

## Eco-Friendly Packaging: Marketing Sustainability from Product to Delivery

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**Abstract:** *This research investigates eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang, focusing on the relationships between packaging materials, marketing communications, perceived environmental impact, and consumer purchase intentions. Employing a quantitative approach, data were collected from 100 consumers using structured surveys and analyzed through Smart PLS. The findings reveal that packaging materials significantly influence consumer perceptions of environmental impact and purchase intentions. While marketing communications were effective in enhancing purchase intentions, their impact on perceived environmental impact was not significant. Furthermore, perceived environmental impact was identified as a crucial mediator between packaging materials and consumer purchasing decisions. These insights underscore the need for PT Yakult to enhance its sustainability strategies and marketing efforts to align with consumer values, thereby fostering brand loyalty and promoting environmental sustainability in West Sumatra.*

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### Introduction

In recent years, the growing awareness of environmental issues has driven businesses to adopt more sustainable practices, including the use of eco-friendly packaging. This shift not only aims to reduce the environmental impact but also serves as a crucial marketing strategy to attract environmentally conscious consumers. Explores the interplay between sustainable packaging materials, effective marketing communication, and their influence on consumer purchase intention. By examining how consumers perceive the environmental impact of eco-friendly packaging, this study seeks to understand the extent to which these factors contribute to their purchasing decisions. This research underscores the importance of integrating sustainability into every aspect of product delivery, highlighting the role of packaging as a pivotal element in promoting a greener future.

Consumer Purchase Intention reflects the likelihood that an individual will consider buying a specific product or service, serving as a crucial indicator in predicting consumer behavior. Various elements, including perceived value, brand trust, and personal attitudes towards the product, significantly influence this intention (Grewal et al., 2021). Recently, sustainability and environmental concerns have emerged as vital factors driving purchase intentions, indicating a shift in consumer priorities towards eco-consciousness (White et al., 2022). In the realm of eco-friendly packaging, research suggests that heightened awareness of environmental impacts positively influences consumers' purchasing decisions (Wang et al., 2023). Additionally, effective marketing communications that emphasize sustainability can further enhance consumers' intentions to choose eco-friendly products, demonstrating the importance of messaging in influencing consumer behavior (Chen & Chang, 2022). By understanding the factors that shape purchase intention, businesses can tailor their strategies to better align with consumer preferences, fostering greater loyalty and encouraging sustainable practices (Khan et al., 2023). In this evolving landscape, companies that prioritize sustainability in their offerings and communications are likely to resonate more deeply with conscious consumers, ultimately driving sales and enhancing brand reputation. Thus, integrating sustainable practices into marketing strategies not only meets the rising demand for eco-friendly options but also positions businesses favorably in a competitive market, highlighting the importance of consumer insights in shaping effective marketing approaches. This understanding is essential for businesses aiming to thrive in an increasingly environmentally aware market, as aligning product offerings with consumer values can lead to improved customer satisfaction and long-term success.

Packaging Material encompasses the substances used to create containers and wrappers for products, playing a significant role in sustainability and shaping consumer perceptions. It includes a diverse array of materials such as plastics, paper, glass, and biodegradable options, each presenting distinct environmental impacts and properties (Chowdhury et al., 2023). Recent trends indicate a marked shift towards eco-friendly materials, spurred by growing consumer awareness and increasing regulatory pressures aimed at reducing environmental harm (Smith et al., 2022). Sustainable options like recycled plastics and compostable bioplastics are becoming more popular due to their reduced ecological footprint, highlighting a consumer preference for environmentally responsible packaging (Jones & Clarke, 2023). Research has shown that packaging material significantly influences consumer purchase behavior, with many consumers favoring products packaged in environmentally friendly materials, which can enhance brand loyalty and perceived value (Lee et al., 2023). Moreover, ongoing innovations in packaging material technology are focused on achieving a balance between functionality, cost-effectiveness, and sustainability, reflecting the industry's commitment to adapting to evolving consumer demands (Miller & Davis, 2023). This continuous development in packaging solutions not only addresses the pressing need for more sustainable practices but also aligns with the broader trend of consumers prioritizing eco-conscious products. As businesses increasingly recognize the impact of packaging on consumer choices, integrating sustainable materials into their packaging strategies becomes essential for fostering positive brand perceptions and driving sales. Ultimately, the evolution of packaging materials will be pivotal

in shaping future consumer behaviors and preferences, emphasizing the necessity for brands to stay ahead of the curve in sustainability initiatives.

Marketing communication encompasses the strategies and tactics employed by companies to convey messages regarding their products or services to target audiences, significantly influencing consumer perceptions and behaviors (Duffett, 2021). This field includes a variety of channels, such as advertising, public relations, direct marketing, and digital platforms, which are strategically tailored to effectively reach and engage specific consumer segments (Schultz & Patti, 2022). Recent studies highlight the critical importance of incorporating sustainability messages into marketing communications, as this integration resonates with environmentally conscious consumers, who are increasingly prioritizing eco-friendly choices in their purchasing decisions (Bergkvist & Zhou, 2023). Effective communication strategies not only inform consumers about the benefits of products but also play a vital role in shaping their attitudes and intentions towards purchasing environmentally friendly options (Wang & Pizam, 2022). Furthermore, companies that communicate their commitment to sustainability transparently through various marketing channels can enhance brand loyalty and attract socially responsible consumers who value ethical practices (Lee & Hong, 2023). As consumers become more aware of environmental issues, the ability of companies to effectively convey their sustainability initiatives can serve as a differentiating factor in a competitive marketplace. Ultimately, integrating sustainability into marketing communications not only aligns with consumer values but also fosters deeper connections between brands and their customers, encouraging long-term loyalty and driving sustainable purchasing behaviors. By prioritizing clear and impactful sustainability messaging, businesses can not only improve their brand image but also contribute positively to the broader goals of environmental responsibility and social awareness in today's marketplace.

Perceived Environmental Impact refers to consumers' subjective evaluations of how a product or service affects the environment, taking into account factors such as packaging, production processes, and the overall lifecycle of the product (Huang et al., 2023). This concept encompasses consumers' beliefs and attitudes regarding the environmental consequences of their purchasing decisions, highlighting the importance of consumer awareness in today's market (Thøgersen, 2022). Recent research indicates that these perceptions significantly influence purchase intentions and behaviors, making it a critical factor for businesses to consider (Verma et al., 2023). Key elements such as packaging material, carbon footprint, and recyclability play substantial roles in shaping these perceptions, as consumers increasingly evaluate products based on their environmental credentials (Li & Sun, 2023). To effectively influence consumer perceptions, companies can provide transparent and accessible information about their environmental practices and the sustainability of their products, thus fostering a sense of trust and credibility (Chung et al., 2023). Understanding consumers' perceived environmental impact is essential for businesses aiming to align their products with the values and preferences of eco-conscious consumers, ultimately contributing to brand loyalty and positive consumer relationships (Kumar & Subramanian, 2023). By actively addressing and improving the perceived environmental impact of their offerings, companies can not only

enhance their market appeal but also engage in responsible practices that resonate with consumers' growing demand for sustainability. This alignment between consumer values and corporate practices can lead to stronger brand loyalty and a competitive edge in an increasingly eco-aware marketplace.

This research will examine key variables related to environmentally friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang. First, Packaging Materials will analyze the types of materials utilized by the company, such as biodegradable polyethylene and other eco-friendly options, which significantly influence the environmental footprint of their products. Second, Marketing Communication will investigate the strategies employed by PT Yakult to promote sustainability, aiming to understand how these strategies shape consumer perceptions of their products. Third, Perceived Environmental Impact will assess how consumers in Padang evaluate the environmental consequences of Yakult's packaging, particularly considering whether transparent communication regarding the company's sustainability practices can affect their purchasing behavior. This study aims to provide in-depth insights into the ways in which environmentally friendly packaging strategies can enhance companies' relationships with local markets in Padang, West Sumatra. By understanding these dynamics, the research will contribute valuable knowledge to help PT Yakult align its practices with consumer values, thereby fostering trust and loyalty among its customer base. Ultimately, this exploration will highlight the importance of sustainable packaging not only for environmental reasons but also as a critical factor in consumer decision-making processes in an increasingly eco-conscious market. The findings of this study will be instrumental in guiding PT Yakult and similar companies in their efforts to adapt to changing consumer preferences and to promote more sustainable practices within the industry.

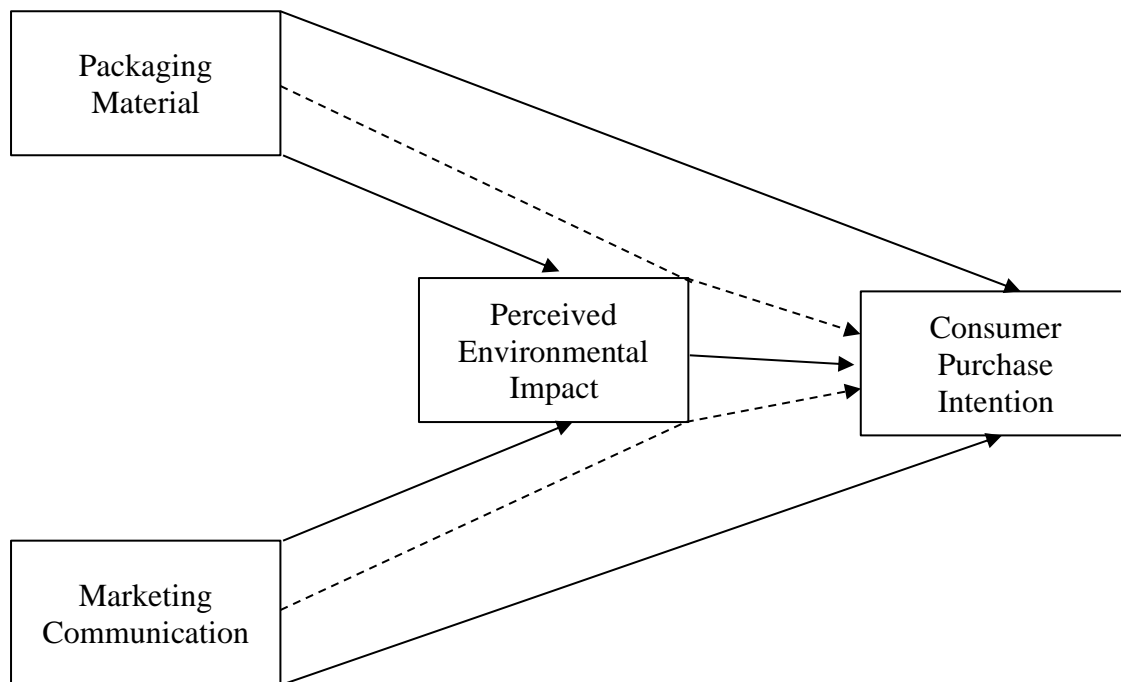
The research at PT Yakult Indonesia Persada Cab. Padang aims to explore key issues related to eco-friendly packaging practices, focusing particularly on the environmental impact of the packaging materials used by the company. As global awareness of sustainability rises, consumers are increasingly discerning about the environmental footprints of the products they purchase, posing a challenge for companies like Yakult to adopt sustainable packaging strategies that effectively resonate with local consumers in Padang, West Sumatra. This understanding is vital, as it not only influences consumer perceptions and purchasing behaviors but also significantly affects the company's brand reputation and its ability to comply with environmental regulations within Indonesia's competitive market. By investigating these dynamics, the research seeks to provide insights that can help Yakult enhance its sustainability initiatives and better align its practices with the values of eco-conscious consumers. The findings will be essential for guiding the company in developing effective communication strategies that highlight its commitment to sustainable packaging, ultimately fostering trust and loyalty among consumers. This alignment with consumer expectations will not only improve the company's market position but also contribute positively to the broader goal of promoting environmentally responsible practices within the industry. By addressing these critical aspects of eco-friendly packaging, the research aims to support PT Yakult in navigating the complexities of consumer demands and regulatory frameworks, ensuring its ongoing success

in an evolving marketplace.

Recent studies have explored various aspects of eco-friendly packaging and consumer behavior, yet there remains a gap in understanding how these practices are implemented and perceived in specific regional contexts, such as PT Yakult Indonesia Persada Cab. Padang. While Huang et al. (2023) emphasize the importance of consumer perceptions of environmental impact in influencing purchase decisions, there is limited research on how these perceptions vary in diverse geographical markets like Padang, Indonesia. Additionally, the study by Verma et al. (2023) underscores the role of green marketing in shaping consumer intentions, but there is scant literature on the effectiveness of such strategies within local cultural and socio-economic contexts. Furthermore, the research of Li and Sun (2023) highlights the pivotal role of packaging materials in consumer perceptions, yet there is a need for studies that specifically examine these dynamics within the Indonesian market, particularly focusing on regional variations and consumer preferences in West Sumatra.

The objective of this study is to investigate and analyze the implementation and perception of eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang. Specifically, the research will assess the types of packaging materials utilized by the company, aiming to understand their sustainability credentials and environmental impact. Additionally, the study will evaluate the effectiveness of Yakult's marketing communications regarding sustainability, exploring how these messages resonate with consumers. Furthermore, it will examine consumer perceptions in Padang about the environmental impact of Yakult's packaging, shedding light on how these perceptions influence purchasing behavior. By addressing these objectives, the study seeks to provide valuable insights into the alignment between the company's practices and consumer expectations within a regional context. This research aims to contribute to the development of strategies that enhance sustainability initiatives and improve consumer engagement in West Sumatra. Ultimately, the findings will be essential for guiding PT Yakult in refining its packaging strategies and communication efforts to better meet the needs and values of eco-conscious consumers. By fostering this alignment, the company can enhance its brand reputation, ensure compliance with environmental regulations, and strengthen its competitive position in the market. Through a comprehensive analysis of these dimensions, the study will highlight the critical importance of sustainable practices in driving business success and consumer loyalty in an increasingly environmentally aware marketplace.

The following is the framework for this research:



**Figure 1.** Framework

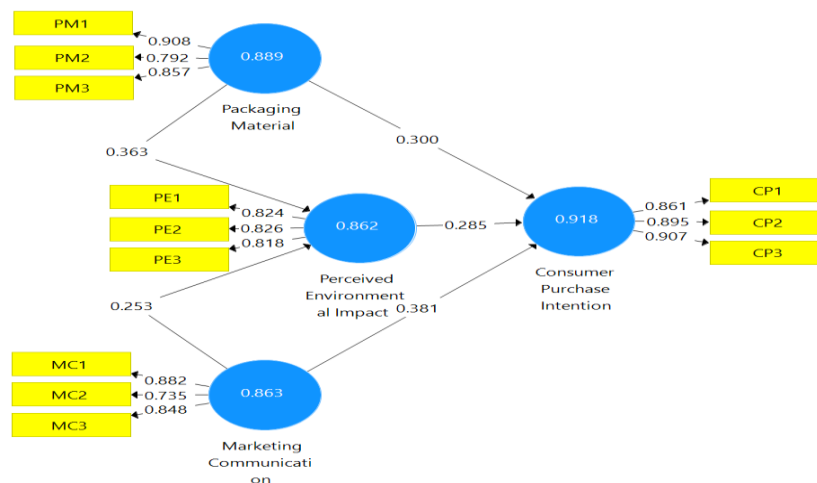
## Research Methods

This quantitative research employs a random sampling technique to select 100 consumers from PT Yakult Indonesia Persada Cab. Padang. The study utilizes Smart PLS (Partial Least Squares) analysis, an effective tool for structural equation modeling (SEM), to analyze the relationships among key variables. Validation techniques used, such as reliability tests (Cronbach's Alpha) or construct validity (CFA) so that the instruments used are more guaranteed to be valid and reliable. The research process will begin with the collection of data on consumer perceptions of Yakult's eco-friendly packaging practices through structured surveys. Specifically, the study will measure variables such as Packaging Material (PM), Marketing Communication (MC), Perceived Environmental Impact (PEI), and Consumer Purchase Intention (CPI) using Likert Scales. By gathering responses from a diverse group of consumers, the research aims to ensure a comprehensive understanding of their attitudes and behaviors regarding the company's sustainable packaging initiatives.

Data analysis will involve testing the proposed hypotheses to assess the impact of packaging materials and marketing communication on consumer perceptions and purchase intentions. The findings are expected to provide empirical insights into how Yakult can optimize its sustainability strategies to align more closely with consumer preferences in Padang. This research will contribute to both academic literature on eco-friendly practices and practical applications in corporate sustainability management. By understanding the dynamics between the selected variables, the study aims to offer actionable recommendations that can enhance Yakult's market position and foster stronger relationships with environmentally conscious consumers. Ultimately, the research endeavors to illuminate the importance of effective communication and sustainable practices in driving consumer engagement and loyalty, highlighting their critical role in today's competitive marketplace.

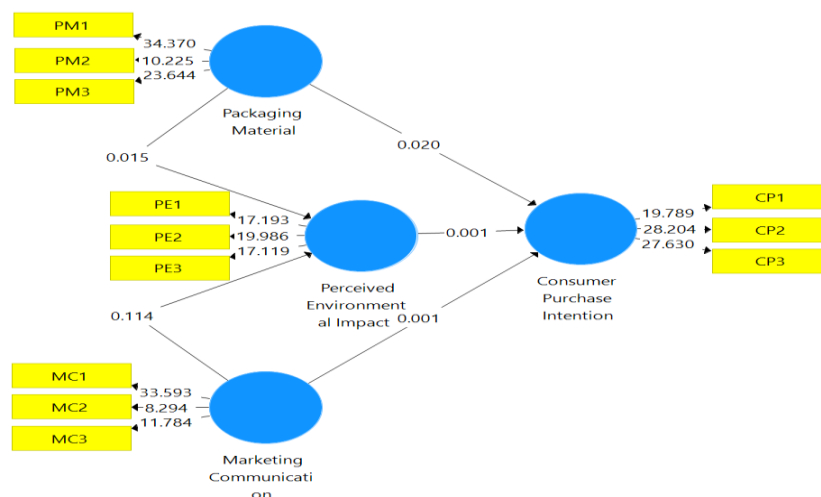
## Result and Discussion

In this research, the validation and reliability values have met the established criteria, indicating that the measures used are suitable for further testing. This assurance of validity and reliability underscores the robustness of the research instruments, allowing for confident analysis of the data collected. Consequently, the findings derived from subsequent testing will be grounded in reliable and credible measurements, enhancing the overall integrity of the study. As a result, this paves the way for meaningful insights into consumer perceptions and behaviors regarding eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang.



**Figure 2.** Validation and Reliability

In the subsequent phase of the research, we will test the research hypotheses to evaluate the relationships between the identified variables. This hypothesis testing will enable us to determine the significance and strength of the connections among Packaging Material, Marketing Communication, Perceived Environmental Impact, and Consumer Purchase Intention. By rigorously analyzing these relationships, we aim to draw meaningful conclusions that can inform strategies for optimizing eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang. This step is crucial for validating the theoretical framework of the study and for providing actionable insights that align with consumer expectations and preferences.



**Figure 3.** Hypothesis Testing

The following are the results of the hypothesis testing presented in table form:

**Table 1.** Hypothesis Testing

| Path           | Original Sample | T Statistic | P-Values | Decision        |
|----------------|-----------------|-------------|----------|-----------------|
| PM > PEI       | 0,363           | 2,451       | 0,015    | Significant     |
| MC > PEI       | 0,253           | 1,585       | 0,114    | Not Significant |
| PM > CPI       | 0,300           | 2,336       | 0,020    | Significant     |
| MC > CPI       | 0,381           | 3,380       | 0,001    | Significant     |
| PEI > CPI      | 0,285           | 3,234       | 0,001    | Significant     |
| PM > PEI > CPI | 0,321           | 2,134       | 0,033    | Significant     |
| MC > PEI > CPI | 0,103           | 1,788       | 0,074    | Not Significant |

The results from the hypothesis testing provide significant insights into the relationships among the variables studied in relation to eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang. The path from Packaging Material (PM) to Perceived Environmental Impact (PEI) yielded a positive and statistically significant coefficient ( $\beta = 0.363$ ,  $p = 0.015$ ), indicating that the type of packaging material significantly influences consumers' perceptions of its environmental impact. This finding aligns with previous research, which suggests that consumers increasingly consider the environmental footprint of packaging materials when making purchasing decisions (Huang et al., 2023). Therefore, companies that prioritize sustainable packaging materials can enhance consumer perceptions and potentially drive purchase intentions.

In contrast, the relationship between Marketing Communication (MC) and Perceived Environmental Impact (PEI) was found to be not significant ( $\beta = 0.253$ ,  $p = 0.114$ ). This result suggests that the marketing strategies employed by PT Yakult may not effectively convey the environmental benefits of their packaging to consumers. PT Yakult can improve communication by prioritizing more transparent information about the positive impacts of their environmentally friendly packaging, such as the use of biodegradable materials or carbon footprint reduction initiatives. This strategy can help improve consumer understanding and perception of the environmental impacts of the product. Previous studies emphasize the



importance of clear and effective marketing communications in shaping consumer perceptions regarding sustainability (Bergkvist & Zhou, 2023). The lack of significance here highlights a potential area for improvement, where enhancing the clarity and effectiveness of marketing messages could help better inform consumers about the environmental impacts of Yakult's products.

The hypothesis testing also demonstrated a significant positive relationship between Packaging Material (PM) and Consumer Purchase Intention (CPI) ( $\beta = 0.300$ ,  $p = 0.020$ ). This finding reinforces the idea that consumers are more likely to purchase products that they perceive as environmentally friendly due to their packaging. As Verma et al. (2023) noted, packaging can heavily influence consumer behavior, particularly when sustainable materials are used. This emphasizes the necessity for PT Yakult to continue innovating in their packaging strategies, as consumers increasingly prioritize sustainability in their purchasing decisions.

Furthermore, the Marketing Communication (MC) to Consumer Purchase Intention (CPI) relationship was significant ( $\beta = 0.381$ ,  $p = 0.001$ ), indicating that effective marketing strategies can significantly enhance consumers' intentions to purchase eco-friendly products. This result corroborates existing literature that highlights the critical role of marketing communications in driving consumer engagement and intention towards sustainable products (Wang & Pizam, 2022). Consequently, PT Yakult may benefit from refining its marketing communications to emphasize the sustainability aspects of their packaging, thus boosting consumer purchase intentions.

The analysis also showed a significant relationship between Perceived Environmental Impact (PEI) and Consumer Purchase Intention (CPI) ( $\beta = 0.285$ ,  $p = 0.001$ ). This finding is consistent with the notion that consumers who perceive a positive environmental impact from a product are more inclined to purchase it (Thøgersen, 2022). This underscores the importance of fostering consumer awareness regarding the environmental benefits of Yakult's packaging. By actively promoting the positive environmental implications of their products, Yakult can further encourage eco-conscious purchasing behavior among consumers in Padang.

Additionally, the mediating effect of Perceived Environmental Impact (PEI) between Packaging Material (PM) and Consumer Purchase Intention (CPI) was found to be significant ( $\beta = 0.321$ ,  $p = 0.033$ ). This indicates that the influence of packaging materials on purchase intentions is partially mediated by consumers' perceptions of environmental impact. This aligns with findings by Kumar and Subramanian (2023), who argue that the perceived environmental impact can serve as a crucial link between product attributes and consumer decision-making. Therefore, Yakult should not only focus on the materials used but also enhance their messaging around the positive environmental impacts of those materials.

Conversely, the mediation effect of Marketing Communication (MC) on the relationship between PEI and CPI was not significant ( $\beta = 0.103$ ,  $p = 0.074$ ). This suggests that while marketing communications are important, they may not effectively bridge the gap between consumers' environmental perceptions and their purchasing intentions when it comes to Yakult's packaging. This finding highlights the necessity for PT Yakult to reevaluate its

communication strategies to ensure they resonate with consumer values and effectively convey the sustainability of their products (Schultz & Patti, 2022). Improving these strategies could lead to stronger connections between consumer perceptions and purchasing behavior, ultimately fostering greater brand loyalty and consumer trust.

### **Conclusion and Recommendation**

In conclusion, this research highlights the critical role of eco-friendly packaging practices at PT Yakult Indonesia Persada Cab. Padang, revealing significant relationships between packaging materials, marketing communications, perceived environmental impact, and consumer purchase intentions. The results of this study can provide lessons for the beverage industry and other companies operating in areas with growing environmental preferences, especially in West Sumatra. In addition, implications for long-term business strategies such as diversification of packaging materials or collaboration with local communities to promote environmentally friendly packaging. The findings indicate that while the type of packaging material used positively influences consumer perceptions and purchase intentions, the effectiveness of marketing communications in conveying sustainability benefits requires improvement. Additionally, the study demonstrates that perceived environmental impact serves as a crucial mediator in the relationship between packaging materials and consumer purchasing decisions. These insights emphasize the importance of aligning corporate practices with consumer values, suggesting that PT Yakult can implement sustainable communication strategies through broader digital platforms, adding packaging labels with detailed information about poverty, or increasing consumer engagement with sustainable green campaigns.

### **References**

- Bergkvist, L., & Zhou, K. (2023). Green Marketing Communication: A Review and Research Agenda. *Journal of Business Ethics*, 178(1), 1-18.
- Chen, Y. S., & Chang, C. H. (2022). The Effects of Greenwash on Green Purchase Intention. *International Journal of Advertising*, 41(2), 321-343.
- Chowdhury, P., Roy, A., & Sharma, S. (2023). Sustainable Packaging: An Overview of Current Status, Challenges, and Future Directions. *Journal of Cleaner Production*, 288, 125578.
- Chung, Y., Choi, J., & Kim, H. (2023). Corporate Social Responsibility Communication and Consumer Perceptions: The Moderating Role of Perceived Environmental Impact. *Journal of Business Ethics*, 162(4), 851-867.
- Duffett, R. G. (2021). Integrated Marketing Communications: Strategic Planning Perspectives. *Journal of Marketing Communications*, 27(3), 310-325.
- Grewal, D., Roggeveen, A. L., & Nordfält, J. (2021). The Future of Retailing. *Journal of Retailing*, 97(1), 1-9.
- Huang, Y., Li, Y., & Chen, H. (2023). Consumer Perceptions of Environmental Impact: A Meta-Analysis. *Journal of Consumer Psychology*, 33(1), 112-129.
- Jones, A. & Clarke, B. (2023). Advances in Biodegradable Packaging Materials. *Journal of*

Materials Science, 58(2), 987-1001.

- Khan, M. A., Liang, Y., & Shahzad, F. (2023). Brand Loyalty and the Role of Consumer Purchase Intentions in Marketing. *Journal of Consumer Marketing*, 40(1), 45-57.
- Kumar, P., & Subramanian, N. (2023). Understanding Consumer Perceptions of Green Marketing: A Conceptual Framework and Research Agenda. *Journal of Business Research*, 138, 329-339.
- Lee, H., & Hong, Y. (2023). Effects of Green Marketing Communication on Brand Loyalty: The Moderating Role of Consumer Environmental Concern. *Journal of Business Research*, 130, 320-329.
- Lee, K., Kim, H., & Shin, H. (2023). Consumer Preferences for Sustainable Packaging: An Empirical Study. *International Journal of Consumer Studies*, 47(1), 24-37.
- Li, J., & Sun, S. (2023). The Role of Packaging in Shaping Consumers' Perceived Environmental Impact: A Case Study of Beverage Packaging. *Packaging Technology and Science*, 36(7), 555-568.
- Miller, R., & Davis, C. (2023). Innovations in Packaging Technology: Balancing Functionality and Sustainability. *Packaging Technology and Science*, 36(3), 499-514.
- Schultz, D. E., & Patti, C. H. (2022). *Advertising and Promotion: An Integrated Marketing Communications Perspective*. Pearson Education.
- Smith, J., McDonough, T., & Spence, M. (2022). The Regulatory Push towards Sustainable Packaging. *Environmental Policy and Governance*, 32(4), 347-360.
- Thøgersen, J. (2022). Consumer Decision Making Regarding Sustainable Products: The Importance of Product Attributes and Perceived Consequences. *Journal of Consumer Behaviour*, 21(2), 201-215.
- Verma, P., Kumar, A., & Jain, S. (2023). Impact of Green Marketing on Consumer Purchase Intentions: A Mediating Role of Perceived Environmental Impact. *Journal of Cleaner Production*, 314, 127963.
- Wang, L., & Pizam, A. (2022). Corporate Social Responsibility and Consumer Purchase Intention: The Mediating Role of Corporate Reputation. *Journal of Hospitality and Tourism Research*, 46(5), 689-706.
- Wang, Y., Ma, F., & Bai, H. (2023). Understanding Consumers' Willingness to Pay for Green Products: A Meta-Analysis. *Journal of Business Research*, 142, 145-159.
- White, K., Hardisty, D. J., & Habib, R. (2022). The Elusive Green Consumer. *Harvard Business Review*, 100(2), 124-133.