

## THE SIGNIFICANCE AND PERCEIVED ECO-FRIENDLINESS OF THE GRÜNER PUNKT SYMBOL AMONG CONSUMERS IN POLAND AND ITS INFLUENCE ON PURCHASING DECISIONS

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**Purpose:** The purpose of this article is to present the results of an empirical study examining the meaning, perceived environmental character, and influence of the Grüner Punkt (Green Dot) symbol on consumer purchasing decisions.

**Methodology:** The study employs a quantitative approach based on an online survey conducted among 500 respondents. The questionnaire focused on three main areas: the level of recognition and understanding of the symbol, perceptions of the environmental character of labels, and the declared influence of the symbol on purchasing choices. The analysis relied on descriptive statistics and comparative analysis of response distributions.

**Findings:** The results indicate a moderate level of visual recognition of the symbol combined with a low level of understanding of its actual meaning. A substantial proportion of respondents attribute environmentally positive characteristics to the Grüner Punkt, particularly in relation to packaging, despite the fact that such interpretations do not reflect its real function. At the same time, the symbol does not exert a significant influence on consumer purchasing preferences.

**Research limitations/implications:** The study is based on a survey questionnaire, which may not fully reflect actual purchasing behaviour. Future research could incorporate experimental designs, consumer observations, or comparative studies conducted in different national contexts.

**Practical implications:** The findings highlight the need to improve the clarity of environmental communication and to reduce the risk of unintentional greenwashing. They may provide a reference point for market actors and policymakers when designing clearer environmental labels and communication practices.

**Social implications:** Improving consumer understanding of environmental symbols may support the development of more informed consumer attitudes and strengthen trust in pro-environmental initiatives undertaken by companies.

**Originality/value:** The article provides empirical evidence of the discrepancy between the formal meaning of the Grüner Punkt symbol and its social perception as an environmentally oriented label. In doing so, it contributes to research on the quality of environmental communication and consumer education.

**Keywords:** environmental labelling; green claims; consumer perception; sustainability communication.

**Category of the paper:** research paper.

## 1. Introduction

In recent years, growing attention has been paid to issues related to sustainable development, responsible consumption, and the transparency of environmental information addressed to consumers. This trend reflects both increasing environmental awareness and the expanding formal and legal requirements imposed on companies, particularly with regard to packaging management, waste handling, and responsibility for product life cycles (European Commission, 2020). As a result, environmental labelling—including symbols, labels, and claims referring to the environmental characteristics of products and their packaging—has become an important element of market communication and a potential factor shaping consumer purchasing decisions.

Alongside this development, the problem of label proliferation and ambiguity has intensified. Environmental labels differ in their prevalence, scope, interpretation, and perceived credibility. Research shows that consumers often struggle to distinguish between symbols, assign them accurate meanings, and assess their reliability (Grunert et al., 2014; Testa et al., 2021). This situation contributes to *label fatigue*, understood as exhaustion caused by an excess of labels, and increases the risk of unintentional greenwashing—situations in which consumers attribute environmental qualities to products that they do not actually possess (Delmas, Burbano, 2011). From a marketing communication perspective, this is a particularly sensitive area, as environmental labels frequently influence consumers not only through factual information, but also by creating intuitive and positively charged associations with ideas such as environmental protection or responsibility, especially when their visual form clearly suggests such a connection.

Within this context, the Grüner Punkt (Green Dot) symbol, developed in Germany and in use since the late 1980s, deserves particular attention. The symbol indicates a producer's participation in financing a packaging recovery and recycling system. According to its original definition, it does not confirm the recyclability of packaging or its environmental friendliness, but solely the producer's financial contribution to the system (Der Grüne Punkt – Duales System Deutschland GmbH, 2021). Despite this clearly defined function, market observations and international studies suggest that consumers frequently associate the symbol with explicitly environmental attributes of products or packaging (Thøgersen, 2002). This means that the Grüner Punkt may exert an unintended influence on perceptions of packaging environmental performance, potentially leading to misinterpretation and purchasing decisions based on incorrect assumptions.

In Poland, the issue of consumer perception of the Grüner Punkt symbol remains relatively underexplored in academic literature. Although environmental product labels—such as the EU Ecolabel, FSC certification, or recycling-related symbols—have been widely analysed in terms of consumer recognition and trust, there is a lack of studies focusing on the discrepancy

between the formal meaning of the Green Dot and its social interpretation. This gap also applies to research on the influence of the symbol on purchasing decisions and consumer attitudes toward environmental claims made by producers. International literature indicates that incorrectly understood labels may reinforce mechanisms such as the *halo effect* or *eco-halo*, leading consumers to over-attribute pro-environmental qualities to products (Schuldt et al., 2011). In this sense, the Grüner Punkt represents an interesting case of a symbol “imported” from a country positioned as a leader in pro-environmental policy, which—despite its technical and financial nature—functions in consumer perception as a marker of environmentally friendly packaging.

The Polish context further intensifies this issue. The symbol has not been, and still is not, widely explained to consumers by producers or distributors, and its role within the waste management system remains largely unfamiliar outside expert circles. At the same time, the symbol appears on products available on the Polish market, including domestically produced goods. As a result, many consumers rely on intuitive visual cues, such as the use of arrows arranged in a loop—similar to official recycling symbols—which further increases the likelihood of misinterpretation. Consequently, the Grüner Punkt may operate as a quasi-environmental label, even though it does not formally belong to this category.

These observations point to the need for empirical research aimed at determining:

1. the level of recognition of the Grüner Punkt symbol in Poland,
2. the degree of consistency between consumers’ declared understanding of the symbol and its actual function,
3. the extent to which the symbol influences consumer purchasing decisions; and
4. the potential risk of unintentional greenwashing resulting from incorrect ecological interpretation.

Such research is particularly important in light of planned legal changes within the European Union, including initiatives related to the Green Claims Directive and forthcoming regulations on environmental declarations. Understanding how consumers in Poland interpret the Grüner Punkt symbol may provide valuable insights for companies, regulatory authorities, and non-governmental organisations, supporting the development of more transparent, effective, and responsible environmental communication.

The aim of this article is therefore to present the results of an empirical study examining the meaning, perceived environmental character, and influence of the Grüner Punkt symbol on consumer purchasing decisions. By doing so, the article seeks to address an existing research gap and to provide empirical evidence focused on this issue.

## 2. Literature Review

Environmental labels (*eco-labels*) are currently among the key instruments used in communication between producers and consumers. Their main purpose is to convey information about the environmental aspects of products or services in a concise form that is easy to notice, recognise, and compare. The literature shows that environmental labels may influence purchasing decisions in two ways: by providing concrete information and by exerting a symbolic effect that reinforces the perception of a product as more “green” (Grunert et al., 2014; Testa et al., 2021).

Research also confirms that consumers often rely on labels as cognitive heuristics, particularly in situations characterised by low involvement or limited access to detailed information (Thøgersen, 2002). In such cases, eco-labels may effectively replace a more thorough evaluation of product attributes. While this mechanism simplifies decision-making, it simultaneously increases the risk of misinterpretation and the excessive attribution of pro-environmental qualities to products.

The contemporary market is characterised by a growing number of symbols and labels referring to environmental protection, sustainability, or ethical production. The proliferation of such messages contributes to the phenomenon known as *label fatigue*, which leads to a declining ability among consumers to correctly distinguish and interpret individual symbols (Delmas, Burbano, 2011). As a consequence, ambiguity in environmental labelling may foster unintentional greenwashing situations in which consumers assign environmental benefits to products that are not supported by their actual characteristics.

At the same time, the literature highlights the relevance of the *halo effect* (Schuldt et al., 2011). This mechanism occurs when a single positive attribute of a product or a symbol associated with it leads consumers to infer additional, unjustified positive qualities. In the context of environmental labelling, this means that the mere presence of a symbol associated with ecology may cause a product or its packaging to be perceived as more sustainable and responsible than it actually is.

The Grüner Punkt symbol was introduced in Germany in the late 1980s as part of a financial system for the recovery and recycling of packaging waste, implemented within the framework of Duales System Deutschland. Its primary function was to indicate that a producer pays a fee to support the packaging waste management system (Der Grüne Punkt – Duales System Deutschland GmbH, 2021). The symbol does not refer to the material composition of packaging, does not provide information on recyclability, and does not guarantee any environmental properties of the product or its packaging. The fees paid by system participants are used to maintain and develop the system and to support the design of packaging solutions that are less burdensome for the environment, for example in terms of weight or material composition.

Despite this formal definition, international studies indicate that consumers frequently assign ecological or pro-recycling meanings to the symbol that do not stem from its actual function (Thøgersen, 2002; Wiedmann et al., 2014). In the literature, this phenomenon is described as *perceived eco-friendliness*: a form of environmental perception driven primarily by intuitive associations rather than factual knowledge. It tends to occur particularly when the graphic design of a symbol refers visually to ecology or recycling. This issue becomes especially relevant in countries where the role of a given symbol is not widely communicated to consumers.

In response to the broader problem of misleading environmental claims, the European Commission proposed the Green Claims Directive (COM(2023) 166), aimed at limiting greenwashing by introducing requirements for clear justification and verification of environmental claims. The proposal assumed that every communicated environmental attribute of a product should be substantiated by objective, comparable, and scientifically grounded evidence (European Commission, 2023). A particularly important element of the directive was the prohibition of using symbols or labels that suggest environmental friendliness if their meaning cannot be verified or if they may lead to consumer misinterpretation. In this context, the discussion surrounding the Grüner Punkt symbol—often incorrectly associated with the environmental performance of packaging gains particular relevance. One of the key objectives of the Green Claims Directive was to bring order to the symbolic landscape and to eliminate labels that could mislead consumers (EPRS, 2023).

However, on 20 June 2025, the European Commission announced the withdrawal of the proposed Green Claims Directive, which had been intended to address greenwashing understood as false or misleading environmental declarations by companies. This decision sparked controversy. Supporters of the withdrawn regulation warned that it represents a step toward deregulation, potentially weakening consumer protection and undermining efforts to combat greenwashing. Critics, in contrast, argued that simplification was necessary in order to reduce the regulatory burden on companies, particularly in challenging economic conditions. At the same time, the Directive *Empowering Consumers for the Green Transition* (Directive (EU) 2024/825), adopted in 2024 and scheduled to enter into force in 2026, is currently being prepared for implementation. This regulation aims to protect consumers against misleading environmental claims, including those related to CO<sub>2</sub> offsetting, which are often vague or confusing. Its broader objective is to improve the quality of information available to consumers so that purchasing decisions can better support sustainable development and the transition toward a circular economy.

### 3. Methodology

The aim of the study was to assess the level of awareness, understanding, and perceived environmental character of the Grüner Punkt symbol among consumers in Poland, as well as to identify how the symbol influences declared purchasing decisions. The study also sought to determine whether consumers attribute pro-environmental meanings to the symbol that do not result from its actual systemic function.

The research was conducted using an original online survey questionnaire distributed via an internet platform (CAWI). Data collection took place in the first half of 2025 and resulted in a sample of 500 complete and valid responses. Participation in the survey was anonymous and voluntary, and respondents were informed about the purpose of the study prior to completion.

The sample consisted of 500 adult consumers in Poland. Given the exploratory nature of the study and its analytical objectives, no weighting procedures or additional representativeness adjustments were applied. The size of the sample was sufficient to identify dominant tendencies and perceptual patterns related to awareness and interpretation of the Grüner Punkt symbol.

The questionnaire included 17 questions grouped into four thematic areas:

1. Visual awareness (recognition of the symbol);
2. Understanding of the symbol's meaning (both declarative and intuitive knowledge);
3. Perception of environmental character and related associations (halo effect, eco-assumptions);
4. Influence of the symbol on purchasing behaviour (declared preferences).

Due to the exploratory character of the study and the absence of demographic variables enabling the construction of predictive models, inferential statistical tests were not applied. The analysis focused on identifying prevailing perception patterns and their implications for consumer behaviour.

The study has several limitations. It is based on a convenience sample, which restricts the generalisability of the findings to the entire population of consumers in Poland. In addition, the declarative nature of the methodology may lead to discrepancies between reported and actual purchasing behaviour. Nevertheless, a sample of 500 respondents allows for a reliable assessment of dominant trends and interpretations related to the Grüner Punkt symbol.

### 4. Results

The results indicate that the Grüner Punkt symbol is relatively well recognised visually, while its actual meaning remains poorly understood. A total of 69.4% of respondents declared that they had seen the symbol before, whereas 11.0% stated that they had never encountered it.

At the same time, only 11.0% of respondents reported that they “know exactly” what the symbol means. A further 58.8% indicated that they have only a general idea of its meaning, while 30.2% admitted that they do not know what the symbol stands for.

A clear majority of respondents (61.4%) were not aware that the Green Dot does not indicate that packaging is environmentally friendly, but merely that the producer participates financially in a packaging recycling system. Only 17.6% of respondents declared prior knowledge of this fact.

Respondents frequently attributed ecological meanings to the symbol that do not correspond to its actual function. More than half of the participants (56.2%) believed that the symbol indicates that the packaging is recyclable, while 42.8% interpreted it as meaning that the packaging is environmentally friendly. In contrast, only 27.6% of respondents correctly identified the symbol as indicating the producer’s financial contribution to the waste management system (Table 1).

**Table 1.**

*Interpretations of the meaning of the Grüner Punkt symbol (multiple responses possible)*

| Interpretation  | Number of responses | Percentage |
|---|---------------------|------------|
| Packaging is recyclable   | 281                 | 56.2%      |
| Packaging is made from recycled materials                                   | 219                 | 43.8%      |
| Packaging is environmentally friendly                                       | 214                 | 42.8%      |
| Product comes from a company applying environmentally responsible practices | 145                 | 29.0%      |
| Producer contributes financially to the waste management system             | 138                 | 27.6%      |

Most respondents do not pay attention to the symbol while shopping. As many as 59.0% declared that they never notice it, and only 1.4% stated that they always do so.

The study also shows that the Grüner Punkt symbol has a limited influence on purchasing behaviour. A total of 41.0% of respondents indicated that the symbol has no significance for them, while 33.4% reported that they do not pay attention to it at all. Only 19.2% declared that the symbol has any influence on their purchasing decisions (Table 2).

**Table 2.**

*Influence of the symbol and consumer attitudes*

| Response  | Number of respondents | Percentage |
|---|-----------------------|------------|
| The symbol has no significance                  | 205                   | 41.0%      |
| I do not pay attention to it                    | 167                   | 33.4%      |
| Rather yes – it signals producer responsibility | 85                    | 17.0%      |
| I often choose products with this symbol        | 11                    | 2.2%       |

Survey results further indicate that most respondents agree with the statement that the “Green Dot” symbol performs primarily a marketing rather than an informational function. A large majority of participants (81%, combining the responses “strongly agree” and “rather agree”) perceived the symbol as a tool for building an environmentally friendly image of a product, rather than as a reliable source of information about its environmental impact.

Respondents tended to view the symbol as an element of marketing strategy rather than as a source of information on material composition, production processes, or recycling possibilities.

In addition, 69.4% of respondents stated that the “Green Dot” symbol requires changes, either in terms of graphic modernisation or its communicative function. Participants indicated that the current form of the symbol does not fulfil its informational role and that its message is ambiguous and often misleading for the average consumer. As many as 88% of respondents expressed the view that producers should provide more information explaining the meaning of such symbols.

In summary, the study reveals a high level of visual recognition combined with a low level of knowledge regarding the actual meaning of the symbol. The results clearly point to an overinterpretation of its environmental character, despite the absence of such meaning in its formal definition. The findings suggest that the Grüner Punkt may function as a carrier of general ecological value associations. At the same time, the study confirms its limited influence on purchasing decisions and the prevailing belief that the symbol primarily serves a marketing function. Respondents also highlighted the need for greater transparency and reliability in environmental labelling.

It should also be noted that the Grüner Punkt symbol plays a significantly smaller role in Poland than in Germany, where it was originally introduced as part of the Dual System. This contextual difference further explains why the symbol is interpreted primarily through intuitive associations rather than through knowledge of its actual systemic function.

## 5. Discussion

The conducted study confirms the existence of a substantial gap between the visual recognition of the Grüner Punkt symbol and consumers’ actual understanding of its meaning in Poland. The results indicate that mere visual exposure to the symbol not only fails to support correct interpretation, but may in fact reinforce positive yet erroneous environmental associations. This finding is consistent with the ecological overinterpretation effect discussed in the literature, whereby specific graphic elements, colour schemes, and naming conventions lead consumers to attribute environmental qualities to products or packaging that they do not actually possess (Taufique, Polonsky, 2019; Józwiak-Pruska et al., 2022).

The findings further suggest that the Grüner Punkt functions in consumer awareness primarily as an “eco” symbol, despite its original role being purely systemic and financial in nature. The fact that only a small proportion of respondents were able to correctly identify the meaning of the symbol indicates that, for most consumers, it no longer serves an informational function. Instead, it has become part of an intuitive, visually driven interpretative process.

Similar mechanisms of misinterpretation of eco-labels have been identified in previous studies focusing on environmental communication on packaging (Wojnarowska et al., 2020).

Another important outcome of the study is the limited influence of the Grüner Punkt symbol on declared purchasing decisions. Despite its relatively high level of recognition, the symbol rarely operates as a decisive criterion in product choice. At the same time, the dominant belief among respondents that the symbol plays a marketing rather than an informational role significantly weakens its persuasive potential. Skepticism toward the communicative intentions of producers translates directly into consumer behaviour, reducing the effectiveness of even widely recognised labels. Similar conclusions have been reported in studies examining the relationship between consumer perceptions of eco-labels and purchasing intentions (Kolović et al., 2023).

The results gain additional significance in the context of ongoing debates on greenwashing and the growing number of regulatory initiatives aimed at increasing transparency in environmental communication. From this perspective, the Grüner Punkt may be seen as an example of a symbol that—despite the absence of explicit environmental claims generates associations that extend beyond its actual function. This suggests that the risk of misleading consumers does not apply solely to explicit “green claims”, but also to symbols with a long history and an established market presence. Such an interpretation is consistent with findings in the literature on perceived greenwashing (Lyon, Montgomery, 2015; Gosselt et al., 2019).

It is also important to highlight the specific context of the present study. Although the Grüner Punkt has been present in Poland since the early 1990s, it has never been embedded in a widely recognised and practically functioning waste management system comparable to that in Germany. The lack of strong institutional anchoring of the symbol, combined with limited consumer education regarding environmental labelling, may encourage simplified and intuitive interpretations. In this sense, the symbol operates largely detached from its original meaning, becoming a carrier of general ecological associations rather than a source of precise information. This observation is supported by previous research on consumer awareness of eco-labels (Żuchowski et al., 2023).

In summary, the findings indicate that, in its current form, the Grüner Punkt symbol does not fully fulfil its informational function among Polish consumers. Its perception is largely based on visual and intuitive cues, which leads to systematic ecological overinterpretation. This raises questions about the appropriateness of continuing to use such symbols without additional explanation, as well as about the need to enhance the transparency of environmental communication at the packaging level. Importantly, the original purpose of the symbol was not to communicate environmental attributes of product packaging to consumers, but to ensure the effective functioning of a packaging recovery and recycling system. In this sense, the critical perception identified in this study concerns primarily the symbol’s contemporary communicative role, rather than the legitimacy of the underlying systemic solution itself (Wojnarowska et al., 2020).

## 6. Conclusions

This study provides important insights into how the Grüner Punkt symbol is perceived by consumers in Poland and into its role in contemporary environmental communication. The findings confirm the existence of a clear gap between the recognition of the symbol and consumers' actual understanding of its meaning. The Grüner Punkt is commonly associated with ecology, recycling, or the pro-environmental character of a product, even though its real function is purely systemic and financial in nature. As a result, the symbol does not fully perform an informational role for consumers, and its interpretation is largely based on intuitive visual associations.

The results also show that consumers' level of knowledge significantly affects how the credibility of the symbol is assessed. Limited awareness tends to sustain simplified and often positive perceptions, whereas greater knowledge leads to a more critical and reflective approach. At the same time, the Grüner Punkt symbol demonstrates a limited influence on declared purchasing decisions, suggesting that its persuasive power is relatively weak particularly among consumers who express scepticism toward environmental marketing communication.

From a practical perspective, these findings may be relevant for producers and for actors responsible for designing and applying labels on packaging. The study indicates that the absence of clear and understandable information encourages overinterpretation and may result in a loss of trust in environmental symbols as communication tools. It therefore appears justified to supplement such symbols with additional explanations or to rely on labels whose meanings are more transparent and unambiguous to consumers, while also reconsidering the use of markings that clearly risk misleading audiences.

These conclusions are particularly important in light of current and planned European Union regulations concerning environmental communication, including efforts to counter greenwashing and to strengthen consumer protection against misleading environmental messages. The case of the Grüner Punkt demonstrates that the risk of misinterpretation does not apply solely to explicit environmental claims, but also to symbols with an established market position that operate in consumer awareness independently of their original meaning.

At the same time, it should be emphasised that the Grüner Punkt symbol has played a significant role in the development of extended producer responsibility systems and the financing of packaging waste management in Europe. The critical assessment presented in this study relates primarily to its contemporary communicative function rather than to the legitimacy of the systemic solution itself. In this sense, the findings point to the need for a clearer separation between the systemic and informational functions of symbols used on packaging, as well as for adapting environmental communication to the current expectations and competencies of consumers.

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