From Chaos to Clarity: Systematizing Sustainable Development Accounting and Reporting in Business through Structured Data and International Standards

Vitalii Shkromyda [1,*], Taras Gnatiuk [2], Nadiia Shkromyda [3], Mariya Vasylyuk [4], Olga Lubenchenko [5], Nataliya Struk [6]

[1,2,3,4] Department of Accounting and Taxation, Faculty of Economics, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine.

[5] National Center for Accounting and Audit, National Academy of Statistics, Accounting and Audit, Kyiv, Ukraine.

[6] Department of Accounting and Audit, Faculty of Economics, Ivan Franko National University of Lviv, Lviv, Ukraine.

Corresonding author: vitaliy.shkromyda@pnu.edu.ua

OIDA International Journal of Sustainable Development, Ontario International Development Agency, Canada.
ISSN 1923-6654 (print) ISSN 1923-6662 (online) www.oidaijsd.com
Also available at https://www.ssrn.com/index.cfm/en/oida-intl-journal-sustainable-dev/

Abstract: Business and sustainable development are interrelated concepts that require companies to act responsibly and in a balanced manner, considering economic, social, and environmental aspects. Monitoring sustainable development indicators is a crucial component of business reporting, as it enables companies to effectively manage their activities to achieve economic, social, and environmental development. This study aims to summarise recent scientific and practical developments regarding the systematisation of sustainable development accounting data and to provide directions for their improvement. The scientific achievements of scholars and practitioners in business reporting for sustainable development have been systematised. The report considers key aspects of the informativeness of data. This paper presents a comparative analysis of the leading international accounting standards for sustainable development, highlighting their advantages and disadvantages. It also analyses the practical significance of the Natural Resource Use Efficiency Index. Additionally, it outlines possible ways of cooperation between CSRD and S&P Global to ensure practical approaches to accounting and reporting on sustainable development in the context of modern realities. The article identifies the primary directions for improving and systematising accounting in business reporting on sustainable development. The aim is to enhance transparency and efficiency in sustainability management.

Keywords: sustainable development, ESG, accounting, reporting, international standards.

Introduction

Today, many people are concerned with environmental preservation, sustainable economic development, assessing the impact of human activity, and finding ways to reduce it. Developing common standards and criteria adopted by consensus-building organisations that utilise transparent methodologies and approaches to reporting can address the need for more unity in measuring, analysing, and evaluating business activities from the perspective of sustainable development. It will enable other companies and consumers to compare effectiveness objectively. Many researchers and practitioners consider this task to be attainable. Efforts are being made towards achieving this task, including by the World Business Council for Sustainable Development [1], the Organisation for Economic Cooperation and Development (OECD), and the United Nations Sustainable Development Goals [2].

Literature review

Protecting the planet from degradation and ensuring its suitability for present and future generations is a significant concern for progressive humanity. It can be achieved through sustainable consumption and production, rational use of natural resources, and urgent action to combat climate change [3]. According to Dienes et al. [4], the most significant factors affecting the disclosure of sustainable development reports are company size, media presence, and ownership structure. On the one side, corporate governance only affects the presence of an audit or sustainability committee. Other factors such as profitability, capital structure, firm age, and board composition, which are corporate governance indicators, must show clear trends. Several studies have shown that most clients are interested in parameters such as risk and compliance with sustainable development requirements [5].

Additionally, consumers consider a new dimension of social justice paramount [6]. It is believed that the current corporate reporting on ESG (environmental, social, and governance) needs to meet the requirements necessary to satisfy new regulatory expectations, particularly concerning the disclosure of climate change risks [7]. Scholars from various countries are continuously searching for alternative ways to improve accounting information. The relationship between business models and accounting has shaped companies' corporate image [8]. A study on the evolution of sustainability reporting found that increasing the level of proportionality shifted the focus from ethics and values to creating strategic value for the company [9].

As part of CPA Australia's pursuit of intellectual leadership, knowledge exchange, and high-quality applied research, leading scholars at the University of Sydney have prepared recommendations [10]. It is essential for companies aiming to become leaders in this space to set an example and be committed to the cause. Business leaders must demonstrate knowledge of and respect for sustainable development to be successful and strategic [11]. In Canada, corporate sustainability reporting is becoming more complex. However, companies' ESG reports must meet regulatory expectations, particularly in disclosing climate-related risks [12].

It is believed by scholars that a mandatory regime of corporate information disclosure, which is both voluntary and predictable, should enable asset managers, financial consultants, and investors to access 'reliable, comparable, and verified information' for assessing the carbon impact on sustainable development [13]. The article describes the concept of eco-efficiency in building sustainable business models and emphasises the importance of corporate social responsibility and generating profits [14].

The purpose of this study is to systematise and generalise knowledge regarding the formation of normative and methodological approaches to accounting and reporting for businesses through a system of indicators for assessing sustainable development. It aims to justify the main directions for improving and systematising accounting in reporting business sustainable development, considering contemporary realities.

Research methods

This study was based on various scientific, theoretical and methodological approaches, namely:

Scientific approaches:

A systemic approach was applied to consider the accounting system as a component of the enterprise management system where the sustainable development policy is implemented. The research is carried out by analysing the interaction of the system components and their impact on achieving sustainable development goals.

Comparative analysis was used to compare indicators and reports of different enterprises or industries to identify critical practices in implementing sustainable development, including analysis of reports on environmental and social responsibility and environmental costs.

The institutional approach was focused on the internal and external factors that influence the formation of the sustainability accounting and reporting system, revealing the impact of regulations, reporting standards and political regulations on the development of the accounting system.

Theoretical approaches:

Conceptual analysis was performed to review the concepts, theories and concepts related to sustainable development, accounting and reporting. The study was based on the analysis of conceptual models, theories and philosophical approaches to the definition and implementation of sustainable development in accounting.

Methodological approaches:

The study applies document analysis to examine sustainability reports, environmental disclosures, and accounting standards; content analysis to identify dominant themes and reporting patterns; and an empirical approach to support the collection and interpretation of data derived from actual corporate and environmental reports.

Methodologically, the study applies document analysis and content analysis to extract relevant data from corporate reports, sustainability disclosures and regulatory documents. To ensure analytical rigor and reduce the influence of theoretical or interpretive bias, the research incorporates methodological triangulation and critical reflection, thereby maintaining an epistemologically balanced and objective perspective.

Research results

Sustainable development is the type of development that satisfies the present needs without jeopardising the ability of future generations to fulfil their own needs. The primary objective in this field is to attain a rational approach to using Earth's resources and to adopt a cautious attitude towards the environment, thereby preserving a balance between humanity's economic and social development requirements and the imperative to prevent adverse impacts on the planet. With the emergence of new ESG reporting requirements, companies face ongoing challenges in collaborating across various sectors and integrating financial and non-financial data [15].

In response to increasing demands from governments, consumers, and shareholders to comply with regulatory requirements, proper ESG reporting can bring significant benefits. According to in-depth global research, such analytics will contribute to effective business communication with stakeholders.

The ESG Reporting Global Insights 2022 report analyses how companies effectively communicate with their stakeholders. It also examines key challenges, potential opportunities, and advantages of proper communication. To this end, 1,300 decision-makers in finance, ESG, sustainable development, human resource management, compliance, operations, and regulatory roles were surveyed. The survey aimed to use their experience to improve preparing a detailed ESG report for the company's benefit [16].

Since the start of the war in Ukraine, all companies and organisations have prioritised the social component. Businesses, governments, and society have joined forces to support the country and its residents through humanitarian and financial assistance, establishing resilience centres, modular towns, and shelters for those affected by the conflict, evacuations to safe areas, and creating volunteer and charitable projects. The war in Ukraine has worsened environmental issues, and experts are now evaluating the environmental impact of the war. Effective internal processes and risk management can help companies stay afloat, protect themselves from fraud, and address process flaws that may be impossible to tackle during peacetime. The agreement with BlackRock suggests positive developments and highlights the fund's forward-thinking plans. It also indicates Ukraine's commitment to building a civilised society with the values of a developed country [17].

Today, a company's success and efficiency depend on its attention to sustainable development and operational stability. By aligning their business models with these principles and creating conditions for safe and reliable production activities, organisations can operate effectively in the present without compromising their future development [18].

Limited resources, economic externalities, and the global nature of business are driving changes in business practices. However, risks associated with disclosing ESG information are evolving. The barrier between domestic and international company practices is breaking down, and regulatory bodies worldwide are mandating ESG disclosure. For example, American companies that conduct significant business in the European Union may soon be required to provide comprehensive ESG information as mandated by the Corporate Sustainability Reporting Directive [19]. Regulators have a unique opportunity to develop and implement effective responses to new risk calculations. Furthermore, when overseeing multiple domestic or international jurisdictions, it is essential to understand the constantly evolving requirements and to have well-developed, repeatable, and robust internal control processes and tools. To achieve this goal, many organisations may choose to implement or adapt new technology [20].

The concept of environmentally sustainable economic growth is not a novel idea. Throughout history, many cultures have recognised the importance of achieving harmony between the environment, society, and the economy. Therefore, sustainability is crucial in ensuring a balance between technological and economic development and the need to protect the environment. This principle applies to improving health, society, and humanity [21].

Sustainable development reporting is crucial for businesses in the modern world. Enterprises face pressure from consumers, investors, governmental bodies, and other stakeholders to report on their financial performance and impact on the environment, social justice, and corporate social responsibility (see Figure 1).

Such reporting aims to promote transparency and openness in the company's activities and to enhance stakeholders' trust and support for its actions. Business sustainable development reporting reflects the significance of considering the company's activities' social, environmental, and economic aspects in its reports. It is becoming increasingly important as consumers, investors, and regulators demand companies to report on their contribution to sustainable development.

1. Environmental responsibility:

- Sustainability reports should include information on the company’s environmental initiatives, such as emissions reduction, energy efficiency, renewable energy and waste management.

2. Social responsibility:

- Reports should include information on the company’s social programmes and initiatives, including business ethics, safety and working conditions, employee satisfaction, and community engagement.

3. Economic sustainability:

- Reports may also include information on innovations and product development aimed at reducing negative environmental impacts and improving the quality of life.

4. Product innovation and development:

- Reports should also include information on the company’s economic performance and financial sustainability, including financial indicators that reflect long-term plans and investments in sustainable development.

5. Stakeholder reporting:

- It is essential to include information on interactions with stakeholders, such as customers, investors, employees and civil society organisations, to demonstrate openness and mutual understanding.

6. Strategic goals and plans:

- Reports should reflect the company’s strategic goals and plans for sustainability, including the identification of specific metrics for success and how progress will be measured.

Figure 1. Key aspects of sustainable development in business reporting
Source: compiled by the authors

Various international accounting standards for sustainable development define principles and requirements for reporting on enterprises' social, economic, and environmental activities (see Table 1).

These international standards assist enterprises in integrating sustainable development into their operations and reporting, enhancing their efficiency and transparency with stakeholders [22].

The ISO 26000 standard, published in 2010, provides guidelines on social responsibility. It is intended for use by organisations of all sizes and sectors to support their efforts in socially responsible business conduct, which society increasingly demands. Assessing a company's performance regarding its impact on society and the environment becomes crucial in determining its overall effectiveness and ability to continue operating effectively.

Table 1. Characteristics of main types of International Sustainability Accounting Standards

Standard type	Brief description
1. Global Reporting Initiative (GRI) [23]	GRI is one of the most widely used international sustainability reporting standards. It provides a framework for creating reports covering various sustainability aspects, such as the environment, social issues, and human rights.
2. Sustainability Accounting Standards Board [24]	The SASB defines reporting standards for different sectors of the economy that address critical environmental, social and governance aspects. These standards help businesses identify and report on their sustainability impacts.
3. ISO 26000 [25]	It is an international standard that guides on implementing corporate social responsibility. It covers a wide range of aspects, such as human rights, standards for specific categories of employees, environmental issues, and ethical aspects.
4. Integrated reporting (IR) [26]	IR defines approaches to integrated reporting that consider financial results and social, environmental and governance aspects. It promotes a balanced and comprehensive view of the impact of business on various aspects of society.
5. AccountAbility AA1000 Series [27]	This series of standards defines approaches to sustainability management and reporting. It helps businesses develop strategies, systems and processes to achieve sustainable development.

Source: [23, 24, 25, 26, 27, 28, 29]

ISO 26000 provides guidelines for social responsibility based on international expert consensus. These guidelines cover concepts, terms, and definitions related to social responsibility and the prerequisites, trends, and characteristics of social responsibility principles and practices. The guidelines also address vital stakeholders and issues related to social responsibility and guide integrating, implementing, and promoting socially responsible behaviour within an organisation. Additionally, the guidelines cover the identification and engagement of stakeholders through the organisation's policy and practice and within its sphere of influence, as well as the disclosure of socially responsible commitments, performance results, and other information [25].

GRI and SASB share transparency, crucial for building trust between organisations and their stakeholders. Stakeholders, including investors, the government sector, and non-profit organisations, demand comprehensive disclosure of factors affecting sustainable development, including short-term and long-term risks and opportunities. After the COVID-19 pandemic, companies are increasingly expected to disclose environmental, local communities, and corporate governance information. The pandemic has demonstrated that non-financial information can have significant financial implications. Therefore, SASB and GRI need to collaborate to improve the transparency of reporting, which should be easily accessible to all stakeholders. GRI and SASB provide harmonised sustainability reporting standards but have distinct goals and approaches to defining materiality.

The Dow Jones Sustainability Index (DJSI) is a commonly used method for measuring and ranking corporate sustainability. Developed by Dow Jones Corporation (DJC), it is recognised by companies and investors for its objectivity and transparency. The Dow Jones Sustainability Index (DJSI) has been used to measure and rank companies' sustainable development indicators since 1999. It was created in response to the need for a method to measure progress towards corporate sustainability in various sectors, including consumers. The index assesses companies in three main areas: economic, social, and environmental. The Environmental Performance Index (EPI) is a tool used to assess the effectiveness and sustainability of natural resource management by different countries [30]. The index gathers data on the impact of human activity on the environment and its health, as well as the level of environmental protection and resources available in the country (see Figure 2).

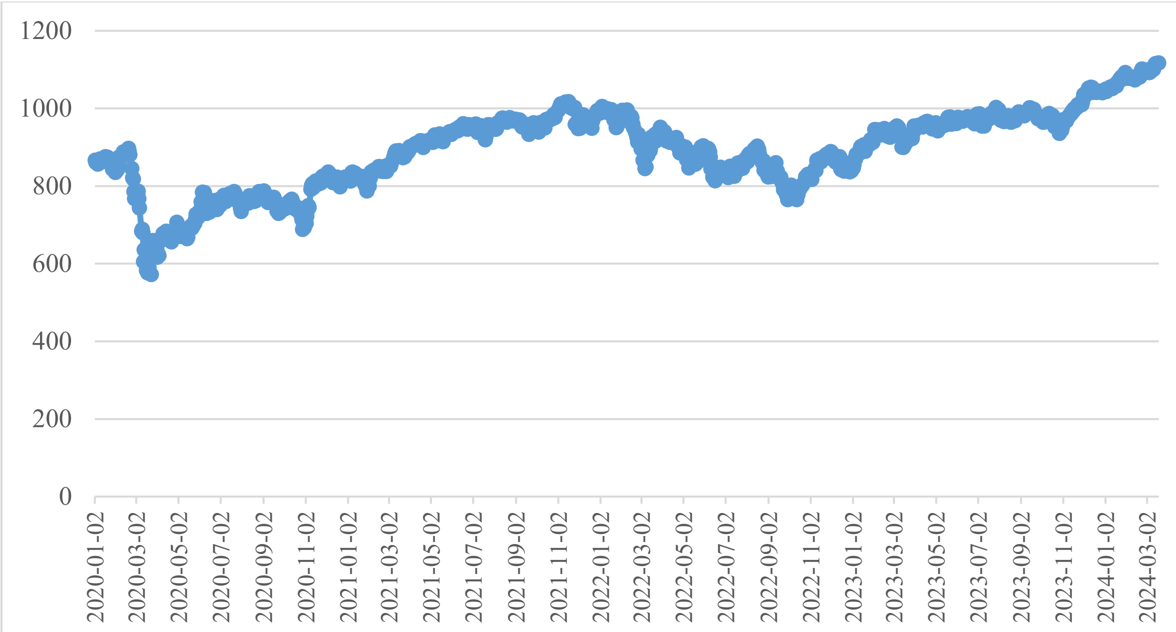

Figure 2. Index of effective use of natural resources (ESG), %
Source: [31]

Global Environmental Performance Index (EPI) data analysis revealed a sharp decline at the beginning of 2020 during the COVID-19 pandemic, followed by a rebound in the global economy in 2021. However, from February 2022 to January 2023, there was a subsequent sharp increase in EPI scores, coinciding with the beginning of the Russian military aggression against Ukraine. The EPI framework evaluates various aspects of environmental performance. This research describes the assessment of air and water pollution levels and the preservation and protection of ecosystem diversity. The assessment of air pollution levels includes harmful substances such as hydrocarbons, nitrogen, sulfur, soot, and others. The diagnosis of water pollution levels includes rivers, lakes, oceans, and groundwater, with harmful substances such as heavy metals, chemicals, and microbiological contaminants. Determining the degree of preservation and protection of ecosystem diversity includes forests, water resources, rare species, and natural reserves. This paper assesses a country's greenhouse gas emissions levels and effectiveness in implementing measures to reduce emissions and adapt to climate change. It also examines the effectiveness of natural resource management, including land, water, forests, and mineral resources, focusing on regulatory policy, land legislation, and access to natural resources. Therefore, the Environmental Performance Index (EPI) assists in identifying priority areas for action to improve countries' natural resource management and sustainable development.

Discussion

Today, climate change remains at the forefront of the European regulatory agenda, with the EU committed to achieving climate neutrality by 2050, making it a global concern for all humanity [32]. It requires new developments in the methodology of accounting, reporting, and assessing sustainable development in all sectors and sizes of business activities aimed at transitioning to sustainable development, as outlined in the Directive on Corporate Sustainability Reporting [19], which came into effect in January 2023. This directive proposes to modernise and strengthen EU rules on all three components of environmental, social, and governance (ESG) information that companies must report on. The directive aims to replace the former EU reporting scheme on ESG, the Non-Financial Reporting Directive (NFRD), and cover non-carbon categories, namely the value creation and supply chain “biodiversity → circular economy → pollution → water → waste → labour relations and corporate behaviour” [33].

Reporting under the developed CSRD rules will only be mandatory for specific business structures. These include large listed companies, banks, and insurance companies already covered by the NFRD. Additionally, companies registered in the EU but not covered by the NFRD system, small and medium-sized European enterprises reporting under simplified criteria, large European private companies, and companies from non-EU countries that carry out significant activities in the EU (with annual turnover in the EU exceeding 150 million euros) will also be required to report. The regulation is set to be implemented between 2024 and 2030. Companies that still need to measure their carbon footprint should begin preparations promptly. The new regulation will initially apply to large companies, with small and medium-sized businesses gradually following suit.

S&P Global is a company that specialises in analysing and rating various aspects of businesses, including sustainability. S&P Global experts may use various unique solutions and approaches to conduct Corporate Social Responsibility Disclosure (CSRD) analysis for companies [34]. These include developing metrics and indicators, utilising Big Data and AI, creating CSR ratings, partnering with non-profit organisations, and developing specialised tools and platforms.

Developing new metrics and indicators considers essential aspects of social responsibility, environmental impact, and corporate governance. These metrics can help evaluate the effectiveness of companies' CSR strategies. Big data and artificial intelligence are used to analyse corporate social responsibility, which is at the core of Big Data and AI. This analysis may include social media, news sources, financial reporting, and other sources to identify trends and risks.

Developing rankings and assessments of corporate social responsibility (CSR) facilitates the identification of companies by their level of sustainable development. This is achieved through a comprehensive analysis of their activities in social responsibility, environmental impact, and corporate governance. Collaborating with NGOs and other civil society organisations is recommended to gather information on companies' CSR activities and identify best practices.

Creating specialised tools and platforms for analysing and visualising corporate social responsibility (CSR) data will enable S&P Global clients to quickly evaluate and compare companies' activities in this area. This approach to reporting will contribute to the development of unique solutions in investment risk management, which can assist S&P Global specialists in conducting more comprehensive and objective CSR analyses for companies.

Collaboration between CSRD (Corporate Social Responsibility Disclosure) and S&P Global can involve information exchange, data analysis, joint research, and publications, as well as partnerships in informational and analytical projects. Table 2 presents several possible forms of cooperation between these organisations.

Table 2. Possible ways of cooperation between CSRD (Corporate Social Responsibility Disclosure) and S&P Global

A way to cooperate	**Description**
Data and information exchange	CSRD may provide S&P Global with access to its corporate social responsibility data and research, which may include information on companies' CSR reports, social performance, and environmental impact.
Data analysis and evaluation	S&P Global may use the data and information provided by CSRD to analyse and evaluate the effectiveness of companies' CSR strategies, develop new metrics and indicators, and incorporate CSR aspects into its analytical products and ratings.
Joint research and publications	The CSRD and S&P Global can collaborate on joint research, trend analysis, and publications on corporate social responsibility. This collaboration helps raise awareness of sustainability issues among the public and the business community.
Partnership in projects and initiatives	CSRD and S&P Global can collaborate to implement joint projects and initiatives to improve corporate social responsibility and sustainability practices. This may include participation in conferences, seminars, training programmes, and other events.

Source: compiled by the authors

These forms of cooperation strengthen the interaction between CSRD and S&P Global, contributing to the improvement of analytics, understanding, and assessment of social responsibility practices, and sustainable company development.

Conclusion

Thus, we can identify the main areas for improving and systematising accounting in business sustainability reporting. Accounting and reporting play a vital role in improving the transparency and effectiveness of sustainability management. Several steps can be taken to this end:

- to identify specific KPIs that reflect the company's social, environmental and economic aspects of its operations.

These indicators may include energy consumption, CO_2 emissions, waste generation, community involvement, and others;

– to use established standards, such as the Global Reporting Initiative (GRI) or Integrated Reporting (IR), to systemise sustainability reporting. It will allow for comparative analytics and clear communication with stakeholders;

– to implement specialised software solutions to automate the collection, analysis and reporting of sustainability data. It will help reduce the human factor and increase the accuracy of reporting;

– to incorporate sustainability aspects into the company's strategic goals and development plans. It will help to integrate sustainability into all areas of the company's operations;

– to involve stakeholders, such as customers, investors, government agencies and NGOs, in developing and reporting on sustainability programmes. It will contribute to increased legitimacy and participation in critical decision-making.

These steps will help businesses effectively report on their sustainability performance, implement improvements, and strategically manage towards a more sustainable future.

Thus, the results of the study demonstrate that the inclusion of sustainable development in accounting practices requires a systematic and institutionally sound approach. The application of systemic, institutional and conceptual approaches made possible a multidimensional analysis of the conceptualization and operationalization of sustainable development in accounting systems.

Methodologically, the study is based on documentary and content analysis, comparative evaluation and empirical interpretation of corporate sustainability disclosures. However, the study has certain limitations, primarily related to the volume and availability of data. The analysis relies on publicly available reports that may vary in structure, depth, and consistency. In addition, the lack of direct stakeholder input limits the assessment of internal decision-making processes related to sustainability reporting. These limitations suggest areas for future research, including field research and interviews to complement the findings from the documents.

References

[1] WBCSD (2022). *Vision 2050 – Time to Transform. World Business Council for Sustainable Development.* https://www.wbcsd.org/Overview/About-us/Vision-2050-Time-to-Transform

[2] UN (2016). *Sustainable Development Goals.* UNITED NATIONS. https://www.un.org/en/academic-impact/page/sustainable-development-goals

[3] UNDP (2018). *Sustainable Development Goals.* https://www.undp.org/sustainable-development-goals

[4] Dienes, D., Sassen, R., & Fischer, J. (2016). What are drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management and Policy Journal, 7*(2), 154–189. https://doi.org/10.1108/SAMPJ-08-2014-0050

[5] Levytska, S., Pershko, L., Akimova, L., Akimov, O., Havrilenko, K., & Kucherovskii, O. (2022). A risk-oriented approach in the system of internal auditing of the subjects of financial monitoring. *International Journal of Applied Economics, Finance and Accounting, 14*(2), 194–206. https://doi.org/10.33094/ijaefa.v14i2.715

[6] Bradford, M., Earp, J., Showalter, D., & Williams, P. (2016). Corporate Sustainability Reporting and Stakeholder Concerns: Is There a Disconnect? *Accounting Horizons, 31*. https://doi.org/10.2308/acch-51639

[7] UNDP (2018). *Transforming our world: the 2030 Agenda for Sustainable Development.* https://www.undp.org/ukraine/publications/transforming-our-world-2030-agenda-sustainable-development

[8] Szewieczek, A., Dratwińska-Kania, B., & Ferens, A. (2021). Business Model Disclosure in the Reporting of Public Companies – An Empirical Study. *Sustainability, 13*(18), 10088. https://doi.org/10.3390/su131810088

[9] Bommel, K., Rasche, A., & Spicer, A. (2023). From Values to Value: The Commensuration of Sustainability Reporting and the Crowding Out of Morality. *Organization & Environment, 36*(1), 179–206. https://doi.org/10.1177/10860266221086617

[10] Frost, G., Jones, S., & Lee, P. (2012). The Collection, Integration and Reporting of Sustainability Information within an Organisation: State of Practice. CPA Australia Ltd. https://www.cpaaustralia.com.au/-/media/project/cpa/corporate/documents/tools-and-resources/environmental-social-governance/collection-integration-reporting-sustainability.pdf

[11] Fazle, R., Johansson, J., Fagerström, A., & Blomkvist, M. (2022). Sustainability Reporting and Management Control System: A Structured Literature Review. *Journal of Risk and Financial Management, 15,* 562. https://doi.org/10.3390/jrfm15120562

[12] PwC Canada (2024). *2024 Canadian ESG Reporting Insights.* https://www.pwc.com/ca/en/today-s-issues/environmental-social-and-governance/esg-reporting-insights.html

[13] Sacarello, J. (2022). *ESG: Addressing greenwashing in financial services.* KPMG. https://kpmg.com/xx/en/home/insights/2022/04/esg-addressing-greenwashing-in-financial-services.html

[14] Talat, N. (2022). Corporate sustainability: roles of technologies and business models. In: *Environmental Sustainability and Industries.* (pp. 527–547). Elsevier. https://doi.org/10.1016/b978-0-323-90034-8.00009-9

[15] Novisto (2023). 4 Challenges of ESG Reporting and Strategies for Overcoming Them. https://novisto.com/challenges-of-esg-reporting-and-strategies/

[16] Workiva (2022). *ESG Reporting Global Insights 2022. Current challenges, planned investments and technology opportunities.* https://www.workiva.com/sites/workiva/files/pdfs/esg-reporting-global-insights-full-report-en.pdf

[17] Makarenko, O. (2023). ESG and sustainable development for business during the war. *IFRS Practice, (1),* 2–4. https://ibuhgalter.net/newspaper/1444

[18] KPMG (2023). Sustainable development and ESG. Global expertise to create a more sustainable and resilient future. https://kpmg.com/ua/uk/home/services/consulting/esg.html

[19] CSRD (2022). EU Directive on Corporate Sustainability Reporting. PwC. https://www.pwc.com/ua/uk/services/csrd.html

[20] Pesa, L., Shah, K., & Parakh, K. (2023). *Controllership's role in building an integrated ESG reporting strategy.* Deloitte Development LLC. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/audit/us-audit-controllerships-role-in-building-an-integrated-esg-reporting-strategy.pdf

[21] Savchenko, V. (2020). *Sustainable development as a means to develop business in the long run Goals in the Sustainable Development.* International audit company BDO. https://www.bdo.ua/en-gb/news-1/2020/sustainable-development-as-a-means-to-develop-business-in-the-long-run

[22] Mironova, N., Koptieva, H., Liganenko, I., Sakun, A., & Chernyak, D. (2022). Modeling the selection of innovative strategy for development of industrial enterprises. *WSEAS Transactions on Business and Economics, 19,* 278–291. https://doi.org/10.37394/23207.2022.19.26

[23] GRI (2021). GRI – Standards. Home. https://www.globalreporting.org/standards/

[24] IFSR (2023). IFRS – International Accounting Standards Board. https://www.ifrs.org/issued-standards/list-of-standards/

[25] ISO (2015). ISO 26000 and the International Integrated Reporting (IR) Framework briefing summary. International Organization for Standardization. https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100402.pdf

[26] IR (2021). Integrated Reporting. https://integratedreporting.ifrs.org/wp-content/uploads/2021/01/InternationalIntegratedReportingFramework.pdf

[27] Standards (2018). *Accountability. Global Sustainability Consultancy and Standards.* New York, London, Dubai, Riyadh. https://www.accountability.org/standards/

[28] ISO (n. d.). ISO 26000 – Social responsibility. https://www.iso.org/iso-26000-social-responsibility.html

[29] ACCA Global (2023). Integrated reporting. https://www.accaglobal.com/gb/en/student/exam-support-resources/professional-exams-study-resources/p5/technical-articles/integrated-reporting.html

[30] Zharfpeykan, R., & Akroyd, C. (2022). Factors influencing the integration of sustainability indicators into a company's performance management system. *Journal of Cleaner Production, 331,* 129988. https://doi.org/10.1016/j.jclepro.2021.129988

[31] S&P Dow Jones Indices (2023). *EuroUSA 30 Natural Resources Efficient ESG Select Equal Weight 5% Decrement Index.* S&P Dow Jones Indices. https://www.spglobal.com/spdji/en/indices/esg/sp-eurousa-30-natural-resources-efficient-esg-select-equal-weight-5-decrement-index/#overview

[32] Novak, A., Pravdyvets, O., Chornyi, O., Sumbaieva, L., Akimova, L., & Akimov, O. (2022). Financial and economic security in the field of financial markets at the stage of European integration. *International Journal of Professional Business Review, 7*(5). https://doi.org/10.26668/businessreview/2022.v7i5.e835

[33] Atstaja, D., Koval, V., Grasis, J., Kalina, I., Kryshtal, H., & Mikhno, I. (2022). Sharing model in circular economy towards rational use in sustainable production. *Energies, 15*(3). https://doi.org/10.3390/en15030939

[34] Taschner, M. (2023). *New CSRD Sustainability Reporting: Covering More Companies and More Disclosures.* S&P Global Homepage. https://www.spglobal.com/marketintelligence/en/news-insights/blog/