GREENWASHING AND GREENHUSHING IN THE HUNGARIAN CONSUMER MARKET

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This study investigates the impact of greenwashing and greenhushing on consumer trust in the Hungarian market. Based on an online survey of 410 respondents conducted between November 1, 2024, and March 10, 2025, the results are presented through three research questions focusing on conceptual awareness, recall of international scandals, and purchasing decision factors. Data analysis utilized descriptive statistics and two-sample Z-tests at a 5% significance level. Findings reveal that while the Volkswagen "Dieselgate" scandal is widely recognized, other major cases – such as Chevron or BP – show a rapid decay in public memory. Furthermore, 74% of participants were completely unfamiliar with greenhushing. Statistical tests confirm that the inability to identify the „Seven Sins of Greenwashing" is a systemic issue, with over 34% of respondents unable to name a single deceptive practice. Due to "label fatigue", consumers bypass official certifications, prioritizing social media and brand reputation.

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1 Introduction

Sustainability has become a fundamental aspect of corporate operations, driven by escalating societal expectations regarding environmental responsibility. Consequently, corporate communication frequently emphasizes green commitments; however, these claims do not always reflect actual operational changes. This duality in domestic corporate practice was also identified by Kozma and Bosnyák-Simon (2022), pointing out that the appearance of sustainability elements in corporate communication often precedes actual operational-level shifts. Furthermore, understanding the various levels of corporate environmental strategies in Hungary is crucial for evaluating how organizations employ environmental management control tools to justify their market positions (Malovics et al., 2007; Fekete-Berzsenyi et al., 2025).

This deceptive communication practice, known as greenwashing, has emerged as a prominent subject in international research. Greenwashing occurs when organizations portray their environmental performance more favorably than their actual operations warrant, primarily to influence consumer decision-making (Agarwal et al., 2025). The strategic impact of integrated sustainability reporting on financial performance and credibility is highly relevant, especially as corporate claims are increasingly scrutinized in developing and emerging markets (Katherine et al., 2025; Pap et al., 2024). The proliferation of greenwashing poses a severe risk to consumer trust (Fűrész et al., 2026). When consumers perceive a discrepancy between corporate claims and actual environmental performance, it fosters long-term skepticism and diminishes interest in sustainable products. Therefore, the primary aim of this research is to explore the impacts of greenwashing on the evolution of consumer trust and to identify the critical factors that determine the perceived credibility of corporate environmental claims.

2 Literature Review

The examination of greenwashing has expanded significantly, with contemporary studies emphasizing that consumer trust is simultaneously shaped by the credibility of corporate communication, the interpretability of environmental claims, and market expectations regarding sustainability. Consumers are increasingly sensitive to messages that suggest overgeneralized or inadequately substantiated environmental performance (Zhang et al., 2025). Moreover, consumer engagement in online brand

communities significantly influences how the public interprets and validates sustainability messages (Venkateswaran et al., 2024). As the digital transition accelerates, interactive and immersive advertising in modern online environments reshapes user perceptions, demanding greater transparency from corporations to avoid accusations of greenwashing (Szeberényi et al., 2025).

2.1 Mechanisms and Typology of Greenwashing

The methodology of corporate deception operates fundamentally along two dimensions: textual claims and execution elements. The most prevalent framework for analyzing product-level deception is the "Seven Sins of Greenwashing," originally developed by TerraChoice (now integrated into the UL network), which capitalizes on consumer information asymmetry (Delmas & Burbano, 2011; UL, 2025). This framework categorizes misleading practices into seven distinct „sins": the hidden trade-off, no proof, vagueness, irrelevance, lesser of two evils, fibbing, and worshiping false labels. The most frequent manifestation is the sin of the hidden trade-off, in which a single eco-friendly attribute is highlighted while obscuring the severely polluting phases of the product's entire life cycle. Furthermore, a critical distinction must be made regarding corporate-level greenwashing, which occurs when heavily polluting "brown" entities heavily promote secondary CSR sustainability initiatives to deflect public attention from their core, harmful environmental footprint (Yang et al., 2020; Szép et al., 2025).

2.2 The Emergence of Greenhushing

In contrast to the overstatements characteristic of greenwashing, academic discourse has increasingly focused on its antithesis: greenhushing (or „green silence"). This phenomenon describes a deliberate corporate strategy wherein organizations under-communicate or conceal their actual sustainability achievements and targets, primarily driven by a fear of consumer skepticism and accusations of greenwashing (Font et al., 2017). Motivated by risk aversion and heightened regulatory pressures (such as the EU Green Claims Directive), companies often opt for „strategic silence" over transparency, even when possessing tangible, verifiable environmental results (Carlos & Lewis, 2018). Recent studies describe this as a market paradox: while consumers demand greater transparency to combat their growing distrust, credible actors withdraw from public discourse, inadvertently yielding space to less ethical, louder marketing campaigns.

Despite the extensive theoretical background on these phenomena, there remains a critical gap in empirical data on the specific defensive mechanisms of consumers and the reputational impact of corporate scandals in the domestic Hungarian market. Consequently, this study aims to address these deficiencies by systematically investigating the interplay between conceptual awareness (greenwashing, greenhushing), the perceived credibility of various information sources, and demographic variables.

3 Methodology

The primary research employed a quantitative methodology, using an online questionnaire comprising 28 items to address the research problem outlined in the literature review. Data collection occurred between November 1, 2024, and March 10, 2025. A convenience sampling method was used, primarily distributing the survey via online platforms such as social media and professional networks. After data cleaning, 410 valid responses were obtained. While this sample size is not strictly representative, it provides a sufficient empirical foundation for drawing relevant conclusions regarding consumer behavior. While the sample size allows an exploratory assessment of consumer perceptions, it should not be treated as representative of the broader Hungarian consumer market

Regarding the sample's demographic composition, 54% of respondents were male, and 46% were female. The age distribution shows a dominance of young adults, with 56% of participants in the 18–34 age cohort, while the over-35 cohort accounted for 44%. In terms of educational attainment, the sample is highly qualified; the majority of respondents either possess or are currently pursuing a higher education degree. The use of convenience sampling, together with the concentration of respondents in the 18–34 age group and the predominance of participants with current or completed higher education, narrows the demographic coverage of the dataset. The findings, therefore, reflect the views of a digitally reachable and relatively highly educated segment more strongly than those of the Hungarian consumer population as a whole, so their generalizability is limited. Future research should apply quota-based or probability-oriented sampling to achieve a more balanced demographic structure.

The questionnaire incorporated open-ended, Likert-scale, and multiple-choice questions to capture a comprehensive view of consumer perceptions. The data analysis primarily utilized descriptive statistical methods, focusing on frequencies and distributions. Additionally, to examine differences between demographic groups, statistical tests – specifically two-sample Z-tests – were conducted at a 5% significance level where the sample size permitted. For each gender-based comparison, the null hypothesis (H0) stated that the proportion of male and female respondents in the examined response category was equal, while the alternative hypothesis (H1) stated that these proportions differed.

The research is fundamentally exploratory, aiming to identify contemporary patterns in consumer attitudes and knowledge. Consequently, the study formulated the following three research questions:

- RQ1: To what extent are Hungarian consumers aware of the concepts of greenwashing and greenhushing?
- RQ2: To what extent are corporate greenwashing scandals that generated significant international resonance known among domestic consumers?
- RQ3: Which factors are most decisive during sustainable purchasing decisions, and how does the perception of deception impact consumer trust?

4 Results

This section presents the empirical findings derived from the online survey. The analysis is structured to systematically address the three primary research questions, beginning with an assessment of conceptual awareness regarding deceptive corporate communication. It also evaluates the domestic consumer knowledge of major international corporate scandals and concludes by examining the primary information sources and cognitive heuristics that drive sustainable purchasing decisions.

4.1 Conceptual Awareness of Greenwashing and Greenhushing

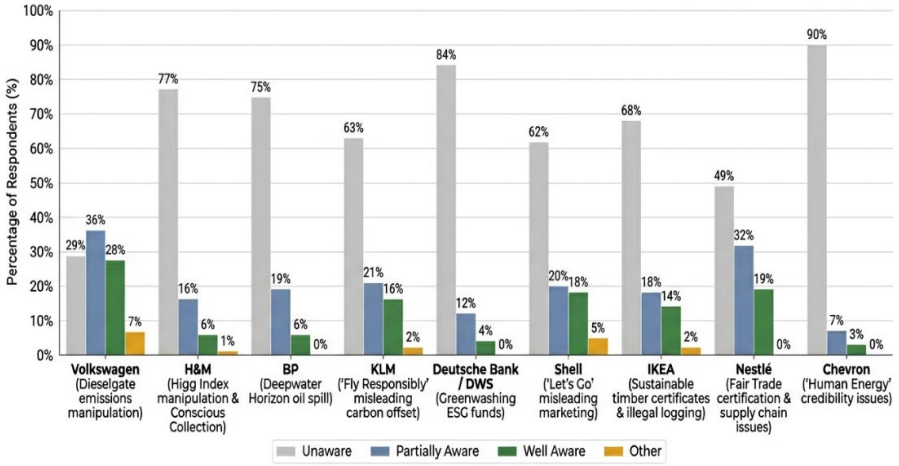
To address the first research question (RQ1), the survey initially assessed the general awareness of the term „greenwashing". The results indicate a critical deficiency in consumer education: a significant segment of respondents (28%) could not define

the term at all, and an additional 13% had heard of it but lacked a precise understanding. Conversely, a positive indicator is that 38% had a general understanding, and 21% could define the concept accurately. This distribution validates the information asymmetry discussed in the literature; while consumers frequently encounter greenwashing, many lack the cognitive tools to identify it precisely.

A deeper discrepancy emerges regarding the phenomenon of „greenhushing". The data reveal a contrast in awareness: 74% of respondents were completely unfamiliar with the term. Only 5% could define it accurately, while 9% possessed a marginal understanding. This indicates that greenhushing remains confined to professional discourse. Consequently, consumers are currently unequipped to respond when companies adopt a „strategic silence" strategy.

4.2 Consumer Knowledge of Corporate Scandals

The second research question (RQ2) investigated the awareness of major international corporate greenwashing scandals. Respondents were presented with nine highly publicized cases spanning various sectors (fossil fuels, technology, aviation, fast fashion, and finance).



Note: Data indicates varying degrees of public awareness of public-facing greenwashing accusations across different industries and company profiles. n = 410

Figure 1: Public Awareness of Major Corporate Greenwashing Scandals
Source: Own edited figure based on primary research, 2026

The analysis of Figure 1 highlights a profound lack of awareness regarding the majority of these events. The Volkswagen „Dieselgate" scandal stands out as an anomaly, with 36% partial and 28% comprehensive awareness, largely due to its direct impact on everyday consumers and extensive global media coverage. On the other hand, 90% were unaware of Chevron's controversies, 84% were ignorant of Deutsche Bank's ESG manipulation, and 75% had no recollection of the BP oil spill, indicating a significant decay in reputational damage over time. Complex, data-driven deceptions (such as those by H&M or KLM) struggle to reach the consumer threshold compared to clear-cut environmental disasters. This pervasive unawareness effectively shields corporations; consumers cannot exercise disciplinary market behaviors (e.g., brand avoidance) for corporate misconduct they do not remember.

4.3 Information Sources and Decision-Making Factors

Given the low retention of corporate scandals, the third research question (RQ3) explored the heuristics consumers rely on in an uncertain information environment. The findings identify a highly relevant and somewhat concerning trend: social media and news portals have become the primary sources of sustainability information. For evaluating product sustainability, 62% of respondents rely on these platforms, far outweighing official reports. This reliance on the least regulated platforms exposes consumers to a high risk of manipulation, particularly with the proliferation of unverified claims and AI-generated content. Scientific research and official environmental assessments were prioritized only when evaluating corporate-level sustainability (56%).

When analyzing the key factors influencing sustainable purchasing decisions using Likert-scale evaluations, a significant level of cognitive dissonance emerged. Respondents treat sustainability primarily as a matter of trust and reputation rather than technical verification. „Brand reputation" received the highest „very important" rating (28%). Surprisingly, a striking 40% of respondents rated official, third-party certificates (e.g., EU Ecolabel) as „not important at all," and 31% expressed the same disregard for sustainable packaging. This data signals severe „label fatigue". The prevalence of greenwashing has likely degraded trust in certification systems, prompting consumers to rely on subjective, emotional heuristics, such as brand image, rather than objective metrics. Furthermore, the willingness to pay a premium for verified green products is constrained, particularly

among the 18–34 demographic, which aligns with Csiszárik-Kocsir's (2023) findings on the financial uncertainties that limit conscious consumption among younger generations.

4.4 Knowledge of the „Seven Sins" Framework

To further evaluate consumer vulnerability, the study tested respondents' ability to name the „Seven Sins of Greenwashing" established by TerraChoice. The results confirm that consumer knowledge of deceptive practices is intuitive rather than systematic.

In line with the methodological specification, the category-level tests presented in Table 1 were based on the following hypotheses: H0: the proportion of male respondents in a given category equals the proportion of female respondents in the same category. H1: The two proportions differ.

Table 1: Two-sample Z-test analyzing the gender differences in identifying the „Seven Sins" of Greenwashing

Category (Number of "Sins" named)	Group	N	Proportion (%)	Std. Error	Z-value	p-value (2-tailed)
Could not name any	Male	76	34.4%	0.032	-0.337	0.736
	Female	68	36.0%	0.035		
Named one	Male	48	21.7%	0.028	-1.118	0.263
	Female	50	26.5%	0.032		
Named two	Male	41	18.6%	0.026	0.146	0.884
	Female	34	18.0%	0.028		
Named three	Male	25	11.3%	0.021	-0.433	0.665
	Female	24	12.7%	0.024		
Named four	Male	10	4.5%	0.014	1.010	0.312
	Female	5	2.6%	0.012		
Named five	Male	9	4.1%	0.013	1.127	0.259
	Female	4	2.1%	0.010		
Named six	Male	7	3.2%	0.012	1.039	0.298
	Female	3	1.6%	0.009		
Named seven	Male	5	2.3%	0.010	1.450	0.147
	Female	1	0.5%	0.005		

Note: Independent samples Z-test. Male n = 221, Female n = 189. Significance level: $p < 0.05$.
Source: Own edited table based on primary research, 2026

As demonstrated in Table 1, the largest group consisted of uninformed respondents: 34.4% of males and 36.0% of females could not identify a single „sin". The independent-samples Z-test confirms that, at the 5% significance level, there is no

statistically significant difference between the genders in this critical category ($Z = -0.337$; $p = 0.736$). Even among those who could name exactly one category, the apparent difference (26.5% for women vs. 21.7% for men) proved to be statistically non-significant ($p = 0.263$). Similarly, the slight numerical advantage observed among men at higher knowledge levels (naming 4–7 sins) cannot be considered statistically significant due to the small sample sizes in these subgroups. The inability to systematically categorize and recognize greenwashing is not a demographic anomaly but a systemic vulnerability across the entire domestic consumer base. The inability to systematically categorize and recognize greenwashing appears in both gender groups within the surveyed sample, suggesting a broad vulnerability that should be interpreted cautiously in light of the study's sampling limitations.

5 Discussion

The results of this exploratory research highlight a significant vulnerability within the surveyed Hungarian sample regarding corporate environmental claims. The results of this exploratory research highlight a significant vulnerability within the Hungarian consumer market regarding corporate environmental claims. The data reveals a clear divide: while greenwashing is generally recognized as a concept, the actual mechanisms of deception remain poorly understood, and the emerging trend of greenhushing is almost entirely unknown. This aligns with the theoretical frameworks proposed by Font and his colleagues (2017) and Carlos and Lewis (2018), confirming that corporate strategies of „strategic silence" currently bypass consumer scrutiny, as buyers lack the conceptual foundation to identify or challenge them. This difficulty in distinguishing between genuine sustainability and mere appearances is further explained by signaling theory; misleading communications aim to foster overly positive beliefs among stakeholders, even when actual environmental practices remain deficient. Recent empirical studies, such as Margariti and her colleagues' (2024) analysis of consumer attitudes, demonstrate that positive psychological predispositions toward green purchases do not necessarily translate into actual buying behavior, especially when market trust is compromised by concerns about greenwashing.

The surprisingly low recall of major international greenwashing scandals indicates a rapid decay in reputational damage. Corporate misconduct, unless directly affecting the consumer's daily life or physical safety, fades quickly from public memory. This collective amnesia effectively shields companies from long-term market discipline.

Consumers fail to execute disciplinary purchasing decisions, which explains why heavily polluting entities can maintain market share despite documented environmental violations (Persakis et al., 2025; Yang et al., 2020). As noted by Torelli and his colleagues (2020), the level of greenwashing significantly shapes how stakeholders perceive corporate responsibility and how they respond to such scandals, yet the lack of awareness in the domestic market prevents these reactions from serving as a deterrent.

A critical shift identified in this study is the displacement of traditional, objective certifications by social media heuristics. As Fűrész and her colleagues (2025) note, the quality of information transfer in digital spaces fundamentally shapes energy awareness and sustainability attitudes. The reliance on digital platforms, compounded by the growing influence of interactive online communities (Venkateswaran et al., 2024), exposes buyers to unverified or artificially generated narratives. In this context, the role of social media influencers (SMIs) becomes paramount, particularly for Generation Z consumers who comprise a large portion of the active digital audience. Research by Faisal and his colleagues (2026) indicates that while influencers might not always directly drive purchase intentions, they exert a positive influence on both green trust and green attitudes, which are essential mediators in the sustainable decision-making process. The pronounced „label fatigue" observed in the sample supports recent empirical findings suggesting that an overabundance of green signals leads to systemic consumer skepticism. When buyers reject official certifications as „unimportant," they default to evaluating brand reputation through subjective, often manipulated, digital media lenses.

Ultimately, respondents across all demographics' inability to identify the TerraChoice „Seven Sins" demonstrates that current consumer education is inadequate. Achieving genuine market transformation requires comprehensive initiatives that provide concrete evaluative tools, empowering consumers to navigate complex corporate communications effectively. Supporting this necessity, Volschenk and his colleagues (2022) found that general environmental education is often insufficient for developing the ability to detect deceptive claims. Instead, specific literacy regarding greenwashing itself is required to enable consumers to identify false claims and impose a „greenwash penalty" – a significant shift in willingness to pay and purchase intent once deception is recognized. A critical approach to green marketing will allow stakeholders to more easily distinguish

between legitimate companies that are responsible and those companies that simply appear to be responsible.

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