

# GREENWASHING: ATTITUDES AND BELIEFS IN GREEN CONSUMPTION OF YOUTH IN CROATIA

**Damir Jugo :: Marko Kovačić :: Ivan Pakozdi**

ORIGINAL RESEARCH ARTICLE / DOI: 10.20901/ms.16.32.3 / SUBMITTED: 20.07.2025.

**ABSTRACT** *This study examines how young people in Croatia perceive greenwashing, an organizational communication practice where sustainability is overemphasized in communications while real environmental impact is neglected. Despite growing ecological awareness among youth, research analyzing their attitudes toward greenwashing, especially in Croatia, is scarce. This study applies descriptive statistics, ANOVA, Kruskal-Wallis, and Mann-Whitney U tests to analyze a nationally representative sample of youth. The research shows that most youth disapprove of greenwashing, with female respondents exhibiting stronger environmental values and greater condemnation of greenwashing practices. The research also reveals significant differences in how different types of greenwashing are perceived, especially those involving organizations in environmentally harmful industries. As one of the rare empirical investigations of greenwashing attitudes among Croatian youth, this paper contributes to the understanding of their perceptions and behaviors, as well as to the broader discourse on environmental responsibility and consumer skepticism. The insights of this research can influence future policy, education, marketing, media and communication strategies used by different organizations engaging in different types of communication with environmentally conscious youth.*

## KEYWORDS

GREENWASHING, SUSTAINABILITY, CROATIA, PERCEPTION, YOUNG PEOPLE

*Authors' note*

**Damir Jugo** :: Algebra Bernays University :: damir.jugo@algebra.hr

**Marko Kovačić** :: Algebra Bernays University :: marko.kovacic@algebra.hr

**Ivan Pakozdi** :: Algebra Bernays University :: ivan.pakozdi@algebra.hr

*Note: This paper was developed within the Erasmus+ project "Više od PR-a: razvoj strategija za borbu protiv greenwashinga i youthwashinga," coordinated by the Center for Democracy and Law Miko Tripalo.*

## INTRODUCTION

In the past decade, there has been growing recognition of the importance of pro-environmental behavior among citizens. Environmental issues and collective action for ecological protection have become prominent topics in public discourse and have been incorporated into numerous policy initiatives, such as the European Union Green Deal (European Commission, 2019), which aims to make the EU climate-neutral by 2030. Although climate change is the most visible aspect of environmental behavior, it is by no means the only one. Sustainable lifestyles are increasingly reflected in individual choices, including participation in the zero-waste movement, recycling, consumption of locally produced food, and the adoption of environmentally friendly modes of transportation.

The rise in public awareness, combined with the spread of sustainable behavioral practices, has prompted organizations to become more attentive to sustainability. However, not all of them are genuinely committed to environmental responsibility. Some view sustainability merely as a strategic tool to enhance profits without fundamentally changing their operations. A common manifestation of this is *greenwashing*, a practice in which companies present a false image of environmental responsibility. The term was first introduced by Westerveld in 1986 (Pearson, 2010) to describe the deceptive practice in which organizations invest more effort in marketing and communicating their sustainability efforts than in actually reducing their environmental impact. The concept gained wider recognition in 1996 following its inclusion in a book on environmental marketing (Greer & Bruno, 1996). Since then, research has shown that consumer awareness of greenwashing has increased significantly, making it a crucial consideration for both producers and consumers alike (Vollero et al., 2016).

One of the fundamental postulates of economics is that consumers are a heterogeneous group and that it is impossible to have a single catch-all approach for everyone. This is precisely why target groups are segmented and tools and messages about a product or service are adjusted depending on their characteristics. When discussing key issues, as well as target groups, it is impossible not to think of a group that has put exactly one segment of environmental behavior (climate change) on the agenda of society and politics. This group consists of young people. Young people today are an interesting social and economic category. On the one hand, they constitute a demographic group between childhood and adulthood characterized by specific social, psychological, and cultural determinants. Young people are thus much more than a mere demographic category; they are an important social and political actor in contemporary processes. Their behavior is of interest to political elites since they are the ones who will assume the most important social and political roles within a community.

In sociology, young people are seen as a specific social group with their characteristic ways of behaviour that predominantly derive from their values and societal norms. Young people are widely discussed in the social sciences as a distinct social group whose position and role raise ongoing questions. These debates often point to a tension between the expectation that young people will follow established social patterns and their own

desire for autonomy, creativity, and innovation (Ilišin & Kovačić, 2014; Peñafiel & Doran 2018). Several authors argue that their energy, adaptability, and the fact that they will soon take on key social and political roles make young people an important driver of future societal development (Furlong 2016). In this sense, Youniss (2014) describes young people as actively shaping the past, present, and future, while society has a responsibility to equip them with the resources needed to do so. This perspective highlights the importance of seeing young people as equal contributors who can help shape community life, shifting the focus from simply integrating them into existing structures to jointly creating the values, norms, and practices that guide society.

In addition, young people are also interesting to economists, considering that they are a market niche, but in the future, they will form society and consumers. That is why it is necessary to analyze their intentions, aspirations and behaviors systematically and adapt marketing communication to them.

The aim of this paper is to examine greenwashing together with its manifestations and practices from the perspective of young people in Croatia. While there is a substantial body of literature available on greenwashing and environmental behavior, a gap remains in research focused on exploring how young people perceive and relate to this phenomenon. At the same time, research on young people and their attitudes toward greenwashing in Croatia is very limited, with only a handful of studies, such as Centar Miko Tripalo (2025), Contextos et. al. (2024), and Štimac (2025) focusing on this issue. Hence, it appears reasonable to further investigate this issue – particularly given that, sustainability topics are perceived as relevant by both young people and the general public (Štimac, 2025). To contribute to the existing body of knowledge, exploratory research was conducted to gain deeper insight into how greenwashing is perceived by young people in Croatia – focusing on its various forms, the practices they are exposed to, and the transgressions they find most unacceptable.

This paper consists of two main parts. The first provides a conceptual overview of greenwashing and its various forms, serving as a foundation for presenting the findings of the empirical research discussed in the second part.

## LITERATURE REVIEW

Greenwashing as a concept has drawn increased attention among researchers in various fields such as communication, public relations, business ethics, advertising, sociology, and education, among others, and has generated thousands of papers in the last ten years (Montgomery et al., 2023).

Although there is no rigid definition of the term due to its multifaceted nature (Lyon & Montgomery, 2011) and no generally accepted definition exists since the concept is ambiguously defined (Seele & Gatti, 2017), the term has been defined by dictionaries, organizations and researchers. Merriam-Webster's *Dictionary* (2025) defines greenwashing

as “the act or practice of making a product, policy, activity, etc. appear to be more environmentally friendly or less environmentally damaging than it really is”. Greenpeace defines it as “organisation makes vague, deceptive or even false claims about their positive environmental impact” (Pryor, 2024), and TerraChoice (de Freitas Netto et al., 2020, p. 6) as “the act of misleading consumers regarding environmental practices or performance of a company and positive communication about environmental performance”.

Researchers predominantly see greenwashing as an organizational communication or marketing practice. Delmas and Burbano (2011, p. 65) define it as “the intersection of two firm behaviors: poor environmental performance and positive communication about environmental performance”; Daou et. al. (2025) as deliberate communication of misleading or exaggerated environmental claims by companies in order to appear environmentally responsible without making substantial operational changes; while Li (2025) defines it as the practice of using vague, ambiguous, or unverifiable sustainability claims in corporate disclosures, which creates a perception of commitment to sustainability without verifiable action. Perhaps the most comprehensive approach to defining greenwashing was developed by Koch and Denner (2025, p. 9) who analyzed a number of different definitions and proposed a new one: “greenwashing refers to a discrepancy between environmental communication and actual environmental practices, whereby organizations portray themselves, their products/services, or their processes as greener than they are; this discrepancy arises through the communication of false, vague, irrelevant, or selective information”. Irrespective of the author or the time of definition, it is obvious that greenwashing as a concept is consistently characterized as conduct that is knowingly deceptive, purposefully misleading, and fundamentally false.

Greenwashing has undoubtedly become an increasingly interesting topic among organizations and researchers, mostly due to its practical nature which implies a way and form of communication. A significant number of analyses, studies, and papers have focused on the underlying reasons why organizations engage in such practices. Yang et al. (2020, p. 1495) systematized three of its main causes; governmental policies that imply environmental regulations not being well applied (Boiral & Henri, 2012; Christmann & Taylor, 2006), competitive pressure (Parguel et. al., 2011) and market opportunities (Laufer, 2003; Parguel et al., 2011). Research conducted by Delmas and Burbano (2011) applied the institutional theory to map four different drivers of greenwashing; non-market external drivers (regulatory environment, non-governmental organizations, media), market external drivers (consumer demand, investor demand, and competitor-induced incentives), organizational-level drivers (size, profitability, industry and the effectiveness of intrafirm communication) and individual-level psychological drivers (optimistic bias, narrow decision framing, and hyperbolic intertemporal discounting). De Freitas Netto et al. (2020) argue that greenwashing is a strategic tool used by companies to influence consumer behavior. They support their claim with two findings: that 66% of global consumers are willing to pay more for environmentally friendly products (Nielsen Media Research, 2015); and that consumers are likely to pay more for a product when they perceive firms that produced it as socially responsible (Grimmer & Bingham, 2013;

Guo et al., 2014). Examination of the broad range of reasons and causes for companies' use greenwashing evidently puts consumers at the forefront of this research.

Research conducted in Croatia addressing environmental concerns indicates that sociodemographic characteristics generally do not play a significant role in explaining differences in ecological attitudes and behaviors (Ančić et al., 2016; Landau et al., 2008; Šimac et al., 2021), except for gender, where younger women are more aware of environmental issues (Dolenec & Pejnović, 2014; Maglić, Pavlović, & Franc, 2022). Previous empirical research on the attitudes of Croatian youth toward environmental issues uncovers that young people in Croatia exhibit a complex and sometimes contradictory relationship with environmental issues. At the national level, they generally assign lower importance to concerns such as pollution, climate change, and environmental protection, prioritizing employment, education, and housing instead, and they often perceive Croatia as having limited capacity to influence global environmental processes (Gvozdanović et al., 2024). Nevertheless, they express support for practical, nature-based solutions, such as better protection of green areas and forests, as key measures for improving environmental preservation. At the same time, when considering the European Union, young Croatians place the environment and climate change among the top three priorities for the next five years, reflecting recognition of the EU as a capable actor in addressing global challenges (EP Youth Survey, 2024). This awareness is reinforced by active engagement with environmental topics through media, particularly social media, which serves as their primary source of information on political and social issues. Overall, their attitudes reveal a distinction between national and EU-level perspectives: environmental concerns are less salient domestically but gain prominence when viewed in the context of broader, transnational governance.

Existing research (Centar Miko Tripalo, 2025; Contextos et al., 2024; Štimac, 2025) also highlights a growing awareness and increasingly critical stance among young people regarding environmentally deceptive practices. The *GreenGuard Report* (Contextos et al., 2024, p. 73) presents empirical evidence of greenwashing in the Croatian context and reveals that youth across multiple regions demonstrate both a strong ability to recognize misleading environmental messaging and significant skepticism toward such practices. Moreover, respondents reported a decline in trust toward brands perceived to engage in greenwashing. Complementing these findings, Štimac (2025) conducted a qualitative study among university students to explore how greenwashing influences brand trust and consumer behavior. The results suggest that young consumers are particularly critical of vague or unsubstantiated environmental claims and show a clear preference for transparency and verifiable information. Their trust decreases notably when companies use symbolic "green" imagery without factual support, particularly concerning issues of environmental sustainability. Additionally, the report *Greenwashing and Youthwashing* (Centar Miko Tripalo, 2025) found that although many participants were initially unfamiliar with the term "greenwashing," they were able to identify and critically reflect on the concept when provided with contextual information. The report emphasizes education as a key mechanism for fostering critical consumer behavior and resistance to

manipulative marketing strategies among youth. All these insights complement broader findings in the international literature.

To effectively analyze greenwashing, it is necessary to differentiate between its forms and types. Among different typologies of greenwashing offered by different authors (de Freitas Netto et al., 2020; Torelli et al. 2019; Yang et al., 2020), this study focuses on firm-based greenwashing transgressions first defined by Bruno (1992) and later refined by Berrone (2016). Bruno (1992) differentiates between four firm-level transgressions: dirty business (practice of an inherently unsustainable business promoting sustainable practices or products that are not representative of either the business or society), ad bluster (using advertising to divert attention from sustainable issues by exaggerating achievements or presenting alternative programs not related to the main sustainability concern), proclaiming sustainability accomplishments or commitments that are already required by existing laws or regulations, and political spinning (influencing regulations or governments to obtain benefits that affect sustainability). Berrone (2016) added the fifth transgression to this typology (Contreras-Pacheco & Claasen, 2017), namely fuzzy reporting (taking advantage of sustainability reports as a one-way communication channel to twist the truth toward positive corporate responsibility (CSR) practices).

Building on the insights from the previously mentioned research on youth and greenwashing in Croatia – while acknowledging that current studies remain undeniably insufficient for a comprehensive understanding of the phenomenon – this study emphasizes the need to further explore the attitudes of a demographic group that has brought environmental issues to the forefront of global political discourse (Pickard, 2022) and represents a crucial market segment within the contemporary global economy (Bessant et al., 2017). To address this gap, the present research uses the typologies of greenwashing proposed by Bruno (1992) and expanded by Berrone (2016) to investigate the following three research questions:

RQ1: How important is it for youth in Croatia that products or services they regularly use are sustainable/green?

RQ2: What types of greenwashing transgressions do Croatian youth consider to be most (un)acceptable?

RQ3: Are there differences among young people as consumers in their willingness to tolerate greenwashing?

Existing research on greenwashing and environmental behavior – both in Croatia and internationally – provides a well-founded basis for assuming that Croatian youth place significant importance on green and sustainable product characteristics when making consumption choices (Centar Miko Tripalo, 2025; Chen & Chen, 2014; Contextos et al., 2024; Maglić et al., 2022; Pickard, 2022; Puđak et al., 2023; Štimac, 2025). Moreover, previous research also suggests that this demographic group is likely to respond critically to instances of greenwashing, condemning such transgressions with equal intensity (Ilija et al., 2013; Vollero et al., 2016). Taken together, these findings justify the following assumptions:

- >Women will demonstrate lower tolerance for greenwashing transgressions.
- >There will be no difference between age cohorts when it comes to tolerance of greenwashing transgressions.
- >More educated young people will showcase lower acceptance for different greenwashing practices.
- >Young people living in urban settlements will showcase lower acceptance for different greenwashing practices.

## METHOD

To address the research questions, an empirical study using the computer-assisted telephone interviewing (CATI) method was conducted in December 2023 on a nationally representative sample of young people in Croatia<sup>1</sup>. After data cleaning, the final sample for this study consisted of 315 individuals aged 13 to 30 years<sup>2</sup> ( $M=23.44$ ,  $SD=4.22^3$ ), with 54% male and 45% female respondents. 60% of the participants reside in urban areas of Croatia, while 40% come from rural areas. The majority of the sample (40%) lives in settlements with up to 2,000 inhabitants, and the prevalent educational level is high school (42%), which is expected for this age group. Additionally, 74% of them are not married, and 53% are employed.

Statistical data processing was conducted using the statistical software IBM SPSS Statistics 20. Individual items of all multi-item instruments with ordinal scales were analyzed descriptively by determining the percentages of individual responses along with their means and standard deviations. In addition to the descriptive statistics, analysis of variance (ANOVA) or the Kruskal-Wallis test (where needed), with the Mann-Whitney U test as a post-hoc test, were employed to examine differences in young people's attitudes toward greenwashing across different categories, depending on independent variables (age, gender, level of education, type of settlement).

In the following section, the results of the entire sample regarding greenwashing are first presented, followed by an overview of attitudes disaggregated by the aforementioned independent variables.

## RESULTS, DISCUSSION AND IMPLICATIONS

Following the literature review, respondents were first asked to assess, using a five-point Likert-type scale, how important it is to them, when buying or consuming a product, that it is sustainable/green. It is worth mentioning that respondents were not

<sup>1</sup> The research was approved by the Ethics Committee of the Edward Bernays University of Applied Science on 14 November 2023.

<sup>2</sup> In Croatia, young people are commonly defined as persons in the age cohort 15-30; however, for the purposes of this research, the research team decided to adopt the European Union definition stipulated in Regulation (EU) on Erasmus + (2021), according to which young persons are defined as being between 13 and 30 years of age.

<sup>3</sup> Errata corrigé: In the originally published version of this article in the Open Journal System, an error appeared in reporting SD. The value originally reported as 0.242 should read  $SD = 4.22$ , as reported in the text.

provided with a clear definition or explanation of what constitutes a “sustainable/green product. In Table 1, an overview of these results is presented, which unmistakably shows that the distribution of attitudes toward the importance of consuming green/sustainable products approximately follows a Gaussian distribution; that is, for the majority of young people, it is neither particularly important nor unimportant whether the products they consume are sustainable or green. About a fifth of young people consider it important, and a similar proportion consider it unimportant, while around one tenth of them do not attach importance, compared with 8.2% for whom the consumption of sustainable/green products is very important.

Table 1. Importance of green/sustainable product consumption

Answers	Percentage (%)
Not important at all	9.8
Mostly unimportant	18.1
Equally important and not important	30.2
Mostly important	21.1
Very important	8.2
Don't know	2.5

Using the existing relevant division of types of greenwashing practice (Berrone, 2016; Bruno, 1992), Table 2 presents an overview of young people’s attitudes, operationalized through four indicators for each type of greenwashing (in percentages).

Table 2. Young people’s attitudes toward certain types of greenwashing

	The company operates in a sector that has a harmful impact on the environment, but strongly promotes sustainable business practices in the public	The company seeks to divert attention from its problematic operations by exaggerating a smaller part of its sustainable operations	The company presents its activities in accordance with legal obligations as something worthy of attention	The company is lobbying for the business models it practices to be rewarded and encouraged with public money
Type of greenwashing	Dirty business	Ad blustering	Abiding law	Political spin
Not acceptable at all	47.3	33.7	5.1	16.2
Mostly acceptable	18.1	24.4	8.3	15.6
Equally acceptable and not acceptable	21.0	25.7	46.7	38.1
Mostly acceptable	3.8	7.6	24.1	15.9
Very acceptable	3.8	2.5	9.8	5.7
Don't know	6.0	6.0	6.0	8.6

The findings derived from Table 2 provide a foundational empirical baseline regarding young consumers' affective dispositions toward distinct corporate environmental communications. The employment of single-item statements for each of the established greenwashing typologies (e.g., Dirty Business, Ad Blustering) afforded an efficient assessment of immediate ethical rejection. This approach yielded a clear, high-impact identification of the most salient negative perception, notably the pronounced disapproval of corporate duplicity evident in the Dirty Business practice (deemed "Not acceptable at all").

However, scientific rigor mandates explicit acknowledgment of the methodological constraint inherent in this measurement strategy. Relying on a single indicator for a complex, multifaceted construct such as greenwashing introduces inherent limitations regarding measurement reliability and the comprehensive assessment of construct validity. These single-item measures may fail to fully capture the diverse behavioral and cognitive dimensions underpinning attitudes toward the more nuanced categories, such as Abiding Law or Political Spin.

Consequently, while the current data provide strong indicative evidence, they should be interpreted as a diagnostic prelude for an expanded research agenda. The immediate and critical scholarly next step must prioritize the development and rigorous validation of multi-item scales specifically tailored to the Berrone (2016) and Bruno (1992) typologies. This methodological refinement is essential so that subsequent research achieves the necessary precision and robustness required for a definitive, generalizable understanding of consumer ethical judgments in the context of misleading environmental claims.

In order to understand differences among young people, or which youth groups demonstrate stronger (diss)approval of different greenwashing practices, analyses of variance (ANOVA) and Kruskal-Wallis tests were conducted, focusing on differences depending on age, gender, type of settlement, and level of education. The results are presented below.

The first independent variable examined was *age*. Age proves to be a significant variable for Dirty Business ( $F(16,258)=1.928$ ,  $N=274$ ,  $p=0.018$ ) and Ad Blustering ( $F(16,258)=1.783$ ,  $N=274$ ,  $p=0.034$ ), indicating that greenwashing practices are more acceptable to older age cohorts. Although previous research specifically examining age differences in greenwashing attitudes among youth is scarce, the literature generally reports the absence of a statistically significant differences in age within youth cohorts regarding environmental awareness and behavior (Corner & Clarke, 2016; Gray et al, 2019). This finding is therefore noteworthy, as it suggests that age may function as an explanatory factor in attitudes toward greenwashing.

Given that *gender* was operationalized as a binary variable for gender differences, the Mann-Whitney U test was used. The results show that for male participants it is less important, when buying or consuming a product or service, that they are sustainable, i.e., green ( $U=7753$ ,  $p=0.009$ ), and that it is less acceptable for them if a company to operates

in a sector that has a harmful impact on the environment while strongly promoting sustainable business practices in the public ( $U=7962$ ,  $p=0.19$ ). This finding is consistent with research on youth and climate change (Magličić et. al., 2002), which concluded that not only do female students and grammar school students typically demonstrate heightened awareness and slightly stronger intentions regarding environmental protection, but the awareness, attitudes, and behavioral intentions are more robust among female students compared to male students (p. 503).

With regard to the *size of the settlement*, the results of the analysis of variance showed a statistically significant effect of the size of the settlement only for the greenwashing category Abiding Law, measured by the item "The company presents its activities in accordance with legal obligations as something worthy of attention.". A post hoc test showed that the smaller the settlement, the less acceptable this type of greenwashing is perceived to be.

The last variable examined was the *level of education*, that is, whether there is a statistically significant effect with regard to the level of education of young people in the context of different greenwashing practices. The results show that the approval of the practice of greenwashing labeled Dirty Business, can be explained by the difference in educational achievement ( $H(6)=17.684$ ,  $p=0.003$ ). Post hoc tests show that this practice is more acceptable among more educated youth cohorts. Similarly, there is a statistically significant difference regarding the level of education and approval of Ad Busting, defined as diverting attention from problematic operations by exaggerating a smaller part of its sustainable operations ( $H(6)=19.949$ ,  $p=0.001$ ). As in the previous case, higher education is associated with a higher level of tolerance for this type of greenwashing.

The results of this research clearly provide an answer to the first research question that was posed. Specifically, in response to the question "How important is for youth in Croatia that products or services they regularly use are sustainable/green?", existing literature led to the assumption that sustainability would be an important decision criterion. The findings show that such a hypothesis is partially correct, since the sustainability segment is not so important to most young consumers. Although a substantial minority, i.e., one third, does value sustainability, ambivalence and lack of importance toward green products is not a decision factor for even 51% of young people in Croatia. This indicates that, while a market for sustainable products exists, marketing strategies targeting young consumers should acknowledge that sustainability alone is not a decisive factor for over half of Croatian youth. For better understanding of consumers behavior more robust analyses are needed. Nevertheless, these findings clearly indicate directions for future inquiry.

Regarding the second research question ("What type of greenwashing transgressions do Croatian youth consider to be most (un)acceptable?"), and based on the findings of existing research (Ilia et al., 2013; Vollero et al., 2016), which indicate a growing interest among consumers in greenwashing and its transgressions, we initially assumed that there would be no difference among different types of greenwashing transgressions. However, our findings proved to be contrary to this assumption. The most prevalent condemnation

of greenwashing practices was found in the categories of Dirty Business and Ad Blustering. One reason why behaviors, such as a company operating in an environmentally harmful sector but strongly promoting sustainable practices to divert attention from its problematic operations by exaggerating a smaller part of its sustainable activities, are deemed less acceptable than the other two categories might lie in the fact that these scenarios are likely more present in the media and therefore more understandable to the average young consumer. Nevertheless, this result can have serious implications for companies when communicating with young consumers, as these types of greenwashing transgressions apparently lead to product boycotts.

While the first two research questions focused on greenwashing and greenwashing transgressions, the third research question focuses on young people as units of analysis. We were curious to find out which youth groups demonstrate greater tolerance for greenwashing practices. For this purpose, we compared different groups of young people in terms of four characteristics: *age*, *gender*, *type of settlement*, and *level of education*. Based on the literature review, four hypotheses were formulated and are summarized in Table 3.

Table 3. Hypotheses: demographic variables and attitudes toward greenwashing practices

Hypothesis	Accepted/rejected
Women demonstrate lower tolerance for greenwashing transgressions	accepted
There is no difference between age cohorts when it comes to tolerance of greenwashing transgressions	rejected
More educated young people showcase lower acceptance for different greenwashing practices	rejected
Young people living in urban settlements showcase lower acceptance for different greenwashing practices	rejected

The analysis focusing on Research Question 3 (examining differences in the willingness of young people to tolerate greenwashing) yielded results that both confirmed and contradicted established environmental behavioral theories (Table 3). The acceptance of the *gender*-related hypothesis strongly aligns with existing research in Croatia (Dolenec & Pejnović, 2014; Maglić et. al. 2022), where female respondents consistently exhibit heightened environmental awareness and, consequently, a lower tolerance for greenwashing transgressions ( $U=7962$ ,  $p=0.19$  for Dirty Business). The literature often attributes this difference not only to women's traditional role in household consumption but also to the perception that environmental behavior is less masculine (Bloodhard & Swim, 2020), a psychological factor highly relevant to communication strategy.

Conversely, the hypotheses related to *age*, *education*, and *type of settlement* were rejected, leading to some of the study's most unexpected findings. Rather than demonstrating lower acceptance, as suggested by theories linking environmental concern to post-materialist values often associated with higher education and urbanization

(Inglehart, 1990), more educated young people and those residing in larger cities showed greater tolerance toward specific transgressions, namely Dirty Business and Ad Blustering. For instance, approval for Dirty Business was more acceptable to more educated youth cohorts ( $H(6)=17.684$ ,  $p=0.003$ ). This result challenges simplified assumptions about demographic drivers of green consumption and suggests that the relationship is mediated by more complex factors.

What is particularly interesting is that more educated young people and those who live in larger cities show greater tolerance toward some greenwashing transgressions (Dirty Business and Ad Blustering). This finding contradicts the assumption in the literature that urbanization and a higher level of education, which are positively correlated with higher incomes and material status, positively affect concern for the environment (Inglehart, 1990). However, criticisms of the foundation of environmental orientation in post-materialism are prominent (Dunlap & Mertig, 1997). The more accepted assumption is that the perception of environmental behavior is conditioned by more complex factors than just demographic factors. The role of education and residential status definitely need to be investigated in more detail, and this is one of the recommendations for future research on this topic. However, the insights obtained from these studies can be useful to marketing and PR experts since they can calibrate their campaigns based on them and reject the simplistic assumptions that only more urban and educated young people care about greenwashing practices.

## CONCLUSION

Ecological behavior, which also includes the condemnation of greenwashing, is an important factor in explaining consumer behavior today. Contemporary generations of young people show a much greater preference for products and services that are more sustainable or greener. However, although empirical literature on the topic of environmental behavior within the social sciences has recently been flourishing, empirical works on the topic of greenwashing, especially those focusing on young people, remain rare. No such research has previously been conducted in Croatia. This is precisely why researching young people's attitudes toward greenwashing practices represents a pioneering undertaking.

This exploratory research, which aimed to understand how young people perceive greenwashing practices across different segments, is in line with previous research on greenwashing. It is therefore not surprising that young people, on average, do not approve of greenwashing transgressions, that young women are more inclined to environmental behavior and thus condemn greenwashing, and that explaining attitudes toward greenwashing requires taking into account a combination of individual and social circumstances. One of the more interesting findings, that has value for both the academic community and practitioners, is the statistically significant differentiation among types of greenwashing. Thus, young people are less likely to approve the misrepresentation

of green companies that initially engage in environmentally non-friendly business and those companies that exaggerate their green policies in their advertisements despite unsustainable practices.

All the findings of this research show that the practice of greenwashing is present in Croatia, and that young people in Croatia are capable of recognizing it. However, although we have received answers to some questions, many remain unanswered. This is precisely why it is necessary to analyze the practice of greenwashing in much more detail, as well as the attitude of young people toward it. It would be advisable to repeat a similar study on a larger sample of young people and to analyze the predictors of greater tolerance of greenwashing transgressions. In addition, the literature still lacks systematized texts, especially case studies of greenwashing transgressions – on the basis of which consumers' attitudes about greenwashing could be examined in more detail.

The empirical insights derived from this study constitute significant theoretical and practical contributions, offering a key reference point for social scientists, influencing the creation of state policies, and guiding future consumer behavior research regarding corporate sustainability claims.

## References

- >Antunes, D., Santos, A., & Hurtado, A. (2015). The communication of the LCA: The need for guidelines to avoid greenwashing. *Espacios*, 36(5), 1-17.
- >Bessant, J., Farthing, R., & Watts, R. (2017). *The precarious generation: A political economy of young people*. Taylor & Francis.
- >Bloodhart, B., & Swim, J. K. (2020). Sustainability and consumption: What's gender got to do with it? *Journal of Social Issues*, 76(1), 101-113. <https://doi.org/10.1111/josi.12376>
- >Boiral, O., & Henri, J. F. (2012). Modelling the impact of ISO 14001 on environmental performance: A comparative approach. *Journal of Environmental Management*, 99, 84–97. <https://doi.org/10.1016/j.jenvman.2012.01.007>
- >Centar Miko Tripalo. (2025). *Greenwashing i youthwashing: Manipulacija ekološkom i generacijskom svijješću u suvremenom društvu*. Retrieved July 2, 2025, from [https://tripalo.hr/wp-content/uploads/2025/03/Greenwashing\\_youthwashing\\_report\\_HR.pdf](https://tripalo.hr/wp-content/uploads/2025/03/Greenwashing_youthwashing_report_HR.pdf)
- >Chang, C., & Chen, Y. (2013). Managing green brand equity: The perspective of perceived risk theory. *Quality & Quantity*, 48(3), 1753–1768. <https://doi.org/10.1007/s11135-013-9872-y>
- >Chen, Y., Lin, C., & Chang, C. (2013). The influence of greenwash on green word-of-mouth (green WOM): The mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, 48(5), 2411–2425. <https://doi.org/10.1007/s11135-013-9898-1>
- >Christmann, P., & Taylor, G. (2006). Firm self-regulation through international certifiable standards: Determinants of symbolic versus substantive implementation. *Journal of International Business Studies*, 37, 863–878. <https://doi.org/10.1057/palgrave.jibs.8400231>
- >Contextos, Istituto ad ordinamento universitario Scuola Superiore Carolina Albasio, Youth Power Germany e.V., & Pannonia Consulting. (2025). *GreenGuard: Greenwashing Index – A comparative research of greenwashing practices in Portugal, Italy, Germany and Croatia*. <https://doi.org/10.5281/zenodo.10592402>
- >Corner, A., & Clarke, J. (2016). *Talking climate: From research to practice in public engagement*. Springer.

- >da Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. L. (2020). Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*, 32, 19. <https://doi.org/10.1186/s12302-020-0300-3>
- >Daou, L., Sayegh, E., Atallah, E., & Jabbour Al Maalouf, N. (2025). Greenwashing as a barrier to sustainable marketing: Expectation disconfirmation, confusion, and brand–consumer relationships. *Sustainability*, 17(22), 9979. <https://www.mdpi.com/2071-1050/17/22/9979>
- >Delmas, M., & Burbano, V. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87. <https://doi.org/10.1525/cmr.2011.54.1.64>
- >Dunlap, R. E., & Mertig, A. G. (1997). Global environmental concern: An anomaly for postmaterialism. *Social Science Quarterly*, 78(1), 24–29.
- >EP Youth Survey. (2024). Croatia. European Union. Retrieved June 22, 2025, from <https://europa.eu/eurobarometer/surveys/detail/3392>
- >European Commission. (2019). *The European Green Deal* (COM(2019) 640 final). Retrieved May 20, 2025, from [https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF)
- >Furlong, A. (2016). The changing landscape of youth and young adulthood. In A. Furlong (Ed.), *Routledge handbook of youth and young adulthood* (pp. 19–27). Routledge.
- >Gray, S. G., Raimi, K. T., Wilson, R., & Arvai, J. (2019). Will Millennials save the world? The effect of age and generational differences on environmental concern. *Journal of Environmental Management*, 242, 394–402. <https://doi.org/10.1016/j.jenvman.2019.04.061>
- >Gregory, R. P. (2023). When is greenwashing an easy fix? *Journal of Sustainable Finance & Investment*, 13(2), 919–942. <https://doi.org/10.1080/20430795.2021.1907091>
- >Grimmer, M., & Bingham, T. (2013). Company environmental performance and consumer purchase intentions. *Journal of Business Research*, 66(10), 1945–1953. <https://doi.org/10.1016/j.jbusres.2013.02.017>
- >Guo, R., Tao, L., & 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.
- >Gvoždanović, A., Adamović, M., Antulić Majcen, S., Baketa, N., Đokić, R., Ilišin, V., & Potočnik, D. (2024). *Youth study Croatia 2024: Youth in times of uncertainty*. Friedrich-Ebert-Stiftung Zagreb.
- >Ilija, L., Zyglidopoulos, S. C., Romenti, S., Canovas, B. R., & Brena, A. D. (2013). Communicating corporate social responsibility to a cynical public. *MIT Sloan Management Review*, 54(3), 16–18.
- >Ilišin, V., & Kovačić, M. (2014). Studentsko viđenje generacijskih problema i potencijala. In V. Ilišin (Ed.), *Sociološki portret hrvatskih studenata* (pp. 291–319). Institut za društvena istraživanja.
- >Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton University Press.
- >Jones, E. (2019). Rethinking greenwashing: Corporate discourse, unethical practice, and the unmet potential of ethical consumerism. *Sociological Perspectives*, 62(5), 728–754. <https://doi.org/10.1177/0731121419849095>
- >Koch, T., & Denner, N. (2025). What is greenwashing: A scoping review of greenwashing definitions and development of the need-for-balance model. *Journal of Sustainable Business*, 10, 17. <https://doi.org/10.1186/s40991-025-00124-3>
- >Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43, 253–261. <https://doi.org/10.1023/A:1022962719299>
- >Li, S. (2025). The truth behind ESG disclosures: Detecting greenwashing through text readability. *Highlights in Business, Economics and Management*, 64, 137–146. <https://doi.org/10.54097/hks0kp94>
- >Lyon, T., & Maxwell, J. (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>
- >Maglić, M., Pavlović, T., & Franc, R. (2022). Mladi i klimatske promjene: Osviještenost i namjere ponašanja. *Sociology & Space/Sociologija i Prostor*, 60(3), 489–509 <https://doi.org/10.5673/sip.60.3.3>
- >Marquis, C., & Toffel, M. W. (2012). When do firms greenwash? Corporate visibility, civil society scrutiny, and environmental disclosure. *Harvard Business School Organizational Behavior Unit Working Paper No. 11–115*. <http://dx.doi.org/10.2139/ssrn.1836472>

- >Merriam-Webster. (n.d.). Greenwashing. In Merriam-Webster.com dictionary. Retrieved July 11, 2025, from <https://www.merriam-webster.com/dictionary/greenwashing>
- >Montgomery, A. W., Lyon, T. P., & Barg, J. (2023). No end in sight? A greenwash review and research agenda. *Organization & Environment*, 37(2), 221-256. <https://doi.org/10.1177/10860266231168905>
- >Oxford English Dictionary. (2023). *Oxford English Dictionary*. Retrieved May 14, 2025, from <https://www.oed.com/>
- >Peñafiel, R., & Doran, M. C. (2017). *New modes of youth political action and democracy in the Americas: From the Chilean Spring to the Maple Spring in Quebec*. In C. Feixa, I. Sánchez-García, & P. Nilan (Eds.), *Young people re-generating politics in times of crises* (pp. 349–373). Springer International Publishing. [https://doi.org/10.1007/978-3-319-58250-4\\_18](https://doi.org/10.1007/978-3-319-58250-4_18)
- >Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011). How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of Business Ethics*, 102(1), 15–28. <https://doi.org/10.1007/s10551-011-0941-0>
- >Pearson, J. (2010). Turning point. Are we doing the right thing? Leadership and prioritisation for public benefit. *Journal of Corporate Citizenship*, 2010(37), 37–40. <https://doi.org/10.9774/gleaf.4700.2010.sp.00006>
- >Pickard, S. (2022). Young environmental activists and Do-It-Ourselves (DIO) politics: Collective engagement, generational agency, efficacy, belonging and hope. *Journal of Youth Studies*, 25(6), 730–750. <https://doi.org/10.1080/13676261.2021.1986860>
- >Pryor, E. (2024, May 25). *What is greenwashing? Greenpeace Aotearoa*. Retrieved January 11, 2026, from <https://www.greenpeace.org/aotearoa/story/what-is-greenwashing/>
- >Puđak, J., Klasnić, K., & Poljak, T. T. (2023). Nova generacija klimatskih aktivista? Tipologija i neke determinante sudjelovanja u Fridays for Future prosvjedima hrvatskih srednjoškolaca. *Politička Misao: Croatian Political Science Review*, 60(1), 1–22. <https://doi.org/10.20901/pom.60.1.01>
- >Regulation (EU) 2021/817 of the European Parliament and of the Council of 20 May 2021 establishing Erasmus+: The Union programme for education and training, youth and sport and repealing Regulation (EU) No 1288/2013 (Text with EEA relevance). (2021). *Official Journal of the European Union*. Retrieved June 27, 2025, from <https://eur-lex.europa.eu/eli/reg/2021/817/>
- >Signitzer, B., & Prexl, A. (2008). Corporate sustainability communications: Aspects of theory and professionalization. *Journal of Public Relations Research*, 20(1), 1–19. <https://doi.org/10.1080/10627260801937263>
- >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>
- >Šimac, B., Poljak, T. T., & Ivanović, V. (2021). Schwartz's human values and the care for nature in Croatia and five other Central European countries based on ESS data from Round 4 (2008) and Round 9 (2018). *Revija za Sociologiju*, 51(3), 431–459.
- >Štimac, H. (2025). Razotkrivanje zelenih laži: percepcija potrošača o greenwashingu. In V. Piližota, V. Harc, & M. Briš (Eds.), *Zbornik radova Znanstvenog sabora Slavonije i Baranje 2023* (pp. 289–312). Hrvatska akademija znanosti i umjetnosti.
- >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.2398>
- >Vollero, A., Palazzo, M., Siano, A., & Elving, W. (2016). Avoiding the greenwashing trap: Between CSR communication and stakeholder engagement. *International Journal of Innovation and Sustainable Development*, 10(2), 120–140. <https://doi.org/10.1504/IJISD.2016.075542>
- >Walker, K., & Wan, F. (2011). The harm of symbolic actions and greenwashing: Corporate actions and communications on environmental performance and their financial implications. *Journal of Business Ethics*, 109(2), 227–242. <https://doi.org/10.1007/s10551-011-1122-4>
- >Wolniak, R. (2015). Reporting process of corporate social responsibility and greenwashing. In 15th International Multidisciplinary Scientific Geoconference SGEM2015, Ecology, Economics, Education and Legislation. <https://doi.org/10.5593/sgem2015/b53/s21.063>

>Wu, Y., Zhang, K., & Xie, J. (2020). Bad greenwashing, good greenwashing: Corporate social responsibility and information transparency. *Management Science*, 66(7), 3095–3112. <https://doi.org/10.1287/mnsc.2019.3340>

>Yang, Z., Nguyen, T. T. H., Nguyen, H. N., Nguyen, T. T. N., & Cao, T. T. (2020). Greenwashing behaviours: Causes, taxonomy and consequences based on a systematic literature review. *Journal of Business Economics and Management*, 21(5), 1486–1507. <https://doi.org/10.3846/jbem.2020.13225>

>Youniss, J. (2014). Civic-political engagement: Developmental science comes of age. *International Journal of Developmental Science*, 8(3–4), 149–153.

# GREENWASHING: STAVOVI I UVJERENJA MLADIH O ZELENOJ POTROŠNJI U HRVATSKOJ

Damir Jugo :: Marko Kovačić :: Ivan Pakozdi

**SAŽETAK** Ovaj rad analizira percepciju greenwashinga – prakse organizacijske komunikacije u kojoj se pretjerano ističe održivost, dok se stvarni utjecaj organizacije na okoliš zanemaruje – među mladima u Hrvatskoj. Unatoč rastućoj ekološkoj svijesti mladih, istraživanja njihovih stavova o greenwashingu, osobito u hrvatskom kontekstu, još su uvijek ograničena. U radu se koriste deskriptivna statistika, analiza varijance (ANOVA), Kruskal-Wallisov test i Mann-Whitneyjev U test kako bi se analizirao nacionalno reprezentativan uzorak mladih. Rezultati provedenog istraživanja pokazuju kako većina mladih ne odobrava greenwashing, pri čemu ispitanice imaju izraženije ekološke vrijednosti i pokazuju snažniju osudu takvih praksi. Uočene su značajne razlike u percepciji pojedinih oblika greenwashinga, osobito kada se odnose na organizacije koje pripadaju industrijama s izraženim negativnim utjecajem na okoliš. Kao jedno od rijetkih empirijskih istraživanja stavova mladih u Hrvatskoj prema greenwashingu, ovaj rad doprinosi razumijevanju njihove percepcije i ponašanja te širem diskursu o okolišnoj odgovornosti i skepticizmu potrošača. Uvidi dobiveni ovim radom mogu poslužiti kao temelj za oblikovanje budućih politika, obradovanja te marketinških i komunikacijskih strategija usmjerenih prema ekološki osviještenim mladima.

## KLJUČNE RIJEČI

GREENWASHING, ODRŽIVOST, HRVATSKA, PERCEPCIJA, MLADI

Bilješka o autorima \_\_\_\_\_

**Damir Jugo** :: Sveučilište Algebra Bernays :: damir.jugo@algebra.hr

**Marko Kovačić** :: Sveučilište Algebra Bernays :: marko.kovacic@algebra.hr

**Ivan Pakozdi** :: Sveučilište Algebra Bernays :: ivan.pakozdi@algebra.hr