
Effectiveness of Communication on Environmental Labels and Declarations in Enterprises

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Bożydar Ziółkowski¹, Katarzyna Chudy-Laskowska², Barbara Szymoniuk³

Abstract:

Purpose: The aim of this paper is to identify and assess the effectiveness of communication on environmental labels and declarations (ELAD) in enterprises.

Design/Methodology/Approach: The research approach is based on the adapted, modified and operationalised model for investigating the effectiveness of sustainability communication strategies in hospitality enterprises. The present study applied the modified model for measuring and assessing the effectiveness of environmental labels and declarations communication. The research content was collected through in-depth interviews during CATI (computer assisted telephone interview) conducted in the years 2024 and 2025 among managers of Polish enterprises. U Mann-Whitney and Pearson's chi-squared tests were used for data analysis.

Findings: The results deliver knowledge about the advancement of companies in the application of ELAD communication tactics. Of the eight tactics analysed, the following three were identified as both most significant and influential in companies, i.e.: positive communication on ecolabels, displaying certified environmental labels or declarations, presenting practical effects of implementing ecolabels. Possible managerial actions towards facilitating effectiveness, enabling a strategic shift into the analysed sustainability dimension were recommended too.

Practical Implications: This study examines eight tactics enabling effective communication on environmental labels and declarations. The findings should help enterprises to better communicate on ecolabels and consequently gain benefits from implementing ELAD. The research model and statistical calculations can be recommended to enterprises and all other organisations as a checklist when designing communication strategies on ELAD.

Originality/Value: The innovativeness of this study lies in the adaptation and operationalisation of the research model along with its empirical verification in the context of communication on environmental labels and declarations.

Keywords: Management, marketing communication, environmental communication, ecolabels, sustainability.

¹Rzeszów University of Technology, Faculty of Management, Department of Enterprise Management, ORCID: 0000-0002-7866-3694, e-mail: bozydarz@prz.edu.pl;

²Rzeszów University of Technology, Faculty of Management, Department of Quantitative Methods, ORCID: 0000-0002-7797-2858, e-mail: kacha877@prz.edu.pl;

³Lublin University of Technology, Faculty of Management, Department of Marketing, ORCID: 0000-0002-9227-7159, e-mail: b.szymoniuk@pollub.pl;

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1. Introduction

Communication is a process of sending verbal or nonverbal messages (Kalogiannidis, 2020), that is, collecting and sharing information (Szymoniuk, 2019). In companies or organizations the communication problems are omnipresent (Odine, 2015). Due to the growing pressure on enterprises to increase efficiency and boost sales (Łęgowik-Małolepsza, 2025), numerous undertakings have implemented eco-marketing along with the environmental labels and declarations (ELAD), the key instruments in ecological marketing (Kowalska, 2016).

The need to reduce costs led many of them to greenwashing, the manipulation of the environmental performance of the products offered by companies (Orzeł and Wolniak, 2019). In numerous cases, the root cause of the business problems resulting in false marketing was ineffective communication.

The environmental labels and declarations are used interchangeably with ecolabels and the ELAD acronym in this paper. Ecolabels are viewed as indicators of the environmental performance of a product (Gupte and Deshmukh, 2025).

Nowadays, the lack of effective communication on ecolabels is noticeable both on the line of companies and consumers (Baumeister and Onkila, 2017; Yokessa and Marette, 2019), but also in the internal environment of enterprises (Bessou and Colomb, 2013; Barbulescu *et al.*, 2019). Moreover, the research on new forms of environmental communication is steadily becoming important (Wang *et al.*, 2024; Zolkiewicz and Matejun, 2024).

Accordingly, the lack of knowledge about the type and number of practices applied by enterprises for effective communication on the environmental labels and declarations is the research problem studied in this paper. There is also a substantiated research question introduced to this work: What are the relations between the contextual factors and communication tactics used by companies to communicate effectively on environmental labels and declarations?

This paper aims at identifying and assess the scale of diffusion of effective communication tactics on environmental labels and declarations in enterprises. This study is going to examine the thesis that most of the companies did not incorporate more than half of the effective communication tactics on environmental labels and declarations. The term tactic in this paper is used interchangeably with the practice.

To elucidate the research thesis, the model for assessing the effectiveness of sustainability communication strategies in hospitality (Shen *et al.*, 2020) was adapted and operationalised according to the context analysed. For measuring the effectiveness of communication on ELAD, the number of tactics implemented by companies was aggregated and assessed. The research was carried out at the end of 2024 and at the beginning of 2025 among 35 managers of Polish enterprises; the corpus of nine respondents was qualified for analysis. The data examination employed qualitative and quantitative methods.

The results revealed that effective communication practices are underestimated when communicating on environmental labels and declarations.

This study contributes to existing theories and research practice through, e.g., adapting the ongoing theoretical model from eco-marketing to devise a new assessment approach for identifying ELAD communication effectiveness. The results of this work translate into a managerial recommendation to use the present assessment model for ecolabels when developing communication strategies in organisations.

2. Literature Review

Institutions and all groups of stakeholders can cooperate thanks to the communication, which builds trust (Matejun and Ratajczak, 2023). The success or failure of any organisation, its goals, policies and strategies depends on communication effectiveness (Sage, 2020). Effective communication is fundamental for successful management, performance and strategic growth of organisations (Kalogiannidis, 2020; Musheke and Phiri, 2021; Sutrisno *et al.*, 2023; Zolkiewicz and Matejun, 2024).

Ineffective communication leads to misunderstanding, which builds confusion, low motivation (Oline, 2015), causing mismanagement and undesirable business outcomes (Kalogiannidis, 2020).

The communications gap regarding environment, population and development was arguably aired for the first time globally by Brundtland Report *Our Common Future* from 1987 (United Nations, General Assembly, 1987, p. 56). The following *AGENDA 21* from the United Nations Conference on Environment & Development (in Rio de Janerio, Brazil, 3 to 14 June 1992) initiated the international process of building the environmental communication schemes.

These two aforementioned documents respectively introduced the notion and programme for sustainable development. The universal nature of the sustainability paradigm makes it dynamic and should be constantly updated in response to the new emerging problems and phenomena (Michalski, 2012).

The role of communication in sustainable development is appreciated as fundamental for industry development (Ghobakhloo *et al.*, 2021). For generating positive effects of the sustainability transformation, the contextual factors are conditional, however (Ghobakhloo *et al.*, 2021). One of them is the lack of integration between environmental information and stakeholder needs in corporate social responsibility (CSR) reporting.

Among other drivers of disclosing CSR information are often mentioned: company characteristics, internal factors, media visibility, research and development expenditures, industry, and age of assets (Maj *et al.*, 2018). The sustainability reporting is determined mostly by the need to gain a competitive advantage (Nikolaeva and Bicho, 2011) and to present a socially responsible image (O'Donovan, 2002) or reputation (Adams, 2002).

These factors prove that environmental communication is not only a question of operational management but stems from an organisation's values (ISO 14063, 2020). Due to these factors, environmental communication should be and often is an indispensable part of environmental strategies (Klößner, 2015).

The starting point for the development of successful communication processes is defining all interested parties, including society, and then addressing their environmental expectations (ISO 14063, 2020). For example, if ecolabels are not accepted by consumers, then their promotional influence on the purchasing behaviour of decision-makers will be questionable (Nakaishi and Chapman, 2024).

The referenced ecolabels, often named as environmental labels and declarations, communicate the environmental or sustainable performance of a product, i.e., goods or services (ISO 14020, 2000; Minkov, 2020; Ziółkowski *et al.*, 2021).

Ecolabels foster not only sustainable consumption patterns or corporate social responsibility (CSR) but also internal innovativeness of companies in the product development process (Gupte and Deshmukh, 2025). This capacity to innovate and respond faster to environmental challenges, and finally benefit from market opportunities, gives a real advantage to companies in the hyper-competition era (Kmiotek *et al.*, 2015).

In the literature, the understanding of the paucity of research on the effectiveness of ecolabels both in society and enterprises is raised (Kabaja, 2023). When screening the research on equity funds, it can be argued that during the last 10 years, the interest in ecolabels significantly increased. The conclusions on North America's limited

socially responsible investment funds (Darnall and Aragon-Correa, 2014) and the ongoing results highlighting superior sustainability performance among over 150 public equity FNG-Label funds (Kolling and Busch, 2025) suggest that the stakeholders' trust has already significantly strong signal to shape the strategic trajectory of enterprises.

Due to the problems of many companies trying to promote ecolabels successfully, the next section introduces the premise of research on tactics enabling effective communication.

3. Methodology

The present research builds on the model selected in the traditional literature review and designed initially for hospitality enterprises to investigate the effectiveness of their sustainability communication strategies. For this study, the aforementioned approach was modified by adding one additional tactic and operationalised by developing questionnaire questions towards identifying the presence of effective communication tactics regarding environmental labels and declarations (ELAD).

Moreover, every question was accompanied by two others to diagnose the causes of neglecting communication tactics, as well as collect opinions on the expected improvement of communication effectiveness after the introduction of the omitted tactics. The assessment of possible improvements in effectiveness was rated on a scale from 0 to 4.

The effectiveness of communication on ELAD was assessed after calculating the communication practices incorporation scale. The implementation of communication practices indicates the level of communication effectiveness, and the degree of advancement in communication, informing on the state of the company's maturity in this field. Finally, eight communication tactics on ELAD were analysed.

To analyse relationships between contextual factors and communication tactics, the U Mann-Whitney and Pearson's chi-squared tests were used.

The research questionnaire was designed for in-depth interviews during CATI (computer assisted telephone interview), conducted anonymously with 35 managers of different enterprises in Poland, contacted in the years 2024 and 2025. In the approach group, the corpus of nine managers confirmed the implementation of ecolabels in companies. The group of qualified respondents is presented in Table 1.

Table 1. Managers qualified for the in-depth review on ELAD

Position	Gender	Sector	Scope of the company's activities	Main type of market relationship	Number of employees
TL	Female	B	National	B2B	> 400

TL	Female	B	National, International	B2B	> 500
TL	Female	E	National	B2B	1600
ML	Female	H	International	B2B	NA
ML	Male	Q	National, International	B2B B2C	20000
ML	Male	C	Local	B2C	250
TL	Male	C	Local, Regional, National, International	B2B	70
ML	Female	C	International	B2C	NA
ML	Male	G	International	B2B	100

Notes: Position: TL – Top level (top management, executive, senior management, president, vice president, director), ML – middle level.

Sector: (NACE Rev. 2): B – Mining and quarrying, C – Manufacturing, E – Water supply; sewerage; waste management and remediation activities, G – Wholesale and retail trade; repair of motor vehicles and motorcycles, H – Transporting and storage, Q – Human health and social work activities.

Source: Authors' own work.

4. Research Results and Discussion

By assessing the incorporation scale of the analysed tactics, the effectiveness of the whole communication strategy on ecolabels can be defined. The distribution of communication tactics in the analysed companies is presented in Table 2.

Table 2. Application of communication tactics on ecolabels in enterprises

No	Communication tactics	Scale of application
1	Communication standards created for environmental labels or declarations, e.g. guaranteeing the use of identical words by different departments in the company (i.e. marketing, reporting, or operational activities), are applied	33%
2	Information on the ecolabels is presented as a comparison of our environmental achievements compared to previous years or competitors	50%
3	The messages accompanying the ecolabels inform about the reduction of risks (e.g. reduction of greenhouse gas emissions, reduction of water and energy consumption)	22%
4	Positive communication on ecolabels, i.e. informs about the benefits achieved by them, e.g. water and energy savings	67%
5	Certified environmental labels or declarations are displayed (printed, presented)	67%

6	Presenting practical effects of implementing ecolabels in the form of activities or technologies (such as planting trees and protecting ecosystems, local purchases of raw materials or food, lighting sensors, rainwater retention, applications supporting purchases) or the successes or challenges of applying ecolabels	67%
7	Ecolabel messages are used to involve customers in environmental activities, e.g. by choosing a product with an ecolabel, you save 20 liters of water	33%
8	The implementation of ecolabels has influenced the attitude of staff and suppliers, increasing their commitment to environmental activities	22%

Source: Authors' own work.

The summary above explains the dominant significance of three communication practices. This clarification enables strategic optimisation of the organisation's environmental communication procedures and programmes. The analysis delivers evidence to support the assumed thesis that most of the companies did not incorporate more than half of the effective communication tactics on environmental labels and declarations.

It is worth noticing that one of the most underestimated is tactic no. 3. This should be assessed as a plus, due to the conclusions from hospitality enterprises that revealed a correlation between presenting negative figures and growing customers guilty (Shen *et al.*, 2020). The in-depth interviews revealed some details regarding root causes (Table 3) for omitting single tactics.

Table 3. *Causes for omitting communication tactics on ecolabels in enterprises*

No	Causes
1	Conditions imposed by a specific project. Time shortages.
3	It could be useful for reporting purposes. The initial stage of ecolabel implementation.
4	The initial stage of ecolabel implementation.
5	The initial stage of ecolabel implementation. Lack of conviction about the impact of this practice.
6	There is no sense. External manufacturing.
7	The initial stage of ecolabel implementation. Ecolabels are a requirement for IKEA suppliers, which requires them. No. Our products use mainly electric.
8	Clients have different needs. Different requirements are reported by contractors and management. Quality and price are paramount. If we were to win the tender, this practice would be followed. Low awareness. Even our Western clients, large corporations, are delaying the implementation of environmental regulations, procedures, and reporting. For example, the introduction of a timber policy is being postponed because it is demanding and does not translate

	into financial results. The creation of separate departments for this purpose does not generate business results. This is not a business approach, but pure reporting.
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Source: Authors' own work.

The evidence argues that for some companies, the ELAD communication tactics are unclear and perceived as unnecessary. In such cases, the managerial recommendation would be the implementation of education initiatives. The statistically significant dependencies between contextual factors and single communication tactics were presented in Table 4.

Table 4. Significant dependencies between contextual factors and tactics

No	Communication tactics	Contextual factors	$p < \alpha$ value
1	Communication standards created for environmental labels or declarations, e.g. guaranteeing the use of identical words by different departments in the company (i.e. marketing, reporting, or operational activities), are applied	B2C market relationship	$p=0,042$
2	Information on the ecolabels is presented as a comparison of our environmental achievements compared to previous years or competitors	Number of employees	$p=0,044$
4	Positive communication on ecolabels, i.e. informs about the benefits achieved by them, e.g. water and energy savings	B2G market relationship	$p=0,011$
5	Certified environmental labels or declarations are displayed (printed, presented)	Company with marketing department	$p=0,011$
7	Ecolabel messages are used to involve customers in environmental activities, e.g. by choosing a product with an ecolabel, you save 20 litres of water	B2B market relationship	$p=0,042$

Note: For calculating the $p < \alpha$ value, the U Mann-Whitney and Pearson's chi-squared tests were used.

Source: Authors' own work.

The results calculated and performed analysis performed elucidated the relationship between the contextual factors and ELAD communication tactics. Similarly, the type and number of practices for effective communication on the environmental labels and declarations were ascertained. Accordingly, both the research aim and question were met.

In some aspects, this study contributes to numerous theories and corresponds with various literature, such as, e.g.:

- sustainable leadership that combines green transformational and responsible leadership, in companies focused on responsible value building (Jankowska-

- Mihułowicz and Kowalska, 2025),
- green human resources management (GHRM) as a condition for strengthening environmental performance in organisations (Matejun *et al.*, 2024),
 - sustainability orientation of organizations considered in two dimensions: a sustainability culture based on sustainability as a strategic norm and sustainability practices related to daily internal operations addressing environmental, social and economic concerns (Kunecová *et al.*, 2024),
 - GREEN consumer values and green consumption that translate into choices based on environmental concerns (Bartoszczuk *et al.*, 2022),
 - environmental management systems in the context of increasing the likelihood of environmental impact reduction and corporate image improvement (Šebo *et al.*, 2023),
 - corporate social responsibility (CSR) with the Environmental, Social, and Governance (ESG) activities as effective tools for sustainable development and satisfying the interests of all stakeholders (Cristea *et al.*, 2022),
 - marketing communications that aim also at image and demand creation (Szymoniuk, 2017) with special attention to green (ecological) marketing, also known as eco-friendly marketing or eco-marketing used for companies' management (Łęgowski-Małolepsza, 2021).

The study outcomes should also be considered from the perspective of varied expectations of customers. Due to the heterogeneity of customers' needs, the introduction of market segmentation (Wedel & Kamakura, 2000) in communication strategies on ELAD can be recommended as a future research approach.

5. Conclusions

Implementation of ecolabels can be beneficial for companies. Thanks to effective communication practices, they help in transforming the sustainability values into business gains (Ghobakhloo *et al.*, 2021). The lack of appropriate communication tactics seems to be a serious roadblock in this process. The research presented revealed the distribution of practices determining the effectiveness of communication in the context of environmental labels and declarations.

After testing the research model, the three communication practices were identified as most prevalent among investigated enterprises, i.e. positive communication on ecolabels, displaying certified environmental labels or declarations, presenting practical effects of implementing ecolabels. The thesis that most of the companies did not incorporate more than half of the effective communication tactics on environmental labels and declarations was proved.

The promotion of communication strategies facilitating environmental labels and declarations should be the first managerial recommendation. To this end, the

implementation of awareness-building instruments is suggested. Nevertheless, the assessment model of this study can be recommended as a possible instrument for strategic optimisation by enterprises. The research sample size determines the possibility of formulating more specific and fully fledged recommendations.

The small corpus of managers qualified for in-depth review, as well as the low adoption of ecolabelling schemes among investigated companies, are the main limitations of this study. Consequently, further research should focus on the examination of larger groups of enterprises. The sectoral context of the communication practices on ecolabels is also worth scrutinising in the future.

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