



Environmental Accounting Model of Steel Companies with Multifaceted Grounded Theory Approach

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Abstract

According to the purpose of the research, which is to present an environmental accounting model of steel companies, data were collected through semi-structured interviews and an exploratory approach. The statistical population includes management accounting experts, including management accountants and financial managers of steel companies, and accounting professors who have conducted research on environmental issues. The sampling method is purposeful and selective. The statistical sample was 13 experts in the qualitative section and 35 experts in the quantitative section to validate the research model. In relation to the environmental accounting model of steel companies with a multifaceted grounded theory approach, two dimensions, four components, and thirty-five indicators were identified. The intra-organizational dimension of green accounting was identified with an individual component and an organizational component, and the extra-organizational dimension of green accounting was identified with a social component and a monitoring and evaluation component. The above research, conducted in the field of environmental accounting for steel companies, can help develop management tools, performance indicators, and environmental reporting methods, which in turn will guide the steel industry towards greater sustainability and responsibility. This research can also help improve the environmental performance of the steel industry.

Keywords: Environmental Accounting, Steel Companies, Grounded Theory, Green Accounting.

JEL Classification: G34, G41, M14, F64.

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INTRODUCTION

Environmental accounting is a new concept in the field of accounting that deals with the examination and reporting of environmental issues of economic activities of organizations. This approach has become increasingly important in various industries, including the steel industry. The steel industry can have significant impacts on the environment. Therefore, the implementation of environmental accounting is vital for steel companies to be able to evaluate, manage and improve their environmental performance. In today's world, awareness of environmental issues among various stakeholders, including investors, customers and regulatory bodies, is increasing. By implementing environmental accounting in their processes, steel companies can respond to these concerns and ensure that activities are consistent with the principles of sustainability and social responsibility. This not only helps to preserve the environment, but can also bring competitive advantages and new opportunities to the organization. The steel industry faces numerous environmental challenges. Including greenhouse gas emissions, energy consumption and environmental waste generation. Environmental accounting allows steel companies to measure and track these impacts. By identifying critical points, companies can implement strategies to reduce environmental impacts, improve resource efficiency and ultimately improve the long-term sustainability of their organization's operations. The purpose of this study is to present a model of environmental accounting for steel companies with a multi-faceted data-based theory approach.

METHODOLOGY

The purpose of this study is to present a model of environmental accounting for steel companies with a multifaceted grounded theory approach. This is a qualitative study and the grounded theory method based on the multifaceted approach of Goldkhol and Kronhelm (2010) has been used to present a model of environmental accounting for steel companies. In this method, in addition to paying attention to the research background and theoretical foundations, theoretical data is collected and empirical data is collected through interviews with experts. The above-mentioned combined method enriches the research and its results. The stages of the process of developing a multifaceted grounded theory are as follows: (Goldkhol and Kronhelm, 2010)

- 1 .The first stage is to reflect on the areas under study, including the research objectives and questions.
- 2 .The second stage is to create a theory, which includes four steps: Step 1: Inductive coding, which is equivalent to open coding. In this stage, the concepts of environmental accounting for steel companies are extracted exploratoryally. Step two: Classification and refinement of environmental accounting concepts are carried out through Scott and Howell's (2008) conditional relationship table. Step three: Theoretical concepts are extracted based on the study of the research background and theoretical foundations of environmental accounting. Step four: Strauss and Corbin's (1998) three-dimensional paradigm, identifying the relationship between the dimensions, components, and indicators of the environmental accounting model, is equivalent to axial coding. Step five: Theory synthesis, which is equivalent to selective or selective coding. In this step, the final environmental accounting model of steel companies is designed in the form of dimensions, components, and indicators according to the discovered relationships between them.
- 3 .The third step, data-based clarification, includes theoretical matching, transparent validation of empirical data, and assessment of theoretical coherence.
4. The fourth step, validation of the proposed research model based on a questionnaire designed based on dimensions, components, and indicators.

RESULTS

The purpose of this study was to present an environmental accounting model for steel companies with a multi-faceted data-based theory approach. In relation to the environmental accounting model for steel companies with a multi-faceted data-based theory approach, two dimensions, four components, and thirty-five indicators were identified. The intra-organizational dimension of green accounting with an individual component has indicators of attention to environmental values and increasing environmental knowledge, and the organizational component has indicators of green internal control of sustainability, environmental performance of organizations, sustainable supply chain management, environmental data analysis, optimization of steel production processes, digital sustainability reporting, implementation of green accounting and sustainable financial reporting, and the extra-organizational values of green accounting, long-term improvement and sustainability of organization operations, greenhouse gas emissions, environmental waste, measurement and evaluation of environmental issues, and reduction of environmental impacts. Also, the external dimension of green accounting with the social component has indicators of social environmental beliefs, carrying out social responsibility regarding environmental issues, achieving sustainable development goals, environmental management accounting, disclosure of environmental information, interaction between the organization and stakeholders regarding environmental issues, legitimacy theory regarding the social responsibility of organizations, social beliefs, carrying out activities of organizations in line with the general interests of society, carrying out social responsibility of steel companies regarding environmental issues, carrying out the organization's activities based on the expectations of society, and paying attention to the principles of sustainability in steel companies regarding environmental issues. The monitoring and evaluation component has indicators of monitoring environmental issues of steel companies, evaluating and controlling environmental issues of steel companies, adverse effects of environmental pollution of steel companies, unsustainable actions of steel companies, environmental pollution of steel companies, destructive environmental effects of steel companies, evaluating the environmental performance of steel companies, and managing environmental issues of steel companies. The results of the research are consistent with the studies of Khalkhali (2014), Deegan (2014), and Noor Ahmadi et al. (2014).

CONCLUSION

Providing accurate and transparent reports on environmental performance builds stakeholder trust. Environmental accounting helps steel companies collect and report information on energy consumption, pollutant emissions, and waste management. This transparency can help attract investment, improve the organization's social relations, and comply with environmental laws and regulations. Consumers and investors are increasingly inclined to support companies that demonstrate their commitment to environmental protection. By adopting an environmental accounting approach, steel companies can position themselves as leaders in social responsibility and gain marketing and competitive advantages. This can lead to customer acquisition, improved market share, and increased social responsibility.

Contribution of Authors

All authors participated equally in all stages of the research.

Ethical Approval

This research was conducted in compliance with the principles of research ethics and informed consent of the respondents.

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Conflict of Interest

The authors declare that there is no conflict of interest.

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