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# The role of environmental accounting in enhancing corporate social responsibility of industrial companies listed on the Amman Stock Exchange

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**A B S T R A C T**

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This study aims to examine the impact of environmental accounting on corporate social responsibility in industrial companies listed on the Amman Stock Exchange. A quantitative approach was employed, utilizing a questionnaire to verify this impact. The results indicated a strong and positive relationship between environmental accounting practices and corporate social responsibility. These findings call for serious measures to embrace environmental accounting practices in industrial companies, as they have the potential to enhance professional development and overall corporate performance. Decision-makers in this context are advised to take steps towards integrating environmental accounting concepts, as this move can contribute to increased productivity and success within these organizations, considering the challenges of our rapidly changing and interconnected world.



## 1. Introduction

In light of the current economic changes and the accelerating pace of technological advancement, along with the increasing intensity of competition and the continuous depletion of available environmental resources, environmental concerns and the associated costs have become challenges facing companies, particularly the industrial ones (Agyemang et al., 2023). Environmental accounting is considered one of the most important tools that provide stakeholders and decision-makers with accounting information related to environmental costs, in addition to financial data and information. The effectiveness of environmental accounting in industrial companies is demonstrated through a range of applications, with a notable example being the application of social responsibility, which serves as a commitment of the company to the environment in which it operates (Okudo & Amahalu, 2023). This aims to provide a comprehensive view of the company's performance in terms of environmental conservation and the embodiment of sustainable development (Khoruzhy et al., 2023). The success of companies is generally measured by their adaptability to the environment. Therefore, the environment in which companies operate plays a tangible role in influencing their behavior. This necessitates the ongoing coordination to find common ground between the objectives of companies and those of society, making corporate responsibility towards society (social responsibility) a fundamental condition for their existence and continuity (Paruzel et al., 2023). As the concept of corporate social responsibility is something that companies care about and falls within the scope of their practices, investing in social responsibility activities is an important consideration (Fatima & Elbanna, 2023). Accounting also plays a pivotal role in striving for social solidarity within society, after its responsibility was previously limited to achieving economic prosperity for shareholders. With the emergence of joint-stock companies, the company acquired its independent legal personality, meaning that the owners do not manage the company. This led to the appointment of teams to manage the companies, accompanied by an increase in the size and impact of companies, and an expansion of the interests to include employees, government, environment, and society (Coelho et al., 2023). Therefore, companies have moved beyond their economic responsibility to include social aspects. The focus of companies has shifted from annual financial reports, which have been the most widely used source to express corporate social responsibility and the activities and contributions they provide for

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community service, to seeking other channels of information used by companies to convey social information to stakeholders. One of these channels is the disclosure of environmental information through annual financial reports (Freeman & Liedtka, 2023).

The environment is considered one of the most essential elements that humanity relies on for its existence and ability to thrive, contingent upon its preservation from any harm or damage resulting from misuse or overexploitation of its resources, leading to their depletion or depletion (Tregidga & Laine, 2022). As a result, environmental issues have garnered significant attention both regionally and internationally due to the severity and magnitude of the effects resulting from environmental pollution. Environmental pollution leaves serious impacts both socially and economically. Socially, it has contributed to an increase in the prevalence of diseases within society, negatively affecting the health of individuals in the community (Zhang et al., 2022). Economically, there exists a close relationship between environmental pollution and the process of economic development and prosperity, particularly when countries rely on natural resources for their economy. Pollution of these resources can hinder the progress of economic development for those countries, in addition to the high costs incurred by industrial companies due to this issue (Cho et al., 2022). Therefore, the goal of environmental protection and conservation, and preventing its deterioration, has become one of the fundamental objectives that companies strive to achieve. The problem of environmental pollution caused or exacerbated by industrial companies is considered part of their financial responsibilities. Environmental protection laws are not limited to a specific country, but the entire world is witnessing clear disruptions in the environmental system. The risks of environmental pollution are experiencing an unprecedented increase (Taqi et al., 2021). Industrial materials on one hand, and natural substances from the same environment, can contribute to its pollution (Saud et al., 2020). These risks have led to massive natural losses and have negatively impacted the human element. Given the environmental risks caused by industrial establishments, economic institutions play a significant role in increasing the level of environmental pollution (Kazakova et al., 2020). The latter's risks are not confined to the environment alone, but they also have effects on society and on the institutions themselves, such as a decline in their competitive position compared to other institutions and incurring significant losses (Du et al., 2022).

To mitigate these risks, institutions have adopted a specialized form of accounting called “environmental accounting”. It addresses environmental expenses by measuring and disclosing them in the form of financial reports at the end of each year, aiming to achieve sustainable development for these institutions (Gyamfi et al., 2022). Environmental accounting has become an important tool in understanding the role of the natural environment in the economy. Environmental accounts provide data that illustrate the contribution of natural resources to economic improvement, as well as revealing the costs imposed on organizations due to environmental pollution and the depletion of natural resources (Renaldo et al., 2022). Many governmental and non-governmental organizations have taken an interest in disclosing the environmental impacts of companies in their financial reports and have issued various data and standards related to environmental accounting. For instance, the World Bank has mandated governments to incorporate environmental accounting information into the national accounts of those countries. Industry is considered one of the largest sources of pollution leading to environmental degradation, emitting solid pollutants, air pollutants, and liquid pollutants. Therefore, providing up-to-date data and information regarding this sector that aligns with international metrics and classifications is an urgent necessity. This facilitates decision-makers in taking appropriate actions to develop the industry sector while preserving a clean and pure environment (Scarpellini et al., 2020). Given the importance of industrial and economic companies understanding and recognizing environmental accounting as a tool for implementing the concept of social responsibility, the industrial companies listed on the Amman Stock Exchange are among the economic institutions that consider their responsibility towards the environment and society. They do so by fulfilling their commitments to address the negative impacts resulting from their economic activities (Faisal et al., 2020).

## 2. Literature review

### *2.1 Environmental accounting*

There are diverse perspectives in the literature of environmental accounting regarding the specific definition of environmental accounting. It is defined as a method for measuring, analyzing, and categorizing the costs of various activities within an organization that have environmental impacts, and preparing reports that meet the needs of all relevant stakeholders, whether internal or external to the organization (Rounaghi, 2019; Marrone et al., 2020). It is also described as a process of generating, analyzing, and utilizing environmental information to enhance environmental and economic organizational performance (Pizzi et al., 2023). Additionally, it is recognized as a set of activities that involve measuring and analyzing the environmental performance of a specific accounting unit and delivering that information to specialized groups and categories to assist them in decision-making and evaluating the environmental performance of the institution (Baker et al., 2023). Furthermore, environmental accounting is defined as the process of identifying, measuring, and allocating environmental costs to take them into account in managerial decision-making and communicate the information to its users (Monteiro et al., 2023). Environmental accounting is also characterized as an integrated system that works to identify and measure the environmental costs of the organization, prepare reports about them, and deliver them to interested parties regarding environmental impacts, to assist them in decision-making and evaluating the environmental performance of the institution (Gunarathne et al., 2023).
The importance of environmental accounting is highlighted because it provides quantitative and financial data for environmental operations and activities. This allows for the renewal of the financial commitments necessary for optimal

environmental management, and the reduction of environmental pressures by preparing accounting data in units and quantities for produced materials that can be used to reduce environmental pressures and prevent damage leading to pollution and its mitigation (Bresciani et al., 2023). Environmental accounting achieves a more accurate measurement of the economic performance of companies, whether related to income or wealth, and reduces environmental risks while providing better information about environmental issues and assisting in achieving effective control over environmental activities (Islam, 2018). Environmental accounting aims to contribute to the sustainability of economic development by improving knowledge and understanding of the growing interactions between the environment and the economy, and by striving to reduce the negative environmental impacts of traditional accounting on the environment. It independently identifies environmental costs and revenues outside the traditional accounting system (Schaltegger & Burritt, 2018). Environmental accounting aims to develop new methods for assessing performance and environmental communications internally and externally, and to prepare financial statements and reports on environmental activities and practices that are clearer and more transparent (Maione et al., 2023).

### *2.2 Social responsibility*

Gull et al. (2023) stress the idea that social responsibility pertains to an organization's obligation regarding how its actions affect society and the environment. This responsibility entails maintaining transparency and ethical conduct in alignment with sustainable development and the welfare of the community. It also involves adhering to legal requirements and considering the concerns of stakeholders. The term Corporate Social Responsibility (CSR) did not feature in the literature on the evolution of accounting. It made its debut in 1923 when Sheldon highlighted that an organization's foremost obligation is of a social nature. To ensure its longevity and success, an organization must commit to and discharge its social responsibilities while carrying out its diverse functions. Countries have issued meaningful and indicative provisions regarding the importance of business organizations fulfilling their social responsibilities (Shiri & Jafari-Sadeghi, 2023). Therefore, today, business organizations face significant and increasing challenges as they operate in a tough and rapidly changing environment in various economic, political, social, and technological fields. With increased awareness in societies, it has become unacceptable to focus solely on the economic goals of the organization without achieving social goals. Using the resources of the economic community to accomplish tasks necessitates the organization's contribution to bearing its social responsibility (Westphal, 2023). The sole objective of economic organizations is no longer just profit maximization, but it extends to the commitment to fulfilling their social responsibilities towards the community in which they operate. This has led to the emergence of what is known as responsible environmental accounting for social performance assessment of organizations, which is used as a tool (Kong & Liu, 2023). The concept of social responsibility revolves around being the organization’s commitment to the community in which it operates, considering society’s expectations of the organization in the form of its concern for employees and the environment (Zhao et al., 2023).

Social responsibility has three dimensions. The first dimension is the economic dimension, which requires the efficient use of resources to produce high-quality goods and services. This dimension also entails fair competition by respecting the rules of fair competition and not causing harm to competitors. Additionally, it involves preventing monopolies and protecting consumers. This dimension relies on leveraging technological advancements and using them to mitigate the environmental damage caused (Alshurafat et al., 2023). The second dimension is the social dimension, which refers to the company's contribution to enhancing the well-being of the community in which it operates. This includes improving and caring for the welfare of employees, which positively impacts their productivity and enhances their technical capabilities. It also involves ensuring occupational and job security, as well as providing healthcare and community support (González-Ramos et al., 2023). The open management style adopted by the company is crucial in this aspect, as it considers social behavior that extends beyond the organization itself (Mazur et al., 2023). The third dimension is the environmental dimension, which requires the organization to consider the environmental impacts of its operations and products. This involves eliminating toxic emissions and waste, maximizing efficiency and productivity from available resources, and reducing practices that may negatively affect the enjoyment of these resources by future generations and countries. The organization must take all environmental aspects into account in its activities and use specific standards to assess these aspects, which should be comprehensive, documented, and adhered to (Vuong & Bui, 2023).

### Hypotheses

**$H_1$:** *There is a role for environmental accounting in enhancing the social responsibility of industrial companies listed on the Amman Stock Exchange.*
**$H_{1.1}$:** *There is a statistically significant effect at the significance level ($\alpha$<0.05) for environmental accounting in enhancing the role of the economic dimension of industrial companies listed on the Amman Stock Exchange.*
**$H_{1.2}$:** *There is a statistically significant effect at the significance level ($\alpha$<0.05) for environmental accounting in enhancing the role of the social dimension of industrial companies listed on the Amman Stock Exchange.*
**$H_{1.3}$:** *There is a statistically significant effect at the significance level ($\alpha$<0.05) for environmental accounting in enhancing the role of the environmental dimension of industrial companies listed on the Amman Stock Exchange.*

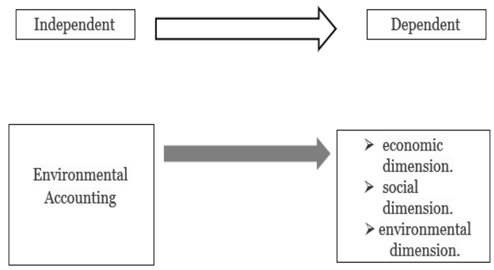


**Fig. 1.** Framework model

## 3. Methodology

This research aims to explore how environmental accounting impacts the improvement of corporate social responsibility within industrial companies listed on the Amman Stock Exchange. The study utilizes a quantitative approach and employs questionnaires to evaluate the influence of environmental accounting on social responsibility. The choice of this methodology is based on the desire to collect measurable data and facilitate statistical analysis to investigate the relationships between different variables.

### *3.1 Research Instrument*

The study relied on a questionnaire as the primary tool for data collection. This questionnaire was developed by the researcher after referring to previous studies. It was designed following the identification of the study's objective, which is to measure the role of environmental accounting in enhancing the social responsibility of industrial companies listed on the Amman Stock Exchange. The questionnaire was initially divided into two sections. The first section included respondents' information (age, specialization, years of experience in the current position), while the second section consisted of questionnaire items. A Likert five-point scale was adopted to refine the study's instruments.

### *3.2 Sample and Sampling*

Sampling is the process of choosing a definite group of individuals, referred to as a sample, from a larger population for analysis purposes (Bhardwaj, 2019). In this study, a judgment sampling technique was utilized, where the researcher deliberately selects individuals believed to be the most relevant, applicable, or knowledgeable about the topic being investigated. The target population for this analysis comprises all employees working in industrial companies listed on the Amman Stock Exchange. A total of 405 electronic questionnaires were distributed, with 390 questionnaires received and considered valid for analysis. The collected responses were then input and processed using SPSS for further examination. An outline of the sample's demographic characteristics is presented in Table 1.

**Table 1**
Demographic Characteristics

| Measure | Category | Count | Percentage |
|---|---|---|---|
| Age | Less than 25 | 78 | 20.0 |
| | From 25 until less than 35 | 106 | 27.2 |
| | From 35 until less 45 | 206 | 52.8 |
| | Total | 390 | 100.0 |
| **Educational qualification** | Higher Diploma | 38 | 9.7 |
| | Bachelor's | 297 | 76.2 |
| | Master's | 44 | 11.3 |
| | Ph.D | 11 | 2.8 |
| | Total | 390 | 100.0 |
| **Years of experience in the current job** | Less than 5 | 55 | 14.1 |
| | 5 and more – less than 10 | 131 | 33.6 |
| | 10 and more– less than 15 | 204 | 52.3 |
| | Total | 390 | 100.0 |

## 4. Data Analysis and Results

The results of this study show that there is a noteworthy positive correlation between The Role of Environmental Accounting in Enhancing Corporate Social Responsibility of Industrial Companies Listed on the Amman Stock Exchange and all the variables' coefficients. Based on the participants' responses, this conclusion is reached. We may determine how much agreement there is among respondents regarding the measures examined by looking at the standard deviation (SD) . Before conducting additional research, descriptive research is crucial because it offers crucial information on the research variables (Vaismoradi et al., 202). With mean scores ranging from 3.71 to 4.11 in Table 2, mean and standard deviation values consistently demonstrate a high level of quality. Most of the items show a positive attitude towards environmental accounting and social responsibility. Furthermore, the standard deviation values suggest that the participants have a solid awareness of the importance of social responsibility due to the low variability in the data.

**Table 2**
Mean and Standard Deviation

| Variable | Item Code | Mean | SD |
|---|---|---|---|
| Environmental Accounting | a1 | 4.09 | .929 |
| | a2 | 3.71 | .992 |
| | a3 | 4.05 | .924 |
| | a4 | 4.07 | .905 |
| | a5 | 3.85 | .976 |
| | a6 | 4.11 | .922 |
| | a7 | 3.88 | .924 |
| | a8 | 3.80 | .910 |
| | Total | 3.95 | .677 |
| Economic dimension | B9 | 3.86 | .920 |
| | B10 | 3.77 | .961 |
| | B11 | 4.06 | .986 |
| | B12 | 3.89 | 1.022 |
| | Total | 3.89 | .775 |
| social dimension | B13 | 3.79 | .973 |
| | B14 | 3.94 | .943 |
| | b15 | 3.71 | 1.050 |
| | b16 | 3.89 | .963 |
| | Total | 3.83 | .769 |
| environmental dimension | b17 | 4.02 | 1.014 |
| | b18 | 3.78 | .977 |
| | b19 | 3.86 | .972 |
| | b20 | 3.73 | .918 |
| | Total | 3.85 | .768 |
| Corporate Social Responsibility | | 3.86 | .707 |

*Reliability Test*

Prior to the questionnaire being given out to participants, the study evaluated the sample measure's internal reliability in terms of its capacity to capture the variables. Cronbach's alpha value was the main reliability metric, and the idea of internal reliability was applied. Although there are several interpretations for the different confidence coefficients, which range from 0 to 1, larger coefficient values often denote increased dependability (Bruton et al., 2000). Furthermore, Cronbach's alpha of 0.6 or above indicates good reliability, and Hair et al. (2009) set a minimum acceptable value of 0.70 or higher for this test (Taber, 2018). All the study's measurements satisfied the goal, as shown by the internal consistency test results (Table 3).

**Table 3**
The results of the reliability test

| Variable | No. of Items | Cronbach's Alpha |
|---|---|---|
| Environmental Accounting | 8 | 0.87 |
| Economic dimension | 4 | 0.81 |
| Social dimension | 4 | 0.79 |
| Environmental dimension | 4 | 0.80 |
| Corporate Social Responsibility | 12 | 0.91 |

*4.2 Multiple Regression Analysis*

*The results of testing the main hypothesis*

Simple regression analysis was used to test the study model and assumptions. A reliable statistical technique for analyzing the relationship between an independent variable and a single dependent variable is simple regression (Wondola et al., 2020). Table 4 displays the coefficient table for the H1 simple regression analysis. After using environmental accounting, the study model explained 78.4% of the variation in Corporate Social Responsibility, according to the findings of the simple regression test (adjusted coefficient of determination $R^2 = 0.784$). In addition, there is a positive relationship between the independent and dependent variables which confirms the main hypothesis.

**Table 4**
Simple Regressions Analysis

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | .209 | .099 | | 2.117 | .035 |
| | Environmental Accounting | .925 | .025 | .886 | 37.559 | .000 |

A Dependent Variable: Corporate Social Responsibility

*The results of testing the first sub-hypothesis*

Table 5 displays the coefficient table for the H1.1 simple regression analysis. Using environmental accounting, the study model explained 64.2% of the variation in the economic dimension, according to the results of the simple regression test (adjusted coefficient of determination $R^2 = 0.642$) and there is a positive and meaningful relationship between the independent and dependent variables.

**Table 5**
Simple Regressions Analysis for H1.1

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | .271 | .139 | | 1.948 | .052 |
| | Environmental Accounting | .918 | .035 | .802 | 26.447 | .000 |

A Dependent Variable: economic dimension

*The results of testing the second sub-hypothesis*

Table 6 displays the coefficient table for the H1.2 simple regression analysis. After applying environmental accounting, the study model explained 65% of the variation in the social dimension, according to the results of the simple regression test (adjusted coefficient of determination $R^2 = 0.65$) and a positive relationship between the variables confirm the sub-hypothesis.

**Table 6**
Simple Regressions Analysis for H1.2

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | .214 | .136 | | 1.566 | .118 |
| | Environmental Accounting | .917 | .034 | .807 | 26.909 | .000 |

A Dependent Variable: social dimension

*The results of testing the third sub-hypothesis*

Table 7 displays the coefficient table for the H1.3 simple regression analysis. After incorporating environmental accounting, the research model explained 68.4% of the variation in the environmental dimension, according to the findings of the simple regression test (adjusted coefficient of determination $R^2 = 0.684$ and a positive relationship between the variables confirm the sub-hypothesis.

**Table 7**
Simple Regressions Analysis for $H1_{.3}$

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | .142 | .129 | | 1.095 | .274 |
| | Environmental Accounting | .939 | .032 | .828 | 29.049 | .000 |

A Dependent Variable: environmental dimension

## 5. Conclusion

The study examined the role of environmental accounting in promoting social responsibility for industrial companies listed on the Amman Stock Exchange, which provided valuable insights. The results, derived from multiple regression analyzes and supported by strong statistical evidence, reveal a significant and positive relationship between environmental accounting and corporate social responsibility across their economic, social and environmental dimensions.

Specifically, the research variables showed a strong ability to explain differences in CSR, suggesting that environmental accounting contributes significantly to enhancing overall social responsibility in these companies. Furthermore, when examining the individual dimensions of social responsibility, it was clear that Environmental accounting has had a positive impact on economic, social and environmental aspects, each of which has played a critical role in shaping CSR practices, and these findings have practical implications for both the business community and policy makers. They stress the importance of adopting environmental accounting practices as a means of enhancing corporate social responsibility commitments. Companies that adopt such practices are not only better positioned to contribute positively to society, but are also more likely to experience enhanced economic and environmental performance. In light of these findings, industrial companies in the ASE are recommended to consider integrating environmental accounting into their strategies and operations. This proactive step can lead to a more sustainable and socially responsible business environment, ultimately benefiting not only the organizations themselves, but also society and the wider environment.

## 6. Limitations and Future Work

While this research provides valuable insights into the relationship between environmental accounting and CSR, it is important to acknowledge some limitations. The results of the study were based on a specific sample of industrial companies listed on the Amman Stock Exchange. The generalizability of the findings to a wider range of industries or regions may be limited due to the size and scope of the sample. The study did not consider external factors that may affect CSR, such as regulatory changes, economic conditions, or world events. Future research might consider these exogenous variables, and longitudinal research could be conducted to track the impact of environmental accounting on CSR over time, providing insights into trends, and exploring the role of sustainability reporting frameworks and standards in facilitating the relationship between environmental accounting and CSR.

## References

Agyemang, A. O., Yusheng, K., Twum, A. K., Edziah, B. K., & Ayamba, E. C. (2023). Environmental accounting and performance: empirical evidence from China. *Environment, Development and Sustainability,* 1-26.

Alshurafat, H., Ananzeh, H., Al-Hazaima, H., & Al Shbail, M. O. (2023). Do different dimensions of corporate social responsibility disclosure have different economic consequence: multi-approaches for profitability examination. Competitiveness Review: *An International Business Journal, 33(*1), 240-263.

Baker, M., Gray, R., & Schaltegger, S. (2023). Debating accounting and sustainability: from incompatibility to rapprochement in the pursuit of corporate sustainability. Accounting, *Auditing & Accountability Journal, 36(*2), 591-619.

Bresciani, S., Rehman, S. U., Giovando, G., & Alam, G. M. (2023). The role of environmental management accounting and environmental knowledge management practices influence on environmental performance: mediated-moderated model. *Journal of Knowledge Management, 27(*4), 896-918.

Cho, C. H., Senn, J., & Sobkowiak, M. (2022). Sustainability at stake during COVID-19: Exploring the role of accounting in addressing environmental crises. *Critical Perspectives on Accounting,* 82, 102327.

Coelho, R., Jayantilal, S., & Ferreira, J. J. (2023). *The impact of social responsibility on corporate financial performance: A systematic literature review*. Corporate Social Responsibility and Environmental Management.

Du, M., Chai, S., Wei, W., Wang, S., & Li, Z. (2022). Will environmental information disclosure affect bank credit decisions and corporate debt financing costs? Evidence from China's heavily polluting industries. *Environmental Science and Pollution Research, 29(*31), 47661-47672.

Faisal, F., situmorang, L. S., Achmad, T., & Prastiwi, A. (2020). The role of government regulations in enhancing corporate social responsibility disclosure and firm value. The Journal of Asian Finance, *Economics and Business (JAFEB), 7(*8), 509-518.

Fatima, T., & Elbanna, S. (2023). Corporate social responsibility (CSR) implementation: A review and a research agenda towards an integrative framework. *Journal of Business Ethics, 183(1*), 105-121.

Freeman, R. E., & Liedtka, J. M. (2023). *Corporate social responsibility: A critical approach. In R. Edward Freeman's Selected Works on Stakeholder Theory and Business Ethics* (Cham: Springer International Publishing. )239-249.

González-Ramos, M. I., Guadamillas, F., & Donate, M. J. (2023). The relationship between knowledge management strategies and corporate social responsibility: Effects on innovation capabilities. *Technological Forecasting and Social Change*, 188, 122287.

Gull, A. A., Hussain, N., Khan, S. A., Khan, Z., & Saeed, A. (2023). Governing corporate social responsibility decoupling: The effect of the governance committee on corporate social responsibility decoupling. *Journal of Business Ethics, 185(*2), 349-374.

Gunarathne, N., Lee, K. H., & Hitigala Kaluarachchilage, P. K. (2023). Tackling the integration challenge between environmental strategy and environmental management accounting. Accounting, *Auditing & Accountability Journal, 36(*1), 63-95.

Gyamfi, B. A., Onifade, S. T., Nwani, C., & Bekun, F. V. (2022). Accounting for the combined impacts of natural resources rent, income level, and energy consumption on environmental quality of G7 economies: a panel quantile regression approach. *Environmental Science and Pollution Research, 29(*2), 2806-2818.

Islam, M. (2018). *Environmental Accounting*. 10.1007/978-3-319-23514-1_215-1. https://www.researchgate.net/

Kazakova, N., Kogdenko, V., Bobkova, M., Sivkova, A., & Krioni, A. (2020). social responsibility and environmental safety risks monitoring of metallurgical companies using an industrial approach. *International Multidisciplinary Scientific GeoConference: SGEM, 20(*5), 333-340.

Khoruzhy, L., Katkov, Y., Katkova, E., Romanova, A., & Dzhikiya, M. (2023). Sustainable Development of Agricultural Enterprises with an Active Environmental Stance: Analysis of Inter-Organizational Management Accounting. *Journal of Law and Sustainable Development, 11(*3), 386-386.

Kong, D., & Liu, B. (2023). Digital technology and corporate social responsibility: evidence from China. *Emerging Markets Finance and Trade*, 1-27.

Maione, A., Massarotti, N., Santagata, R., Ulgiati, S., & Vanoli, L. (2023). *Integrated environmental accounting of a geothermal grid*. Renewable and Sustainable Energy Reviews, 185, 113613.

Marrone, M., Linnenluecke, M. K., Richardson, G., & Smith, T. (2020). Trends in environmental accounting research within and outside of the accounting discipline. Accounting*, Auditing & Accountability Journal, 33(*8), 2167-2193.

Mazur, B., Walczyna, A., & Cichorzewska, M. (2023). The Place of the Natural Environment in Activities for Social Responsibility in the Opinion of Students of Electrical Engineering. *Sustainability, 15(*2), 1306.

Monteiro, A. P., Pereira, C., & Barbosa, F. M. (2023). Environmental disclosure on mandatory and voluntary reporting of Portuguese listed firms: the role of environmental certification, lucratively and corporate governance. *Meditari accountancy research, 31(*3), 524-553.

Okudo, C. L., & Amahalu, N. N. (2023). Effect of environmental accounting on profitability of listed oil and gas firms in Nigeria. *International Journal of Advanced Academic Research, 9(*3), 47-61.

Paruzel, A., Schmidt, L., & Maier, G. W. (2023). Corporate social responsibility and employee innovative behaviors: A meta-analysis. *Journal of Cleaner Production,* 136-189.

Pizzi, S., Principale, S., Fasiello, R., & Imperiale, F. (2023). The institutionalisation of social and environmental accounting practices in Europe. *Journal of Applied Accounting Research*, (ahead-of-print).

Renaldo, N., Fadrul, F., Suhardjo, S., Andi, A., Sevendy, T., & Simatupang, H. (2022, November). The Role of Environmental Accounting in Improving Environmental Performance through CSR Disclosure. *In International Conference on Business Management and Accounting. 1(*1)17-23.

Rounaghi, M. M. (2019). Economic analysis of using green accounting and environmental accounting to identify environmental costs and sustainability indicators*. International Journal of Ethics and Systems, 35(*4), 504-512.

Saud, S., Chen, S., & Haseeb, A. (2020). The role of financial development and globalization in the environment: accounting ecological footprint indicators for selected one-belt-one-road initiative countries. *Journal of Cleaner Production*, 250, 119518.

Scarpellini, S., Marín-Vinuesa, L. M., Aranda-Usón, A., & Portillo-Tarragona, P. (2020). Dynamic capabilities and environmental accounting for the circular economy in businesses. Sustainability Accounting*, Management and Policy Journal, 11(*7), 1129-1158.

Schaltegger, S., & Burritt, R. (2017). Contemporary environmental accounting: issues, concepts and practice. Routledge.

Shiri, N., & Jafari-Sadeghi, V. (2023). Corporate social responsibility and green behaviour: Towards sustainable food-business development. *Corporate Social Responsibility and Environmental Management, 30(*2), 605-620.

Taqi, M., Rusydiana, A. S., Kustiningsih, N., & Firmansyah, I. (2021). Environmental accounting: A scientometric using biblioshiny. *International Journal of Energy Economics and Policy, 11(3)*, 369-380.

Tregidga, H., & Laine, M. (2022). On crisis and emergency: Is it time to rethink long-term environmental accounting?. *Critical Perspectives on Accounting, 82*, 102311.

Vuong, T. K., & Bui, H. M. (2023). *The role of corporate social responsibility activities in employees' perception of brand reputation and brand equity.* Case Studies in Chemical and Environmental Engineering, 7, 100313.

Westphal, J. D. (2023). *Systemic symbolic management, corporate social responsibility, and corporate purpose*: A cautionary tale. Strategy Science.

Zhang, L., Yang, B., & Jahanger, A. (2022). The role of remittance inflow and renewable and non-renewable energy consumption in the environment: Accounting ecological footprint indicator for top remittance-receiving countries. *Environmental Science and Pollution Research, 29(11)*, 15915-15930.

Zhao, L., Yang, M. M., Wang, Z., & Michelson, G. (2023). Trends in the dynamic evolution of corporate social responsibility and leadership: A literature review and bibliometric analysis. *Journal of Business Ethics, 182(*1), 135-157.