

FACTORS AFFECTING THE APPLICATION TO GREEN ACCOUNTING OF SMES IN DONG NAI PROVINCE

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ABSTRACT

This study examines the influence of state agencies and accounting association on the adoption of green accounting by small and medium-sized enterprises (SMEs) in Dong Nai, Vietnam. A survey of 258 SMEs was conducted using a 5-point Likert scale and data analysis through SPSS, the results confirmed that (1) Structure and resources of SMEs; (2) functions of Accounting Association and (3) State agencies positively impact on the application of green accounting of SMEs in Dong Nai. The findings guide state management agencies in other regions to formulate policies aiding SMEs in embracing green accounting and moving towards sustainability. Accounting associations can leverage these results to improve SMEs' understanding in Dong Nai and offer practical support suited to local needs. This study, by investigating the roles of state agencies and accounting associations, enhances the understanding of factors influencing the effective adoption of green accounting practices among SMEs in Dong Nai, Vietnam

1. ASK THE PROBLEM

Green accounting is a field of research and application of accounting, which aims to measure, manage, and report on the environmental and sustainability impacts of business activities (Jha et al., 2024). Important issue in green accounting is the need to develop standardized methodologies and guidelines for measuring and reporting environmental performance. This will help ensure consistency and comparability across organizations and facilitate the adoption of green accounting practices. Additionally, there is a need for

greater transparency and disclosure of environmental information to stakeholders, including investors, customers, and regulators. This can help promote environmental responsibility and encourage companies to adopt more sustainable practices (Jha et al., 2024).

Applying green accounting brings many practical benefits to businesses, especially SMEs. It help these enterprises reduce their environmental footprint, save costs, and improve their reputation among consumers and investors (Del Baldo, 2019). By adopting

sustainable practices, companies can demonstrate their commitment to social responsibility and environmental stewardship, which can lead to increased customer loyalty, higher sales, and a stronger brand image (Nguyen et al., 2021). Furthermore, green accounting can enable businesses to identify opportunities for innovation and efficiency improvements, resulting in lower operational costs and increased profitability. Ultimately, embracing green accounting can provide a competitive advantage for businesses, both domestically and globally, by positioning them as leaders in the transition towards a more sustainable future (Del Baldo, 2019).

In Dong Nai, according to the Department of Natural Resources and Environment of Dong Nai province, the locality currently has nearly 3.3 million people, which is forecast to increase rapidly due to immigration, many newly formed urban areas, and enterprises established in industrial parks (IPs). Many localities are under considerable pressure in managing and treating environmental pollution in all aspects such as exhaust gas, industrial wastewater, domestic wastewater, protection of mineral resources, etc. Green accounting is considered an important tool related to the aspects of the influence of the natural environment on the economy and is considered the direction of transformation in a sustainable development mode, towards the development of a green economy (Ozili, 2022).

Therefore, this study was conducted to explore the role of state agencies, accounting associations as well as SMEs themselves in the process of applying green accounting at the unit. This result will be the basis for businesses, state agencies, and accounting associations to have more understanding and strengthen the mechanism of coordination and mutual impact towards the implementation of the green

economy of Dong Nai province. In addition, the results are also a reference basis for state management agencies in other provinces and cities to consider promulgating policies to support SMEs to implement green accounting and sustainable economy. Along with that, the accounting association can refer to this study to enhance the understanding of SMEs in Dong Nai, thereby providing practical support in accordance with local characteristics

2. THEORETICAL BASIS

2.1. The role of state agencies in application of green accounting of SMEs

Government agencies have a crucial part to play in encouraging small and SMEs to adopt green accounting practices. Some of their duties include (Javed et al., 2022):

State agencies have the responsibility of formulating policies and regulations that promote the adoption of green accounting practices. This entails developing environmental reporting standards, setting guidelines for incorporating environmental expenses in financial statements, and enforcing compliance with environmental regulations. By setting clear policies, state agencies can foster an environment that encourages SMEs to adopt green accounting in their operations.

To motivate small and medium-sized enterprises (SMEs) to adopt eco-friendly accounting practices, government agencies can offer various incentives, including tax exemptions, grants, and subsidies for businesses that invest in environmentally friendly technologies or practices. Furthermore, they can provide support by offering training programs, workshops, and access to resources that help SMEs comprehend and implement green accounting principles.

State agencies are accountable for overseeing compliance by small and medium-

sized enterprises (SMEs) with environmental regulations and green accounting practices. This involves conducting regular audits, inspections, and requiring reports to ensure adherence to established standards. The implementation of enforcement mechanisms, such as penalties for non-compliance, is crucial for preserving the credibility of the green accounting framework.

State agencies are responsible for raising awareness of the significance of green accounting and its advantages for businesses and the environment. They can carry out this task through public campaigns, educational programs, and partnerships with media outlets. By doing so, they can encourage small and medium-sized enterprises, as well as the broader business community, to adopt green accounting practices.

2.2. The role of accounting associations in application of green accounting of SMEs

Professional organizations, such as accounting associations, also play a crucial role in promoting and implementing green accounting. They contribute to this effort in several ways, including (Najib et al., 2022):

Accounting associations play a crucial role in establishing and promoting environmental accounting standards and recommendations. They work in partnership with governmental bodies to ensure that these guidelines comply with national and international best practices. Furthermore, they offer support to small and medium-sized enterprises by providing guidance on incorporating environmental costs into their accounting systems and financial reporting procedures.

Professional Development and Training: Accounting associations provide training programs, workshops, and certifications that equip accountants and financial professionals

with the necessary skills and knowledge to implement green accounting. By cultivating a community of professionals proficient in green accounting practices, these associations ensure that SMEs have access to qualified individuals who can guide them in their sustainability endeavors.

Advocacy and Representation: Accounting associations advocate on behalf of SMEs during discussions with state agencies and other stakeholders. They represent the concerns and needs of their members, ensuring that the regulatory framework for green accounting is practical and supportive of SME operations. Through advocacy, they contribute to shaping policies that facilitate the widespread adoption of green accounting.

Accounting organizations play a significant role in the growth of green accounting by conducting thorough research on new trends, challenges, and effective methods. They achieve this by disseminating their discoveries to their members and the broader business community, resulting in the advancement of the green accounting field and the inspiration of innovative approaches in its practical application.

2.3. Foundation theories

Sustainable Development Theory

Sustainable Development Theory highlights the necessity of harmonizing economic growth with environmental conservation and social fairness, and green accounting serves as a useful tool for organizations to gauge and communicate their environmental performance, thereby bolstering their efforts to achieve sustainable development objectives (Hussain et al., 2016).

Green accounting has shown both promising results and areas of improvement. Some studies, such as Dhar et al. (2022), have

found that it can positively impact sustainable development, like improving the sustainable development capabilities of heavily polluting companies (Dhar et al., 2022). On the other hand, Pandin et al. have reported that the implementation of green accounting has not significantly affected sustainable development, potentially due to inconsistent application. Additionally, the concept of green accounting is still evolving, and it faces challenges like the need for standardization and recognition of its long-term benefits (Chotaliya, 2022).

Environmental Protection Theory

Environmental Protection Theory (EPT) stresses the significance of preserving the environment through various practices and policies aimed at minimizing adverse environmental consequences. Green accounting is a practice that falls in line with EPT by offering a structure for organizations to gauge, manage, and disclose their environmental expenses and performance (Ogunode, 2022). The use of green accounting enables the recognition and execution of environmentally responsible practices, which are critical for safeguarding the environment and ensuring sustainability.

Environmental stewardship is supported by EPT, but the actual implementation of green accounting can differ significantly in various situations. Research has demonstrated that the adoption of green accounting has a positive impact on environmental performance, and this, in turn, enhances corporate social responsibility disclosure. Furthermore, green accounting practices can result in improved operational efficiency, reputation, and competitive advantage, which are beneficial for both the environment and business sustainability (Sudarminto & Harto, 2023). Nevertheless, the

potency of green accounting is influenced by factors such as national culture, which can impact the level and execution of sustainability accounting and management practices (Lee & Herold, 2018).

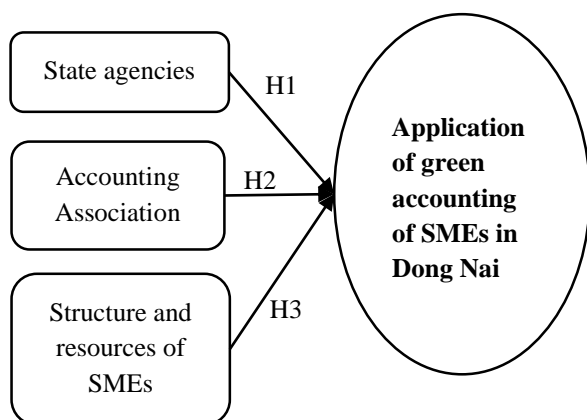
Theory of corporate social responsibility

Corporate Social Responsibility (CSR) is a principle that involves a company's ethical duty to incorporate social, environmental, and economic aspects into its operations, with the aim of having a positive impact on society and the environment (Prahara & A'yuni, 2021). On the other hand, Green Accounting is a paradigm that motivates businesses to make decisions that consider not only profitability but also the environment and society (Suryani & Jumaida, 2022).

Studies have produced mixed results regarding the direct impact of Green Accounting on a company's financial performance. While some research suggests that Green Accounting may not significantly affect financial performance on its own (Suryani & Jumaida, 2022), other studies indicate its positive influence on environmental performance and CSR disclosure (Kraus et al., 2020). In contrast, CSR has been shown to have a positive effect on company performance, which may improve a company's corporate image and stakeholder interest, leading to better performance (Suryani & Jumaida, 2022).

3. RESEARCH METHODOLOGY

On the basis of the relationships and impacts of state agencies and accounting associations along with the resources and development strategies of SMEs themselves in applying green accounting at the unit, the authors develop the following research model.



The survey questionnaire was developed by incorporating a scale derived from previous research studies conducted by Dhar et al. (2022), Javed et al. (2022), Masron et al. (2024), and Najib et al. (2022).

Figure 1: Research model

Table 1. Scale of independent variables

No.	Item	Measures
1	Scale of State Agencies (CQ)	
1.1	CQ1	Legal regulations, legal system on GA
1.2	CQ2	Document guiding the application of GA
1.3	CQ3	Remuneration regime, encouraging enterprises to apply GA
1.4	CQ4	Sanctions for violations of environmental tax and fee policies for SMEs
2	Scales of the Accounting Association (HH)	
2.1	HH1	Activities to propagate, guide and support enterprises in applying GA
2.2	HH2	Short-term and long-term training courses for enterprises on GA
2.3	HH3	Recommendations to supplement the standards based on international experience
2.4	HH4	Organizing seminars on GA between the association and SMEs
3	Scale of Structure and resources of SMEs	
3.1	DN1	Qualifications of managers and accountants
3.2	DN2	Business areas of the enterprise
3.3	DN3	Awareness of environmental social responsibility
3.4	DN4	The geographical location of the business
3.5	DN5	Applicable enterprise accounting regime

The research analyzed 270 small and medium-sized businesses in Dong Nai through a survey. The survey primarily utilized the Likert scale, which comprised 5 levels, ranging from 1 (completely disagree) to 5 (completely agree). The survey achieved 258 favorable

responses. The favorable responses were encrypted and inputted into the SPSS software for statistical analysis. The survey was administered between June 2024 and August 2024.

4. RESEARCH RESULTS

4.1. Results of reliability testing of the scale

Table 2. Scale reliability

Scale	Coefficient Cronbach's Alpha
1. State agencies (CQ)	0,824
2. Accounting Association (HH)	0,807
3. Structure and resources of SMEs (DN)	0,881
4. The application of green accounting of SMEs in Dong Nai province	0,865

The analysis's outcomes (Table 2) illustrate that the dependability factors fulfill the prerequisite of > 0.5 , as demonstrated by the Cronbach's Alpha coefficient of the groups, which ranges from 0.807 to 0.887. Furthermore, the correlation coefficient of the overall variable surpasses 0.3, specifically falling between 0.725 and 0.771. Consequently, these variables are employed in the exploratory factor analysis (EFA).

4.2. EFA Analysis Results

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.813
Bartlett's Test of Sphericity	Approx. Chi-Square 1936.467
	Df 78
	Sig. .000

Based on the EFA analysis of the independent variables, it can be concluded that

the independent variables exhibit a KMO coefficient of 0.813, which is greater than the acceptable threshold of 0.5, indicating that EFA analysis is appropriate. Additionally, the Barlett test indicates a significance level of Sig. = 0.000, suggesting that the observed variables from CQ1 to DN5 are linearly correlated with the representative factor. Furthermore, the analysis of the rotation matrix reveals that all variables have a coefficient of > 0.5 and are arranged in the order of the representative factors, indicating that they will not be excluded (Table 3).

Table 4. Rotation matrix of independent variables

Items	Factor Load Factor		
	1	2	3
CQ1	.850		
CQ2	.840		
CQ3	.712		
CQ4	.685		
HH1		.810	
HH2		.805	
HH3		.673	
HH4		.671	
DN1			.898
DN2			.870
DN3			.801
DN4			.773
DN5			.532

4.3. Correlation analysis

Table 5. Correlation matrix

		State agencies	Accounting Association	Structure and resources of SMEs
State agencies	Pearson Correlation	1	.486**	.373**
	Sig. (2-tailed)		.000	.000
	N	258	258	258
Accounting Association	Pearson Correlation	.486**	1	.508**
	Sig. (2-tailed)	.000		.000
	N	258	258	258
Structure and resources of SMEs	Pearson Correlation	.373**	.508**	1
	Sig. (2-tailed)	.000	.000	.000
	N	258	258	258
The application of green accounting of SMEs in Dong Nai province	Pearson Correlation	.300**	.551**	.933**
	Sig. (2-tailed)	.000	.000	.000
	N	258	258	258

The outcomes of the correlation analysis (as shown in Table 5) indicate that there is a strong association between the dependent variables and independent variables, as evidenced by the correlation coefficients ranging from 0.300 to 0.933. This suggests that the dependent variables can be adequately explained by the independent variables. Furthermore, the Sig. value associated with the independent variable is greater than 0.05, which supports the

acceptance of the hypothesis. It is also worth noting that there is no variation in the variance of the model, as the overall correlation coefficient is 0, and there is no evidence of multi-collinearity between independent variables, as the VIF coefficient is less than 3 (Akinwande et al., 2015) (as per Table 6).

4.4. Multiples Regression Analysis

Table 6. Results of regression analysis

Model	Unstandardized regression coefficients		Normalized regression coefficients	t	Sig.	VIF
	B	Standard Error	Beta			
Constant	0,058	0,103		0,562	0,575	
State agencies	0,097	0,022	0,107	4,368	0,000	1,347
Accounting Association	0,182	0,033	0,146	5,556	0,000	1,563
Structure and resources of SMEs	0,954	0,026	0,896	36,260	0,000	1,388

R2 calibration: 0.886

Durbin-Watson Statistics: 21,871

Statistics F(ANOVA): 668,032

Significance Level (Sig. of ANOVA): 0.000

The analysis (Table 6) demonstrates that the application of green accounting in small and medium-sized enterprises (SMEs) is influenced by several factors, including state management agencies, accounting professional associations, and the enterprises themselves. The results show that these factors collectively account for 88.6% of the observed impact, as indicated by the adjusted R² value of 0.886. Furthermore, the F test's Sig. value of 0.000 suggests that the proposed model is suitable for the survey sample. The independent variables of CQ, HH, and DN, as well as the dependent variable of green accounting application in SMEs, all have Sig. values less than 0.05, indicating statistical significance. The tolerance coefficients for these variables range from 0.640 to 0.743, while the VIF coefficients are all less than 3 (from 1.347 to 1.563), indicating no multiline phenomenon between independent variables. The regression model resulting from these findings is presented in Table 6

$$Y = 0.058 + 0.896 * DN + 0.146 * HH + 0.107 * CQ$$

5. CONCLUSIONS AND RECOMMENDATIONS

According to the findings, environmental concerns are substantial for manufacturing businesses in Dong Nai province. The factors affecting the implementation of green accounting in Dong Nai can be categorized as follows: (1) Structure and resources of SMEs; (2) Accounting Association; (3) State agencies. Based on these results, the authors suggest the following recommendations:

First, for state agencies

Undertake the formulation of an appropriate legal framework, which serves to guide and encourage the application of green accounting in small and medium-sized enterprises (SMEs). Implement preferential policies, tax incentives,

and concessional credits to motivate SMEs to adopt green accounting practices.

Implement training and retraining programs for accountants of SMEs with a focus on green accounting. Develop comprehensive guidelines and manuals on green accounting, specifically tailored to the needs of SMEs.

Provide consulting services and technical support to assist SMEs in the process of implementing green accounting. Establish a financial support fund or collaborate with financial institutions to provide capital to SMEs for adopting green accounting practices.

Facilitate cooperation and experience sharing by organizing forums and seminars for SMEs to share experiences and learn from one another regarding green accounting. Encourage and support the formation of networks and associations of SMEs to collaborate in implementing green accounting.

Enhance communication campaigns and emphasize the benefits of green accounting to raise awareness among SMEs. Develop evaluation indicators and awards to recognize and encourage SMEs to apply green accounting effectively.

The harmonious integration of these solutions will stimulate SMEs to be more proactive and effective in applying green accounting, thereby contributing to the attainment of the country's sustainable development objectives.

Second, for the accounting association.

Professional accounting organizations can offer several solutions to support SMEs in adopting green accounting practices. These solutions include:

Developing and disseminating guidelines and standards for green accounting: Providing specific instructions on how to record, measure,

and report environmental and social information. Updating current accounting standards to incorporate green considerations.

Enhancing knowledge and training on green accounting: Organizing training courses and seminars for accountants, as well as developing university and college programs to educate the next generation of accounting professionals.

Offering tools, forms, and software for green accounting: Providing appropriate reports, forms, and software to support SMEs in their efforts to adopt green accounting practices. Offering assistance in using these tools effectively.

Strengthening oversight and auditing of green accounting: Developing standards and regulations for auditing and evaluating green accounting reports and implementing programs to inspect and supervise the implementation of green accounting practices in SMEs.

Creating incentives and recognition for green accounting: Developing policies, incentive programs, and financial support for SMEs to adopt green accounting practices, as well as honoring enterprises that demonstrate effective implementation of these practices.

These solutions, when implemented, will contribute to the widespread adoption of green accounting in SMEs and support their long-term sustainability.

Finally, for SMEs

Develop a comprehensive and dedicated approach towards sustainable development: Craft a clear vision, mission statement, and commitment to sustainable development within the organization. Integrate sustainable development targets and performance indicators into the business plan.

Enhance financial reporting and accounting practices: Establish a robust accounting system

and generate financial information in compliance with the principles of green accounting. Prepare and distribute financial statements and sustainability reports.

Provide training and capacity building in green accounting: Assign personnel to attend relevant training courses and seminars on green accounting. Develop an internal training program focused on green accounting principles and practices.

Leverage digital technologies and automation: Implement digitalization and automation of accounting processes to minimize resource usage. Utilize green management software and solutions to streamline operations.

Strengthen partnerships and collaborations: Collaborate with accounting organizations and associations to exchange knowledge and experiences. Partner with entities in the same industry to promote green accounting practices.

Foster a supportive and sustainable work environment: Create a workplace that promotes eco-friendly practices and values. Implement policies and incentives to encourage employee participation in sustainable initiatives.

The implementation of the aforementioned strategies will facilitate the successful execution of green accounting by SMEs, leading to increased competitiveness and sustainable growth.

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