

Reach-out with your project results ONLINE – KETBIO offers the platform

03-04-2020

The KETBIO Online Marketplace gives you the opportunity to disseminate your project online

read more

Towards scientific excellence and global impact

26-03-2020

The March meeting of the Scientific Board and Editorial Board of Acta Innovations, published by RIC...






read more

KETBIO Online Marketplace

14-02-2020

Join KETBIO Online Marketplace on 19 February 2020 - a new virtual event format dedicated to biotech...

read more

-  For enterprises
-  For academic institutions
-  For individuals
-  For business environment institutions and NGOs
-  For governmental and local administration

no. 34

Greenwashing as a form of modern eco-marketing

pages: 5-12

Irina Astakhova, Tetiana Reznikova, Ekaterina Astakhova

Setting up the stage for smart sustainable city: international and ukrainian context The role of smart solutions

pages: 13-24

Anna Pozdniakova, Iryna Velska

Analytical provision for managing innovation activities within the company considering the interests of stakeholders pages: 25-39

Oksana V. Portna, Natalia Yu. Iershova, Dina A. Tereshchenko, Tetyana Yu. Chaika, George Dubynskyi

Photovoltaic systems – types of installations, materials, monitoring and modeling - review pages: 40-49

Angelika Anduła, Dariusz Heim

Changes in waste packaging management and implementation to achieve a circular economy - polish case study pages: 50-57

Joanna Zarębska, Berenika Lewicka

Risk in the scope of research and innovative

technological projects pages: 58-67

Maria Richert, Rafał Hubicki, Piotr Łebkowski, Joanna Kulczycka, Asja Mrotzek-Bloess

GREENWASHING AS A FORM OF MODERN ECO-MARKETING

Irina Astakhova

Simon Kuznets Kharkiv National University of Economics
9a Nauki Avenue, 61166, Kharkiv, Ukraine, Iryna.Astakhova@m.hneu.edu.ua
 <https://orcid.org/0000-0003-2165-4719>

Tetiana Reznikova

Simon Kuznets Kharkiv National University of Economics
9a Nauki Avenue, 61166, Kharkiv, Ukraine, Tetiana.Reznikova@m.hneu.edu.ua
 <https://orcid.org/0000-0002-7978-5976>

Ekaterina Astakhova

Federal State Budgetary Educational Institution of Higher Education
“Vladivostok State University of Economics and Service”
41 Gogol St., 690014, Vladivostok, Russia, Ekaterina.Astakhova@vvsu.ru
 <https://orcid.org/0000-0003-2198-5569>

Abstract

The article analyzes development trends of ecological production traded internationally. It focuses on such forms of eco-marketing as greenwashing and highlights a set of tools that negatively affect the consumer perception of eco-products. It proposes a systematic approach to counter the greenwashing effect at different levels, forming the background for monitoring it and implementing effective countermeasures. Such a scientific approach affects the real environmental commitment of companies, strengthens the social responsibility of business and enhances economic efficiency.

Keywords

target consumers; ecological marketing; greenwashing types and tools; systematic approach; greenwashing countermeasures.

Introduction

The scale of phenomena in the world such as global warming, floods, fires, soil and ocean pollution, melting glaciers, ozone holes, a biodiversity decrease etc., has turned the local environmental problems into a global environmental crisis. This has created a demand for environmentally friendly goods in the society (eco-friendly goods).

A growing environmental movement and a change in a company development vector, on the one hand, leads to an increase in the cost of eco-friendly goods, but on the other hand, makes them cheaper through the use of such ecological marketing forms as greenwashing.

Greenwashing (from English green and whitewash - whitening, or green camouflage) is a form of ecological marketing related to the environmental positioning of enterprises, when they spend significant resources on convincing customers of their eco-friendliness, rather than concentrating on real environmental initiatives. Greenwashing in transnational companies is becoming a destructive force affecting various industries and social groups. Therefore, its impact on company's outcomes is attracting the attention of scientists, researchers and journalists.

Greenwashing as a form of eco-marketing was studied by such famous scientists as: J. Westerveld, B. Clegg, K. Bruno, R. Wolniak, E. L. Lane, K. Peattie and others. However, each of them is more concerned with its practical aspects. Therefore, the problem of using greenwashing in international companies is still unresolved due to the underdeveloped mechanisms of its prevention.

Currently, the environmental friendliness of goods is becoming an increasingly important factor of improving their competitiveness in national and international markets. And greenwashing leads to the certain negative long-term consequences: it erodes the image of companies and decreases their competitiveness in world

markets, undermines consumer confidence in eco-friendliness of any goods and ecological brands in general. Together, this shows the relevance of the research study.

Methods

The purpose of the study is to determine and systematize the greenwashing features used internationally, analyze its negative consequences on consumers and the country's economy and formulate directions for counteracting it. In this research, the following methods were used:

- theoretical generalization for determining types and tools of greenwashing,
- statistical processing of information to identify target consumers of eco-goods,
- comparative analysis for comparing the greenwashing countermeasures in developed and developing countries,
- a systematic approach to form a set of measures to counter the negative impact of greenwashing in three directions,
- structural - logical approach to build the logic of the research structure, presented in Fig. 1.

Marketing		
Ecological marketing		
Strategies of ecological marketing	Segments of consumers of eco-goods	
Greenwashing as a tool of ecological marketing		
Greenwashing types	Greenwashing tools	
A set of measures to counteract greenwashing		
Legislative directions to counter greenwashing	Professional directions to counter greenwashing	Public directions to counter greenwashing

Fig. 1. A structural - logical framework of the greenwashing research. *Source: Source: Own research*

Therefore, the further research is carried out according to the proposed structural - logical scheme, starting from determining the increasing role of ecological marketing in the modern society to consumer targeting, detecting ecological marketing strategies, greenwashing types and tools, then to the developing of ways to counter it.

Results and discussion

In today's world, the production and promotion of eco-goods is a steady development trend both on international and national markets, therefore the importance of ecological marketing is constantly growing globally. Production and marketing urge to meet the ecological needs of consumers more often, thus stimulating the demand for ecological goods and services.

According to the American Marketing Association, ecological or green marketing is the marketing of products that are presumed to be environmentally safe [1]. In other words, it represents the efforts of organizations to produce, promote, package and recycle products in a way that complies with eco-standards. A variety of concepts leads to the understanding that ecological marketing is a holistic and responsible approach that includes identifying, forecasting and finding opportunities to meet the needs of stakeholders without a negative impact on the society and the environment.

Eco-marketing tools facilitated the growth of a new target segment of consumers - people who consume ecological products. In the post-Soviet countries, this market is still in its initial phase. It is characterized by a consumer choice of products that do not threaten health or do not harm the environment during their production, use and disposal.

There are various consumer groups in international markets and companies use different ecological marketing strategies in order to achieve higher company performance. For example, the Natural Marketing Institute identified five groups of American consumers. They formed relevant ecological marketing strategies for each target consumer [2] to gain a competitive advantage of companies in the markets. The results of such approaches are summarized in Table 1.

Table 1. Consumer Research Results and Ecological Marketing Strategies. *Source: [2-3]*

Consumer characteristics	
Consumer segment name	Characteristics of consumers in this segment
LOHAS	Prefer a lifestyle of health and sustainability (LOHAS).
Naturalists	Focused primarily on a healthy lifestyle.
Drifters	Exposed to social trends, such as personal values.
Conventional	Most of them are motivated to save money, rational in choosing a product, practical, buying eco-friendly goods is not a priority for them.
Unconcerned	Indifferent to environmental protection.
Ecological Marketing Strategies for enterprises	
Lean Green	Responsibility to society, the main goal is not to promote own ecological initiative or the environmental properties of products but to reduce costs and increase efficiency due to ecological management.
Shaded Green	Investing in environmentally friendly long-term processes that require significant financial and non-financial resources, improving own products and technologies to guarantee them a competitive advantage.
Extreme Green	Integration of ecological issues into business processes and products, including using of specialized outlets and distribution.

The analysis of the research results indicates that the largest share, namely 26%, is covered by consumers - drifters, LOHAS - consumers make up 23%, naturalists - 20%, unconcerned - 17%, conventional - take the smallest share in the structure of consumers - 14%. Therefore, the main attention in the eco-marketing tools is paid to the first three consumer segments.

Nevertheless, some enterprises, attempting to increase sales, attract new customers and enter new markets, only create the illusion of environmental performance. They misuse marketing tools, especially advertising and PR, in order to promote their products as "green", "bio" or "organic" although often they do not meet such characteristics. This is the marketing approach that greenwashing uses. As a certain form of eco-marketing it is used to build the corporate image by misleading consumers about the environmental friendliness of their products. Moreover, greenwashing is the most common for mass consumers who emotionally perceive eco-friendly goods. At the same time, those producers for institutional consumers who use innovative ecological technologies have a greater impact on the public, rather than on consumers. They build their image and enhance their reputation of a strong driver of ecological innovation.

This leads to the lack of consumers' confidence, which is the negative consequence of the greenwashing. According to the Oxford English Dictionary, greenwashing represents "activities by a company or an organization that are intended to make people think that it is concerned about the environment, even if its real business actually harms the environment" [4].

In addition to advertising and PR, greenwashing uses such marketing communication tools as publishing ecological reports, creating educational environmental programs, organizing and sponsoring relevant events.

Despite the social and ethical focus of these events, greenwashing is a way to mislead consumers and the public, which gives companies positive feedback at the start.

Greenwashing is a relatively new phenomenon for most post-Soviet countries (Belarus, Ukraine, Kazakhstan, Russia and others). The use of such a pseudo ecological form of marketing internationally requires effective mechanisms for monitoring production and promotion of products on national markets as well as imported goods from various countries.

Three types of greenwashing were identified according to the study by the global nonprofit organization BSR [5]. The research of the Canadian company Terra Choice allowed us to determine and systematize the main sins of greenwashing as false and deceptive statements about the environment [6]. As a result, the main characteristics of greenwashing types and tools are represented in Table 2.

Table 2. Main characteristics of greenwashing types and tools. *Source: [5-6]*

Main greenwashing types and their characteristics	
Greenwashing types	Characteristics of greenwashing types
Misguided greenwashing	Companies make significant efforts to become environmentally friendly, but they are unable to communicate these efforts effectively, although they often use statements such as "environmentally friendly" in their communications.
Unsubstantiated greenwashing	Companies do commendable work and their production information is based on sound data, but a more detailed study reveals that they act not for the environment, but for their own benefit, spending more resources into communications than actual ecological initiatives.
Greenwashing noise	The companies claim that they are "green" with no sound evidence, and the actual corporate reports do not convince even their clients.
False and deceitful statements, so-called "7 sins of greenwashing"	
Sins of greenwashing	Characteristics of the greenwashing tool
Sin of the hidden trade-off	Environmental issues are highlighted at the expense of another possibly more significant issue. For example, the purchase of paper products when refusing plastic is not always ecological, as forests are cut down for these products.
Sin of no proof	Environmental claims or promotional products are not supported by factual evidence or a reliable third party certification.
Sin of vagueness	Environmental claims are so vague and broad that they become meaningless and are usually misunderstood by consumers.
Sin of worshipping false labels	Fake certificates or labels are created to mislead consumers about the environmental testing of production, packaging and etc.
Sin of irrelevance	The absence of certain substances that are already prohibited by law is emphasized or advertised. That is, the information is truthful but unimportant and irrelevant.
Sin of lesser of two evils	Green products that are harmful by their nature are advertised (for example, organic cigarettes).
Sin of fibbing	Environmental claims are not true, knowingly false in the form of statements.

The number of greenwashing cases is constantly growing internationally and already has serious negative consequences: consumer attention to eco-goods is reducing; confidence in the green market is undermined. It also negatively affects the investor interest in ecological industries, thus decreasing the level of capital investments in this market.

Research of the existing approaches to the production and promotion of eco-goods in various countries [7 - 13] allowed us to determine greenwashing countermeasures in developed, developing and post-Soviet countries in three directions: at the legislative, professional and public level, Table 3.

As follows from the study, many greenwashing countermeasures in the post-Soviet and developing countries are not deeply worked out being at their initial stage, in contrast to the developed countries. This is because of the later interest and willingness of the society to control the production and consumption of eco-products. Most of these countermeasures are at the formative stage. At the same time, legislative and professional directions to counter greenwashing are at a high level. And public institutions here become an increasingly significant protective force against greenwashing. Numerous consumer and journalist associations are developing to reveal greenwashing cases and affecting deceivers.

Developed countries have their own standards for organic products. Many of their companies take active efforts to support a high level of environmental responsibility. They implement ecological management programs, energy-saving projects that reduce the negative impact on the environment, reduce water consumption and waste generation, and increase energy efficiency.

Table 3. Directions of greenwashing countermeasures in developed and developing countries. *Source: Source: Own research*

Efforts to counter greenwashing	
Developed countries	Post-Soviet and developing countries
Legislative directions to counter greenwashing	
Approved legislation governing the requirements for environmental production, turnover and labeling of eco-goods.	The minimum level of legislation on environmental production, turnover and labeling of organic products, which is in the implementation phase.
Institutional structures protecting against greenwashing. Regulated by the Federal Trade Commission (FTC) in the USA.	Lack of specific institutional structures protecting from greenwashing.
Effective mechanisms of implementing the legislation on eco-products.	Mechanisms for the implementation of legislation are under development.
Well-functioning legal system.	Corrupt legal system where environmental issues are not priority yet.
Professional directions to counter greenwashing	
Ecological certification is carried out through: - International Federation of Organic Agricultural Movements (IFOAM); - Codex Alimentarius (lat. Food Code) ISO 14024.	Ecological certification is carried out only by some of the largest manufacturers – exporters.
Active participation in international environmental organizations such as the Global Ecolabelling Network (GEN), the global Go green movement and others.	Cooperation is not systemic. Only major manufacturers of eco-products participate.
Availability of a wide network of certified centers in each EU country.	Availability of foreign certification centers. Thus, there are 15 certification centers in Ukraine: 5 - Germany, 3 - Italy, 2 - Austria, one each from Switzerland, Turkey, the Netherlands, France and Ukraine.
A number of ecological auditing companies in different countries.	Limited number of ecological auditing companies in different countries.
Investment programs into ecological production at the level of EU, countries, regions.	Only major manufacturers of eco-products participate in investment programs.

Public directions to counter greenwashing	
Classification of companies by the level of eco-friendliness of products, using/not using greenwashing and transparency of this information.	Lack of a systematic approach to the classification of companies producing eco-goods.
Creation of active public associations of consumers against greenwashing with the use of radio, television and Internet.	Individual cases of public consumers' associations against greenwashing with the use of radio, television and Internet.
"Black lists" of companies using greenwashing are consistently forming.	There are no "black lists" of companies using greenwashing.
Educational programs in schools, universities, specialized courses.	Occasional training programs in schools, universities, specialized courses.

The modern measure to counter greenwashing is a labeling system developed by both governments and voluntary associations. Some of eco labels are used all over the world, while others are used in certain countries. They are implemented in a mobile application - Eco Label Guide - developed by the Global Ecolabelling Network. It scans goods and checks them for compliance with different environmental standards. This approach received international status in 2018 [14] and was approved by the United Nations Environment Program (UNEP).

The number and volume of investment programs into ecological production on the international market are growing. However, some manufacturers still use greenwashing in their environmental programs. For example, Philip Morris International Ukraine implements an environmental project to purify water and air, at the same time releasing products that are environmentally harmful and hazardous to the health of individual consumers. Oji Paper Company, Japan, claimed for decades to use 40% recycled content in its products while they used 0% [15]. The car giant Volkswagen claimed the use of technology that emitted less pollutants while later it admitted to cheating emissions tests by fitting vehicles with a "defeat" device that altered the performance to reduce the emissions level. In truth, these engines were emitting up to 40x the allowed limit of nitrogen oxide pollutants [16].

Public directions to counter greenwashing are at an early stage of development in the post-Soviet and developing countries because of the lack of specialists with expertise in greenwashing issues. Therefore, the real situation of the control systems over ecological production and promotion, especially in the mass production in these countries, is still rather weak and requires strengthened efforts in this direction.

The number of publications devoted to the greenwashing problem is increasing worldwide. However, they is a lack of adequate scientific justification in terms of determining its countermeasures.

In this case, the attitude towards greenwashing as a new form of eco-marketing is debatable. Some authors [3, 17], consider it as a new set of methods and strategies of the traditional marketing mix. Others, like K. Bruno, B. Clegg, R. Horiouchi, etc. [5, 18, 19], address greenwashing in terms of two components: ecological commitments, when companies manage the environment through the ecological approach; and environmental outlook, when they assess the joint effect of companies on the environment.

In our opinion, the contradictory nature of greenwashing lies in the fact that in declaring a focus on the environmental outlook and achieving instant economic benefits with the use of marketing tools in the current period, companies ignore long-term environmental commitments. Moreover, this leads to transition from social - ethical marketing to greenwashing as a form of pseudo-ecological marketing.

Most scientists studying the problems of green marketing deal with the classic tools of the marketing mix, using them for eco-marketing [9, 11, 20]. In contrast, we highlighted two groups of consumers during marketing research: institutional and non-institutional, greenwashing risks were identified for each of them.

At present, the ways of reducing greenwashing risks should be explored. There is a need for their evaluation depending on the volume of production and their duration. On this basis, the authors formulated directions to neutralize the negative impact of greenwashing risks on the environment and humans. Thereby, the presented research results can be considered as one of the attempts of a systematic approach for improving the environmental sustainability of consumers.

Impact

The research results develop scientific knowledge, theoretical rethinking of the greenwashing value, proposing a systematic approach to assess the ecological safety of countries and form the appropriate greenwashing countermeasures.

Greenwashing causes the uncertainty that creates both economic, environmental and other risks, as well as the ability to influence the Global Environment Outlook and environmental commitments of companies.

Greenwashing risks of the production, promotion and sale of mass products for institutional consumers are significant but short-term and easier to identify. Companies increase profits to a certain point without spending resources on improving the level of eco-friendliness of the product, while consumers harm their health as well as the environment. Greenwashing countermeasures can reduce such risks through publishing exposing articles, holding PR campaigns, forming the “black list” of deceptive manufacturers, public censure, re-certification, judicial mechanisms, financial penalties, etc. As a result, companies accept lower profits or losses and get a “vaccination” against greenwashing and consumers receive compensation for damage to their health.

Greenwashing risks of the technical and technological re-equipment of companies in order to meet the environmental needs entail a mismatch with the declared level of eco-friendliness for institutional consumers. They are more significant, long-term and difficult to identify. These risks require constant attention in order to manage them at each stage.

For developed, post-Soviet and developing countries, perspective directions to counter greenwashing are:

- conclusion of international agreements between countries, industry enterprises, universities in order to prevent greenwashing effects,
- exchange of experience and technologies into the environment, revealing cases of greenwashing on a regular basis,
- exchange of specialists, scholars, graduates and students actively involved in greenwashing issues,
- introduction of "green" curricula in education, entrepreneurship and business to form their commitment to environmental friendliness and rejection of greenwashing.

Greenwashing counteraction increases the level of environmental responsibility of companies, which affects the environmental perspective of society as a whole.

Conclusions

The modern need of society for ecological goods is constantly growing. Popularization of eco-marketing as an integral part of doing business has allowed unfair manufacturers to use such a pseudo-marketing tool as greenwashing. Its usage undermines the trust of both consumers and investors in responsible ecological production.

Greenwashing risks should be addressed urgently by creating a system to counter its use in developed, developing and post-Soviet countries. This includes a set of measures in three directions: at the legislative, professional and public level. Such a systematic approach will help regulate and control environmental standards in the countries, as a result, consumers will be able to get the desired ecological product and companies would improve their competitiveness and effectiveness in the international markets.

The global economy trends include the continuous growth of:

- technical and technological innovations in the means of production for those institutional consumers who form their image as an environmentalist,
- the need for high-quality eco-goods for individual consumers.

In the future, the temptation to use greenwashing in order to resolve the contradiction between the effectiveness and environmental commitment of companies will increase. Hence, without a well-built

comprehensive system uniting professionals, countries and the society, it will difficult to place a barrier on greenwashing. This is becoming an important part of saving the environment, especially in post-Soviet and developing countries since their share of eco-friendly industries is not yet sufficient. Therefore, they can use the proposed approach to the monitor situation in order to achieve better results in the protection of the environment, human life and health.

Conflict of interests

There are no conflicts to declare.

References

- [1] Definitions of Marketing. URL: <https://www.ama.org/the-definition-of-marketing-what-is-marketing/>.
- [2] Understanding the LOHAS Market Report, 6th ed., Natural Marketing Institute (NMI), 2007.
- [3] A. Tukker, M. Charter, C. Vezzoli, E. Stø, M.M. Andersen, System Innovation for Sustainability 1: Perspectives on Radical Changes to Sustainable Consumption and Production, New York, Routledge, 2017.
- [4] Oxford English Dictionary. URL: <https://www.oxfordlearnersdictionaries.com/definition/english/greenwash>.
- [5] R. Horiouchi, R. Schuchard, L. Schea, S. Townsend, Understanding and preventing greenwash: a business guide. Report, BSR, 2009.
- [6] The sins of greenwashing. Home and family edition. (2010). URL: <http://faculty.wvu.edu/dunnc3/rprnts.TheSinsOfGreenwashing2010.pdf>.
- [7] Y. Vishnevsky, Top-20 luchshikh eko-programm kompaniy / Top-20 best eco-programs of companies. (2019). URL: https://www.dsnews.ua/vlast_deneg/top-20-luchshih-eko-programm-kompaniy-22042019230500
- [8] Private investments of Ukraine, 2020. URL: <http://www.uaban.org/catalogue-projects-ukraine.html>.
- [9] R. Wolniak, Reporting process of corporate social responsibility and greenwashing, 15th International Multidisciplinary Scientific GeoConference SGEM, 2015. URL: https://www.researchgate.net/publication/304268548_REPORTING_PROCESS_OF_CORPORATE_SOCIAL_RESPONSIBILITY_AND_GREENWASHING.
- [10] Lyudi. Investory novoy Ukrainy / People. Investors of new Ukraine, Business, 2020. URL: <https://business.ua/special/45-biznes-novoji-ukrajini/1318-spetsvypusk-investory-novoj-ukrainy-lyudi>.
- [11] E. L. Lane, Green Marketing Goes Negative: The Advent of Reverse Greenwashing, European Journal of Risk Regulation. 3(4) (2012) 582-588.
- [12] Yu.Kuts, Eko-marketing: grinvosning kak negativnyy faktor razvitiya sovremennoy ekonomiki ili rastushchaya opukhol' sovremennogo rynka, Rossiyskaya nauka i obrazovaniye segodnya: problemy i perspektivy / Eco-marketing: greenwashing as a negative factor in the development of the modern economy or a growing tumor of the modern market, Russian Science and Education Today: Problems and Prospects. 2. (2017). 35-37.
- [13] D. Toropova, Chistyy piar: uchimsya otlichat' ekotovary ot grinvosninga / Pure PR: we learn to distinguish eco-products from greenwashing, SPb, ITMO, 2016.
- [14] United Nations Environment Programme. Annual report 2015. URL: <https://www.unenvironment.org/annualreport/2015/en/index.html>.
- [15] M. Whipp, Japan paper giants under fire for falsifying recycled content figures. (2008). URL: <https://www.printweek.com/news/article/japan-paper-giants-under-fire-for-falsifying-recycled-content-figures>
- [16] L. Acaroglu, What is Greenwashing? How to Spot It and Stop it. (2019). URL: <https://medium.com/disruptive-design/what-is-greenwashing-how-to-spot-it-and-stop-it-c44f3d130d55>.
- [17] A. Priyanka, K. Aarti, Greenwashing: The Darker Side Of CSR, Indian Journal of Applied Research. 4. (2011). 61-66.
- [18] J. Greer, K. Bruno, Greenwash: The Reality Behind Corporate Environmentalism, IBON Foundation Incorporated, Third World Network, 1998.
- [19] B. Clegg, Ecologic: The Truth and Lies of Green Economics, Eden Project Books, 2009.
- [20] K. Peattie, Towards Sustainability: The Third Age of Green Marketing, The Marketing Review. 2 (2001) 129-146.