

Consumer Protection Against Greenwashing in the Digital Sustainability Economy: The Strategic Framework

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Abstract. The rapid growth of a sustainable digital economy presents significant opportunities for ethical business innovation and environmentally responsible consumption; however, it also intensifies the risk of greenwashing, which threatens consumer rights, market integrity, and public trust. This study aims to develop a comprehensive strategic framework to strengthen consumer protection against greenwashing in Indonesia's digital economy. Employing a normative-juridical method combined with comparative legal analysis, the research assesses the adequacy of Indonesia's existing consumer protection regulations by benchmarking them against the European Union Directive and relevant OECD guidelines, recommendations, and declarations. Data were collected from statutory instruments, regulatory reports, and academic literature and analyzed qualitatively through doctrinal and conceptual interpretation. The findings reveal that Indonesia's current legal framework remains fragmented and lacks explicit provisions addressing deceptive environmental marketing on digital platforms. To address these shortcomings, this study proposes a three-dimensional strategic framework: (1) integrating the green digital economy into the consumer protection ecosystem; (2) embedding explicit legal norms and sanctions targeting greenwashing practices by businesses; and (3) strengthening institutional coordination among consumer protection authorities to align regulatory enforcement with sustainability and digital governance agendas. This study is particularly timely as Indonesia prepares to enact a New Consumer Protection Act, offering normative guidance for more robust and future-oriented consumer protection policies.

1 Introduction

The rise of the internet economy has transformed how sustainability is communicated and evaluated in modern markets. Sustainability is now conveyed less through product labels or corporate disclosures and more through dynamic, data-driven communication with consumers on digital platforms. As a result, terms such as “eco-friendly,” “carbon neutral,” and “sustainably sourced” function as persuasive marketing signals rather than purely informative labels [1]. The environmental claims such stories are now constantly

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being coined, magnified, and customized by algorithmic advertising networks, influencer marketing, and platform-oriented brand storytelling. Digital platforms curate sustainability narratives through engagement metrics, behavioral targeting, and algorithmic optimization to drive the viral spread of environmental messages that are rarely accompanied by the verification required for categorization within the sustainability reporting regime [2].

Consequently, greenwashing evolved from isolated, deceptive announcements into a widespread practice inscribed in the digital sustainability economy, undermining consumer self-direction, skewing competitive fairness, and eroding public confidence in the quality of engagement in sustainability transitions [3]. From a consumer protection point of view, the fundamental issue is not so much the veracity of individual environmental claims as the broader climate of communication that allows these false sustainability stories to spread at scale. Visibility, virality, and emotional appeal, instead than precision, are valued in digital marketing ecosystems for sustainability messages, which are delivered via native ad formats, sponsored influencer content, paid promos, and user-generated content that blur the line between commercial influence and informational communication [4].

These dynamics contribute to increased information asymmetry and significantly inhibit consumers' ability to assess the veracity, comparability, and substantiation of environmental claims, thereby making greenwashing a complex legal issue situated at the nexus of sustainability regulations, digital market governance, and consumer protection legislation. Meanwhile, some aspects of the problem have been addressed in previous academic and regulatory analyses, but these analyses are more fragmented. In the consumer protection literature, inaccurate marketing practices, unfair advertising, and the duty of truth have long been identified as central regulatory issues.

The study employs a normative legal research approach using doctrinal and conceptual methods to analyze legal norms and evaluate consumer protection regulations in the digital economy, particularly those related to deceptive environmental marketing. Greenwashing, a term introduced by Jay Westerveld in 1986, refers to environmental claims that primarily serve reputational or economic interests rather than genuine sustainability. Over time, it has evolved from isolated misrepresentations into a systemic corporate communication strategy that spreads inaccurate or selective sustainability narratives to influence consumer perception. In the digital era, greenwashing is further intensified by algorithmic systems, influencer marketing, and platform dynamics that prioritize engagement over accuracy, making it a structurally embedded phenomenon in digital marketing and highlighting the need for integrated analysis across law, communication, and digital political economy.

In contrast, research on digital marketing communication tends to focus on customer communication, brand effectiveness, customer engagement, or ethical self-regulation practices that have not been codified into marketable, enforceable consumer protection norms [5]. This dichotomy leads to "greenwashing" being perceived as a marketing ethics problem, unrelated to legal liability and compliance issues, and irrelevant to communication design, because it fails to capture how consumers' vulnerabilities and regulatory blind spots are created within digital communication practices themselves. This fragmentation is especially sharp in digital emerging economies such as Indonesia.

Additionally, the potency of regulation related to digitally mediated markets is limited by weak institutional collaboration among consumer protection agencies, environmental regulators, and digital communications regulators. To date, the conceptualization of greenwashing as a legal-communication governance issue rather than an ethical or normative drift has been understudied in research [6]. In the digital economy of sustainability, greenwashing is generated through social communication, including message framing, visual semiotics, storytelling, and algorithmic amplification, all of which directly affect the legal requirements of truthfulness, substantiation, and fairness. Without integrating digital marketing communication into such consumer protection analysis, regulatory action is likely to mitigate only the superficiality of greenwashing while failing to address the underlying communicative and structural dynamics at work. Given this background, this paper proposes a conceptual framework to address consumer protection against greenwashing by incorporating digital marketing communication into the legal framework. The framework is based on three interrelated dimensions: the understanding of digital sustainability claims themselves as technically material commercial communications influenced by persuasive architecture and platform logic; the formulation of precise legislative instruments and scale-based sanctions on deceptive ecological marketing, particularly in influencer and platform-based ecosystems; and improving coordination among civil consumer protection, environmental, and digital communication bodies. The broad purpose of this paper is to contribute to a new normative and strategic platform that could provide a unified response to protect consumers from greenwashing in Indonesia's digital economy.

2 Method

The study employs a normative legal research approach using doctrinal and conceptual methods to systematically examine positive law. It analyzes legal norms, principles, and doctrines within a theoretical framework to understand how law guides social and economic behavior. Through literature review and legal analysis, the research identifies, interprets, and evaluates regulations on consumer protection in the digital economy, particularly concerning deceptive environmental marketing (greenwashing). Academic study and policy-based research are employed to identify historical patterns in the regulation of digital markets, platform governance, and commerce in the context of sustainability, thereby assisting in a critical analysis of current legal regimes [7].

This combination provides the study with opportunities to connect doctrinal legal analysis with broader regulatory and economic analyses applicable to internet-mediated markets. A comparative legal approach is employed by examining Indonesia's regulatory framework alongside the European Union consumer protection directives and international policy instruments developed by the Organization for Economic Cooperation and Development (OECD). The EU legal framework is selected because it represents one of the most advanced and coherent regulatory models for addressing unfair commercial practices, digital market governance, and the regulation of environmental and sustainability claims, including greenwashing, within the context of platform-based economies. In addition, EU consumer protection directives have served as global benchmarks, influencing regulatory reforms across many jurisdictions and

making them a relevant reference point for Indonesia's evolving consumer protection regime.

OECD instruments are included because they serve as authoritative soft-law standards that shape international best practices in digital economy governance, consumer policy, and responsible business conduct, especially for countries undergoing regulatory transitions. These guidelines provide flexible yet influential frameworks that complement binding legal rules and support policy harmonization across jurisdictions. Through this comparative approach, the study identifies regulatory gaps, inconsistencies, best practices, and transferable legal principles to strengthen consumer protection against greenwashing in Indonesia. The research relies entirely on secondary data, including primary legal materials such as Law Number 8 of 1999 on Consumer Protection and Law Number 32 of 2009 on Environmental Protection and Management.

These instruments are analysed for their scope, coherence, and sufficiency on digital marketing practices and consumer exposure in digital environments. Secondary legal materials include policy reports, academic journal articles, and scholarly publications from reputable international publishers on consumer protection, digital platforms, and sustainability governance [8]. Qualitatively, all the materials collected by legal scholars are analyzed using doctrinal and conceptual analytical techniques. A doctrinal approach is adopted to interpret the legal norms and principles governing consumer protection and digital transactions.

The study uses this analysis to develop a perspective on patterns of regulatory fragmentation across various regulatory levels and to expose the lack of explicit legal provisions governing misleading environmental marketing practices in the era of digital platforms, encompassing influencer-based and algorithm-targeted advertisements. Drawing on this normative and comparative legal analysis, the study establishes a strategic framework to improve consumer protection in Indonesia. This structure is aimed at addressing the challenges of the digital economy and, as part of policy development, leading up to the emergence of a new Consumer Protection Law. The framework will integrate legal doctrine, comparative insights, and communication-aware regulatory analysis to improve effectiveness, coherence, and future preparation of consumer protection governance in Indonesia.

3 Results and discussion

3.1 Results

3.1.1 Findings on Indonesia's Consumer Protection Framework

The environmental law on greenwashing in Indonesia's consumer protection framework is fragmented and indirect, as provisions are scattered across statutory regimes that weren't initially focused on sustainability-related claims. The core legal instrument is Law Number 8 of 1999 on Consumer Protection, which serves as an umbrella statute that protects consumer rights while ensuring fair business practices. Yet it was enacted over two decades ago, with little to no substantive change, and it is a pre-digital regulatory

paradigm. It is not adjusted to recent developments in digital markets and sustainable consumption [9]. Consequently, its normative framework increasingly fails to align with current socio-economic and environmental realities.

Legal implications will only be provided at a high level of legal relevance arising from vague terms of law, which have the effect of preventing erroneous or misleading advertising and unfair commercial behaviour, and will be more directly implied. Article 4 guarantees the consumer the right to receive honest, transparent, and truthful information about goods and services, and Article 7 imposes obligations on business respondents not to produce misleading goods or services. Articles 8 and 10 also ban false representations and deceptive advertising regarding product attributes, including promotions. While it is possible to read these provisions as covering environmental claims, they do so implicitly rather than specifically, without specifying standards, evidentiary requirements, or enforcement provisions for sustainability-type information [10]. As such, greenwashing can be treated incidentally rather than as a regulatory target, thereby creating legal ambiguity and weakening consumer protection enforcement, especially in (digital) markets. Environmental interests have also focused on ensuring that harm, pollution, or risk is avoided through goods and services rather than on regulating sustainability claims, such as those based on market information. Article 19 and Article 7 do ensure liability for compensation and good faith, respectively, but here the rules are more post-harm than ex ante controls on misleading reports of environmental hazards.

Similarly, Law Number 32 of 2009 on Environmental Protection and Management reaffirms the right to a good and healthy environment as a human right. However, there remains no oversight of environmental labeling and no accountability for environmental claims [11]. Legal instruments such as the Indonesian National Standard (SNI) on ecolabels are available but voluntary, and there is no transparent, independent verification system to ensure their implementation. This regulatory void permits a free flow of ecological claims without adequate legal supervision, with the resulting perception of ‘sustainability’ which may potentially erode consumer trust, as well as environmental protection goals.

3.1.2 Findings on Digital Environmental Marketing Regulation

The analysis also shows that Indonesian law doesn’t yet establish legal standards governing environmental claims made through digital marketing channels. The regulation of digital platforms, online advertising, influencer recommendations, and algorithm-driven promotional practices remains very much disconnected from sustainability issues. Existing legal norms have treated misleading advertising as a general phenomenon, failing to address the particular risks of telling digital sustainability narratives, including the speed, algorithmic opacity, and cross-platform amplification. Article 17, paragraph (1) of the Consumer Protection Law prohibits advertising where the advertisement contains false or inaccurate information, includes failure to disclose risks, or violates advertising ethics. Article 20 establishes the responsibility for advertising content with business actors.

The Regulations are supplemented and reinforced by Indonesian Advertising Ethics and by the Minister of Trade Regulation No. 50 of 2020, which sets requirements for the

accuracy of information, the disclosure of risks, and consumer control over digital advertisements. Yet these frameworks remain neutralising and generic in their content. None of these has specifically recognized environmental or sustainability claims as a discrete category of digital advertising in need of enhanced substantiation or verification by regulators, or regulation against them. Consequently, green claims spread through electronic media, such as those advanced by influencers or curated through algorithmic targeting, still go hand in hand with no appropriate rules of the road in the legal environment. These regulatory gaps not only reinforce the prevalence of greenwashing practices in digital markets but also highlight the need for a more integrated consumer protection framework that aligns digital governance with sustainability objectives.

3.1.3 Findings on Legal Treatment of Digital Marketing Communication Practices

The legal approach to digital marketing communication in Indonesia still largely relies on a traditional understanding of advertising law, focusing on content and deception while ignoring the dynamic nature of digital media. According to the legal communication paradigm, marketing communication is not simply the communication of a commercial information channel, but a structured process that includes message generation, media distribution channels, symbolic meaning, and audience interpretation. The dynamics are intensified by digital marketing, including algorithmic personalization, influencer endorsement, native advertising, and platform amplification, blurring the lines between information, persuasion, and consumer trust. Based on Article 17 of the Consumer Protection Law and reinforced by advertising ethics codes, Indonesian consumer protection law primarily focuses on misleading communications and prohibits false or inaccurate information. Yet, these norms rely on the traditional sender–message–receiver model and are insufficient for strategic framing of sustainability narratives, visual symbolism, emotional appeals, and credibility borrowing via influencers and platform reputations. Environmental claims in lifestyle branding, storytelling, or digital aesthetics thus go largely untested even though they create a persuasive narrative for consumers [12]. From a marketing law perspective, this creates a regulatory blind spot, in which sustainability becomes a reputational signal rather than an ascertainable claim, ultimately undermining the principle of informed consumer choice.

Furthermore, digital marketing communications are embedded within platform governance structures that determine visibility, reach, and consumer exposure through opaque algorithms. Indonesia has yet to impose legal duties on digital platforms or content distributors to verify the accuracy or substantiation of sustainability-related statements. This lack of communicative accountability leads greenwashing to function not only as deceptive media reporting but also within the structural marketing context of digital attention economies. Thus, the existing legal framework defines greenwashing as an isolated case of misleading content rather than a communicative practice in digital marketing environments [13].

3.1.4 Findings on Institutional Arrangement and Enforcement

Institutional responsibility for addressing greenwashing in Indonesia is dispersed across multiple bodies, including non-governmental consumer protection organizations, the National Consumer Protection Agency, and sectoral ministries responsible for trade, digital communication, and environmental governance. This fragmented institutional configuration limits the capacity for coherent supervision and enforcement, particularly regarding greenwashing practices that operate across digital platforms and sustainability-driven markets. The absence of a designated lead authority for environmental marketing claims further complicates coordination, resulting in overlapping mandates, inconsistent enforcement priorities, and reactive, complaint-driven interventions.

A partial exception to this fragmentation can be observed in the financial services sector, where the Financial Services Authority has introduced Environmental, Social, and Governance (ESG) frameworks, disclosure requirements, and policy incentives to promote sustainable finance. These initiatives demonstrate the feasibility of coordinated institutional governance but also expose new regulatory challenges. The rapid expansion of green financial products has heightened the risk of misleading sustainability disclosures, underscoring the need for robust verification mechanisms and enforcement capacity. This experience illustrates that institutional coordination, while achievable, must be accompanied by clear legal standards and accountability structures to prevent greenwashing from migrating into new regulatory spaces.

3.1.5 Comparative Regulatory Approaches to Greenwashing: Indonesia, the European Union, and the OECD

Indonesia's approach to regulating greenwashing remains sectoral, fragmented, and largely reactive. Enforcement is predicated on broad consumer protection and competition law provisions, which the government recently bolstered in specific areas such as sustainable finance and the governance of the carbon market. Presidential Regulation No. 110 of 2023 will represent a step forward in the introduction of integrity standards for nature-based carbon credits. Yet, greenwashing sanctions are still mainly administrative or civil, and are enforced through general tools rather than rules tailored to particular claims. This is a post facto correction model rather than a preventive one. In this respect, the European Union follows a prohibitive, verification-based regulatory framework. Pursuant to the Empowering Consumers for the Green Transition Directive, fully applicable from September 2026, vague or unfounded environmental claims are prohibited, and carbon-neutrality claims based on offsetting schemes alone are also banned. A central element of this framework is an ex ante requirement that independent third parties verify ecological claims before they may be disseminated to consumers.

The OECD provides voluntary yet authoritative guidance, such as the Guidelines for Multinational Enterprises on Responsible Business Conduct, which emphasize the use of accurate, measurable, and relevant environmental claims. Although it lacks direct enforcement power, the OECD framework promotes transparency and regulatory comparison, influencing policy development in regions such as Indonesia and the EU. In comparison, Indonesia adopts a fragmented, complaint-driven approach; the EU adopts a

centralized preventive system with verification mechanisms; and the OECD encourages transparency-based normative convergence, highlighting the need for Indonesia to strengthen a more coordinated consumer protection framework.

3.2 Discussion

Greenwashing in Indonesia's digital sustainability economy reflects not only misleading information but also structural governance issues, including outdated legal paradigms, fragmented institutions, and the limited recognition of digital marketing communication as a regulatory object. Indonesia's Consumer Protection Law still approaches deception through a traditional transactional lens, focusing on product quality or safety while overlooking sustainability claims as a distinct type of consumer information. Since environmental claims are often "credence properties" that consumers cannot independently verify, stricter ex-ante regulation is needed. Relying on general rules against deceptive advertising places an excessive burden on consumers to verify sustainability claims in digital markets shaped by influencers, algorithms, and visual persuasion.

This finding suggests that consumer protection law should shift from a content-based deception approach to a context- and audience-sensitive regulatory model. Indonesia's policymaking remains reactive and complaint-driven, whereas the European Union adopts a preventive system that requires scientific substantiation and independent verification of sustainability claims. This shift reflects the growing recognition that ex-ante regulation is necessary to address greenwashing in digital markets and prevent declining consumer trust. Recent progress in Indonesia, particularly in ESG disclosure requirements in the financial sector and integrity standards in carbon markets, shows growing regulatory capacity, but sectoral regulations remain limited without a unified legislative framework. [14]. Institutional fragmentation hinders effective enforcement, as authority is dispersed across multiple agencies, leading to siloed regulation that cannot effectively address cross-sector greenwashing. Effective regulation, therefore, requires not only clear legal norms but also institutional coordination, data sharing, and joint enforcement. The Indonesian Financial Services Authority shows that integrated governance is possible, although regulatory gaps remain outside the financial sector. At the international level, the OECD's role as a normative agenda-setter can offer important lessons for Indonesia [15]. OECD instruments aren't binding, but they serve as internationally accepted norms for transparency, measurability, and accountability in environmental claims, which increasingly shape domestic legal reforms and judicial reasoning.

The gap between Indonesia's reactive, complaint-driven model, the EU's preventive regime, and the OECD's transparency-oriented stance underscores the need for regulatory convergence, especially as digital markets and sustainability claims cross borders. In the absence of such convergence, Indonesia risks becoming a regulatory laggard, subjecting consumers to ongoing greenwashing and derailing its overarching green economy objectives. We conclude that further protection of consumers against greenwashing in Indonesia would take the form of reconceptualising sustainability claims as a regulated digital form of communication that is backed by unambiguous legal

standards, ex ante verification mechanisms, and integrated institutional governance. These findings support the proposed three-dimensional strategic framework for the study and align with international scholarship that calls for consumer protection, sustainability governance, and digital regulation to become intertwined constituents of modern market law.

4 Conclusion

These research findings suggest that consumer protection against greenwashing in the Indonesian digital sustainability economy remains structurally weak due to obsolete legal paradigms, fragmented regulatory frameworks, and a poor status for sustainability as a unique and high-risk form of digital marketing communications. Current consumer protection and environmental legislation address greenwashing only by imposing a general prohibition on false information, rather than setting clear, detailed legal criteria, guidelines for evidence, or checks and balances for sustainability and environmental claims. Accordingly, consumers' rights to reliable and accurate information are weakly protected in recent digital markets characterized by algorithmically driven growth, influencer-marketing shaping, and symbolic narratives of sustainability. The comparison shows that the reactive, sectoral regulation in Indonesia clashes sharply with the preventive, verification-based strategy adopted in the European Union and with the normative orientation toward transparency based on an OECD framework. Such comparative views underscore that, in addition to substantive legal norms, effective regulation of greenwashing can only play out when governance is fully integrated and can address the communication and transboundary nature of digital sustainability markets. Based on this evidence, the study argues for policy reform of the Indonesian consumer protection regime in anticipation of the development of the New Consumer Protection Act. Enhancing consumer protection against greenwashing demands a more holistic strategic response that incorporates sustainability into consumer law, establishes explicit legal responsibilities and sanctions for environmental claims, and increases institutional coherence among consumer protection, environmental, and digital authorities. Such reform is vital not only to protect consumers' rights but also to uphold market integrity, public trust, and the credibility of Indonesia's broader green and digital economy agenda.

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