

The Impact of the Eco-score on Consumer Behavior in Retail: A Case Study of Colruyt

Abstract

This research investigates the influence of the eco-score on consumer behavior in the retail sector, focusing on the Belgian mass-retailer Colruyt as a case study. The eco-score, an environmental indicator assigned to food products, aims to help consumers better understand the ecological impact of their purchasing choices. Through a qualitative study employing semi-structured interviews, this research examines consumers' perceptions of this eco-label and evaluates its impact on their purchasing decisions. The findings reveal that while interest in eco-friendly consumption is increasing, significant gaps remain in the understanding and utilization of the eco-score.

Keywords: Eco-score, consumer intentions, mass-retail

Track: Retailing & Omni-Channel Management

1. Introduction

Consumer awareness of environmental issues has become a major concern for companies, particularly in the retail sector. In response to this growing trend, tools such as the eco-score have been introduced to provide clear information on the environmental impact of products (Muradin et al., 2023; Berden, 2023). Launched in Belgium in 2021, the eco-score is a label that assigns a rating from A to E to products based on various ecological criteria, such as CO₂ emissions and the use of natural resources (Chantal & Hercberg, 2017). Its main objective is to inform consumers about environmentally friendly products and encourage more sustainable purchasing decisions (De Bauw et al., 2021).

This research focuses on the impact of this sustainability label on Colruyt consumers, a leading Belgian supermarket chain and a pioneer in the implementation of the eco-score. It examines how the eco-score affects consumers' perceptions and purchase intentions (Veerman, 2022). As a major player in the Belgian retail sector, Colruyt plays a key role in promoting environmentally responsible practices, providing an ideal setting to assess the eco-score's effectiveness in influencing consumer behavior. The study aims to determine to what extent the eco-score motivates consumers to make more eco-friendly choices.

This paper is structured as follows: first, a review of the relevant scientific literature is presented. Next, the qualitative methodology employed in the research is explained, followed by a detailed presentation of the results. Finally, the article concludes with a discussion of the findings, the limitations of the study, and perspectives for future research.

2. Literature Review

Facing in Retailing. Marketing, as defined by Armstrong and Kotler (2010), is "the art and science of creating value and managing profitable relationships with customers." In the retail sector, marketing plays a crucial role in capturing consumers' attention amidst a highly diversified offer. The implementation of tools such as environmental labels is part of a broader strategy to adapt the offer to meet evolving customer expectations (Ottman, 2017; Ottman et al., 2006).

In this context, retailers are increasingly relying on environmental transparency to differentiate themselves from the competition and address the growing demand for eco-friendly products (Deshmukh & Tare, 2024). This approach aligns both with the marketing objective of

emphasizing product value and with consumers' rising sustainability expectations—particularly among younger generations, for whom eco-consumption has become a significant trend (Muradin et al., 2023).

Marketing in retail relies on multichannel strategies, including optimizing product placement, leveraging customer data through loyalty programs, and employing direct communication. Private labels (PLs) can also utilize these techniques to enhance their brand image and influence purchasing behavior (Williams et al., 2023). Market studies indicate that consumers are increasingly sensitive to the environmental attributes of products, emphasizing the significance of labels such as the eco-score (Jongmans, 2014).

Consumer Behavior. Consumer behavior in retail is shaped by multiple factors, including societal trends, bounded rationality, individual preferences, and the perception of labels. According to the theory of bounded rationality (Simon, 1955; Zhang et al., 2023), consumers do not always make fully rational decisions; instead, they are influenced by cognitive biases and time constraints. This phenomenon is evident in retail, where consumers often make quick and sometimes poorly informed choices. However, marketing tools such as eco-labels simplify purchasing decisions by offering direct information on the sustainability of products (De Bauw et al., 2021).

Packaging also plays a critical role in purchasing behavior. Research shows that consumers perceive products with "green" (the color) packaging as healthier and more environmentally friendly (Berthold et al., 2024; Htun et al., 2023). Similarly, the eco-score serves as an informational tool, encouraging consumers to reconsider their product choices based on ecological criteria (Peracaula-Moner et al., 2023).

3. Case Study: Colruyt and the Eco-score

3.1 Presentation of Colruyt

The Colruyt Group is a leading player in the Belgian retail sector. Founded in 1928, this family-owned business has established itself as a market leader by focusing on low prices, maintaining its brands, fostering close customer relationships, and upholding strong environmental values. Colruyt is committed to promoting eco-friendly practices, particularly through its waste reduction policy, use of renewable energy, and, more recently, the

implementation of the eco-score. This label is one of the group's key tools for meeting consumer expectations regarding transparency and sustainability (Veerman, 2022).

3.2 The Eco-score: Objectives and Functioning

The eco-score is an environmental label that evaluates the ecological impact of food products on a scale from A to E, with A representing products with the lowest environmental impact and E those with the highest. This rating is communicated using a color code displayed on both the product and the price tag.

The eco-score is calculated based on a life cycle analysis of the product, taking into account various criteria such as greenhouse gas emissions, impacts on biodiversity, and water consumption. Colruyt has integrated the eco-score into its supermarkets to better inform customers and encourage more responsible purchasing decisions. By doing so, it helps consumers make informed choices that contribute to sustainable consumption, improved nutrition, and a healthier planet¹. (See Figures 1 & 2).



Figure 1: Eco-score in the retailer.



Figure 2: Four compared products (butter).

¹ <https://www.colruytgroup.com/fr/consommation-responsable>.

4. Research Methodology

4.1 Study Framework

To understand the influence of the eco-score on consumer behavior and buying intentions, this research employed a qualitative approach using semi-structured interviews (Horton et al., 2004). This method enables an in-depth exploration of individuals' perceptions, motivations, and behaviors related to the eco-score (Williams et al., 2023).

The interviews were conducted with 12 regular Colruyt customers, chosen for their diversity in terms of age, education level, and sensitivity to environmental issues. Additionally, a playful and experimental approach was incorporated, involving real products, logos, brands, and eco-scores. During these sessions, spontaneous responses and non-verbal behaviors were closely observed.

4.2 Interview Guide

The first part of the interviews was linked to the experimental approach: respondents were asked to select 11 everyday products (milk, chicken, butter, cheese, etc.), simulating a typical supermarket shopping experience. For each product, they had to choose between three options from different brands. The aim was to place respondents in conditions resembling real-life shopping and to explore their choices and preferences.

Following this activity, participants were asked questions focusing on their knowledge and understanding of the eco-score, their perception of its usefulness, and its impact on their purchasing decisions (Berden & Hung, 2024). The interviews also covered broader topics, such as trust in environmental labels, the importance of price and product quality in their consumption choices, and their overall sensitivity to ecological issues.

The interview guide was designed using a funnel structure, starting with general topics and gradually narrowing to more specific themes, to build rapport and trust with respondents. The objective was to deeply understand respondents' choices and motivations in their product consumption, with a particular focus on the eco-score—its comprehension, effectiveness, and influence on purchasing decisions. (See Figures 3 & 4).



Figures 3 & 4: Proposed products in the experiments.

4.3 Data Analysis

The data collected from the interviews were analyzed using a thematic approach, enabling the identification of recurring themes in participants' responses (Castleberry & Nolen, 2018). This method facilitated the detection of trends related to the perception of the eco-score and its potential impact on purchasing behavior. The analysis was conducted using the software Nvivo to organize and code the data effectively (Zamawe, 2015).

5. Results and Discussion

5.1 Perception of the Eco-score

The results show that while the majority of participants have heard of the eco-score, their understanding of how it works remains limited. As one participant stated, *“In my job, I regularly handle items with an eco-score. However, I don't know what it stands for, and I think there are already enough labels out there without adding yet more”* (Mike, 28 years old). Some participants consider the eco-score a useful tool to guide their consumption choices, while others express doubts about the reliability of the information it provides: *“I have serious doubts about the transparency of this type of label, as with all labels, and I don't have complete confidence in them”* (Francesco, 28 years old).

A general mistrust of labels, combined with the complexity of the eco-score in particular, hinders its adoption by some consumers: *“I got confused between the Nutri-Score and the eco-score, which are too similar and use the same color codes”* (Estelle, 30 years old).

However, those already engaged in eco-responsible practices view the eco-score as a relevant tool to guide their purchases toward more sustainable products: *“I'm prepared to make an effort and spend a little more on local or eco-responsible products”* (Robin, 32 years old).

5.2 Influence on Purchasing Behavior

The impact of the eco-score on purchasing decisions varies depending on consumer profiles.

Those who are already aware of environmental issues are more likely to use the eco-score as a determining factor in their choices. In contrast, for consumers who are more motivated by price or perceived product quality, the eco-score remains secondary. As one participant mentioned, *“I’m aware of the importance of certain labels such as Nutri-Score, eco-score, fair-trade, or organic, but I don’t necessarily care about them for my own personal consumption”* (Elodie, 33 years old). Several participants indicated that while they appreciate the idea of the eco-score, they are not willing to pay more for higher-rated products: *“I think that industries try to influence us by promising quality or durability, which are not always true”* (Mike, 28 years old).

5.3 Managerial Implications

First, regarding the product itself, larger and more colorful labeling on tags appears to be more noticeable to customers, thereby increasing their intention to purchase the product for ecological reasons (Vandenbroele et al., 2020). Indeed, respondents are more likely to choose products with clear and easy-to-understand eco-score labeling: *“They should enlarge the logo on packaging and highlight the eco-score colors on labels”* (Nicolas, 32 years old).

For equivalent products, customers tend to prefer those with labeling presented in the fourth option (see Figure 5).

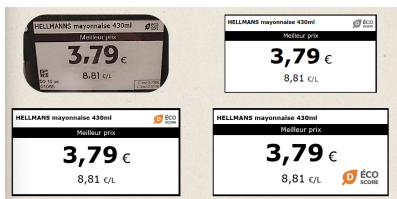


Figure 5: Eco-score labels.

Additionally, the clear display of Eco-scores promotes the purchase of products with higher Eco-scores (A or B – see Figure 6).



Figure 6: Promotional campaign about Eco-score.

Moreover, the positioning of better-ranked products in terms of eco-score (scores A or B) on store shelves has a favorable impact on the purchase of these products. Customers who receive incentives (e.g., points, discounts, etc. – see Figure 7) or other rewards (announced and known beforehand) linked to the ranking of products based on their eco-score (scores A or B) are more likely to purchase these products compared to equivalent products that do not feature the logo or incentive.



Figure 7: Eco-score incentives.

Lastly, customers expressed a desire for the consolidation of labels (Nutri-score, fair trade, Eco-score, private label, etc. – see Figure 8) to simplify choices and improve product readability. The easier the readability, the more inclined customers are to select the product.

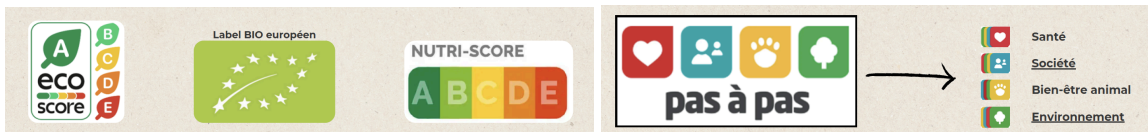


Figure 8: Towards a more readable label.

5.4 Limitations and Recommendations

One of the limitations identified in this study is the lack of knowledge about the precise criteria on which the eco-score is based. Consumers expressed a desire for more transparent and easily understandable information: *“I don’t see the difference between Nutri-Score and eco-score; they have the same colors and letters”* (Robin, 32 years old). Additionally, although the eco-score is visible in stores, it could be more effective if it were better integrated into Colruyt’s mobile apps and digital tools, thereby making product comparisons easier: *“I’d like more information about the sustainability of the products I buy. Sometimes, I consult the Colruyt app to check whether an item is from a short supply chain or ecological”* (Elodie, 33 years old).

6. Conclusion

The eco-score represents a promising tool for encouraging more sustainable consumer behavior, but its effectiveness depends on several factors, including consumer awareness and the transparency of the information provided. The results of this study show that, although the eco-score is generally well-received by consumers, there is still progress to be made for it to become an essential criterion in purchasing decisions. Additional efforts are needed to educate consumers on how the label functions (communication, awareness) and to enhance their confidence in, and understanding of, ecological information.

Moreover, producers and manufacturers, who sometimes already modify their recipes to achieve better Nutri-scores, could also adjust their practices to improve the eco-score.

This is a preliminary qualitative study. A quantitative survey with questionnaires could be conducted to generalize the findings to a larger sample. Another potential improvement could be the extension of the eco-score to the non-food sector, by integrating it with other existing eco-related labels without overloading the consumer.

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