THE ROLE OF INFORMATION SYSTEMS IN ENHANCING GREEN ACCOUNTING PRACTICES: A STUDY ON CORPORATE ENVIRONMENTAL AND FINANCIAL PERFORMANCE

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ABSTRACT

Integrating sustainable business practices is essential for balancing financial performance with environmental responsibility. Green accounting, which incorporates environmental costs into traditional accounting frameworks, is a critical tool in this effort. Information systems (IS) play a vital role in advancing green accounting by enabling organizations to accurately track, analyze, and report both environmental and financial data. This study investigates the impact of IS on green accounting practices and its influence on corporate environmental and financial performance. Corporations are increasingly adopting sustainable practices in response to mounting concerns over environmental degradation and climate change. Green accounting provides a framework for quantifying the environmental costs of business operations, facilitating informed decision making, and promoting transparency. However, implementing green accounting poses challenges such as the complexity of data collection, analysis, and reporting. This study explores how IS can address these challenges and improve both environmental and financial outcomes. Using a mixed-methods approach, this study combined both quantitative and qualitative research. The quantitative component surveys 150 corporations across various industries, assessing their use of IS in green accounting and measuring environmental and financial performance. The qualitative component included interviews with key stakeholders including CFOs, environmental managers, and IS specialists. The findings reveal that IS significantly enhances green accounting efficiency and accuracy. Corporations using advanced IS report more precise and timely environmental cost data, leading to better decision making, increased transparency in sustainability reporting, and stronger environmental performance. In addition, these corporations benefit from reduced emissions, improved resource efficiency, cost savings, and increased investor confidence. The study also highlights that challenges, such as data complexity and integration, can be mitigated through strategic IS deployment, further reinforcing positive environmental and financial impacts. The findings suggest that practitioners should invest in robust IS for green accounting, while policymakers should develop guidelines and incentives to encourage IS adoption, thereby promoting corporate sustainability.

***Keywords*:** Environmental management, information systems, green accounting, performance metrics, sustainability