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The impact of social responsibility on competitive advantage of small and medium-sized enterprises in Hanoi, Vietnam

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Abstract

Small and medium-sized enterprises account for more than 98.2% of total enterprises in Hanoi and contribute significantly to the city's employment, innovation, and GDP. This study aims to analyze and evaluate the influence of corporate social responsibility and green marketing on the competitive advantage of small and medium-sized enterprises in Hanoi, Vietnam. With 292 valid survey responses, data analysis was conducted through PLS-SEM. The study results show that corporate social responsibility and green marketing are critical to the competitiveness of small and medium-sized firms in Hanoi. Corporate social responsibility positively influences green marketing and corporate reputation. Similarly, green marketing strongly impacts corporate reputation, while corporate reputation contributes substantially to competitive advantage. Indirect effects were also observed. Accordingly, corporate social responsibility and green marketing enhance competitive advantage through corporate reputation. Additionally, corporate social responsibility indirectly affects corporate reputation via green marketing. The research findings show that integrating corporate social responsibility and green marketing strategies improves enterprises' reputation, which in turn improves competitive advantages.

Keywords social responsibility, green marketing, reputation, competitiveness, economic growth, community welfare, environment

JEL Classification M14, Q01, E29

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INTRODUCTION

Small and medium-sized enterprises (SMEs) are important in Vietnam's economic development. As the backbone of the city's economy, SMEs in Hanoi contribute significantly to employment, innovation, and GDP. Their limited scale defines SMEs in Hanoi regarding capital, labor, and revenue. According to the Hanoi Association of Small and Medium Enterprises, as of the first quarter of 2024, small and medium enterprises accounted for more than 98.2% of the total number of enterprises in Hanoi, most operating in the service, manufacturing and retail sectors. Small and medium enterprises create jobs for 55.1% of the workforce, contributing over 40% of the city's GDP (Thuy An, 2024). These enterprises are often characterized by their agility, quick adaption to market change ability, and their pivotal role in local supply chains.

In the context of globalization and increasing social awareness of environmental issues, businesses, especially SMEs, are strongly transforming to pursue sustainable development strategies to enhance competitiveness. Studies show that sustainable development strategies for businesses include corporate social responsibility (CSR), green marketing, and corporate reputation. Corporate social responsibility refers to a company's commitment to ethical practices, community welfare, and environmental protection, that is also a driving force of customers in making decisions (Carroll, 1991). Green marketing has gained attention since businesses increasingly align themselves with the sustainability movement (Ottman, 2011).

Recent studies consider CSR activities and green marketing as essential factors that can improve a company's reputation and competitive advantage because customer expectations are increasingly focused on businesses' socially and environmentally responsible activities. SMEs often operate with limited resources, so the development and application of effective CSR and green marketing are considered as important strategies for SMEs to differentiate themselves in the market. This research examines the impact of CSR and green marketing on the competitive advantage of SMEs in Hanoi. The research results will be the basis for proposing solutions to enhance further the backbone enterprises' competitiveness in the capital's economy.

1. LITERATURE REVIEW AND HYPOTHESES

The corporate social responsibility (CSR) concept has emerged as a critical aspect of business strategy, especially for small and medium-sized enterprises. CSR can be briefly defined as enterprises' active commitment to social and environmental issues in their operations and stakeholder interactions (Carroll, 1999). Recent research has refined this definition, acknowledging CSR's complexity and multidimensional nature (Aguinis & Glavas, 2012). Scholars have highlighted that CSR activities range from philanthropy and ethical labor practices to environmental sustainability and stakeholder engagement (Dahlsrud, 2008). Accordingly, businesses should go beyond their benefit or profit maximization goals in order to consider the broader influences of their activities on society and the environment (Freeman, 1984). For SMEs, CSR effective engagement can increase customer loyalty, which, in turn, strengthens their market position (Gürlek et al., 2017). Research indicates that SMEs who integrate CSR into their core strategies experience better financial outcomes and a stronger market position because they get more favorably by both consumers and investors (Ha et al., 2022; Li et al., 2023). In this study, CSR is approached in a comprehensive and balanced manner between economic, societal, stakeholder interests and environmental responsibilities.

Firstly, *economic CSR* dimensions focus on how businesses contribute to economic development while ensuring ethical practices. According to Friedman (1970), the primary responsibility of businesses is to generate profits for their shareholders. However, such a view has been challenged by the increasing recognition that businesses must also contribute to economic stability and growth in a socially responsible manner (Porter & Kramer, 2007). More recent studies emphasize that SMEs, in particular, play a critical role in economic development by fostering innovation, creating jobs, and contributing to local economies (Spence, 2016). Economic CSR for SMEs also involves ensuring fair wages, ethical supply chain practices, and transparency in financial reporting (Jamali et al., 2017). Secondly, *societal CSR* dimensions refer to the impact of businesses on society, such as contributions to education, social welfare, and community development. Accordingly, SMEs' participation in societal CSR can include practical activities such as participating in community development projects, supporting local charities, and creating inclusive employment (Jenkins, 2006). A study by Lee (2008) shows that businesses' societal CSR activities can enhance their company's reputation, increase customer loyalty, and contribute to their long-term sustainable development. Thirdly, the *CSR for stakeholder* perspective refers to businesses' responsibilities to their stakeholders, including employees, customers, suppliers, and the community (Rober t Edward Freeman, 1984). In recent years, stakeholder engagement in CSR has been highlighted, particularly for SMEs, which often have closer relationships with their stakeholders than giant corporations (Spence, 2016). Effective stakeholder engagement can improve business outcomes, such as increased trust, customer satisfaction, and employee retention (Greenwood, 2007). Studies have also shown that SMEs prioritizing stakeholder interests are more likely to achieve sustainable growth (Morsing & Schultz, 2006). Finally, *environmental CSR* focuses on the responsibility of businesses to minimize their environmental impact. Such responsibilities include reducing carbon emissions, managing waste, conserving resources, and promoting sustainable practices (Hart, 1995). In particular, the growing societal awareness of climate change as well as environmental degradation will promote the consideration of environmental CSR as an essential component of businesses' responsibility (Bansal & Roth, 2000). Despite their smaller scale, SMEs have a significant role in environmental sustainability. Conversely, environmentally responsible practices can enhance an SME's competitiveness by meeting the rising demand for sustainable products and services (Jenkins, 2009).

Green marketing in the context of SMEs refers to the process of developing and promoting products and services that are environmentally sustainable. Nowadays, SMEs adopt green marketing as a tool to promote sustainable development and improve business performance. Through practical activities such as green product innovation, green packaging, eco-friendly production processes, and changing advertising tactics, SMEs reduce their negative environmental impacts and enhance their reputation as well as competitive advantage (Hussain Shah, 2022). Green marketing practices in SMEs have gained attention because consumers become increasingly conscious of environmental issues, leading to an increasing demand for eco-friendly products and services (Dangelico & Vocalelli, 2017). Combining green marketing strategies with green product innovation has proven effective in optimizing business performance and expanding market share in an increasingly environmentally conscious market (Ma et al., 2018). This study examines the green marketing of SMEs through

critical activities such as green product innovation, green packaging, green advertising, and green process innovation. In which, *green product innovation* refers to developing new or modified products with environmental benefits, such as reduced energy consumption, lower emissions, or sustainable materials. SMEs are particularly innovative in this area due to their flexibility and ability to quickly respond to market needs. Studies have demonstrated that GPI can help businesses improve operational efficiency while minimizing environmental impact through using recycled or environmentally friendly materials and optimizing product design to reduce energy consumption and emissions during use (Ma et al., 2018). However, Ma et al. (2018) also pointed out that businesses must combine product innovation with efficient and creative business models to optimize profits because of challenges in the commercialization of green products, such as changes in consumer habits and raw material costs. *Green packaging* refers to reducing the impact of packaging on the environment through using recycled or biodegradable materials and reducing packaging size. Green packaging reduces negative environmental impacts and helps businesses achieve economic benefits through cost reduction and increased competitive advantage (Sarfraz et al., 2022). Adopting green packaging can help businesses enhance their brand image and meet the increasing demand from consumers for environmentally friendly products (Sarfraz et al., 2022). Research in South Africa shows that manufacturing SMEs can gain a competitive advantage through green packaging and green advertising, contributing to improved business performance (Maziriri, 2020). Adopting green packaging in SMEs reduces waste and creates new opportunities for sustainable development, especially in developing markets. However, to succeed, businesses need to integrate innovation elements in processes and products, along with building appropriate business models (Ma et al., 2018; Sarfraz et al., 2022). *Green advertising* is businesses' messages about environmentally friendly products and services, aiming to positively impact customers' consumption behavior (Sarfraz et al., 2022). For SMEs, using green advertising helps build customer trust, enhances brand reputation as well as creates competitive advantages in the market (Ma et al., 2018; Muralidharan & Sheehan, 2018). However, studies also show that the biggest challenge for SMEs is the need for more resources and technology to develop truly green and trustworthy products or services (Sarfraz et al., 2022). *Green process innovation* involves adopting environmentally friendly processes to produce and deliver goods and services, such as reducing energy consumption and waste and minimizing emissions. Businesses' advanced technology and digital leadership applications can help improve their efficiency of production processes and enhance their innovation capabilities and adaptability to change, thereby improving financial results and helping enterprises develop sustainably (Sarfraz et al., 2022). Research by Ma et al. (2018) also shows that applying innovative business models can optimize the economic performance of enterprises, help increase competitive advantage, and improve operational efficiency. In addition, Fernando et al. (2019) identified green processes as a critical driver of sustainability in SMEs.

Corporate reputation is often studied in the context of large corporations. However, corporate reputation has attracted considerable attention in SMEs recently. Generally, corporate reputation refers to the collective perception of a company's stakeholders, including customers, employees, investors, and the broader community, regarding the firm's ability to deliver value (Deephouse & Carter, 2005). For SMEs, corporate reputation is particularly crucial due to its

influences on customer loyalty, employee commitment, and the firm's competitiveness in the marketplace (Walker, 2010). Because of limited resources compared to larger companies regarding marketing budgets or brand recognition, SMEs often rely on reputation as a strategic asset.

According to Porter (1985), competitive advantage comes from businesses performing different activities or performing similar activities in a different way than their competitors. In the case of SMEs, the source of competitive advantage mainly comes from flexibility, creativity, and effective resource management. Unlike large enterprises, SMEs often rely on their agility and ability to leverage niche markets as sources of competitive advantage (Kraus et al., 2018). Because SMEs face challenges with limited resources, including capital, technology, and human resources. Therefore, to maintain competitive advantage, such businesses must focus on developing core competencies while constantly improving and innovating products and services (Barney, 1991). Studies also show that CSR and Green Marketing can contribute to competitive advantage by enhancing corporate reputation, attracting and retaining customers, and building brand loyalty (Brønn & Vidaver-Cohen, 2008).

Studies have recently shown a positive influence between CSR and green marketing among SMEs. For instance, Rocacorba et al. (2024) conducted a study on the correlation between CSR practices and the effectiveness of green marketing strategies in SMEs. The study results show that SMEs with higher levels of CSR, including corporate governance, social contribution, and environmental protection, also exhibited more robust green marketing efforts. Essentially, SMEs implementing CSR activities tend to adopt green marketing practices as a way to communicate their commitment to sustainability, thereby progressively improve their reputation as well as build customer loyalty (L. C. Leonidou et al., 2013). In turn, green marketing can enhance the credibility of an SME's CSR efforts, providing tangible proof of the company's dedication to environmental sustainability (Dangelico & Vocalelli, 2017). Therefore, this relationship is essential for SMEs because it promotes sustainable business practices and can bring long-term financial benefits (Martinez-Conesa et al., 2017).

Moreover, CSR has become an essential factor in shaping the reputation of SMEs. Previously, studies have shown a positive correlation between CSR activities and the reputation of SMEs. For instance, Perrini et al. (2007) emphasized that SMEs engaging in CSR activities will improve their standing with customers, attract and retain talent, and enhance their internal reputation. In addition, CSR activities can reduce risks associated with social and environmental factors that may otherwise harm the reputation of SMEs (Jenkins, 2006). The direct impact of CSR on corporate reputation is also evident in how SMEs communicate their CSR activities. Transparent communication of CSR initiatives helps SMEs build trust with stakeholders, which is important for a strong corporate reputation (Morsing et al., 2008).

Green marketing is becoming acknowledged as a critical tactic for SMEs looking to improve their brand reputation. Consumer awareness and demand for ecologically friendly goods drive SMEs to implement green marketing practices (Peattie & Crane, 2005). Green marketing may help SMEs distinguish themselves from rivals, match the beliefs of environmentally concerned consumers, and ultimately lead to a favorable corporate image and increased brand loyalty (Cronin et al., 2011). Green marketing practices, such as green product innovation, eco-friendly packaging, green process innovation, and sustainable advertising, help

an SME demonstrate its commitment to environmental stewardship. Such commitment is an important reputation driver since stakeholders increasingly respect organizations that prioritize sustainability (Ottman et al., 2006). Furthermore, research shows that SMEs that successfully include green marketing into their business strategy may dramatically boost their company reputation (C. N. Leonidou et al., 2013).

Furthermore, corporate reputation has been recognized as a critical intangible asset that can significantly enhance an SME's competitive advantage (Fombrun & Shanley, 1990). A strong reputation can act as a differentiator that allows SMEs to compete on quality, reliability and ethical business practices rather than price (Rindova et al., 2005). In addition, SMEs with a strong corporate reputation are more likely to attract talented employees, contributing to their competitive advantage by promoting innovation and operational excellence (Carmeli & Tishler, 2004). Empirical studies have shown that SMEs that focus on investing in building and maintaining a positive corporate reputation tend to experience better financial performance and sustained competitive advantages over time (Roberts & Dowling, 2002).

Previous studies have focused on clarifying the role of corporate social responsibility and green marketing in building competitive advantage for SMEs. Accordingly, CSR helps improve customer loyalty and corporate reputation, while green marketing enhances competitive position through product innovation, environmentally friendly packaging, and green processes. However, more empirical evidence in the context of enterprises in Hanoi is needed to better reflect the specific influence in the local business environment. This study aims to analyze and evaluate the influence of corporate social responsibility and green marketing on the competitive advantage of small and medium-sized enterprises in Hanoi, Vietnam.

Based on the theoretical basis and empirical research results on the impact of factors affecting the competitiveness of SMEs above, the following hypotheses are proposed in this study:

Hypothesis 1*: Corporate social responsibility activities positively impact green marketing strategies implementation in the context of SMEs in Hanoi*

Hypothesis 2*: Corporate social responsibility activities positively impact corporate reputation in the context of SMEs in Hanoi*

Hypothesis 3*: Green marketing strategies implementation positively impacts corporate reputation in the context of SMEs in Hanoi*

Hypothesis 4: *Corporate reputation positively impacts competitive advantages in the context of SMEs in Hanoi*

The proposed research model is as follows:

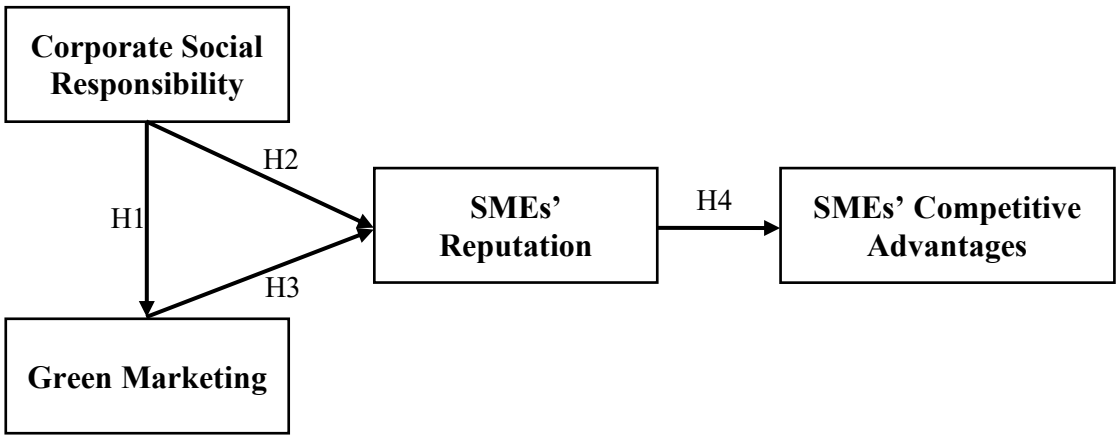

Figure 1. Proposed research model

2. METHODS

With the partial least squares structural model (PLS-SEM), the Smart PLS (v.4.1.0.0) software is used to test the hypotheses and the suitability of the proposed research model. The coefficients and indicators that need to be measured and analyzed for the model include the outer loading coefficient (greater than 0.7); assessment of convergence (Cronbach's Alpha and Composite Reliability (CR) coefficients ≥ 0.7); multicollinearity analysis by collinearity statistics coefficient (1< VIF <3); analysis of the relationship and impact of variables using Bootstrap, SRMR, R^2, f^2.

The questionnaire of this study consists of two parts. Part 1 includes basic survey questions about survey subjects: age, gender, occupation, and income. Part 2 includes 46 questions to measure the impact of Social Responsibility and Green Marketing on the Competitive Advantage of SMEs in Hanoi. Respondents will answer questions on a 5-point Likert scale, increasing from 1: *Strongly disagree* to 5: *Strongly agree*. The questions are based on the order of the given model.

Sampling is an essential process for quantitative studies. The sample must be objectively selected and large enough to meet the study's objective (Hussey & Hussey, 1997). The survey subjects are managers and employees of small and medium-sized enterprises in Hanoi. The sampling frame is a list of respondents classified by age groups (19 - 25, 26 - 35, 36 - 45, and over 46) with many positions from staff, team leader/deputy team leader, department leader/deputy manager, director, or higher. This study uses a convenience sampling technique. Accordingly, sample units will be selected based on convenience or accessibility. Joseph F. Hair et al. (1998) propose that the reasonable minimum sample size is five times the number of observed variables. In addition, Tabachnick & Fidell (1996) and Green (1991) suggest the formula 50 + 8*m to calculate the minimum sample size for multivariate regression analysis. In this case, m is the number of independent variables. With 46 observed variables in this study, the minimum sample size needed is ≥ 230. This study collected 292 valid survey responses, ensuring the reliability of the sample. After identifying the target as managers and employees of SMEs in Hanoi, the research team members arranged the questions according to scientific variables and then asked simple, easy-to-understand questions. The questionnaires were sent directly to managers or business employees who were accessible. The online survey links were

also sent to the Association of SMEs in Hanoi. Online survey forms were conducted from the beginning of August 2024 to September 2024. The online survey form helped reduce the cost of reaching the audience, the cost of coding, data entry, and the quick survey time.

The survey sample was mainly collected using an online survey using Google Forms. The total number of recall questionnaires is 331, but 292 are valid and can be used for data analysis. Description of the survey sample in terms of age and gender is as follows:

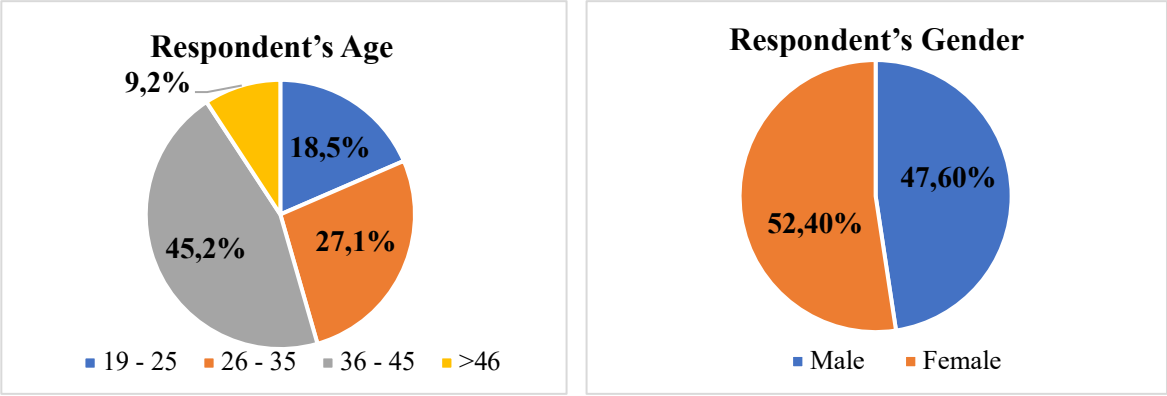

Figure 2. Description of the survey samples

Although the survey was designed to accommodate a wide range of respondents, the age distribution shows that most respondents are between the ages of 26 and 45. This could influence the study's results aimed at assessing factors related to work experience or workers' views at different stages of their careers. In addition, the gender ratio was relatively balanced, helping to ensure the representation of both men and women in the study. This result may contribute to reflecting the perspectives and experiences of both sexes in the study's analyses and conclusions.

3. RESULTS

The results of running the PLS-SEM algorithm are shown in Table 1 below.

Table 1. Construct Reliability and Validity

No	Variables		Outer loadings	Cronbach's Alpha	CR	AVE
1	**CORPORATE SOCIAL RESPONSIBILITY (CSR)**			0.956	0.961	0.589
	Corporate Social Responsibility for the Economy	ecCSR1	0.702			
		ecCSR2	0.702			
		ecCSR3	0.705			
	Corporate Social Responsibility for Society	soCSR1	0.786			
		soCSR2	0.801			
		soCSR3	0.813			
	Corporate Social Responsibility for Stakeholders	stCSR1	0.798			
		stCSR2	0.747			
		stCSR3	0.764			
		stCSR4	0.795			

		stCSR5	0.759			
		stCSR6	0.802			
	Corporate Social Responsibility for the Environment	enCSR1	0.814			
		enCSR2	0.780			
		enCSR3	0.754			
		enCSR4	0.764			
		enCSR5	0.749			
2	**GREEN MARKETING (GR)**			0.975	0.977	0.693
	Green Product Innovation	GPI1	0.839			
		GPI2	0.840			
		GPI3	0.831			
		GPI4	0.815			
		GPI5	0.835			
	Green Packaging	GPA1	0.739			
		GPA2	0.778			
		GPA3	0.765			
		GPA4	0.822			
		GPA5	0.802			
	Green Advertising	GAD1	0.878			
		GAD2	0.859			
		GAD3	0.851			
		GAD4	0.881			
		GAD5	0.874			
	Green Process Innovation	GPRI1	0.839			
		GPRI2	0.843			
		GPRI3	0.854			
		GPRI4	0.859			
3	**CORPORATE REPUTATION (CR)**			0.933	0.949	0.789
	Corporate Reputation (CR)	CR1	0.849			
		CR2	0.891			
		CR3	0.890			
		CR4	0.888			
		CR5	0.921			
4	**COMPETITIVE ADVANTAGES (CAD)**			0.932	0.948	0.786
	Competitive Advantages (CAD)	CAD1	0.856			
		CAD2	0.890			
		CAD3	0.917			
		CAD4	0.903			
		CAD5	0.865			

According to F. Hair Jr et al. (2014), the relationship between the variable's structures will ensure the convergent value when the Composite Reliability (CR) coefficient and Cronbach's Alpha coefficient ≥ 0.7, the Average Variance Extracted coefficient (AVE) ≥ 0.5. Table 1 shows that all concepts have Cronbach's Alpha and Composite Reliability (CR) coefficients that are more significant than 0.7, the AVE coefficients are greater than 0.5, and all Outer loadings are more significant than 0.7. Thus, the concepts have both reliability and convergence values.

The Heterotrait-monotrait ratio (HTMT) coefficient measures the discriminant validity between variable constructs. Henseler et al. (2015) suggest two threshold values to evaluate the discriminant validity between indicators' data set of latent variables (i and j) as follows:

- If HTMTij > 0.9, the indicators' data set of two latent variables (i and j) are similar.

- If HTMTij ≤ 0.85, the indicators' data set of two latent variables (i and j) reach discriminant validity.

Table 2. Discriminant Validity

Heterotrait-monotrait ratio (HTMT) – Matrix

	CAD	**CR**	**CSR**	**GM**
CAD				
CR	0.849			
CSR	0.763	0.861		
GM	0.746	0.848	0.831	

The results of Table 2 show that most of the HTMT indexes are less than 0.85. The HTMT index between *CSR* and *CR* variables is 0.861, greater than 0.85. However, this HTMT index is close to 0.85 and is still less than 0.9. Therefore, it can be concluded that the scales have discriminant validity.

The reliability coefficient results allow the study to take the next step: test the proposed research model. Bootstrapping analysis results (with 5,000 samples and a 5% significance level) evaluate the impact relationship between factors. The Bootstrapping direct analysis results show on Table 3, as follow:

Table 3. Bootstrapping Analysis Results of Direct Effects

Hypothesis	**Paths**	**Original Sample**	**P values**	**Confidence Intervals**	**VIF**	**f^2**	**Hypothesis Conclusion**
H1	CSR -> GM	0.812	0.000	0.772 – 0.853	1.000	1.935	Accepted
H2	CSR -> CR	0.458	0.000	0.322 – 0.590	2.935	0.266	Accepted
H3	GM -> CR	0.440	0.000	0.310 – 0.571	2.935	0.246	Accepted
H4	CR -> CAD	0.794	0.000	0.739 – 0.842	1.000	1.705	Accepted

Table 3 shows that all P-values of the effects are less than 0.01, so these impact relationships are statistically significant. The confidence intervals do not include the value 0. All the resulting VIF coefficients are less than 3, so the model has no multicollinearity. Thus, the research results confirm that the proposed research hypotheses are all accepted.

***Hypothesis 1**:* Corporate social responsibility activities positively impact green marketing strategies implementation in the context of SMEs in Hanoi (β= 0.812, p <0.01). This result suggests that businesses concerned with social responsibility are more likely to implement green marketing strategies.

***Hypothesis 2**:* Corporate social responsibility activities positively impact corporate reputation in the context of SMEs in Hanoi (β= 0.458, p <0.01). This shows that engaging in social responsibility can help SMEs improve their reputation.

***Hypothesis 3**:* Green marketing strategies implementation positively impacts corporate reputation in the context of SMEs in Hanoi (β= 0.440, p <0.01). This result suggests that businesses that adopt green marketing strategies will receive high appreciation from the community, contributing to strengthening their reputation.

Hypothesis 4: Corporate reputation positively impacts Competitive advantages in the context of SMEs in Hanoi (β= 0.794, p <0.01). This means that a good reputation can bring a sustainable competitive advantage to businesses, helping them attract customers and maintain growth in the market.

The $\mathbf{f^2}$ coefficient evaluates the degree of small, medium, and significant impact of the exogenous latent variables according to the values of 0.02, 0.15, and 0.35, respectively (Cohen, 1988). Thus, a value of $\mathbf{f^2}$ less than 0.02 proves that the independent variable does not impact the dependent variable. Table 3 shows that all exogenous variables affect endogenous variables, as shown by the value of the $\mathbf{f^2}$ coefficient, which is more significant than 0.15. Accordingly, *CSR* and *GM* variables had a medium impact on the *CR* variable with the coefficients $\mathbf{f^2}$ of 0.266 and 0.246, respectively. In addition, the *CSR* variable significantly impacts the *GM* variable, and the *CR* variable significantly impacts the *CAD* variable, with the coefficient $\mathbf{f^2}$ of 1.935 and 1.705, respectively.

Table 4 shows the results of testing the indirect effects of the independent variables on the dependent variables, *Corporate Reputation* and *Competitive Advantages*, respectively.

Table 4. Bootstrapping Analysis Results of Indirect Effects

Paths	Original Sample	P values	Confidence Intervals
CSR -> CR -> CAD	0.364	0.000	0.250 – 0.475
GM -> CR -> CAD	0.350	0.000	0.246 – 0.455
CSR -> GM -> CR -> CAD	0.284	0.000	0.201 – 0.372
CSR -> GM-> CR	0.358	0.000	0.255 – 0.464

Table 4 shows that all P-values of the effects are less than 0.01, and the confidence intervals do not include the value 0. So, these impact relationships are statistically significant. Accordingly, the *CSR* and *GM* variables positively impact *CAD* through the mediator variable *CR*. This result proves that businesses that carry out social responsibility and focus on green marketing can enhance their reputation, thereby increasing their competitive advantage.

Moreover, the *CSR* variable is also determined to have a positive indirect impact on the *CAD* variable through the two mediator variables, *GM* and *CR*, respectively. This result shows that mediating variables such as *corporate reputation* and *green marketing* play an important

role in the relationship between corporate social responsibility and *competitive advantage* of SMEs in Hanoi.

In addition to the direct impact, the research results also show that the *CSR* variable indirectly impacts the *CR* variable through the *GM* variable. CSR activities directly enhance reputation and indirectly influence it through green marketing activities, suggesting a complex interaction between these variables.

The **adjusted R^2** coefficient evaluates the effect of independent variables on dependent variables. Table 5 below shows that the adjusted R^2 value of the *GM* variable is 0.658. Thus, the independent variable *CSR* explained 65.8% of the variation of the *GM* variable. The remaining 34.2% was from systematic error and other factors outside the model. Similarly, the independent variables (*GM* and *CSR*) explained 72.9% of the variation of the *CR* variable. Additionally, the independent variable *CR* explained 62.9% of the variation of the *CAD* variable. The remaining 37.1% was from systematic error and other factors outside the model.

Table 5. R-square Coefficients

	R-square	R-square adjusted
CAD	0.630	0.629
CR	0.731	0.729
GM	0.669	0.658

Figure 3 below depicts the estimated results of the proposed structural model. The Path coefficients and p-value are shown on the paths between endogenous and exogenous variables. The Outer loadings and p-value are the coefficients on the path between the observed and latent variables. The numbers in the endogenous variables are the R-square adjusted coefficients.

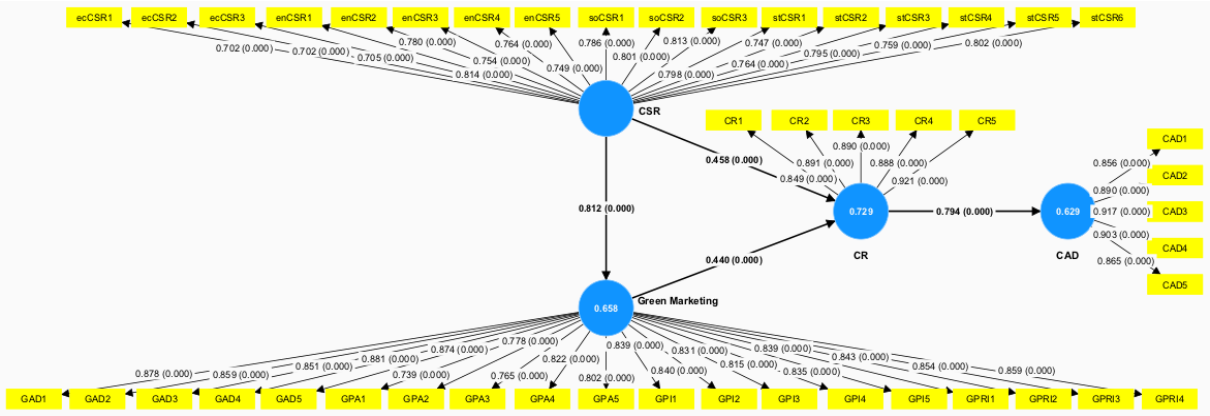

Figure 3. The confirmed research model

The Multi-Group Analysis (MGA) in SmartPLS evaluates the differences in the impact relationships in the SEM model between different values of the qualitative variable. This study also examines the differences between the male and female survey data on the relationships in the proposed research model.

Table 6. PLS-MGA and Bootstrapping Results

Paths	PLS-MGA	Bootstrapping Results

	P values new (Female vs Male)	P values (Female)	P values (Male)
CR -> CAD	0.824	0.000	0.000
CSR -> CR	0.449	0.000	0.000
CSR -> GM	0.412	0.000	0.000
GM -> CR	0.588	0.000	0.000

Table 6 shows that all P values (in both male and female sample data) in the Bootstrapping results are less than 0.05, proving that the impact relationships in the model are statistically significant for both gender groups. This result confirms that the variables in the model significantly affect each other regardless of the gender of the survey participants. In addition, the P values in the PLS-MGA analysis are greater than 0.05 for all relationships, proving no significant difference between males and females in the impact of the variables in the model. This result shows that the impact relationships between CSR (Corporate Social Responsibility), GM (Green Marketing), CR (Corporate Reputation), and CAD (Competitive Advantage) are stable across genders, suggesting that these factors affect both males and females similarly.

4. DISCUSSION

The results of the study demonstrate a positive effect of corporate social responsibility (CSR) on green marketing among SMEs in Hanoi, Vietnam. The results suggest that CSR activities encourage SMEs to adopt green marketing strategies as part of their commitment to ethical and sustainable practices. In addition, CSR activities also directly benefit SMEs' reputations, indicating that socially responsible behavior improves stakeholder views, trust, and brand equity. SMEs must build and sustain a robust reputation through CSR because this intangible asset provides a competitive edge, especially in resource-constrained environments.

The study reveals that SMEs' implementation of green marketing strategies, which promote environmentally friendly goods, resonate well with consumers and other stakeholders, further enhancing their reputation. Because of the increasing consumer awareness of environmental issues, SMEs adopting green marketing strategies are more likely to build strong, positive reputations in their communities. These findings are consistent with previous research highlighting the positive relationship between CSR, green marketing, and corporate reputation in enhancing competitive advantage, such as studies by Martinez-Conesa et al. (2017), Papadas et al. (2017), and Rocacorba et al. (2024).

This research results also show that corporate reputation plays an essential role in the competitive advantage of SMEs in Hanoi. Accordingly, a more robust company reputation gives SMEs a better competitive advantage that helps SMEs to stand out in the market. This means that when SMEs invest in CSR and green marketing, their reputation is boosted, which in turn leads to better performance in the market.

On top of the direct effects, this study also uncovers the indirect influence of CSR and green marketing on the competitive advantages of SMEs in Hanoi through corporate reputation. Corporate reputation's mediating role in linking CSR and green marketing to competitive advantage reveals the layered benefits of these strategies. Accordingly, CSR indirectly enhances competitive advantage by fostering a positive corporate reputation, while green

marketing strengthens reputation, which, in turn, leads to improved competitive positioning. In addition, the study highlights that CSR indirectly affects corporate reputation through its influence on green marketing. Thus, green marketing acts as a bridge between CSR activities and gains in reputation.

The similarities in how men and women evaluate factors such as social responsibility, green marketing, and corporate reputation for competitive advantage may stem from the fact that the values and benefits associated with CSR, green marketing, and corporate reputation have become popular and widely accepted, regardless of gender. The results indicate that in the context of SMEs in Hanoi, CSR and green marketing strategies to enhance competitiveness have equal impacts across gender groups. Accordingly, businesses can apply sustainable development strategies without worrying about gender differences in the effectiveness of those strategies.

Thus, the research results show that leveraging CSR and green marketing for environmental and social benefits is a key factor in the competitive strategy of SMEs in Hanoi, Vietnam. These research results outline a practical roadmap for SMEs to achieve sustainable growth in a rapidly evolving market.

CONCLUSION

This study aims to analyze and evaluate the influence of corporate social responsibility and green marketing on the competitive advantage of small and medium-sized enterprises in Hanoi, Vietnam. The study's results indicate that corporate social responsibility directly affects corporate reputation and indirectly through green marketing activities. Participation in corporate social responsibility and green marketing activities helps SMEs improve their reputation, thereby enhancing their competitive advantage in the market. In addition, there is no gender difference in the evaluation of corporate social responsibility, green marketing, and corporate reputation factors. This result suggests businesses apply these strategies widely to men and women without special adjustments for each group.

This study's findings suggest several practical implications for SMEs in Hanoi. First, SMEs in Hanoi should integrate CSR into their business strategies to effectively promote green marketing adoption and enhance their image, which is essential for long-term competitive success. Second, SMEs in Hanoi should not consider green marketing only as an environmentally friendly move but as a way to build a strong brand that contributes to competitive advantage. In short, SMEs in Hanoi should build their reputation through sustainable business practices as a basis for the goal of consolidating their sustainable market position.

Despite the important findings, this study has some limitations. First, the study only focused on SMEs in Hanoi, so the results cannot be generalized to businesses in other areas. Second, the study collected survey data over a short period, so the study cannot assess the long-term impact of CSR and green marketing on competitive advantage. Finally, the study relied mainly on self-reported data from businesses, which may lead to bias due to participant subjectivity.

In future studies, expanding the sample to other regions or the entire country would help improve the representativeness and generalizability of the results. In addition, research can be

conducted longitudinally, following businesses over a longer period to assess the sustainable impact of CSR and green marketing on competitive advantage. Other factors such as business size, industry, or cultural differences should also be considered to assess further the different aspects that influence the relationship between CSR, green marketing, reputation, and competitive advantage of businesses.

AUTHOR CONTRIBUTIONS

Conceptualization: The Tuan Tran, Do Thi Tho, Bui Van Vien

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