Journal of International Trade, Logistics and Law, Vol. 11, Num. 1, 2025, 279-293

UNMASKING GREENWASHING: THE IMPACT ON FINANCIAL PERFORMANCE AND THE MEDIATING ROLE OF GREEN REPUTATION

Berk ÖZÇINAR
Yildiz Technical University, Türkiye

Emel ESEN
Yildiz Technical University, Türkiye

Received: Mar 13, 2025 Accepted: May 21, 2025 Published: June 01, 2025

Abstract:
Greenwashing, defined as the misleading and unsubstantiated claims made by companies to appear environmentally responsible, can have multiple effects on companies. This study examines the influence of greenwashing perceptions on financial performance, with a particular focus on the mediating role of green reputation. Data were collected through a survey of 218 employees of companies listed on the Borsa Istanbul Sustainability Index. The results show that companies that engage in less greenwashing not only experience better financial performance, but also that green reputation plays a crucial mediating role in this dynamic. Companies with stronger green reputations mitigate the negative effects of greenwashing, thereby strengthening their financial performance. The study underlines that greenwashing can undermine perceptions of corporate sustainability, weaken trust and damage financial outcomes. By prioritizing authentic sustainability efforts, companies can improve their long-term financial performance and protect their green reputation, which is essential for sustainable success.

Keywords:
Greenwashing, green reputation, financial performance, BIST sustainability index

1. Introduction
In recent years, environmental issues such as global warming, climate change, and water pollution have significantly increased stakeholders' awareness of companies' environmental impacts and the commitments they offer (Siano et al., 2017). As a result, companies have made improving their economic, social, and environmental sustainability one of their strategic objectives. Stakeholders' demand for transparency and high levels of accountability has also increased (Bromley and Powell, 2012). These kinds of expectations towards companies have raised doubts about whether their sustainability practices are genuinely environmentally friendly or merely aimed at enhancing their reputation.

Since the early 1990s, with the growing demand from stakeholders for a greener and more sustainable environment, there has been a significant increase in the number of companies claiming to engage in activities aimed at environmental sustainability (Delmas and Burbano, 2011). In response to stakeholders' increasing concerns and demands regarding environmental and sustainability issues, companies may resort to misleading claims through greenwashing practices (Qayyum and Jamil, 2022). Greenwashing refers to a company's practice of highlighting its positive environmental actions while concealing the negative ones, thereby creating a misleading impression of its environmental performance (Lyon and Maxwell, 2011).

Although greenwashing practices may seem to offer short-term benefits by misleading stakeholders with false sustainability claims, they actually lead to negative outcomes for companies, such as loss of reputation (More, 2019; Bhagavathi, 2020), diminished trust (Guo et al., 2018; Sajid et al., 2024), and financial losses (Samal and Bhalala, 2023). This study examines how companies' greenwashing practices affect their financial performance and the mediating role of green reputation in this interaction.

In this paper, we seek to address critical gaps in the academic literature by exploring the following research questions:
1) What is the impact of greenwashing on the financial performance of firms?
2) Does green reputation play a mediating role in the relationship between greenwashing practices and firm financial performance?
Through this investigation, we aim to clarify whether greenwashing contributes positively or negatively to financial outcomes and to assess the potential influence of a firm's green reputation in moderating this relationship. By addressing these questions, this study provides insights into the complexities of greenwashing within the corporate sector and its broader implications for environmental strategy and financial viability.
First, this study seeks to provide a clearer understanding of the relationship between greenwashing and financial performance. Empirical research on the relationship between greenwashing and financial performance, along with its underlying mechanisms, remains scarce, and existing studies have yielded conflicting results (Li et al., 2023). While some companies may engage in greenwashing to enhance their reputation and attract environmentally conscious consumers, this practice can have unintended negative consequences. Misleading sustainability claims, while potentially beneficial in the short term, often result in reputational damage, loss of stakeholder trust and even financial penalties. By exploring this relationship, the study aims to clarify whether greenwashing has a positive or negative impact on financial outcomes and to shed light on the risks and benefits of such practices within corporate sustainability strategies.
Second, in examining the relationship between greenwashing and financial performance, this study also considers the mediating role of green reputation. A company's green reputation, based on its environmental responsibilities and sustainability practices, significantly influences public perception and stakeholder trust. When companies engage in greenwashing, their green reputation can either buffer or amplify the financial impact of these practices. For example, a strong, positive green reputation could temporarily shield a company from the negative effects of greenwashing, while a weak or damaged green reputation could intensify stakeholder backlash and lead to greater financial consequences. By focusing on green reputation as a mediator, the study aims to uncover how environmental responsibilities and sustainability practices can alter the financial outcomes associated with greenwashing practices.
Third, this study gains additional relevance by focusing on firms listed on the Borsa Istanbul Sustainability Index. The inclusion of these companies is meaningful as they are publicly committed to sustainability standards, making them highly visible to investors and stakeholders who prioritize environmental responsibility. As members of a recognized sustainability index, these firms are expected to exemplify authentic sustainable practices. Examining their engagement in greenwashing within this context offers insights into whether their sustainability claims align with investor and stakeholder expectations.
As a result, to investigate how green reputation influences the relationship between greenwashing and financial performance, this study examines the mediating role of green reputation in this dynamic. By focusing on green reputation as a mediating factor, this research contributes to the literature by clarifying the complex mechanisms underlying the relationship between greenwashing and financial performance. This study adds value by addressing gaps in previous research and providing insights into how a firm's environmental reputation can mitigate or amplify the financial effects of greenwashing practices, thus helping firms to better understand the strategic implications of their green marketing and sustainability claims.

2. Literature review and hypothesis development

2.1. Theoretical background

We refer to signal theory, which offers insights into the communicative processes of businesses and that lead to this exchange of information (Seele and Gatti, 2017). Signal theory is used to explain how the sender communicates and how the receiver interprets the signal in a two-way communication (Connelly et al., 2011). Signal theory (Spence, 2002) suggests that one party can use visible signals to convey characteristics that are otherwise hidden. Stakeholder attitudes and behaviors towards the business are responses to these signals (Schena et al., 2015). If these characteristics are valued by the audience, the party sending the signal may gain a premium advantage.
Greenwashing is caused by the information asymmetry in the communication between companies and their stakeholders during this signaling process (Connelly et al., 2011). Delmas and Burbano (2011), in their typology of

companies based on environmental performance and communication, describe the greenwashing activities of companies. In this typology, companies' environmental performance is expressed as “green” and “brown”, and their communication preferences are expressed as “vocal” and “silent”. Compared to "silent brown" and "silent green" approaches, greenwashing may produce a stronger signaling effect (Li et al., 2023). According to Walker and Wan (2012), firms primarily engage in greenwashing for two reasons: to gain legitimacy, as suggested by legitimacy theory, and to send a clear signal to stakeholders about their stance on environmental issues, as explained by signaling theory. Through symbolic actions or "green talk", firms aim to project an image of environmental responsibility, using greenwashing as a strategic signal to communicate their values to stakeholders (Torelli et al., 2019).

2.1.1. Greenwashing

The increasing influence of the sustainability concept on stakeholders has led some companies to use green terms and labels more frequently in an attempt to appear more environmentally friendly than they actually are. The lack of universal and international regulations that would promote responsible environmental behavior and penalize abuses can enable businesses to engage in deceptive practices (Delmas and Burbano, 2011). Greenwashing is defined as the practice of overstating the environmental sensitivity of business practices, products, and services (Dixon, 2020).

Greenwashing, first introduced by Jay Westerveld in 1986, is defined as making false or misleading claims about the environmental benefits of a product, service, technology, or company practice (Gillis, 2024). According to Delmas and Burbano (2011), greenwashing emerges at the intersection of two behaviors: companies exhibiting poor environmental performance and having a desire to communicate positively about their environmental performance.

We refer to legitimacy theory to understand the motivations behind greenwashing. The concept of legitimacy was first introduced by Ashforth and Gibbs (1990) and was later expanded by Suchman (1995) from a more managerial perspective. Suchman (1995) defined legitimacy as “the perception or assumption that a company's actions are appropriate within the social structures of norms, values, and beliefs.” According to legitimacy theory, a company is considered legitimate when its performance is perceived as fair and worthy of support, meaning it is socially accepted. Deegan (2002) stated that companies provide sustainability disclosures to improve stakeholder perceptions of their sustainability performance.

There is a general consensus that greenwashing is a deliberate attempt by companies to highlight positive activities while concealing negative information (Lyon and Maxwell, 2011; Bowen and Aragon-Correa, 2014; Attig et al., 2020). Rather than putting in the effort to improve their environmental performance, companies engaged in greenwashing use various communication strategies to exaggerate and misrepresent their environmental achievements (Delmas and Burbano, 2011). Greenwashing refers to deceptive practices by companies aimed at concealing errors and deviations, reassigning blame, demonstrating that activities are conducted correctly, obscuring the causes of problems, appearing accountable to regulators, and enhancing reputation in the eyes of stakeholders (Laufer, 2003).

2.1.2. Green reputation

Fombrun and Van Riel (1997) defined reputation as ‘the representation of an organization's past actions and outputs as a whole, defining its ability to deliver valuable outcomes for its stakeholders’. Fombrun (1996) defined reputation as a social construct based on stakeholders' perceptions. Stakeholders are influenced by corporate reputation when making decisions about products, businesses and investments (Fombrun and Shanley, 1990). Companies with a high reputation can differentiate from their competitors in terms of competition, attract more customers, set prices more flexibly, and therefore achieve more sustainable financial success (Komarek et al., 2013; León-Bravo et al., 2019). For investors, they are generally perceived as less risky and more attractive for investment (Michelon, 2011). Strategic management literature suggests that corporate reputation is an important competitive advantage that can benefit firm performance (Nardella et al., 2023).

Reputation is a multidimensional concept that is influenced by different factors and leads to different results (Afum et al., 2023). From an environmental perspective, a company's reputation in environmental issues can be expressed as green reputation (Shin and Ki, 2019). Companies that carry out environmentally responsible activities and have a history of fulfilling their social obligations are rewarded by their stakeholders with green reputation, which can be considered as a subheading of corporate reputation (Fonseca et al., 2011). Due to the increasing environmental awareness of stakeholders in recent years, green reputation has become an important intangible asset to attract

employees, customers, investors and other stakeholders (Rivera et al., 2017). Companies have started to develop and implement green reputation strategies in order to create an image that their activities are socially and environmentally responsible in the eyes of their stakeholders and to achieve better environmental performances (Kumar et al., 2019).

2.1.3. Financial performance

Financial performance is a measure used to assess the short and long-term success of businesses. Richard et al. (2009) stated that financial performance is an indicator of an organization's effectiveness. The financial performance of a company is used to measure the economic success or failure of that company over a period of time. It helps both internal stakeholders (managers and employees) and external stakeholders (investors, lenders, shareholders) to understand how efficient and profitable the company is (Brigham & Houston, 2012). Financial performance is vital for both managers and investors in determining whether a business can maintain its sustainability and competitive advantage. Investors evaluate the return and risk of their investments by looking at the performance of the business (Palepu & Healy, 2013).

Firm's financial performance (profitability) was measured using three accounting variables: return on assets, return on equity, and return on sales, providing a range of metrics used by the investment community to assess corporate financial performance (Waddock and Graves, 1997). Due to the large number of companies, relative performance measures can also be used when capital sizes, sectors of activity and other variables vary (Akgün et al., 2008).

2.2. Hypotheses development

2.2.1. Greenwashing practices and financial performance

Although greenwashing is widespread, there is limited understanding of its impact on a firm's financial performance. According to signaling theory, greenwashing activities can be expected to have a significant impact on financial performance, as the signals created by companies will affect the feedback of receivers (employees, customers, investors, society, etc.) (Connelly et al., 2011). The limited research on greenwashing and firm financial performance generally indicates a negative relationship (Lee and Suh, 2022). Research indicates mixed effects of greenwashing on the performance of non-financial firms: while some studies report negative impacts (Walker and Wan, 2012), others suggest it may have a positive influence (Li et al., 2023).

The positive link between greenwashing and financial performance is based on the assumption that stakeholders do not recognize or uncover greenwashing practices. This connection arises from information asymmetry in the markets, which limits stakeholders' access to information, including the specialized knowledge needed to thoroughly interpret and assess corporate environmental disclosures and the actual underlying performance (Birindelli et al., 2024).

According to Testa et al. (2018), firms that fail to establish an active green communication strategy may experience declining financial performance and reduced shareholder value. Greenwashing is often viewed as a signaling approach that helps convey desired environmental information to interested parties through observable signals. Contextually, greenwashing, recognized as an effective green communication tactic, allows companies to present themselves as environmentally responsible to stakeholders, gain legitimacy, and secure additional resources and support to optimize their financial performance (Jones and Wicks, 1999; Purnamasari and Umuyati, 2024).

H1: Firms' greenwashing activities are related to financial performance

2.2.2. Greenwashing practices and green reputation

The increasing environmental awareness of stakeholders puts companies under pressure to comply with environmental agreements and regulations (Chuang and Huang, 2018). Companies develop various communication strategies to promote their activities and products as 'green' in order to influence their stakeholders, show their activities as environmentally friendly, and enhance their reputation (Allen, 2016; Bhattacharya et al., 2020). Lindblom (1994) revealed that companies can make their disclosures in a way that they can influence the perceptions of their stakeholders in order to gain legitimacy in the eyes of their stakeholders. Companies may prefer to apply these policies in order to provide various benefits and gain reputation in the eyes of their stakeholders (Prakash and Potoski, 2006).

Company reputation consists of the information its stakeholders have about it and the signals they send to form future expectations (Perez-Cornejo et al., 2020). In this context, they may try to enhance their reputation by making misleading disclosures through greenwashing. However, the increasing prevalence of greenwashing causes companies

to lose credibility in terms of sustainability and stakeholders to lose trust and confusion (Sajid et al., 2024). Stakeholders who perceive greenwashing activities decrease their trust in companies and lead to loss of environmental reputation (Gillespie, 2008). Irresponsible and unethical behaviors towards the environment may lead employees to have negative feelings towards the company (Xie and Bagozzi; 2019). Chen et al. (2022) argue that if companies want to enhance their green reputation, they should desist from greenwashing activities that aim to mislead and misdirect stakeholders. Truong et al. (2021) revealed that symbolic environmental activities have a negative impact on reputation, while concrete activities have a positive impact on reputation. Nyilasy et al. (2014) stated that greenwashing activities are not only an ethical problem, but also negatively affect stakeholders' reputations towards companies. Thus, we propose the following hypothesis:
H2: Firms' greenwashing activities are related to green reputation.

2.2.3. Mediating role of green reputation

There are many studies showing that positive reputation is positively related to firms' financial performance (Roberts and Dowling, 2002; Eberl and Schwaiger, 2005; Anderson and Lawrence, 2014; Gatzert, 2015; Shi, 2016). From an environmental perspective, Salama (2005) revealed that the environmental performance of firms positively affects their financial performance and that the most important instrument leading to this effect is the reputation factor. Johnson et al. (2018) stated that environmental activities of companies will benefit companies to increase their profits and economic performance, as they have a positive impact on reputations and brand success. According to Tang et al. (2012), if companies have a significantly positive green reputation, their corporate reputation will increase, which will lead to a significant increase in their financial performance in the long term. In addition, when greenwashing activities are recognized by stakeholders, the negative signal may create a negative impact and lead to a decline in financial performance through green reputation (Walker and Wan, 2012). Thus, we propose the following hypothesis:
H3: Green reputation mediates the relationship between greenwashing and financial performance.

3. Methodology

3.1. Sample and Data Collection

Data was collected from employees of companies listed on the Borsa Istanbul (BIST) Sustainability Index. As of October 2024, the BIST Sustainability Index includes 79 companies, which are selected based on sustainability evaluations conducted by Refinitiv Information Limited Company. Public data disclosed by these companies reveals that they collectively employ approximately 900,000 individuals. According to Orsato et al. (2015), although participation in sustainability indices is voluntary, companies choose to be included in these indices to enhance their reputation, gain a competitive advantage, and support corporate sustainability goals.
For this research, a survey was developed and distributed online to participants in the sample group. The sample consisted of employees from companies on the BIST Sustainability Index, recruited using snowball sampling. A total of 224 employees responded to the survey, with 218 responses deemed complete and valid for analysis.
The survey focused on measuring employees' perceptions of greenwashing, green reputation, and financial performance, targeting internal stakeholders (employees) within the organization. According to Steinmeier (2016), internal stakeholders, especially employees, are the most likely to detect inconsistencies in corporate social responsibility (CSR) practices related to sustainability activities. Compared to external stakeholders, employees are also more likely to respond to greenwashing behaviors, making them key informants in this context.
Table 1 presents the demographic characteristics of the study sample. In terms of gender, 53.2% of respondents are female, while 46.8% are male. Age distribution shows that the majority of participants (60.1%) are between 26–35 years old, followed by 29.8% between 18–25 years, 6.9% between 36–45 years, and 3.2% are 45 and above. Educational background is largely at the undergraduate level (59.7%), with 30.3% holding a master's degree, 6.0% a doctorate, and 4.1% a high school diploma. Regarding work experience, 31.2% have 1–3 years, 28.9% less than 1 year, and smaller groups have 5–10 years (13.3%) or more than 10 years (20.6%) of experience.

Table 1: Demographics

Category	Features	n	%
Gender	Female	102	53,2
	Male	116	46,8
Age	Between 18-25 ages	65	29,8
	Between 26-35 ages	131	60,1
	Between 36-45 ages	15	6,9
	Between 45 age and above	7	3,2
Educational Level	High School	9	4,1
	Licence	130	59,7
	Master's Degree	66	30,3
	PhD	13	6,0
Work Experience	Between 0-1 year	63	28,9
	Between 1-3 years	68	31,2
	Between 3-5 years	13	6,0
	Between 5-10 years	29	13,3
	Between 10 years	45	20,6
Total		218	100

3.2. Measurement and validation

A questionnaire was administered to the participants in order to collect the research data. The first part of the questionnaire includes questions about demographic characteristics and the second part includes items related to the research variables. The green reputation levels of the companies where the participants work were measured through a scale developed by Afum et al. (2023) and consisting of 4 statements. In order to measure employees' perception of greenwashing, the five-item Greenwashing Scale prepared by Chen, Y. S., and Chang, C. H. (2013) and adapted for employees by Robertson, J. L., Montgomery, A. W., and Ozbilir, T. (2023) was used. Employee perception was taken into account in the measurement of financial performance. Because the sample includes companies from different sectors and different sizes, relative performance measures were used to measure financial performance. The financial performance scale adapted by Akgün et al. (2008) from the studies conducted by Ellinger et al. (2002) and York and Mire (2004) was used. Table 2 shows the items used to scale the research variables.

Table 2: Constructs and measurement items

Constructs	Item codes	Items
Greenwashing	GW1	My organization makes misleading claims about its environmental activities.
	GW2	My organization makes vague claims about its environmental activities.

	GW3 GW4 GW5	My organization makes seemingly unsubstantiated claims about its environmental activities. My organization exaggerates its environmental achievements. My organization does not report all important information about its environmental activities, which makes them appear better than they are.
Green reputation	GR1 GR2 GR3 GR4	We have established a better environmental image than our competitors. We are valued and recognized as an environmentally friendly company. We have a good reputation for maintaining a high environmental standard. We have gained a superior reputation for offering eco-friendly products and services.
Financial performance	FP1 FP2 FP3 FP4 FP5 FP6 FP7	My company is better than its competitors in terms of return on investment. My company is better than its competitors in terms of market share. My company is better than its competitors in terms of sales. My company is better than its competitors in terms of profitability. My company is better than its competitors in terms of earnings. My company is better than its competitors in terms of gross profit margin. My company is better than its competitors in terms of market capitalisation.

4. Data Analysis and Results

Structural equation model and SPSS programme were used for the analysis of the research data. As a result of the validity and reliability analyses, the suitability of the measurement models was determined. We used the SPSS PROCESS Macro 4 module to measure the mediating effect of the green reputation variable. SPSS PROCESS is an extension developed by Hayes (2013) and used with SPSS software. This extension is used to test the mediating or moderating effect of one or more variables (Abu-Bader and Jones, 2021).

4.1. Measurement model assessment

Table 3 shows the reliability and validity values of the scales. The shared variance values between the items that make up the scales indicate that the scales are reliable. High composite reliability (CR > 0.9) and average variance extracted (AVE > 0.7) confirm the reliability and validity of the constructs, supporting a robust measurement model.

Table 3: Results of measurement model

Constructs	Item codes	Loadings	Cronbach's Alpha	Composite reliability (CR)	Average variance extracted (AVE)
Greenwashing	GW1	0,913	0,860	0,929	0,725

	GW2	0,857			
	GW3	0,816			
	GW4	0,851			
	GW5	0,818			
Green reputation	GR1	0,888	0,920	0,944	0,807
	GR2	0,911			
	GR3	0,903			
	GR4	0,892			
Financial performance	FP1	0,815	0,810	0,928	0,650
	FP2	0,799			
	FP3	0,813			
	FP4	0,802			
	FP5	0,827			
	FP6	0,777			
	FP7	0,811			

4.2 Structural model assessment
4.2.1. Correlation and Descriptive Statistics
Table 4 presents correlation and descriptive statistics for greenwashing, green reputation, and financial performance. The correlations indicate moderate positive relationships between greenwashing and both green reputation ($r = 0.641$) and financial performance ($r = 0.525$). A stronger correlation is observed between green reputation and financial performance ($r = 0.702$), suggesting that a positive green reputation aligns with improved financial outcomes. Descriptive statistics show mean values close to the midpoint, with moderate variability, particularly in green reputation (SD = 0.937).
In addition, we used Fornell-Larcker criterion and HTMT (Heterotrait-Monotrait Ratio) analysis for discriminant validity analysis. Since the AVE square root values were higher than the correlation coefficients of the variables, it was determined that the proposed model met the discriminant validity criteria according to Fornell and Larcker (1981) criterion.

Table 4: Correlation & Descriptive statistics

Correlation Analysis	1	2	3
Greenwashing (1)	*0,851*		
Green reputation (2)	0,641*	*0,898*	
Financial performance (3)	0,525*	0,702*	*0,806*
Mean	3,50	3,47	3,63
SD	0,774	0,937	0,770

Italics represent the square root of the average variance extracted (√AVE)
* $p < 0,05$

Henseler et al. (2015) stated that according to the HTMT analysis, it should be below 0.90 for concepts that are close in content and below 0.85 for concepts that are distant in content. Table 5 shows the HTMT coefficients for the variables. Examining the HTMT coefficients, it was concluded that the analysis values were lower than 0.90.

Table 5: HTMT Analysis

Correlation Analysis	**1**	**2**	**3**
Greenwashing (1)	-		
Green reputation (2)	0,7199	-	
Financial performance (3)	0,5965	0,7722	-

4.2.2. Regression Analysis

Table 4 displays the results of the regression analysis examining the impact of greenwashing on financial performance. The regression coefficient (β = 0.525) indicates a positive and statistically significant relationship between greenwashing and financial performance, with a standard error of 0.058. This suggests that as greenwashing practices increase, financial performance also tends to improve, at least in the short term.
The high t-value (t = 9.073, p < 0.001) and the significance level (sig. = 0.00) confirm the strength and reliability of this relationship. Additionally, the overall model is significant, as indicated by the F-statistic (F = 82.318), which supports that greenwashing has a substantial effect on financial performance within this context.

Table 4: Regression analysis

	β	**Std. Error**	**t**	**sig.**
Greenwashing □ Financial Performance	0,525	0,058	9,073	0,00
F = 82,318				

4.2.3. Mediation Analysis

For hypothesis testing, we used the PROCESS (model 4) macro for SPSS created by Hayes (2013), which allows us to measure the mediating role of a variable. Table 5 presents the mediation analysis results, highlighting the role of green reputation in the relationship between greenwashing and financial performance. The total effect of greenwashing on financial performance is positive and statistically significant (β = 0.522, p < 0.001), suggesting an overall beneficial impact of greenwashing on financial outcomes. When examining the direct effect of greenwashing on financial performance while controlling for green reputation, this effect remains positive (β = 0.127, p = 0.042), though notably smaller than the total effect. This indicates that greenwashing has a direct positive influence on financial performance, but its strength is reduced when accounting for the mediating role of green reputation.

Table 5: Mediation analysis

Effect of Greenwashing on Financial Performance						
	Effect	se	T	P	LLCI	ULCI
Total	0,522	0,057	9,072	0,000	0,4091	0,6362
Direct	0,127	0,062	2,042	0,042	0,2504	0,1281

Indirect Effect of Greenwashing on Financial Performance

	Effect	BootSE	BootLLCI	BootULCI
Green Reputation	0,3972	0,0630	0,2772	0,5265
Sobel Test: z = 7,663 p < 0,05				

The indirect effect of greenwashing on financial performance through green reputation is also significant (β = 0.3972) and supported by a bootstrapped confidence interval, highlighting green reputation as a crucial mediator. Additionally, the Sobel test confirms the significance of this mediating effect ($z = 7.663$, $p < 0.05$). These findings collectively suggest that greenwashing boosts financial performance not only directly but also indirectly through the enhancement of green reputation, emphasizing green reputation's amplifying effect on the relationship between greenwashing practices and financial outcomes.

5. Discussion

5.1. Theoretical implications

Although there are studies on the concept of greenwashing, there are not enough studies on how it affects the financial performance of companies. While there are studies indicating that greenwashing activities have a negative impact on financial performance (Akturan, 2018; Testa et al.; Gatti et al., 2021; Birindelli et al., 2024); on the other hand, the fact that greenwashing activities are not recognised by stakeholders may positively affect financial performance (Li et al., 2023). In this study, we argue that companies' not engaging in greenwashing activities will increase green reputation and through this, financial performance will increase.

Green reputation reflects external perceptions of companies' environmental sensitivity, which in turn affects financial results. The reason for treating green reputation as a mediating variable is that it modifies the direct impact of a company's greenwashing practices on financial performance. Misleading signals given by companies through greenwashing practices may result in positive financial results in the short term, but in the long term, they may lead to reputational damage and a decline in financial performance. This is in line with the basic assumptions of signaling theory, as unreliable signals are perceived over time and the overall reputation of the company suffers (Herbig and Milewicz, 1993). The fact that firms do not engage in greenwashing activities and that green reputation has a positive effect on financial performance through its mediating role may lead companies with this awareness to give more importance to environmental, social and economic sustainability dimensions instead of profit-oriented understanding. As a result, we make a valuable contribution to the literature by revealing how green reputation operates within the framework of signaling theory and the indirect effects of companies' signaling of their environmental performance on financial performance.

5.2. Practical implications

The study emphasizes that companies should avoid greenwashing practices, even though greenwashing appears to be a lower-cost legitimation strategy (Li et al., 2023). Companies may take low-cost steps in superficial areas (Delmas and Keller, 2005) and make some so-called statements about corporate social responsibility activities instead of incurring costs that increase environmental, social and economic performance (Berliner and Prakash, 2015). Although greenwashing activities may seem to have a positive impact on financial performance in the short term, in the long term, it can be expected to cause businesses to lose their environmental reputation, which may lead to negative financial results. Companies should support their environmental sustainability strategies with concrete and transparent disclosures rather than misleading and false statements. De Jong and Van der Meer (2017) argue that since communication plays a key role in corporate sustainability disclosures, the only way for companies to benefit from their sustainable activities is to make transparent and honest disclosures.

Companies need to support their sustainability claims with evidence, be transparent and avoid misleading marketing tactics. Otherwise, this can lead to reputational damage (Nyilasy et al., 2014; Santos et al., 2024) and financial loss

((Samal ve Bhalala, 2023). This finding is in line with Chen et al. (2022) who found that misleading disclosures and advertisements to stakeholders can damage green reputation. Companies can gain a competitive advantage in the long term if they improve their actual environmental performance rather than fake environmental sensitivity statements. Strengthening a green reputation also contributes to sustainable financial success by making the company favored by stakeholders. Companies that engage in responsible environmental activities are differentiated from their competitors in the long term and their financial performance improves (Salama, 2005; Yadav et al., 2017).

5.3. Limitations and Suggestions for Future Studies

The findings of this study offer important implications, but it should be recognised that there are some limitations. Firstly, data was collected only from employees of companies listed in the Borsa Istanbul Sustainability Index (BIST Sustainability Index). This means that the results can only be valid for companies operating in Turkey, and the examination of the effects on the sustainability strategies of companies in different geographies has been limited. Future research could improve the generalisability of these findings by working with larger datasets from different countries and sectors.

Secondly, the study was based solely on employee perceptions. This implies that perceptions may be subjective and their relationship with objective financial performance should be further investigated. Future research could examine the effects of greenwashing in more depth by using broader data sources (e.g. consumer perceptions, investor feedback or environmental performance indicators).

The third limitation is that the study is based on a cross-sectional design. This design may be insufficient to conclusively demonstrate cause-and-effect relationships between variables. Future studies can use a longitudinal approach to examine changes over time and how green reputation affects financial performance in the long run.

Finally, although this study analyzed the impact of greenwashing and green reputation on financial performance, no other important factors (e.g. company size, market position or competitive conditions) were considered. Future research could reach more comprehensive conclusions by modeling such additional factors.

These limitations suggest that future research should examine the effects of greenwashing more comprehensively with larger data sets, longitudinal studies and multidimensional analyses.

6. Conclusion

This study highlights the complex relationship between greenwashing practices, green reputation, and financial performance. The findings suggest that while greenwashing may offer short-term financial gains, it poses significant long-term risks to companies, particularly through the erosion of stakeholder trust and green reputation. Companies that prioritize authentic sustainability efforts and avoid greenwashing are more likely to enhance their green reputation, which in turn has a positive impact on financial performance.

Green reputation emerged as a crucial mediating factor in this dynamic. Firms with a strong green reputation were able to mitigate the negative effects of greenwashing, Firms with a strong green reputation were able to mitigate the negative effects of greenwashing, demonstrating that a solid reputation can act as a buffer against potential financial losses. This underscores the importance for companies to invest in genuine environmental strategies, rather than relying on deceptive practices, to achieve sustainable success.

Finally, the study underlines the need for transparency and authenticity in corporate environmental communications. By building and maintaining a credible green reputation, companies not only protect their financial interests but also contribute to broader societal goals of sustainability and environmental responsibility.

Acknowledgement

This study has been produced from the doctoral research conducted by Berk ÖZÇINAR. This work has been supported by Yildiz Technical University Scientific Research Projects Coordination Unit under project number SDK-2023-5652.

References

Abu-Bader, S., & Jones, T. V. (2021) 'Statistical mediation analysis using the sobel test and hayes SPSS process macro', International Journal of Quantitative and Qualitative Research Methods.

Afum, E., Agyabeng-Mensah, Y., Baah, C., Asamoah, G., & Yaw Kusi, L. (2023) 'Green market orientation, green value-based innovation, green reputation and enterprise social performance of Ghanaian SMEs: the role of lean management', Journal of Business & Industrial Marketing, 38(10), 2151-2169. https://doi.org/10.1108/JBIM-03-2021-0169

Akgün, A. E., Keskin, H., & Byrne, J. (2008) 'The moderating role of environmental dynamism between firm emotional capability and performance', Journal of Organizational Change Management, 21(2), 230-252. https://doi.org/10.1108/09534810810856453

Akturan, U. (2018) 'How does greenwashing affect green branding equity and purchase intention? An empirical research', Marketing Intelligence & Planning, 36(7), 809-824. https://doi.org/10.1108/MIP-12-2017-0339

Allen, M. (2016) 'Strategic communication for sustainable organizations' Theory and Practice. Fayetteville, USA: University of Arkansas.

Anderson, C. K. ve Lawrence, B. (2014) 'The influence of online reputation and product heterogeneity on service firm financial performance', Service Science, 6(4), 217-228. https://doi.org/10.1287/serv.2014.0080

Ashforth, B. E., & Gibbs, B. W. (1990) 'The double-edge of organizational legitimation', Organization science, 1(2), 177-194. https://doi.org/10.1287/orsc.1.2.177

Attig, N., Brockman, P., & Trabelsi, S. (2020) 'Greenwashing during uncertain times' Available at SSRN 3786452. https://dx.doi.org/10.2139/ssrn.3786452

Berliner, D., & Prakash, A. (2015) '"Bluewashing" the Firm? Voluntary Regulations, Program Design, and Member Compliance with the United Nations Global Compact', Policy Studies Journal, 43(1), 115-138. https://doi.org/10.1111/psj.12085

Bhattacharya, A., Good, V., & Sardashti, H. (2020) 'Doing good when times are bad: the impact of CSR on brands during recessions', European Journal of Marketing, 54(9), 2049-2077. https://doi.org/10.1108/EJM-01-2019-0088

Birindelli, G., Chiappini, H., & Jalal, R. N. U. D. (2024) 'Greenwashing, bank financial performance and the moderating role of gender diversity', Research in International Business and Finance, 69. https://doi.org/10.1016/j.ribaf.2024.102235

Bowen, F., & Aragon-Correa, J. A. (2014) 'Greenwashing in corporate environmentalism research and practice: The importance of what we say and do', Organization & Environment, 27(2), 107-112. https://doi.org/10.1177/1086026614537078

Brigham, E. F., & Houston, J. F. (2013) Fundamentals of financial management. South-Western Cengage Learning. 13th Edition

Bromley, P., & Powell, W. W. (2012) 'From smoke and mirrors to walking the talk: Decoupling in the contemporary world', Academy of Management annals, 6(1), 483-530. https://doi.org/10.5465/19416520.2012.684462

Birindelli, G., Chiappini, H., & Jalal, R. N. U. D. (2024) 'Greenwashing, bank financial performance and the moderating role of gender diversity', Research in International Business and Finance, 69. https://doi.org/10.1016/j.ribaf.2024.102235

Chen, Y. S., & Chang, C. H. (2013) 'Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk', Journal of business ethics, 114, 489-500. https://doi.org/10.1007/s10551-012-1360-0

Chen, Y. S., Lin, Y. H., Lo, W. Y., & Lai, P. Y. (2022) 'Sustainable trick or tactic? The influence of greenwashing on green reputation, green satisfaction and green perceived value', Jiaotong University Journal of Management, 42(1), 117-149. https://doi.org/10.53106/102873102022064201004

Chuang, S. P., & Huang, S. J. (2018) The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green information technology capital', Journal of business ethics, 150, 991-1009. https://doi.org/10.1007/s10551-016-3167-x

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011) 'Signaling theory: A review and assessment. Journal of management, 37(1), 39-67. https://doi.org/10.1177/0149206310388419

De Jong, M. D., & van der Meer, M. (2017) 'How does it fit? Exploring the congruence between organizations and their corporate social responsibility (CSR) activities', Journal of business ethics, 143, 71-83. https://doi.org/10.1007/s10551-015-2782-2

Deegan, C. (2002). 'Introduction: The legitimising effect of social and environmental disclosures–a theoretical foundation', Accounting, auditing & accountability journal, 15(3), 282-311. https://doi.org/10.1108/09513570210435852

Delmas, M. A. ve Burbano, V. C. (2011) 'The drivers of greenwashing', California management review, 54(1), 64-87. https://doi.org/10.1525/cmr.2011.54.1.64

Delmas, M. A. ve Keller, A. (2005) Free riding in voluntary environmental programs: The case of the US EPA WasteWise program. Policy Sciences, 38(2-3), 91-106. https://doi.org/10.1007/s11077-005-6592-8

Dixon, L. (2020) 'Autonowashing: The greenwashing of vehicle automation', Transportation research interdisciplinary perspectives, 5. https://doi.org/10.1016/j.trip.2020.100113

Eberl, M. ve Schwaiger, M. (2005) 'Corporate reputation: disentangling the effects on financial performance', European Journal of marketing. https://doi.org/10.1108/03090560510601798

Fonseca, A., Macdonald, A., Dandy, E., & Valenti, P. (2011) 'The state of sustainability reporting at Canadian universities', International Journal of Sustainability in Higher Education, 12(1), 22-40. https://doi.org/10.1108/14676371111098285

Fornell, C., & Larcker, D. F. (1981) 'Evaluating structural equation models with unobservable variables and measurement error', Journal of marketing research, 18(1), 39-50. https://doi.org/10.1177/002224378101800104

Gatti, L., Pizzetti, M., & Seele, P. (2021) 'Green lies and their effect on intention to invest', Journal of Business Research, 127, 228-240. https://doi.org/10.1016/j.jbusres.2021.01.028

Gatzert, N. (2015) 'The impact of corporate reputation and reputation damaging events on financial performance: Empirical evidence from the literature', European management journal, 33(6), 485-499. https://doi.org/10.1016/j.emj.2015.10.001

Gillespie, E. (2008) 'Stemming the tide ofgreenwash': How an ostensiblygreener'market could pose challenges for environmentally sustainable consumerism', Consumer Policy Review, 18(3), 79.

Guo, R., Tao, L. ve Gao, P. (2014) 'The research on greenwashing brands' rebuilding strategies and mechanism of brand trust after biochemical and other pollutions', Biotechnology, 10(9), 3270-3279.

Hayes, A. F. (2013). PROCESS SPSS Macro [Computer software and manual].

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015) 'A new criterion for assessing discriminant validity in variance-based structural equation modeling', Journal of the academy of marketing science, 43, 115-135. https://doi.org/10.1007/s11747-014-0403-8

Herbig, P., & Milewicz, J. (1993) 'The relationship of reputation and credibility to brand success', Journal of consumer marketing, 10(3), 18-24. https://doi.org/10.1108/EUM0000000002601

Jones, T. M., & Wicks, N. C. (2018) Convergent stakeholder theory. In Business Ethics and Strategy, Volumes I and II (pp. 361-376). Routledge.

Johnson, Z., Ashoori, M. T., & Lee, Y. J. (2018) 'Self-reporting CSR activities: when your company harms, do you self-disclose?', Corporate Reputation Review, 21, 153-164. https://doi.org/10.1057/s41299-018-0051-x

Kumar, A., Cantor, D. E., & Grimm, C. M. (2019) 'The impact of a supplier's environmental management concerns on a buyer's environmental reputation: The moderating role of relationship criticality and firm size', Transportation Research Part E: Logistics and Transportation Review, 122, 448-462. https://doi.org/10.1016/j.tre.2019.01.001

Laufer, W. S. (2003) 'Social accountability and corporate greenwashing', Journal of business ethics, 43, 253-261. https://doi.org/10.1023/A:1022962719299

Lee, M. T., & Suh, I. (2022) 'Understanding the effects of Environment, Social, and Governance conduct on financial performance: Arguments for a process and integrated modelling approac', Sustainable Technology and Entrepreneurship, 1(1). https://doi.org/10.1016/j.stae.2022.100004

Li, W., Li, W., Seppänen, V., & Koivumäki, T. (2023) 'Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage', Business strategy and the environment, 32(1), 820-841. https://doi.org/10.1002/bse.3177

Lindblom, C. K. (1994) 'The implications of organizational legitimacy for corporate social performance and disclosure', In Critical Perspectives on Accounting Conference, New York, 1994.

Lyon, T. P., & Maxwell, J. W. (2011) 'Greenwash: Corporate environmental disclosure under threat of audit', Journal of economics & management strategy, 20(1), 3-41. https://doi.org/10.1111/j.1530-9134.2010.00282.x

More, P. V. (2019) 'The Impact of Greenwashing on Green Brand Trust from an Indian Perspective', Asian Journal of Innovation & Policy, 8(1). https://doi.org/10.7545/ajip.2019.8.1.162

Nardella, G., Brammer, S., & Surdu, I. (2023) 'The social regulation of corporate social irresponsibility: Reviewing the contribution of corporate reputation', International Journal of Management Reviews, 25(1), 200-229. https://doi.org/10.1111/ijmr.12311

Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014) 'Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions', Journal of business ethics, 125, 693-707. https://doi.org/10.1007/s10551-013-1944-3

Palepu, K. G., Healy, P. M., Wright, S., Bradbury, M., & Coulton, J. (2020) Business analysis and valuation: Using financial statements. Cengage AU.

Pérez‐Cornejo, C., de Quevedo‐Puente, E., & Delgado‐García, J. B. (2020) 'Reporting as a booster of the corporate social performance effect on corporate reputation', Corporate Social Responsibility and Environmental Management, 27(3), 1252-1263. https://doi.org/10.1002/csr.1881

Prakash, A., & Potoski, M. (2006) The voluntary environmentalists: Green clubs, ISO 14001, and voluntary environmental regulations. Cambridge University Press.

Purnamasari, P., & Umiyati, I. (2024) 'Greenwashing and financial performance of firms: the moderating role of internal audit quality and digital technologies', Cogent Business & Management, 11(1). https://doi.org/10.1080/23311975.2024.2404236

Rivera, J., Naranjo, M. A., Robalino, J., Alpizar, F., & Blackman, A. (2017) 'Local community characteristics and cooperation for shared green reputation', Policy Studies Journal, 45(4), 613-632. https://doi.org/10.1111/psj.12156

Roberts, P. W. ve Dowling, G. R. (2002) 'Corporate reputation and sustained superior financial performance', Strategic management journal, 23(12), 1077-1093. https://doi.org/10.1002/smj.274

Robertson, J. L., Montgomery, A. W., & Ozbilir, T. (2023) 'Employees' response to corporate greenwashing', Business Strategy and the Environment, 32(7), 4015-4027. https://doi.org/10.1002/bse.3351

Gillis, A. S. (2024). What is greenwashing?. https://www.techtarget.com/whatis/definition/ greenwashing. (accessed 26 October 2024)

Sajid, M., Zakkariya, K. A., Suki, N. M., & Islam, J. U. (2024) 'When going green goes wrong: The effects of greenwashing on brand avoidance and negative word-of-mouth', Journal of Retailing and Consumer Services, 78, 103773. https://doi.org/10.1016/j.jretconser.2024.103773

Salama, A. (2005) 'A note on the impact of environmental performance on financial performance', Structural change and economic dynamics, 16(3), 413-421. https://doi.org/10.1016/j.strueco.2004.04.005

Samal, D. S. S., & Bhalala, D. T. (2023) 'An Awareness Towards Greenwashing of Product and its Impact on Consumers' Buying Behaviour in Surat City', International Journal of Engineering and Management Research, 13. https://doi.org/10.31033/ijemr.13.2.14

Santos, C., Coelho, A., & Marques, A. (2024) 'The greenwashing effects on corporate reputation and brand hate, through environmental performance and green perceived risk', Asia-Pacific Journal of Business Administration, 16(3), 655-676. https://doi.org/10.1108/APJBA-05-2022-0216

Schena, R., Netti, G., & Russo, A. (2015) 'Consumers' Behavior toward Green Products: A Signalling Theory Approach', International Journal of Business Administration, 6, 44. http://dx.doi.org/10.2139/ssrn.3126226

Seele, P., & Gatti, L. (2017) 'Greenwashing revisited: In search of a typology and accusation‐based definition incorporating legitimacy strategies', Business strategy and the environment, 26(2), 239-252. https://doi.org/10.1002/bse.1912

Shi, Y. (2016) 'Reputation, financial performance, and industry competition', The International Journal of Business and Finance Research, 10(2), 1-16.

Siano, A., Vollero, A., Conte, F., & Amabile, S. (2017) '"More than words": Expanding the taxonomy of greenwashing after the Volkswagen scandal', Journal of business research, 71, 27-37. https://doi.org/10.1016/j.jbusres.2016.11.002

Spence, M. (2002) 'Signaling in retrospect and the informational structure of markets', American economic review, 92(3), 434-459. https://doi.org/10.1257/00028280260136200

Steinmeier, M. (2016) 'Fraud in sustainability departments? An exploratory study', Journal of Business Ethics, 138, 477-492. https://doi.org/10.1007/s10551-015-2615-3

Suchman, M. C. (1995) 'Managing legitimacy: Strategic and institutional approaches', Academy of management review, 20(3), 571-610. https://doi.org/10.5465/amr.1995.9508080331

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009) 'Measuring organizational performance: Towards methodological best practice', Journal of management, 35(3), 718-804. https://doi.org/10.1177/0149206308330560

Tang, A. K., Lai, K. H., & Cheng, T. C. E. (2012) 'Environmental governance of enterprises and their economic upshot through corporate reputation and customer satisfaction', Business Strategy and the environment, 21(6), 401-411. https://doi.org/10.1002/bse.1733

Testa, F., Boiral, O., & Iraldo, F. (2018) 'Internalization of environmental practices and institutional complexity: Can stakeholders pressures encourage greenwashing?', Journal of Business Ethics, 147, 287-307. https://doi.org/10.1007/s10551-015-2960-2

Testa, F., Miroshnychenko, I., Barontini, R., & Frey, M. (2018) 'Does it pay to be a greenwasher or a brownwasher?', Business Strategy and the Environment, 27(7), 1104-1116. https://doi.org/10.1002/bse.2058

Torelli, R., Balluchi, F., & Lazzini, A. (2020) 'Greenwashing and environmental communication: Effects on stakeholders' perceptions', Business strategy and the Environment, 29(2), 407-421. https://doi.org/10.1002/bse.2373

Truong, Y., Mazloomi, H. ve Berrone, P. (2021) 'Understanding the impact of symbolic and substantive environmental actions on organizational reputation', Industrial Marketing Management, 92, 307-320. https://doi.org/10.1016/j.indmarman.2020.05.006

Waddock, S. A., & Graves, S. B. (1997) 'The corporate social performance–financial performance link', Strategic management journal, 18(4), 303-319. https://doi.org/10.1002/(SICI)1097-0266(199704)18:4%3C303::AID-SMJ869%3E3.0.CO;2-G

Qayyum, A., Jamil, R. A., & Sehar, A. (2023) 'Impact of green marketing, greenwashing and green confusion on green brand equity', Spanish Journal of Marketing-ESIC, 27(3), 286-305. https://doi.org/10.1108/SJME-03-2022-0032

Xie, C., & Bagozzi, R. P. (2019) 'Consumer responses to corporate social irresponsibility: The role of moral emotions, evaluations, and social cognitions', Psychology & Marketing, 36(6), 565-586. https://doi.org/10.1002/mar.21197

Walker, K., & Wan, F. (2012) 'The harm of symbolic actions and green-washing: Corporate actions and communications on environmental performance and their financial implications', Journal of business ethics, 109, 227-242. https://doi.org/10.1007/s10551-011-1122-4

Yadav, P. L., Han, S. H., & Kim, H. (2017) 'Sustaining competitive advantage through corporate environmental performance', Business Strategy and the Environment, 26(3), 345-357. https://doi.org/10.1002/bse.1921

York, K. M., & Miree, C. E. (2004) 'Causation or covariation: an empirical re-examination of the link between TQM and financial performance', Journal of operations management, 22(3), 291-311. https://doi.org/10.1016/j.jom.2004.02.001