

Sustainability Labels and Retail Strategies in German Supermarkets

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1. Introduction

The global food system is responsible for between 26 and 34 per cent of global greenhouse gas emissions and contributes substantially to biodiversity loss, soil degradation, and freshwater depletion (Crippa et al., 2021). Within this system, food retailers occupy a structurally unique position between producers and consumers, which has led scholars to describe them as "gatekeepers" of the food environment (Keller et al., 2022). Germany provides a particularly relevant context for examining this dynamic, as its retail market is dominated by only a small number of companies — REWE, EDEKA, Lidl, ALDI Nord, ALDI SÜD, Netto Markendiscount, PENNY and Kaufland — that together hold a market share of approximately 75 per cent of the food retail sector (German Environment Agency, 2025). These retailers have increasingly integrated sustainability into their corporate strategies, publishing extensive sustainability reports and introducing a growing variety of on-product labels. At the same time, multiple studies such as Cook et al. (2023) suggest that consumer understanding of the increasing amount of sustainability information in supermarkets is often limited, and thus the desired effect of a behavioural change in favour of a more sustainable purchase behaviour shows only small effect sizes. This raises the question of whether current sustainability communication strategies are effective and whether they correspond to the environmental performance they claim to represent.

Against this background, the present study examines how sustainability is communicated in German supermarkets and how sustainability labels are integrated into retailers' broader strategic approaches. The aim is to analyse the measures taken by major German food retailers to meet sustainability goals such as those outlined in the Paris Agreement, to examine how these measures relate to existing literature on consumer perceptions and expectations, and to explore whether sustainability labels effectively support informed purchasing decisions or primarily function as instruments of reputation management. For simplification, this study focuses primarily on the environmental aspects of sustainability.

Methodologically, the research draws on a systematic review of academic literature, a qualitative analysis of meta-studies on retailers' sustainability reports, and two structured interviews — one with a representative of the German Retail Federation (Handelsverband Deutschland, HDE), and one with Christian Schader, a researcher at the Research Institute of Organic Agriculture (FiBL). Although interviews with retailers were actively requested, no positive responses were obtained. By

combining these methods, the study enables an in-depth examination of retailers' strategic motivations and aims to develop practical recommendations for improving sustainability communication in the German grocery retail sector.

2. Literature review

2.1 Analysis of meta-studies on sustainability reports

Sustainability reports hold a central position in the formal communication between companies and consumers, serving to disclose both current progress and future intentions regarding sustainability-related measures. A growing demand for transparency not only in economic performance but also in environmental practices of retailers highlights the importance of sufficient sustainability communication (Siew, 2015).

Typically, sustainability reports are designed in alignment with internationally recognized frameworks, most prominently the Global Reporting Initiative (GRI), which provides standardized guidelines for transparent and structured sustainability reporting (GRI, 2026). The G3 guidelines of the GRI are considered most universally used among other sustainability frameworks (Herzig & Schaltegger, 2006). They are the third generation of GRI's sustainability reporting frameworks and are globally widely adopted (GRI, 2026). Nevertheless, the GRI framework has been subject to criticism. In particular, it has been pointed out an imbalance with a higher focus on social criteria, accounting for approximately 50%, compared to other dimensions of sustainability. Furthermore, the GRI has been criticized for its limited effectiveness in addressing consumer needs and providing clear insights into the actual sustainability performance of companies (Siew, 2015). These limitations show the complexity of sustainability reporting and highlight the existing challenges in creating comprehensive and meaningful disclosure.

Despite these shortcomings, sustainability communication remains a crucial way for companies to seek and maintain a positive public image and compete against competitors (Herzig & Schaltegger, 2006). However, this need of maintaining competition can result in a divergence between communicated commitments and actual practices, referred to as an implementation gap, highlighted by the German Environment Agency (UBA). In many cases, concrete implementation strategies and measurable outcomes are insufficiently specified, leading to discrepancies between stated ambitions and realized performance. Nevertheless, the high amount of sustainability reports indicates that retailers increasingly acknowledge their responsibility in addressing environmental challenges, including climate change, biodiversity loss and many more.

Multiple NGOs, official institutions and voluntary initiatives have already analysed the creation and implementation of sustainability goals of different food retailers on both national and international levels. Comparative studies such as the "Superlist Environment Germany" (Questionmark, 2026) show that retailers differ significantly in performance and implementation depth, considering their sustainability communication. This report shows how, especially when it comes to creating a climate roadmap, German retailers show a huge gap, with only Lidl Germany, for the time being, having published a detailed roadmap for their near-term

emission-reduction targets in Germany. Even though some retailers such as Kaufland and REWE have shown decreases in their total emissions since the start of reporting, fulfilling the goals of the Paris Agreement is, according to 'Questionmark', not in sight. Other companies have mostly shown successes in reducing Scope 1 and 2 emissions. Scope 1 emissions are those directly emitted by a company through for example on-site energy usage or vehicle fuels while Scope 2 emissions describe those of purchased electricity, steam, heating and cooling for own use. In contrast to them, Scope 3 emissions are indirect and arise across the whole supply chain of a product (The CarbonNeutral Protocol, 2024). Since they make up to 90% of a retailer's carbon footprint, successes in Scope 1 and 2 emissions remain rather insignificant. Some strategies to target these indirect Scope 3 emissions can be seen from REWE, which directly addresses its private-label suppliers by financially supporting sustainable practices. A similar strategy is used by Lidl Germany and its dairy suppliers. In terms of transparency, at this moment, ALDI Nord is the only German retailer reviewed in the report that still hasn't published its current carbon footprint. ALDI Nord has also not publicly reported an acknowledgement of the importance of a protein transition in the food system so far. However, supporting a more plant-rich diet is essential for meeting future climate targets by reducing greenhouse gases. Therefore, REWE and Lidl Germany have already set concrete targets for a protein transition to a higher ratio of plant-based proteins.

A study of the German Environment Agency (UBA, 2025) compared the sustainability performance of eight of Germany's biggest supermarket chains (ALDI Nord, ALDI SÜD, EDEKA, Netto Markendiscount, Lidl, Kaufland, REWE, PENNY) concerning a wide range of different indicators. All in all, it is visible that retailers picked up environmental issues in their company strategy and started taking action to improve their environmental performance. However, despite many smaller improvements on a strategic level compared to past results, the study found a huge gap between climate ambitions and actual implementation of these goals.

The examined companies made significant first steps towards a more sustainable policy by, for example, conducting assessments of the environmental impacts of their products based on established methods and joining the Science Based Targets initiative (SBTi), which helps companies to set sustainability goals towards an alignment with the Paris Agreement and reach a net-zero pollution by 2050. In addition, all companies have started implementing an annual monitoring of especially critical resources. Those high-risk products usually come with a higher rate of certification, often based on well-established certifications such as EU Organic or Rainforest Alliance. Examples for these critical resources are palm oil, coffee, cocoa, tea or fish.

This highlights that sustainability is being recognised as an important part of modern governance. However, the study from the German Environment Agency has also found a high potential for future improvement, which hasn't been made use of yet. Some essential topics, considering for example soil protection or overfishing, are being neglected or even completely overlooked in the companies' assessments, and some of the retailers' sustainability reports lack detail on quantity or a precise timeline for the achievement of sustainability goals. A lack of ambitious targets that aim beyond legal requirements has been identified, even though a certain degree of ambition is needed to fully transform the current food system. Also, a potential for

higher certification rates for products such as cane sugar, tea, and cocoa has been identified. Especially food groups that are not classified as high-risk products have shown a lack of traceability. Examples for such food groups are grains, vegetable fats (excluding palm oil), legumes, nuts, and also processed products. In addition, some foods with an already existing certification system can be replaced by more ambitious standards to strengthen transparency and traceability. Though a focus on products with high environmental risks is an effective measure, other food groups with potential for sustainable improvement should not be fully neglected. Lastly, it should not be overlooked that all retailers underlie different positions and possibilities. Full-range retailers such as EDEKA or REWE with a higher rate of third-party brand products have less direct influence on production and thus should use different approaches than discounters, which own a broader range of products from their own brands. Nevertheless, it is important for supermarkets to make use of their economic influence to not only improve the footprint of their own brand products but also enhance sustainability of their third-party product range.

2.2 Analysis of labels & in-store communication

While sustainability reports represent the formal dimension of corporate sustainability communication, on-product labels constitute the primary interface between retailers and consumers at the point of purchase. Labels compress complex environmental and production-related information into visual cues that consumers process within seconds, which makes them an attractive instrument for both marketing and policy. Whether they fulfil this function effectively, however, depends on a range of cognitive, institutional, and structural conditions that the academic literature has only partially clarified.

Early empirical evidence on sustainability labelling in the German context is provided by Banterle, Cereda, and Fritz (2013), who compared the prevalence of environmental certifications across German and Italian retailers. Surveying seven retailers in Bonn (Germany) and ten in Milan (Italy), they identified ten different sustainability certifications, concentrated in three product areas: fish products, tropical products, and fruits and vegetables. Two findings are particularly relevant to the present study. First, the German market was considerably more advanced than the Italian one: MSC certification appeared on every private-label fish product across all surveyed German retailers, and the same company often used labels differently in the two markets — *Iglo fish fingers* carried the MSC logo in Germany but not in Italy under the Findus brand, and *Chiquita bananas* displayed the Rainforest Alliance logo only in the German market. Second, certifications were substantially more common on private labels (43 instances) than on industrial brands (17 instances), and certified products were frequently not priced higher than their non-certified equivalents. The authors interpret this as evidence that retailers pursue a "premium image" rather than a "premium price" strategy, using labels primarily as reputational tools linked to their own-brand lines.

The effectiveness of labels from the consumer perspective, however, depends critically on trust. Janssen and Hamm (2014) investigated this dimension through focus groups (n=36) and choice experiments (n=370) with German consumers, comparing responses to the governmental Bio-Siegel logo, the Demeter farmers' association logo, the former EU organic logo, and the generic term "organic." Their findings are theoretically significant. Although the Bio-Siegel and the EU logo are

based on identical organic standards, consumers evaluated them in markedly different ways — the Bio-Siegel elicited high trust and recognition, while the EU logo remained largely unknown and received low trust ratings. Because sustainability attributes are credence goods that cannot be verified by consumers at the point of purchase, the authors argue, trust does not attach to the product itself but to the certifying institution behind the label. Their analysis also revealed meaningful segmentation: occasional organic buyers preferred the Bio-Siegel, whereas frequent buyers preferred the stricter Demeter label, suggesting that a plurality of labels may serve different consumer groups rather than necessarily producing confusion.

A complementary perspective on how labels operate is offered by Linder et al. (2010), who used functional magnetic resonance imaging to examine the neurological dimension of organic labelling. Thirty participants viewed forty everyday food items, each presented once with the Bio-Siegel and once with an artificial conventional label, and stated their willingness to pay through an incentive-compatible auction. Participants bid, on average, 44 per cent more for identical products carrying the organic label, and this willingness to pay corresponded to significantly increased activity in the ventral striatum — a brain region associated with reward anticipation and previously shown to respond to luxury brands and other affective stimuli. The authors' interpretation is that labels do not function purely as rational information cues; they operate, at least in part, as affective signals processed through implicit reward mechanisms. This finding has important implications for how sustainability labels should be conceptualised: their influence on behaviour cannot be fully explained by information-based models of consumer decision-making, and their effectiveness depends on symbolic associations and institutional credibility as much as on the content of the information they convey.

More recent research has examined the challenges of communicating complex sustainability information. Collins et al. (2025) investigated UK consumer attitudes toward a combined nutrition-and-sustainability label (the "Sus-Health index") through focus groups and semi-structured interviews. While participants broadly supported the concept of combined labelling, nutrition was consistently prioritised over sustainability: health was perceived as a personal and immediate concern, whereas environmental impact was seen as distant and systemic. For less affluent consumers, cost emerged as the dominant factor, often overriding both health and sustainability considerations — a pattern intensified by the cost-of-living crisis. Participants preferred designs that displayed the combined score alongside its separate nutritional and environmental components, and colour coding similar to the traffic light system was positively received, though engagement was strongest when red (negative) signals appeared. As in Janssen and Hamm (2014), trust emerged as a decisive condition: participants demanded endorsement from independent institutions and transparency about how scores were calculated. The authors conclude that label design alone cannot compensate for structural barriers such as price sensitivity, convenience, and competing consumer priorities.

A supply-side perspective on labelling is provided by Schulze et al. (2024), who applied Q-methodology to 43 food industry experts across Germany, Poland, Spain, and Sweden, including processors, retailers, and labelling organisations. Their analysis identified five distinct viewpoints on the future of EU sustainability labelling, from which three label prototypes were derived: a producer-driven ecosystem

services label, a mandatory consumer information label similar to the Nutri-Score, and an EU-wide sustainable food label extending existing frameworks. Two further viewpoints were explicitly sceptical — one group raised concerns about the cost of certification, while another argued that the proliferation of labels already confuses consumers and that further additions would be counterproductive. Despite these divergences, the study identified one consistent area of agreement: all groups emphasised that transparent standards backed by credible institutions are essential for label success, and that environmental claims must be directly linked to the product's value chain rather than to detached offsetting activities. The authors conclude that a single EU-wide label is unlikely to succeed, and that a flexible framework accommodating multiple approaches is required. Their findings are particularly significant because they demonstrate that even among the actors who design and implement labels, no consensus exists on optimal label design — a finding that complicates any straightforward policy recommendation.

The structural limitations of sustainability communication are most clearly documented in two studies focused specifically on German retailers. Saber and Weber (2019) analysed the sustainability reports of German grocery retailers through a content analysis framework applying GRI standards, and found that negative information was rarely disclosed. When retailers did acknowledge negative aspects, they relied on legitimisation strategies that shifted attention away from their own responsibility: "abstraction" (framing issues as industry-wide problems) and "indicating facts" (stating data without contextualising benchmarks). For supply-chain issues in particular, retailers consistently presented themselves as passive participants in systemic problems rather than as actors with genuine leverage over their suppliers. Although the study focused on corporate reports rather than on-product labels, its findings are directly relevant to in-store communication because they reveal a systematic gap between retailers' stated commitments and the transparency of their communication practices.

A similar conclusion was reached by Keller et al. (2022) in their comprehensive evaluation of the eight largest German food retailers, commissioned by the German Federal Environment Agency (Umweltbundesamt). Using an assessment grid comprising 22 areas of activity, 43 indicators, and 112 sub-indicators across three scopes — supply chain, own locations, and consumption — the authors found that all eight retailers performed between "No Practice" and "Average Practice" on average, with "Good Practice" or "Best Practice" ratings occurring only in isolated cases. A particularly notable finding was that companies performed consistently better in communication-related areas than in strategy or implementation. This pattern is directly relevant to the present study, as it suggests that in-store communication, including on-product labels, frequently outpaces the substantive environmental action behind it.

Taken together, the literature points to several consistent conclusions regarding sustainability labels and in-store communication in Germany. First, German retailers have been comparatively proactive in adopting sustainability labels, particularly on private-label products, and have used these labels strategically for reputational purposes rather than primarily as instruments of consumer information. Second, label effectiveness depends on consumer trust in the certifying institution, not on the underlying standards alone; labels with identical standards can elicit entirely different

responses depending on the credibility of the issuing body. Third, labels influence consumer behaviour through a combination of rational information processing and implicit affective mechanisms, which means that their impact cannot be captured by information-based models alone. Fourth, structural barriers — price, convenience, and the prioritisation of health over environmental concerns — consistently limit the behavioural impact of sustainability labels. Finally, the literature reveals a persistent gap between retailers' communication and the substantive environmental performance underlying these claims, a pattern that raises concerns about the risk of greenwashing and provides the central motivation for the empirical analysis that follows.

3. Results: Expert Perspectives on Sustainability Communication

3.1 Industry Perspective: Interview with a representative of the German Retail Federation (HDE)

For this study, an interview with a representative of the German Retail Federation (Handelsverband Deutschland, HDE) has been conducted to gain insight into how the German retail sector perceives the previously identified information gap, as well as to better understand internal processes and challenges related to the implementation of stricter sustainability requirements with a specific focus on sustainability labelling. Representing around 75% of the German retail industry's revenue (HDE, 2026), the HDE holds a key role within the whole sector. However, it is important to note that this interview reflects the personal and experience-based perspective of a qualified representative and thus can't be replaced as the official position of the HDE.

The interviewee emphasized the complexity and multifaceted nature of sustainability labelling, considering the different dimensions of sustainability that can be addressed by a label, as well as the diversity of a label's origin. He made a distinction between private labels that can be issued by NGOs or other independent institutions and those developed by manufacturers. Every individual label holds its own rate of credibility and familiarity for customers, making some labels more established than others. Despite this diversity, the representative noted that there is a clear distinction, but labels generally communicate their intended meaning clearly. However, even if the message conveyed by a label is presented in an understandable and clear way, the consumer perception and interpretation of these labels depend heavily on individual interest, he says. For those with a strong interest in sustainability matters, additional information, for example traceability numbers and other online sources, are readily available. For those less interested, labels can serve as a guideline to help make a buying decision. Existing research, such as the one from Jürkenbeck (2023), supports this view, assessing the effectiveness of different visualisations to convey sustainability information as quickly as possible. They found out that interpretive labels, with, for example, traffic light visualisation, such as the Nutri-Score or Eco-Score, that are already established, can strongly influence consumer behaviour.

Retailers are expected to meet a wide range of consumer demands in order to stay socially accepted and remain competitive. This includes offering a wide product range that varies in pricing and sustainability options and also fulfils the demand for vegetables and fruits being available the whole year, even outside of their local growing season. For products with particularly strong environmental or social impacts, such as cocoa, there are especially high certification rates, the representative of the HDE explains, which aligns with the findings of the UBA (2025). The broad range of products demanded by customers necessitates prioritization of those critical resources in order to meet sustainability standards. Nevertheless, among companies, due to competition, different priorities in sustainability strategies have formed. The interviewee emphasized how competition among retailers leads to better solutions and thus a higher effectiveness of measures towards a more sustainable industry.

However, the process of labelling comes with various difficulties, causing not only more costs but also organizational challenges. To decide whether a product would benefit from labelling or not, the representative listed the following questions: “Is there an issue? Is there a certification system for it? Does this certification system have a label? Is it relevant to consumers?” The representative argued that a large number of labels already exist, reducing the need for the development of new ones. Once it is decided that a product is to receive a label, there are important steps to be considered first. Most importantly, the supply chain of the labelled product needs to strictly be separated from non-labelled products to ensure absolute compliance with stated sustainability standards. This separation may result in additional costs potentially outweighing the benefits of certification, he explains. That’s why certification is particularly effective for products manufactured globally on a mass scale. Another issue is the limited availability of raw materials when introducing a label, because it limits the options to switch suppliers, particularly in cases of disruptions such as crop failures, since other suppliers might not meet the label’s requirements. This is especially problematic as advertising and packaging are often produced in advance and cannot be adjusted at short notice, the HDE member explains.

Overall, the interview highlights the complexity of sustainability labelling not only on an economic level but also on a societal level. To fulfil the needs of a diverse customer base with varying expectations regarding the sustainability of food products, it is necessary to offer a supply of equal diversity, since a uniform presentation of sustainability information will not appeal to the broad society. Furthermore, the representative of the HDE explains the challenge of making complex topics such as supply chains accessible to the general public, even though it is a topic affecting the broad society, with everyone having different opinions and perspectives. He also explains how sometimes consumers overestimate and thus misjudge the environmental impact of sustainability measures. A prominent example of this is the waiver of plastic wrap for cucumbers. Against societal beliefs that refraining from the plastic wrap is of significant value for the environment, Shrivastava et al. (2022) found it to be better from an environmental perspective compared to the food losses that come with not using the plastic wrap. This illustrates how quantification of sustainability is highly complex and demands immense data availability. However, with improving technology, data processing is becoming increasingly easier, which will hold an important role in future sustainability

communication, as the representative of the HDE says. He supports a data-driven communication to keep supporting consumers in the future. To achieve this goal, the criteria for data collection need to become clearer to generate consistent standards in data collection in order to make data more comparable.

3.2 Academic Perspective: Interview with Christian Schader (FiBL)

The second structured interview was conducted with Christian Schader, a researcher at the Research Institute of Organic Agriculture (FiBL) specialising in sustainability assessment in agriculture, supply chains, and food systems. Schader's perspective is particularly valuable for this study because he co-authored the German Environment Agency report (2025) that has been discussed in our literature review and uses the criteria set based on Keller et al. (2022), placing his academic position in direct continuity with the empirical evidence already examined.

A central argument presented in the interview is Schader's strong scepticism toward sustainability labelling as a policy instrument. He frames this position as an empirical rather than a normative claim: *"It's not about belief, it's about facts, and I didn't see any sufficiently good empirical evidence that shows that there will be a substantial impact on food choice."* His critique is grounded in economic reasoning — the transaction costs associated with developing, implementing, and verifying sustainability labels are, in his assessment, disproportionately high relative to the marginal behavioural changes they produce. This position is more categorical than the balance of evidence in the literature would suggest; Collins et al. (2025), for instance, document measurable consumer interest in combined sustainability labelling. Nonetheless, Schader's scepticism aligns with the institutional pattern identified in our literature review, in which labels persist not because of demonstrable effectiveness but because they are politically and administratively convenient.

Schader's explanation for the limited effectiveness of labelling rests on a well-documented hierarchy in consumer purchasing decisions. Price, taste, health, and regional origin consistently outweigh environmental considerations, and only a small share of consumers is willing to pay a premium for sustainability attributes — an observation consistent with Collins et al. (2025), who identified cost as the dominant determinant of food choices among less affluent UK consumers. The structural consequence, Schader argues, is market segmentation rather than systemic transformation: *"This will not have a substantial market impact. It will lead to a segmentation, and it will lead to businesses being able to skim off additional willingness to pay."* When environmentally superior products are communicated as such, retailers raise prices to capture the willingness to pay of the sustainability-conscious minority, making these products less accessible to the broader population. From this perspective, labelling does not merely fail to achieve systemic change; it may actively reinforce the segmentation it was intended to overcome.

Underlying this argument is a classical distinction between private and public goods. Schader contends that environmental impacts such as climate change and biodiversity loss are public goods and therefore cannot be efficiently provided through individual market transactions. Expecting consumers to voluntarily pay more for environmental benefits that accrue to all requires a level of altruism that,

according to the empirical literature, is present in only a small share of the population.

On the question of responsibility, Schader describes sustainability as a shared issue but firmly rejects the notion that individual consumers can drive systemic change. The more significant leverage, he argues, lies with retailers, who shape what he calls the *"food environment"* — the physical and communicative context within which purchasing decisions are made. He is, however, realistic about retailer motivations: *"They are profit-oriented ... it's not so much that they want to be always the best, but they don't want to be the worst in something."* Retailer engagement with sustainability is largely reactive and reputation-driven, particularly in emotionally charged areas such as animal welfare and labour conditions. This observation corresponds closely to the findings of Saber and Weber (2019) and Keller et al. (2022), thereby confirming, from within the research community that produced these findings, a pattern already documented in the published literature. Rather than expanding information provision through labels, Schader advocates for structural interventions within the retail environment — product placement, marketing restrictions, and limits on the promotional advertising of environmentally harmful products — approaches broadly associated with the concept of nudging.

The most theoretically significant contribution of the interview is Schader's institutional analysis of why labelling persists despite weak evidence of its effectiveness. He characterises sustainability labelling as politically attractive precisely because it imposes no visible costs on voters or businesses, unlike taxation or binding regulation: *"it is a policy that doesn't hurt anyone."* He frames the situation as a configuration in which all actors behave rationally within their respective roles, yet the collective outcome remains inefficient. Policymakers prefer low-cost, low-risk instruments; large retailers and processors benefit from labelling because they possess the infrastructure for sustainability assessment, which gives them a competitive advantage over smaller firms; and researchers and consultancies working on sustainability metrics — as Schader candidly acknowledged — also have professional incentives to support such approaches. *"These three groups of actors are putting a lot into this debate, but it's not in the interest of the society as a whole."* This analysis provides an explanation for why labelling continues to receive disproportionate political attention despite the limited empirical support for its effectiveness.

A further distinction Schader draws is between the roles of consumers and citizens. While individuals as consumers may express preferences for sustainable products in surveys, their actual purchasing behaviour frequently diverges when confronted with higher prices. As citizens, however, the same individuals can exert political pressure through democratic participation and civil society mobilisation: *"If you ask consumers, they will maybe also say, 'I want to buy climate friendly,' and so on. But if climate friendly costs 20% more, they will not buy it."* Meaningful change, he argues, depends not on consumer demand but on societal pressure, which can push policymakers to adopt more effective instruments. As a concrete alternative to complex metrics, he proposes communication based on simple, actionable guidelines — *"thumb rules"* such as reducing the consumption of animal-based products, avoiding food waste, and shopping by bicycle where possible — which are

easier to understand and more likely to influence behaviour than detailed environmental scoring systems.

Overall, the interview offers a critical economic perspective that directly challenges the assumption underlying much current policy discourse — namely, that increased information provision leads to more sustainable consumption. Schader's position is at times more categorical than the full range of evidence would support, and researchers such as Potter et al. (2021) have found measurable positive effects of sustainability labelling in specific contexts. Nonetheless, his institutional analysis — which situates labelling within a rational but collectively inefficient configuration of actors — is directly relevant to the research question guiding this study. For a project concerned with the gap between retailers' sustainability communication and their actual environmental performance, this framing shifts the central question from whether sustainability labels are adequately designed to why the system continues to produce new labels in the first place.

4. Discussion

Our findings point to one recurring pattern: German food retailers have expanded their sustainability communication a lot over the past decade, but their actual environmental performance has not caught up. This gap between what retailers say and what they do shows up in several of the sources we looked at — the academic literature, the report of the German Environment Agency (2025), the content analysis by Saber and Weber (2019), and our interview with Christian Schader.

What is interesting is that this gap is not just a problem with one or two companies. Keller et al. (2022) assessed all eight of the largest German retailers and found that every single one of them performed better in communication than in actual implementation. Saber and Weber (2019) reached a similar conclusion through a different method: when retailers do mention negative sustainability aspects in their reports, they usually frame them as industry-wide problems or just state facts without context, which shifts responsibility away from themselves. Already in 2013, Banterle et al. observed that German retailers were using sustainability labels mainly to improve the image of their private-label products. Taken together, this suggests that sustainability communication often works more as a reputation tool than as a way to genuinely inform consumers.

A second point concerns trust. Janssen and Hamm (2014) showed that German consumers evaluated the Bio-Siegel and the former EU organic logo very differently, even though both labels are based on the exact same standards. This means that what matters for consumers is not the rules behind a label, but whether they trust the organisation issuing it. Collins et al. (2025) found the same thing for UK consumers, who wanted labels backed by independent institutions rather than by governments or companies. For German retailers this raises a real problem: if consumers do not trust communication coming directly from profit-oriented companies, then even well-designed sustainability messages may not actually influence how people shop.

The third point comes mainly from our interview with Christian Schader, and it was the most thought-provoking part of our research. Schader argues that sustainability labelling persists not because it works particularly well, but because it suits the

interests of the actors involved — policymakers like it because it doesn't cost anything politically, big retailers benefit because they can afford the certification infrastructure that smaller competitors cannot, and researchers in the field (including himself, as he openly admitted) have an incentive to keep the topic alive. This shifts the question from "how do we design better labels?" to "why does the system keep producing more labels in the first place?"

At the same time, Schader's position is probably stronger than the full evidence supports. Linder et al. (2010) showed that the organic label really does influence buying behaviour — participants in their fMRI study bid 44 per cent more for identical products labelled as organic, even though the effect seems to work through emotional rather than rational processing. Collins et al. (2025) also found that consumers are genuinely interested in combined sustainability labels. So labels are not useless, but their effect depends heavily on trust, simplicity, and the environment in which they appear.

Overall, the main takeaway from our research is that better labels alone will not close the gap between what retailers communicate and what they actually do. Structural changes — for example nudging, product placement, or restrictions on how environmentally harmful products are advertised — seem more promising than simply adding more information on packaging. Labels still have a role to play, but only if they are part of a bigger framework that includes policy, transparent standards, and credible oversight. Schader's distinction between consumers and citizens is useful here: as consumers, people mostly react to price and convenience, but as citizens they can push policymakers to change the rules that retailers operate under. In other words, the transformation of food retail is probably not going to happen at the checkout — it has to happen higher up, through politics and regulation.

5. Conclusion

This study examined how sustainability is communicated in German supermarkets, with particular attention to the role of sustainability labels and the consistency between retailers' stated commitments and their actual implementation. Drawing on a systematic review of the literature and two structured qualitative interviews, the research has identified a consistent gap between the breadth of sustainability communication and the depth of substantive environmental action in the German grocery retail sector.

Three main conclusions emerge from the analysis. First, German retailers have been comparatively proactive in adopting sustainability communication tools, but this activity is not matched by equivalent progress in implementation: retailers consistently perform better in communication-related areas than in substantive environmental measures. Second, the effectiveness of sustainability labels as instruments of consumer information is limited by multiple structural factors — consumer trust in certifying institutions, the prioritisation of price and convenience, and the credence-good nature of sustainability attributes. Third, the persistence of sustainability labelling as a dominant policy instrument cannot be explained by its empirical effectiveness alone, but rather by the institutional interests of policymakers,

large retailers, and sustainability consultancies who benefit from labelling-based approaches.

Based on these findings, the study offers several practical recommendations. Retailers should ground their sustainability communication in verifiable, measurable targets and integrate sustainability management more closely with purchasing and category management, rather than keeping it within corporate communications departments. They should also invest in more transparent and comparable reporting, including disclosure of negative aspects. For policymakers, the study underscores the need for a coherent policy mix that combines regulatory measures with financial incentives, ensures environmental costs are reflected in prices, and establishes clear guidelines against greenwashing. Structural interventions such as nudging, product placement regulations, and the EU Green Claims Directive should be prioritised alongside, or in some cases instead of, further expansion of label-based communication.

The study is subject to several limitations. The empirical material is limited to publicly available sustainability reports and two expert interviews, and does not include direct consumer data or an in-store observation component. Attempts to obtain responses from individual retailers were largely unsuccessful, which restricts the depth of insight into retailers' own perspectives. Future research could build on these findings through larger-scale consumer studies in realistic shopping environments or empirical investigation of the structural interventions that the literature suggests may be more effective than information-based labelling. Overall, the central finding of this study — that German retailers communicate more than they implement, and that sustainability labels alone cannot close the gap between stated commitments and actual environmental performance — suggests that meaningful transformation requires a more coherent integration of communication, policy, and structural intervention.

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