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Research paper

Sustainability Accounting: A Comparative Study of Corporate Environmental Disclosures

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Abstract

Accounting for environmental concerns has been increasingly emerging as a key part of corporate accounting and reporting culture. Environmental information disclosure has been required in many nations. Companies worldwide have also been reporting on the topic voluntarily. Some Indian businesses have tried to show their concern for the environment in their annual reports or through other channels, such as environmental statements or the Internet, in response to growing legal and social demands. However, these disclosures are subjective, non-systematic, and primarily descriptive and positive because there is no formal law, accounting standard, or guideline on the subject topic. Studies on Indian enterprises' environmental reporting have shown that the country's environmental reporting is typically subpar and of low quality to meet the information needs of different report user groups. Sustainability accounting has been popular of late. Several organizations have begun to implement new methods in their annual reports by providing disclosures regarding their primary activities and the impact of the activities on the community. This trend overlaps with the growing pressure from stakeholders on firms to allocate their resources to attain their objectives to realize sustainable development. Sustainability accounting recognizes the significance of financial data and attempts to do so on social and environmental issues. Firms have begun to apply mechanisms and reporting strategies like assurance statements, CSR reports, environmental reports, and even sustainability reports to encapsulate details needed as part of sustainable development initiatives, as no standard or legally accepted reporting scheme exists. The reporting of an organization's environmental performance is the main topic of environmental reporting, which focuses on corporate sector environmental reporting compliance. Emissions of carbon and other greenhouse gases are considered, among other reporting requirements. Since environmental reporting is not required in India, many businesses fail to report information related to this sector. There are significant variations in the caliber and volume of environmental data provided by organizations from different sectors and nations.

Keywords: *Sustainability Accounting; Corporate Environmental Disclosure; Accounting, Emerging; Financial Data.*

1. Introduction

The word sustainability has been explained by numerous individuals and organizations. Some have explained in terms of humans' capability to utilize the available natural resources in the best possible way so that our next generation can utilize them too, while some have explained in terms of policy making(Hu &Sinniah, 2024). The use of sustainability reporting by businesses has grown in importance as a means of communicating stakeholder demands. Increased openness, reputation, and brand value, competitiveness, employee motivation, and corporate information and control procedures are some of the many reasons why sustainability information should be reportedHoggettet al., 2024). The three facets of sustainability accounting are economic, social, and environmental(SundaraBalaMurugan et al., 2024). Three broad approaches to sustainability accounting include input-output analysis, natural capital inventory accounting, and sustainable cost and full cost accounting. Sustainability accounting (SA) is the most advanced method of environmental and social accounting and has become a significant tool for stakeholders to account for environmental, social, and economic events. SA is an integrative method for proper and reliable information(Jasim et al., 2020; Latif&Agrab, 2022). The significance, purpose, and relevance of sustainability accounting can be construed in two ways: one is the critical theory approach, and the other is the managerially focused approach. According to the critical theory viewpoint, sustainability accounting is a fashion/ fad that will fade away with time, since SA addresses the reason and origin of sustainability problems over traditional accounting, which is inappropriate to capture and report social and environmental effects of organizations(Li & Huang 2024). According to the managerial path view, SA is a framework that facilitates managers in making different sustainability choices(Maheshwari et al., 2024). Representing the Three Pillars of Sustainability: Social Equity (Blue Circle), Economic Viability (Yellow Circle), and Environmental Protection (Red Circle), shown in Fig. 1.

Fig. 1: Representing the Three Pillars of Sustainability: Social Equity (Blue Circle), Economic Viability (Yellow Circle), Environmental Protection (Red Circle)

Sustainability accounting is an accounting and evaluation tool for sustainability matters such as social, environmental, and economic matters(Sathish et al., 2016). It captures financial and non-financial variables of sustainability matters, assists in the general enhancement of organizations' sustainable performance to generate long-term values; it further encompasses the influence that sustainability has on business models, innovation, corporate governance, and vice versa, drawing the conceptual framework of sustainability accounting, which was based on traditional financial accounting. The environmental management system (EMS) may be a part of an internal control system or can be supplementary to it, and its significance extends to all industries, for instance, to service-oriented organizations and to manufacturing industries(Hu &Sinniah, 2024).EMS aims to establish companies' sustainability goals, determine sustainability risks and challenges, and examine how the operational performance reacts to these risks and challenges. Finally, it helps to ensure that sustainability goals and business goals are aligned to reduce the environmental impact of the company, like waste reduction, pollution, effective utilization of water, energy, etc. Although companies can save a lot of money by reducing waste, the implementation of EMS can enhance the overall productivity and mitigate environmental risk (Minanari et al., 2024; Barroso-Méndez et al., 2024). Both monetary equivalents and physical units can be used to express measurements. After determining and measuring their environmental consequences, businesses create disclosure systems to guide internal and external decision makers. The quantity and quality of information required for management decisions will be very different from that required for external financial reporting and periodic environmental reports(Sharma &Nayak, 2018).

1.1 Objectives

- To evaluate the state of conformity with the main environmental disclosure requirements.
- Comparing the financial accounting and environmental disclosure practices of both public and private sector companies.

1.2 Research Question

- How are corporate environmental disclosure practices different across industries?
- What are the most notable differences in the environmental disclosure procedures between the financial and manufacturing sectors?

2. Literature Review

Integrating social, economic, and environmental factors into business operations and focusing on issues that affect them is the goal of sustainability accounting. The general principle of sustainability accounting has three broad divergent approaches that emerged during the 20th century. The first is full cost accounting and sustainable costing, which can affect the company by representing imagined value to restore the planet to its natural state. The long-term effects include becoming famous and learning the language of money. The second approach is the National Capital Inventory, which releases information on ecosystem health as well as manual and economic estimations of natural capital reserves (Liu et al., 2024). The third technique examines input and output, identifies manual difficulties, includes energy findings, and includes physical elements in its reports. In the environmental pill, there are four ways to estimate environmental costs. The first is the cost-avoidance strategy, which is not included in the statement of conditions, has no net impact, and is not charged to the bottom line. Cost avoidance is thought of as a wide category that includes costs that are not reflected. The second is the restoration method, which focuses on the polluting company's obligation to lessen the adverse impact on its operations. The cost-effectiveness of the restoration process can be assessed by comparing the cost per number of mature seeds, per number of surviving people, or by the likelihood of reaching some success criterion. The third approach is the contingent valuation method, which is predicated on questioning people about their natural resource valuations using the contingent market strategy, for example, during interviews (Nicolò et al., 2024). The "National Oceanic and Atmospheric Administration" economic division experts strongly advocated this approach. The cost method of damage is the final method used to determine environmental costs. It monitors the development of hazardous wastes from their origin to their final destination. The costs of the pollution-related assets, whether direct or indirect, are interpreted using the damage costs technique. The cost of damage technique assumes that either there are no steps toward natural exchanges or that the attitude's stages are no longer useful. Information disclosure facilitates users of annual reports, especially investors, shareholders, and governments, in their decision-making for the

accomplishment of their objectives via forecasting and future planning. Company disclosure can be categorized into two forms: (i) obligatory disclosures, and (ii) voluntary disclosures. The former is the lowest level of information corporations are required to provide under applicable standards or regulatory demands. The latter, however, is the extra efforts of corporations toward disclosure of financial and non-financial information beyond the required levels at a given point in time. Social and environmental accounting information disclosure includes information about the activities of the organization and how it treats social problems and the environment (Chang et al., 2024).
Additionally, it is an important part of human well-being and is subject to increasingly competitive applications (Putri et al., 2024). Participants interested in the business units might not initially fully comprehend environmental accounting, despite it being one of the fundamental components of the accounting system. Some environmental indicators may be found to better comprehend the unit environment point of view. The yearly accounting ought to contain these. The article "Environmental Indicators" attempts to explain the issue of environmental indicators that corporate units might use to disclose environmental data pertaining to the unit. Providing meaningful disclosure in accounting rules and practices is the responsibility of environmental accounting. Another responsibility of environmental accounting is to create creative accounting practices for budgeting and researching potential recycling possibilities (Mahran&Elamer, 2024). The organization's use of environmental accounting and reporting should quantify the company's eco-assets and liabilities and assess all environmental impacts from a cost-benefit standpoint. The article "Environmental Indicators" attempts to explain the issue of environmental indicators that corporate units might use to disclose environmental data pertaining to the unit. Providing meaningful disclosure in accounting rules and practices is the responsibility of environmental accounting. Another responsibility of environmental accounting is to create creative accounting practices for budgeting and researching potential recycling possibilities(Mahran&Elamer, 2024). Utilizing environmental accounting and reporting, the corporation should evaluate all environmental consequences from a cost-benefit perspective and quantify its eco-assets and liabilities. Analysis through empirical study. In the case of firms that receive annual reports that include socio-ecological information, the amount of social and environmental disclosure has increased (Rahman et al., 2024).

3. Theoretical Approaches

The theories being considered for a firm's survival and growth are resource-dependency theory, institutional theory, stakeholder theory, and legitimacy theory. These concepts can be used to determine the fundamental objective of sustainability accounting and reporting, which is survival and advancement. In light of past occurrences, legitimacy theory is employed to explain reasons for sustainability disclosure in place of institutional theory, stakeholder theory, and resource dependency theory. No single theory should be considered acceptable as a solution to describe sustainability disclosure. Nonetheless, few researchers had faith in employing a single major theory, while other researchers considered all four theories not as exclusive but rather complementary.
Legitimacy Theory: This theory emphasizes the concept that there exists a social contract between both parties, i.e. Organization and society, where the organization works. The organization must work based on society's expectations, whether it has been mentioned clearly or not. Now it is presumed that society permits the organization to work on the condition that it fulfills society's expectations. Therefore, the company should consider the rights of the investors but also of the public. They will face social repercussions if they disregard these. As a result, society will freely divulge the actions that are conducted within the community. It falls into one of two schools of thought: strategic legitimacy or institutional legitimacy. The study of strategic legitimacy looks at how a management approach affects society and gains its acceptance. However, in order for a society to have legitimacy, its value system must be influenced by institutions and structures, according to institutional legitimacy.
Stakeholder theory: Freeman developed the stakeholder theory perspective in 1984. Moral (ethical) and managerial (positive) theories can explain it. According to the moral theory, all stakeholders are dealt with equally, and stakeholder power does not have direct relevance. Secondly, the organization must be run by managers in a way that all stakeholders must be invited, irrespective of whether stakeholder management brings better financial performance or not. The achievement of an organization's objectives affects every group or person who has the power to affect that achievement. Shareholders, creditors, workers and their families, the media, the government, families, and local communities are thus all stakeholders. The impact of the environment on an organization is the focus of resource dependency theory.
This theory also tells us about the impact of environmental limitations on an organization. For the existence and development of an organization, it requires basic resources. The theory's focus is on how they obtain these fundamental resources. According to this notion, the organization needs the right resources in order to carry on with its operations. An organization would create sustainability disclosure in order to manage sustainability issues. Furthermore, the corporation would enhance sustainability disclosure to include the natural resources that are vital to its development and survival. This idea explains how manufacturing contributes to the creation and maintenance of a long-term competitive advantage.[18] In addition to depending on one another, partner firms are expected to work together. Such collaboration could benefit the company's long-term profitability and provide short-term financial gains at the expense of others.

4. Discussion

SA is a process of gathering information and communication for internal decision-making. The two key driving forces of SA are the 'inside-out approach' and the 'outside-in approach'. Inside–out approach: Managerial decision to advance sustainable development is reliant on corresponding and related information. For these managers, SA is a utilitarian tool to address business challenges in the context of social and environmental concerns. This approach requires developing advanced accounting skills so that the managers can systematically and effectively account for sustainability. In an Inside-out approach, business strategy is transformed into KPI (Key Performance Indicators), and an Information system is established. This establishment helps managers in gathering ex-post and ex-ante data in the long run as well as in short-term decision-making. It encompasses publicly disclosed issues, reports, and shareholder conversations for various groups of stakeholders. This strategy is GRI guidelines for serving sustainability reports to readers.

5. Conclusion

Social, workspace, and environmental matters have their root traced to about a few hundred years ago. They were always a component of non-financial matters. Their reporting was never formalized. Rather, it always played its role whenever their requirements arose out of regular activities. The earlier reports had shown the prominence of human resources, i.e., safety, mortgage support to employees, and workers' houses. Some authenticity of the company getting involved in social welfare activities was also provided. Apart from this, some environmental concerns were also recognized after 1960. Sustainable development has also evolved as a significant phenomenon in the last decades, not only at the national level but also at the corporate level. The term sustainable development encompasses three sub-themes such as social, economic, and environmental development. Earlier, the emphasis was more on economic or financial progress, and there was a tendency to pay less attention to social and environmental progress. However, a change in the trend has been observed during this period, and social and environmental issues are also given more importance these days. The importance of sustainability reporting has also increased with the increasing importance of environmental and social issues gaining public attention. There are several stakeholders, like employees, customers, suppliers, creditors, etc., having multi-faceted environmental, economic, and social interests that make an organization successful or not. Sustainability reporting is one of the inevitable channels through which organizations attempt to address the information requirements of the multitude of stakeholders. As concerns for social and environmental issues grow, one cannot help but concede the compelling necessity for sustainability reporting. Sustainability accounting and reporting are important to increase transparency and to solve other issues that traditional financial accounting cannot deal with. The actions that businesses engage in for corporate social responsibility (CSR) and sustainability reporting have grown significantly. The three Ps—people, profit, and planet—are being given more consideration when making business decisions. The sustainability accounting phenomenon sprang up from developments in accounting. A topic of brainstorming in recent years has been the way accounting and accountability might advance sustainable development. This stream of brainstorming has attempted to foster the sustainability strategy by creating structures that might transform traditional financial accounting structures to capture the issues of sustainability.

References

[1] Barroso-Méndez, M. J., Pajuelo-Moreno, M.-L., & Gallardo-Vázquez, D. (2024). A meta-analytic review of the sustainability disclosure and reputation relationship: Aggregating findings in the field of social and environmental accounting. Sustainability Accounting, Management and Policy Journal, 15(5), 1210–1254.

[2] Chang, G., Agyemang, A. O., Saeed, U. F., & Adam, I. (2024). Assessing the impact of financing decisions and ownership structure on green accounting disclosure: Evidence from developing economies. Heliyon, 10(5), e26672.

[3] Abdullah, D. (2025). Designing for her: Human-centered UX strategies in female-oriented HealthTech applications. Journal of Women, Innovation, and Technological Empowerment, 1(1), 7–11.

[4] Hoggett, J., Medlin, J., Chalmers, K., Beattie, C., Hellmann, A., &Maxfield, J. (2024). Financial accounting. John Wiley & Sons.

[5] Hu, X., &Sinniah, S. (2024). The role of green risk management approaches in promoting green and sustainable supply chain management. Natural and Engineering Sciences, 9(2), 33–54. https://doi.org/10.28978/nesciences.1569144

[6] Velliangiri, A. (2025). Bio-inspired vortex control mechanisms for drag reduction in high-speed submerged bodies: A CFD and experimental study. Advances in Mechanical Engineering and Applications, 1(1), 11–22.

[7] Jasim, A. H. H., Ögren, N., Minovski, D., &Andersson, K. (2020). Packet probing study to assess sustainability in available bandwidth measurements: Case of high-speed cellular networks. Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, 11(2), 106–125.

[8] Latif, A. Z., &Agrab, A. S. (2022). Study of Global Financial Crises and their Effects on Accounting Systems. International Academic Journal of Social Sciences, 9(2), 21–26. https://doi.org/10.9756/IAJSS/V9I2/IAJSS0910

[9] Sathish Kumar, T. M. (2025). Comparative analysis of Hatha Yoga and aerobic exercise on cardiovascular health in middle-aged adults. Journal of Yoga, Sports, and Health Sciences, 1(1), 9–16.

[10] Li, N., & Huang, F. (2024). Evaluating the financial returns on investment in sustainable enterprise digitalization initiatives using AI information system. Journal of Internet Services and Information Security, 14(4), 21–44. https://doi.org/10.58346/JISIS.2024.I4.002

[11] Liu, X., Cai, S., Wang, Y., & Sun, Y. (2024). A comparative study of environmental information disclosure between banks in net-zero banking alliance and China. Technological Forecasting and Social Change, 202, 123324.https://doi.org/10.1016/j.techfore.2024.123324

[12] Abdullah, D. (2024). Integrating biophilic design in smart urban infrastructure for environmental and public health outcomes. Journal of Smart Infrastructure and Environmental Sustainability, 1(1), 14–22.

[13] Maheshwari, S. N., Maheshwari, S. K., &Maheshwari, S. K. (2024). Management accounting and financial control. Sultan Chand & Sons.

[14] Mahran, K., &Elamer, A. A. (2024). Chief executive officer (CEO) and corporate environmental sustainability: A systematic literature review and avenues for future research. Business Strategy and the Environment, 33(3), 1977–2003.

[15] Minanari, M., Astuti, R. P., &Arini, L. S. (2024). Training on processing inventory transactions for accounting teachers at the Tangerang City Financial and Institutional Accounting Teacher Association (MGMP). International Journal of Social Science and Community Service, 2(2), 46–50.

[16] Nicolò, G., Zanellato, G., Esposito, B., &Tiron-Tudor, A. (2024). Cultural dimensions and sustainability disclosure in the banking sector: Insights from a qualitative comparative analysis approach. Business Strategy and the Environment, 33(8), 8086–8101.

[17] Patel, P., & Dusi, P. (2025). Activation patterns in the prefrontal cortex during moral judgments: Evidence from EEG analysis. Advances in Cognitive and Neural Studies, 1(1), 11–19.

[18] Putri, S. Y., Widajantie, T. D., &Wilasittha, A. A. (2024). A comparative analysis before and after pandemic on environmental accounting public hospital. International Journal of Financial, Accounting, and Management, 6(1), 1–17.

[19] Rahman, H. U., Zahid, M., Jan, A., Al-Faryan, M. A. S., &Hussainey, K. (2024). Is it the mere female directors or their attributes that matter for the quality of corporate sustainability disclosures? Business Strategy and the Environment, 33(2), 661–678.

[20] Sathish, S., Kumar, S. R., Varun, A., &Vivekanandan, N. (2016). A literature survey on tribological behaviours of metals at high temperature. International Journal of Advances in Engineering and Emerging Technology, 7(1), 175–179.

[21] Usikalua, M. R., & Unciano, N. (2025). Mathematical modeling of epidemic dynamics: Integrating public health and data science. Bridge: Journal of Multidisciplinary Explorations, 1(1), 11–22.

[22] Sharma, N., &Nayak, P. (2018). An empirical study of work-life balance: perception of gender. International Academic Journal of Organizational Behavior and Human Resource Management, 5(1), 122–132. https://doi.org/10.9756/IAJOBHRM/V5I1/1810009

[23] Khan, Z. (2024). Design of smart wearable for cardiopulmonary monitoring with adaptive feedback loop. Electronics, Communications, and Computing Summit, 2(4), 21–31.

[24] SundaraBalaMurugan, P., Ganesan, A., Paranthaman, P., &Aruna, V. (2024). Feasibility design and analysis of process-aware accounting information system for business management. Indian Journal of Information Sources and Services, 14(2), 56–62. https://doi.org/10.51983/ijiss-2024.14.2.09