# EVALUATING THE EFFECTIVENESS OF DIFFERENTIATED BRANDING STRATEGIES FOR SUSTAINABLE PRODUCTS UTILIZING RECYCLED PLASTICS IN HUNGARY

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**Abstract**

The paper provides valuable insights into the most effective branding strategies applicable to sustainable products, highlighting their key influences on brands, corporates, products and consumers. Furthermore, the research identifies the preferences and awareness levels of Hungarian consumers, revealing key factors and elements for making sustainable products more appealing in Hungary. The study is based on an extensive literature review that covers all relevant findings in this field, complemented by non-representative quantitative empirical research conducted through a standardized online survey in the focus country. The findings indicate that, among other factors, sourcing transparency, eco-labels, certifications, and influencer marketing can contribute positively to making this product category more appealing, while improving brand image and perception. The primary research reveals that sustainability is a significant factor influencing Hungarian consumers' product choices. These consumers are familiar with such items; specific features and the way they are branded are having a significant effect on shaping buyers´ purchasing decisions. The results of the study are expected to crucially support corporate efforts in effectively selecting and implementing branding strategies for sustainable products utilizing recycled plastics targeting the Hungarian market.

**Research Paper**

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## Introduction

### Problem Statement

Sustainability is already an important consumer need and represents a significant decision factor when customers choose their products and make purchases (Ottman, 2017). As a result, green marketing and green branding, which focus on the sustainable aspects of offerings, are not only gaining importance but are also essential differentiation strategies (Fuller, 1999). They help differentiate products from similar offerings by competitors, as well as from goods which are not sustainable in any way (Williams & Williams, 2017). Many products are made entirely from plastics, and plastics are also commonly used in components, raw materials or packaging. Therefore, offering items that utilize recycled plastics can make a significant difference and hold quite massive potential. For instance, the CO2 footprint of one kilogram of virgin plastic is approximately 2.1 kg, whereas the CO2 footprint of one kilogram of recycled plastic is around 1.3 kg (Hillman et al., 2015). Studies show that companies incorporating recycled plastic granules into their products significantly enhance their eco-friendly image and align with the values of eco-conscious consumers. It can be stated that using recycled plastics contributes to sustainability and supports the green efforts of companies (Varga, 2024).

### Research gap

While there are already several broader studies carried out in the area of sustainable marketing and green branding strategies, like Renato et al. (2016), Foroudi & Palazzo (2021) and Cybellium (2024), none of them are focusing especially on the mentioned product group and focus country.

Despite this, there are some more specialized papers publicized in recent years, like Fatemi et al. (2023), who highlighted key branding strategies such as third-party labels, brand communication, and building brand equity as important factors influencing consumer responses to sustainable products, their study did not specifically focus on the Hungarian market or items utilizing recycled plastics. Similarly, Breczku (2022) provided valuable insights into the eco-consciousness and green consumer behaviors of Hungarian consumers, particularly in terms of awareness levels and "willingness to buy green"; however, this research was limited to hair care products. Danciu (2015) provided during the research a comprehensive overview of the reasons why companies should start with green marketing, why it is relevant and how they can establish their brands as eco-conscious entities on the market, presenting various suitable branding strategies. In any case, this approach does not include a specific product group and the focus country is Hungary. Lastly, Lőrincz et al. (2021) examined green branding through a case study of a Hungarian city, focusing on its future potential in terms of destination marketing rather than product-level strategies.

While these studies contribute to a broader understanding of green marketing and branding, there remains a gap regarding the effectiveness of specific branding strategies for sustainable products utilizing recycled plastics within the Hungarian market. By filling this gap, marketers and corporations have a better chance to implement tailor-made branding strategies for this specific product group, making them more appealing to the focus market.

### *Research objective*

The research objectives of this paper are to focus on exploring the differentiated branding strategies applicable to sustainable products, examining them in detail and their positive contribution to the corporation and the brand. Furthermore, this study aims to assess the importance of sustainability aspects for Hungarian consumers when selecting products, as well as their awareness of sustainable items that utilize recycled plastics. Additionally, it focuses on identifying the most important factors for Hungarian consumers when choosing merchandise in this regard. Finally, the research seeks to underline the most effective branding strategies to make these sustainable products utilizing recycled plastics more attractive in the focus market.

### *Research question and hypothesis*



**Figure 1.** Research questions and hypothesis of the study

**Literature analysis**

***Brand positioning***

Green brand positioning strategies are categorized as either functional or emotional. The first strategy should be based on the product's environmental advantages compared to traditional products and also involve the production process, product use or disposal. However, a brand strategy that relies primarily on functional features might not be very successful because reducing a product's environmental impact in most cases does not offer direct benefits to the buyer. Therefore, the perceived benefit to the customer might not be strong enough to motivate a purchase (Hartmann et al., 2005).

As an alternative or complementary strategy, green positioning can focus on three different types of emotional benefits (Hartmann et al., 2005):

– Well-being: The feeling of consumers of doing something useful and positive.,

– Self-expression: Consumers who care about the environment feel good about themselves when others see that they are making eco-friendly choices,

– Connection to nature: The feeling of acting sustainable and being in a natural, untouched environment.

On the other hand, further study reveals that focusing on the basic features of the product can be despite of all these effective, using the following strategies (Sarkar, 2012):

– Consumer Value Positioning: Well done differentiation from competitors and from competitors' offerings,

– Calibration of Consumer Knowledge: Actively communicating the brands' green features, like $CO_2$ neutrality, local production, etc.,

– Credibility of Product Claim: Ensure the credibility of green product claims through certification.

A company should establish consumer trust by clear and effective communication of its brand and product advantages (Ottman, 1993).

### Green marketing

Green marketing is a concept defined by the processes involved in production, pricing, promotion, and distribution activities that create the marketing mix for consumers who prefer environmentally friendly products. Green marketing involves all marketing activities aimed at protecting the environment while meeting consumer expectations and needs. It is important that these efforts do not harm the natural environment. Definitions like recyclable, reusable and environment-friendly are commonly correlated with green marketing (Santos, 2022).

The research found that the main goal of green marketing is to educate and encourage people to adopt environmentally friendly practices, as it plays a significant role in influencing the lifestyle and behavior of potential consumers. Public interest and concern for environmental issues have been steadily growing (Grant, 2007).

### Green consumers

Sustainability-focused consumers are motivated to protect their and their families´ health. They often carefully inspect products, their packaging, and ingredients, and pay attention to the reputation of manufacturers for being eco-friendly and socially responsible. They turn packages over, search for la-

bels, and qualify the product. There are typical keywords (Figure 1) that consumers look for in these specific cases. This indicates that, while performance, price, and convenience are still important, green consumers also want to know details about a product's full range of environmental impacts, such as where raw materials came from, how the product was made, how much energy it uses, and whether it and its packaging can be safely disposed of (Ottman, 2017).
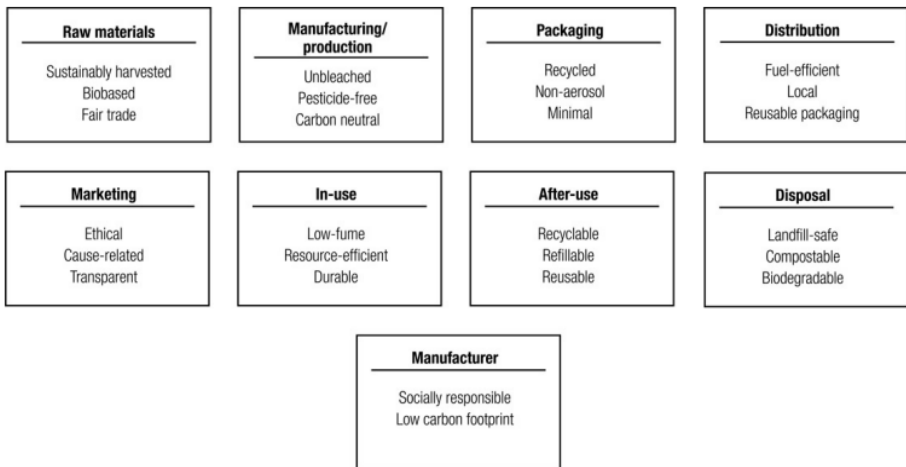


**Figure 2.** Customer Buzzwords (Source: Ottmann, 2017: 66)

Green consumers care deeply about the environment and - as a result, only buy eco-friendly products. Green consumerism is a movement that encourages people to purchase environmentally friendly goods, like items which are made fully or partially out of recycled plastics (Sarkar, 2012).

## *Branding strategies in the context of sustainability*

Brand image plays a vital role in a brand's development because it affects the brand's reputation and credibility, acting as a guideline for consumers when choosing whether to try or use a product or service. Consumer experience with the brand has a huge impact on brand image, it can define whether they remain loyal to the brand or easily switch to another. The brand image represents the overall impression that consumers develop based on the information and knowledge they have about the brand. It is closely connected with the attitudes and beliefs which shape their preference for that specific brand (Wijaya, 2013). Sustainability communication is essential for businesses in today's socially and environmentally conscious world. As companies aim to align with sustainability principles, effectively communicating their efforts is key to enhancing brand reputation, building consumer loyalty, and standing out from competitors. Strong sustainability communication, especially when supported by a good reputation for environmental responsibility, leads to higher consumer trust and loyalty. On the contrary, not transparent or not valid claims can result in skepticism and harm a brand's reputation. Trust, transparency, and authenticity in sustainability communication are crucial to positively influence how consumers perceive a brand and the company that is making the offering (Sharma et al, 2014).

## *Influencer Tests and Recommendations*

The growing importance of social media influencers has transformed branding as such and digitalized it completely. Influencers together with their followers and effective messaging on online platforms are nowadays very important factors for companies who want to spread their green messages.

Brands are establishing partnerships with like-minded influencers to form authentic connections that resonate with their audience (Cepni, 2024). Extending the companies and the brand marketing strategy with influencer branding can significantly improve the reputation of the brand and also of the corporation. Influencers can easily transmit branding messages, the company´s or the brand´s values to the audience. When influencers support a company, their followers are more likely to view the brand favorably. Influencers often establish themselves as experts in their field, allowing companies to use their credibility to strengthen the brand's reputation (Teixeira et al., 2024). Such collaboration not only broadens the brand's reach but also enhances credibility, leading to greater brand awareness (Oktavianti et al. 2024).

### *Participation in Community and Environmental Events*

Corporations and brands tend to make contact with their existing or potential consumers through environmental and social actions and campaigns. This represents goodwill and also makes the connection between the parties stronger. It helps to gain the trust of potential consumers as well, contributing to an overall increase in brand confidence, loyalty and differentiation (Sasirekha et al., 2023). By engaging positively with activism, businesses can create dialogue, learn from outside perspectives, and work on projects that connect with their audience and strengthen their sustainability efforts. Being open about their activist role can build credibility and align the company more closely with values which are socially and environmentally relevant. Supporting activism not only helps achieve sustainability goals but also strengthens the company's image as a socially responsible corporation (Cook & Wiren, 2024).

### Organization of Interactive Campaigns

Interactive marketing is a type of advertising that directly addresses consumer actions, behaviors, and expectations. This approach has been popular in online and digital advertising for more than ten years. The main goal of interactive marketing is to tailor advertising messages to individual consumers. Unlike traditional marketing, it encourages two-way communication between the brand and its audience (Irani & Nozari, 2024).

### Corporate Social Responsibility (CSR)

CSR is typically viewed as the way companies integrate social, environmental, and economic concerns into their values, culture, decision-making, strategy, and operations, all while being transparent and accountable. The goal is to implement better practices to make a positive impact on society (Hohnen & Potts, 2007). CSR activities can also positively affect and even generate different microeconomic developments, improving waste management, and a green and clean environment (Hohnen & Potts, 2007). Marketing plays an essential role in emphasizing and promoting a company's CSR efforts. By showcasing how a brand is tackling global issues, such as lowering carbon emissions, supporting community development, or advocating for social justice, marketing can boost a company's reputation and build consumer trust (Ottman, 2017).

### Sourcing transparency

Transparency in the supply chain can be demonstrated in various ways, although mainly by sharing details about sourcing, production processes, and certifications. Communication of the corporate´s commitment to

fair labor, responsible material sourcing and sustainable manufacturing can also significantly contribute to transparency efforts (Singh, 2023).

The lack of transparency can lead to significant issues, including unethical practices and even environmental damage. Transparency is essential for managing a responsible supply chain, as it requires openly sharing information about the whole process, from sourcing and production to distribution. Being transparent helps build trust with stakeholders, ensures accountability, and addresses concerns like labor practices and ethical sourcing. Moreover, maintaining transparency in the supply chain can improve environmental performance by encouraging the adoption of more sustainable practices. It can also boost a company's competitiveness and economic success by promoting better supply chain management and alignment with sustainability objectives (Ramakrishna, 2024).

### *Collaboration with other Eco-Friendly Brands*

Brands are often creating partnerships with environmental organizations, NGOs (non-governmental organizations), scientific institutions, and even other companies to make a difference. These collaborations align with the values of conscious consumers, building strong brand loyalty and advocacy. Through awareness campaigns and joint research initiatives, these partnerships trigger collective actions toward a sustainable future, loudening the voices of sustainability activists and creating a domino effect of inspiration and support (Cepni, 2024).

### *Supporting Local Manufacturers and using locally produced raw materials*

Local sourcing could indeed reduce environmental harm (Christopher & Peck, 2015). Consumers are very much concerned about the origins of their products, how they are made, and their environmental and social impact. All stakeholders are placing greater focus on the "green" aspects of corporate responsibility when assessing brand value (Ferreira & Miguel, 2022). Furthermore, nowadays tracking the product's carbon footprint is gaining popularity, and buying or producing locally is seen as a way to cut transportation costs and reduce environmental impacts. This approach also supports local manufacturers and strengthens communities. According to studies conducted, there is an increasing tendency for consumers to buy locally and prefer locally produced products over the ones produced abroad (Ottman, 2017).

### *Easy recyclability of the product*

Product design, material usage or development and implementation of collection, sorting, and recycling processes after the end of the product lifetime are all influencing the ecological footprint of products and corporations. Implementing circular approaches can contribute to brand popularity and an increase in market share (Lacy & Rutqvist, 2015).

### *Eco-labels on the products*

Consumers find certifications and labels useful because these provide them with important information about a product's origin and its level of environmental friendliness, which in turn increases customer trust. For instance, according to a study organic certification results in greater trust in a product. However, the effectiveness of these labels and certifications depends on how

well consumers understand the information they receive and see. Research shows that consumers do not always fully understand what certain labels or certifications mean. Confusion could be caused by the rapid increase and variety of third-party certifications and labels. As the certification landscape becomes more complex, it demands more from consumers in terms of processing information, which can undermine the effectiveness of certifications as trust indicators (Jarman & Luna-Reyes, 2016).

Despite certain drawbacks, labeling plays a key role in branding in several ways (Fatimi, 2024):

– Builds Brand Awareness: Including brand elements on labels enhances brand awareness and recognition

– Facilitates Brand Associations: Labels can transmit key brand messages and represent specific lifestyles, values, or qualities.

– Promotes Transparency and Trust: Valid and transparent labelling can increase the trust of consumers toward a brand, product or corporation.

### *Recycled content*

Recycling is the most common eco-design strategy. It saves energy that would otherwise be used to extract, transport, and produce new materials and also helps reduce air pollution from energy production. For example, making aluminium cans from recycled materials uses 95% less energy than making them from raw materials. Some materials, like glass and aluminium, can be recycled repeatedly, while most plastics and paper are "downcycled" into less valuable products. Recycling also keeps valuable materials out of

landfills and prevents toxins from seeping into groundwater. Besides the environmental benefits, recycling can also help businesses save money (Ottmann, 2017).

## CO2 Neutrality

Carbon neutrality is a crucial matter in today´s world. To achieve carbon neutrality, the carbon emitted from activities during economic processes must be balanced out. This can be done through strategies like using forest carbon sinks, conserving energy, reducing emissions, and implementing technologies that capture and store carbon, all working towards eliminating $CO_2$ emissions (Ren et al., 2023). A "carbon footprint" represents the total emissions of carbon dioxide ($CO_2$) and other greenhouse gases (GHGs) generated by a person or organization. It can also apply to specific events or products. To demonstrate their commitment to the environment and gain a competitive edge, many brands are now using certifications, labels and logos, to present their commitment and engagement to sustainability and eco-consciousness (Sarkar, 2012).

## Clear and Transparent Communication

If brands are transparent about the raw materials used for their products, the manufacturing processes, about the product carbon footprint of their offerings and if they can also underline it with third-party labels and certifications, then these brands can gain immense consumer trust, and they create themselves a huge differentiation advantage on the market. This resonates well with the needs of green consumers (Wagner, 2021).

### Sustainable packaging

Packaging can contribute to the environmentally conscious behavior of consumers (Popescu et al., 2024). Offering eco-friendly or sustainable packaging resonates with environmentally conscious consumers, resulting in a positive impact on sales. This choice not only attracts green consumers but also boosts the brand's overall image. However, companies face the challenge that poor packaging can be seen as a sign of lower product quality. Therefore, it is essential that sustainable packaging maintains the premium quality image of the product. The packaging should be both eco-friendly and visually appealing to effectively promote the product. Despite consumers' positive attitudes toward green packaging, they are often not willing to pay an extra price for this feature. On the contrary, certain studies suggest that consumers are willing to pay more for eco-friendly packaging, but preferences could vary (Chaudhuri & Sur, 2024).

### Creditability through certifications

Limited transparency regarding a product's supply chain, sourcing practices, and environmental impact can lead to consumer´s lack of trust. Creating credible verification processes and certifications that prove a product's sustainability and social responsibility can be complicated. Working with reputable sustainability certification and standards organizations can boost credibility. Brands should pursue certifications that align with their values and actively communicate these certifications to consumers (An, 2024). Third-party certification assures the consumer that the product was made according

to a specific standard. The certification process must be transparent and conducted by parties that do not have a financial interest in the outcome (Henderson, 2012).

### Storytelling

Storytelling is an extremely powerful tool in marketing and branding, enabling companies to deeply connect with their target audience. It provides much more than only showcasing product features and benefits, it satisfies the human need for narratives and emotional connections. It helps build an appealing and proper brand narrative by combining elements like characters, story, warm-up phase, conflicts and resolution, allowing brands to communicate their messages, sustainability claims and unique selling points in a way that consumers can easily memorize and relate to it (Rodrigues et al., 2024). Using storytelling makes a brand more relatable and helps connect with the audience on an emotional level. By creating and sharing stories brands can involve their messages, values about sustainability and eco-friendliness, their targets, mission and visions, presenting themselves favorable for green consumers (Shaurav, 2023).

## Methodology

### Research design

This study adopts a dual-method research design, integrating both primary and secondary research approaches. In the secondary research, a throughout literature review was performed. This involved the generation of relevant keywords and systematic searches in academic databases such as Google Scholar and PubMed. The gathered literature was carefully reviewed,

organized, and synthesized to present the relevant findings of already published studies and to support the outcomes of the current study. The primary research consists of a quantitative empirical study conducted via a standardized online survey, aimed at collecting data on the importance of sustainability factors for Hungarian consumers, the awareness level of Hungarian consumers on sustainable products utilizing recycled plastics and preferred branding strategies for such products.

### *Empirical research design, data collection and analysis*

The primary study was conducted through a standardized online survey, targeting a sample size of 250-300 respondents, all of whom are Hungarian residents living in Hungary. The survey was designed with developed questions based on a review of relevant literature, research objectives and hypothesis. The survey included 19 questions, 6 demographic questions, which were measured using a nominal scale and 13 behavioral and knowledge-based questions. This was measured using both interval scales (ranging from 1 to 6, representing "the least" to "the most") and nominal scales. Before publishing the survey, a pre-test, including face and content analysis was carried out based on qualitative reviews of 4 experts, including experts in the research field and experts in linguistics.

In the second stage, a trial run was made to examine whether the construct measures appropriately. Trial-run was based on the 19 respondents and included the verification of general understanding of the participants of the survey and preliminary test of normalities and reliability based on the method Cornbach´s Alpha.

In a later stage, the survey validation was made using Exploratory Factor Analysis (EFA). The EFA and all other analyses of the empirical data from the survey were conducted by using IBM SPSS 29.0.2.0.(20). The survey was published on different social media platforms, groups and forums to gather participant responses.

## Results

### *Descriptive statistics*

The sample consists of 258 participants, where the majority (M = 1.01, SD = 0.088) identified as residents of Hungary (1 = Yes, 2 = No). The net-monthly income ranged from "no income" (1) to "excellent income" (5), with a mean income level of 3.12 (SD = 1.014), meaning that the average participant has an average income level. Educational level varied from "elementary school" (1) to "university degree or higher" (5), with the mean level of education being 3.75 (SD = 1.220), indicating that most participants had completed at least some college education. In terms of residence, participants were distributed across the capital city (1), cities (2), and villages (3), out of these, 30.5% of the participants (n = 79) reported living in the capital city, 30.9% (n = 80) reported living in a city, and 38.5% (n = 98) reported living in a village. The distribution of participants is relatively even across the three categories, with a slight majority living in villages. The mean value was 2.08 (SD = 0.829), indicating that on average, participants tended to live in cities or villages, with the data slightly skewed towards village residency.

### *Reliability analysis*

The Cronbach's Alpha for 12 variables measured in interval scale was α = .908, indicating excellent internal consistency. This suggests that the items used in the survey are highly reliable for measuring the intended construct.

### *Test of normalities*

The results of the Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the distributions of all the examined variables differ significantly from a normal distribution, as evidenced by the p-values being less than .001 for both tests across all variables. For instance, the variable measuring the importance of environmental considerations when purchasing products, Kolmogorov-Smirnov: $D(256) = 0.189$, $p < .001$; Shapiro-Wilk: $W(256) = 0.919$, $p < .001$ shows a significant deviation from normality.

### *Exploratory Factor Analysis (EFA)*

An exploratory factor analysis (EFA) was conducted on the dataset to identify the underlying factor structure of the variables related to the participants' attitudes and behaviors towards eco-friendly products. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling suitability for the analysis, KMO = .929, which is well above the acceptable limit of .6, indicating that the data is suitable for factor analysis. Bartlett's test of sphericity, $x^2(36) = 1315.829$, $p < .001$, indicated that correlations between items were sufficiently large for EFA.

The analysis revealed one factor with an eigenvalue $> 1$, explaining 59.58% of the variance. The items had loadings ranging from 0.517 to 0.835

on this factor. This suggests that the factor represents a strong construct related to attitudes and perceptions toward eco-friendly and sustainable aspects during product purchasing in the case of Hungarian consumers.

### *Testing of hypothesis*

H1: Sustainability aspects are extremely important for Hungarian consumers while selecting and purchasing products.

A one-sample t-test was conducted to compare the importance of sustainability aspects in product selection against a test value of 5.5 on a 6-point interval scale (where 1 represents "absolutely not important" and 6 represents "extremely important"). A mean value of at least 5,5 has been defined as the lowest limit of the level "extremely important". The results revealed a statistically significant difference, $t(262) = -25.02$, $p < .001$, with a mean difference of -1.78 (95% CI: -1.92, -1.64). This indicates that the importance of sustainability aspects during purchases is significantly lower than the test value of 5.5 representing the level of "extremely important". For this reason, the hypothesis has to be rejected.

H2: Product price and quality are the most important factors for Hungarian consumers when choosing sustainable products.

To measure the responses, participants had to make 3 choices from an ordinal scale. These three choices are resulting three categorical variables (choices 1, 2 and 3). So non-parametric Chi-Square tests were conducted for all three categorical variables to assess whether the observed frequencies for the most important factors considered by consumers when purchasing eco-friendly products differ significantly from expected frequencies. The first

Chi-Square test revealed a statistically significant difference between the observed and expected frequencies, $x^2$ (13, N = 262) = 564.00, p < .001. The second Chi-Square test also showed a significant difference, $x^2$ (14, N = 259) = 251.99, p < .001. The third Chi-Square test similarly indicated a significant difference, $x^2$ (14, N = 255) = 285.06, p < .001. These results show that certain factors are more frequently considered important by participants than others. Based on the frequency analysis of combined choices considering combined choices, the most important factor considered by consumers when choosing products is "product quality" by 42.0% of participants (n = 110). "Durability" followed closely by 40.8% of participants (n = 107). Therefore this hypothesis has to be rejected as well.

H3: Clear eco-labels on products and recommendations of influencers make sustainable products utilizing recycled plastics the most attractive, according to Hungarian consumers.

To measure the responses, participants had to make 3 choices from an ordinal scale. These three choices are resulting three categorical variables (choices 1, 2 and 3). In the case of this hypothesis, non-parametric Chi-Square tests were conducted for all three categorical variables to assess whether the observed frequencies for the most appealing branding strategies for Hungarian consumers in the case of sustainable products utilizing recycled plastics differ significantly from the expected frequencies. The first Chi-Square test revealed a statistically significant difference between the observed and expected frequencies, $x^2$ (11, N = 262) = 685,73, p < .001. The second Chi-Square test also showed a significant difference, $x^2$ (10, N = 252) = 92,58, p < .001. The third Chi-Square test similarly indicated a significant difference, $x^2$ (10, N = 245) = 145,57, p < .001. These results show that certain factors

are more frequently considered important by consumers than others. The frequency analysis based on combined choices was conducted to determine which branding strategies were perceived as the most effective by consumers when selecting products utilizing recycled plastics. The results indicated that "eco-labels and sustainability etiquettes" were the most frequently selected strategy, chosen by 48.9% of respondents (n = 128). This was followed by "brand reputation", which was selected by 40.8% of respondents (n = 107). Out of this reason the third hypothesis is also rejected.

## Discussion and Conclusion

Despite the fact that sustainability aspects are not extremely important for Hungarian consumers during their purchases, descriptive statistics show (measurement on a scale from 1 = "absolutely not important" to 6 = "extremely important") a mean score of 3.72 (SD = 1.15). This suggests a moderate level of importance placed on environmental aspects by the respondents when making purchasing decisions, but this is definitely not the dominant factor. Descriptive statistics also reveal that familiarity with recycled plastic products was reported with a mean of 3.76 (SD = 1.05, variance = 1.11) on a 6-point scale, where higher scores indicate greater familiarity. The perceived quality of these products had a slightly higher mean of 3.83 (SD = 1.08, variance = 1.17), suggesting that participants generally considered the quality of recycled plastic products positively. Lastly, the frequency of purchasing recycled plastic products had a mean of 3.62 (SD = 1.21, variance = 1.47), indicating moderate purchasing frequency among the respondents. The analysis included 263 valid responses for each of these variables.

The research shows that Hungarian consumers generally consider sustainable aspects important and have a positive view of this specific product group. However, there is still room for improvement in this area. The popularity of sustainable products utilizing recycled plastics could definitely be increased through targeted branding strategies, such as interactive campaigns, storytelling, eco-labels, and certifications. The paper underlines that emphasizing product quality and durability could intensify interest and gain trust of the Hungarian consumers. By focusing on eco-labels and various sustainability certifications, products could become more attractive in the Hungarian market. Marketers should also prioritize building brand reputation, as it is a crucial factor for gaining trust and interest, particularly since it is one of the most important aspects Hungarian consumers consider when choosing eco-friendly products.

Due to the fact that Hungary is one of the countries with a GDP per capita well below the EU average (Eurostat, 2024), can result that Hungarian consumers simply have different priorities and it can result that sustainability aspects are still simply not well spread in the country.

Therefore, it is even more important for companies and brands to focus on branding strategies that include well-established and clearly communicated Corporate Social Responsibility (CSR) activities. Such strategies can enhance brand reputation and build trust among consumers (Ottman, 2017). Storytelling can also help brands connect better with their audience and effectively transfer their eco-conscious image, which further strengthens brand reputation (Shaurav, 2023). Participation in environmental activism and

events can establish two-way communication and strengthen a company's position as an eco-friendly organization, contributing to a positive market image (Cook & Wiren, 2024).

Fatimi et al. (2023) also emphasized the importance of brand communication and eco-labels as significant branding strategies for sustainable products. In alignment with the current study, Breczku (2022) revealed that Hungarian consumers are increasingly conscious of their purchasing behavior and consider sustainable aspects important during product selection, reflecting the findings of the current study.

While this paper offers valuable research outcomes, it has some limitations. The research was based on a non-representative quantitative empirical study, meaning that including more participants could enhance or even alter the results.

Additionally, the survey followed a cross-sectional design, running for only seven weeks and capturing a single point in time. It would be useful to explore how these variables might change over time, especially as environmental awareness grows and economic conditions improve.

The standardized online survey design also presented some limitations, particularly in terms of demographic representation. Older respondents may not have been as effectively reached as middle-aged and younger participants.

Conducting longitudinal studies could provide a more dynamic understanding of how Hungarian consumers' attitudes toward sustainability and sustainable products evolve over time, especially as environmental awareness grows and economic conditions improve. Additionally, future research could

benefit from larger and more representative samples that include a broader demographic range.

Lastly, to gain deeper insights into consumer motivations and perceptions, future studies could adopt a mixed-methods approach by combining quantitative surveys with qualitative methods such as interviews or focus groups. This would allow researchers to explore the emotional and cognitive drivers behind consumer choices in more detail.

## References

1.  An. (2024), Blockchain applications in agriculture: Revolutionizing the food supply chain, Vernon Press

2.  Breczku (2022), Eco-conscious and green consumption of FMCG hair care products in Pest County, Hungary. Prosperitas, 9(1-2), 3.

3.  Chaudhuri & Sur (2024), Green Practices and Business Augmentation: Hosting the Green Card, Allied Publishers Private Ltd.

4.  Cepni (2024), Chaos, Complexity, and Sustainability in Management, IGI Global

5.  Christopher & Peck (2015), Marketing Logistics, Routledge

6.  Cook & Wiren (2024), Embedding Sustainability - How to drive organizational transformation, Kogal Page Limited

7.  Cybellium (2024), Brand Management: Strategies and Techniques, Cybellium Ltd.

8.  Eurostat (2024), GDP per capita, consumption per capita and price level indices, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=GDP_per_capita,_consumption_per_capita_and_price_level_indices

9.  Fatimi (2024), Marketing Management, Notion Press

10. Fatemi et al, (2023), Consumer responses to sustainable product branding strategies: a literature review and future research agenda, Baltic Journal of Management, 18(4), 525-542.

11. Ferreira & Miguel (2022), Advances in Fashion and Design Research, Proceedings of the 5th International Fashion and Design Congress, Springer.

12. Foroudi & Palazzo (2021), Sustainable Branding, Routledge.

13. Fuller (1999), Sustainable Marketing, SAGE Publications.

14. Grant, J. (2007). The green marketing manifesto. England: John Wiley & Sons Ltd. Book reserved from Malardalen University Library through Inter Library loan.

15. Hartmann et al. (2005), Green branding effects on attitude: functional versus emotional positioning strategies, Marketing Intelligence & Planning. 23(1), 9-29.

16. Henderson (2012), Becoming a Green Building Professional, Wiley.

17. Hillman et al. (2015), Climate Benefits of Material Recycling, Nordic Council of Ministers

18. Hohnen & Potts (2007), Corporate Social Responsibility: An Implementation Guide for Business, International Institute for Sustainability Development

19. Irani & Nozari (2024), Smart and Sustainable Interactive Marketing, IGI Global

20. James (2024), Green Businesses: A Comprehensive Introduction with Case Studies,

21. Jarman & Luna-Reyes (2016), Private Data and Public Value, Springer

22. Lacy & Rutqvist (2015), Waste to Wealth - Creating Advantage in a Circular Economy, Palgrave Macmillan

23. Lőrincz et al, (2021) Green branding as a tool and future potential for destination marketing: Implications from a case study in Veszprém, Hungary, Society and Economy, 43(3), 253–269.

24. Mobium. (2007). Living LOHAS: Lifestyles of health and sustainability in Australia. Consumer Trends Report, Mobium Group.

25. Oktavianti et al. (2024), Proceedings of the International Conference on Business, Economics, Social Sciences and Humanities - Economics, Business and Management Track, 291, 4-26.

26. Ottman, J. (2017), The New Rules of Green Marketing, Greenleaf Publishing Limited

27. Ottman, J. (1993). Green marketing: Challenges & opportunities for the new marketing age. Lincolnwood, IL: NTC Business Books.

28. Popescu et al. (2024), Economics and Environmental Responsibility in the Global Beverage Industry, IGI Global

29. Ramakrishna (2024), Strategies for Environmentally Responsible Supply Chain and Production Management, IGI Global

30. Ren et al. (2023), Advances in co-benefits of climate change mitigation, Frontiers Environmental Science

31. Renato et al. (2016), Sustainability Strategies – When Does it Pay to be Green?, Palgrave Macmillan UK

32. Rodrigues et al. (2024), Compelling Storytelling Narratives for Sustainable Branding, IGI Global

33. Santos (2022), Sales Management for Improved Organizational Competitiveness and Performance, IGI Global

34. Sarkar (2012), Green Branding and Eco-innovations for Evolving a Sustainable Green Marketing Strategy, Asia-Pacific Journal of Management Research and Innovation, 8(39).

35. Sasirekha et al. (2023), Reinventing Business Practices, Start-ups, and Sustainability, Archers and Elevators Publishing House

36.    Sharma et al. (2014), Sustainable Development Goals, Emerald Publishing Limited

37.    Shaurav (2023), Entrepreneurs Code of Growth: Maximizing Business Potential - Unlocking Strategies of Growth Marketing, Notion Press

38.    Teixeira et al. (2024), Using Influencer Marketing as a Digital Business Strategy, IGI Global

39.    Urip (2010), CSR Strategies - Corporate Social Responsibilities, Wiley

40.    Varga (2024), The Sustainable Solution: Plastic Granulate Production in Action, Luxory

41.    Wagner (2021), Business and Environmental Sustainability, Routledge

42.    Wijaya (2013), European Journal of Business and Management, 5(31).

43.    Williams & Williams (2017), Vintage Marketing Differentiation, Palgrave Macmillen

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