Bölüm 1

Examining Corporate Sustainability Strategies for Reducing Plastic Consumption in Companies in the BIST Sustainability 25 Index from a Marketing Perspective

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Abstract

This chapter examines the corporate plastic reduction strategies of companies listed in the BIST Sustainability 25 Index from a marketing perspective. Plastic pollution has become a critical global environmental challenge, requiring firms to move beyond operational waste management toward strategic and institutionalized sustainability approaches. Using qualitative content analysis, the research analyzes the 2023–2024 sustainability reports, integrated annual reports, and Turkish Sustainability Reporting Standards–compliant reports of 25 large-scale companies operating across diverse sectors, including finance, energy, retail, food and beverage, aviation, automotive, and manufacturing. The findings reveal that corporate plastic policies are structured around three main strategic axes: plastic reduction, circularity and recycling, and governance and transparency. Consumer-facing sectors such as retail, FMCG, and aviation emphasize the elimination of single-use plastics, refill systems, and alternative packaging to directly influence consumer behavior and strengthen green brand positioning. In contrast, industrial and energy-intensive sectors prioritize regulatory compliance, recycled raw material use, and supply chain optimization, framing plastics management as a tool for ESG performance and risk management. The study also highlights the growing integration of circular economy principles and stakeholder-driven commitments. However, it identifies a lack of standardized metrics and limited use of life cycle assessments as major constraints to effective policy

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evaluation. Overall, the findings demonstrate that plastic reduction strategies in Turkey are evolving into multidimensional value-creation tools that simultaneously support environmental sustainability, corporate reputation, and marketing performance.

1. Introduction

Plastic pollution is one of the crucial issues at the center of today's environmental crisis. Beyond being a local or regional issue, plastic pollution has become a global problem for all of humanity. Global plastic consumption is not only an environmental problem, but also a sociological, economic, and institutional one, pervading all segments of society. From a business perspective, businesses need to develop strategies to reduce plastic consumption. While this effort appears to be a necessity for the implementation of sustainability goals, it also holds potential opportunities (Takeuchi et al., 2025). This is because the role of corporate environmental strategies is constantly increasing in sustainability research. In particular, reducing plastic use in companies is a concrete sign of a transition beyond traditional business models to more environmentally friendly and circular models. Current research supports that this is not limited to environmental benefits (Bokor et al., 2024). According to these studies, companies' strategies to reduce plastic use both strengthen brand reputation and reduce management risks.

The focus on corporate approaches to plastics management is noteworthy. Bokor et al. (2024) emphasized the need to investigate the interaction between EU regulations and voluntary corporate initiatives. Takeuchi et al. (2025) highlighted the critical role of firm characteristics, such as industry size and management structure, in strategy selection in plastic waste management. As can be seen from these studies, sustainability strategies are specific to the company's context and are not one-size-fits-all strategies. In this context, namely in the context of corporate sustainability, business models are understood to be an important tool. Studies have been conducted that systematically examine the types of business models that contribute to sustainable plastics management. Dijkstra et al. (2020) demonstrated that the transition to circular business models is both ecological and economic. Battistini et al. (2022) similarly examined circular economy applications in the plastic packaging sector. These studies demonstrate that plastic consumption reduction strategies are not operational optimization. In other words, they emphasize that plastic consumption reduction strategies are not only operational optimization but also require strategic transformation. On the other hand, market demands and stakeholder pressures should also be

mentioned among the critical factors shaping plastic consumption reduction strategies. In this context, the European Union has taken steps regarding its plastics strategy. The European Union encourages companies to invest in sustainable design, reuse, and recycling (commission.europa.eu). This pressure, combined with legal compliance, compels companies to adopt plastic consumption reduction strategies to gain competitive advantage and reputation.

From a marketing perspective, this initiative can be used as a powerful brand differentiator for companies. Today's consumers are increasingly turning to companies with greater environmental awareness. This evolution should be seen as a parameter demonstrating a linear link between ESG (Environmental, Social, and Governance) performance and consumers (King, 2024). The marketing strategy that achieves these gains emphasizes sustainable product innovations and reshapes corporate messaging. The potential for developing consumer campaigns focused on reuse and recycling, which are crucial for reducing plastic consumption, should also be mentioned.

In this regard, the companies included in the BIST 25 Sustainability Index, which is the subject of this study, offer a special research area. The index is a key indicator that monitors and reports sustainability performance at the corporate level in Turkiye. Therefore, examining how plastic consumption reduction strategies are institutionalized in these companies can provide both theoretical and practical contributions. This study, designed with this understanding, aims to analyze the plastic consumption reduction strategies of the companies listed in the BIST Sustainability 25 and to assess how these strategies are positioned from a marketing perspective. The study utilizes the companies' corporate sustainability reports, strategy documents, and marketing communications.

The study continues with a literature review following the introduction. The third section covers the study methodology, and the fourth section includes the research findings. The study concludes with the conclusion and discussion section.

2. Literature Review

Strategies for reducing plastic consumption, when considered within the context of corporate sustainability, have become central to both environmental and marketing-focused research in recent years. This understanding has necessitated a transformation in business models and brand positioning

within companies. A literature review on this topic, divided into several sections, will further enhance clarity.

2.1. Plastic Management, Circular Economy and Sustainability

Businesses' responsibility for plastic pollution is a strategic issue. Therefore, a solely operational approach is inappropriate. Bokor et al. (2024) analyzed the interaction between EU regulations and voluntary initiatives. The study revealed that corporate participation plays a critical role in combating plastic pollution. Barford et al. (2023) examined large plastics manufacturers such as Dow and determined the importance of this issue by investigating the corporate levers they use in the transition to a circular economy. Dijkstra et al. (2020) conducted a systematic study within the context of corporate strategies. The study identified business models that contribute to sustainable plastics management and made predictions about future research. In this context, Jürgens et al. (2025) developed a concrete implementation framework for the issue. According to the study, circular economy strategies for plastic products were presented. The concept of the circular economy (CE) is defined as a central paradigm for combating plastic waste (Maranesi & De Giovanni, 2020). Raj et al. (2025) addressed this topic as a sustainable approach to plastic waste management strategies. The research highlights tools such as plastic credit mechanisms and single-use plastic bans. Furthermore, Abudurexiti et al. (2025) explores the integration of the circular economy with sustainable development goals, specifically focusing on reducing plastic consumption.

In the aforementioned CE literature, companies' sustainable business model innovations have a significant impact. Chabowski et al. (2025) examined how international business models have evolved within the context of a circular economy. They also systematized the issue of corporate sustainability opportunities. Implementing sustainability and plastic consumption reduction strategies undoubtedly does not always proceed smoothly. Significant obstacles such as institutional tensions, costs, and stakeholder conflicts are frequently encountered in this process. Farrukh et al. (2024) conducted a qualitative study investigating sustainability tensions in plastic packaging companies and examining how these tensions are resolved. Bokor et al. (2024) demonstrated the complex nature of the interaction between initiatives and legal regulations, emphasizing the need for a strategic approach for the adaptation of these corporate actors. The concept of greenhushing also appears as a notable issue in the literature. While some companies are making progress in reducing plastic consumption, this is often kept secret in marketing communications (Bokor et al., 2024).

2.2. Strategic Approaches and Marketing Strategies to Reduce Plastic Consumption

If a fundamental framework for plastic reduction strategies is to be established, it is necessary to examine sustainable business models. In this regard, Nosratabadi et al.'s (2019) study broadly categorizes the sustainable business model literature. It comprehensively covers various application areas, from marketing to the circular economy. Dijkstra et al. (2020) focused on specific strategies for reducing plastic consumption, identifying model types such as resource recovery, product extension, and sharing. Furthermore, Barford et al. (2023) examined the dynamics of institutional transitions in the chemical industry. The study provides a practical business model analysis, focusing on the strategic transformation paths of large plastic manufacturers.

From a marketing perspective, plastic consumption reduction strategies can be a powerful differentiation tool. For example, green marketing literature, when integrated with corporate social responsibility, can have significant impacts on brand image and reputation (Deshmukh & Tare, 2024). Taherdangkoo et al. (2019) examined the role of sustainable marketing strategies on environmental reputation in industrial companies. The findings of the study directly support the relationship between sustainable marketing strategies and environmental reputation. Similarly, Woo (2021) found a relationship between a firm's marketing approach and its reputation with customers. Another study examined the interaction of strategic green marketing and brand positioning through the mediating effect on corporate image through Green Brand Positioning and Green Innovation Strategy (Alnasser & Alhijris, 2025; Maione, et al., 2022). In addition, Lopes et al. (2024) demonstrated how sustainable brand advertising in marketing communications provides an environmental advantage and how this shapes consumer perception.

2.3. Supply Chain, Local-Global Perspective and Turkish Context

The supply chain dimension of plastic consumption reduction strategies is also important. Mapanga et al. (2024) examined strategies for reducing plastic pollution in global supply chains in their study. The study offers a holistic framework encompassing economic, social, and environmental factors for plastic pollution reduction strategies in global supply chains. Furthermore, Barford (2023), using the example of a large chemical company, emphasizes the key role that supply chain strategies play in corporate transformation. When considering this topic specifically in Turkiye, the literature on plastic waste management and corporate responsibility is growing daily. Yakışık

(2023) examined plastic waste management in Turkiye and proposed institutional approaches by linking it to sustainability.

The literature review conducted thus far reveals that numerous researchers and organizations are conducting research on reducing plastic consumption. Table 1, designed to summarize this research and make the topic more understandable, is crucial in this regard.

Table 1. Corporate Sustainability and Marketing Strategy Research to Reduce Plastic Consumption

Year	Author(s)	Title	Source/ Publication	Vol. (Iss.)	Page
2019	*Nosratabadi, S., et al.*	Sustainable business models	arXiv	–	arXiv:1907.10052
2019	*Taherdangkoo, M., et al.*	Environmental reputation in sustainable marketing strategies	Spanish Journal of Marketing – ESIC	23(1)	3–18
2020	*Dijkstra, H., van Beukering, P., & Brouwer, R.*	Business models and sustainable plastic management	Journal of Cleaner Production	258	120967
2020	*Maranesi, C., & De Giovanni, P.*	Modern circular economy: Corporate strategy…	Sustainability	12(22)	9383
2021	*Woo, J.*	Corporate green marketing activities…	Journal of Distribution Science	19(9)	45–56
2022	*Battistini, A., et al.*	Comment on Kraft CT et al.…	Annals of Plastic Surgery	89(3)	339–340
2022	*Maione, C., et al.*	Towards a circular economy for plastic packaging	Resources, Conservation & Recycling	180	106145
2023	*Barford, M., et al.*	Corporate transition pathways toward circularity	Business Strategy and the Environment	32(4)	1234–1249
2023	*Yakışık, G.*	Plastic waste management in Turkiye…	Gümüşhane University Journal of Economics and Administrative Sciences	13(3)	85–99
2024	*Alaghemandi, M., et al.*	Sustainable solutions through innovative plastic waste recycling	Sustainability	16(23)	10401
2024	*Deshmukh, P., & Tare, H.*	Green marketing and CSR	Multidisciplinary Reviews	7(3)	2024059
2024	*Farrukh, A., Ali, S., & Li, Y.*	Sustainability tensions… plastic food packaging	Business Strategy & the Environment	33(2)	560–575

2024	*King, G.*	Why plastic reduction is a strategic business move	RePurpose Global	–	Web
2024	*Lopes, F., et al.*	Sustainable brand advertising	Marketing Insights	2(2)	45–62
2024	*Mapanga, A., Mukonza, C., & Mathe, M.*	Plastic pollution mitigation…	Journal of Transport & Supply Chain Management	18(1)	1–20
2025	*Abudurexiti, T., Zhang, Y., & Li, H.*	Circular economy and SDGs…	Polish Journal of Environmental Studies	34(2)	1–15
2025	*Alnasser, A. N., & Alhijris, A. A.*	Influence of strategic green marketing…	Journal of Information Systems Engineering & Management	10	407–418
2025	*Chabowski, B., Gabrielsson, M., & Hult, G. T. M.*	International business models & circular economy	Journal of International Business Studies	56(3)	455–478
2025	*European Commission*	Energy, climate change, environment	EC Website	–	Web
2025	*Jürgens, M., et al.*	Practical circular economy frameworks for plastics	Circular Economy & Sustainability	5(1)	55–78
2025	*Raj, P., Singh, R., & Mahato, A.*	Global policy mechanisms for plastic waste	Environmental Science and Policy	140	112–125
2025	*Takeuchi, K., et al.*	Challenges and prospects in managing plastic waste	Environmental Economics and Policy Studies	27(1)	90–110

The table is arranged by year.

In this context, this study, which examines the sustainability reports of companies included in the BIST Sustainability 25 Index and examines how their plastic consumption reduction strategies are presented from a marketing perspective, could fill a significant gap in the literature and offer potential contributions. For example, the literature has largely focused on global companies. However, in the Turkish context, there are limited studies examining the marketing aspects of plastic consumption reduction strategies of companies included in the BIST Sustainability 25 Index. While there is literature focusing on green marketing and brand reputation, a systematic analysis of marketing messages and strategies specifically related to plastic consumption reduction has not yet been conducted. Furthermore, one issue that has not been sufficiently explored in the literature is how issues such as

greenhushing, sustainability dilemmas, and cost pressures are reflected in the marketing and corporate communication strategies of plastic consumption reduction strategies. Finally, topics such as the interaction of regulation, stakeholder pressure, and voluntary strategies in Turkiye have not been fully addressed in the literature regarding BIST companies.

3. Method and Findings

This study examined the 2023–2024 sustainability reports, integrated activity reports, annual reports, and Turkish Sustainability Reporting Standards (TSSR)-compliant sustainability reports of companies in the BIST Sustainability 25 Index according to environmental themes, and analyzed their plastic consumption. The study sample consisted of 25 large-scale companies listed on Borsa Istanbul that report on sustainability. These companies span sectors such as banking, energy, food, retail, defense, aviation, petrochemicals, textiles, and automotive. The study was conducted using qualitative content analysis. Information regarding the sustainability and activity reports of companies in the BIST Sustainability 25 Index is presented in Table 2.

Table 2. Information on the Sustainability and Activity Reports of Companies in the BIST Sustainability 25 Index

Company Name	Sector Type	Report Type	Climate Change Information	Climate Change Word Frequency	Zero Waste Information	Zero Waste Word Frequency	Plastic Consumption Information	Plastic Word Frequency
Akbank	Banking and Finance	Integrated Annual Report	Yes	390	Yes	14	Yes	12
Alarko Holding	Energy, Construction, Industry and Tourism	Sustainability Report	Yes	59	Yes	10	Yes	10
Anadolu Efes	Food and Beverage	Integrated Annual Report	Yes	43	Yes	12	Yes	40
Arçelik	Consumer Durables and Electronics	TSSR-Compliant Sustainability Report	Yes	27	No	-	Yes	12
Aselsan	Defense Industry and Electronic Systems	Integrated Sustainability Report	Yes	101	Yes	29	Yes	11
Bim	Retail	Integrated Annual Report	Yes	69	Yes	5	Yes	58
Çimsa	Construction Materials	Integrated Annual Report	Yes	71	Yes	2	Yes	9

Doğuş Otomotiv	Automotive Distribution and Sales	Integrated Sustainability Report	Yes	116	Yes	3	Yes	9
Enka	Construction, Energy and Engineering	Sustainability Report	Yes	164	Yes	6	Yes	5
Ford	Automotive Manufacturing	Integrated Annual Report	Yes	33	Yes	5	Yes	16
Sabancı Holding	Holding	Sustainability Report	Yes	14	Yes	14	Yes	13
Koç Holding	Holding	Sustainability Report	Yes	42	Yes	1	Yes	10
Mavi	Textile and Apparel	Annual Report	Yes	56	No	-	Yes	12
Migros	Retail	Integrated Annual Report	Yes	46	Yes	5	Yes	27
Pegasus	Aviation and Transportation	Sustainability Report	Yes	51	Yes	3	Yes	1
Petkim	Petrochemical Industry	Integrated Annual Report	Yes	30	Yes	3	Yes	22
Tav	Airport Operations	Annual Report	Yes	8	No	-	No	-
Turkcell	Telecommunications	Integrated Annual Report	Yes	36	Yes	1	Yes	2
Tüpraş	Energy and Refinery	Integrated Annual Report	Yes	219	Yes	9	Yes	3
Türk Hava Yolları	Aviation and Transportation	Sustainability Report	Yes	57	Yes	11	Yes	43
Garanti Bankası	Banking and Finance	Integrated Annual Report	Yes	156	Yes	9	Yes	7
Türkiye İş Bankası	Banking and Finance	Integrated Annual Report	Yes	88	Yes	5	Yes	12
TSKB	Development and Investment Banking	Integrated Annual Report	Yes	112	Yes	5	Yes	11
Türkiye Şişe ve Cam Fabrikaları	Glass and Chemical Industry	Sustainability Report	Yes	37	Yes	2	Yes	2
Ülker	Food and Beverage	Annual Report	Yes	15	Yes	5	Yes	5

Table 2 includes company name, sector type, report type, environmental topic headings, knowledge status (Climate Change Information, Zero Waste Information, and Plastic Consumption Information), and word repetition information. The table includes the 2024 reports of all companies except Turkish Airlines (THY) (2023). All companies' reports include "climate change" information. This demonstrates that climate change has become a strategic imperative and reporting standard for companies operating in various sectors. Finance (Akbank, Garanti, İş Bank, TSKB) and high-emission sectors (Tüpraş, Çimsa, Enka), in particular, feature climate change

more frequently with higher word repetitions. For example, Akbank (390) and Tüpraş (219) are the companies with the highest repetitions.

An examination of "zero waste" information in reports reveals that it is not included in every company's report (e.g., Arçelik, Mavi Giyim, TAV). This suggests that zero waste practices have not yet been fully standardized at the corporate level in Turkey. It is noteworthy that the number of zero waste occurrences is particularly high in some sectors. For example, Aselsan (29) has the highest occurrence, demonstrating that the defense industry demonstrates a strong corporate approach to this issue. The absence of any information in some companies demonstrates that both sector dynamics and differences in corporate priorities are decisive in environmental reporting.

An examination of the information on "plastic consumption" and related word occurrences reveals significant differences across sectors. This is supported by the significantly higher number of word occurrences in sectors where plastic use is directly related to the business model. Indeed, the highest number of plastic-related occurrences (58) of BİM, operating in the retail sector, is a natural consequence of its supply chain structure based on the density of product packaging. Similarly, the high prevalence of plastics in Anadolu Efes' (40) reports stems from the structural link between the packaging cycle in the beverage sector and plastic consumption. Turkish Airlines' (43) high number of occurrences indicates the high density of single-use products used in the aviation sector. On the other hand, the high reporting level of plastic consumption by Migros (27), operating in the food and supermarket chain sector, reflects the sector's operational structure based on packaging use. These findings demonstrate that plastic use is closely related to sectoral activity dynamics, and that these structural differences play a decisive role in the sectors' environmental reporting.

Table 3. Activities Regarding Plastic Policies of Companies in the BIST Sustainability 25 Index

Company Name	Activities for Plastic Policies
Akbank	We separate waste on-site to divert it for recycling. We have eliminated the use of single-use plastics in food service. As part of our waste management responsibilities, we collect waste such as paper, plastic, glass, and metal in special bins and direct them to recycling. Led by Axess, our project encompassing all Akbank credit and debit cards allows us to produce our instant digitally usable commercial and personal cards from recycled plastic, while other materials, such as envelopes and holders, are made from FSC-certified paper. As of the end of 2021, we aim to reduce natural resource consumption and environmental impact by recycling and reusing available materials. Today, our customers are using nearly 34 million green cards, reducing plastic use.
Alarko Holding	We reduce plastic use, ensure energy efficiency, manage waste, and closely monitor our carbon footprint. By serving water in glass bottles and carafes instead of plastic bottles in social areas, we prevent the use of 600,000 plastic bottles annually. This practice is seen as a significant step towards reducing plastics, which have a significant negative impact on the environment. Meanwhile, the Tourism Group implements a digital check-in system to reduce paper and plastic consumption, and guests are provided with information via a mobile app. To increase energy efficiency, consumption is closely monitored with 45 electrical analyzers, and waste generation is significantly reduced by replacing plastic bottles, straws, and toiletries with environmentally friendly alternatives.
Anadolu Efes	We are committed to maximizing the use of recycled content in our packaging materials. In Turkey, we manufacture each of our beer crates from 75% recycled plastic, collecting and processing unusable crates to repurpose them into new ones. This closed-loop system minimizes plastic waste, increases resource efficiency, and aligns well with our sustainability goals. In Turkey, we have launched trials to replace traditional plastic packaging with recycled plastic stretch wrap, strengthening our commitment to waste management. In Georgia, where PET is more prevalent than in other markets, we pioneered the use of RPET packaging, laying the groundwork for its wider adoption in our European export markets. Furthermore, to comply with the European Union's tethered cap regulation, which aims to reduce plastic waste, we have updated our PET packaging in European markets with this new system. This change not only complies with legal requirements but also increases the recyclability of the packaging, providing consumers with a more practical and environmentally friendly experience. As part of our collaboration with Biolive, a local startup, we are working on bioplastic raw materials such as Bio-PE, Bio-PP, and Bio-ABS, as well as innovative materials like plant-based leather. We've tested trays, buckets, and barrels using the biomaterial developed by Biolive. We've achieved the expected results in the bucket and tray trials. We're advancing our procurement processes to scale this project. We're reducing the carbon footprint of POSM (Point of Sale Materials) products we produce with this material by sixfold and minimizing the use of environmentally harmful plastics. We also aim to significantly reduce our current plastic use by increasing the proportion of biomaterials in our POSM materials to 40%. In collaboration with Refresh, a local startup, we aim to reduce plastic cup usage by developing a digital reuse system. This year, we conducted a pilot study at the Feel the Fest festival. A total of 1,000 reusable cups were produced for the festival, 346 of which were used during the festival, and 129 of these were recycled. We plan to use the remaining 733 cups in future festivals to ensure continued environmental benefits.

	At Efes Georgia, we've partnered with Tene, a leading environmental initiative in Georgia, to support environmental sustainability and raise internal awareness by changing employee behavior. As part of this partnership, we've installed separate recycling bins and plastic bottle cap collectors at all Efes Georgia offices. We've also developed dedicated recycling bins for our Staropramen and Lowenbrau brands and offered these bins to our consumers at festivals where draft beer experiences are offered. We're also collaborating with Plastic Harahura as part of the Efes Art Space and Efes KZ Intrapreneurship Hub, as well as with Pieper as part of the UN Go Green Campaign. With this collaboration, we aim to support the circular economy and reduce our carbon footprint. As part of this project, we recycled 21 kg of plastic and 7.3 kg of plastic bags to create keychains and shopping bags. We also saved 30 plastic bottles and 4,500 liters of water in the production of sweatshirts using organic cotton. In 2023, we partnered with Tene, a green initiative, to install plastic recycling bins in our offices. We also collaborated with the local municipality in Rustavi to place recycling bins at 20 different locations throughout the city to separate plastic waste. We also supported the collection of plastic cups at festivals where they were used. We adhered to our commitments within the project and recycled 100 kg of plastic in 2024.
	While closely monitoring our recycling performance throughout our operational processes, we are continuously improving our practices to reduce single-use plastic waste. We primarily reuse our plastic crates, which we offer to the market as returnable in Turkey. We utilize unusable ones as raw materials in the production of new crates, contributing to the circular economy. Our recycled content in our plastic crates is 75%. By 2030, we aim to continue making 100% of our packaging recyclable and use at least 50% recycled plastic. By lightening our cap design by 5%, we save 250 kg of plastic for every 5 million bottles produced and reduce our carbon emissions. As a signatory to the Business Plastics Initiative (İPG), and as part of our commitments to İPG, we are continuing our efforts to reduce the packaging weight of our primary packaging in our Turkey operations. We currently use 100% recyclable materials in all of our primary packaging and are implementing a reuse model for our plastic crates. The İPG Final Report was published in 2024, and the project was finalized. At CCI, we fulfilled our commitment to reduce plastic by 850 tons throughout the project, totaling 1,376 tons. rPET was used in the labels of the 500 ml plastic Damla water bottles. Our plastic crates are 25% recycled. A total of 100 tons of recycled LDPE (low-density polyethylene) was used in HDPE (high-density polyethylene), 450 ml, and 1 l shrink packaging materials (70 tons in Turkey and 30 tons in Kazakhstan). We are part of the Business Plastics Initiative, launched in partnership with TÜSİAD (Turkish Industrialists' and Businessmen's Association). The adopted principles are publicly disclosed in our report on the international organizations, committees, and principles of which we are signatories or members. Furthermore, as part of the United Nations' New Plastics Economy Global Commitment, many companies aim to increase the proportion of post-consumer recycled content by making their plastic packaging 100% reusable, recyclable, or compostable. We choose certified and recyclable packaging for the majority of our packaging and develop operational waste reduction projects and projects aimed at reducing plastic use.

Arçelik	Packaging risks associated with upcoming regulations and potential taxes are a significant concern for manufacturers. In regions like the United Kingdom and Spain, companies are facing rising costs as governments implement plastic packaging taxes targeting low recycled plastic content. Furthermore, fluctuations in the price, quality, and durability of raw materials create complexity in supply chains. These factors are forcing innovation in packaging design and material sourcing. In Spain, the tax, which took effect in January 2023, levies €450 per ton on single-use plastic packaging, with some exemptions. Italy has postponed its planned implementation of the tax from July 2024 to July 2026. The Sustainable Packaging Working Group is working on transitioning to sustainable packaging alternatives, including the use of recycled content in plastic accessories and product bags, tape, and shrink film. Materials such as plastic, iron, copper, and aluminum obtained from recycled WEEE are sent to licensed recycling facilities for reintegration into the economy in line with resource efficiency policies. Greenhouse gas emissions from used materials, such as plastics, metals, paints, chemicals, and other materials used in products, are calculated using the weight of each material, product sales numbers, and emission factors for the materials used. Material data (material types and weights) is collected from the product BoM (Bill of Materials) lists. Greenhouse gas emissions from used materials, such as plastics, metals, paints, chemicals, and other materials used in products, are calculated using the weight of each material, product sales numbers, and emission factors for the materials used.
Aselsan	In 2024, a total of 2,373,890 kg of waste was separated at the Macunköy, Akyurt I, Akyurt II, Temelli, and Gölbaşı campuses. Successful implementations in line with our goals have resulted in a 9% reduction in plastic waste per employee, an 8% reduction in paper waste, and a 19% reduction in other non-recyclable waste in 2024 compared to the previous year. In 2024, ASELSAN achieved a 9% reduction in plastic waste and an 8% reduction in paper waste per employee. In product packaging, we began using recyclable paper and cardboard boxes and boxes instead of plastic-based materials, which take longer to decompose. ASELSAN began using cardboard separators instead of plastic Styrofoam in the packaging of defibrillator devices. ASELSAN has begun shipping and receiving contract orders using plastic baskets. To this end, we plan to transition to plastic boxes suitable for multiple uses and produced by domestic suppliers.

Bim	It develops projects to prevent waste generation at its source and to recycle the resulting waste. It has reduced the use of plastic and paper by focusing on packaging optimization in its own-brand products. FİLE has launched pilot applications to reduce plastic bag consumption in its stores. Compared to the base year of 2022, BİM aims to reduce the use of 480 tons of recycled raw materials and 750 tons of plastic raw materials annually by 2025. In 2024, the reduction in paper raw materials was measured as 801 tons and plastic raw materials as 491 tons. By reducing the amount of plastic per product in single-use plastic shopping bags in 2024, a total of 462 tons, and savings of 32 million TL, were achieved. Reducing the pressure on the ecosystem through practices such as packaging optimization, the use of recyclable materials, and the reduction of plastic consumption. 491 tons of plastic raw materials reduction, 311 tons of recycled raw materials use. By 2025, the company aims to reduce paper waste by 820 tons/year, plastic waste by 750 tons/year, and use 480 tons/year of recycled plastic in packaging. In 2024, it aims to reduce plastic consumption and costs by reducing the amount of plastic per item in single-use plastic shopping bags. It aims to reduce single-use plastic waste by eliminating the use of foam sheets and stretch wrap in FİLE stores. It aims to eliminate the sale of single-use plastic bags in FİLE stores. It aims to reduce plastic use by refilling PET bottles with the sale of purified water in the Lüleburgaz region. It aims to prevent the use of 20.8 tons of plastic through the sale of purified water. It is working to better manage the environmental impact of its own-brand packaging and streamline its cost structure. It is developing various projects to reduce the environmental impact of single-use plastic bags and packaging. In our communication efforts across both traditional and social media, we focus on waste reduction, renewable energy practices, environmental optimization of packaging materials, and reducing the use of single-use plastic bags, focusing on raising public awareness about sustainability. The economic savings achieved by eliminating plastic and paper consumption is 34 million TL. Furthermore, by selling purified water in the Lüleburgaz region and refilling PET bottles, we prevented the use of 20.8 tons of plastic. This both reduced plastic waste and encouraged reuse. By switching from plastic packaging and materials to paper and cardboard in our FİLE stores, we saved 60 tons of plastic waste annually. By reviewing our business processes, we eliminated the sale of single-use plastic bags, preventing the annual disposal of 1,000 tons of plastic waste. By changing the paper type and reducing the size of the paper bags used in the bakery section, we saved 30 tons of paper annually. In order to increase our customers' contribution to waste management, we introduced refill packaging for our liquid hand soap product to our shelves and saved 8 tons of plastic waste per year.

	In 2024, we saved approximately 34 million Turkish Lira by preventing the consumption of 491 tons of plastic and 801 tons of paper. By reducing the amount of plastic per item in single-use plastic shopping bags in 2024, we saved a total of 462 tons and 32 million Turkish Lira. Furthermore, as part of the Plastic-Free July movement, we gifted eco-friendly bags made from corn starch and biodegradable to our customers in over 11,000 stores across Turkey on Monday, July 29th. Plastic raw material reduction (annual): 750 (2025), 491 (2024). Our FİLE supermarkets broke new ground in the industry by removing all single-use plastic products from their shelves and replacing them with recyclable paper products. This step taken by FİLE to leave a cleaner and more livable world for future generations is a first among supermarket chains. As part of this initiative, we now offer paper substitutes for plastic forks, spoons, plates, storage containers, and straws in our existing categories. Petroleum-derived plastic waste in nature contributes to global warming through carbon dioxide emissions. Because soil lacks the ability to absorb plastic, soil-dwelling organisms attempt to digest plastic waste over time, exposing themselves to its harmful effects. The biodegradation period for products like plastic plates and straws ranges from 200 to 500 years. Therefore, we offer recyclable and environmentally friendly products instead of plastic in FİLE stores. This choice also helps our customers contribute to the cause of a sustainable world. We prioritize packaging and waste management as sustainability priorities. To increase resource efficiency and promote sustainable raw material alternatives, we have prevented the consumption of 491 tons of plastic and 801 tons of paper. The deposit management system, which represents a significant step in environmental sustainability, aims to contribute to critical environmental goals such as reducing plastic waste and preserving natural resources by recycling waste. In 2024, the reduction in paper raw materials was measured at 801 tons and plastic raw materials at 491 tons. By reducing the amount of plastic per item in single-use plastic shopping bags in 2024, a total of 462 tons, or 32 million TL, was achieved in savings.
Çimsa	Mannok's addition to the Çimsa family allows us to diversify our product portfolio and expand into new business areas, including cement and cement-based products, as well as insulation materials and recycled plastic packaging. With its US investment announced in 2023, Mannok took a significant step toward expanding its global production network. In 2024, Mannok acquired 94.7% of Mannok, a leading building materials manufacturer in the UK and Ireland, diversifying its product range by entering the production of insulation materials and recycled plastic packaging, in addition to cement and cement-based products. This opportunity allows the company to both increase the sustainable value created and transform within a broader value chain.
Doğuş Otomotiv	324 tons of non-hazardous waste recycled: paper, cardboard, plastic, etc. A 30% reduction in cardboard consumption with reusable folding plastic shipping boxes. The "reusable plastic shipping box" project was launched in warehouse operations, and thanks to durable plastic boxes replacing traditional cardboard boxes, carbon emissions from packaging were reduced by 30%. Waste generated in warehouse operations (cardboard, wood, plastic, etc.) is separated at the source and sent to authorized recycling companies. As part of a project launched in collaboration with Wastespresso to reduce plastic use and upcycle coffee pulp, 231 kg of coffee pulp was recycled, preventing 211 kg of CO□e emissions.

Enka	As part of the celebrations for World Environment Day on June 5th, the Kırklareli Provincial Directorate of Environment, Urbanization, and Climate Change held events to meet with students from various primary schools in the city. Following a brief training session on sustainability, recycling, and the zero-waste approach, the event also included various activities to reduce plastic use and emphasize waste separation. In addition to ENKA's own operations, reducing waste generated in its supply chain is also part of ENKA's sustainability strategy and goals. To this end, ENKA clearly shares its waste management procedures in communication with its suppliers and includes criteria such as waste management effectiveness, material and resource efficiency, the characteristics of packaging materials, and reduced plastic use. ENKA has undertaken global projects such as the 2024 North Benghazi 1,320 MW Simple Cycle Power Plant in Libya, the San Juan Cruise Port Development Project in Puerto Rico, the Nassau West and Super Yacht Harbor Pools in the Bahamas, and the Synpet Plastic Waste Naphtha Fundamental Engineering and Design Study in Belgium. In Turkey, it has signed contracts for the Propylene Splitter Unit project at the TÜPRAŞ İzmit and İzmir Refineries.
Ford	In line with the EU's goal of reducing environmental pollution and achieving a sustainable future, the Euro 7 Emission Standards, which will come into effect in 2025, aim to strictly control carbon emissions, nitrogen oxide (NOx), and particulate matter (PM) emissions from cars, light trucks, and heavy vehicles. This regulation, which covers internal combustion, hybrid, and electric vehicles, directs manufacturers to environmentally friendly technologies while also considering particulate emissions from brake systems and microplastic pollution from tires. To achieve cost advantages, we are focusing on material and color development for more than 10 visible and invisible parts weighing a total of 15 kg. These actions support our company's commitments in this area with annual targets and plans, reducing the use of high-emission plastic products and shifting to sustainable plastics. We are also charting a significant roadmap to reduce negative environmental impacts and contribute to a more sustainable automotive industry. In line with our sustainability goals, we are focusing on the use of bio-based plastics to make our production processes more environmentally friendly. In line with our goal of "completely eliminating single-use plastics from personal use by 2030," we have eliminated the use of single-use plastics for general use at our campuses, except for extraordinary circumstances such as OHS requirements and special events. In 2024, we reduced carbon emissions by 17.2 kg per vehicle thanks to the use of over 50% recycled plastic in interior and exterior body plastic parts in our truck programs. By using 90% recycled material in 12 interior body parts in our SVO vehicles in the medium commercial vehicle (MCV) group, we prevented 34.4 kg of carbon emissions per vehicle and reduced production costs. For the first time, we achieved 50% recycled plastic use and reduced our carbon footprint by 22.2%, preventing 571.8 tons of emissions, equivalent to the emission reduction of 22,874 trees. Waste Solvent Recycling Project: With the Plastic Paint Shop Solvent Recycling project, we are recovering 65% of solvents from waste generated by the paint shop. This project, which we commissioned at the Yeniköy Plant paint shop, is as follows: We are also planning to put it into operation in the Plastic Paint Shop and the Gölcük Factory Paint Shop.

Sabancı Holding	In 2024, Teknosa strengthened its circular economy approach by establishing e-waste and waste battery collection stations in all its stores. This practice supports the responsible disposal and recycling of waste. Switching to biodegradable shopping bags resulted in a significant reduction in plastic use. Valuable waste such as paper, metal, glass, plastic, vegetable oil, and batteries are separated at the store level and sent to licensed recycling companies. Enerjisa Enerji's "Karataş Sustainable Fishing Support Project" addresses marine pollution and ecosystem threats in one of Turkey's largest fishing regions, combating ghost nets, plastic waste, and climate risks. Kordsa has contributed to European Commission-backed initiatives such as WhiteCycle and EcoPlast, which focus on recycling plastic waste and improving circularity in automotive materials.
Koç Holding	In 2024, Arçelik used a total of 27,835 tons of recycled plastic. With its increased bio-based content, this bio-refrigerator has a 37% lower carbon footprint than its petroleum-based version, while maintaining the same performance, quality, and functionality as plastic. Aygaz has discontinued the use of plastic bubble wrap as filler in e-commerce shipments of camping and gas equipment, instead using scrap cardboard through upcycling. Koç Holding is a signatory to the Business Plastics Initiative, established in collaboration with Global Compact Turkey, the Business Council for Sustainable Development, and TÜSİAD (Turkish Industrialists' and Businessmen's Association of Turkey) to encourage the private sector to take concrete steps to prevent plastic pollution, which threatens human and environmental health. Koç Holding reached its commitment to end the consumption of single-use plastics for employee use by the end of 2023. By the end of 2023, the consumption of single-use plastics for employee use was eliminated.
Mavi	Recycled polyester is produced by reusing plastic waste, reducing the consumption of new fossil fuels and lowering carbon emissions. The Mavi office aims to reduce single-use plastic and paper consumption and ensure proper collection of waste for recycling. Furthermore, personal trash receptacles have been eliminated, and waste is encouraged to be deposited in recycling units located on each floor. Reusable cloth bags have been used instead of plastic bags in samples sent from manufacturers to Mavi and vice versa. This has led to a shift towards environmentally friendly alternatives, reducing plastic consumption and preventing the use of approximately 200 plastic bags daily. As part of its sustainability efforts, Mavi also encourages the use of cloth bags in its stores as an alternative to plastic. Recycled polyester is produced by reusing plastic waste, reducing the consumption of new fossil fuels and carbon emissions. Recycled polyester, obtained by repurposing petroleum-based waste, offers a more sustainable option than traditional polyester because it is produced by regenerating previously produced materials, while also reducing plastic waste ending up in landfills. New practices have been launched to reduce plastic and paper usage for a bluer office.

Migros	In line with the Bag-Free Shopping Movement, campaigns are being organized to encourage customers to avoid plastic bags. In 2024, 2,018,247 eco-friendly reusable bags were sold. In addition to plastic and eco-friendly bags, Macrocenter stores also offer 100% recyclable kraft bags. Additionally, two Macrocenter stores have launched a plastic-free store program, offering only kraft bags and eco-friendly bag alternatives. Throughout 2024, kraft bags were sold in Macrocenter stores, preventing the use of 80,864 plastic bags. Migros also aims to reduce plastic consumption caused by card use by encouraging customers to use Mobile Money. As a result, 71% of card purchases in 2024 were made using Mobile Money. To reduce plastic use, Tazedirekt products were packaged using shredded old boxes instead of protective packaging, creating a recyclable material cycle and reducing plastic waste. The refilling unit, installed in the Ataşehir MMM store in 2022 in collaboration with OMO, was expanded to two more stores in Ankara and Izmir in 2024. More than 8,000 refills were made in 2024, resulting in plastic savings. The Refilling Unit Project, installed in the Caddebostan MMM store in collaboration with UNI Baby, allowed customers to refill their own bottles, contributing to the reduction of plastic packaging waste. Migros analyzed the packaging of all its private-label products as part of the "Packaging Index Project" and determined that 85% of them were recyclable. As part of its plastic reduction efforts in 2024, 25% of the packaging of a total of six private-label products in the detergent category was made from r-Pet (recycled PET). Migros collects packaging waste (paper, plastic, metal), organic waste, batteries, and waste vegetable oil separately in its stores and recycles them. In addition to plastic bags, shopping bags are offered as delivery options. The company works with its suppliers to measure and reduce the carbon footprint of the products it sells through its Sustainable Business Partners Network, to prevent food waste within the scope of WRI 10x20x30, to reduce the use of plastic packaging, and to support sustainable agriculture and small producers.
Pegasus	-

Petkim	Thanks to source separation and the advanced separation systems we have developed for plastic waste, we are significantly increasing the efficiency of our recycling processes. Our efforts to separate waste at the source and improvements in the advanced waste separation systems we have developed for plastic waste have increased the efficiency of our recycling processes. We have extended the validity of the "ISCC PLUS (International Sustainability Carbon Certification) Certificate," a sustainability certification system covering all sustainable raw materials as well as circular raw materials produced from plastic waste, by one year to 2025. Thus, as Petkim, we help our customers achieve their sustainability goals and support the low-carbon footprint production of our Ethylene, Propylene, LDPE, PP, ACN, Benzene, C5, and Xylene products in circular and biocircular versions by processing used cooking oils or naphtha derivatives derived from plastic waste using the mass balance methodology. We have achieved this through the World Bank Group and the Ministry of Environment, Urbanization, and Climate Change. We participated in the workshop organized as part of the "Plastics Market Research and Impact Assessment of Plastic Policies for Turkey" project, conducted in collaboration with the Ministry of Health, and contributed to ongoing work. This included data collection, discussion, and review of preliminary findings, including an analysis of key stakeholders operating upstream and downstream of the value chain, an assessment of market and policy conditions for reducing plastic consumption and pollution, and a simulation of the impact of reform options aimed at increasing circularity on the plastics value chain.
Tav	-
Turkcell	We're expanding our delivery services with electric vehicles and minimizing our environmental impact by reducing plastic use. We're focusing on minimizing waste production by prioritizing the efficient use of materials like paper, toner, and plastic. We're also separating the resulting waste and recycling it through licensed organizations.
Tüpraş	Koç Holding, a member of the Business Plastics Initiative (İPG), has committed to achieving zero single-use plastics by 2023. The single-use plastics reduction initiative, launched at Tüpraş in 2021, continued in 2024. As part of this initiative, single-use plastic waste from employees was eliminated in 2024.

THY	Reducing carbon emissions, preventing single-use plastic consumption, complying with the Paris Agreement and related regulations, and using sustainable aviation fuels are among the main implementation areas where these expectations are met. Plastic Cap Collection Project: Plastic caps are collected at all Partnership campuses and delivered to TOFD. We are working to reduce plastic use in packaging materials and packaging-related waste; we prioritize reusable and recyclable products in our material selection. We are working to recycle our waste and reintegrate it into the economy, while pursuing an environmentally friendly policy by recyclable plastic packaging. With our developments, we aim to increase the percentage of recycled nylon. The packaging sector is focusing on innovation to reduce single-use plastic use and develop environmentally friendly packaging alternatives. We are expanding our efforts to reduce single-use plastic use by using more sustainable products. In this context, we fulfill our environmental responsibility through our membership in aviation industry associations and participation in national initiatives. By prioritizing human and environmental health in our material selection, we are minimizing plastic use and evaluating plastic alternatives. We have taken significant steps to reduce single-use plastics by 2023. We reduce our environmental impact by using compostable materials instead of plastic, particularly for our in-flight services, and by offering FSC-certified wooden toys. We also partner with authorized companies to recycle our plastic packaging. By replacing the stir sticks used in our Business Class welcome drinks with PLA-based materials made from sugarcane, we're reducing plastic consumption by approximately 20 tons annually. We've also reduced plastic consumption by 18 tons annually by replacing the plastic stir sticks in our flights' sugar shaker sets with wooden ones. To recycle the resulting waste, plastic-based packaging is provided to authorized companies and recycled into granular raw materials or recycled as wastewater pipes. As Turkish Airlines, we've introduced many new products with reduced environmental impact over the past year. In addition to replacing plastic stirrers with PLA (Polylactic Acid), a biodegradable thermoplastic made from corn starch and sugar cane, we've also introduced wooden stirrers. Wet wipe packaging is made from 70% R-PET (Recycled Plastic). Instead of plastic cups, we've used FSC-certified paper cups. For a long time, we've been offering all our in-flight travel and toy sets, which we offer to our passengers, without plastic packaging. This significantly reduces plastic consumption and waste. In this context, by 2023, all travel and toy set packaging offered to passengers was replaced with plastic toy packaging, preventing the consumption of 285.13 tons of plastic. Since 2017, we've been replacing the plastic bags used for packaging headphones and blankets with bioplastic bags that fully comply with the TS EN 13432 "Packaging - Specifications for packaging that can be recycled through biodegradation and composting" standard and are biodegradable. We've also replaced the plastic earplug box included in the set with kraft paper packaging. The amount of plastic packaging avoided is 626.7 tons. We're increasing the number of sustainable products and services offered onboard and eliminating plastic cups.
Türkiye Garanti Bankası	We will continue to invest in environmentally friendly and sustainable financial technology solutions that will eliminate the need for plastic cards and physical POS machines. As part of our sustainability strategy, we have installed water purifiers in all our branches and service buildings. Along with our desire to reduce plastic waste in the world, our primary goal with this initiative is to ensure access to the healthiest drinking water.

Türkiye İş Bankası	By the end of 2024, 607,495 digital card applications had been approved. This prevented 91.12 tons of carbon emissions. This amount corresponds to avoiding approximately 607,000 km of vehicle travel and saving approximately 3 million plastic bags. The use of single-use plastics has been minimized, with reusable glass bottles being preferred whenever possible. As part of its zero-waste system, Anadolu Sigorta has ensured that waste such as paper, plastic, and glass are disposed of in designated recycling bins at its headquarters.
TSKB	As part of TSKB's sustainable office practices, which are part of its waste management system, we utilize waste bins for batteries, paper, metal, glass, plastic, and masks effectively to achieve zero waste. In addition to these bins, we also separate natural waste with biodegradable bins located in common areas. This minimizes carbon and methane emissions from coffee waste and supports the development of alternatives to plastic products that don't take long to decompose. The amount of recycled plastic and paper waste increased in 2024.
Türkiye Şişe ve Cam Fabrikaları	-
Ülker	The impacts of potential risks arising from new developments such as the European Green Deal, the EU Deforestation Directive (EUDR), Biodiversity, and Plastic Pollution were also assessed. Developing a sustainable packaging strategy and policies: The strategy study has been completed, and a 2025 plastic roadmap has been prepared. Efforts to reduce plastic, the most commonly used packaging material after paper, are ongoing. By 2024, 140 tons of plastic and 220 tons of paper were reduced in packaging.

Table 3 includes the plastic policy activities of the companies in the BIST Sustainability 25 Index. When the policies adopted by the companies examined to combat plastic are evaluated based on common themes and cross-sectoral differences, it is observed that the companies' corporate approaches to reducing their plastic footprint are concentrated around three main policy axes: plastic reduction policies, circularity and recycling-focused policies, and governance, commitment, and transparency policies. These axes highlight both common themes and significant cross-sectoral differences.

Reduction-focused policies, which constitute the first axis, are prioritized by the majority of the companies in the index. Eliminating single-use plastics, opting for alternative packaging materials, and packaging lightweighting practices are prominent in this context. Consumer-facing companies operating in the retail and FMCG sectors, such as Migros, BİM, THY, and Mavi, stand out as the most aggressive plastic reduction policies. These companies have either completely eliminated or replaced plastic straws, cutlery, stirrers, and single-use bags with recyclable materials. This approach goes beyond reducing plastic footprints and contributes to

the normalization of environmentally friendly purchasing behavior among consumers. Manufacturing-focused companies like Ülker, Efes, Arçelik, and Petkim have adopted strategies such as packaging reduction and increased paper and bioplastic use as part of their product design. These practices reflect a more holistic approach to managing environmental impacts by considering the relationship between plastic and carbon footprints.

Circularity-focused policies, which emerged as the second theme in the research, are particularly noteworthy, with companies like Arçelik, Koç Holding, and Anadolu Efes developing concrete practices to increase the proportion of recycled plastic in their products and operations. These companies are moving beyond the post-consumer stage and focusing on strengthening circularity in the early stages of the product lifecycle. Meanwhile, companies in the manufacturing sector like Ford, Petkim, and Tüpraş are emphasizing circular raw material sourcing, the use of certified recycled content, and closed-loop systems in industrial processes, making them important actors in industrial circularity. Furthermore, the refill and reuse practices implemented by Migros, Anadolu Efes, and BİM constitute the first examples in Turkey of a prevention approach to prevent plastic waste from being generated. This finding demonstrates that companies are beginning to bring circular economy principles not only at the operational level but also to the consumer level.

Governance, commitment, and transparency, which constitute the third pillar of plastic policies, demonstrate that companies are integrating the fight against plastic into their corporate governance approach. Companies such as Migros, Sabancı, Koç Holding, TSKB, and Anadolu Efes are actively participating in various collective sustainability initiatives, particularly the Business World Plastics Initiative (IPG). IPG membership imposes measurable annual plastic reduction commitments on companies that are open to external audit. This structure significantly contributes to the development of transparency and accountability standards within the sector. The fact that companies such as TSKB, Arçelik, Migros, and Anadolu Efes report their plastics performance in tonnes indicates an advanced level of governance in this area. However, findings indicate that measurement metrics are not yet standardized, and companies report in different units such as tonnes, units, percentage, carbon equivalent, or packaging density. This complicates comparability between companies and hinders the effective monitoring of plastics policies at the national level.

The findings also reveal that plastics management strategies vary significantly across sectors. In the retail and FMCG sectors, the elimination

of single-use plastics, refill practices, and policies directly targeting consumer behavior are among the dominant themes. The high number of consumer touchpoints in these sectors reinforces the behavioral change nature of these policies. In manufacturing and industrial companies, plastics policies appear to be shaped more around supply chain management, regulatory compliance, packaging optimization, and the use of recycled content. EU regulations, plastics taxes, and extended producer responsibility (EPR) practices are significant driving forces in these sectors. In the financial sector, plastics policies contribute to both ESG performance and consumer perception through practices such as digitalization, the use of recycled cards, and office plastic reduction; however, this contribution has a limited impact on consumer behavior. In heavy industry, energy, and petrochemical companies, plastics management is addressed more in the context of regulatory compliance, institutional investor expectations, and carbon management. In these sectors, plastics policies are considered as a strategic risk management tool as well as environmental responsibility. In the aviation sector, Turkish Airlines and Pegasus' plastics policies appear to directly impact consumer experience and support compliance with sectoral regulations. PLA-based mixers, paper cups, and recycled PET packaging reduce environmental impact while also enhancing the perception of service quality. Overall, this sectoral divergence demonstrates that plastics policies serve multifaceted functions, including shaping consumer behavior, increasing operational efficiency, strengthening corporate sustainability, and ensuring regulatory compliance.

Finally, the findings reveal that the lack of standardization of indicators used in measuring plastic footprints constitutes a significant limitation. Using different metrics both reduces comparability across companies and hinders scientific assessment of policy effectiveness. Furthermore, life cycle analyses to assess the environmental trade-offs of practices such as material substitution (switching from plastic to paper or bioplastics) appear not to have been systematically conducted in many companies. Overall, the findings indicate that companies included in the index have made significant progress in combating plastics, but the maturity level of corporate plastics policies varies across sectors. It was found that plastics management in Turkey is evolving into a more strategic, measurable, and holistic structure, yet the need for establishing methodological standards, expanding life cycle-based analyses, and systematically assessing the impact of consumer behavior persists.

4. Conclusion and Recommendations

This study comprehensively examined the plastics policies of large-scale companies listed in the BIST Sustainability 25 Index and demonstrated the impact of plastic footprint management on corporate strategies, consumer behavior, and brand management. The findings indicate that plastic reduction policies are transforming into multidimensional value-creating tools not only in terms of environmental sustainability but also in terms of marketing strategies, brand positioning, and consumer experience. Furthermore, the findings demonstrate that plastic reduction and circular economy practices are influenced by multidimensional factors such as companies' internal capacity, industry structure, regulatory requirements, and consumer expectations. This conclusion is supported by theoretical approaches that suggest sustainability strategies are shaped by the institutional context and external environmental factors (Delmas & Burbano, 2011).

An examination of differences across sectors reveals that the value-creation logic of plastic policies is shaped by three fundamental dynamics: consumer contact, regulatory pressure, and ESG governance requirements. These three elements constitute the main axes that determine the relationship between plastic policies and the marketing function. In sectors with high consumer contact, such as retail, FMCG, and aviation, plastic reduction interventions have the capacity to directly influence consumer behavior. Default options, in-store adjustments, the removal of single-use plastics from shelves, and the establishment of refill stations align with the "choice architecture" mechanisms in behavioral economics literature and can make environmentally friendly choices a natural behavior for consumers. Therefore, plastic policies in these sectors are a critical marketing tool not only for environmental responsibility but also for building green brand identity, improving customer experience, and strengthening brand loyalty. The practices of brands such as Migros, FİLE, THY, and Mavi, in particular, demonstrate that plastic reduction strategies have become a visible component of the green marketing mix.

In contrast, in heavily regulated sectors such as heavy industry, automotive, energy, and petrochemicals, the primary function of plastics policies is not behavioral change but ESG compliance, investor confidence, reputation management, and corporate risk reduction. In these sectors, plastics reduction is driven by external pressures such as the EU Green Deal, ISCC Plus, carbon regulations, and extended producer responsibility, and generates marketing value primarily at the corporate level. For these companies, plastics policies are more important for brand sustainability performance and market positioning than for product visibility. In the

financial sector, plastics reduction generates twofold value, both in terms of consumer behavior and corporate reputation. Digital banking applications, reducing physical card use, and recycled card projects offer consumers an environmentally friendly value proposition while also providing banks with a strong corporate advantage in ESG rating processes. In this respect, the financial sector has a hybrid structure where plastics policies create value at both a consumer-focused and corporate level.

The study's findings indicate that plastics policies generate three distinct types of value across sectors: experiential value, operational value, and regulation-based strategic value. In sectors that create experiential value, plastic reduction becomes a part of the consumer experience, while in sectors that create operational value, production processes, supply chains, and material management come to the fore. In regulatory-based value-creating sectors, the primary function of plastics policies is to improve compliance, reporting, and corporate sustainability performance. This framework demonstrates that plastics policies are a strategic, multidimensional, and context-sensitive tool from a marketing theory perspective.

The study also reveals that circular economy practices are being adopted more rapidly, particularly in production and supply chain-intensive sectors. This assessment aligns with research emphasizing that the integration of circular economy models into business processes has positive effects on corporate performance (Geissdoerfer et al., 2020). In this respect, it can be argued that companies' shift towards circular strategies has the potential to both reduce environmental impacts and achieve economic efficiency. Another important conclusion of the study is that sustainability reporting is not only a visibility tool for companies but also a mechanism for corporate accountability and transparency. This finding aligns with the literature demonstrating that sustainability reporting increases stakeholder trust and strengthens corporate reputation (Siew, 2015).

When all the findings are evaluated together, it appears that large-scale companies in Turkey are undergoing a transformation in plastics management, but this transformation is progressing at different speeds and maturity levels across sectors. It appears that plastic reduction policies are strengthening, and practices such as refill systems, the use of recycled raw materials, and the elimination of single-use plastics are becoming widespread. However, the diversity of metrics used in plastic footprint reporting makes comparisons difficult and highlights the need for a national standard. Furthermore, the lack of support for environmental trade-offs in practices such as material substitution (switching from plastic to paper

or bioplastics) with life cycle analyses is a significant methodological limitation. In this context, marketing-focused recommendations can be developed for policymakers, companies, and academia. Policymakers should establish a national framework to standardize the indicators companies will use in plastics footprint reporting. Increasing economic and technological incentives is crucial for the widespread adoption of refill systems, reuse models, and deposit mechanisms. For companies, plastics management processes should be integrated not only with operational but also with brand strategy, customer experience, value proposition design, and communication strategies. Measuring consumer-level impacts and incorporating these impacts into marketing strategies will increase the behavioral effectiveness of plastic reduction policies. From an academic perspective, it is important to disseminate empirical studies examining the impact of plastic policies on consumer behavior, brand trust, value perception, green communication, and choice architecture.

Overall, this research demonstrates that plastic reduction policies have emerged as a strategic transformation tool in Turkey, both environmentally and in marketing contexts, contributing not only to companies' operational sustainability but also to their marketing objectives, such as guiding consumer behavior, enhancing brand value, and creating competitive advantage. It is clear that steps taken in the areas of plastic reduction, circular economy, and sustainability reporting have the potential to enhance brands' competitiveness while also contributing to environmental and social well-being. The results obtained within this framework also support predictions in the literature that sustainability policies will develop in a more holistic, data-driven, and stakeholder-focused manner in the future (Murray et al., 2017; White et al., 2019).

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