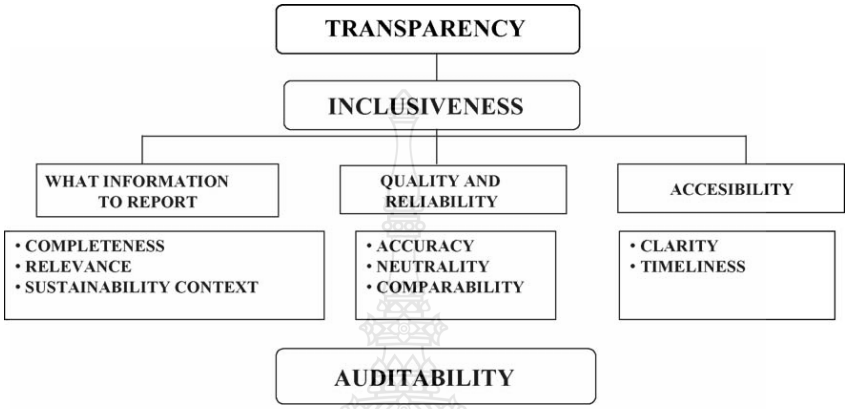

Figure 2.1 GRI Reporting Principles
SOURCE: J.M. Moneva et al. (2006)

The concept of sustainable development was introduced in the report, published by the World Commission on Environment and Development (WCED) in 1987 (WCED, 1987).

In 2002, at the World Summit on Sustainable Development, sustainable development is describe as being comprised of three pillars, i.e. social, environmental and economic as symbolized by the summit motto "People, Planet, Prosperity" (Vijayalakshmi B. Samuel, 2012). Using this definition, sustainable development is further articulated as an incorporating concept comprising social, environmental and economic sustainability (Goodland, 1997). An expanded model of sustainable development is presented in Figure below.

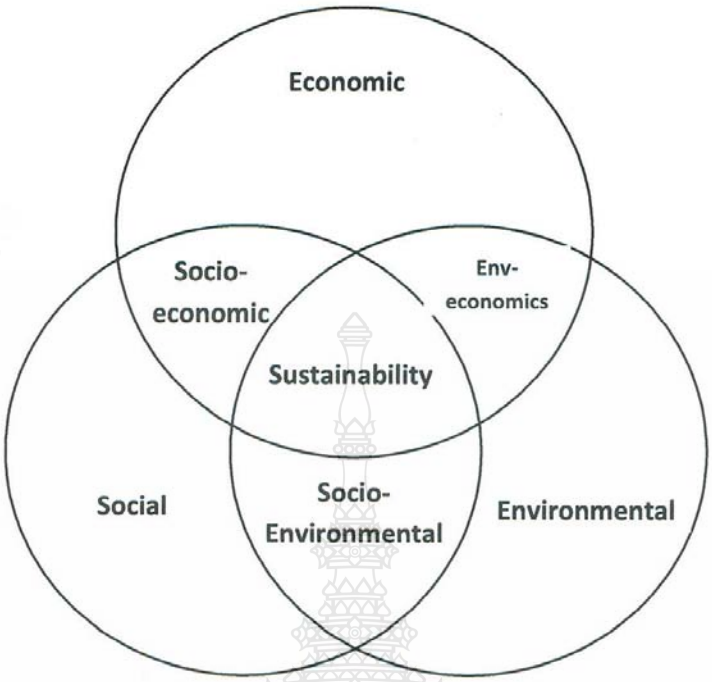

Figure 2.2 Conventional Models for Sustainable Development
SOURCE: Vijayalakshmi B. Samuel, (2012).

It was thought that Sustainable Development "Should integrate social, environmental and economic Sustainability and use these three to start to make development sustainable." (Esquer-Peralta, J., 2007) Against this, some hold thatt Sustainable Development relates directly to environmental or ecological issue only. The addition of the social and economic elements is characteristically represented in the system of three overlapping circles.Each of the three pillars has a subset of interacting sub-elements that are just a tiny part of the entire concept of Sustainable Development as Esquer-Peralta, J. (2007) explains.

Of the Environmental Pillar, some of the many things to be considered are: fossil fuels, nuclear energy, agriculture, livestock, forestry, biodiversity, water resources, fisheries, minerals, climate change, air pollution, ozone depletion, oceans, freshwater, wildlife, soil land use waste, radioactivity, noise pollution, and light pollution. The Society Pillar, there are: health, poverty, communities, housing, travel, crime, recreation, consumption, food safety, and stress. The Economic Pillar, the following aspects are included: energy, transportation, waste, employments, investment,

competition and stability, education and skills, business and industry, trade, and also tourism (ibid).

A Model of Sustainable Development is illustrated, where we can see some other issues connecting in the contact between these three elements.

As there are many factors that may influence the understanding of the 'users' of the terms, there is not full agreement on the meaning of the concepts 'Sustainable Development' and 'Sustainability', and of what they should be comprised. Training, working experience and political and economic context will influence one's definition of Sustainable Development. In addition, Prugh and Assadourian (2003) assert that "Sustainable Development and Sustainability itself are about collective values and related choices and are therefore a political issue."

'Sustainability' as a concept and concern has been introduced when discussing an organization's annual reports. In most countries, organizations are required by law to publish an annual report on their financial performance. This contains all the pertinent financial information and is presented in a prearranged method. Typically, a financial report is audited by an external auditor in order to present the user of the accounts with an understanding of its wholeness and correctness and, in the public sector, to show the financial accountability of the audited entity.

2.3 Corporate Sustainability Reporting

McWilliams (2000) explained, sustainability is measured by many companies to be made up of three fundamentals; economic, environmental and social. This model is usually named the "Triple Bottom Line" model of sustainability. The "Bottom Line" is typically recognized as meaning to the efficiency or financial performance of companies (ibid). The financial performance of companies is equivalent to the economic component in the triple bottom line model. Previously, corporate reporting inclined to stress the financial performance of the company, that is, the economic component of sustainability (Raar, 2002).

Though, Friedman (2002) noted, the triple bottom line model moves the valuation of the performance of company from a single bottom line that were absorbed in the economic component of sustainability to three bottom lines, it therefore

acknowledges the economic, environmental and social elements of sustainability. It is the reality that triple bottom line reporting brings attention to the reporting company's economic, environmental and social performance and it sometimes called "sustainability reporting", triple bottom line reporting (Crawford. 2010).

The three elements of sustainability, economic, environmental and social are related to one another, mostly over the long term. For example, in the short term, a company may be capable enough to stay in business though ignoring the negative effects of its processes on the environment and mortality (Friedman, 2002). But, in the long term, the negative impacts though very simple but damage catastrophically the environmental sphere such that it can no longer support human life. When humans become nonexistent, there will be no one to run the companies, no one to buy and sell the companies' products and services and likewise no one to maintain the social organizations, such as, banking, transport and etc. (Beck. 1999).

Consequently, for the long term, it is necessary to realize that economic, social and environmental sustainability is required. Corporate sustainability reporting is the delivery of information by a company to its stakeholders so that they can assess the performance of the company, and attitude to regulators and decide whether the company's processes are sustainable. A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. And it also presents the organization values and demonstrates the connection between strategy and commitment to a sustainable global economy.

There is an ever increasing number of companies and organizations wanting to make their operations sustainable and contribute to sustainable development. Sustainability reporting can help organizations to gauge and direct their economic, environmental, social and governance performance.

2.4 Motivations to Disclose Their Sustainability Performance

Corporate sustainability reporting is largely an 'altruistic' but self interested development. Generally, there is a lack of laws and rules that make sustainability reporting mandatory for companies, none the less many companies do. There are several incentives for companies to disclose this information (Burchell et. al., 1980).

One of the reasons why companies eagerly disclose the sustainability performance information is that they want to legitimize their existence. Attending to Legitimacy Theory, there is a “social contract” between a company and the community that it functions in. This community, in which the company functions in, expects the company to fulfill its social obligations. Consequently, the management of the company carries out social activities that are expected by the community.

This is wholly so that the company improves its standing in the community to ensure its continued existence, the company gets license to function from the community. The company discloses the sustainability performance indicators to the community, in order for the community to measure the company’s sustainability performance (Burchell et. al., 1980). The company legitimizes its existence to the community. Conversely, if the company fails to disclose its sustainability performance information to the community, the community would see its behavior as a breach of the social agreement, which could threatens its continued existence.

Additionally, Gray, Owen and Adams (1996) clarified the incentive for companies to disclose their sustainability performance information, the companies’ stakeholders’ access to such information. In Stakeholder Theory, the management of a company would more likely try to meet the expectations of its influential stakeholders.

Consequently, they would be more interested to engage in economic, environmental and social actions that meets the expectations of these powerful stakeholders. Powerful stakeholders are those groups that have supervisory oversight or assets that are active for the accomplishment of the company’s success (Cooper and Sherer, 1984). Therefore, the management of a company would take on sustainable actions that will meet the prospects of its powerful stakeholders and the company would disclose its sustainability performance information to these stakeholders to inform them of how the company has met their expectations (Gray et. al., 1996).

Gray, Owen and Adams (1996) developed an Accountability Model. Under this model, companies are slow to undertake many responsibilities. Certain of these responsibilities are set out in law, additional responsibility are not prescribed, but arise from society’s expectations. Guthrie and Parker (1990) hypothesized that each responsibility of the company carries out is with the knowledge of the rights of

stakeholders to request information from the company, with sustainability performance information included. Therefore, companies disclose their sustainability performance information to account to their stakeholders and how they approve their responsibilities. Another reason why companies disclose their sustainability performance information is because of the institutional weights that they are an expression of.(Woodward et. al., 1996).

According to Institutional Theory, companies experience frequent institutional pressures. For example, if the management of a company did not repeatedly meet some provision, such as sustainability reporting, which other companies have accepted, there is a danger that economically influential stakeholders of the company would withhold some of the company's necessary requirements (Deegan, 2002). The ability of the company to continue its activities would be endangered. So, a company will choose to disclose its sustainability performance information because of the institutional compressions and thus it is an expression or a consequence of other companies disclosing such information. Due to these institutional weights, the company will compete with other companies in disclosing its sustainability performance information.

In Accounting Theory, the management of a company is determined by self-interest. Therefore, they will only take on sustainable actions that will devolve a positive influence on the company's financial performance. Moreover, the management of the company will only disclose the performance of those actions that have led to an improvement on the company's bottom line. (Woodward et. al.1996).

Sustainability reporting requires a company to meet information needs about processes and impacts that they may not have considered previously.. The data creates greater transparency about a company, other companies may become aware of their needs and can offer information essential to decrease their use of natural resources increase efficiency and improve their operational performance. Sustainability reporting can enable a company to keep away from or alleviate environmental and social risks that might materially impact their business or deliver better business, social, environmental and financial value.

2.5 Political Economy Theory

According to Gray, Owen and Adams (1996), Legitimacy Theory and Stakeholder Theory arose from a general theory recognized as Political Economy Theory. Gray, Owen and Adams (1996) define "political economy" as "the social, political and economic framework within which human life takes place." (p.47).

The interpretation acknowledged here is that culture, politics and economics can be measured as a unity. They are connected methodologically together and not independent of each other. Consequently, a researcher would not review economic issues in the absence of the social and political structures.

Guthrie and Parker (1990) contend that the political economy viewpoint observes accounting reports as social, political and economic documents. They stand as an implement for creating, supporting, and legitimizing economic and political arrangements, institutions and ideological themes which contribute to the corporation's private benefits.

Guthrie and Parker (1990) contend that the annual reports of companies cannot be measured independently as documents. These suggested by professional accountancy forms,, they say that corporate annual reports are "a product of the interchange between the corporation and its environment and attempt to mediate and accommodate a variety of sectional interests." (p. 166). This is also the position reserved by Burchell. al. (1980) contends that accounting would "not be seen as a mere assembly of calculative routines, it functions as a cohesive and influential mechanism for economic and social management." (p. 6).

Political Economy Theory has two parts. Gray, Owen and Adams (1996) termed these two parts Classical Political Economy Theory and Political Economy Theory. Classical Political Economy Theory is emerged from the works of theorists such as Karl Marx. According to Gray et. al. (1996) the Classical Political Economy Theory defines sectional benefits, structural conflict, inequity and the role of the state at the heart of the analysis. Though, Political Economy Theory does not reflect these influences. This views the origins as essentially pluralistic. (Gray, Kouhy and Lavers, 1995). Classical Political Economy Theory respects corporate annual reports as an means that companies use to attend two primary determinations: first, to gain the

preferences of economically powerful stakeholders and second to weaken the economically frail stakeholders. Companies can selectively disclose persuasive kinds of information and not disclose others in the annual reports at the instruction of powverful stakeholders.

The key emphasis of Classical Political Economy Theory is on the corporeal encounters that happen within society. Cooper and Sherer (1984) suggest that, when studying accounting, issues such as power and conflict in society are low. They suggest that a study of accounting should reproduce the impact of accounting intelligences on the delivery of prosperity and power in society. Lowe and Tinker (1977) also adopt this position. They contend that most accounting research studies assume a pluralistic society where no one group in society dominates.

This theory, according to Lowe and Tinker (1977), is incorrect because society is careful to include of many individuals who are willing to change when confronted with social choices (or choice of accounting methods) but where no individual can reliably affect the totality. Lowe and Tinker (1977) and Cooper and Sherer (1984) adopt this interpretation because there is a lot of evidence that suggests that society is measured by a small group of individuals who use accounting and other occupations to gain supremacy.

Bourgeois Political Economy Theory, is different to Classical Political Economy Theory, in that it does not reflect sectional interests and structural conflicts. Gray, Owen and Adams (1996), write Bourgeois Political Economy Theory tends to be concerned with connections between groups in an fundamentally multi polar world, for example, the cooperation between an organization and an environmental pressure, or between a local authority and the State.

Legitimacy Theory and Stakeholder Theory draw from Bourgeois Political Economy Theory. Both theories do not reproduce sectional interests and physical conflicts. Institutional Theory, though, can be located within Bourgeois Political Economy Theory or Classical Political Economy Theory (Deegan, 2002).

The main driver of Political Economy Theory is on the corporeal battles that occurs within society. It is proposed that when studying accounting, factors such as power and conflict in society should be accounted for. The study of accounting should

reflect the impact of accounting reports on the distribution of prosperity and power in society. Rather than the competing view, that most accounting research study assumes, that we live in pluralistic society where no one group in society controls outcomes.

2.6 Legitimacy Theory

Legitimacy Theory asserts that companies repeatedly struggle to gain the protection that society offers when they are effective operators within society's expectations. They want to ensure that society's interpretations of their activities are "legitimate" (Lindblom, 1994).but it is well known that societies expectations are not stable over time. Instead, society's positions develop over time. Consequently, when society's expectations change a company's are also expected by society to respond to society's new expectations (Oliver, 1991).

Lindblom (1994) reproducing "legitimacy" can be a disorder or position where "legitimacy" is measured as a process that a company experiences until it is perceived by society that its operations are legitimate. Lindblom (1994) describes "legitimacy" as a disorder or position which occurs when an entities value system is corresponding with the value system of the greater social system of which the entity is a part. Once a difference, actual or perceived to be exists between the two value schemes, there is a threat to the entity's legitimacy.

In Legitimacy Theory, "legitimacy" is a indispensable asset that a company of necessity relies on and takes steps to maintain. (Dowling and Pfeffer, 1975; O' Donovan, 2002). Company obligations arise from the stand taken by society and society only positively engages companies, it deems to be legitimate. Through, diverse other resources, companies can get over the process of their disclosure strategy. (Woodward et. al., 1996). Legitimacy Theory is similar to asset requirement theory (Pfeffer and Salancik, 1978). Source dependent theory say that when company sees a need to act in its interest then it will do so

Oliver, 1991; Deegan and Blomquist, (2006) select approaches that defense that they become that specific resource. Nearby is several legitimating strategy that company employ in order to development the legitimacy. The strategy that a company chooses be contingent on what the company wishes to realize, in relations of gaining,

upholding or mending legitimacy. Instances of these strategies comprise embattled disclosures and working with party that society reflects as legitimate so that the legitimacy by association might be found (Oliver, 1991; Deegan and Blomquist, 2006).

According to Lindblom (1994), that when a company understands legitimacy, it is not the actual conduct of the company that is significant; but what is critical is society's perception of the company is that it is legitimate. Information disclosure plays a dominant role in societies early insight into a company's behavior. Suchman (1995) states the organization may deviate dramatically from societal standards but retain legitimacy because the deviation goes unobserved. All the time Legitimacy is informally made, in that it reproduces a similarity between the behaviors of the legitimated entity and the communal beliefs of the social group. Thus legitimacy is dependent on a shared audience, yet independent of specific spectators.

Legitimacy theory posits that organizations repeatedly seek to ensure that they function within the limits and norm of their particular society. They adopt a legitimacy theory viewpoint, a company would willingly report on behavior if management apprehends that those activities were in conformity with the community expectations in which it operates. The theory relies on the idea that there is a social agreement between a company and the society in which it operate.

2.7 Stakeholder Theory

Deegan (2006) defined Stakeholder Company Theory as having two parts: the principled or normative division and the executive or oportunistic branch. This section deliberates both branches of the Stakeholder Theory and notes Stakeholder Theory has many similarities with Legitimacy Theory.

Gray, Kouhy and Lavers (1995), explained the connection between the two theories adding one more and so unifying them. Gray, Kouhy and Lavers (1995) explained that the apparent importat problem in the literature rises from portraying them as rival theories of describing social actors, but are in fact, when stakeholder theory and legitimacy theory are improved, merely two viewpoints of the subjects which are described in political economy. Deegan (2002) states that, both Legitimacy Theory and Stakeholder Theory consider the company as a part of a larger social

system, where it interacts with other groups in the system. Yet, Legitimacy Theory and Stakeholder Theory differ in that Legitimacy Theory reflects society's opportunities as one social contract between the company and society, though Stakeholder Theory considers society expectations as a meeting of social arrangements between the company and individual stakeholder groups in society.

Stakeholder Theory states that different stakeholders in society have dissimilar expectations of the company. Consequently, the company has to resolve many negotiated social agreements with the several stakeholders in society, not just one social contract between the company and society as a unity as in Legitimacy Theory (Lindblom, 1994).

Gray et. al., 1995b; O'Donovan, (2002) explained the decision-making branch of Stakeholder Theory talks about issues regarding stakeholder power and how the comparative power of an separate stakeholder controls its ability to coerce a company to meet its expectations. These subjects are, indirect within Legitimacy Theory. Legitimacy Theory and Stakeholder Theory are consequently, intersected one another and so make similar arguments, but their own unique clarifications as why company managers perform in the way that they do.

The difference between the two theories is merely the perspective that they view society, Legitimacy Theory views society at the macro-level, while Stakeholder Theory views it at the micro-level. Legitimacy Theory elucidates decision-making behavior by investigating the interaction between a company and society in holistic way while Stakeholder Theory investigates the connections between companies and particular groups in society.

The two theories taken together give a more complete elucidation and complex understanding of managerial behavior. Gray, Kouhy and Lavers (1995) explained it in this way, when comparing corporate social disclosure research, it is essential that the diverse theoretical viewpoints not be realized as contestants for clarification, but as sources of clarification, of different factors at different stages of resolve. In this consideration, legitimacy theory and stakeholder theory augment, rather than compete for the sympathies of corporate social disclosure practices.

Although Legitimacy Theory and Stakeholder Theory are comparable in outlook, some researchers struggle to accept that they are not separate (Suchman, 1995; Nasi. et.al.,1997). Nasi.et. al. (1997), opined that though the two theories are not exactly rival, each forecasts a dissimilar overall outcome concerning the probability and development of a corporate response in the face of a social issue.They contend that "although the perspectives agree on the need and reality of issues management activities, they disagree on the nature of the issues management and on managerial motivation for the issues management." (p. 303) Stakeholder theory focuses the relationships between the organization and others in internal and external environments. It also examines how these relationships have an effect on how the organizations conduct and activities.

2.8 Institutional Theory

Institutional Theory is a systems-oriented theory. The theory has only been recently applied in research studies on corporate sustainability reporting. Institutional Theory explains that companies inside an arena are likely to converge and become similar in form and performance due to the perceptible pressures that they conform. In general, Institutional Theory analyzes the procedures and performance of companies and clarifies why companies within a specific organizational field possess similar forms and actions. Institutional Theory supports the notion of legitimacy (DiMaggio and Powell, 1983).

Legitimacy Theory discusses how companies use a certain strategy in practice to realize legitimacy; Institutional Theory discusses how companies adopt certain procedures and action to realize its goals. Carpenter and Feroz (2001) explained Institutional Theory as another lens with which to complete the clarification of economic asset dependent stimuli for special accounting practices. Institutional theory posits organizations as operating within a social agenda of standards, values, and taken for-granted norms about what is thought to be suitable or acceptable economic behavior (Oliver, 1991).

Dillard, Rigsby and Goodman (2004), propose that organizations imitate, because they are rewarded for doing so through augmented legitimacy, resources, and

existence competences. Institutional Theory arose from theoretical literature on organizational theory in the management arena in the 1970s. The researchers who 'industrialized' the theory were Meyer and Rowan (1977), Zucker (1977, 1987), DiMaggio and Powell (1983). DiMaggio and Powell (1983) complete the development of Institutional Theory. They showed in a controlled research study, r the high degree of similarity between the companies under inspection. They sought to understand in their research study, why there is such surprising sameness of organizational procedures and practices, and organizations actively pursue sameness, not difference, when in the early phases of their life cycle, organizational fields can display considerable diversity in approach and form.

But when an arena becomes established, there is an irresistible thrust to homogenization. DiMaggio and Powell (1983) contend that this is the numerous forces that function in society that compress companies into comparable forms. They state once dissimilar organizations in the same line of businesses are organized into an arena of operation, they conform, as a consequence of rivalry, the state, oractivities. Powerful forces arise that propel them to become more alike to one another. Institutional Theory is emerging to become a powerful theory in the clarification of corporate behavior.

Accounting researchers are increasingly using Institutional Theory in accounting research studies. Fogarty (1992) used Institutional Theory in a behavioral research study on the accounting standard scry process. He used this theory to carry out research on subjects joining the accounting occupation. Covaleski and Dirsmith (1988), Brignall and Modell (2000) and Broadbent, Jacobs and Laughlin (2001) used Institutional Theory in a behavioral research study in management accounting. Dillard, Rigsby and Goodman (2004) stated the Institutional Theory is one of the leading theoretical viewpoints in organization theory and is continuing to be practical in accounting research that studies the similarity in accounting in organizations.

Institutional Theory states that organizational procedures and performance tend to develop a seamless consistency. That is the structures of a company including the sustainability reporting structures and practices are likely to change and become comparable to what society or certain powerful stakeholder groups reproduce as normal.

Legitimacy Theory, Stakeholder Theory and Institutional Theory would rather be appreciated as balancing theories, not rival theories. Institutional Theory elucidates how companies can change the percepttion of their practices to mimic the social and cultural standards of society or powerful stakeholder groups so that they attain legitimacy.

Institutional Theory elucidates the mechanisms by which the acting in accordance with the social and cultural values becomes established in company (Dillard, Rigsby and Goodman, 2004). Legitimacy Theory and Stakeholder Theory have their own advanced mechanisms through which companies attain legitimacy. Legitimacy Theory, Stakeholder Theory and Institutional Theory are complementary theories. Institutional Theory has two main aspects (Brignall and Modell, 2000). DiMaggio and Powell (1983) , Carpenter and Feroz (2001) state that DiMaggio and Powell (1983) label the process by which organizations tends to accept the same structures and actions as isomorphism, which they define as a homogenization of organizations. Isomorphism is a process that reasons one entity in a population will come to resemble additional units in the population that face the same common environmental conditions. Through isomorphic processes, organizations commitments become progressively similar within an assumed arena and mimic for gain the wider institutional environment.

Dillard, Rigsby and Goodman (2004) isomorphism so defined, refers to institutional mimicary by an organization. Thus there is the view that corporate sustainability reporting is institutional mimicry by the reporting company. Institutional theorists declare that the institutional environment can powerfully pressure the development of official structures in an organization, frequently more deeply than market pressure. Innovative structures that improve technical competence in early-adopting organizations are legitimized in the environment. Eventually these innovations arrive at a level of legitimization where failure to adopt them is seen as illogical and neglectful (or they become legally mandated). At this point new organizations will accept the structural form even if the form doesn't improve competence.

2.9 The Voluntary Disclosure

Laurence Clément R., Cory Searcy. (2012) explained since corporate disclosure is critical for the operation of an effective capital market, a company is drawn to disclosure as a result either mandatory disclosure or voluntary disclosure. Companies disclosing information on a voluntary basis do so in the hope of a benefit. The information will encourage the stock market to identify a hidden cache of corporate value (Corina Joseph, Ross Taplinb., 2011).

Corporate voluntary disclosure has been the focus of a large amount of research in recent years. Voluntary disclosures can be defined as disclosures in excess of requirements and represent a free selections from the available by business managements to provide accounting and other information thought pertinent to the decision requirements of users of their annual reports (Anna Watson, Philip Shrires and Claire Marston., 2002).

Gray, R., Power, D. M., and Sinclair, C. D. (2001) noted an increasing number of environmental disclosure study is using financial control variables founded on influences from the voluntary disclosure theory. However the voluntary disclosure theory explanations for these controls are based on assumptions that disclosure is used as an implement for passing information irregularity between managers and investors.

According to Gonza´lez-Benito, J. and Gonza ´lez-Benito, O. (2005) thought much of the voluntary disclosure theory influenced environmental disclosure studies but claims that the repetition is connected to informing market participants. Almost all of the studies also acknowledge other potential spectators for the information. Isabel C. Lourenço, Manuel CasteloBranco. (2013) noted for example, discuss environmental disclosure in terms of informing, investors and other stakeholders, and while Gerald K. Chau, Sidney J. Gray. (2002) discussed potential image in managing the public impression of corporate environmental performance.

Nakao, Y., etc. (2007) defined a sustainability report as a report which necessarily contains qualitative and quantitative data at the level to which the firm has retained its economic, environmental and social effectiveness and.

Laurence Clément Roca, Cory Searcy (2012) explained the GRI is the most extensively recognized set of voluntary strategies for corporate sustainability reporting.

The purpose of the GRI is to typify disclosure on environmental, social and governance performance (Olivier Boiral., 2013). As Marcus Wagner (2010) explained, the main understanding fundamental to the GRI is an emphasis on consolidating disparate regulatory obligations and practices, CSR, and cooperative governance .One of the important strengths of the GRI being to promote a multi-stakeholder process in sustainability reporting (ibid).

Voluntary disclosure in accounting is disclosure of information which exceeds the obligatory information limits in conditions of satisfied or quantity as determined by the management of the firm. The preponderance of investigation conduct concerning voluntary disclosure has been experiential study. Those studies inspect the characteristics of firms which voluntarily disclose information and factor affecting voluntary disclosure.

2.10 The Measurement of Voluntary Disclosure

Jill Hooks, Chris J. van Staden. (2011) discussed in their study the quantification of the consequences gained from a number of varied satisfied analysis approach sensible to the reporting of a sample set of companies. They used “sentence count, page count, proportion of pages, and a disclosure quality directory (used to determine quality of disclosure)” (ibid). They conducted there examination on a diversity of coverage media for each company such as the annual report, environmental report, internet report, and any other relevant report and examined and connect the results from the different methods.

They also explained “the measurement quantity of reporting such as sentence count, page count, proportion with an appraisal of the quality of information determined by applying a disclosure quality index” (Jill Hooks a, Chris J. van Staden., 2011) .The quality of disclosure is highly connected to the quantity of reporting deliberate by a sentence count. They also reported a new measure – quality score per sentence. They suggested a quality per sentence amount could be different between company making high quality and low quality disclosures. This takes into account equally the amount and the quality of the disclosures (ibid).

The obligatory disclosure, the information which firms must of necessity disclose, in which appearance, to whom and when they should be disclosed. Voluntary disclosure is defined as disclosures in surplus of requirements, of free choice, on the part of company or organization to offer accounting and other information deemed pertinent to the needs of users of their annual reports. A disclosure representing the free choice of the management of the firm. The management decides which information needs to be disclosed and also determines on how pertinent is the information to the group that will use it to make decisions.

11 studied in table 2.1 show the measurement of voluntary disclosures were recognized. 2.1 show these studied, the table shows the measurement of voluntary disclosure that used in the researches. In addition this research will use GRI indicators for study Sustainability reports as well.

Table 2.1 The measurement of voluntary disclosure

Author	Topic	Measurement	Major findings
Anna Watson, Philip Shrives and Claire Marston (2002)	Voluntary Disclosure of Accounting Ratios in The UK	Ratios disclosure in corporate annual reports	The voluntary disclosure of ratios in corporate annual reports explained from Agency and Signaling theory. The two theories were discussed and the applicability to explanation ratio disclosures measured. The agency and signaling theory, seven hypotheses were test using data composed more than 5 years, for 313 companies in UK.
Ben Marx and Vanessa van Dyk (2011)	Sustainability reporting and assurance An analysis of assurance practices in South Africa	Checklist with sustainability reporting	The sustainability reporting and the independent assurance, there is extensive research and advocate in the literature. There are only a limited number of company obtained independent assurances on their sustainability reporting.
Charl de Villiers and Chris J. van Staden (2011)	Where firms choose to disclose voluntary environmental information	Counting sentences, table, graphs	These are significant; they offer environmental performance information and influence capital markets. They compared the environmental disclosure in annual reports and website with a long-term and a short-term environmental performance measure.

Table 2.1 The measurement of voluntary disclosure (Cont.)

Author	Topic	Measurement	Major findings
Corina Joseph and Ross Taplin (2011)	The measurement of sustainability disclosure: Abundance versus occurrence	Volume of disclosure: number of pages, lines, words, sentences Disclosure occurrence: counts the number of disclosure items in the checklist or disclosure index	The abundance and occurrence disclosure techniques were legitimate approach to measuring the amount of disclosure. They measure diverse concepts and distinction becomes more significant as the quantity of disclosures increase.
Eugene C.M. Cheng and Stephen M. Courtenay (2006)	Board composition, regulatory regime and voluntary disclosure	Voluntary disclosure index	The relationship between board monitoring and the level of voluntary disclosure, found new confirmation that firms with a higher amount of independent director on the board are associated with a higher level of voluntary disclosure.
Gerald K. Chau and Sidney J. Gray (2002)	Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore	Voluntary disclosure index: the number of total voluntary disclosures as a proportion of the maximum voluntary disclosure possible.	The analysis of annual reporting practice shows that the amount of external ownership is absolutely associated with voluntary disclosures.
Jill Hooks a, Chris J. van Staden.(2011)	Evaluating environmental disclosures: The relationship between quality and extent measures	Sentence count, page count, proportions, quality index	The quality of disclosure was highly connected to the amount of reporting measured by a sentence count.

Table 2.1 The measurement of voluntary disclosure (Cont.)

Author	Topic	Measurement	Major findings
Laurence Clement Roca, Cory Searcy (2011)	An analysis of indicators disclosed in corporate sustainability reports	Number of indicators by the GRI	The point of research is to recognize the indicators that are currently disclosed in corporate sustainability reports. The indicators identified as base on a contented analysis of 94 Canadian reports form 2008.
L.L. Eng and Y.T. Mak (2003)	Corporate governance and voluntary disclosure	Voluntary disclosure index	They found the low administrative ownership and major government ownership are associated with augmented disclosure.
Olivier Boiral (2013)	Sustainability reports as simulacra? A counter-account of A and A+ GRI reports	GRI indicators Pictures	The significant negative events 90% were not reported furthermore, the pictures included in these reports demonstrate container various simulacra clearly detached with the impact of business actions.
Xiao Huafang and Yuan Jianguo (2007)	Ownership structure, board composition and corporate voluntary disclosure Evidence from listed companies in China	Total number or points awarded for voluntary disclosure of strategic, business, financial and non-financial information	The measure voluntary disclosure of setting information, business information, non-financial and financial information, found that a higher block holder ownership and important overseas list was connected with increased-voluntary disclosure. This study found larger firms have greater disclosure, while firms with growth opportunity are reluctant to disclose information.

2.11 The Relationship Between corporate sustainability disclosure and financial performance

12 studied below in table 2.2 examined the impact of the relationship of sustainability performance with financial performance were recognized. A table 2.2 show these studied, the table includes only works that use some measure of financial performance variables. ROA, ROE and Net sales for the financial performance variables are used in this study.

Table 2.2 The relationship sustainability performance and financial performance

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
Dan Dhaliwal, Oliver Zhen Li, Albert Tsang, Yong George Yang (2014)	Corporate social responsibility disclosure and the cost of equity capital: The roles of stakeholder orientation and financial transparency	ROA Leverage Book-to-market ratio Stock return	- - - -	Regression analysis	They found a negative association between CSR disclosure and the cost of equity capital; this relationship is more marked in stakeholder-oriented countries. They also found confirmation that financial and CSR disclosures take action as substitute for each other in lowering the cost of equity capital.
Isabel C. Lourenço, Manuel CasteloBranco (2013)	Determinants of corporate sustainability performance in emerging markets: the Brazilian case	ROE PB (Price to book) LEV (Leverage)	+ + -	t-test Logistic regression	They indicated that Brazilian principal corporate sustainability performance firms were considerably larger and larger return on equity than their counterpart, which was consistant with previous findings for firms in US.

Table 2.2 The relationship sustainability performance and financial performance (Cont.)

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
Marc J. Epstein and Marie-Jose´eRoyv (2001)	Sustainability in Action: Identifying and Measuring the Key Performance Drivers	ROI	+	Regression analysis	The result of corporate decision and strategy are being scrutinized more directly than ever before. The various corporate stakeholders insist increased information about corporate governance. The impact of corporate behavior on various constituencies. Both managers and investors are investigative corporate values formation and the results of operating decision.
		ROCE	+		
		EVA	+		
Marcus Wagner (2010)	The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects	Tobin's q.	+	Regression analysis	The study showed that advertising awareness moderates the relationship of corporate sustainability performance and economic performance as measured by Tobin's q. The research and development efforts relative to firm size, no moderating position on the links between corporate sustainability and economic performance were recognized.

Table 2.2 The relationship sustainability performance and financial performance (Cont.)

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
Peter A. Stanwick Sarah D. Stanwickv(1998)	The Relationship between corporate social performance, And organizational size, financial performance, and environmental performance: An empirical examination	Profitability Net sales	+ +	Regression analysis	The results of this study showed that firm size, financial performance and environmental performance do impact the level of corporate social performance.
Renard Y.J. Siew, Maria C.A. Balatbat and David G. Carmichael (2013)	The relationship between sustainability practices and financial performance of construction companies	ROA ROE ROIC EBITDA EPS DPS PE	+ + + + + + +	Regression analysis	The research found a majority of listed construction companies studied have low levels of reporting, and also construction companies issue non-financial reports largely outperform. Those which don't in a number of selected financial ratios. Although the association between financial performance and ESG scores was not strong.

Table 2.2 The relationship sustainability performance and financial performance (Cont.)

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
SatuPätäri, HeliArminen,AnniTuppura,AriJantunen (2014)	Competitive and responsible? Their relationship between corporate social and financial performance in the energy sector	ROA	+	Regression analysis	The objective in this study was examined whether investment incorporating social responsibility (CSR) have effect on corporate financial performance (CFP). The background is the energy industry, in which sustainability issue were of very important.
		Market capitalization	+		
		Net sales	+		
Vicente Lima Criso´stomo, Fa´tima de Souza Freire Felipe Cortes de Vasconcellos (2011)	Corporate social responsibility, firm value and financial performance in Brazil	ROA	+	Regression analysis	Found the CSR was value destroying in Brazil since an important negative association between CSR and firm value. In addition, a neutral relationship characterizes the relationship between CSR and financial accounting performance.
		LEV	-		
		Tobin's q.	+		

Table 2.2 The relationship sustainability performance and financial performance (Cont.)

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
Zhihong Wang and Joseph Sarkis (2013)	Investigating the relationship of sustainable supply chain management with corporate financial performance	ROA ROE	+ +	Regression analysis	Found integrated sustainable supply chain management; including social and environmental supply chain management efforts was absolutely connected with corporate financial performance measured by return on assets and return on equity. Also the positive effects can lag at least two years.
Jones (2005)	GRI Sustainability Reporting Index Score	Market adjusted returns; other financial ratios; and financial distress probability scores.	Mixed	Regression analysis	Mixed Results with different measures of company performance
Bayoud et al (2012)	Corporate Social Responsibility Disclosure and Corporate Reputation in Developing Countries: The case of Libya.	ROA Revenue ROI	+ + +	Regression analysis	Disclosure of Environmental, Consumer, Community Involvement, Employee Performance have positive significance.

Table 2.2 The relationship sustainability performance and financial performance (Cont.)

Author	Topic	Financial Performance variables	Result	Main analysis	Major findings
Venanzi (2012)	Social Ratings and Financial Performance: An Instrumental Approach.	ROE ROA ROS	Not Significant	Regression analysis	Disclosure of social ratings on community, corporate governance, customers, employees, environment, business ethics.

2.12 Conceptual Framework

The Conceptual framework of this research study is depicted in Figure 2.3. The independent variable is sustainability disclosure measured by 6 proxies according to GRI G3 and G4 guidelines. The six proxies consist of economic, environmental, labor, human rights, societal and product responsibility performance information. The dependent variables are return on assets, return on equity and net sales. The control variables are leverage, countries and size.

The independent variables are identified from the GRI G3 and G4 guidelines. The dependent variables are return on assets, return on equity and net sales. The research purpose of this study is to examine the relationship between the sustainability disclosures: economic, environmental, labor, human rights, societal and product responsibility performance information and financial performance. To examine this relationship, the study conducted a correlation study where the sustainability disclosure consisting of six components namely economic, environmental, labor, human rights, societal and product responsibility disclosure, and the firm performance measured by return on assets, return on equity and net sales. The reason for separating sustainability disclosure into six components is to gain an understanding of the relationship of each component with each financial performance measure.

In addition to the correlation study, this research study develops multiple regression models to investigate the relationships between sustainability disclosures: economic, environmental, labor, human right, society and product responsibility performance information and each financial performance measure, that is, return on assets, and return on equity and net sales.

This is to decide the R-square values. The reason for formative the R-square values is to use them as a basis to encourage companies to engage in sustainability reporting and to advocate for mandatory corporate sustainability reporting – especially if the values are high. For the multiple regression models, the control variables used are leverage, countries and size.

Countries are also included as a control variable. They are included even though the results of the One-Way ANOVA and Kruskall-Wallis test for hypotheses 1 to 1f show that there is no significant difference in the sustainability disclosure:

economic, environmental, labor, human rights, societal and product responsibility performance information between the countries. The reason to include them is to confirm the results of the correlation study, that is, countries do not have a significant impact on the relationships between sustainability disclosures: economic, environmental, labor, human righst, societal and product responsibility performance information and return on assets, return on equity and net sales. Past research studies have included size as a control variables, because larger companies have better resources to engage in sustainability activities compared to smaller companies (Carpenter, V, 1992; Waddock and Cramer, J., 1998; Hart, S. and Ahuja, G., 1996).

However, size included as a control variable in this study consists of two measures: number of employees for the parent company and all its subsidiaries, and total assets. Also the firm size could be definitely related to financial performance because firm size may relate to net economies of scale in manufacturing processes, and greater control over resources. The results of the One-Way ANOVA and Kruskall-Wallis test for hypotheses 1 to 1f show that there is significant difference in the sustainability disclosure: economic, environmental, social, human rights, societal and product responsibility performance information between the countries. The results suggest that the companies in this research study disclose at similar levels: the companies in this study are large multinationals.

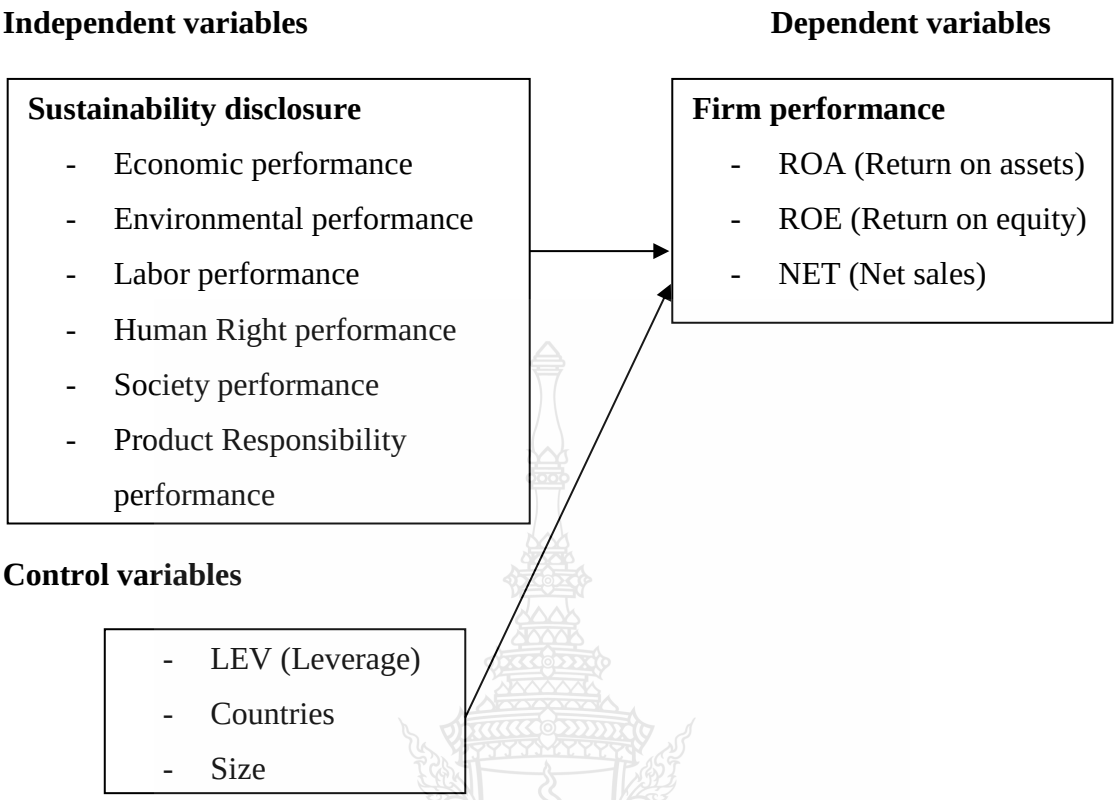

Figure 2.3 Conceptual Framework

Table 2.3 Definition and measurement of variables

Variable	Definition	Measurement
Independent variables		
Sustainability disclosure	Sustainability Reporting Guidelines	The GRI Index scores assigned to the company to the maximum possible score. Total number of points for performance indicator : Economic (EC) : 9 indicators (value 0-9) Environment (EN) : 30 indicators (value 0-30) Labor (LA) : 14 indicators (value 0-14) Human Right (HR) : 9 indicators (value 0-9) Society (SO) : 8 indicators (value 0-8) Product responsibility (PR) : 9 indicators (value 0-9) Total 79 indicators (value 0-79)
Dependent variable		
ROE	Return on Equity	Net Income divided by total equity to measure corporate performance on returns for their equity investors.
ROA	Return on Assets	Operating Income divided by total assets to measure corporate performance on using their investments to generate earnings.
NET	Net sales	Net sales (in USD)
Control variable		
LEV	Leverage	the ratio of total debt divided by total assets
Size	Firm size	The log of book value of total assets
Countries	Countries	The countries in ASEAN

The frequency of use of the GRI environmental indicators are summarized in table 2.4 and 2.5. There are many changes in the guidelines performance indicators that are reported.

Table 2.4 Summary categories and aspects of key performance indicators from GRI guideline.

Category	No. of indicators	Aspects
Economic performance indicators (EC)	9	- Economic performance - Market presence - Indirect economic impacts
Environmental performance indicators (EN)	30	- Materials - Energy - Water - Biodiversity - Emissions, effluents and waste - Products and services - Compliance - Transport - Overall
Labor Practices and decent work performance indicators (LA)	14	- Employment - Labor/management relations - Occupational health and safety - Training and education - Diversity and equal opportunity - Equal remuneration for women and men
Societal performance indicators (SO)	8	- Local communities - Corruption - Public policy - Anti-competitive behavior - Compliance
Human rights performance indicators (HR)	9	- Investment and procurement practices - Non-discrimination - Freedom of association and collective bargaining - Child labor - Forced and compulsory labor - Indigenous rights - Assessment - Remediation

Table 2.4 Summary categories and aspects of key performance indicators from GRI guideline (Cont.)

Category	No. of indicators	Aspects
Product responsibility performance indicators (PR)	9	- Customer health and safety - Product and service labeling - Marketing and communications - Customer privacy - Compliance

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator

No.	Code	Description
Economic Performance Indicators		
Aspect: Economic Performance		
1	EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.
2	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.
3	EC3	Coverage of the organization's defined benefit plan obligations.
4	EC4	Significant financial assistance received from government.
Aspect: Market Presence		
5	EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.
6	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
7	EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.
Aspect: Indirect Economic Impacts		
8	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.
9	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.
Environmental Performance Indicators		
Aspect: Materials		
10	EN1	Materials used by weight or volume.
11	EN2	Percentage of materials used that are recycled input materials
Aspect: Energy		
12	EN3	Direct energy consumption by primary energy source.
13	EN4	Indirect energy consumption by primary source.
14	EN5	Energy saved due to conservation and efficiency improvements.
15	EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.
16	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.
Aspect: Water		
17	EN8	Total water withdrawal by source.
18	EN9	Water sources significantly affected by withdrawal of water.
19	EN10	Percentage and total volume of water recycled and reused.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
Aspect: Biodiversity		
20	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
21	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.
22	EN13	Habitats protected or restored.
23	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.
24	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.
Aspect: Emissions, Effluents, and Waste		
25	EN16	Total direct and indirect greenhouse gas emissions by weight.
26	EN17	Other relevant indirect greenhouse gas emissions by weight.
27	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.
28	EN19	Emissions of ozone-depleting substances by weight.
29	EN20	NO, SO, and other significant air emissions by type and weight.
30	EN21	Total water discharge by quality and destination.
31	EN22	Total weight of waste by type and disposal method.
32	EN23	Total number and volume of significant spills.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
33	EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VII, and percentage of transported waste shipped internationally.
34	EN25	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.
Aspect: Products and Service		
35	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.
36	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.
Aspect: Compliance		
37	EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.
Aspect: Transport		
38	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.
Aspect: Overall		
39	EN30	Total environmental protection expenditures and investments by type.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
Social Performance Indicators		
Labor Practices and Decent Work Performance Indicators		
Aspect: Employment		
40	LA1	Total workforce by employment type, employment contract, and region.
41	LA2	Total number and rate of employee turnover by age group, gender, and region.
42	LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.
Aspect: Labor/Management Relations		
43	LA4	Percentage of employees covered by collective bargaining agreements.
44	LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.
Aspect: Occupational Health and Safety		
45	LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs.
46	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.
47	LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.
48	LA9	Health and safety topics covered in formal agreements with trade unions

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
Aspect: Training and Education		
49	LA10	Average hours of training per year per employee by employee category.
50	LA11	Program for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.
51	LA12	Percentage of employees receiving regular performance and career development reviews.
Aspect: Diversity and Equal Opportunity		
52	LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.
53	LA14	Ratio of basic salary of men to women by employee category.
Human Rights Performance Indicators		
Aspect: Investment and Procurement Practices		
54	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.
55	HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.
56	HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees of employees trained.
Aspect: Non-Discrimination		
57	HR4	Total number of incidents of discrimination and actions taken.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
Aspect: Freedom of Association and Collective Bargaining		
58	HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.
Aspect: Child Labor		
59	HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.
Aspect: Forced and Compulsory Labor		
60	HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.
Aspect: Security Practices		
61	HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.
Aspect: Indigenous Rights		
62	HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.
Society Performance Indicators		
Aspect: Community		
63	SO1	Nature, scope, and effectiveness of any programs and practices that access and manage the impacts of operations on communities, including entering, operating, and exiting.
Aspect: Corruption		
64	SO2	Percentage and total number of business units analyzed for risks related to corruption.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
65	SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.
66	SO4	Actions taken in response to incidents of corruption.
Aspect: Public Policy		
67	SO5	Public policy positions and participation in public policy development and lobbying.
68	SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.
Aspect: Anti-Competitive Behavior		
69	SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.
Aspect: Compliance		
70	SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.
Product Responsibility Performance Indicators		
Aspect: Customer Health and Safety		
71	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.
72	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.

Table 2.5 Global Reporting Initiative's G3 and G4 Sustainability Reporting Guidelines Performance Indicator (Cont.)

No.	Code	Description
Aspect: Product and Service Labeling		
73	PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.
74	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.
75	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.
Aspect: Marketing Communications		
76	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.
77	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.
Aspect: Customer Privacy		
78	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.
Aspect: Compliance		
79	PR9	Monetary value of significant fines for non-compliance with laws and regulations 280 concerning the provision and use of products and services.

SOURCE: Global Reporting Initiative. (2006).

CHAPTER 3
RESEARCH METHODOLOTY

This chapter begins with hypotheses development. Findings in previous literature are provided as evidence to support hypotheses specified in this study. The following section explains data collection methods. Population and samples of this study are determined. Lastly, data analysis used in this study is described in terms of statistical techniques and their interpretation.

3.1 Hypotheses Development

This research aims to investigate the sustainability disclosure information using GRI, G3 and G4 guidelines, using information extracted from company reports and to compare disclosure levels among ASEAN countries.

The discussion; A KPMG (2008) study found that there is a difference in the number of corporate sustainability reporters in different countries. For example, 88 percent of the N100 companies in Japan prepared sustainability reports compared to the Czech Republic only 14 percent of the N100 companies. There is variation in the unpaid sustainability reporting guidelines that are issued by various organizations in different countries/regions: Australia has two sustainability reporting guidelines: Triple Bottom Line Reporting in Australia and A Guide to Reporting Against Environmental Indicators by the Department of Environment and Heritage (2003) and A Guide to Triple Bottom Line Reporting by Group of 100 (2003); Europe has two guidelines: Responsible Care: Health Safety and Environmental Reporting Guidelines by European Chemical Industry Council (1998) and FEE Discussion Paper: Towards a Generally Accepted Framework from Environmental Reporting by the Environment Task Force of the European Federation of Accountants (1999); United Kingdom has four guidelines: Disclosure Guidelines on Socially Responsible Investment by the Association of British Insurers (2002); and United States has two guidelines: Environment Reporting in a Total Quality Management Framework by Global Environmental Management Initiative (1994) and The PERI Guidelines by Public Environmental Reporting Initiative (1992).

Given that the United Kingdom has four guidelines and Australia has two guidelines, it is expected that the number of corporate sustainability reporters in the United Kingdom to be more than Australia. The KPMG (2008) study shows that 84 percent of the N100 companies in the United Kingdom prepared sustainability reports while 37 percent of the N100 companies in Australia prepared the reports.

Also, corporate sustainability reporters in countries with more sustainability reporting strategies are expected to disclose more sustainability performance information, economic performance information, environmental performance information, labor performance information, human righst performance information, societal performance information and product responsibility performance information compared to corporate sustainability reporters in countries with less sustainability reporting guidelines due to higher legitimacy expectations in countries with more sustainability reporting guidelines compared to countries with less sustainability reporting guidelines. Therefore, the following hypotheses are developed:

- Hypothesis 1: There is a difference in disclosure level of sustainability performance information among ASEAN countries.
    - Hypothesis 1a: There is a difference in disclosure level of economic performance information among ASEAN countries.
    - Hypothesis 1b: There is a difference in disclosure level of environmental performance information among ASEAN countries.
    - Hypothesis 1c: There is a difference in disclosure level of labor performance information among ASEAN countries.
    - Hypothesis 1d: There is a difference in disclosure level of human right performance information among ASEAN countries.
    - Hypothesis 1e: There is a difference in disclosure level of society performance information among ASEAN countries.
    - Hypothesis 1f: There is a difference in disclosure level of product responsibility performance information among ASEAN countries.
- Hypothesis 2: There is a positive relationship between the disclosure level of sustainability performance information and return on assets.

- Hypothesis 3: There is a positive relationship between the disclosure level of sustainability performance information and return on equity.
- Hypothesis 4: There is a positive relationship between the disclosure level of sustainability performance information and net sales.

3.2 Hypotheses

The hypotheses developed are indicated in their null hypothesis form in this division for analysis.

Hypothesis 1:

H_0: There is a no difference disclosure level of sustainability performance information among ASEAN countries.

Hypothesis 1a:

H_0: There is a no difference disclosure level of economic performance information among ASEAN countries.

Hypothesis 1b:

H_0: There is a no difference disclosure level of environmental performance information among ASEAN countries.

Hypothesis 1c:

H_0: There is a no difference disclosure level of labor performance information among ASEAN countries.

Hypothesis 1d:

H_0: There is a no difference in disclosure level of human right performance information among ASEAN countries.

Hypothesis 1e:

H_0: There is a no difference in disclosure level of society performance information among ASEAN countries.

Hypothesis 1f:

H_0: There is a no difference in disclosure level of product responsibility performance information among ASEAN countries.

Hypothesis 2:

H_0: There is no positive relationship between the disclosure level of sustainability performance information and return on assets.

Hypothesis 3

H_0: There is no positive relationship between the disclosure level of sustainability performance information and return on equity.

Hypothesis 4

H_0: There is no positive relationship between the disclosure level of sustainability performance information and net sales.

The first equation, takes the following form:

$$ROA_t = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$$

The second equation, takes the following form:

$$ROE_t = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$$

The third equation, takes the following form:

$$NET_t = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$$

Where: Model

Y = the dependent variable: return on assets (ROA), return on equity (ROE) and net sales (NET).

EC = score of economic performance indicators (EC)

EN = score of environmental performance indicators (EN)

LA = score of labor performance indicators (LA)

HR = score of human right performance indicators (HR)

SO = score of society performance indicators (SO)

PR = score of product responsibility performance indicators (PR)

Size = Log Total Assets

LEV = Leverage Ratio

ε = error

t = time period i.e. 2010, 2011, 2012, 2013, 2014

3.3 Content Analysis

Content analysis is conducted on sustainability reports prepared by companies in ASEAN countries in order to extract corporate sustainability disclosure information. The economic, environmental, labor, human rights, societal and product responsibility performance information is disclosed in the reports of a variety of types and amounts. Milne and Adler (1999), content analysis of corporate sustainability reports created from the examination of Bowman and Haire (1976) and Ernst and Ernst (1978) and made improvements to these examination by Trotman (1979) and Trotman and Bradley (1981) later. There were other researchers who have cooperated to improve content analysis of corporate sustainability reports. The noted researchers include the following: Adams and Roberts (1995), Adams et. al. (1995), Deegan and Gordon (1996), Deegan and Rankin (1996), Jaggi and Zhao (1996), Burritt and Welch (1997), Buhr (1998), Raar (2002) and Cunningham and Gadenne (2003).

The researcher must determine two necessary aspects required for content analysis of corporate sustainability reports. First, a determination has to be made on the categories to apply to assess the many types of sustainability performance information that are disclosed in the reports. Second, a determination also has to be made on the unit of analysis to apply to assess the large amount of information that is disclosed for each category. Different researchers have made varied determinations on these matters.

Considering the categories to apply, Patten (1991), Burritt and Welch (1997), Buhr (1998) and Raar (2002), the Global Reporting Initiative's Sustainability Reporting Guidelines have used various categories within the corporate sustainability reporting frameworks. Further researchers, for example, Wiseman (1982) have applied self-developed categories.Researchers do not only differ in their selection of corporate sustainability reporting frameworks; Raar (2002) used 9 categories, Wiseman (1982) used 18 categories, Gray et al. (1995a, 1995b) used 21 categories and Hackston and Milne (1996) used 73 categories, they also differ in their choice of the number of categories.

The difference in researchers has also taken another form, as to considering the unit of analysis to apply. Bowman and Haire (1976) and Trotman and Bradley (1981) considered each category as words as a percentage of the total report. Ernst and

Ernst (1978) considered each category to the extent the category was disclosed. Trotman (1979) considered each category in words in a section of pages. Wiseman (1982) considered each category by applying a four-point level. Cowen et. al. (1987) considered each category in words in a number of pages. Gray et. al. (1995a, 1995b) considered each category to the proximal hundredth of a page. Deegan and Gordon (1996) and Deegan and Rankin (1996) considered each category number of words. Buhr (1998) and Raar (2002) considered each category by apply the number of sentences. Cunningham and Gadenne (2003) considered each category by apply an amalgamation of the number of sentences and the number of words.

Furthermore, according to Holland and Foo (2003), words need to be located in an appropriate context before the meaning can be disclosed. Using the number of words to determine each category may reasonably lead to problems: a small amount of words may be used to present the similar amount of supplementary information; a greater number of words do not always result in more information provided. Using the number of pages or the amount of paragraphs to determine each category can also be problematic because each page and each paragraph may contain a small amount on relevant issues.

This research study of the Global Reporting Initiative's G3 version Sustainability Reporting Guidelines uses the categories ("performance indicators"). The Sustainability Reporting Guidelines include 40 social performance indicators, 30 environmental performance indicators, labor performance indicators 14, human rights performance indicators 9, societal performance indicators 8, product responsibility indicators 9 and 9 economic performance indicators.

As indicated previously, this research study applies the Global Reporting Initiative G3 guidelines as the evaluating framework of the corporate sustainability disclosure level. The unit of analysis used is 0 or 1 to imply, correspondingly, the nonappearance and occurrence of a performance indicator. Consequently, the maximum score of 79 could be given if a company disclosed on all 14 social performance indicators, 9 human right performance indicators, 8 society performance indicators, 9 product responsibility performance indicators, 30 environmental performance indicators and 9 economic performance indicators.

The possible problems that occur from using the number of pages, paragraphs, sentences and words are eliminated by using this unit of analysis. Even though the unit of analysis used is 0 or 1 scoring method does not reveal the completeness or quality of the performance indicator disclosed, this is not a research objective of this study to rate the quality of the performance indicator disclosed. Consequently, the objective of scoring is recognizing the occurrence of each GRI G3 performance indicator. Furthermore, according to Frost et. al. (2005) and Jones et. al. (2007), this unit of analysis has also been used in latest research studies in the area of corporate sustainability reporting.

This research study is based on the GRI content directory for the component of examination a score. The list of all the standard disclosures are the GRI content index. The organization remarks on the indicators and disclosures, subdivision supplement performance indicators. The impression of the organization's sustainability disclosures is providing report operators for the index. This study will calculate the score in each company by using the GRI indicators and the result will be analyzed.

3.4 Data Collecting Methods

The sustainability reports were collected from listed companies' on the stock exchange of ASEAN countries: Thailand, Malaysia, Indonesia, Philippine and Singapore during 2010 - 2014 financial years. The information extracted from annual reports, sustainability reports of companies and financial data was obtained from http://database.globalreporting.org/ and sampling only those available in the sustainability disclosure database by region and countries in ASEAN, the companies' totaled 52 for the purpose of analysis. The financial performance data was collected from the annual reports in each country, using consolidated financial statements in accordance with the IFRS (International Financial Reporting Standards) convergence in ASEAN. For the purpose of this research money amounts have been expressed in USD. The study examined whether firms present the sustainability report in file formats or whether they develop other presentation formats for GRI G3 and G4 guidelines. G4 guideline have most details G3 has more focus on the disclosure of governance and remuneration, supply chain, anti-corruption, GHG emissions as well as ethics &

integrity. It is therefore necessary to prepare the data spectrum to define, owners, both with regard to responsibility as well as for the disclosures.

This study used sustainability disclosure max 79. the maximum possible score of 79 given a company's disclosed of, 14 social performance indicators, 9 human rights performance indicators, 8 societal performance indicators, 9 product responsibility performance indicators, 30 environmental performance indicators and 9 economic performance indicators. The prospective problems that happen from using the number of pages, paragraphs, sentences and size set from total assets that convert from log total assets and three respective financial performances measures, such as return on assets (ROA), return on equity (ROE) and net sales (NET) are not pertinant.

3.5 Sampling Method

To study disclosure of corporate sustainability, the sustainability reports of companies that meet the following criteria were chosen: (1) the GRI G3 and G4 guidelines arrange the reports (2) the reports published in 2010 - 2014 financial year and (3) the reports were audited reports. The GRI G3 and G4 guidelines (2006, p. 38)

Table 3.1 Company's Sustainability report in ASEAN

Country	Companies in country
Thailand	14
Malaysia	9
Indonesia	10
Philippine	8
Singapore	11
Total	52

SOURCE: http://database.globalreporting.org

3.6 Statistical Techniques

The research study statistical techniques:

1. Hypotheses 1, 1a, 1b, 1c, 1d, 1e, 1f ; test by One-Way analysis of variance (ANOVA).

2. Hypotheses 2 to 4; test by multiple regression models.

3.6.1 Testing for Multicollinearity

There are underlying multiple regression analysis that have to be satisfied for the regression model to be valid. The Multicollinearity is tested to recognize that the independent variables are not highly correlated and no Multicollinearity amongst independent variables exists. Control, the Pearson correlation and the variance inflation factor (VIF) and tolerance were analyzed. Gujarati (2009) recommends that if the correlation coefficient exceeds 0.8 or 0.9, this would be considered a serious problem. In this study, the multiple regression models are used to test hypotheses investigating the relationship between the independent variables. These are, economic, environmental, labor, human rights, societal and product responsibility performance information; and each of the dependent variables, namely, return on assets, return on equity and net sales, to determine to what extent the variation in the dependent variable is explained by the combined influence of the independent variables. The relationship to the hypotheses on multi co linearity and singularity in the multiple regression, can be detected by examining the Variance Inflation Factor (VIF) value. Myers (1990) recommends that the examining the VIF value should be less than 10 all the variance inflation factor (VIF) values are less than 10 in hypotheses.

The independent variables were not highly connected with each other. Some of the variables are significantly correlated to other variables. But the coefficients are very low, indicating that multicollinearity does not exist. This study also verified the variance inflation factor (VIF) and tolerance. Gujarati (2009) suggested as a rule of thumb, multicollinearity is considered as a serious problem when the VIF values for independent variables are higher than 10 or tolerance is not far from 0.10. Table 4.17 shows the variance inflation factor and tolerance of independent variables, the results show that the VIF ranged from 1.140 to 4.047 and tolerance were higher than 0.878, the

VIF and tolerance value confirm that there is no multicollinearity between variables. Relate the reference in Appendix A: Multiple Regression Assumption.

3.6.2 Testing for Homoscedasticity

The regression assumption that has to be tested is homoscedasticity, which is a condition in which the dependent variable an equal variance level of the remaining of regression for each the standards of the independent variables or the variance of the error term is constant. Heteroscedasticity is present when the variances of residuals differ for different values of the independent variables.

The assumptions can assessed by a visual inspection of the histogram, normal P-P plot of regression standardized residual, and scatterplot of regression standardized residual. The histogram would show a relatively normal distribution (a bell-shaped curve) and the normal P-P plot of regression standardized residual would show the points to be along a straight line. The scatterplot of regression standardized residual against regression standardized predicted value show the points are evenly dispersed through the plot. The relation to the first assumption on minimum sample size, discussed previously, all the 260 audited corporate sustainability reports are prepared by using the GRI G3 and G4 guidelines. That is published in 2010 to 2014 financial year in the Corporate Register.com website were collected with regard to the assumption of normality, linearity, homoscedasticity and independence of residuals; a visual inspection of the histogram, a normal P-P Plot of regression standardized residual, and scatterplot of regression standardized residual in contradiction of regression standardized predicted value, was conducted for hypotheses 2 to 4. The histograms for hypotheses 2 to 4 show the figures of all the distributions are considered normal. The normal P-P plots of regression standardized residual for hypotheses 2 to 4 show relatively normal distributions. Why the decision to use several statistical methods and test the assumption of normality? There are a number of tests for the assumptions of normality: Skewness, Kurtosis. Skewness and Kurtosis measure the character of the spreading, if the value for skewness is zero, the character of the spreading is exactly normal. If on the other hand, the character of the spreading is completely skewed, then the value for skewness is positive. Obversely, if the value for skewness is negative; the character of the spreading is negatively skewed. As for kurtosis, the value for kurtosis is

zero, and then the character of the spreading is exactly normal. If, on the other hand, the value for kurtosis is positive, then the spreading is reasonably pointed. Oppositely, the value for kurtosis is negative, and then the character of the spreading is quite horizontal. The adequate values for skewness and kurtosis are between +1 and –1 (Hair Jr. et. al., 2005; Tabachnick and Fiddell, 2006). The results of the skewness and kurtosis assessments are show in Table 3.2 below.

Table 3.2 Results of Skewness and Kurtosis Tests (n = 260)

Descriptive Statistics						
	Mean	**Standard Deviation**	**Minimum**	**Maximum**	**Skewness**	**Kurtosis**
SIZE (Log Total Assets)	9.47	0.83	7.39	11.87	-0.27	0.38
LEV (ratio)	0.56	0.19	0.02	0.94	-0.55	0.37
Economic (EC)	6.58	2.68	1.00	9.00	-0.63	-1.01
Environmental (EN)	19.91	9.03	2.00	30.00	-0.38	-1.25
Labor (LA)	11.40	3.25	3.00	14.00	-1.01	0.38
Human right (HR)	6.02	2.97	0.00	9.00	-0.30	-0.54
Society (SO)	5.42	2.53	0.00	8.00	-0.47	-1.03
Product responsibility (PR)	5.73	2.94	0.00	9.00	-0.32	-1.27
ROE (%)	13.52	5.98	1.30	30.90	0.14	-0.37
ROA (%)	7.62	3.89	0.27	20.20	0.50	-0.02
Net sale (Log)	9.07	0.78	6.64	10.97	-0.51	0.68

The results present that the following spreading has a positively skewed and their skewness statistics exceed the acceptable value of +1: return on equity (ROE) (0.14), return on asset (ROA) (0.50). On the other hand, the following spreading has a negative skew: Size (-0.27), leverage (LEV) (-0.55) and net sale (NET) (-0.51), economic (EC), environmental (EN), labor (LA), human rights (HR), societal (SO) and product responsibility (PR). The skewness statistic for EC (-0.63), EN (-0.38), LA (-1.01), HR (-0.30), SO (-0.47), PR (-0.32) and are within –1.

CHAPTER 4
RESEARCH RESULT

4.1 Introduction

The purpose of this study is to examine the relationship between corporate sustainability disclosure (GRI) and financial performance of firms in ASEAN countries from 2010 to 2014. The relationship between GRI disclosure and financial performance for all firms is drawn from five countries in ASEAN. Chapter 3 expounds on the explanation of variables, development of hypotheses, data sources and research instruments to be verified. Content for analysis is gathered from GRI disclosure data from companies' sustainability reports, and quantitative data is collected from the sustainability disclosure database and company websites. The presentation and discussion of the variance inflation factor (VIF) values, multiple regression and instrumental variable estimation are used to examine the data.

The purpose of this chapter is to address the normality of the data and import of the statistics on the extent of corporate sustainability disclosure based on the Global Reporting Initiative (GRI) having distributed their sustainability reporting guidelines in ASEAN from 2010 to 2014. The process is controlled for by changing qualitative data into quantitative data using a GRI checklist. The GRI checklist of 79 indicators of disclosure are classified in terms of six categories; economic, environmental, labor, human righst, societal and product responsibility dimensions. The results are presented and discussed; the chapter ends with a summary of this chapter.

The chapter is as follows: The first section shows the extent of corporate sustainability disclosure (GRI) of firms in ASEAN. The second section explains the financial performance of firms in ASEAN. The conclusion section defines the relationship of corporate sustainability disclosure (GRI) and financial performance of firms in ASEAN.

4.2 Number of Companies Disclosing Corporate Sustainability Disclosure (GRI)

The GRI checklist is companies completing sustainability reports based on GRI disclosure rules by companies listed in ASEAN. The descriptive statistics of the

number of companies are in Table 4.1. This shows the number and percentages of disclosing companies in the five ASEAN countries.

Table 4.1 The number of companies disclosing GRI in ASEAN

No.	Country	No. of Companies	%
1	Thailand	14	27
2	Malaysia	9	17
3	Indonesia	10	19
4	Philippine	8	16
5	Singapore	11	21
Total		52	100

Table 4. The number of firms reporting GRI during the period from 2010 to 2014. The total number of firm year in this study is 260 over the five-year period.

The data showed that there are limitations in reporting sustainability is GRI G3 and G4 presented for five consecutive years. It was found some data collected was in version GRI G3 and G4 and sustainability reporting done in all five years, results in a sample of 52 companies from five countries in ASEAN.

4.2.1 Number of Companies Disclosing Corporate Sustainability Disclosure (GRI) from 2010 to 2014

Table 4.2 The number of GRI disclosure item by period 2010 -2014 for Thailand (n=14)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	4.71	52.33	5.86	65.08	5.86	65.08	6.93	76.98	7.21	80.16	6.11	67.94
EN	30	13.36	44.53	17.79	59.29	18.93	63.10	20.43	68.10	21.43	71.43	18.39	61.29
LA	14	8.21	58.64	9.86	70.41	10.71	76.53	11.29	80.61	11.29	80.61	10.27	73.37
HR	9	3.57	39.67	4.36	48.41	5.29	58.73	6.57	73.02	6.43	71.43	5.24	58.25
SO	8	3.64	45.50	4.14	51.79	4.79	59.82	6.07	75.89	6.50	81.25	5.03	62.86
PR	9	4.00	44.44	5.64	62.70	5.21	57.94	6.36	70.63	7.07	78.57	5.66	62.86
Total	79	37.49	47.46	47.64	60.31	50.79	64.29	57.64	72.97	59.93	75.86	50.70	64.18

Table 4.3 The number of GRI disclosure item by period 2010 - 2014 for Indonesia (n=10)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	8.10	90.00	7.90	87.78	8.60	95.56	8.80	97.78	8.44	93.78	8.44	93.78
EN	30	23.00	76.67	23.00	76.67	25.40	84.67	26.60	88.67	24.92	83.07	24.92	83.07
LA	14	13.40	95.71	13.50	96.43	13.60	97.14	13.60	97.14	13.54	96.71	13.54	96.71
HR	9	6.90	76.67	6.90	76.67	7.80	86.67	7.50	83.33	7.32	81.33	7.32	81.33
SO	8	6.20	77.50	6.40	80.00	7.60	95.00	7.20	90.00	6.92	86.50	6.92	86.50
PR	9	6.50	72.22	6.70	74.44	7.50	83.33	7.40	82.22	7.10	78.89	7.10	78.89
Total	79	64.10	81.14	64.40	81.52	70.50	89.24	71.10	90.00	68.24	86.38	68.24	86.38

Table 4.4 The number of GRI disclosure item by period 2010 - 2014 for Philippine (n=8)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	5.50	61.11	5.50	61.11	6.75	75.00	7.75	86.11	7.75	86.11	6.65	73.89
EN	30	14.00	46.67	14.63	48.75	19.63	65.42	22.63	75.42	22.63	75.42	18.70	62.33
LA	14	9.50	67.86	9.88	70.54	11.50	82.14	12.88	91.96	12.75	91.07	11.30	80.71
HR	9	6.25	69.44	6.00	66.67	6.63	73.61	6.88	76.39	6.88	76.39	6.53	72.50
SO	8	4.38	54.69	4.25	53.13	4.63	57.81	6.00	75.00	6.38	79.69	5.13	64.06
PR	9	3.38	37.50	3.75	41.67	5.25	58.33	5.88	65.28	6.00	66.67	4.85	53.89
Total	79	43.00	54.43	44.00	55.70	54.38	68.83	62.00	78.48	62.38	78.96	53.15	67.28

Table 4.5 The number of GRI disclosure item by period 2010 - 2014 for Malaysia (n=9)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	7.11	79.01	7.11	79.01	7.11	79.01	7.78	86.42	7.78	86.42	7.38	81.98
EN	30	18.78	62.59	20.89	69.63	21.44	71.48	21.44	71.48	21.44	71.48	20.80	69.33
LA	14	12.11	86.51	13.11	93.65	13.11	93.65	13.67	97.62	13.67	97.62	13.13	93.81
HR	9	6.89	76.54	7.22	80.25	7.22	80.25	7.22	80.25	7.22	80.25	7.16	79.51
SO	8	6.11	76.39	6.33	79.17	6.44	80.56	6.56	81.94	6.56	81.94	6.40	80.00
PR	9	6.44	71.60	7.00	77.78	7.33	81.48	7.78	86.42	7.78	86.42	7.27	80.74
Total	79	57.44	72.71	61.67	78.06	62.67	79.32	64.44	81.58	64.44	81.58	62.13	78.65

Table 4.6 The number of GRI disclosure item by period 2010 - 2014 for Singapore (n=11)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	3.82	42.42	3.91	43.43	5.18	57.58	5.45	60.61	5.64	62.63	4.80	53.33
EN	30	14.64	48.79	15.09	50.30	16.18	53.94	20.64	68.79	20.73	69.09	17.45	58.18
LA	14	9.00	64.29	9.27	66.23	10.00	71.43	9.64	68.83	9.91	70.78	9.56	68.31
HR	9	3.55	39.39	3.64	40.40	4.55	50.51	5.45	60.61	5.55	61.62	4.55	50.51
SO	8	3.45	43.18	3.55	44.32	3.82	47.73	4.55	56.82	4.55	56.82	3.98	49.77
PR	9	3.18	35.35	3.27	36.36	4.00	44.44	4.64	51.52	4.73	52.53	3.96	44.04
Total	79	37.64	47.64	38.73	49.02	43.73	55.35	50.36	63.75	51.09	64.67	44.31	56.09

Table 4.7 The number of GRI disclosure item by period 2010-2014 for ASEAN (n=260)

Category	Total items to be disclosed	2010		2011		2012		2013		2014		2010-2014	
		Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed	Average disclosed	% disclosed
EC	9	6.11	67.94	8.44	93.78	6.65	73.89	7.38	81.98	4.80	53.33	6.58	73.16
EN	30	18.39	61.29	24.92	83.07	18.70	62.33	20.80	69.33	17.45	58.18	19.91	66.37
LA	14	10.27	73.37	13.54	96.71	11.30	80.71	13.13	93.81	9.56	68.31	11.40	81.46
HR	9	5.24	58.25	7.32	81.33	6.53	72.50	7.16	79.51	4.55	50.51	6.02	66.92
SO	8	5.03	62.86	6.92	86.50	5.13	64.06	6.40	80.00	3.98	49.77	5.42	67.79
PR	9	5.66	62.86	7.10	78.89	4.85	53.89	7.27	80.74	3.96	44.04	5.73	63.68
Total	79	50.70	64.18	68.24	86.38	53.15	67.28	62.13	78.65	44.31	56.09	55.08	69.72

Table 4.2 shows the number of GRI items disclosed during the 5 year period from 2010 to 2014 by Thai companies. The average number of GRI disclosures presented an increase from 47 to 75 percent of total over the five-year period. This shows that on average, this is a small variation in the number of GRI items disclosed starting from 37.49 items: 47.46% of total number of disclosed items in 2010 to 47.64 items: 60.31% of total number of disclosed items in 2011, with an growth to 50.79 items: 64.29% of total number of disclosed items in 2012, to 57.64 items: 72.97% of total number of disclosed items in 2013, with and growth to 59.93 items: 75.86% of total number of disclosed items in 2014 . The record GRI disclosed each item for 2010 -2014: economic category total disclosure 9 design items, 6.11 items: 67.94%, environmental category total disclosure 30 design items, 18.39 items: 61.29%, labor category total disclosure 14 design items, 10.27 items: 73.37%, human rights category total disclosure 9 design items, 5.24 items: 58.25%, societal category total disclosure 8 design items, 5.03 items: 62.86% and product responsibility total disclosure 9 design items, 5.66 items: 62.86%.

Table 4.3 shows the number of GRI items disclosed during the 5 year period from 2010 to 2014 by Indonesia companies. The average number of GRI disclosures presented a slight increase from 81 to 86 percent of total over the five-year period. This is shows that on average, this is a small variation in the number of GRI items disclosed starting from 64.10 items: 81.14% of total number of disclosed items in 2010 to 64.40 items: 81.52% of total number of disclosed items in 2011, with an growth to 70.50 items: 89.24% of total number of disclosed items in 2012, to 71.10 items: 90% of total number of disclosed items in 2013, with and growth to 68.24 items: 86.38% of total number of disclosed items in 2014 . The record GRI disclosed each item for 2010 -2014: economic category total disclosure 9 design items, 8.44 items: 93.78%, environmental category total disclosure 30 design items, 24.92 items: 83.07%, labor category total disclosure 14 design items, 13.54 items: 96.71%, human right category total disclosure 9 design items, 7.32 items: 81.33%, societal category total disclosure 8 design items, 6.92 items: 86.50% and product responsibility total disclosure 9 design items, 7.10 items: 78.89%.

Table 4.4 shows the number of GRI items disclosed during the 5 year period from 2010 to 2014 by Philippine companies. The average number of GRI disclosures presented an increase from 54 to 78 percent of total over the five-year period. This is shows that on average, this is variation in the number of GRI items disclosed starting from 43 items: 54.43% of total number of disclosed items in 2010 to 44 items: 55.70% of total number of disclosed items in 2011, with an growth to 54.38 items: 68.83% of total number of disclosed items in 2012, to 62 items: 78.48% of total number of disclosed items in 2013, with and growth to 62.38 items: 78.96% of total number of disclosed items in 2014. The record GRI disclosed for each item for 2010 -2014: economic category total disclosure 9 design items, 6.65 items: 73.89%, environmental category total disclosure 30 design items, 18.70 items: 62.33%, labor category total disclosure 14 design items, 11.30 items: 80.71%, human rights category total disclosure 9 design items, 6.53 items: 72.50%, societal category total disclosure 8 design items, 5.13 items: 64.06% and product responsibility total disclosure 9 design items, 4.85 items: 53.89%.

Table 4.5 shows the number of GRI items disclosed during the 5 year period from 2010 to 2014 by Malaysia companies. The average number of GRI disclosures presented a slight increase from 72 to 82 percent of the total over the five-year period. This shows that on average, there is a small variation in the number of GRI items disclosed starting from 57.44 items: 72.71% of total number of disclosed items in 2010 to 61.67 items: 78.06% of total number of disclosed items in 2011, with growth to 62.67 items: 79.32% of total number of disclosed items in 2012, to 64.44 items: 81.58% of total number of disclosed items in 2013 – 2014. The record of GRI disclosure for each category for 2010 -2014: economic category total disclosure of 9 design items, 7.38 items: 81.98%, environmental category total disclosure,30 design items, 20.80 items: 69.33%, labor category total disclosure 14 design items, 13.13 items: 93.81%, human rights category total disclosure 9 design items, 7.16 item, 79.51%, societal category total disclosure 8 design items, 6.40 items: 80% and product responsibility total disclosure 9 design items, 7.27 items: 80.74%.

Table 4.6 shows the number of GRI items disclosed during the 5 year period from 2010 to 2014 by Singaporean companies. The average number of GRI

disclosures presented a slight increase from 47 to 65 percent of the 79 over the five-year period. This shows that on average, there is a small variation in the number of GRI items disclosed starting from 37.64 items: 47.64% of total number of disclosure items in 2010 to 38.73 items: 49.02% of total number of disclosure items in 2011, with an growth to 43.73 items: 55.35% of total number of disclosure items in 2012, to 50.36 items: 63.75% of total number of disclosure items in 2013, with and growth to 51.09 items: 65.67% of total number of disclosure items in 2014 . The GRI disclosed each category for 2010 -2014: economic category total disclosure 9 design items, 4.80 items: 53.33%, environmental category total disclosure 30 design items, 17.45 items: 58.18%, labor category total disclosure 14 design items, 9.56 items: 68.31%, human rights category total disclosure 9 design items, 4.55 items: 50.51%, societal category total disclosure 8 design items, 3.98 items: 49.77% and product responsibility total disclosure 9 design items, 3.96 items: 44.04%.

Table 4.7 shows the number of GRI items disclosed 2010-2014 for each country in ASEAN. OF the average number of GRI disclosures presented Singapore has the lowest disclosures at 56.06 percent; Thailand 64.18 percent, Philippines 67.28 percent, Malaysia 78.65 percent and the highest discloser is Indonesia with 86.38 percent.

The disclosure for each category, figure 4.1 – 4.6 shows that the reporting indicators of GRI in ASEAN 2010-2014, all indicator of EC, EN, LA, HR, SO and PR rose.

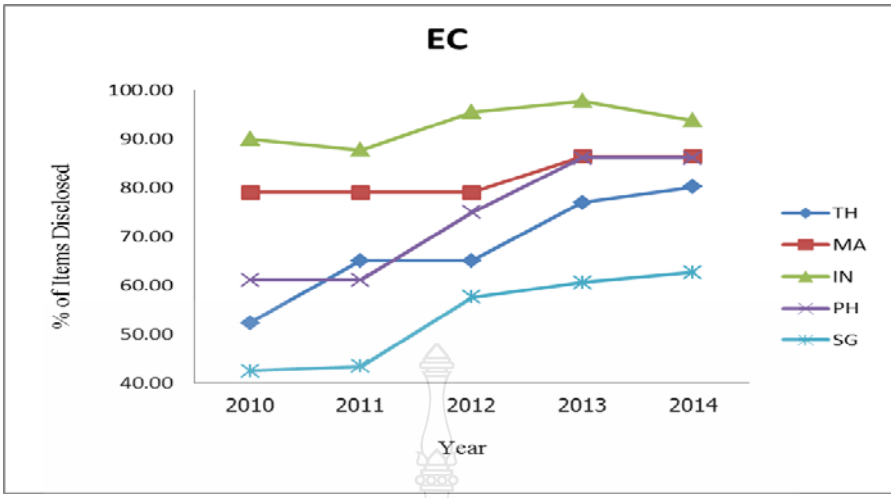

Figure 4.1 Disclosure economic performance information in GRI report 2010-2014 in ASEAN (n=260)

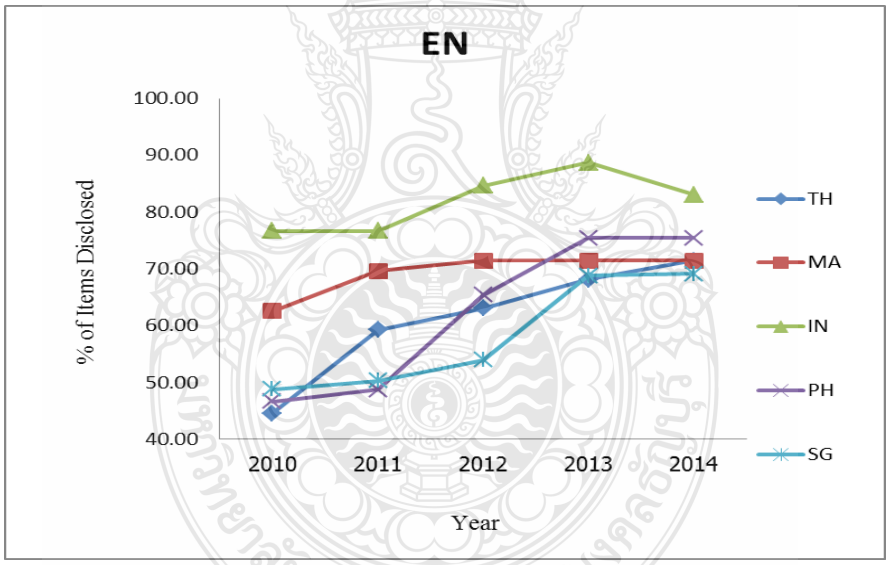

Figure 4.2 Disclosure environmental performance information in GRI report 2010-2014 in ASEAN (n=260)

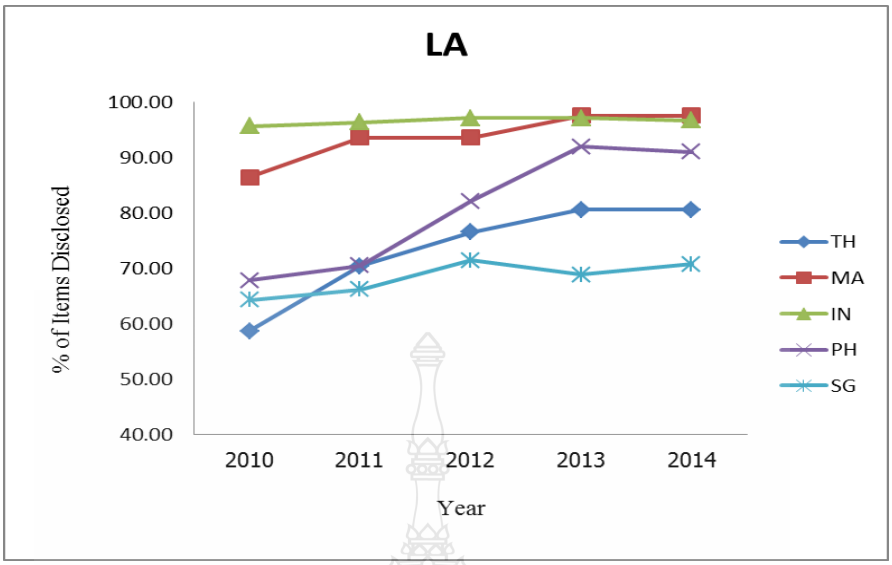

Figure 4.3 Disclosure labor performance information in GRI report 2010-2014 in ASEAN (n=260)

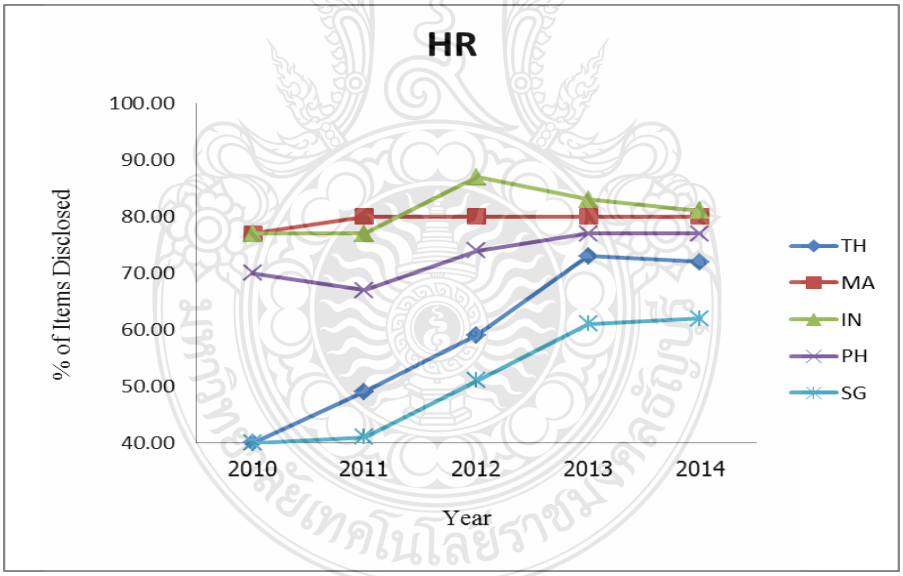

Figure 4.4 Disclosure human right performance information in GRI report 2010-2014 in ASEAN (n=260)

Figure 4.5 Disclosure society performance information in GRI report 2010-2014in ASEAN (n=260)

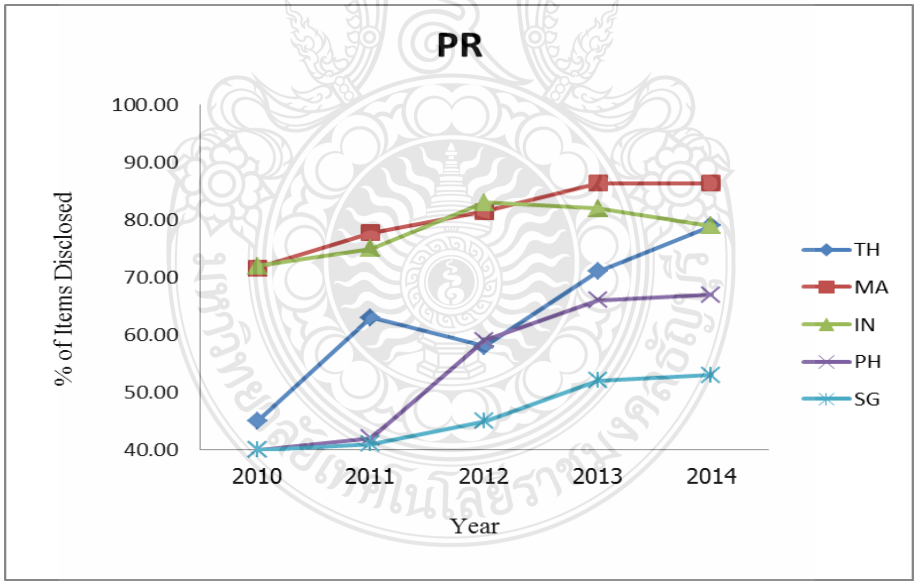

Figure 4.6 Disclosure product responsibility performance information in GRI 2010-2014 in ASEAN (n=260)

The disclosure in the six categories as an average for each country over 2010-1014: Singapore overall 56.09 percent, LA 68.31 percent, EN 58.18 percent, EC 53.33 percent, HR 50.51 percent, SO 49.77 percent and PR 44.04 percent. Thailand overall 64.18 percent, LA 73.37 percent, EC 67.94 percent, SO 62.86 percent, PR 62.86 percent, EN 61.29 percent, and HR 58.25 percent. The Philippines overall 67.28 percent, LA 80.71 percent, EC 73.89 percent, HR 72.50 percent, SO 64.06 percent, EN 62.33 percent, and PR 53.89 percent. Malaysia overall 78.65 percent, LA 93.81 percent, EC 81.98 percent, PR 80.74 percent, SO 80 percent, HR 79.51 percent, and EN 69.33 percent. The highest discloser is Indonesia overall 86.38 percent, LA 96.71 percent, EC 93.78 percent, SO 86.50 percent, EN 83.07 percent, HR 81.33 percent, and PR 78.89 percent.

The ASEAN GRI disclosure level overall in years 2010-2014 is 69.72 percent, LA 81.46 percent, EC 73.16 percent, SO 67.79 percent, HR 66.92 percent, EN 66.37 percent, and PR 63.68 percent. The summery of the GRI report of the level sustainability disclosure in ASEAN, show the result in each dimensions as follow below.

Table 4.8 The ranking of GRI disclosure items for each country in ASEAN

Country	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**
Thailand	LA	EC	SO	PR	EN	HR
Malaysia	LA	EC	PR	SO	HR	EN
Indonesia	LA	EC	SO	EN	HR	PR
Philippine	LA	EC	HR	SO	EN	PR
Singapore	LA	EN	EC	HR	SO	PR
ASEAN	LA	EC	SO	HR	EN	PR

4.3 Financial Performance of ASEAN Companies

This unit, statistical analysis was employed to determine the performance of ASEAN companies.

Table 4.9 The financial performance for Thailand (n=14)

Financial Performance	2010	2011	2012	2013	2014
Return on Assets (%)	8.60	9.46	8.56	9.09	7.41
Return on Equity (%)	14.96	16.45	14.58	15.62	12.10
Net sales (Log)	9.25	9.34	9.40	9.45	9.44
Size (Log Total Assets)	9.57	9.62	9.70	9.72	9.75
LEV (ratio)	0.54	0.55	0.57	0.56	0.57

From Table 4.9, the ROA was 8.60% in the year 2010, increased to 9.46% in 2011, dropped to 8.56% in 2012, increased to 9.09% in 2013 and dropped to 7.41% in 2014. In 2010 the ROE was 14.96%, increased to 16.45% in 2011, dropped to 14.58% in 2012, increased to 15.62% in 2013 and fell to 12.10% in 2014. The Net sales increased over the whole period, from 9.25 in 2010 and reaching a peak at 9.44 in 2014. Company size increased from 9.57 in 2010 and increased to 9.75 in 2014. The leverage ratio increased from 0.54 in 2010 and rose to 0.57 in 2014.

Table 4.10 The financial performance for Indonesia (n=10)

Financial Performance	2010	2011	2012	2013	2014
Return on Assets (%)	6.84	6.94	6.81	6.97	6.35
Return on Equity (%)	12.00	13.04	11.71	11.51	11.33
Net sales (Log)	8.54	8.62	8.64	8.61	8.62
Size (Log Total Assets)	8.97	9.04	9.04	9.01	9.03
Financial Performance	2010	2011	2012	2013	2014
LEV (ratio)	0.61	0.64	0.63	0.64	0.65

From Table 4.10, the ROA was 6.84% in the year 2010, increased to 6.94% in 2011, dropped to 6.81% in 2012, increased to 6.97% in 2013 and dropped to 6.35% in 2014. In 2010 the ROE was 12%, increased to 13.04% in 2011, dropped to 11.71% in 2012, decreased to 11.51% in 2013 and reduced to 11.33% in 2014. The Net sales increased over the period, from 8.54 in 2010 and reaching 8.62 in 2014. Company size increased from 8.97 in 2010 to 9.03 in 2014. The leverage ratio increased from 0.61 in 2010 and to 0.65 in 2014.

Table 4.11 The financial performance for Philippine (n=8)

Financial Performance	**2010**	**2011**	**2012**	**2013**	**2014**
Return on Assets (%)	9.65	8.36	7.64	6.92	8.55
Return on Equity (%)	14.73	16.21	13.88	12.90	15.93
Net sales (Log)	8.54	8.58	8.63	8.70	8.75
Size (Log Total Assets)	9.20	9.23	9.38	9.44	9.48
LEV (ratio)	0.53	0.55	0.57	0.64	0.66

From Table 4.11, the ROA was 9.65% in the year 2010, decreased to 8.36% in 2011, dropped to 7.64% in 2012, decreased to 6.92% in 2013 and increased to 8.55% in 2014. In 2010 the ROE was 14.73%, increased to 16.21% in 2011, dropped to 13.88% in 2012, decreased to 12.90% in 2013 and increased to 15.93% in 2014. The Net sales increased over the whole period, from 8.54 in 2010 and reaching the top at 8.75 in 2014. The Size increase from 9.20 in 2010 and increase to 9.48 in 2014. The leverage ratio increased from 0.53 in 2010 to 0.66 in 2014.

Table 4.12 The financial performance for Malaysia (n=9)

Financial Performance	2010	2011	2012	2013	2014
Return on Assets (%)	7.35	7.36	7.07	7.55	6.22
Return on Equity (%)	11.09	11.00	10.93	10.95	9.55
Net sales (Log)	8.90	9.01	9.06	9.07	9.07
Size (Log Total Assets)	9.25	9.29	9.35	9.34	9.37
LEV (ratio)	0.49	0.51	0.50	0.49	0.50

From Table 4.12, the ROA was 7.35% in the year 2010, increased to 7.36% in 2011, dropped to 7.07% in 2012, increased to 7.55% in 2013 and dropped to 6.22% in 2014. In 2010 the ROE was 11.09%, decreased to 11% in 2011, dropped to 10.93% in 2012, increased to 10.95% in 2013 and decreased to 9.55% in 2014. The Net sales increased over the whole period, from 8.90 in 2010 and reaching 9.07 in 2014. The Company size increase from 9.25 in 2010 to 9.37 in 2014. The leverage ratio increased from 0.49 in 2010 to 0.50 in 2014.

Table 4.13 The financial performance for Singapore (n=11)

Financial Performance	2010	2011	2012	2013	2014
Return on Assets (%)	7.93	7.81	6.47	6.47	6.75
Return on Equity (%)	16.30	16.43	14.57	13.17	13.81
Net sales (Log)	9.33	9.42	9.51	9.53	6.45
Size (Log Total Assets)	9.76	9.83	9.89	9.92	9.94
LEV (ratio)	0.55	0.55	0.55	0.54	0.54

From Table 4.13, the ROA was 7.93% in the year 2010, dropped to 7.81% in 2011, dropped to 6.47% in 2012-2013 and increased to 6.75% in 2014. In 2010 the ROE was 16.30%, increased to 16.43% in 2011, dropped to 14.57% in 2012, decreased to 13.17% in 2013 and increased to 13.81% in 2014. The Net sales increased over the whole period, from 9.33 in 2010 and dropped to 6.45 in 2014. The Size increase from 9.76 in 2010 and increase to 9.94 in 2014. The leverage ratio increased from 0.55 in 2010 and dropped to 0.54 in 2014.

Table 4.14 The financial performance for ASEAN in 2010 - 2014 (n=260)

Financial Performance	Thailand	Malaysia	Indonesia	Philippine	Singapore	ASEAN
Return on Assets (%)	8.62	7.11	6.78	8.22	7.09	7.62
Return on Equity (%)	14.74	10.70	11.92	14.73	14.86	13.52
Net sales (Log)	9.38	9.02	8.61	8.64	8.85	9.07
Size (Log Total Assets)	9.67	9.32	9.02	9.35	9.87	9.47
LEV (ratio)	0.56	0.50	0.63	0.59	0.55	0.56

The result show the financial performance for ASEAN 2010 - 2014, the return on assets (ROA), Thailand has the highest level at 8.62%, Philippines 8.22%, Malaysia 7.11%, Singapore 7.09% and the lowest is Indonesia 6.78%. The return on equity (ROE) Singapore has the highest level at 14.86%, Thailand 14.74%, Philippines 14.73%, Indonesia 11.92%, and the lowest is Malaysia 10.70%. Net sales Thailand has the highest level at 9.38, Malaysia 9.02, Singapore 8.85, Philippines 8.64 and the lowest is Indonesia 8.61. Company size Singapore has the highest level at 9.87, Thailand 9.67, Philippines 9.35, Malaysia 9.32 and the lowest is Indonesia 9.02. The leverage Indonesia is the highest level in 0.63, Philippine 0.59, Thailand 0.56, Singapore 0.55 and the lowest is Malaysia 0.50. The overall in ASEAN year 2010 -

2014 shows return on asset (ROA) 7.62%, return on equity (ROE) 13.52%, Net sales 9.07, GRI score 3.70, Company size (log total assets) 9.47 and leverage 0.56.

4.3.1 Summary and Conclusions

This summary from 2010 to 2014 expounds the nature and extent of corporate sustainability disclosure (GRI) of firms in ASEAN. The analysis was used to examine the six categories of GRI disclosure for all firms in the sample in ASEAN. This summary has also notes the extent of GRI disclosure for each country.

This study found the trend of GRI disclosure in ASEAN was rising through the period; 2010: the average number of GRI disclosures presented 60.68%, 2011: the average number of GRI disclosures presented 64.92%. 2012: the average number of GRI disclosures presented 71.41%, 2013: the average number of GRI disclosures presented a slight increased 77.35%, and 2014: the average number of GRI disclosures presented 77.49%.

As the results from financial performance studies show on average, there is no statistically significant difference in the average return on assets (ROA), return on equity (ROE) and net sales (log net sales). Furthermore, the ROA of companies in Thailand and Philippines were higher than those for firms in other countries. The ROE of companies in Singapore and Thailand were higher than those for firms in other countries. The net sales of companies in Thailand and Malaysia were higher than those for firms in other countries. Size of companies Singapore and Thailand were higher than those for firms in other countries. The leverage of companies Indonesia and Philippines were higher than those for firms in other countries. It is worthwhile to examine the relationship between GRI disclosure and financial performance in order to comprehend more obviously the reasons as to why the companies disclose which GRI categories in sustainability reporting and annual reports.

4.4 The Relationship between GRI Disclosure and Financial Performance in ASEAN

This section is focused on the association between GRI disclosure and financial performance, the impacts of financial performance on GRI disclosure. The first section offers descriptive statistics of the dependent and independent variables.

The second section shows three financial performance measures multivariate analysis on the level of GRI disclosures. The third section provides the link between financial performance and GRI disclosure results and the relationship between each dimension of GRI and financial performance is presented in the fourth section. The fifth section provides the results of panel regression and instrumental variable estimation. The sixth section discusses the findings and the final section gives the summary and conclusion of relations to multivariate regression analyses.

4.4.1 Descriptive Statistics

This section, descriptive statistics are given to determine the distribution, central tendency and the dispersion of the variables for all firms. The meaning of variables is provided in Chapter 3 in the methodology section. These analyses are achieved by comparing the GRI disclosure score and three respective financial performances measures, such as return on assets (ROA), return on equity (ROE) and net sales (NET). The descriptive statistics: mean, minimum, maximum, and standard deviation stated in this study included.

Table 4.15 Descriptive statistics for each country in the years 2010 to 2014

Variables	Financial performance			SIZE (Log Total Assets)	LEV (ratio)
	ROA (%)	ROE (%)	NET (Log Net Sales)		
Thailand					
Mean	8.63	14.74	9.37	9.67	0.56
S.D.	4.15	6.23	0.78	0.88	0.15
Min	1.61	2.73	7.99	8.10	0.18
Max	20.20	30.90	10.97	11.87	0.94
Malaysia					
Mean	7.11	10.70	9.03	9.32	0.50
S.D.	3.78	4.51	0.41	0.55	0.22
Min	2.13	3.12	8.17	8.36	0.08
Max	16.61	18.91	9.73	10.21	0.76

Table 4.15 Descriptive statistics for each country in the years 2010 to 2014 (Cont.)

Variables	Financial performance			SIZE (Log Total Assets)	LEV (ratio)
	ROA (%)	ROE (%)	NET (Log Net Sales)		
Indonesia					
Mean	6.78	11.91	8.60	9.02	0.63
S.D.	3.90	5.58	0.69	0.91	0.16
Min	0.27	1.62	7.22	7.39	0.31
Max	17.24	22.63	9.47	10.54	0.91
Philippine					
Mean	8.22	14.73	8.64	9.35	0.59
S.D.	4.02	5.52	0.93	0.86	0.25
Min	1.54	2.74	6.64	7.52	0.02
Max	16.57	27.96	9.79	10.51	0.91
Singapore					
Mean	7.08	14.86	9.47	9.87	0.54
S.D.	3.16	6.41	0.56	0.60	0.17
Min	1.44	1.30	8.05	8.29	0.19
Max	15.23	26.08	10.23	10.55	0.82
ASEAN					
Mean	7.62	13.52	9.07	9.47	0.56
S.D.	3.89	5.97	0.78	0.83	0.19
Min	0.27	1.30	6.64	7.39	0.02
Max	20.20	30.90	10.97	11.87	0.94

From Table 4.15 Thailand and Philippine had the highest mean of ROA: 8.63% and 8.22%, respectively, Indonesia had the lowest average for ROA. The average ROE of Singapore and Thailand were 14.86% and 14.74%, this was higher than the other countries. Singapore and Thailand had the highest mean of net sales: 9.47% and 9.37%, respectively, Indonesia had the lowest average for net sales. The firm size (logarithm of total assets) of Singapore was 9.87 and Thailand was 8.89, higher than the other countries. The leverage did not vary a great deal amongst the countries and ranged from 0.50 percent to 0.63.

4.5 Results of Hypotheses 1

Difference in disclosure level of sustainability performance information among ASEAN countries. The results of hypotheses 1 to 1f are show in table 4.16 below:

Table 4.16 Results of hypotheses 1 to 1f

		SS	df	MS	F	Sig
Economic performance	Between Groups	391.25	4	97.81	16.99	0.000
(EC)	Within Groups	1467.88	255	5.75		
	Total	1859.13	259			
Environmental performance	Between Groups	1843.46	4	460.86	6.09	0.000
(EN)	Within Groups	19283.50	255	75.62		
	Total	21126.96	259			
Human Right performance	Between Groups	314.58	4	78.64	10.14	0.000
(HR)	Within Groups	1977.27	255	7.75		
	Total	2291.86	295			
Society performance	Between Groups	283.68	4	70.92	13.20	0.000
(SO)	Within Groups	1369.78	255	5.37		
	Total	1653.46	259			
Labor performance	Between Groups	639.20	4	159.80	19.43	0.000
(LA)	Within Groups	2097.39	255	8.22		
	Total	2736.59	259			
Product Responsibility	Between Groups	403.05	4	100.76	13.98	0.000
Performance (PR)	Within Groups	1838.10	255	7.21		
	Total	2241.15	259			
Sustainability (TTL)	Between Groups	15.21	4	3.80	7.76	0.000
	Within Groups	124.84	255	0.45		
	Total	140.15	259			

Hypothesis 1/ One-Way ANOVA

H_0: There is a no difference in disclosure level of sustainability performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which state that there is a difference in the mean disclosure level for sustainability performance information among ASEAN countries, $F(4,255) = 7.76$, $p < 0.05$.

Hypothesis 1a / One-Way ANOVA

H_0: There is a no difference in disclosure level of economic performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for economic performance information among ASEAN countries, $F(4,255) = 16.99$, $p < 0.05$.

Hypothesis 1b / One-Way ANOVA

H_0: There is a no difference in disclosure level of environmental performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for environmental performance information among ASEAN countries, $F(4,255) = 6.09$, $p < 0.05$.

Hypothesis 1c / One-Way ANOVA

H_0: There is a no difference in disclosure level of labor performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for labor performance information among ASEAN countries, $F(4,375) = 24.66$, $p < 0.05$.

Hypothesis 1d / One-Way ANOVA

H_0: There is a no difference in disclosure level of human right performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for human right performance information among ASEAN countries, $F(4,255) = 19.43$, $p < 0.05$.

Hypothesis 1e / One-Way ANOVA

H_0: There is a no difference in disclosure level of societal performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for society performance information among ASEAN countries, $F(4,255) = 13.20$, $p < 0.05$.

Hypothesis 1f / One-Way ANOVA

H_0: There is a no difference in disclosure level of product responsibility performance information among ASEAN countries.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a difference in the mean disclosure level for product responsibility performance information among ASEAN countries, $F(4,255) = 13.98$, $p < 0.05$.

The results in Table 4.16 demonstration there is significant difference in the level of disclosure of sustainability: economic performance information, environment performance information, labor performance information, human rights performance information, societal performance information, and product responsibility performance information between the countries, this is expected.

Matten and Moon (2004) stated that the cultural traditions differ from nation to nation in relation to CSR, in particular they explain, why CSR in US firms has mainly been explicit, while CSR in Europe has until recently, been typically implicit. They accomplish in their analysis, measuring the nature of the political system, financial system, education and labor systems and cultural system in the UK and Europe. And they explain how differences in these key recognized arenas affect CSR on either side of the Atlantic.

Visser (2007) showed that the cultural traditions strongly affect an organizations implementation, in the developing countries' as an example, the cultural traditions of philanthropy and the CSR have a close relationship. Culture is enormously dependant on the religion of the country, in ASEAN countries people practice Hinduism, Buddhism, Islam, and Christianity, and their culture is enormously influenced by the religion of the country. The Buddhist traditions are aligned with CSR in Asian countries (Nelson, 2004), as well Chapple and Moon (2005) highlighted that CSR is vary significantly among Asian countries but that difference is not clarified by levels of development but by factors in the respective national business systems.

The difference in the comparative importance of the categories of disclosures of corporate sustainability between Hong Kong and US students (Peter A. Stanwick, Sarah D. Stanwick., 1998) and important differences in corporate citizenship practices among Australian and Turkish organizations and cultural differences are major variants, and the level of growth of a country may be a key indicator (Chapple & Moon, 2005). The environmental and anti-discrimination laws of the country differ with a lack of legal rules and lack of legal applications. The disclosure of corporate sustainability vary with top management interests, customer loyalty and strong organizational assurance and internal corporate culture (Deegan, C., 2002).

4.6 The Empirical Results for the Association between GRI Disclosure and Financial Performance in ASEAN

This section shows the results for 260 firms from 2010 to 2014. Multivariate analysis is employed to examine the relationship between GRI and three financial performance measures. This regression method compares cross-sectional data and instrumental variable estimation. See Chapter 3, where the dependent variable as the substitutions financial performance. This section is in six parts. First, testing for Multicollinearity, second testing for homoscedasticity, third, the correlation between return on assets (ROA) and GRI disclosure, fourth, the relationship between return on equity (ROE) and GRI disclosure is investigated. Finally, there is an investigation of the correlation between net sales (NET) and GRI disclosure.

4.7 Results of Hypotheses 2

Relationship between the sustainability performance information disclosure level and return on assets (ROA). The results of hypothesis 2; Table 4.19

Table 4.17 Multiple Regression of sustainability performance information disclosure level and return on assets (ROA) for the periods 2010-2014 (n = 260)

$ROA_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	14.767	2.816		5.245	0.000
SIZE	-0.373	0.288	-0.080	-1.295	0.1□6
Leverage (LEV)	-6.918	1.211	-0.338	-5.711	0.000*
Economic (EC)	-0.049	0.163	-0.034	-0.299	0.765
Environmental (EN)	0.102	0.040	0.236	2.537	0.012*
Labor (LA)	0.101	0.102	0.085	0.991	0.322
Human right (HR)	0.034	0.116	0.026	0.293	0.770
Society (SO)	-0.075	0.161	-0.049	-0.464	0.643
Product responsibility (PR)	-0.412	0.138	-0.312	-2.979	0.003*
Model summary					
R				0.435	
R^2				0.189	
Adjusted R^2				0.163	
F-value				7.305	
Sig				0.000*	
Durbin-Watson				1.667	

* Significance levels of 0.05.

Hypothesis 2 / Multiple Regression Model

H_0: There is no positive relationship between the sustainability performance information disclosure level and return on assets.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a positive relationship between the sustainability performance information disclosure level and return on assets, $F(12,247) = 6.585$, $p < 0.05$.

The results in Table 4.17 show that there is relationship between sustainability performance information disclosure level and return on assets. The results are consistent with the hypotheses. The results in this study suggest that there is relationship between the sustainability disclosure and return on assets. There is significance in the results, the mean sustainability disclosure level and return on assets. This suggests that there are other more significant factors that have a relationship with return on assets. The results in this research study are accurate because the more reliable GRI sustainability guidelines and a more sample are used to determine the relationship.

This research finds there is significant relationship between the level of corporate sustainability disclosure and return on assets. The results can be used to encourage companies to become involved in sustainability reporting. Also, it strengthens the argument for advocating mandatory corporate sustainability reporting. The relationship between the levels of corporate sustainability disclosure with return on assets indicated by the data's six indicators that 16.30 percent in the level of the relationship is the most important factor of corporate sustainability disclosure and followed by leverage, economic and product responsibility. The relationship in corporate sustainability disclosure with return on assets when indicating a negative relationship was with leverage and product responsibility that mean when the indicators more disclose, the return on assets will reduces that the companies also reduces the return on assets. The relationship in corporate sustainability disclosure with return on assets when indicates a positive relationship that related with environmental that mean when the indicators more disclosure, the return on assets increases that the companies also increase return on assets.

4.8 Results of Hypotheses 3

Relationship between the sustainability performance information disclosure level and return on equity (ROE). The results of hypothesis 3, in Table 4.18 below:

Table 4.18 Multiple Regression of sustainability performance information disclosure level and return on equity (ROE) for the periods 2010-2014 (n = 260)

$ROE_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std.error	Beta		
(Constant)	17.445	4.543		3.840	0.000
SIZE	-0.407	0.465	-0.057	-0.875	0.382
Leverage (LEV)	5.582	1.9□5	0.177	2.856	0.005*
Economic (EC)	-0.210	0.263	-0.094	-0.797	0.426
Environmental (EN)	0.146	0.065	0.220	2.252	0.025*
Labor (LA)	-0.028	0.165	-0.015	-0.172	0.863
Human right (HR)	-0.235	0.187	-0.117	-1.258	0.210
Society (SO)	-0.397	0.260	-0.168	-1.524	0.129
Product responsibility (PR)	-0.147	0.223	-0.072	-0.659	0.510
Model summary					
R				0.325	
R^2				0.106	
Adjusted R^2				0.077	
F-value				3.710	
Sig				0.000*	
Durbin-Watson				1.810	

* Significance levels of 0.05.

Hypothesis 3 / Multiple Regression Model

H_0: There is no positive relationship between the sustainability performance information disclosure level and return on equity.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a positive relationship between the sustainability performance information disclosure level and return on equity, $F(12,247) = 3.824$, $p < 0.05$.

The results in Table 4.18 show that there is relationship between sustainability performance information disclosure level and return on equity. The results are consistent with the results of hypotheses.

The results in this study suggest that there is relationship between the levels of disclosure. There is significant in the results for the mean sustainability disclosure level and return on equity. This suggests that there are other significant factors that have relationship with return on equity. The results in this research study are accurate because the more reliable GRI sustainability guidelines (Morhard et. al., 2002) and the largeer sample used to determine the relationship.

This research indicates a significant relationship between the level of corporate sustainability disclosure and return on equity. The results can be used to encourage company to engage in sustainability reporting. Also, there is a stronger case to advocate for mandatory corporate sustainability reporting. The relationship between the levels of corporate sustainability disclosure with ROE indicated by the six indicators that 7.70 percent in the leverage is the most important factor of corporate sustainability disclosure follow by environmental. The relationship in corporate sustainability disclosure with return on equity when indicate in positive relationship indicated that relate with leverage and environmental that means the companies with greater disclosure have a return on equity that benefits.

4.9 Results of Hypotheses 4

Relationship between the sustainability performance information disclosure level and net sales (NET). The results of hypothesis 4; Table 4.19:

Table 4.19 Multiple Regression of sustainability performance information disclosure level and net sales (NET) for the periods 2010-2014 (n = 260)

$NET_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. error	Beta		
(Constant)	2.187	0.336		6.505	0.000
SIZE	0.772	0.034	0.824	22.467	0.000*
Leverage (LEV)	-0.263	0.145	-0.064	-1.821	0.070
Economic (EC)	0.000	0.019	-0.001	-0.020	0.984
Environmental (EN)	0.019	0.005	0.225	4.069	0.000*
Labor (LA)	-0.043	0.012	-0.179	-3.532	0.000*
Human right (HR)	0.014	0.014	0.053	1.015	0.311
Society (SO)	-0.034	0.019	-0.110	-1.764	0.079
Product responsibility (PR)	-0.013	0.017	-0.051	-0.816	0.416
Model summary					
R				0.845	
R^2				0.713	
Adjusted R^2				0.704	
F-value				78.129	
Sig				0.000*	
Durbin-Watson				1.070	

* Significance levels of 0.05.

Hypothesis 4 / Multiple Regression Model

H_0: There is no relationship between the sustainability performance information disclosure level and net sales.

Given that $p < 0.05$, the alternative hypothesis (H_1) is supported, which states that there is a positive relationship between the sustainability performance information disclosure level and net sales, $F(12,247) = 66.428$, $p < 0.05$.

The results in Table 4.19 show that there is relationship between sustainability performance information disclosure level and net sales. There is a significant relationship between the level of corporate sustainability disclosure and net sales. The results can be used to encourage companies to engage in sustainability reporting. Therefore, there it is good business sense to support mandatory corporate sustainability reporting. The relationship between the levels of corporate sustainability disclosure with net sales as indicated by the six indicators that 70.40 percent in the size is the most important factor of corporate sustainability disclosure followed by labor and environmental. The relationship of corporate sustainability disclosure to net sales when indicating a positive relationship indicated that it related with size and environmental, that means the companies that disclose more the companies also increase net sales. The relationship in corporate sustainability disclosure with net sales when indicate in negative relationship that related to disclosure in labor, and shows more disclosure reduces the net sales.

4.10 Summary

The results are summarized in the following section; Table 4.20 shows the summary of the hypotheses tested for equations 1 to 4 using financial performance measures.

Table 4.20 Summary of Results of Hypotheses Testing

Hypotheses	**Result**	**Variables**	**Difference and Relationship between disclosure level**
H_1	Support	Total disclosure level	The countries vary in the mean disclosure level for sustainability performance information in ASEAN countries.
Hypotheses	Result	Variables	Difference and Relationship between disclosure level
H_1a	Support	Economic (EC)	The countries vary in the mean disclosure level for economic performance information among ASEAN countries.
H_1b	Support	Environmental (EN)	The countries vary in the mean disclosure level for environmental performance information among ASEAN countries.
H_1c	Support	Labor (LA)	The countries vary in the mean disclosure level for labor performance information among ASEAN countries.
H_1d	Support	Human Right (HR)	The countries vary in the mean disclosure level for human right performance information among ASEAN countries.
H_1e	Support	Society (SO)	The countries vary in the mean disclosure level for society performance information among ASEAN countries.
H_1f	Support	Product Responsibility (PR)	The countries vary in the mean disclosure level for product responsibility performance information among ASEAN countries.
H_2	Support	Return on Assets (ROA)	The relationship between the sustainability performance information disclosure level and return on assets.

Table 4.20 Summary of Results of Hypotheses Testing (Cont.)

Hypotheses	**Result**	**Variables**	**Difference and Relationship between disclosure level**
H_3	Support	Return on Equity (ROE)	The relationship between the sustainability performance information disclosure level and return on equity.
Hypotheses	Result	Variables	Difference and Relationship between disclosure level
H_4	Support	Net sales (NET)	The relationship between the sustainability performance information disclosure level and net sales.

4.11 Discussion of Hypotheses 1 to 1f

As discussed various sustainability reporting guidelines issued in different countries in ASEAN such as, in Thailand, Singapore, Indonesia, Malaysia and Philippines. This is expected that the expectations of stakeholders in these countries would be higher compared to the expectations of stakeholders in countries without such GRI guidelines. Therefore, Legitimacy Theory precicts that the level of corporate sustainability disclosure between the countries would be significantly different. The results show that this is the case, specifically, this shows the level of corporate sustainability disclosure in different countries. The difference in the comparative important in corporate sustainability disclosures citizenship practices among Australian and Turkish organizations and cultural differences are the major variations, and the level of growth of a country may be a key indicator (Chapple & Moon, 2005). Additional, Visser (2007) showed that the cultural traditions strongly affect the organizations implementation, in the developing countries' as a result, the cultural traditions, philanthropy and the CSR have a close relationship.

Discussion of Hypotheses 2 to 4

The relationship between sustainability disclosure level and financial performance among ASEAN countries, finding from this chapter explains that sustainability disclosure level has a relationship when the latter is measured in terms of return on assets (ROA), return on equity (ROE) and net sales (NET). This suggests that sustainability processes are associated with better financial performance. There is an increasing body of evidence that sustainability activity influences financial performance of companies.

The relationship between sustainability disclosure level and financial performance among ASEAN occurs due to the nature and the extent of sustainability disclosure. This may be the sustainability disclosure and financial performance is an issue in the emerging markets. On the other hand, the aspects of sustainability disclosure that there may well be a relationship between financial performances, but because sustainability disclosure level was the results show a weak statistical association with financial performance. For publicly-listed companies in ASEAN the sustainability disclosures are not mandatory, companies are not required to report sustainability activities in their annual reports.

A substantial amount of disclosures of corporate sustainability literature has been published on cross national variations (Chapple & Moon, 2005), disclosures of corporate sustainability applications and development of disclosures of corporate sustainability frameworks for developed countries (Wahba, H. (2008). The study pointed out that disclosure of corporate sustainability concept gives many imperceptible advantages. It is contended that the firms implement disclosures of corporate sustainability programs obtain business benefits. For example: improved pro active image and reputation; products and services of the company increase sales and customer loyalty; increase productivity and quality; reduced complexity and budgets; control and management of risks; increased aptitude to attracts and retains employees; and promotes motivation of employees (Visser, 2007) These benefits can be achieved in the developing countries companies when they apply the disclosures of corporate sustainability concept and long term will be definitely benificial to the companies' financial performance (ibid). The present research verified, with respect to the

sustainability reporting in the fields of environmental reporting, it is indeed correlated to good financial performance with respect to the sustainability impacts in those fields. Priyanka Aggarwal (2013) explains that the environmental sustainability reporting has the potential to effect overall performance and viability of organization. Their study used disclosure of environmental performance as a dependent variable which confirmed that environmental disclosures are influenced by business activities such as level of external financing, damaging releases, press announcement activity, etc. Also the study of Suutari M. (2010) clarifies that the environmental related report can be expected to growth as the requirements for initiatives and more extensive disclosure of the financial consequences environmental matters increase. Nur Fatin Kasbun. et. al., (2016) found that there is sufficient indication to decisively show that firms which disclose and report on the environmental sustainability disclosure have a better financial performance compare with those who do not disclose or repetition sustainability reporting. Also they found that the stakeholders are provide with sustainability reports that reproduce in performance and a view into the future with respect to environmental reporting, this is used by firms to make strategic results such as developments in effective techniques and identification of new markets.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

This dissertation studied the nature and extent of Global Reporting Initiative (GRI), having released their sustainability reporting guidelines in ASEAN, from 2010 to 2014. It examined the relationship between corporate sustainability disclosure (GRI) and financial performance. The purpose of this chapter is to review the main results as corroborated by evidence presented in the previous chapters as well as to indicate its contributions and limitations.\

The results are significant in relation to the research motivations, research objective, and research questions. The first part of this study was described in the methodology and data section. The second part has addressed the results of the relationship between corporate sustainability disclosure (GRI) and financial performance. The results presented in this chapter provide a summary in relation to all chapters. The overview of the main findings and discussions of this study is an affirmation of GRI disclosure and reporting. The contributions, research limitation and suggestion for further research are given in this chapter.

The review of literature explains the background history of corporate sustainability reporting disclosure, the theoretical foundations, the status of corporate sustainability reporting disclosure in ASEAN and background and relationship with financial performance. The use of a number of theoretical perspectives in order to clarify firms' motivation with regards to corporate sustainability reporting disclosure is also studied.

Legitimacy theory and stakeholder theory are accepted in this study, it is explained that legitimacy theory emphases is on the subject in society, though stakeholder theory explicitly refers to the prospects of stakeholder power. The previous studies on the relationship between corporate sustainability disclosure and financial performance show a positive correlation rather than a negative or neutral relationship.

The discussion data and empirical models employed in this study. The study used secondary data from listed firms on the stock exchange of Thailand, Malaysia, Indonesia, Philippine and Singapore for 2010 - 2014. The sustainability reports

collected from annual reports, sustainability reports of companies and financial data obtained from http://database.globalreporting.org/ at sustainability disclosure database by region and country in ASEAN. The empirical model employed in this study emphasizes the relationship between corporate sustainability reporting disclosure and financial performance by examining a cross-section data model and pooled OLS model.

Conclusion, the evidence points to widely increasing the number of corporate sustainability disclosures by companies in ASEAN. There is corporate sustainability disclosure by companies in the recent year that significantly varies from the mean of corporate sustainability disclosure. This is an indicator of the effect of the improved guidance provided by the framework and an increased awareness of the companies in this regard (Asian Sustainability Rating, 2010). The statistic shows that the companies in the ASEAN region are increasingly aware of corporate sustainability disclosure and indicate that only selected corporate sustainability disclosures have variance in the five countries.

This study focused on research questions and hypotheses as follows:

Research Question 1: To which extent that different ASEAN country discloses their corporate sustainability performance according to GRI framework.

Research Hypothesis1: There is a difference disclosure level of sustainability performance information among ASEAN countries.

H1a: There is a difference disclosure level of economic performance information among ASEAN countries.

H1b: There is a difference disclosure level of environmental performance information among ASEAN countries.

H1c: There is a difference disclosure level of labor performance information among ASEAN countries.

H1d: There is a difference disclosure level of human right performance information among ASEAN countries.

H1e: There is a difference disclosure level of society performance information among ASEAN countries.

H1f: There is a difference disclosure level of product responsibility performance information among ASEAN countries.

Research Question 2: Is there the relationship between the sustainability disclosure level and financial performance?

Research Hypothesis 2: There is a positive relationship between the disclosure level of sustainability performance information and return on assets.

Research Hypothesis 3: There is a positive relationship between the disclosure level of sustainability performance information and return on equity.

Research Hypothesis 4: There is a positive relationship between the disclosure level of sustainability performance information and net sales.

The study was to investigate the extent of corporate sustainability disclosure and financial performance. The study sample was listed companies on the stock exchange of Thailand, Malaysia, Indonesia, Philippine and Singapore for years 2010 - 2014. The research collected the data of sustainability disclosure from the 2010 – 2014 sustainability report and analyzed the data with descriptive statistics in order to examine the mean and standard deviation of return on assets, return on equity, net sales, total assets and leverage. Correlation coefficient was also used to find the relationships between independent variables, which were corporate sustainability disclosure variables consist of six aspects: economic performance, environmental performance, labor performance, human right performance, society performance, and product responsibility performance. The Financial performance is measured using four accounting based measures: return on assets, return on equity and net sales. The analysis was also applied to find the predictive relationships by studying the corporate sustainability disclosure and financial performance, which was a variable at a significance level of 0.05. The research findings were as follows.

The data showed that there are limitations in reporting sustainability is GRI G3 and G4 presented for five consecutive years. It was found some data collected was in version GRI G3 and G4 and sustainability reporting done in all five years, results in a sample of 52 companies from five countries in ASEAN; Thailand, Malaysia, Indonesia, Philippines and Singapore.

The study on the sustainability disclosure showed the number of GRI items disclosed 2010-2014 for each country in ASEAN. The average number of GRI disclosures presented Singapore has the lowest disclosures at 56.06 percent, Thailand

64.18 percent, Philippines 67.28 percent, Malaysia 78.65 percent and the highest discloser is Indonesia with 86.38 percent. The ASEAN sustainability disclosure level overall was 69.72 percent, labor performance 81.46 percent, economic performance 73.16 percent, society performance 67.79 percent, human right performance 66.92 percent, environmental performance 66.37 percent, and product responsibility 63.68 percent. Finally, the overall in ASEAN showed return on asset 7.62 percent, return on equity 13.52 percent, net sales 9.07 percent, company size (log total assets) 9.47 and leverage 0.56.

5.1 Discussion of the Research Findings

This section provided research discussion regarding the research questions on hypothesis testing.

5.1.1 Discussion of Research Question 1

Research question 1: To which extent that different ASEAN country discloses their corporate sustainability performance according to GRI framework. The hypotheses associated to this question included H1a, H1b, H1c, H1d, H1e, and H1f which were described as follows.

The results demonstration, there is significant in differences of level disclosure sustainability performance information in dimension of economic, environment, labor, human right, society, and product responsibility between the countries. Therefore, hypothesis 1 was supported, and consistent with the findings of Unerman, J. (2000), which stated that the difference in the comparative importance of the categories of disclosures of corporate sustainability between Hong Kong and US students. Similarly, Chapple & Moon (2005) showed important differences in corporate citizenship practices and cultural differences are the major variations, and the level of growth of a country may be a key indicator. On the other hand, Matten and Moon (2004) stated that the cultural traditions differ from nation to nation because of CSR. Also in particularly they explain why CSR in US firms has mainly been explicit, while CSR in Europe has until recently, been typically implicit. They accomplished in their analysis, measuring the nature of the political system, financial system, education and labor systems and

cultural system in the UK and Europe. In addition, they explained how differences in these key recognized arenas effect CSR on either side of the Atlantic.

Additionally, Visser (2007) showed that the cultural traditions strongly affect the organizations implementation in the developing countries as a result; the cultural traditions, philanthropy and the CSR have a close relationship. Their culture is enormously depending on the religion of the country, and many Asian countries people practice Hinduism, Buddhism, Islam, and Christianity, their culture is enormously depending on the religion of the country. The study of Nelson (2004) defined that the Buddhist traditions are aligned with CSR in Asian countries as well Chapple and Moon (2005) highlighted that CSR is vary significantly among Asian countries but that difference is not clarified by levels of development but by factors in the respective national business systems.

5.1.2 Discussion of Research Question 2

Research question 2: Is there the relationship between the sustainability disclosure level and financial performance? The hypotheses associated to this question included H2, H3, and H4 which were described as follows.

Hypothesis 2: There is a positive relationship between the disclosure level of sustainability performance information and return on assets.

Hypothesis 3: There is a positive relationship between the disclosure level of sustainability performance information and return on equity.

Hypothesis 4: There is a positive relationship between the disclosure level of sustainability performance information and net sales.

The constant of the proportion of disclosure level of sustainability performance information indicated a positive effect on return on assets at a significance level of 0.05. Therefore, the hypothesis 2 was supported. The result of this study conforms to the study of Bayoud et al. (2012) which showed that disclosure of environmental, consumer, community involvement, employee performance have positive significant with return on asset. Also Zhihong Wang and Joseph Sarkis (2013) and Vicente Lima Criso´stomo et al. (2011) stated in their studies that the investigating the relationship of sustainable supply chain management with corporate financial performance measured by return on assets and return on equity. And also the positive

effects relationship of corporate sustainability and financial performance. Meanwhile, the coefficient of the disclosure level of sustainability performance information indicated a positive effect on return on equity at a significance level of 0.05. Therefore, the hypothesis 3 was supported, and the result of this study duplicates to the study of Isabel C. Lourenço and Manuel Castelo Branco (2013) signifying that the corporate sustainability performance firms were considerably larger and larger return on equity than their counterpart. This was reliable with previous findings for firms in US.

The studies of Renard Y.J. Siew et al. (2013) and Zhihong Wang and Joseph Sarkis (2013) stated in their studies that the relationship between sustainability practices and financial performance of construction companies was positive relationship that supported the hypothesis 4 of the study. That was placed that disclosure level of sustainability performance information on net sales at a significance level of 0.05. The result showed that disclosure level of sustainability performance information has the positive effects on net sales at a significance level of 0.05. This means the highly value of disclosure level of sustainability performance information will have result toward better financial performance which conforms to the expected hypothesis. This also conforms to the study of Peter A. Stanwick and Sarah D. Stanwickv (1998) which found that the relationship between corporate social performance and organizational size, financial performance, and environmental performance impact positive the level of corporate social performance. Additionally, SatuPätäri et al. (2014) found that the investment incorporate social responsibility (CSR) have positive effected on corporate financial performance (CFP) that would result in the increasing of net sales.

The relationship between each dimension of corporate sustainability disclosure and financial performance in this study, aim at investigative the association between each indicator of corporate sustainability disclosure and financial performance. Following are the major findings of the analyses. The analysis of return on assets was related with each indicator in level of environmental and product responsibility. The result shows that return on equity was found to be significantly with environmental. The result of net sales, it was found that each indicator related to net sales with relation to labor and environmental disclosure.

This research examined the association between the dimensions of corporate sustainability disclosure and financial performance. The main results of the examination and the analysis of indicator performance information disclosure on financial performance. Environmental performance disclosure has a positive relationship with financial performance. The study of the corporate sustainability reports and the relation with financial performance, the result shows that the sustainability disclosure of environment information has impact with financial performance and on return on assets, return on equity and net sales. This suggests that organizations should put more emphasis on the sustainability disclosure of environmental information, because the data impacts the stakeholders to make a decision for investment or improves the overall operation results of financial performance.

Hence, the relationship between sustainability disclosure level and financial performance among ASEAN occurs due to the nature and the extent of sustainability disclosure. It may be that sustainability disclosure and financial performance as issues are new in the countries. Further, the dimension of sustainability disclosure that there is and its relationship to financial performances, is that a small of sustainability disclosure level results in a lower statistical association with financial performance. It is the case that for all of publicly-listed companies in ASEAN the sustainability disclosures are not mandatory, companies are not required to report sustainability activities in their annual reports.

A substantial amount of disclosures of corporate sustainability literature has been published on cross national variations (Chapple & Moon, 2005), disclosures of corporate sustainability applications and development of disclosures of corporate sustainability frameworks for developed countries (ibid). Study pointed out that disclosure of corporate sustainability gives many imperceptible advantages. It is contended that the firms implementing disclosures of corporate sustainability programs obtain business benefits. For example: an improved proactive image and reputation; products and services of the company increase sales and customer loyalty; increase productivity and quality; reduced complexity and budgets; control and management of risks; increase aptitude to attract and retain employees; and improved motivation of employees (ibid). These benefits can be achieved in the developing countries companies

when they engage in the disclosures of corporate sustainability and long term this will be definitely advantageous to the companies' financial performance.

5.2 Limitations of the Study

This research examined companies' annual reports over a five-year period from the stock exchanges of ASEAN from 2010 to 2014, focused on company annual reports, which show an unfinished picture of sustainability practice of companies in ASEAN. Firms may report sustainability activities in other media such as sustainability reports, CSR reports, environmental reports, integrated reports, newspapers, advertising, websites, and so on. This research is limited to the data from annual reports of ASEAN firms. This research collected the data from five of ten country members in ASEAN; Thailand, Malaysia, Indonesia, Philippines and Singapore as five countries, Laos, Cambodia, Vietnam, Myanmar and Brunei, do not use the GRI guidelines for disclosure.

This research is limited to the dimensions of sustainability activities; the content analysis presents some subjectivity in the coding process. The research develops from company annual reports, a GRI guideline based on six groups with 79 indicators to capture sustainability practices, also a limit to the weights used in the calculation of GRI index. The GRI guideline do not fully capture sustainability practices of ASEAN firms, some firms do not have any sentences that match with GRI guideline items. It may not be summarized that companies which did not report sustainability practices were not involved in sustainability activities, considering the quantity of sustainability disclosure.

Lastly, this research studied return on assets, return on equity and net sales, financial performance indicators to measure company financial performance and the effects of some control variables such as leverage or company size. The financial performance data collected from annual reporting in each country was collected from the company's consolidated financial statement, based on IFRS (International Financial Reporting Standards) convergence in ASEAN. For analysis, this research expressed monetary values in USD.

5.3 Implication for Practice and Future Research

5.3.1 Implication

The theoretical and empirical examination in this study provides a number of contributions to the theory of financial performance. This study also makes a significant contribution to the information on corporate sustainability disclosure with the background of developing countries in ASEAN.

This study makes a significant contribution to the literature of sustainability disclosure, particularly in relation to stakeholder theory and legitimacy theory. There are a limited number of studies that inspect the relationship between corporate sustainability disclosure and financial performance. Preceding studies have shown results of the relationship between corporate sustainability disclosure and company financial performance.

Considering stakeholder theory, results show that the level of corporate sustainability disclosure for ASEAN firms. ASEAN firms disclose sustainability data by focusing on six main dimensions: (1) economic performance (EC) (2) environmental performance (EN) (3) labor performance (LA) (4) human rights performance (HR) (5) societal performance (SO) and (6) product responsibility performance (PR). The most disclosed sustainability data in ASEAN is labor, followed by society, environment, economic, human rights, and product responsibility information. It is the case that sustainability activities of firms focus on labor issues because labor is considered to be the most powerful stakeholder. It is also shown in the analysis that sustainability disclosure practices of firms in ASEAN respond to the attention of all stakeholders. They react to the expectations of each stakeholder but they also engage with multiple stakeholders.

These findings show that the main stakeholder groups increased benefits when organizations maintain the expectations of all stakeholders. There is a financial benefit when organizations maintain the expectation of all stakeholders. This finding proposes that the different expectations from communities, employees, shareholders, government and other stakeholders may affect the corporate sustainability activities. In case there is a high expectation, the companies have to reply to address the expectation from the groups to show the significance of corporate sustainability information to stakeholders.

The results would support to stakeholder theory that corporate sustainability information disclosed is considered by particular stakeholder. As a result would appear to indicate that stakeholder theory could be clarify the level of corporate sustainability disclosure in ASEAN environment.

Legitimacy theory, the results disclose that firms disclose a small amount of corporate sustainability information. This proposes that firms tend to corporate sustainability report connected activities required by law and regulation in order to meet requirements from government or to avoid fees and consequences. This part the results support legitimacy theory, argument that companies in large companies. As well, the larger companies are expected to assume corporate sustainability activities to cultivate their public image lease than exposed in the media. Some companies accept more public concentration than others as they put pressure on companies to assume corporate sustainability actions. This would be more difficult for change existing products in case of the major product of high-profile companies might have negative qualities. The less costly is employment legitimization policies connecting to changing social prospects, sensitivity, and deflecting awareness suspect products. Additional, in terms of contamination or other industrial issues, disclosure is made by companies which have more discernibility. The companies to disclose more sustainability activities insinuation is that financial performances measures are vital factors encourage managers. As a result, contribute an observed analysis of the application of stakeholder theory and legitimacy theory to explain sustainability disclosure in ASEAN in this research.

This research has contributed to a further understanding of performs of corporate sustainability disclosure in ASEAN. Corporate sustainability disclosure of ASEAN typically report activities in economic, environmental, labor, human right, society and product responsibility information relation. The disclosure of economic, environmental, labor, human right, society and product responsibility information of ASEAN firms is relatively limited, indicating that these three themes of sustainability disclosure have motivated ASEAN firms to report the data. This suggests that ASEAN governments create more inducements in order for ASEAN firms to undertake sustainability activities as good corporate practice. Additionally, the results of this research show that there are no regulations established for ASEAN firms to implement

sustainability practices. ASEAN firms involved in sustainability activities disclose sustainability on a voluntary basis. ASEAN listed firms are presently employing sustainability practices and disclosure by reporting in numerous sections of their annual reports- separate reports and other media and websites. The results lead to different arrangements of corporate sustainability disclosure in annual reports provided by ASEAN companies; it is recommended that there is a need to promote an appropriate sustainability guideline to implement sustainability practices. The disclosure frameworks are different businesses in order to increase sustainability disclosure to a higher standard comparable and those in other countries. The results would help the controlling bodies in encouraging greater corporate transparency in sustainability disclosure and governance in developing a standard framework.

This research makes a significant contribution to methodology by constructing a GRI index. The GRI index was developed using content analysis to collect standard data for this research. The GRI framework covers all groups of companies' stakeholders. The sustainability practice is measured by this GRI index; the results of this research can be beneficial to understand the amount of sustainability disclosure in ASEAN. This research contributes to the limited studies on measuring sustainability practices, these made in developing economies such as ASEAN and other developing countries. This ASEAN unique dimension of GRI catalog has not been exploited before in the analysis of the relationship between CSR disclosure and financial performance. This research delivers valuable contribution to the model of the relationship between sustainability disclosure and financial performance. This research is a complete examination of the relationship between sustainability disclosure and financial performance of firms in ASEAN and this research used a larger sample size covering all industries. This study provides indication that sustainability disclosure has a positive effect firm’s financial performance. The results from all firms’ collections show that the hypothesized variables in relation to companies' financial performance return on assets (ROA) found to be significantly related to sustainability disclosure. The findings show there are positive relationships between sustainability disclosure and financial performance measures of return on assets (ROA), while sustainability disclosures are found to have a positive relationship with return on equity (ROE) and net sales (NET).

This study examines sustainability disclosure in the ASEAN by using least square estimation. The analysis shows new findings in relation to a developing country. This show highlights the importance of investigative the influence of sustainability disclosure on financial performance. The results show that preceding year financial performance measures have the possible to improve sustainability disclosure. The significant influence of this research is obviously to increase the analysis of the relationship between sustainability disclosure and financial performance in ASEAN countries. This study contributes to the understanding of different and complex devices of the relationship between sustainability disclosure and financial performance, and also recommended that further studies would analyses the long-term relationship between sustainability disclosure and financial performance.

Finally, this research makes a contribution to satisfying the gap in research about sustainability disclosure and financial performance in an ASEAN. This study offers a contribution to understanding of some firm characteristics persuading sustainability disclosures. This research offers a clearer image the impacts of firm characteristics sustainability disclosure and the nature of sustainability disclosure. This experiential study makes an influence to sustainability literature from the context of ASEAN. This could benefit to improve business governance and social disclosure agendas related to economic, environmental, labor, human right, society and products responsibility concepts. It is important to progress future research in understanding the GRI guidelines and the relationship between sustainability disclosure and financial performance.

The research indicates that company's financial performance supports a company's decision to improve its performance in managing sustainability performance, along environmental, labor and product responsibility dimensions. Companies should recognize that improving sustainability performance is as significant as improving the financial performance In order to ensure its survival in the long-run, firm needs to be concerned with the needs of the future generations in running the business. It is recognized that competition is the engine of the business world, having a great product, innovation and marketing excellence are the parameters. But society places trust in business and asks that businesses have a social and environmental

responsibility in all activities. They should respond to the stakeholder's confidence to invest in the business, decisions of investors as well as customers that entrust that the business make a sustainable contribution to society and the environment in which they live, as well as the growth of the business. The preparation of sustainability reports in parallel should be significant in the decision making of the business for stakeholders. Sustainability is the key issue for global businesses today. CSR has grown dramatically over the past decade and also sustainability has the potential to influence the performance of the companies.

The benefit of using the GRI framework to standardize reports is guidance on material issues. The GRI emphasizes companies consider those environmental and social features that are significant to its key stakeholders and have the most significant impacts on its business or result. Companies which use the GRI guidelines are strongly encouraged to submit their sustainability disclosure reports to external assurance (Simnett, R, Vanstraelen, A and W. F. Chua, 2012). However assurance is not mandatory for sustainability reports, and there is indications that many analysts and investors do not perceive themselves to be social investors and consider assurance important and do not factor its presence or absence into their company analyses (Black Sun, 2012). Sustainability is a critical issue for corporations today. The attention of investors to socially responsible investment has grown substantially over the last decade. Sustainability has the potential to shape a companies' performance.

5.3.2 Futher Research

This research examined 260 companies, in relationship to sustainability disclosures and financial performance, listed on the stock exchange of ASEAN between 2010 and 2014. This research focused on five groups of data in ASEAN between 2010 and 2014. Future research might apply a longitudinal technique by using more years' information. It could be collated with similar longitudinal studies and in-depth research with the available GRI reports; such a study should include administrators and researchers perceptions, for understanding the progress of CSR practice, also its relationship with financial performance from a long term perspective. Longitudinal studies can focus on certain regions, since companies in ASEAN assumed GRI reporting system for a comparatively longer time. During a period for the ASEAN

companies for the future research, researchers could conduct a longitudinal panel data analysis. This would increase the dependability of the results.

We could recurrence the similar longitudinal studies with in-depth research focuses with the availability of GRI reports; such a study should carry administrators and researchers more perceptions. For understanding the progress path of CSR practice, also its relationship with financial performance from a long term perspective. Also the longitudinal studies could have a focus on certain regions, since companies in ASEAN assumed GRI reporting system for a comparatively longer time. During a period for the ASEAN companies for the future research, we could conduct a longitudinal panel data analysis.

The ASEAN companies were the focus, but future research may contrast all countries in the ASEAN Economic Community (AEC) and ASEAN+3; Singapore, Indonesia, Malaysia, Vietnam, Brunei Darussalam, Cambodia, Laos, Myanmar, Philippines, and Thailand, ASEAN+3 also Japan, China and South Korea. Future studies might compare the study of developed countries and developing countries in efforts to understand the nature and extent of sustainability disclosure and its relationship to financial performance. It is important to understand the extent of sustainability components in other countries. The study of the difference in sustainability disclosure in ASEAN countries and the factors involved. Each country has place emphasis on important factors differently. Future researchers should study more the difference in factors by using the qualitative measurement method widely to understand the difference in disclosure of corporate sustainability and study more the different of causes and impact.

The results of content analysis of group data from annual reports and sustainability reports would further understanding. Future research might attend to other reporting methods to investigate the extent of sustainability disclosure and relationship with financial performance. Because companies might report sustainability activities in other media e.g. sustainability reports, CSR reports, environmental reports, newspapers, advertising, websites, and so on. The data from those reports could show a more complete picture of sustainability disclosure in the ASEAN context.

Next, the GRI guideline used for measuring the level of sustainability disclosure, the six dimensions GRI guideline covering 79 indicators of sustainability activities; economic, environmental, labor, human rights, societal and products responsibility dimensions. Future study would employ other methods in relation to gathering sustainability practices, such as number of words, sentences, paragraphs or other methods. Additional, dimension of sustainability disclosure might be used in future studies in the development and collection of sustainability practices of multinational companies such as KLD index and DJSI etc.

Lastly, the limit of three financial performance indicators, return on assets, return on equity and net sales, future research might include other control variables and employ more financial performance indicators to study the relationship between sustainability disclosure and financial performance.

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APPENDICES

APPENDIX A

Multiple Regression Assumption

Multiple Regression Assumption

In assessing the linear regression assumptions, it was found that the data did not violate the linear regression assumptions. This is explained in (1) to (4) as follows:

(1) *Variance Inflation Factors* (VIF) are lower than 10, indicating no multicollinearity problems among variables.

(2) *Durbin-Watson* coefficient value is between 1.5 and 2.5 with tests indicating that an autocorrelation does not exist.

(3) Analyze scatterplot of standardized residual of dependent variables and transformed dependent variable (i.e. the financial performance) to ensure that there are no heteroscadasticity problems.

(4) Based on the Central Limit Theorem, the distribution of residuals in a large sample size is normal. A sample size of 30 or more is generally regarded as large (Dielman, 2005). Also, as a rule of thumb, "normality can have serious effects in small samples (less than 50 cases), but the impact effectively diminishes when sample sizes reach 200 cases or more" (Hair, Black, Babin, Anderson, & Tatham 2006). The sample size of this study is 380, which is far larger than 200. Thus, the assumption of the normal distribution of residuals is justified.

APPENDIX A_1: Multiple Regression of GRI indicators and ROA

Table 1.1 Show Tolerance and VIF

Variable	Tolerance	VIF
SIZE	0.849	1.177
LEV	0.925	1.081
EC	0.256	3.904
EN	0.373	2.678
LA	0.444	2.251
HR	0.411	2.432
SO	0.294	3.400
PR	0.295	3.389

Table 1.2 Show R^2, Adjusted R^2, Durbin-Watson, F-Statistic, and p-value

Model	R^2	Adjusted R^2	Durbin-Watson	F-test	p-value
1	0.189	0.163	1.667	7.305	0.000

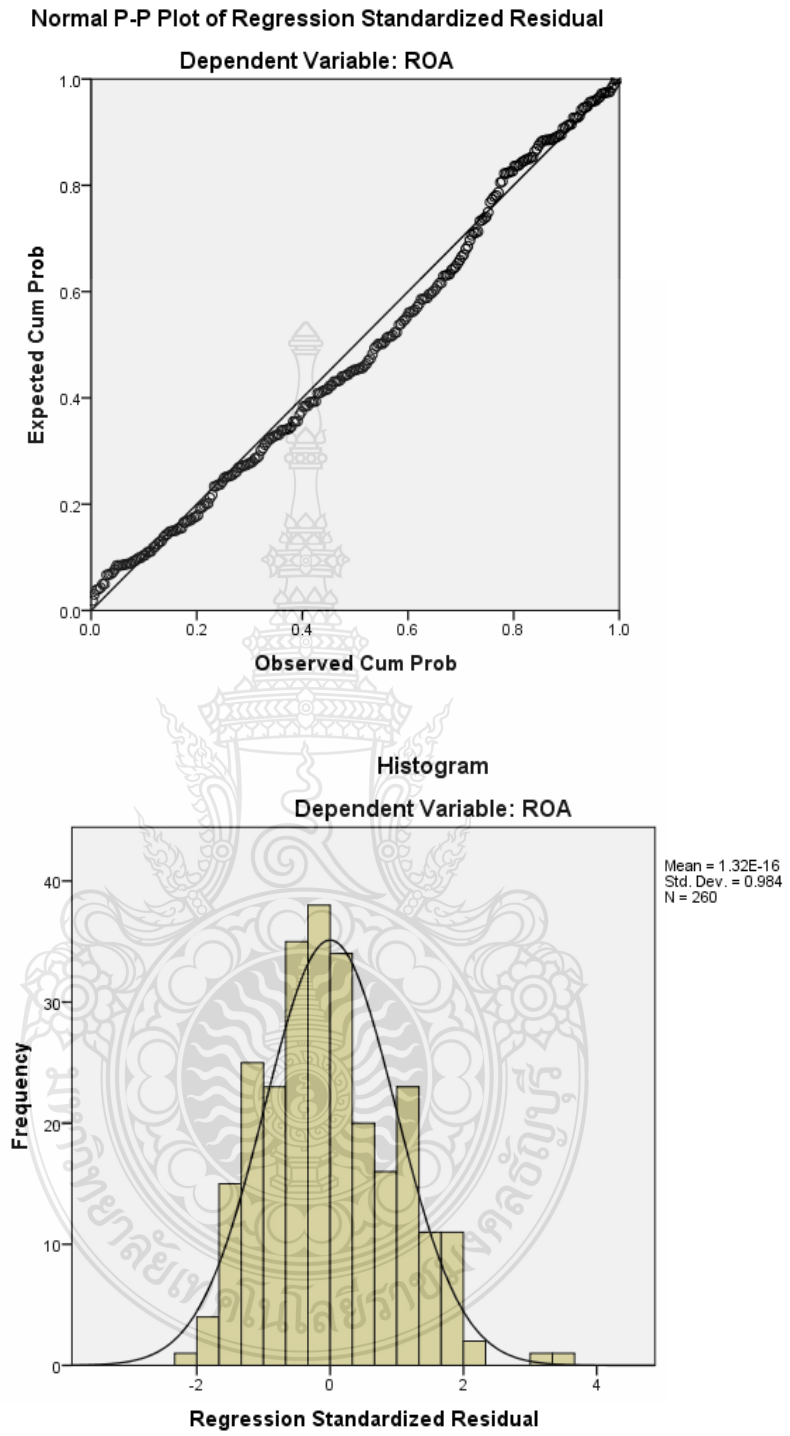

Figure 1.1 Show Normal P-P plot and Histogram

APPENDIX A_ 2: Multiple Regression of GRI indicators and ROE

Table 2.1 Show Tolerance and VIF

Variable	Tolerance	VIF
SIZE	0.849	1.177
LEV	0.925	1.081
EC	0.256	3.904
EN	0.373	2.678
LA	0.444	2.251
HR	0.411	2.432
SO	0.294	3.400
PR	0.295	3.389

Table 2.2 Show R^2, Adjusted R^2, Durbin-Watson, F-Statistic, and p-value

Model	R^2	Adjusted R^2	Durbin-Watson	F-test	p-value
1	0.106	0.077	1.810	3.710	0.000

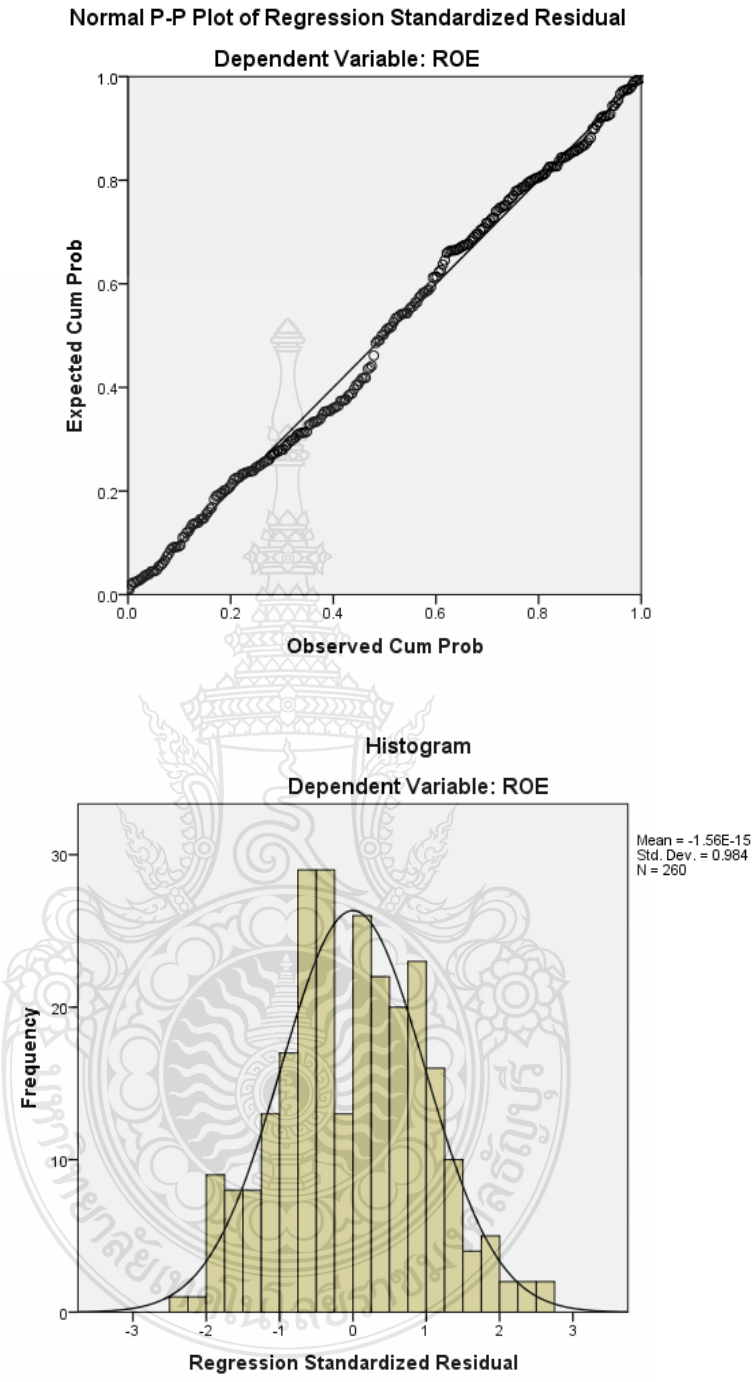

Figure 2.1 Show Normal P-P plot and Histogram

APPENDIX A_3: Multiple Regression of GRI indicators and NET

Table 3.1 Show Tolerance and VIF

Variable	Tolerance	VIF
SIZE	0.714	1.401
LEV	0.823	1.215
EC	0.247	4.047
EN	0.339	2.948
LA	0.368	2.714
HR	0.385	2.599
SO	0.292	3.430
PR	0.266	3.755

Table 3.2 Show R^2, Adjusted R^2, Durbin-Watson, F-Statistic, and p-value

Model	R^2	Adjusted R^2	Durbin-Watson	F-test	p-value
1	0.713	0.704	1.070	78.129	0.000

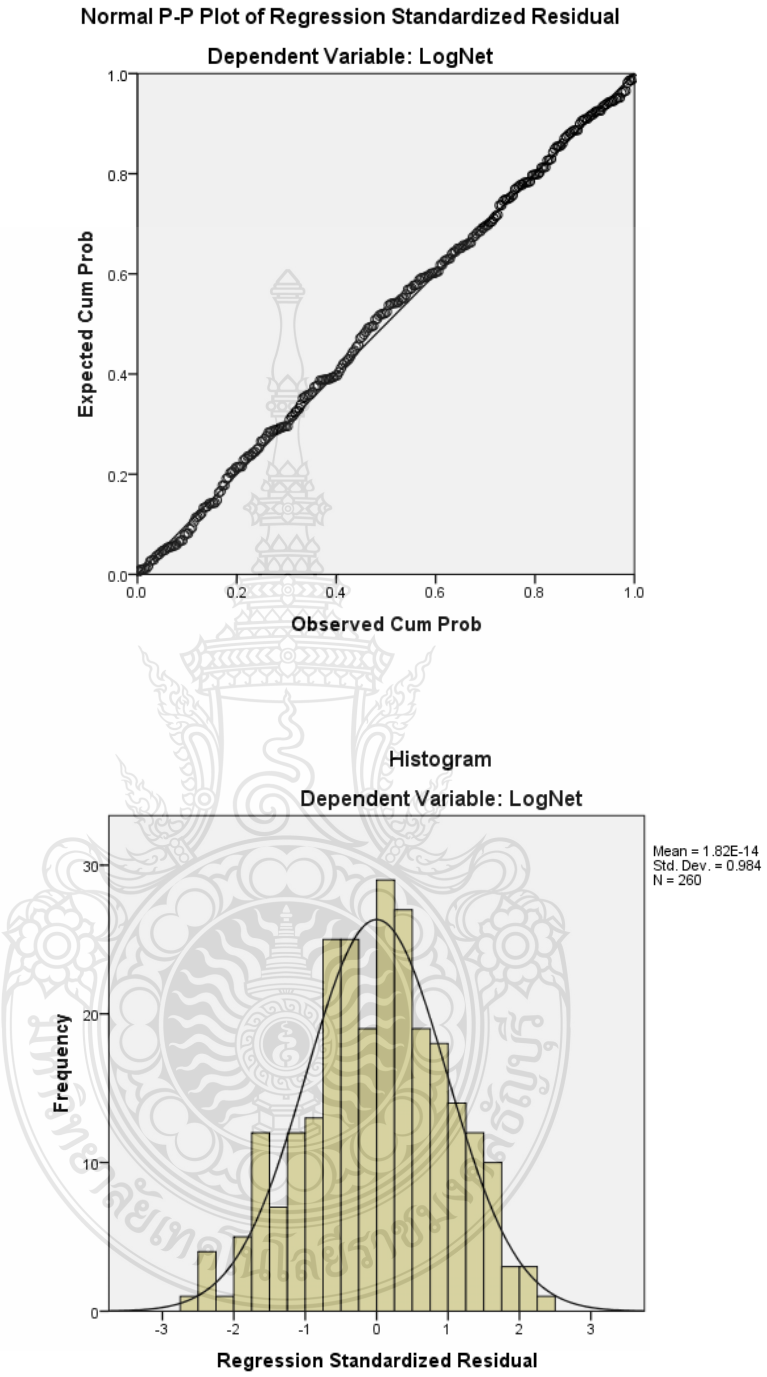

Figure 3.1 Show Normal P-P plot and Histogram

APPENDIX B

List Sample Companies and

Financial exchange rate of period end

APPENDIX B_1: List Sample Companies

Companies by Country and Industry			
No.	**Company**	**Country**	**Industry**
1	AOT	Thailand	Airport
2	Indorama	Thailand	Chemicals
3	SCG	Thailand	Conglomerate
4	Pruksa Real Estate	Thailand	Construction
5	Bangchak	Thailand	Energy
6	EGAT	Thailand	Energy
7	EGCO	Thailand	Energy
8	IRPC	Thailand	Energy
9	PTT Exploration	Thailand	Energy
10	PTT Global	Thailand	Energy
11	PTT Public	Thailand	Energy
12	TISCO	Thailand	Finance
13	Minor	Thailand	Food
14	Synnex	Thailand	Telecom
15	Malaysia Airport	Malaysia	Airport
16	Brithish American Tobacco	Malaysia	Agriculture
17	Malaysia Resourece	Malaysia	Construction
18	Petronas	Malaysia	Energy
19	Guinness Anchour	Malaysia	Food & Drink
20	UEM	Malaysia	Mining & Metals
21	CSC Steel	Malaysia	Mining & Metals
22	Media Prima	Malaysia	Telecom
23	Telekom Malaysia	Malaysia	Telecom

APPENDIX B_1: List Sample Companies

Companies by Country and Industry			
No.	**Company**	**Country**	**Industry**
24	BNI	Indonesia	Finance
25	Bank Inter	Indonesia	Finance
26	Wika	Indonesia	Construction
27	PGN	Indonesia	Energy
28	Indika Energy	Indonesia	Energy
29	Holcim	Indonesia	Construction
30	Kaltim Prima	Indonesia	Energy
31	PLN	Indonesia	Energy
32	Hutama Karya	Indonesia	Construction
33	PT Jasa Marga	Indonesia	Construction
34	Ayala	Philippine	Conglomerate
35	Cebu Preperty Venture	Philippine	Construction
36	Energy Development	Philippine	Energy
37	STR	Philippine	Finance
38	BPI	Philippine	Finance
39	SM Investment	Philippine	Finance
40	Globe	Philippine	Telecom
41	Manila water	Philippine	Water
43	Golden Agri	Singapore	Agriculture
44	Olam	Singapore	Agriculture
45	Dystar	Singapore	Chemicals
46	Capitaland	Singapore	Construction
47	City Develop	Singapore	Construction
48	Keppel land	Singapore	Construction

APPENDIX B_1: List Sample Companies

Companies by Country and Industry			
No.	**Company**	**Country**	**Industry**
49	Sembcorp	Singapore	Energy
50	Keppel corp	Singapore	Telecom
51	Singtel	Singapore	Telecom
52	StarHub	Singapore	Telecom

SOURCE: http://database.globalreporting.org

APPENDIX B_2: Financial exchange rate of period end

	31 Dec 2010	**31 Dec 2011**	**31 Dec 2012**	**31 Dec 2013**	**31 Dec 2014**
Thailand (THB/USD)	0.033322	0.031726	0.032701	0.030600	0.030395
Malaysia (MYR/USD)	0.324465	0.315557	0.327118	0.305157	0.286123
Indonesia (IDR/USD)	0.000111	0.000110	0.000104	0.000082	0.000081
Philippine (PHP/USD)	0.022920	0.022836	0.024384	0.022538	0.022346
Singapore (SGD/USD)	0.779727	0.771129	0.819001	0.791766	0.754489

APPENDIX C

Correlation Coefficients Matrix for All Samples

APPENDIX C: Correlation Coefficients Matrix for All Samples

APPENDIX C_1: Correlation Coefficients Matrix between GRI indicators and ROA in 2010-2014

	ROA	LEV	SIZE	EC	EN	LA	HR	SO	PR
ROA	1.000								
LEV	-0.359	1.000							
SIZE	-0.124	0.218	1.000						
EC	-0.045*	-0.044*	-0.197	1.000					
EN	0.069	-0.086	-0.034*	0.696	1.000				
LA	0.037*	-0.096	-0.016*	0.690	0.655	1.000			
HR	-0.026*	-0.018*	-0.157	0.646	0.644	0.470	1.000		
SO	-0.050*	-0.061	-0.183	0.761	0.669	0.573	0.724	1.000	
PR	-0.112	-0.065	-0.088	0.783	0.690	0.632	0.659	0.757	1.000

* Correlation is significance at the 0.05 levels.

APPENDIX C_2: Correlation Coefficients Matrix between GRI indicators and ROE in 2010-2014

	ROE	LEV	SIZE	EC	EN	LA	HR	SO	PR
ROE	1.000								
LEV	0.169	1.000							
SIZE	0.049*	0.218	1.000						
EC	-0.208	-0.044	-0.197	1.000					
EN	-0.107	-0.086	-0.034*	0.696	1.000				
LA	-0.149	-0.096	-0.016*	0.690	0.655	1.000			
HR	-0.207	-0.018*	-0.157	0.646	0.644	0.470	1.000		
SO	-0.241	-0.061	-0.183	0.761	0.669	0.573	0.724	1.000	
PR	-0.215	-0.065	-0.088	0.783	0.690	0.632	0.659	0.757	1.000

* Correlation is significance at the 0.05 levels.

APPENDIX C_3: Correlation Coefficients Matrix between GRI indicators and NET in 2010-2014

	NET	LEV	SIZE	EC	EN	LA	HR	SO	PR
NET	1.000								
LEV	0.122	1.000							
SIZE	0.821	0.218	1.000						
EC	-0.217	-0.044*	-0.197	1.000					
EN	0.010*	-0.086	-0.034	0.696	1.000				
LA	-0.110	-0.096	-0.016*	0.690	0.655	1.000			
HR	-0.128	-0.018*	-0.157	0.646	0.644	0.470	1.000		
SO	-0.210	-0.061	-0.183	0.761	0.669	0.573	0.724	1.000	
PR	-0.126	-0.065	-0.088	0.783	0.690	0.632	0.659	0.757	1.000

* Correlation is significance at the 0.05 levels.

APPENDIX D

Regression of GRI disclosure and financial performance on Lag Time

APPENDIX D_1: Lag Time-Multiple Regression of sustainability performance information disclosure level and return on assets for the periods 2011-2014 (n = 208)

$ROA_{t+1} = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	13.250	3.856		3.437	0.000
SIZE	-0.202	0.395	-0.042	-0.512	0.610
Leverage (LEV)	-7.033	1.627	-0.339	-4.323	0.000*
Economic (EC)	-0.103	0.228	-0.070	-0.452	0.652
Environmental (EN)	0.097	0.054	0.220	1.805	0.073
Labor (LA)	0.073	0.140	0.059	0.522	0.603
Human right (HR)	0.099	0.154	0.074	0.641	0.522
Society (SO)	-0.069	0.217	-0.044	-0.318	0.751
Product responsibility (PR)	-0.351	0.193	-0.261	-1.821	0.071
Model summary					
R				0.408	
R^2				0.166	
Adjusted R^2				0.121	
F-value				3.661	
Sig				0.001*	
Durbin-Watson				2.030	

* Significance levels of 0.05.

APPENDIX D_2: Lag Time-Multiple Regression of sustainability performance information disclosure level and return on equity for the periods 2011-2014 (n = 208)

$ROE_{t+1} = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficient		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	16.141	6.011		2.685	0.008
SIZE	-0.232	0.615	-0.032	-0.377	0.707
Leverage (LEV)	5.545	2.536	0.178	2.186	0.030*
Economic (EC)	-0.314	0.356	-0.142	-0.882	0.379
Environmental (EN)	0.110	0.084	0.167	1.317	0.190
Labor (LA)	-0.046	0.219	-0.025	-0.210	0.834
Human right (HR)	-0.239	0.240	-0.120	-0.995	0.322
Society (SO)	-0.436	0.338	-0.187	-1.290	0.199
Product responsibility (PR)	0.146	0.301	0.072	0.485	0.628
Model summary					
R				0.314	
R^2				0.099	
Adjusted R^2				0.050	
F-value				2.016	
Sig				0.048*	
Durbin-Watson				2.098	

* Significance levels of 0.05.

APPENDIX D_3: Lag Time-Multiple Regression of sustainability performance information disclosure level and net sales for the periods 2011-2014 (n = 208)

$NET_{t+1} = \beta_0 + \beta_1 EC_t + \beta_2 EN_t + \beta_3 LA_t + \beta_4 HR_t + \beta_5 SO_t + \beta_6 PR_t + \beta_7 Size + \beta_8 LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	2.123	0.455		4.667	0.000
SIZE	0.777	0.047	0.823	16.679	0.000*
Leverage (LEV)	-0.249	0.192	-0.061	-1.295	0.197
Economic (EC)	0.006	0.027	0.020	0.214	0.831
Environmental (EN)	0.017	0.006	0.199	2.730	0.007*
Labor (LA)	-0.043	0.017	-0.174	-2.584	0.011*
Human right (HR)	0.020	0.018	0.076	1.097	0.274
Society (SO)	-0.036	0.026	-0.119	-1.422	0.157
Product responsibility (PR)	-0.013	0.023	-0.050	-0.584	0.560
Model summary					
R				0.837	
R^2				0.701	
Adjusted R^2				0.684	
F-value				43.028	
Sig				0.000*	
Durbin-Watson				1.801	

* Significance levels of 0.05.

APPENDIX E

Regression of GRI disclosure and financial performance: Dummy Country Variables

APPENDIX E_1: Multiple Regression of sustainability performance information disclosure level and return on assets (ROA) for the periods 2010-2014 (n = 260)

$ROA_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	16.628	2.839		-1.673	0.000
SIZE	-0.512	0.30	-0.110	-5.362	0.096
Leverage (LEV)	-6.708	1.251	-0.327	-3.414	0.000*
Singapore	-2.227	0.653	-0.234	-2.748	0.001*
Indonesia	-2.100	0.764	-0.213	-1.332	0.006*
Philippine	-0.990	0.743	-0.092	-2.815	0.184
Malaysia	-2.069	0.735	-0.202	-0.632	0.005*
Economic (EC)	-0.102	0.162	-0.070	2.593	0.528
Environmental (EN)	0.106	0.041	0.247	1.741	0.010*
Labor (LA)	0.190	0.109	0.159	0.542	0.083
Human right (HR)	0.063	0.117	0.048	-0.391	0.588
Society (SO)	-0.062	0.158	-0.040	-3.245	0.696
Product responsibility (PR)	-0.461	0.142	-0.348	-1.673	0.001*
Model summary					
R				0.492	
R^2				0.242	
Adjusted R^2				0.206	
F-value				6.585	
Sig				0.000*	
Durbin-Watson				1.763	

* Significance levels of 0.05.

APPENDIX E_2: Multiple Regression of sustainability performance information disclosure level and return on equity (ROE) for the periods 2010-2014 (n = 260)

$ROE_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	21.066	4.603		4.577	0.000
SIZE	-0.993	0.496	-0.138	-2.001	0.046*
Leverage (LEV)	6.730	2.028	0.214	3.318	0.001*
Singapore	-0.325	1.058	-0.022	-0.307	0.759
Indonesia	-3.665	1.239	-0.242	-2.958	0.003*
Philippine	-0.453	1.205	-0.027	-0.376	0.707
Malaysia	-3.578	1.192	-0.227	-3.002	0.003*
Economic (EC)	-0.259	0.262	-0.116	-0.989	0.324
Environmental (EN)	0.110	0.066	0.167	1.663	0.098
Labor (LA)	0.220	0.177	0.119	1.240	0.216
Human right (HR)	-0.191	0.189	-0.095	-1.007	0.315
Society (SO)	-0.330	0.256	-0.139	-1.288	0.199
Product responsibility (PR)	-0.092	0.230	-0.045	-0.402	0.688
Model summary					
R				0.396	
R^2				0.157	
Adjusted R^2				0.116	
F-value				3.824	
Sig				0.000*	
Durbin-Watson				1.814	

* Significance levels of 0.05.

APPENDIX E_3: Multiple Regression of sustainability performance information disclosure level and net sales (NET) for the periods 2010-2014 (n = 260)

$NET_n = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. error	Beta		
(Constant)	2.474	0.319		7.763	0.000
SIZE	0.□40	0.034	0.789	21.53	0.000*
Leverage (LEV)	-0.102	0.140	-0.025	-0.724	0.470
Singapore	-0.141	0.073	-0.074	-1.925	0.055
Indonesia	-0.256	0.086	-0.129	-2.986	0.003*
Philippine	-0.543	0.083	-0.251	-6.505	0.000*
Malaysia	0.005	0.083	0.002	0.055	0.956
Economic (EC)	0.018	0.018	0.062	0.990	0.323
Environmental (EN)	0.021	0.005	0.237	4.461	0.000*
Labor (LA)	-0.035	0.012	-0.145	-2.853	0.005*
Human right (HR)	0.029	0.013	0.110	2.197	0.029*
Society (SO)	-0.041	0.018	-0.132	-2.300	0.022*
Product responsibility (PR)	-0.047	0.016	-0.177	-2.947	0.004*
Model summary					
R				0.874	
R^2				0.763	
Adjusted R^2				0.752	
F-value				66.428	
Sig				0.000*	
Durbin-Watson				1.319	

* Significance levels of 0.05.

APPENDIX F

Regression of GRI disclosure and financial performance: Dummy Country Variables on Lag Time

APPENDIX F_1: Lag Time-Multiple Regression of sustainability performance information disclosure level and return on assets for the periods 2011-2014 (n = 208)

$ROA_{n+1} = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. erro	Beta		
(Constant)	15.127	3.891		3.887	0.000
SI□E	-0.278	0.421	-0.058	-0.659	0.511
Leverage (LEV)	-6.993	1.685	-0.337	-4.150	0.000*
Singapore	-2.761	0.884	-0.284	-3.125	0.002*
Indonesia	-2.002	1.029	-0.198	-1.946	0.054
Philippine	-1.837	0.991	-0.167	-1.853	0.066
Malaysia	-2.137	0.997	-0.203	-2.144	0.034*
Economic (EC)	-0.156	0.228	-0.106	-0.685	0.495
Environmental (EN)	0.102	0.054	0.232	1.882	0.062
Labor (LA)	0.142	0.150	0.114	0.943	0.347
Human right (HR)	0.142	0.154	0.106	0.920	0.359
Society (SO)	-0.038	0.214	-0.025	-0.178	0.859
Product responsibility (PR)	-0.444	0.197	-0.330	-2.250	0.026*
Model summary					
R				0.480	
R^2				0.230	
Adjusted R^2				0.166	
F-value				3.566	
Sig				0.000*	
Durbin-Watson				2.157	

* Significance levels of 0.05.

APPENDIX F_2: Lag Time-Multiple Regression of sustainability performance information disclosure level and return on equity for the periods 2011-2014 (n = 208)

$ROE_{n+1} = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. error	Beta		
(Constant)	20.340	6.106		3.331	0.001
SIZE	-□.850	0.661	-0.118	-1.285	0.201
Leverage (LEV)	6.661	2.644	0.214	2.519	0.013*
Singapore	-0.957	1.387	-0.066	-0.690	0.491
Indonesia	-3.962	1.614	-0.262	-2.455	0.015*
Philippine	-1.311	1.555	-0.079	-0.843	0.401
Malaysia	-4.321	1.564	-0.274	-2.762	0.007*
Economic (EC)	-0.457	0.357	-0.207	-1.279	0.203
Environmental (EN)	0.076	0.085	0.115	0.892	0.374
Labor (LA)	0.236	0.236	0.126	0.999	0.319
Human right (HR)	-0.183	0.242	-0.092	-0.758	0.450
Society (SO)	-0.305	0.336	-0.130	-0.907	0.366
Product responsibility (PR)	0.193	0.310	0.096	0.624	0.534
Model summary					
R				0.396	
R^2				0.157	
Adjusted R^2				0.086	
F-value				2.223	
Sig				0.013*	
Durbin-Watson				2.071	

* Significance levels of 0.05.

APPENDIX F_3: Lag Time-Multiple Regression of sustainability performance information disclosure level and net sales for the periods 2011-2014 (n = 208)

$NET_{n+1} = \beta_0 + \beta_1 EC_n + \beta_2 EN_n + \beta_3 LA_n + \beta_4 HR_n + \beta_5 SO_n + \beta_6 PR_n + \beta_7 Size + \beta_8 SP + \beta_9 ID + \beta_{10} PL + \beta_{11} ML + \beta_{12} LEV + \varepsilon$

Variables	Unstandardized coefficients		Standardized Coefficients	t-statistic	Sig
	B	Std. error	Beta		
(Constant)	2.435	0.431		5.647	0.000
SIZE	0.7□2	0.047	0.786	15.900	0.000*
Leverage (LEV)	-0.089	0.187	-0.022	-0.478	0.633
Singapore	-0.124	0.098	-0.065	-1.268	0.207
Indonesia	-0.252	0.114	-0.127	-2.215	0.028*
Philippine	-0.567	0.110	-0.261	-5.163	0.000*
Malaysia	0.014	0.110	0.007	0.129	0.898
Economic (EC)	0.028	0.025	0.096	1.107	0.270
Environmental (EN)	0.019	0.006	0.218	3.137	0.002*
Labor (LA)	-0.037	0.017	-0.150	-2.217	0.028*
Human right (HR)	0.033	0.017	0.124	1.906	0.059
Society (SO)	-0.045	0.024	-0.148	-1.913	0.058
Product responsibility (PR)	-0.046	0.022	-0.173	-2.103	0.037*
Model summary					
R				0.870	
R^2				0.756	
Adjusted R^2				0.736	
F-value				36.993	
Sig				0.000*	
Dubin-Watson				2.177	

* Significance levels of 0.05.

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