Jurnal Penelitian Ekonomi Manajemen dan Bisnis (JEKOMBIS)
Vol. 2 No. 3 Agustus 2023
E-ISSN : 2963-7643 dan P-ISSN : 2963-8194, Hal 87-99
DOI: https://doi.org/10.55606/jekombis.v2i2

Analysis of the Application of Green Accounting to Profitability at PT Charoen Pokphand Indonesia

Adhyasta Chakra Whisnu Arsyana
University of 17 August 1945 Surabaya

Mei Nurlinda
University of 17 August 1945 Surabaya

Madaniyah Nur Aisyah Putri
University of 17 August 1945 Surabaya

Maria Yovita R. Pandin
University of 17 August 1945 Surabaya

Address: Jl. Semolowaru No. 45, Menur Pumpungan, Kecamatan Sukolilo, Surabaya
Author correspondence: whisnuarsyana@gmail.com

Abstract. *This research uses the object of PT Charoen Pokphand Indonesia Tbk which is an industry in the field of animal feed, breeding and cultivation of chickens. This research was conducted to analyze the implementation of Green Accounting at PT Charoen Pokphand Indonesia Tbk whether it has an effect on profitability by using quantitative descriptive research methods, based on secondary data sources of annual financial reports and sustainability reports which are processed using SPSS V. 25. With Green Accounting being variable X and Profitability becomes the variable Y. From the research results, PT Charoen Pokphand Indonesia Tbk allocates a number of funds in environmental management activities as a commitment to preserving the environment which has an effect of 50.7% on Profitability.*

Keywords: *Green Accounting, Green Cost, Profitability Analysis*.

Abstrak. Penelitian ini menggunakan objek PT Charoen Pokphand Indonesia Tbk yang merupakan Industri pada bidang pakan ternak, pengembangbiakan dan budidaya ayam. Penelitian ini dilakukan untuk menganalisa penerapan Green Accounting PT Charoen Pokphand Indonesia Tbk apakah berpengaruh terhadap profitabilitas dengan menggunakan metode penelitian deskriptif kuantitatif, berdasarkan sumber data sekunder laporan keuangan tahunan dan laporan keberlanjutan yang diolah menggunakan SPSS V. 25. Dengan Green Accounting menjadi variabel X dan Profitabilitas menjadi variabel Y. Dari hasil penelitian PT Charoen Pokphand Indonesia Tbk mengalokasikan sejumlah dana dalam aktivitas pengelolaan lingkungan sebagai komitmen menjaga kelestarian lingkungan yang berpengaruh sebesar 50,7% terhadap Profitabilitas.

Kata kunci: Akuntansi hijau, Biaya lingkungan, Analisis Profitabilitas.

Received April 30, 2023; Revised Mei 30, 2023; Accepted Juni 14, 2023
Adhyasta Chakra Whisnu Arsyana whisnuarsyana@gmail.com

BACKGROUND

In the industrial world every company wants to increase the amount of production, profit, and efficiency of performance. In production activities, the company has an influence on the environment around the industry, in the form of air pollution, water, and even soil quality degradation. Factors that affect environmental pollution are the lack of waste treatment resulting from the company's production process which is disposed of excessively in the area around the industry. In the animal feed industry and chicken cultivation, liquid waste and solid waste are generated as a result of daily repetitive industrial activities. Liquid waste can consist of used water from washing chickens, chicken manure and blood, while solid waste can consist of bones, stomach contents (liver, gizzard, and intestines), and chicken feathers. The amount of waste produced is very large and can damage the environment around the industry if not managed properly.

When the company PT Charoen Pokphand was first established, the waste treatment was still carried out manually and did not use machine technology. This causes a considerable pollution impact because the waste treatment is less than optimal and the amount of waste is quite a lot. To solve the problem, the company decided to use machine technology so that waste can be treated better before being disposed of in landfills. However, the use of this technology requires considerable costs and there is a possibility that the impact of pollution still exists. Therefore, companies are interested in knowing how much it costs to process their waste and how the cost of waste treatment or green accounting can affect the company's profitability. Based on the explanation above, this study aims to determine the effect of the application of green accounting with environmental cost indicators on profitability with profit margin, ROA, and ROE indicators of PT. Charoen Pokphand in 2018-2021.

THEORETICAL STUDIES

Green accounting is a series of processes that include recognition, measurement, recording, summarizing, reporting, and disclosure of information regarding the economic, social, and environmental activities of a company that can affect the company itself, society, and the surrounding environment (Lako 2018). The development and growth of accounting in society began to influence and take into account its impact on the environment. Therefore, people are increasingly concerned about environmental issues (Wiedmann and Manfred 2006) And wants that the company's accounting statements include not only economic performance, but also environmental and social performance.

Green Accounting activities consist of identifying, assessing, and measuring important aspects of the company's economic and social activities for the maintenance of environmental quality (Dewi 2016b). The application of environmental accounting has the potential to minimize environmental problems faced by a company. The purpose of green accounting is to improve the efficiency of environmental management by assessing environmental activities from the point of view of environmental costs and economic benefits obtained, as well as the impact of environmental protection achieved. Thus, it can assist companies in understanding and reducing their negative impact on the environment as well as promoting more economically, socially, and environmentally sustainable business practices. Green accounting can help companies to measure and monitor the use of natural resources, emissions, and waste generated, as well as take into account their impact on the environment and society (Astuti 2012).

Advantages of Green Accounting (Herzig and Schaltegger 2008; Sharma and Henriques 2005; Tilt 1994): Taking into account environmental aspects in decision making is green accounting taking into account environmental impacts in business decision making. This can help companies to consider environmental aspects in investment decisions, resource management, and business policies; Increasing transparency and accountability, namely green accounting can help companies to clearly show the environmental impact of their business activities. This can increase corporate transparency and accountability, as well as help companies to meet stricter environmental regulatory requirements; And identifying potential efficiencies i.e. Green accounting can help companies to identify potential efficiencies in the use of resources and energy, as well as find opportunities to improve environmental performance.

Disadvantages of Green Accounting (Bebbington and Gray 1995; Burritt and Schaltegger 2010; Gray 1992)One major challenge in green accounting is the difficulty in measuring the environmental impact of economic activities. There are many factors that can affect environmental impact, and it is often difficult to determine the exact value for each of these factors; The high cost and time of collecting and analyzing environmental data can be costly and time-intensive. This can make green accounting difficult for small and medium-sized companies that may have limited resources; And there is no consistent standard, there is currently no consistent standard in environmental impact measurement. This can lead to differences in the way companies do green accounting, and make comparisons between companies difficult.

Environmental costs or environmental costs are costs arising from human activities in affecting the environment and human health. The concept of environmental costs includes costs measured in economic and non-economic forms. Economic costs include costs measured in monetary terms such as medical expenses and environmental repairs. Non-economic costs include costs that cannot be measured in monetary terms such as biodiversity loss or irreparable environmental damage (Hanley, Shogren, and White 2013). Environmental costs come from various human activities such as energy production and consumption, industry, agriculture, transportation, development, and community activities. The impact of environmental costs can have negative impacts on the environment and human health such as air, water and soil pollution, climate change, destruction of natural habitats, and loss of biodiversity (Programme 2019).

To reduce environmental costs, efforts to prevent and control pollution, increase the efficiency of resource use, and use environmentally friendly technology are needed. In addition, governments and companies can consider environmental costs in economic and business decision making, by calculating the costs of environmental internalization which include economic and non-economic costs in decision making (Bank 2020). According to (Fasua 2011), Some reasons that can strengthen the implementation of environmental accounting include: the application of environmental accounting can provide benefits in reducing significant environmental costs, ignorance of the magnitude of environmental costs, the sale of production waste can generate income, can be obtained great benefits from good environmental cost management, with a good understanding of environmental costs and process performance in producing products, The company's competitive advantage, due to the environmentally friendly nature of processes, goods, and services, the application of environmental cost accounting and financial performance, and disclosing environmental costs in the company's financial statements.

Measurement of how well a company utilizes its financial resources is an understanding of financial performance used to achieve its business goals. To evaluate financial performance, there are several ratios that can be used, such as profitability, liquidity, solvency, and efficiency. Lukas Setia Atmaja emphasized the importance of effective cash management, proper risk management, good accounts receivable management, and optimal working capital management to improve financial performance. All these aspects must be integrated in a good corporate financial strategy to achieve the desired business goals (Atmaja 2008). In the context of business, financial performance refers to an assessment of a company's ability to manage and utilize its financial resources and generate profits from its business activities (Brigham and Houston 2019).

Liquidity ratios are used to assess a company's ability to pay short-term obligations and meet financial needs in a short period of time. While the profitability ratio is used to measure the company's ability to generate profits from the sale and use of its assets. Also, the ability measured in the solvency ratio is to pay off long-term debt and fulfill long-term financial obligations (Damodaran 2018). In financial performance analysis, it is important to consider several factors that can affect company performance such as the level of competition in the market, global economic conditions, and government regulations. Comparing a company's financial performance to its competitors in the same industry can help improve understanding of the company's performance (Ross, Westerfield, and Jordan 2019).

The profitability ratio refers to the measurement of a company's ability to make a profit or profit. The way of measuring profitability can be through various ways so that it must be associated with the sales that the company generates, the use of assets, and shareholders who invest (Atmaja 2008). Based on the opinion of S. Munawir in 2007, profit margin can be expressed through the percentage and amount of profit based on the amount of operating profit, or it can be said to be the relationship between the size of the level of profit and sales. Profit Margin measures the profit generated after all operating expenses, production, taxes, and interest are paid. While Operating Profit Margin measures the operating profit generated by the company after taking into account production and operational costs (Munawir 2007).

$$Profit\ Margin = \frac{Earning\ After\ Tax}{Sales} X100\%$$

According to Bambang (Riyanto 2000), ROA (Return on Assets) is applied as a measure in assessing the magnitude of the return on company assets. If ROA (Return on Assets) is positive, it means that the company can generate profits based on the total assets used in its operations. However, if the ROA is negative, then the total assets used provide losses for the company. So the measure of management success in Return on Assets, when the use of assets can generate profits or profits.

$$Return\ on\ Total\ Assets = \frac{Earning\ Before\ Interest\ and\ Tax}{Total\ aktiva} X100\%$$

ROE (Return on Equity) is a financial ratio used to measure the efficiency of using a company's equity in generating profits. The profits generated will be used in covering investments that come out of the company. ROE relates to the percentage of a company's profit on investment from shareholders. Due to the unstable ROE trend every year, the formula for the average equity value in the current year and the previous year is used. This can only be applied to new companies, due to the sharp jump in the value of the new company's equity due to asset injections. So that one way can be used with consistent conditions.

$$Return\ on\ Common = \frac{Earning\ After\ Tax}{Investasi} X100\%$$

Research conducted by Enggar Ayu Romadloni and Dyah Pravitasari (2022) entitled "The Effect of Green Accounting Application on Company Profitability: A case study of Monasqu Bread Factory, Gilang Village, Ngunut District, Tulungagung District for the 2015-2021 accounting year" this type of research uses the Quantitative Research Method. The results of the study showed a significant correlation between the cost of environmental avoidance and the profitability of Monasqu Bakery, where the higher the cost of environmental prevention, the lower the cost of environmental failure/damage that occurred. The positive impact of reducing the cost of failure/environmental damage will affect the profitability of Monasqu Bread indirectly.

That is, the higher the cost of environmental avoidance incurred by the company, the greater the positive impact on the company's profitability (Romadloni and Pravitasari 2022).Research conducted by Santi Rahma Dewi (2016) entitled "Understanding and Concern for Green Accounting: A Case Study of Tofu SMEs in Sidoarjo" this research uses Qualitative Research Methods. The results of this study show that although SMEs have concern for the environment, they do not have enough knowledge about the components that must be taken into account in production costs related to the environment. In addition, raw material prices continue to increase, while selling prices are set based on market prices, so SMEs expect production costs to be minimized. For future research, it is recommended to expand sampling so that the research results are more accurate and have more significant meaning (Dewi 2016a).

Research conducted by Hardianti (2017) in his research entitled "The Role of Green Accounting in Efforts to Prevent Environmental Pollution to Support Business Sustainability: Study at PTPN Persero Takalar Sugar Factory" this research uses Qualitative Research Methods. The results of this study show that PG. PTPN Takalar, a sugar factory, shows great concern for the environment around the company. In an effort to reduce the impact of environmental pollution resulting from company activities, the company uses the concept of green accounting. This innovation in reducing environmental impact is very beneficial for companies in maintaining the sustainability of the surrounding environment (Hardianti 2017).

RESEARCH METHODS

This study applies quantitative methods to measure the effect of Green Accounting on environmental costs used to maintain the environment around the industry on company profitability. PT Charoen Pokphand, was chosen as the object of research. The data used are secondary data obtained from annual reports and corporate sustainability reports and other information from the internet collected by researchers to supplement research data. Processing data that has been collected using SPSS version 25.

The variable used is environmental costs to be variable X on the basis of sustainability reports, and variable Y is profitability on the basis of annual financial statements. The way this is done is to find information from various sources related to PT Charoen Pokphand. After obtaining various kinds of data, researchers store and record the data, then process and analyze the data that has been obtained.

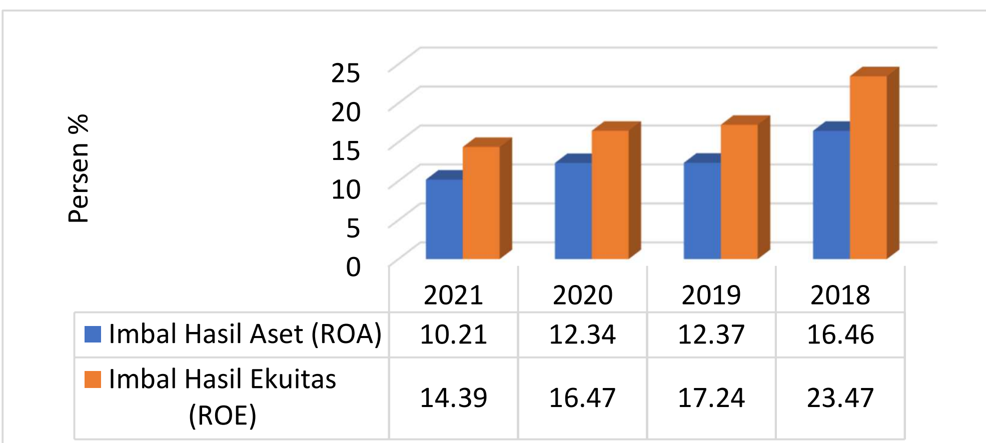
The conceptual framework explains the relationship of two variables, between one variable and the other. In this study, there is a variable of environmental cost influence is an independent variable (X). whereas, the profitability variable is a bound variable (Y), here is an overview of the conceptual framework. By hypothesis: H_0 : No effect of Green Accounting on Profitability (μBerfore = μAfter) and H_a : There is an influence of Green Accounting on Profitability. Criterion: H_0 is accepted when the significance $t > 0.05$, while H_0 is rejected when the significance $t < 0.05$

RESULTS AND DISCUSSION

Green Accounting of PT Charoen PokPhand

Reporting on the implementation of sustainability commitments and initiatives in the environmental sector shows good (positive) performance of the environmental management department. PT Charoen PokPhand and its subsidiaries are not subject to sanctions or fines because they allocate funds to protect the environment and comply with environmental regulations. The company is committed to preserving the environment and spending funds on activities such as measuring and monitoring environmental performance and waste management, both toxic and hazardous (B3) and non-B3.

Profitability Ratio of PT Charoen PokPhand

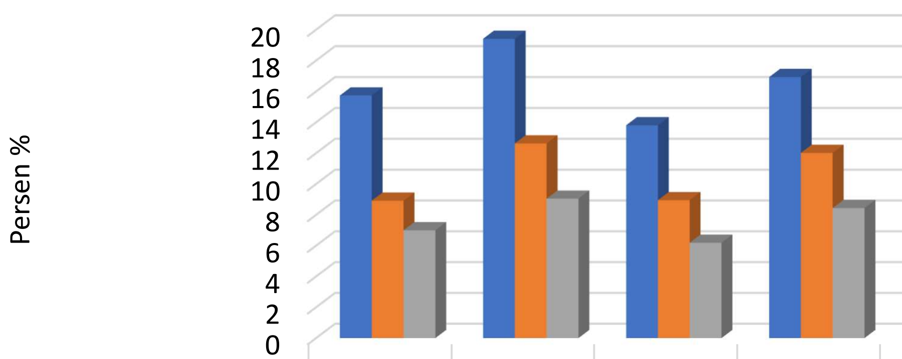


Source: Financial Report of PT. Charoen Pokphand 2018-2021.

Figure 1. ROA and ROE Graph of PT. Charoen Pokphand

The profitability ratio analysis above shows a declining ROA from 2018-2021. The analysis is to measure the performance of company management in assessing the magnitude of the return on company assets. ROA in 2018 was 16.46% which is said to be good because it has a positive number. The caption states that the company has a positive number, which indicates that the total assets used in its operations provide profits for the company. In addition, there was the largest decrease in ROA from 2018 to 2019 at 12.37% (decreased by 4.09%). And then the ROA trend still decreased by 0.03% to 2.13%.

The ROE (Return on Equity) trend of PT Charoen PokPhand also shows a decrease or stable like ROA, where ROE measures the percentage of profits obtained by the company from investments made by its shareholders. The ROE of PT Charoen PokPhand Indonesia Tbk also shows a downward trend or equal to ROA. In 2018 it was the largest decrease of 6.23 to 17.24 in 2019. And in 2021 ROE was at 14.39. Although it has a downward trend, ROA and ROE are still relatively good because they are above the average standard.



	2021	2020	2019	2018
Margin Laba Kotor	15.74	19.41	13.81	16.93
Margin Laba Operasi	8.92	12.63	8.95	12.02
Margin Laba Bersih	7.00	9.05	6.19	8.44

Source: Financial Report of PT. Charoen Pokphand 2018-2021.

Figure 2. GPM, OPM, and PM PT. Charoen Pokphand

Meanwhile, the trend of gross profit margin, operating profit, and net profit showed a positive trend, but PT Charoen PokPhand decreased in 2019 by 3.12% each; 3,07%; 2,25%. And the increase in 2020 to 19.41% gross profit margin, 12.63% operating profit margin, and 9.05% net profit margin. And in 2021, the net profit margin decreased by 2.05% to 7%, although the net profit margin decreased but the processing was still above average.

The Effect of PT Charoen PokPhand Profitability on Green Acounting

1. Simple Regression Analysis

Y = a + bX = 5,812,375,880,291,516 – 51,310X. The explanation for the regression equation above is as follows: 1) The constant value is 5,812,375,880,291.516 which means if the variable X (Green Accounting) has a value of 0, then the value of the variable Y (Profitability) will have a value of 5,812,375,880,291,516. 2) The regression coefficient for variable Y (Profitability) is -51.310 which means if variable X (Green Accounting) increases by 1%, then the value of variable Y (Profitability) will decrease by 51.3%.

Table 1. Simple Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5812375880291,516	1335116418234,261		4,353	,049
	Green Accounting	-51,310	35,776	-,712	-1,434	,288

a. Dependent Variable: Profitabilitas

Source: Processed Data

2. Test t

Criterion: H_0 will be accepted if the significance value > 0.05, while H_0 will be rejected if the significance value < 0.05. From the table of Coefficients presented, a significance value of 0.288 is obtained, which shows that 0.288 > 0.05 so that H_0 is accepted. That is, it can be concluded that Green Accounting does not have a significant influence on profitability.

3. Coefficient of Determination

Table 2. Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,712[a]	,507	,261	397089751865,36990

Source: Processed Data

From the table above, it can be seen that there is a positive relationship that is not in the same direction between variables X and Y, indicated by the value of the correlation coefficient (R) of 0.712. In addition, about 50.7% of profitability effects can be explained by variable X (Green Accounting), while other 49.3% of profitability effects are not included in this study.

CONCLUSIONS AND ADVICE

Based on the results of the analysis of the application of green accounting to profitability in the animal feed, breeding, and chicken cultivation industry (PT Charoen PokPhand), several conclusions can be drawn as follows: PT Charoen PokPhand has implemented green accounting and reported it in a sustainability report, although the details of the associated environmental costs are not clearly explained. PT Charoen PokPhand has also allocated costs to monitor environmental performance and management of hazardous and toxic (B3) and non-B3 waste using technology to prevent environmental pollution. PT Charoen PokPhand's profitability in Profit Margin decreased by 2.05% from the previous year, which was 7% or equivalent to 3.6 Trillion Rupiah in 2021. The results of the analysis of the effect of green accounting on the profitability of PT Charoen PokPhand show the regression equation Y = 5,812,375,880,291,516 – 51,310X, and a significance value of 0.288 > 0.05 so that H0 is accepted. This means that the influence of Green Accounting variables on Profitability is only 50.7% and green accounting does not have a significant influence on the profitability of PT Charoen PokPhand.

With the results of these conclusions, the suggestion for PT Charoen Pokphand in managing green accounting is to evaluate its environmental conservation activities through green accounting, especially in waste treatment, waste treatment performance in order to minimize environmental costs but still maintain the health and sustainability of the surrounding environment, so that Green Accounting can be carried out properly and profitability can be further increased.

REFERENCE LIST

Astuti, Neni. 2012. "Mengenal Green Accounting." *Permana* 4(1):69–75.

Atmaja, Lukas Setia. 2008. *Manajemen Keuangan*. 2nd ed. Yogyakarta: Andi Offset.

Bank, World. 2020. *The Cost of Pollution in Indonesia: A Preliminary Economic Analysis*.

Bebbington, J., and R. Gray. 1995. "Accounting, Sustainability and Environmental Management." *Prentice Hall*.

Brigham, E. F., and J. F. Houston. 2019. *Fundamentals of Financial Management*. 10th ed. Jakarta: Salemba Empat.

Burritt, R. L., and S. Schaltegger. 2010. "Sustainability Accounting and Reporting: Fad or Trend?" *Accounting, Auditing & Accountability* 23(7):829–46.

Damodaran, A. 2018. *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. 3rd ed. New Jersey: John Wiley & Sons, Inc.

Dewi, Santi Rahma. 2016a. "Pemahaman Dan Kepedulian Penerapan Green Accounting : Studi Kasus UKM Tahu Di Sidoarjo." *Seminar Nasional Ekonomi Dan Bisnis* 497–511.

Dewi, Santi Rahma. 2016b. "Peran Green Accounting Dalam Upaya Mencegah Pencemaran Lingkungan Untuk Menunjang Keberlangsungan Usaha." *Prosiding Seminar Nasional Ekonomi Dan Bisnis* 497–511.

Fasua, Kayode Olushola. 2011. "Environmental Accounting: Concept and Principles." *Certified National Accountant* 9(2):1.

Gray, R. 1992. "Accounting and Environmentalism: An Exploration of the Challenge of Gently Accounting for Accountability, Transparency and Sustainability." *Accounting, Organizations and Society* 17(5):399–425.

Hanley, N., J. F. Shogren, and B. White. 2013. *Introduction to Environmental Economics*. 2nd ed. England: Oxford University.

Hardianti. 2017. "Peran Green Accounting Dalam Upaya Mencegah Pencemaran Lingkungan Untuk Menunjang Keberlangsungan Usaha." *Accounting* 87(1,2):149–200.

Herzig, C., and S. Schaltegger. 2008. "Corporate Sustainability Reporting: A Study of Sustainability Reporting Practices in Germany." *Business Ethics* 82(2):339–52.

Lako, Andreas. 2018. *Akuntansi Hijau*. Jakarta: Salemba Empat.

Munawir, S. 2007. *Analisa Laporan Keuangan*. 4th ed. Yogyakarta: Liberty.

Programme, United Nations Environment. 2019. *Global Environment Outlook - GEO-6: Healthy Planet, Healthy People*.

Riyanto, Bambang. 2000. *Dasar-Dasar Pembelanjaan Perusahaan*. Yogyakarta: BPFE.

Romadloni, Enggar Ayu, and Dyah Pravitasari. 2022. "Pengaruh Penerapan Green Accounting Terhadap Profitabilitas Perusahaan: Studi Kasus Pabrik Roti Monasqu, Desa Gilang, Kec. Ngunut, Kabupaten Tulungagung Tahun Pembukuan 2015-2021." *Jurnal Akuntansi, Keuangan, Dan Manajemen* 3(2):141–57. doi: 10.35912/jakman.v3i2.890.

Ross, S. A., R. W. Westerfield, and B. D. Jordan. 2019. *Essentials of Corporate Finance*. 10th ed. New York: McGraw-Hill Education.

Sharma, S., and I. Henriques. 2005. "Stakeholder Influences on Sustainability Practices in the Canadian Forest Products Industry." *Strategic Management* 26(2):159–80.

Tilt, C. A. 1994. "The Advantages and Limitations of Environmental Accounting: An Exploratory Study." *Accounting, Auditing & Accountability Journal* 7(4):47–77.

Wiedmann, T., and L. Manfred. 2006. "Third Annual International Sustainable Development Conference Sustainability – Creating the Culture."