

Triple Bottom Line Reporting in Annual Reports: A Case Study of Companies Listed on the Stock Exchange of Thailand (SET)

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Abstract

This study aims to investigate narrative TBL reporting in the annual reports of the top 50 largest companies listed on the Stock Exchange of Thailand (SET), to establish whether there is any relationship between the extent of TBL reporting and a variety of factors used in previous studies conducted in more developed countries. By using a non-probability sampling method, the top 50 listed companies were sampled based on their 2010 annual reports. Statistical analysis (descriptive, multiple regression, independent samples t-tests, and ANOVA), was employed to analyse the extent of reporting found and the relationship between TBL disclosure based on a measured score and ten characteristics influencing disclosure identified in previous studies. The findings show that there are statistically significant differences between the TBL reporting scores of high and low profile companies. There are also significant differences in reporting based on industry groups. Although the results did not indicate any relationship between TBL disclosure scores and the various factors considered in previous studies, there was a correlation between the age, type of business, and liquidity of companies and their economic information reporting score as well as between the size, risk, and profitability of the company and the environmental information disclosure score.

Keywords: Triple Bottom Line Reporting, Annual Reports, Thailand, The Stock Exchange of Thailand

1. Introduction

World economic development faces social and environmental impacts that result in social problems, global warming, natural disasters and pollution. Therefore, many corporations take as much responsibility for social and environmental issues as they do for economic issues. One reason for this is that corporations are reflecting growing social expectations and stakeholder concerns. This notion of corporate social and environmental responsibility reflects stakeholder theory. Responsibility is reflected in disclosures made by these companies known as corporate social and environmental responsibility reporting. Henderson and Peirson(2004) explain that social and environmental reporting is an aspect of sustainable development reflecting concerns about environmental protection, intergenerational equality, the Earth and its resources. Therefore, in today's world, corporate social responsibility (CSR) is placing pressure on traditional corporations to not only provide financial information to their stakeholders but to also include non-financial information about social and environmental issues. Some corporations regard CSR as a negative drag on their business because it may entail costs in terms of both budget and time. On the other hand, CSR can be seen as a positive driving force encouraging corporate top management to look more closely at the operation of their business and make it more successful and sustainable over the long term (Luken & Stares, 2005). Moreover, CSR also helps corporations in planning and tracking social and environmental improvements that can bring corporate financial benefits. However, although there are many standards used to disclose non-financial information, such as ISO14001, ISO26000, SA8000, and AAI000, all can measure and report on only a single issue rather than reflecting multiple issues as can Triple Bottom Line (TBL) reporting. Slaper (2011) stated that TBL is an accounting framework incorporating three dimensions of corporate performance: financial, social, and environmental. The TBL reporting differs from the traditional reporting frameworks as it includes ecological or environmental and social measures that can be difficult to assign appropriate means of measurement. TBL reporting is one of the most important tools available to support corporate sustainable development goals.

The notion of TBL was developed by John Elkington (1997) who created a new framework to measure both financial and non-financial performance during the mid-1990s (Slaper, 2011). The framework of TBL focuses on the interrelated dimensions of profit, people, and the planet. Because TBL reporting is growing across the for-profit, non-profit, and government sectors, many corporations have adopted TBL reporting to measure and evaluate their operational performance. However, although most empirical studies about TBL reporting have focused on the United States of America, Canada, Australia, New Zealand, Japan, the United Kingdom and other European countries, there are fewer studies about TBL reporting by companies in developing countries where stakeholders still do not have the power to force companies to provide non-financial information. There is no evidence of TBL reporting by Thai listed companies. Moreover, social and environmental disclosures by Thai listed companies are still made only on a voluntary basis so the extent and level of TBL reporting from social and environmental perspectives is unknown.

Therefore, this study aims to fill that gap by investigating narrative TBL reporting in the annual reports of the top 50 largest Thai listed companies, testing whether there is any

relationship between the extent of TBL reporting and a variety of factors used in previous studies conducted in more developed countries. The study also compares its findings with findings reported in previous studies relating to TBL reporting in developed countries.

There are three research questions in this study 1) Is there TBL reporting in any of the annual reports of listed companies in the SET; 2) What are the factors influencing TBL reporting; and 3) What differences are there in the extent of TBL reporting found in the present study conducted in a developing country and that found in previous studies conducted in developed countries. The remainder of this paper is organized as follows. Section 2 reviews the theoretical perspective. Section 3 discusses the background of TBL reporting in Thailand. Sections 4 and 5 review relevant literature and identify the factors potentially influencing TBL reporting. Section 6 details the research design and methodology including the methods of data analysis employed. The study findings are presented in section 7, and finally, the conclusions and limitations of the study are set out in section 8.

2. Theoretical Perspective

Despite the different theoretical approaches that can be and have been used to explain TBL reporting, the most widely advanced theoretical perspectives in the social and environmental accounting literature are legitimacy and stakeholder theories (Branco, Eugenio, & Ribeiro, 2008; M. Islam & C. Deegan, 2010; Joshi & Gao, 2009). These theories reflect the view that corporations with proactive social and environmental programmes gain a competitive advantage over less socially and environmentally active companies by sharing their social and environmental activities with stakeholder groups. However, this study uses only stakeholder theory to investigate TBL reporting by Thai listed companies in annual reports because this theory is premised on the notion that stakeholders expect companies to be socially and environmentally responsible so that there is a market premium in improved social and environmental performance. The theory is also concerned with the ways companies manage their stakeholder relationships (Gray, Collison, & Bebbington, 1998; Llena, Monera, & Hernandez, 2007; Roberts, 1992).

Stakeholder theory explains specific corporate actions and activities using a stakeholder-agency approach, and is concerned with how relationships with stakeholders are managed by companies in terms of the acknowledgement of stakeholder accountability (Cheng & Fan, 2010; Freeman, Harrison, & Wick, 2007). As stakeholder influences become crucial for corporate image and comparative advantage, companies manage their stakeholder relationships by providing information, often in the form of voluntary disclosures in their annual reports or on their websites. The justification is that stakeholders which (Collier, 2008) defines as those who have a stake in an organisation, have something at risk as well as the power to influence the organisation, including its actions, decisions, policies or goals. Potential stakeholders include shareholders, creditors, suppliers, government, customers, competitors, employees, employees' families, media, the local community, local charities, and future generations (Carrol & Bucholtz, 2006; C. Deegan, 2001). According to Gray et al. (1996), stakeholders are identified by companies to ascertain which groups need to be managed in order to further the interest of the corporation. Stakeholder theory suggests that

companies will manage these relationships based on different factors such as the nature of the task environment, the salience of stakeholder groups and the values of decision makers who determine the shareholder ranking process (Donaldson & Preston, 1995). As such, management will tend to satisfy the information demands of those stakeholders important to the corporations' ongoing survival so that corporations would not respond to all stakeholders equally (Nasi, Nasi, Philip, & Zylidopoulos, 1997). The power of stakeholders and their expectations can change over time, so that companies have to continually adapt their operating and reporting behaviours (C. Deegan, 2001). In summary, stakeholder theory views corporations as part of a social system while focusing on the various stakeholder groups within society (Ratanajongkol, Davey, & Low, 2006).

3. Background

Developing countries and social and environmental degradation are intertwined. The long term economic development of developing countries is threatened by social and environmental catastrophes. In line with the competitive advantage argument, the Asian Development Bank argues that protecting the society and environment is not at odds with pursuing economic growth and development (Kazmin and James 2001). The vast Asian market could determine the future of the planet. While substantial economic growth in Asia has resulted in an overall reduction of poverty, growth has placed considerable strains on the society and environment (Kerr, 2008). Large economic projects in developing countries bring employment, services and infrastructure that their governments cannot afford to provide, whereas in developed countries such as Australia there are alternative sources of public investment and income as well as a safety net of social services. Projects are thus welcomed for the benefits they may deliver so that campaigns about social and environmental destruction are most vociferous when projects causing degradation are closing (Macintyre 2007).

Although Thailand has changed from an agricultural, self-sufficient economy into an industrialising nation, it is still considered a developing country. Its government has promoted Thailand as one of the rapidly industrialising nations of Asia (Kuasirikun, 2005) despite having faced a financial crisis in mid-1997. During that time, many domestic companies had to close their businesses, many workers became unemployed and the Thai government did not have enough money to manage the country. Since then and until the current global financial crisis (GFC), the Thai economy's growth was about seven percent per year (NESDB, 2003) making it one of fastest growing economies in South and South East Asia. Post GFC, its growth rate has fallen to about three percent annually.

Thailand's economic growth, led by the growth in the manufacturing sector (Mukhopadbhyay, 2006), created environmental problems, particularly air, noise, traffic and water pollution, deforestation and land erosion (Warr, 2007). Thailand's protest movements have won some victories. Authorities have been forced to crack down on illegal logging and large scale infrastructure projects have been resisted by local communities determined to protect their way of life (Kazmin and Kynge 2001).

As a result, in 1999, Thai listed companies were asked by the SET to promote and build

certain corporate governance practices into their annual reports (Ratanajongkol, et al., 2006). These practices involved including both financial and non-financial information (economic, social and environmental disclosures) in corporate annual reports, but disclosure was voluntary so few listed companies revealed social and environmental information in their annual reports. A revised version of the principle of good corporate governance was published in 2006 (Lint, 2009) which suggested that boards of directors should set clear policy on social and environmental issues and that companies should disclose social and environmental policies as well as implementing the conditions of such policies. In addition, voluntary reporting was changed to a “comply or explain” approach. The new principle has been in force for Thai listed companies since 2007. However, the extent of TBL reporting by companies in Thailand is still unknown.

4. Literature Review

A review of the relevant literature about corporate social and environmental disclosures in addition to financial disclosures revealed studies by researchers and professionals dating back two decades. Most studies focused on the reporting of non-financial information by companies in developed countries rather than developing countries such as the United States of America, Canada, Australia, New Zealand, Japan, the United Kingdom, and other European countries (Kolk et al., 2001). For example, Ho and Taylor (2007) surveyed 50 of the largest US and Japanese companies to investigate TBL reporting by using annual reports, stand-alone reports, and website reports. They found that the extent of disclosure was higher for companies of larger size, lower profitability, lower liquidity, and higher profile. Moreover, Japanese firms undertook more TBL reporting than firms in the US.

Cheung et al. (2009) examined the impact of changes in CSR on market valuation and compared the CSR practices of major listed companies from 2001 to 2004 by surveying 495 companies in 25 emerging markets (Asian, East European, South African, and Latin American Markets). Their findings indicated that there was a positive and significant relationship between CSR and market valuation among Asian companies, and CSR was positively related to the market valuation of subsequent years.

Mahadeo et al. (2011) looked at 165 companies listed on the Stock Exchange of Mauritius between 2004 and 2007 to investigate corporate social responsibility reporting (CSRR) in annual reports and test whether there was any relationship between the amount of CSRR in annual reports and a variety of factors. They found an increase in terms of volume and variety of CSRR. Additionally, there was a relationship between the size of company and the amount of CSRR. Uwalomwa and Uadiale (2011) also studied CSRR in annual reports by listed companies in Nigeria. They found that there was a difference in the amount of CSRR between industries sampled. However, CSRR by Nigerian listed companies was still very low and still in an embryonic stage.

Monteiro and Guzman (2010) used content analysis to examine the influence of a new social and environmental accounting standard on the social and environmental disclosures in the annual reports of 109 large companies in Portugal during the period 2002-2004. The results indicated that the extent of disclosures had increased, but the amount of disclosure was still

low. However, the new accounting standard was starting to have an impact on listed companies in Portugal.

There are only five papers examining social and environmental disclosure by companies in Thailand, with all investigating the disclosures made in annual reports. William (1999) analysed 28 corporate annual reports and found that culture and the political and civil system were the determinants of the amount of disclosure. Kunsirikun et al. (2004) investigated corporate environmental disclosures in the annual reports of 63 Thai firms in 1993 and 84 firms in 1999, finding a slight increase in narrative disclosures from 44% to 45%. Using a sample of 120 Thai listed companies' annual reports to test relationships between environmental reporting and market valuation and corporate accounting performance, Connelly and Limpaphayon (2004) found that there was a significant positive correlation between market valuation and disclosure. There was no significant relationship between environmental reporting and Thai corporate accounting performance. Ratanajongkol et al. (2006) examined trends in corporate environmental disclosure by utilising content analysis of the disclosure of the 40 largest Thai firms in 1997, 1999, and 2001. Environmental disclosures decreased over the study period. Rahman et al. (2010) studied a sample of 37 Thai listed companies in 2006 to examine the relationship between environmental disclosures and financial performance finding that financial performance had no relationship with environmental disclosures

However, there has been no study of TBL reporting in Thailand, therefore, this study aims to investigate the extent of TBL reporting in the annual reports of the top 50 largest Thai listed companies, to test whether there is any relationship between the extent of TBL reporting and a variety of factors, and to compare the findings concerning TBL reporting with prior studies conducted in developed countries to answer the research questions: 1) Is there TBL reporting in any of the annual reports of listed companies in the SET; 2) What are the factors influencing TBL reporting; and 3) What differences are there in the extent of TBL reporting found in the present study conducted in a in developing country from that found in previous studies conducted in developed countries.

5. Characteristics Influencing TBL Reporting

In answering the research questions, the data collection was based on a number of characteristics used in previous studies, thus allowing for comparisons to be made with those studies. Not all of those studies recognise the need for reporting companies to be perceived as socially legitimate, even though to be seen as “good corporate citizens” by their stakeholders appears to be important to the disclosing companies (Deegan and Gordon, 1996). The study examines the influence of the following commonly cited characteristics: company size, industry type, ownership status, country of origin, audit type, age, business type, risk (debt ratio), liquidity, and profitability. Each is examined in turn.

5.1 Size of company

Stakeholder theory suggests that larger companies need to make more disclosures because they have more stakeholders than small companies (Cowen, Ferreri, & Parker, 1987).

Previous studies (Choi, 1999; Cormier & Gordon, 2001; C. M. Deegan & Gordon, 1996; Ho & Taylor, 2007; Raar, 2002; Stanwick & Stanwick, 2006) found a positive association between the amount of non-financial information disclosure (social and environmental disclosure) and the size of companies, although others (Davey, 1982; Ng, 1985; Roberts, 1992) did not find such a relationship and this study investigated whether there is any statistical relationship between the TBL reporting score in annual reports and company size.

5.2 Type of industry

In many previous studies, companies have been classified according to various criteria. Commonly they are separated into high or low profile companies (Choi, 1999; Hackston & Milne, 1996; Patten, 1992). High profile companies are those operating in highly environmentally sensitive industries (Perry and Sheng 1999; Stray and Ballantain 2000; Ho and Taylor 2007). High profile companies are postulated to be more exposed politically than companies in industries expected to have little impact on the economy, society, and environment (low profile companies) (Newson & Deegan, 2002). Using the relationship between levels of corporate social and environmental disclosure and the type of industry, many studies such as those by (Ahmad & Sulaiman, 2004; Choi, 1999; Ho & Taylor, 2007; Newson & Deegan, 2002; Stray & Ballantine, 2000), found that high profile companies disclosed more social and environmental information than low profile companies and this study investigated whether there is any statistical relationship between the TBL reporting score in annual reports in Thailand and the type of company.

5.3 Ownership status

This study categorises companies into two types of ownership status based on the percentage of corporate common stock held by either government or private companies. For example, firms where government organizations hold own than 51 percent of the common stock are designated as government companies. On the other hand, if private organizations or individuals hold more than 51 percent of the common stock, then they are classified as private companies. Ownership status is not often considered in research into social and environmental reporting, probably because such research is mostly conducted in an Anglo-American context where government companies are not common (Tagesson, Blank, Broberg, & Collin, 2009). In relation to TBL information, government and private companies may differ in both the quantity and quality of their disclosure. In Canada, Cormier and Gordon (2001) found that government companies provide more social and environmental information than private companies. In Sweden, Tagesson et al. (2009) found that government companies disclosed more social and environmental information than private companies because state-owned companies are more scrutinized, so that there is pressure from the state as owner, and from the mass media to comply with society's expectations. Contrasting results have been obtained; Balal (2000) found that Bangladeshi private companies disclose more environmental information than government companies. In Italy, Secci (2005) found that companies controlled by the Italian government disclosed less social and environmental information than other corporations and this study investigated whether there is any statistical relationship between the TBL reporting score in annual reports and the

ownership status of the company.

5.4 Country of origin of company

Similarly to the above categorisation, companies listed are separated into two kinds: international and domestic companies. International companies are those found in developed countries but located in Thailand, on another hand, domestic companies are those found and located in Thailand. From previous studies, companies from developed countries provided more amount of social and environmental information disclosures than companies in developing countries (Adams, Hill, & Roberts, 1998; Kolk, Walhain, & Wateringen, 2001). Possible associations between the country of origin of the company making the disclosures and the amounts of corporate social and environmental disclosure have been found (Hackston & Milne, 1996; Jahamani, 2003; Niskala & Pretes, 1995; Stanwick & Stanwick, 2006). However, this characteristic is never tested in Thai companies listed, therefore, the study investigated whether there is any statistical relationship between the score of TBL reporting in annual reports and the country of origin of the company.

5.5 Audit type

Big four audit firms that consist of PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst & Young, and KPMG are generally held to provide a more independent auditing service and to abide more closely to audit standards than other audit firms (Joshi & Gao, 2009) because the big four audit firms are likely to suffer more serious damage to their reputations from a poor audit. Companies with greater potential gains from external monitoring would tend to employ big four audit firms. Evidence about type of audit firms and social and environmental disclosures is mixed (Inchausti, 1997; Joshi & Gao, 2009), therefore, this study will investigate whether there is any statistical relationship between the TBL reporting score in annual reports and audit type.

5.6 Business type

Companies can be separated into two business types: family businesses and non-family businesses. It is quite normal for Asian companies to run a business from generation to generation with managers coming from the same family. Family businesses do not have a tradition of disclosure since insiders (family members) often control the operating and reporting systems (Iu & Batten, 2001). Choi (1999) speculated that the percentage of ownership held by a family may affect the disclosure of social and environmental information. It is likely that family businesses will make less social and environmental disclosure in their annual reports than non-family businesses. No study has yet explored whether there is a relationship between the amount of disclosure and business type and this study investigated whether there is any statistical relationship between the score of TBL reporting in annual reports and the type of business.

5.7 Age

Stakeholder theory implies that older companies may have to provide more financial and non-financial information because they have amassed more stakeholders than younger

companies (Cowen, et al., 1987). Choi (1999) argued that the maturity of a corporation can result in a higher level of reputational risk so that the company engages in more activities related to social and environmental responsibility. Whether the age (maturity) of companies influences the levels of TBL reporting in annual reports is untested and this study investigated whether there is any statistical relationship between the TBL reporting score in annual reports and the age of the company.

5.8 Risk (debt ratio)

Companies with high debt ration have to provide more information than other companies because their creditors that are one of corporate stakeholder want to get information as much as the companies can reveal including social and environmental information (Schipper 1981). Therefore, top management should increase the extent and amount of disclosures in both financial and non-financial information for monitoring purposes (Joshi & Gao, 2009). However, the empirical evidence on debt-ratio and its relationship to the levels of TBL reporting are mixed (Tai, Au-Yueng, Kwok, & Lau, 1990; Wallace & Naser, 1995) and this study will investigate whether there is any statistical relationship between the TBL reporting score in annual reports and risk as evidenced by the debt ratio of the company.

5.9 Liquidity

Ho and Taylor (2007) suggested that corporate liquidity is an important determinant of disclosures in both corporate financial and non-financial information. In particular, they indicated that stakeholders are concerned regarding the status of companies as going concerns, so that those with higher liquidity may have stronger incentives to provide more financial and non-financial information in their annual reports than companies with lower liquidity and this study will investigate whether there is any statistical relationship between the TBL reporting score in annual reports and corporate liquidity.

5.10 Profitability

Previous studies have found different results of in regard to the relationship between social and environmental disclosure and financial performance. Firstly, some studies have found that social and environmental reporting and financial performance are positively linked (Russo and Founts, 1997, Cohen et al, 1997). Cohen et al. (1997) stated that companies that make social and environmental disclosures may be those able to effectively reduce pollution as well as employing more efficient methods of production, and thereby gain competitive advantage. On the other hand, some previous studies found a negative relationship between social and environmental disclosure and financial performance (King and Lenox, 2001, Mathur and Mathur, 2000). Their results suggest that social and environmental disclosure entails costs to companies and acts to reduce corporate financial performance. Finally, no correlation between social and environmental disclosure and financial performance was found by Connelly and Limpaphayom (2004) or Stanwick and Stanwick (2000). Therefore, this study will test whether there is any relationship between TBL reporting and financial performance in Thai corporate annual reports.

6. Research Design

This study investigated TBL reporting in the annual reports of companies listed on the SET. From this population, non-probability sampling was used to select the top 50 listed companies based on their market capitalization as reported in their 2010 annual reports, representing 10 per cent of all listed companies on the SET. The number of 50 companies based on size ranking of market capitalization was chosen as this was similar to the number used in previous studies (e.g. Guthrie and Parker, 1990). This criterion was selected since it has previously been discovered that large companies tend to disclose more environmental information publicly (Gray et al, 1995, Deegan and Gordon, 1996). Larger companies tend to have more shareholders who might be concerned about, and demand more social and environmental programmes. Besides, larger companies are more likely to have responded to the environmental agenda than small or medium sized companies (Brammer and Pavelin, 2008). Table 1 shows the companies studied classified according to the criteria outlined above, based on five previous studies. High profile companies are those operating in highly environmentally sensitive industries such as raw material extraction, agricultural and food, chemical, wood, paper, and forestry, and are thus more exposed to the political and social environment than low profile companies (Newson and Deegan 2002). Companies classified as low profile included service, healthcare, computers, and electronics. Overall therefore, the sample studied consisted of 17 high profile companies and 33 low profile companies.

Table 1. Industry profiles

Type of industry	Sample size (n)	Industry profile						
		This study	Newson&Deegan (2002)	Choi (1999)	Hackston&Milne (1996)	Robert (1992)	Patten (1991)	
Agriculture and food	4	High	High	High	Low/High	Low	-	
Financial	10	Low	Low	-	-	-	-	
Industrial	3	High	High	High	High	High	High	
Property and construction	8	Low	Low	-	Low	-	-	
Resources	10	High	High	High	High	-	High	
Service	11	Low	Low		Low	Low	-	
Technology	4	Low	Low	Low	Low	-	-	

Data on a number of relevant variables such as sales, market capitalization, workforce, net profit, total debt and equity, type of auditors, liquidity ratio, ownership status, age, and environmental-related information were collected from the websites of the 50 companies selected (www.set.or.th/set/commomlookup.do).

In measuring the TBL reporting in annual reports, the Global Reporting Initiative (GRI) Reporting Guidelines (2002) were utilised in this study. These reporting guidelines include 60

items to determine the extent of TBL disclosure relating to economic, social, and environmental perspectives (20 items for each perspective). These items were drawn from an extensive review of the literature and business surveys (Ho and Taylor, 2007, Slaper, 2011). A list of these items is shown in Appendix A. The data about TBL reporting in the corporate annual reports was collected twice by the researcher at different times.

In scoring the reports, most reporting items were scored on a scale of 0 – 4 based on the UNEP/SustainAbility (1996) criteria, but some were scored dichotomously as either 0 or 1. The scale (shown in Table 2) was based on the principle that more complete and comprehensive information relating to a given reporting item received a higher score. Therefore, a score of 0 means that the company did not report any information relating to that item while a score of 4 means that comprehensive coverage was given on that item. Jones and Alabaster (1999) suggested a scoring system using a nominal scale, or, at best, an ordinal one. Under that scheme, each item is classified into one of five possible and mutually exclusive categories. As Jones and Alabaster (1999) note, the problem with this scheme is that one cannot legitimately aggregate or average the scores for a given item or section across reports, and it is contrary to how SustainAbility reports its benchmarking surveys (UNEP/SustainAbility, 1996). However, it is sometimes more appropriate, and more useful from an analytical viewpoint, to report disaggregated frequencies. The danger with aggregating scores is that they tend to shift attention away from what is not being reported, and from the quality of the items being reported. Aggregate scores derived from annual reports can hide the fact that two reports, while apparently receiving equal mid-level scores, are vastly different in terms of the breadth of coverage versus the quality of the coverage. Aware of these issues, this study reports both aggregate scores and disaggregated frequencies. In this study, researcher will consider type of scoring following by the items on each perspective of TBL reporting. For example, environmental awards will be scored dichotomously as 0 or 1 because type of this item can indicate whether there is or is no the environmental in corporate annual reports, on another hand, environmental audit will be scored on the scale of 0 – 4 because the information can classify based on UNEP/SustainAbility (1996). The contribution of scoring in this study is that there is a consideration both quantity and quality TBL information reporting in corporate annual reports.

Table 2. UNEP/Sustainability Reports Scoring Criteria

0	1	2	3	4
No coverage	Minimum coverage, little detail	Detailed and honest, including company shortcomings and commitments	Commitment to and progress toward sustainable development in core business	Commitment to and progress towards TBL of sustainable development in core business plus benchmarking against competition and/or best practice in other sectors

Source: UNEP/SustainAbility (1996)

There were 10 independent variables. Size of company was measured by market capitalization (Belkaoui & Karpik, 1989; Hackston & Milne, 1996). As previously mentioned, type of industry was classified (Choi, 1999; Hackston & Milne, 1996; Patten, 1992) where 1 = high profile companies and 2 = low profile companies. Dummy variables were used for ownership status (where 1 = government companies and 2 = private companies), country of origin (1 = international companies and 2 = domestic companies), auditor (1 = Big Four and 2 = Non-Big Four), business type (1 = family business and 2 = non-family business). Age was measured based on the reported corporate age; liquidity by current assets/current liability, risk by debt/equity ratio and profitability by reported net profit.

All the data was hand-collected. The data were analysed using the SPSS statistical software package, version 17. The study used descriptive statistics to represent the extent of TBL reporting in the annual reports of Thai listed companies. To test whether there is any relationship between the extent of TBL reporting and the various factors investigated, the study used a multiple regression model. In addition, independent-sample t-tests and an ANOVA were used to find differences between the effects of the factors studied.

7. Findings

Table 3 illustrates the extent of TBL reporting in the annual reports of companies listed on the SET, based on frequency and percentage. TBL reporting is separated into the three perspectives; economic, social, and environmental. Under the heading of economic, all of the annual reports of the companies studied provided information about their size and profitability, and listed the name of a contact person who could be approached for additional information. Additionally, a breakdown of products and services, and information about dividend distributions, and taxes were also disclosed by most of the companies studied. In terms of social reporting, more companies made statements of corporate commitment to

stakeholders in society and corporate involvement in community philanthropic activity, and provided information about employee training and education in their annual reports than other categories of disclosure. From the perspective of environmental reporting, companies made fewer environmental disclosures than economic and social disclosures. However, most companies made statements of commitment to environmental protection which was the most common theme from the environmental perspective.

Table 3. The extent of TBL reporting in annual reports

Economic information reporting	Frequency	Percentage
1. Size and profitability	50	100
2. Contact person providing additional information	50	100
3. Product and service breakdown	49	98
4. Dividend distributions	49	98
5. Taxes	37	74
6. Fringe benefit information by countries or regions	35	70
7. Payroll information by countries or regions	34	68
8. Size and type of major tangible investment	33	66
9. Discussion of social capital formation e.g. donations	29	58
10. R&D investment	24	48
Social information reporting	Frequency	Percentage
1. Statement of corporate commitment to stakeholders in society	49	98
2. Corporate involvement in community philanthropy activity Employee training and education	48	96
3. Policy for compliance mechanism for bribery and corruption	42	84
4. Awards relevant to social performance	32	64
5. Identification of a contact person providing additional	26	52
6. information	26	52
7. Employee benefits	25	50
8. No. employees and their geographic distribution	25	50
9. Policy for consumer privacy	21	42
10. Policy or procedure dealing with human right issues	19	38
Environmental information reporting	Frequency	Percentage
1. Statement of commitment to environmental protection	44	88
2. Incorporation of environmental concerns into business decisions	23	46
3. Encouragement of renewable energy consumption	22	44
4. Information concerning materials recycled or reused	22	44
5. Water usage information	21	42
6. Identification of contact person providing information	18	36
7. Discussion on amount of waste and mention of waste management	18	36
8. Environmental awards	17	34
9. Environmental audit	16	32
10. Environmental impacts of principle products and services	15	30

Table 4 presents the mean scores for industry groups averaged across both reporting criteria and companies within a group classification adopted by the SET which defines eight groups, although only seven are represented in this study. The results show that companies in highly

environmentally sensitive industries (industrial, resource, and agriculture and food) undertook more TBL reporting in their annual reports than did companies in low profile industries (property and construction, technology, service, and financial).

Table 4. TBL reporting by industry groups

No.	Group of industry	N	Mean	Percentage
1.	Industrial	3	30.33	50.55
2.	Resource	13	28.77	47.95
3.	Agriculture and food	4	26.50	44.17
4.	Property and construction	6	25.83	43.05
5.	Technology	4	25.50	42.50
6.	Service	10	20.80	34.67
7.	Financial	10	19.70	32.83
Total		50	24.66	41.10

To test for differences in the TBL reporting scores derived from Thai corporate annual reports between each variable, independent samples t-tests were conducted. The findings indicated that there were statistically significant differences between high and low profile companies which were significant at the 1% level ($p < 0.99$), but the study was unable to detect significant differences between government and private companies or between international and domestic companies, family and non-family businesses, and those using Big Four and non-Big Four auditors. An ANOVA was used to look for differences among the TBL reporting of industry groups and the study found that there were statistically significant differences between industry groups at the 1% level. To indicate descriptive statistics on the variables used in this study, Table 5 is provided.

Table 5. Descriptive statistics on independent and dependent variables

Variables	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
Independent						
Age	16.70	10.181	1	36	.398	-.620
Industry	1.70	.678	1	5	2.091	10.282
Market Cap.	131989.56	164469.02	14910	908303	2.83	9.906
Profit	9510.86	14081.781	224	83087	3.469	15.139
Liquidity	1.6758	1.47398	.37	10.26	4.323	23.697
Risk	3.1664	4.35344	.20	22.45	2.459	7.132
Owner	1.84	.370	1	2	-1.913	1.726
Country	1.88	.328	1	2	-2.412	3.974
Business	1.80	.404	1	2	-1.547	.407
Audit	1.14	.351	1	2	2.140	2.684
Dependent:						
TBL reporting	24.66	6.763	11	41	.243	-.093
Economic	10.58	2.383	4	16	-.202	.227
Social	8.04	3.220	2	16	.027	-.229
Environmental	6.04	4.495	0	18	.664	-.176

To examine the relationship of the independent variables to the extent of TBL disclosure, a multiple regression model was used:

TBL reporting = $a_1 + b_1$ Market Cap. + b_2 Industry + b_3 Owner + b_4 Country + b_5 Audit + b_6 Business + b_7 Age + b_8 Risk + b_9 Profit + b_{10} Liquidity; where:

TBL reporting = the extent of TBL disclosures

Market Cap. = size of company as measured by market capitalization

Industry = type of industry, dummy variable with

1= high profile, 2= low profile company

Owner = ownership status, dummy variable with

1= government, 2= private company

Audit = Auditor type, dummy variable with

1= Big Four, 2= non- Big Four auditor

Business = type of business, dummy variable with

1= family business, 2= non-family business

Country = country origin of company, dummy variable with

1= international, 2= domestic company

Age	=	age of corporate operation
Risk	=	total debt/total equity
Liquidity	=	total current asset/total current liability
Profit	=	profitability as measured by net profit

Table 6 presents the multiple regression results. The findings indicate that there is no single factor which is predictive of the TBL reporting score in the annual reports of companies listed on the SET in Thailand. However, after separating the TBL reporting into three perspectives (economic, social and environmental), this study found some significant relationships. Firstly, from the economic reporting perspective, the findings indicate that age and type of business (family or non-family business) are negatively associated with the economic information reporting score (significant at the $p < .90$, 10% level). It means that younger companies reported more economic information than older companies. In addition, there is a positive relationship between liquidity and the economic information disclosure score at the 10% level. Therefore, companies with higher liquidity provided more economic reporting than companies with lower liquidity. Next, from the environmental disclosure perspective, there is negative relationship between the size of company and the risk (debt to equity ratio) with the environmental reporting score (significant at the 10% level). On the other hand, Profitability is significantly associated with the score of environmental disclosures at the 5% level ($p < .95$). This means that companies with higher profit disclosed more environmental information than companies with lower profit.

Table 6. Multiple Regression Analysis for the determinants of TBL reporting

Variables	TBL reporting	Economic reporting	Social reporting	Environmental reporting
Age	-1.133(.265)	-1.675(.100*)	-.250(.804)	-.485(.631)
Type of industry	-.898(.375)	.741(.463)	-.472(.640)	-1.410(.167)
Size	-.820(.418)	.495(.623)	.547(.588)	-2.007(.052*)
Profit	1.483(.147)	.256(.800)	.078(.939)	2.024(.050**)
Liquidity	.411(.683)	1.708(.096*)	.321(.750)	-.688(.496)
Risk	-1.542(.132)	-.096(.924)	-.416(.680)	-1.923(.062*)
Ownership	.462(.647)	.629(.533)	.986(.331)	-.520(.606)
Country	.552(.585)	-.257(.799)	-.407(.686)	1.337(.190)
Family	-.215(-1.490)	-1.870(.707*)	-.940(.353)	-.321(.750)
Auditor	.058(.240)	.445(.659)	.133(.895)	-.020(.984)
Adjusted R2	0.256	0.032	-0.031	0.265

* = $p < .90$, ** = $p < .95$, *** = $p < .99$

It is noteworthy that in comparison to the study of Ho and Taylor (2007), although the present study used more factors than that study, there were both differences and similarities in the

findings of the two studies in regard to the relationship between the various factors considered and the TBL reporting score. Ho and Taylor (2007) found that size, liquidity, profit, and country were correlated with the TBL reporting score, relationships which were not detected in the present study. However, this study and Ho and Taylor (2007) both found a relationship between size and profit and the environmental information disclosure score as well as between liquidity and the economic information reporting score. The difference in the results of the two studies may be because Ho and Taylor (2007) studied companies in developed countries (the USA and Japan) where regulations apply to the reporting of non-financial information (social and environmental disclosure), but non-financial information disclosure in Thailand (a developing country) is still based on voluntary reporting. Overall, it was difficult for this study to detect the influence of factors on the TBL reporting score in the annual reports of Thai listed companies. To compare this findings with Thai previous studies, the study indicates that although Connelly and Limpaphayon (2004), and Rahman et al. (2010) found no relationship between environmental disclosures and financial performance, the findings on this study found that there was a relationship between TBL reporting (in terms of environmental disclosures) and financial performance (profit and risk). This study also supports the finding of Kuasirikun et al. (2004) about an increasing trend of environmental disclosures because there was 88 percent of companies providing environmental information in their annual reports in 2010.

8. Summary and Limitations

This study investigated the extent of TBL reporting in annual reports by companies listed on the SET and tested whether there is a relationship between a variety of factors and the TBL reporting score. The initial findings show that companies listed on the SET undertook more economic reporting in their annual reports than social and environmental reporting. Companies classified as industrial undertook the greatest extent of TBL reporting, on the other hand, companies in the financial group undertook the lowest extent of reporting of all the groups studied. There were statistically significant differences between the TBL reporting scores of high and low profile companies. There were also significant differences in the reporting practices among industry groups but the results were unable to detect any relationship between the various factors studied and the TBL disclosure score, there was a correlation between age, type of business, and liquidity with the economic information reporting score as well as between size of company, risk, and profitability and the environmental information disclosure score.

The implication of these findings is that stakeholders in Thailand, (a developing country) exert less pressure on companies to undertake TBL reporting than do stakeholders in developed countries (the USA and Japan, see Ho and Taylor, 2007). Therefore, stakeholder theory may not be applicable in developing countries. As far as the researcher is aware, this study is the first to investigate TBL disclosures in the annual reports of companies listed on the SET, and to assess the factors influencing TBL reporting in Thailand. As such, this study extends the knowledge about TBL reporting by Thai listed companies and provides practical benefit. It shows that the development of regulations, even based on a comply-or-explain approach has increased the disclosure of social and environmental information. The study

also contributes to the TBL reporting, and social and environmental accounting literature, because it provides insights into the TBL reporting, and social environmental disclosure practices of listed companies with respect to their operations within developing countries where there have to date been a limited number of published studies (M. A. Islam & C. Deegan, 2010).

There are some limitations associated with the method adopted in the study. First, the sample consisted of only the Top 50 Thai companies; intuitively if disclosures are to be made, these are the most likely companies to make them. However, the results may have been different if the composition of the sample was different and sampled both large and smaller companies. Second, there may be scope for explaining the extent of TBL reporting by using other variables. Further research is needed to compare the TBL disclosure practices of Thai listed companies in other media such as websites and/or stand-alone reports; to ascertain why voluntary disclosures are made, and whether disclosures are related to firm performance.

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Appendix A: List of items used to evaluate the extent of TBL reporting

No.	Economic perspective	Social perspective	Environmental perspective
1	Information about size and profitability	Company's statement of a corporate commitment to its shareholders and society	Company's statement of a corporate commitment to environmental protection
2	Identification of a contact person for providing additional information	Awards received relevant to social performance	Any mention of environmental regulation
3	Products or services breakdown	Identification of a contact person for providing additional information	Involvement of environmental experts in business operations
4	Market shares by region	No. of employees and their geographic distribution	Environmental audit
5	Information on backlog orders	Turnover of workforce	Environmental awards
6	Information on major suppliers	Levels of employee education	Incorporation of environmental concerns into business decisions e.g. green purchasing
7	Payroll information by countries or regions	Employee benefits concerning health care, disability, retirement	Identification of a contact person providing information
8	Fringe benefits information by countries or regions	Employee job satisfaction	Energy usage information
9	Employee stock options or bonus programs	Employee health and safety information e.g. number of lost workdays, accidents, or deaths	Encouragement of renewable energy consumption
10	Information on major creditors	Employee training and education	Water usage information
11	Dividend distributions	Any mention of policy addressing workplace harassment and discrimination	Information concerning the materials that are recycled or reused

12	Taxes	Number of women & minorities	Any mention of strategy for the use of recycled products
13	Discussion of social capital formation e.g. donations	Policy or procedure dealing with human rights issues	Information about the source, type and remedy procedures of emissions
14	Size and types of major tangible investments	Any mention of policy for preserving customer health and safety	Pollution impacts of transportation equipment used for logistical purposes
15	Economic performance of major tangible investments	Company's involvement in community philanthropic activity	Environmental impacts of principle products and services
16	R&D investments	Policy for prioritizing local employment	Discussion of the amount and type of wastes and mention of waste management
17	Investment in information technology	Policy for compliance mechanism for bribery and corruption	Any mention of environmental accounting policies
18	Other intangible investments e.g. brand value, reputation	Policy for preventing anti-competitive behavior	Environmental expenditures
19	Earnings or sales forecasts	Policy for consumer privacy	Fines, Lawsuits, or non-compliance incidents
20	Any mention of other forward-looking information	Provision of business code	Environmental contingent liabilities