

A Study On The Consumer Behavior And Eco-Friendly Packaging In Food Delivery Services

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ARTICLE INFO ABSTRACT

Within the framework of the food delivery industry, this study explores how ecologically friendly packaging might drastically alter consumer behavior. The food delivery business is experiencing a rise in demand for sustainable alternatives due to the growing global awareness of the environmental challenges associated with conventional packing materials. The study highlights the urgent need for a change to more environmentally friendly packaging techniques by addressing the detrimental effects of present packaging practices on the environment. Examining customer preferences, attitudes, and intents within the food delivery system, it delves into the complex relationship between green packaging and consumer behavior. By examining consumers' willingness to pay extra for sustainable packaging, the study evaluates the economic aspect as well. The results provide a more thorough understanding of the dynamics of sustainable packaging and have business applications for companies trying to meet customer expectations and promote a more environmentally friendly food delivery chain.

Keywords: Green Packaging, Consumer Behaviour, Consumer Perception

Introduction

There has been a significant rise in the use of eco-friendly packaging in the food delivery industry in recent years. With increasing consumer awareness regarding the environmental consequences of conventional packaging materials, there is a rising need for sustainable and biodegradable alternatives. Several compounds have been recognized as promising for producing biodegradable food packaging, including films and coatings (Thuppahige & Karim, 2021). By examining these options, food delivery companies can conform to consumer preferences and promote sustainable practices in the industry. Moreover, the favorable customer responses to eco-design packaging, as demonstrated in prior studies, underscore the significance of integrating sustainable packaging materials in the food delivery sector (Khalid & Arif, 2022). The adoption of recyclable and environmentally-friendly packing materials by fresh food delivery companies in Korea establishes a positive example for the worldwide food delivery industry. By implementing comparable eco-friendly packaging options, firms can simultaneously attract environmentally aware consumers and help diminish the industry's ecological impact (Verma & Biswas, 2023). Aside from environmental factors, it is imperative for new packaging solutions to meet functional criteria, like prolonging the shelf-life of food, guaranteeing food safety, and preserving food quality. This highlights the necessity for ongoing investigation and advancement of novel bio-derived coatings and active packaging ideas to generate sustainable and efficient packaging solutions for the food delivery sector. By including these components, food delivery services can conform to consumer desires for environmentally sustainable choices while simultaneously fulfilling the practical requirements of food preservation and safety (Gadhav et al., 2022). As a result of this change, academics and food delivery companies are now investigating the industrial application of natural substances and recyclable materials in packaging and processing.

In the midst of the rapid changes occurring in the current day, shoppers are increasingly conscious of the environmental impact of their choices, specifically with the packaging used in food delivery services.

Consequently, businesses are increasingly interested in using environmentally friendly packaging solutions to satisfy customer demands and support sustainability initiatives. This study attempts to know the effect of environmentally sustainable packaging on consumer behavior within the framework of food delivery services (Boesen et al., 2019). Through the analysis of customer preferences, attitudes, and intentions regarding sustainable packaging, the aim of the present study is to get insights into how businesses can strategically utilize environmentally friendly packaging to shape consumer behavior (Singh et al., 2024).

Statement of the Problem

The food delivery system has become an essential component of contemporary consumer lifestyles, offering convenience and effectiveness in recent years. Nevertheless, the convenience of using traditional packing materials has resulted in notable environmental issues. The issue at hand pertains to the environmental consequences of current packaging techniques, such as the utilization of single-use plastics and non-biodegradable materials (Yokokawa et al., 2021). These practices significantly contribute to pollution, depletion of resources, and enduring ecological harm (Boz et al., 2020).

The necessity of tackling this matter is emphasized by the growing worldwide recognition of environmental sustainability. Consumers are more aware of their ecological impact and are demanding that businesses implement ecologically sustainable strategies (Ghaffar et al., 2023). Within this particular framework, the integration of environmentally sustainable packaging into the food distribution system presents itself as a promising resolution. However, the precise impact of this environmentally-friendly packaging on consumer behavior is still a multifaceted and insufficiently researched element (Raman et al., 2022).

The main obstacle lies in comprehending the impact of adopting environmentally friendly packaging on consumers' decision-making, inclinations, and overall conduct within the realm of food delivery. There are uncertainties about whether customers actively search for businesses that use sustainable packaging if they are prepared to pay extra for these options, and how much eco-friendly packaging affects their decision-making process (X. Chen & Lee, 2022).

The current study holds multiple dimensions of importance. Firstly, it aims to fill the knowledge gap regarding the tangible influence of ecofriendly packaging on consumer behavior in the food delivery industry. It is essential for organizations that want to synchronize their practices with changing consumer expectations and values. Comprehending the impact of sustainable packaging on consumer decisions would enable organizations to customize their strategies, marketing, and product offers accordingly (Campbell et al., 2015). Furthermore, the research examines the economic dimension of sustainability by investigating consumers' inclination to spend additional funds on environmentally friendly packaging. Businesses must consider this information crucial in order to evaluate the financial feasibility of adopting sustainable practices. This study offers valuable insights into the extent to which customers perceive environmental responsibility as a worthwhile investment and how firms may integrate eco-friendly practices without jeopardizing their competitiveness (Nedungadi et al., 2023).

Finally, through an examination of whether customers have an innate preference for environmentally friendly packaging, the study provides insights into market patterns and possible changes in consumer behavior. Businesses seeking to predict and fulfill the increasing need for sustainable choices must possess this crucial knowledge, which promotes a favorable connection between environmental accountability and consumer contentment.

The problem statement highlights the urgent necessity to analyze the complex connection between environmentally friendly packaging and consumer behavior in the food delivery system. It recognizes the environmental difficulties caused by traditional packaging methods and aims to offer practical insights for a more sustainable and consumer-focused future.

Significance of the study

The current study is crucial for addressing the significant knowledge gap about how the integration of environmentally friendly packaging in the food delivery system influences customer behavior. The results of the current study are expected to offer crucial knowledge for businesses, legislators, and environmental activists. By understanding the influence of environmentally friendly packaging on consumer behavior, stakeholders may strategically align their practices with consumer expectations, promoting a more sustainable and ecologically conscious food distribution system.

Moreover, the current study seeks to elucidate consumers' inclination to spend an additional cost for packaging that is environmentally sustainable. This element carries economic repercussions for enterprises as they navigate the delicate balance between environmental care and financial success. Comprehending the level of consumer willingness to invest in sustainable packaging highlights the economic viability of shifting towards environmentally friendly alternatives.

Furthermore, in light of the growing recognition of eco-conscious practices in the market, it is crucial to determine whether consumers have an intrinsic preference for eco-friendly packaging. This understanding is

essential for firms that want to customize their products to match consumer expectations and take advantage of the growing demand for sustainable choices.

Review of Literature

Green Packaging and Consumer Behavior in Food Delivery

Businesses have recently sought methods to shape consumer behavior by altering the design of their packaging. This is especially apparent in the online shopping sector, where consumer choices are shaped by various factors including price, ease of use, and ecological footprint.

An area of consumer behavior that has received much focus in recent times is their inclination towards sustainable or environmentally-friendly packaging. Customers are more aware of the ecological consequences of their behavior, and this awareness also applies to the packing options offered by food delivery services (Tarangini et al., 2023). Multiple study has been done to investigate the correlation between eco-friendly packaging and consumer behavior in the food delivery system. (Ibrahim & Vignali, 2005) conducted a study examining consumer's views on their inclination to subscribe to fast food outlets. (Budiman, 2021) found that consumer views towards ecologically friendly packaging directly impacted their inclination to patronize global fast food chains. (Prakash & Pathak, 2016) conducted a study to examine how ecologically friendly packaging affects consumer views and their intention to support apparel retail brands. The study revealed that customers have a favorable disposition towards firms that employ eco-friendly packaging and are inclined to provide their support to such brands (Lee & Park, 2020). (Tsalis et al., 2022) investigated customer behaviors regarding plastic packaging employed by the food business. They implemented specific standards for plastic packaging to assist consumers in making better-educated decisions about food products that have less plastic packaging. Their research revealed that customers have a greater propensity to select food items that have minimal plastic packaging, signifying a transition towards consumer behavior that is more environmentally aware (Lindh et al., 2016).

(Ketelsen et al., 2020) has indicated that customers tend to respond favorably to eco-design packaging, resulting in a positive impact on their perception of quality, sustainability, and desire to make a purchase. As a result, fresh food delivery firms have embraced recyclable and environmentally friendly packaging options, including water-based ice packs, reusable cold storage bags, and recycled paper boxes. These campaigns exemplify an increasing inclination towards ecologically conscious packaging alternatives in the food delivery sector (Pires et al., 2015).

In overall, there is a distinct relationship between the use of environmentally-friendly packaging in the food delivery industry and the actions and choices of consumers. Consumers with a strong focus on sustainability are more inclined to participate in environmentally-friendly purchasing practices, such as selecting food delivery services that utilize eco-friendly packaging (Herbes et al., 2018). Furthermore, individuals are more inclined to have favorable opinions and attitudes towards businesses or stores that value sustainability by making conscious packaging decisions (Kasza et al., 2022).

Consumers willingness to pay

Currently, there is a growing apprehension regarding the ecological consequences of packaging materials, specifically within the realm of the food sector. Studies have demonstrated a significant link between customers' level of awareness about the environment and their inclination towards eco-friendly packaging design (Chiralt et al., 2019). A growing number of people are actively searching for products that align with their dedication to sustainability.

Prior research has emphasized the importance of the willingness of customers to spend a higher amount on sustainable items, particularly their packaging (Popovic et al., 2020). While the emphasis has always been on features of products, there is currently an increasing recognition of the significance of environmentally friendly packaging in influencing consumers' buying habits (Bandara et al., 2022).

A study conducted by (Asim et al., 2022) corroborated the notion that environmentally friendly packaging fosters environmentally conscious purchasing. More precisely, the research showed that young customers exhibit a favorable disposition towards environmentally conscious packaging and are likely to allocate greater financial resources towards sustainable items. These findings shows that there is a significant market demand for packaging that is environmentally friendly, and consumers are prepared to allocate their resources towards purchasing solutions that are environmentally responsible. Furthermore, researchers have highlighted a reluctance to spend additional money on sustainable products and packaging as a hindrance (Münch, 2023). Moreover, studies have found that utilizing environmentally friendly packaging has a favorable effect on the reputation of a business and can foster heightened customer allegiance to the brand (Majeed et al., 2022). This underscores the need to integrate sustainable packaging methods for businesses operating in the food sector (Popovic et al., 2019).

Prior research have investigated the relationship between an individual's socioeconomic status and their waste management practices, in addition to the necessity of redesigning plastics to enhance their environmental friendliness, affordability, and reusability (Otto et al., 2021). (Sharma & Shukul, 2012) examines residential waste sorting practices in Jakarta, as well as the inconsistencies between consumer attitudes and actions regarding the reduction of plastic packaging. Nevertheless, an area of research remains unexplored concerning

the fundamental implications and significance of the food industry's utilization of non-eco-friendly packaging, notwithstanding the existence of more sustainable alternatives.

Literature suggests that as consumers become more dedicated to sustainability and environmental awareness, they are increasingly willing to spend extra for packaging that is kinder to the planet (Kumar et al., 2021). It is essential to note, nevertheless, that not all consumers demonstrate an equivalent degree of willingness to pay an extra amount for environmentally responsible packaging (Zhang et al., 2018). The readiness of customers to pay a higher price for sustainable products and their attitudes toward eco-friendly packaging can be impacted by variables including age, income level, and education (X. Chen et al., 2018). Gaining insight into the extent to which consumers are willing to incur additional costs for packaging that is environmentally friendly is vital information for companies aiming to adapt to changing consumer preferences and implement sustainable practices (C.-C. Chen et al., 2021). According to (Wei et al., 2018) consumer readiness to pay a premium for eco-friendly packaging is growing. The desire is motivated by many elements, encompassing the perception of superior quality, bolstered corporate reputation, heightened brand allegiance, individual standards of conduct, environmental attitudes, and the aspiration to mitigate ecological footprint (Merlino et al., 2020).

In order to make progress, policymakers and businesses seeking to promote environmentally friendly practices in the food industry would benefit from a thorough examination of the current body of literature concerning consumer behavior and willingness to pay for sustainable packaging.

A compilation of research findings from multiple sources is presented in this literature review, which pertains to the propensity of consumers to pay a premium for packaging that is environmentally friendly. The existing body of literature indicates that consumer demand for environmentally responsible packaging is increasing.

Research gap

Existing research on Eco-friendly packaging frequently neglects to consider the food delivery system within its context. The complexities of consumer behavior in this specific context, which is marked by diverse food varieties, time constraints, and delivery logistics, have not been exhaustively investigated. The interaction between consumer perceptions of eco-friendly packaging and these contextual factors is an uncharted territory. Although the significance of the readiness of consumers to give a higher amount for environmentally sustainable packaging is recognized, there is a scarcity of comprehensive analysis on the subject. Prior research frequently offers general conclusions without thoroughly examining the determinants of this preference, the degree to which customers are prepared to pay an additional amount, or the financial ramifications for enterprises operating in the food delivery industry.

Objectives

- To assess the impact of green packaging on consumer behavior in the context of the food delivery system.
- To identify the consumers' willingness to pay more for environmentally friendly packaging in the food delivery industry.
- To determine whether consumers express a preference for eco-friendly packaging.

Hypotheses

H1: There is no significant influence of green packaging on consumer behaviour.

H2: There is no significant difference in willingness to pay more for green products based on income.

Research Methodology

The study is analytical and both primary and secondary data were used for the study. Numerous sources, including journals, periodicals, publications, reports, books, articles, research papers, theses, and so on, were used to gather the secondary data. The primary data were gathered by using simple random sample technique from customers. The data were collected by distributing structured questionnaires. In this study, a closed-ended questionnaire with statements and multiple choice questions were employed. There were 200 questionnaires were distributed in total and 180 responses were analysed as 20 responses were rejected as it was not filled properly. The data were analysed by using appropriate statistical tools.

Results and Discussion

Demographic Variables

Table 1: Demographic Characteristics of Respondents

Characteristic	Value	Frequency	Percentage (%)
Gender	Male	76	42%
	Female	104	58%
	Total	180	100%
Age	18-24	119	66%
	25-35	43	24%
	35-44	12	7%

	45-54	5	2%
	55-64	0	0
	65+	1	1%
	Total	180	100%
	Annual Income	Under 2,00,000	96
2,00,000-4,00,000		44	25%
4,00,000-8,00,000		33	18%
Above 8,00,000		7	4%
Total		180	100%

Source: Primary Data

The table 1 depicts the demographic characteristics of the respondents. The table shows that there are 76 male respondents, constituting 42% of the total sample, and 104 female respondents, representing 58% of the total samples. There are 119 respondents in the 18-24 age group, constituting 66% of the total sample. There are 43 respondents in the 25-35 age group, representing 24% of the total sample. The 35-44 age group has 12 respondents, making up 7% of the total. There are 5 respondents in the 45-54 age group, accounting for 2% of the total sample. The table indicates that there are no respondents in the 55-64 age group and There is only one respondent in the 65+ age group, making up 1% of the total. The age distribution is valuable for understanding the demographics of the surveyed population.

The table provides information on the distribution of respondents based on different annual income brackets. There are 96 respondents in the under 2,00,000 income bracket, representing 53% of the total sample. There are 44 respondents in the 2,00,000-4,00,000 income bracket, making up 25% of the total sample. The 4,00,000-8,00,000 income bracket includes 33 respondents, accounting for 18% of the total. The highest income bracket, above 8,00,000, has 7 respondents, making up 4% of the total sample. This information is valuable for understanding the economic diversity of the surveyed population and can be useful for tailoring strategies or interventions based on income levels.

Table 2: Opinion on Green Package

Factors	Number of Respondents			Percentage		
	Yes	No	Don't Know	Yes	No	Don't Know
Bought take away order in a green package	134	46	0	74%	26%	0%
Like to dine at a "green" or sustainable restaurant	143	5	32	79%	3%	18%

Source: Primary Data

The table 2 depicts the opinion of respondents towards green packaging. From the table, it can be interpreted that significant majority of respondents (74%) have bought a take-away order in a green package. On the other hand, 26% of respondents have not made such a purchase. the data indicates a positive inclination toward buying take-away orders in green packaging among the surveyed population. This information is valuable for understanding consumer behavior and preferences related to environmentally friendly packaging in the context of take-away orders.

The table also shows that a substantial majority of respondents (79%) express a preference for dining at a "green" or sustainable restaurant. Only a small percentage (3%) indicates a preference against such dining, and 18% are uncertain or do not know. This preference aligns with environmentally conscious choices, and the low percentage of respondents expressing a negative preference suggests a generally positive attitude toward sustainable dining options.

Table 3: Factors influencing purchase of food from any restaurant

Factors influencing purchase of food	Number of Respondents	Percentage
The price of the food	18	10%
The quality of the food	126	70%
The service they offer	14	8%
The brand, the name of the restaurant	11	6%
The restaurant's impact on the environment	11	6%
Total	180	100%

Source: Primary Data

The table 3 shows the factors that influence a customer while purchasing food from a restaurant. The majority of respondents (70%) consider the quality of the food as the most influential factor when making a food

purchase. Price is the second most important factor, with 10% of respondents indicating it as a key consideration. Other factors, such as the service offered by the restaurant, the brand or name of the restaurant, and the restaurant's impact on the environment, each contribute to a smaller percentage (ranging from 6% to 8%) of respondents' considerations.

Table 4: Willingness to Pay More for Eco-Friendly Packaging

Willingness to Pay More for Eco-Friendly Packaging	Number of Respondents	Percentage
Yes, I would pay more	80	44%
No, I would not pay more	28	16%
It depends on the price difference	72	40%
Total	180	100%

Source: Primary Data

The table 4 shows the opinion of customers with regard to their willingness to pay more for Eco-Friendly Packaging. The majority of respondents (44%) express a willingness to pay much for environment friendly packaging. This suggests a positive attitude among a significant portion of the surveyed population toward environmentally friendly packaging options. A notable proportion of respondents (40%) indicate that their willingness to pay more depends on the price difference. A smaller percentage (16%) of respondent’s state that they would not pay more for eco-friendly packaging.

Table 5: Influence of green packaging to choose one food delivery service over another

Influence of green packaging	Number of Respondents	Percentage
Strongly Influences	51	28%
Moderately Influences	84	46%
Slightly Influences	34	20%
Does Not Influence	11	6%
Total	180	100%

Source: Primary Data

The table 5 shows the influence of green packaging on consumers decision to choose one food delivery service over another. The majority of respondents (74%) indicate that green packaging has a positive influence on their purchasing decisions. This includes respondents who strongly (28%) and moderately (46%) feel influenced by the presence of green packaging. A significant portion of respondents (20%) states that green packaging slightly influences their decisions. A smaller but still notable percentage of respondents (6%) claim that green packaging does not influence their purchasing decisions.

H1: There is no significant influence of green packaging on consumer behaviour.

Table 6: Impact of Green Packaging on Consumer Behaviour

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.291	.084	.074	3.64870

Source: Primary Data

The values obtained from the table above indicate that R is 0.291, R² value is 0.084, Adjusted R² value is 0.074, Standard Error of the Estimate is 3.64870. This implies the independent variable explains 8.4% variance over the dependent factor consumer behaviour. Consequently, the validation of the regression fit is accomplished, as illustrated in the subsequent ANOVA table.

Table 7: ANOVA Impact of Green Packaging on Consumer Behaviour

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	217.349	2	108.674	8.163	.000 ^b
	Residual	2356.401	177	13.313		
	Total	2573.750	179			

Source: Primary data

From the table above, it is clear that F value is 8.163, P value is 0.000 is statistically significant at 5%. This implies there is a deep relationship between green packaging and consumer behaviour. The individual influence is identified in the following coefficient table.

Table 8: Coefficients of Impact of Green Packaging on Consumer Behaviour

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.592	1.246		7.700	.000
Importance of packaging of food using environmentally friendly materials	.810	.267	.228	3.029	.003
Satisfaction with regard to the current efforts of food delivery services in using green packaging	.467	.285	.124	1.642	.102

Source: Primary data

The dependent variable's change for every unit in this predictor is shown by the coefficient. The positive sign indicates a positive organization, and the p-value (0.003) is less than 0.05, indicating statistical significance, according to the co-efficient table above. That is the packaging of food using environmentally friendly materials has an impact on the consumer behaviour. Satisfaction with regard to the current efforts of food delivery services in using green packaging has no significant impact as the p-value (0.102) is greater than 0.05.

Based on the overall model's statistical significance (Table 6), there is evidence to reject the null hypothesis. However, when looking at individual variables (Table 8), many of them are not statistically significant, suggesting that green packaging may significantly influence consumer behaviour.

The hypothesis "There is no significant influence of green packaging on consumer behaviour" is rejected. The overall regression model is statistically significant ($p < 0.05$), indicating that at least one of the independent variables (the packaging of food using environmentally friendly materials) has a significant influence on the consumer behaviour.

H₂: There is no significant difference in willingness to pay more for green products based on income.

Table 9: Willingness to pay more for the green products

ANOVA					
Willingness to pay more for the green products					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31.574	3	10.525	1.835	.142
Within Groups	1009.376	176	5.735		
Total	1040.950	179			

Source: Primary Data

The following table suggests that the "Between Groups" section examines the variability in means about willingness to pay more for green items across different groups (income categories). Along with the F-statistic, the related p-value (significance) is 0.142. The null hypothesis cannot be rejected since there is insufficient evidence, as the p-value is more than 0.05. Hence the hypothesis "There is no significant difference in willingness to pay more for green products based on income" is failed to reject and concluded that the willingness to pay extra for environmentally friendly products is similar across all income groups.

Table 10: Preference for Eco-Friendly Packaging

Statement	1	2	3	4	Score	Rank
I think green materials should be recyclable, reusable or disposable	67	97	8	8	317	IV
I prefer package that I can reuse it many times.	53	108	13	6	332	I
I think green packaging should have green label on it.	57	108	11	4	322	III
I don't have any preference for green material but at least no plastic.	59	102	12	7	327	II

Source: Primary Data

The table depicts the preference of respondents towards ecofriendly packaging. Reusable packaging is strongly preferred by respondents, as shown by the top ranking of the statement "I prefer packaging that I can reuse many times." This suggests a significant demand for environmentally friendly and sustainable packaging solutions. Furthermore, the majority of respondents emphasize the significance of environmentally friendly qualities by believing that green materials should be recyclable, reusable, or disposable. The statement that "I don't have any preference for green material but at least no plastic" implies that a sizable percentage of respondents gave non-plastic materials priority, indicating a general understanding and concern for lowering the use of plastic. Overall, the data highlights a favorable trend toward environmentally friendly packaging techniques, especially those that prioritize reusability and a decrease in the amount of plastic used.

Findings

- The gender distribution shows that majority of the samples are female and the age distribution shows that majority of the respondents are youngsters.
- The majority of respondents (53%) have an annual income less than Rs.2,00,000/-.
- The majority of respondents (74%) have bought a take-away order in a green package.
- Majority of respondents (79%) express a preference for dining at a "green" or sustainable restaurant.
- Majority of respondents (70%) consider the quality of the food as the most influential factor when making a food purchase and price was considered as the second most important factor.
- Only 6 percentage of the respondents consider the impact of the restaurant's activity on the environment.
- The majority of respondents (44%) are willing to pay more for eco-friendly packaging while a significant percentage of the respondents (40%) indicated that their willingness to pay more depends on the price difference.
- From the regression analysis it is found that green packaging significantly influences the consumer behaviour.
- The study found that willingness to pay extra for environmentally friendly products is similar across all income groups.
- Majority of respondents (74%) indicate that green packaging has a positive influence on their purchasing decisions and reusable packaging is strongly preferred by the respondents.

Suggestions

- There is a chance for awareness campaigns because few respondents consider about how the restaurant's operations affect the environment.
- A significant number of respondents say that the price difference determines whether they would be willing to pay extra for eco-friendly packaging. As a result, companies should think about minimizing the financial impact of their green initiatives or emphasizing the long-term advantages of these actions.
- Given that the participants are prepared to pay an extra cost for environmentally friendly and reusable packaging, it would be wise for businesses to accept and endorse these practices.
- To raise awareness and promote the use of green packaging, the government and other relevant authorities should take the necessary actions.
- Take into account the associations with environmental organizations and certifications that work for environmentally friendly operations.

Conclusion

This study explores the complex preferences and behaviors of consumers in the ever-changing food industry, highlighting important trends that companies can use to satisfy customers and promote environmental sustainability. A notable finding is that most respondents strongly preferred eating at "green" or sustainable restaurants, demonstrating their strong inclination toward eco-friendly practices. This highlights how consumers are becoming more environmentally conscious and looking for restaurants that offer delicious food in addition to being environmentally conscious. In summary, this research not only reveals the trends in consumer preferences within the food sector, but it also offers practical advice to help companies adapt to the changing environment. Restaurants can position themselves as leaders in both culinary excellence and environmental responsibility by embracing sustainability, emphasizing quality, and effectively communicating eco-friendly initiatives. This will pave the way for a future that is both more consumer-conscious and environmentally sustainable.

Future Research Directions

Future studies in this area should examine the intricacies of various cuisines, delivery logistics, and changing consumer tastes in order to gain a greater understanding of the dynamics of consumer behavior in the meal delivery industry. Furthermore, investigating how particular eco-friendly package characteristics—like materials, design components, and messaging—affect customer decisions may yield insightful information for companies looking to maximize their use of sustainable packaging. A more thorough understanding would come from looking into how cultural influences and regional differences affect consumer perceptions about eco-friendly packaging in the context of food delivery. Furthermore, longitudinal research that monitors how customer behavior patterns change over time would offer a dynamic viewpoint on how sustainable packaging affects the options for food delivery. Lastly, taking into account the possible impact of marketing and communication methods in encouraging customers to use eco-friendly packaging could be a productive direction for further study in this area.

References

1. Asim, Z., Shamsi, I. R., Wahaj, M., Raza, A., Abul Hasan, S., Siddiqui, S. A., Aladresi, A., Sorooshian, S., & Seng Teck, T. (2022). Significance of Sustainable Packaging: A Case-Study from a Supply Chain Perspective. In *Applied System Innovation* (Vol. 5, Issue 6). <https://doi.org/10.3390/asi5060117>
2. Bandara, H. M. G. M., Lakmali, M. G. T., & Samaraweera, G. C. (2022). *Impact of Visual and Verbal Elements of Eco-Friendly Packaging on Consumer Buying Behavior*. 8(1), 38–58. <https://doi.org/10.4038/jdza.v8i1.54>
3. Boesen, S., Bey, N., & Niero, M. (2019). Environmental sustainability of liquid food packaging: Is there a gap between Danish consumers' perception and learnings from life cycle assessment? *Journal of Cleaner Production*, 210, 1193–1206. <https://doi.org/10.1016/j.jclepro.2018.11.055>
4. Boz, Z., Korhonen, V., & Sand, C. K. (2020). Consumer Considerations for the Implementation of Sustainable Packaging: A Review. *Sustainability*, 12(6), 2192. <https://doi.org/10.3390/su12062192>
5. Budiman, A. (2021). What is affecting Muslim to Subscribing Halal Restaurant? *Jurnal Orientasi Bisnis Dan Entrepreneurship (JOBS)*, 1, 53–69. <https://doi.org/10.33476/jobs.v1i2.1687>
6. Campbell, B. L., Khachatryan, H., Behe, B. K., Dennis, J. H., & Hall, C. B. (2015). Consumer Perceptions of Eco-friendly and Sustainable Terms. *Agricultural and Resource Economics Review*, 44(1), 21–34. <https://doi.org/10.1017/s1068280500004603>
7. Chen, C.-C., Sujanto, R. Y., Tseng, M.-L., Chiu, A. S. F., & Lim, M. K. (2021). How Is the Sustainable Consumption Intention Model in Food Industry under Preference Uncertainties? The Consumer Willingness to Pay on Recycled Packaging Material. *Sustainability*, 13(21), 11578. <https://doi.org/10.3390/su132111578>

8. Chen, X., Gao, Z., Swisher, M. E., House, L., & Zhao, X. (2018). Eco-labeling in the Fresh Produce Market: Not All Environmentally Friendly Labels Are Equally Valued. *Ecological Economics*, 154, 201–210. <https://doi.org/10.1016/j.ecolecon.2018.07.014>
9. Chen, X., & Lee, T. J. (2022). Potential effects of green brand legitimacy and the biospheric value of eco-friendly behavior on online food delivery: a mediation approach. *International Journal of Contemporary Hospitality Management*, 34(11), 4080–4102. <https://doi.org/10.1108/ijchm-07-2021-0892>
10. Chiralt, A., Mazzaglia, A., & Balestra, G. M. (2019). Sustainable control strategies for plant protection and food packaging sectors by natural substances and novel nanotechnological approaches. *Journal of the Science of Food and Agriculture*, 99(3), 986–1000. <https://doi.org/10.1002/jsfa.9341>
11. Gadhav, R. V., Gadhav, C. R., & Dhawale, P. V. (2022). Plastic-Free Bioactive Paper Coatings, Way to Next-Generation Sustainable Paper Packaging Application: A Review. *Green and Sustainable Chemistry*, 12(02), 9–27. <https://doi.org/10.4236/gsc.2022.122002>
12. Ghaffar, A., Islam, T., Khan, H., Kincl, T., & Sharma, A. (2023). A sustainable Retailer's journey to sustainable practices: Prioritizing the customer and the planet. *Journal of Retailing and Consumer Services*, 74, 103388. <https://doi.org/10.1016/j.jretconser.2023.103388>
13. Herbes, C., Beuthner, C., & Ramme, I. (2018). Consumer attitudes towards biobased packaging – A cross-cultural comparative study. *Journal of Cleaner Production*, 194, 203–218. <https://doi.org/10.1016/j.jclepro.2018.05.106>
14. Ibrahim, Y., & Vignali, C. (2005). Predicting Consumer Patronage Behaviour in the Egyptian Fast Food Business. *Innovative Marketing*, 1.
15. Kasza, G., Olsen, N. V., Scholderer, J., Münter, L., Fekete, L., Csenki, E. Z., Dorkó, A., Szakos, D., & Izsó, T. (2022). Conflicting Issues of Sustainable Consumption and Food Safety: Risky Consumer Behaviors in Reducing Food Waste and Plastic Packaging. *Foods*, 11(21), 3520. <https://doi.org/10.3390/foods11213520>
16. Ketelsen, M., Janssen, M., & Hamm, U. (2020). Consumers' response to environmentally-friendly food packaging - A systematic review. *Journal of Cleaner Production*, 254, 120123. <https://doi.org/10.1016/j.jclepro.2020.120123>
17. Khalid, M., & Arif, Z. U. (2022). Novel biopolymer-based sustainable composites for food packaging applications: A narrative review. *Food Packaging and Shelf Life*, 33, 100892. <https://doi.org/10.1016/j.fpsl.2022.100892>
18. Kumar, A., Prakash, G., & Kumar, G. (2021). Does environmentally responsible purchase intention matter for consumers? A predictive sustainable model developed through an empirical study. *Journal of Retailing and Consumer Services*, 58, 102270. <https://doi.org/10.1016/j.jretconser.2020.102270>
19. Lee, J., & Park, K. (2020). *Because It Is Green or Beautiful? Consumer's Perceived Value of a Unique Type of Sustainable Packaging, Store Evaluation, and Store Patronage Intentions*. <https://doi.org/10.31274/itaa.12190>
20. Lindh, H., Olsson, A., & Williams, H. M. (2016). Consumer Perceptions of Food Packaging: Contributing to or Counteracting Environmentally Sustainable Development? *Packaging Technology and Science*, 29(1), 3–23. <https://doi.org/10.1002/pts.2184>
21. Majeed, M. T., Aslam, S., Murtaza, S., Attila, S., & Molnár, E. (2022). Green Marketing Approaches and Their Impact on Green Purchase Intentions: Mediating Role of Green Brand Image and Consumer Beliefs towards the Environment. *Sustainability*, 14(18), 11703. <https://doi.org/10.3390/su141811703>
22. Merlino, V. M., Brun, F., Versino, A., & Blanc, S. (2020). Milk packaging innovation: Consumer perception and willingness to pay. *AIMS Agriculture and Food*, 5(2), 307–326. <https://doi.org/10.3934/agrfood.2020.2.307>
23. Münch, C. (2023). *Shaping the Future of Supply Chain Management The Role of Digital Servitization, Resilience, and Sustainability in Achieving Competitive Advantage in an Era of Environmental Dynamism*.
24. Nedungadi, P., Salethoor, S. N., Puthiyedath, R., Nair, V. K., Kessler, C., & Raman, R. (2023). Ayurveda research: Emerging trends and mapping to sustainable development goals. *Journal of Ayurveda and Integrative Medicine*, 14(6). <https://doi.org/10.1016/j.jaim.2023.100809>
25. Otto, S. P., Strenger, M., Maier-Nöth, A., & Schmid, M. (2021). Food packaging and sustainability – Consumer perception vs. correlated scientific facts: A review. *Journal of Cleaner Production*, 298, 126733. <https://doi.org/10.1016/j.jclepro.2021.126733>
26. Pires, A., Portela, G., & Fonseca, M. (2015). Factors affecting consumers' choices concerning sustainable packaging during product purchase and recycling. *Resources Conservation and Recycling*, 103, 58–68. <https://doi.org/10.1016/j.resconrec.2015.07.012>
27. Popovic, I., Bossink, B., & van der Sijde, P. (2019). Factors Influencing Consumers' Decision to Purchase Food in Environmentally Friendly Packaging: What Do We Know and Where Do We Go from Here? *Sustainability*, 11(24), 7197. <https://doi.org/10.3390/su11247197>
28. Popovic, I., Bossink, B., van der Sijde, P., & Fong, C. (2020). Why Are Consumers Willing to Pay More for Liquid Foods in Environmentally Friendly Packaging? A Dual Attitudes Perspective. *Sustainability*, 12(7), 2812. <https://doi.org/10.3390/su12072812>

29. Prakash, G., & Pathak, P. (2016). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 141. <https://doi.org/10.1016/j.jclepro.2016.09.116>
30. Raman, A., Sankar, A., Abhirami, S. D., Anilkumar, A., & Saritha, A. (2022). Insights into the Sustainable Development of Lignin-Based Textiles for Functional Applications. In *Macromolecular Materials and Engineering* (Vol. 307, Issue 8). John Wiley and Sons Inc. <https://doi.org/10.1002/mame.202200114>
31. Sharma, S., & Shukul, M. (2012). Eco-friendly Packaging of Selected Consumer Goods and Environmental Concern of Homemakers. *Journal of Human Ecology*. <https://doi.org/10.1080/09709274.2012.11906546>
32. Singh, V., Tejyan, S., Kumar, S., & Singh, T. (2024). Enabling sustainable freight transport with longer, heavier vehicles in India. *Case Studies on Transport Policy*, 15, 101138. <https://doi.org/10.1016/j.cstp.2023.101138>
33. Tarangini, K., Huthaash, K., Nandha Kumar, V., Kumar, S. T., Jayakumar, O. D., Waclawek, S., Rao, K. J., & Padil, V. V. T. (2023). Eco-Friendly Bioplastic Material Development Via Sustainable Seaweed Biocomposite. *Ecological Chemistry and Engineering S*, 30(3), 333–341. <https://doi.org/10.2478/eces-2023-0036>
34. Thuppahige, V. T. W., & Karim, A. (2021). A comprehensive review on the properties and functionalities of biodegradable and semibiodegradable food packaging materials. *Comprehensive Reviews in Food Science and Food Safety*, 21(1), 689–718. <https://doi.org/10.1111/1541-4337.12873>
35. Tsalis, T., Stefanakis, A., & Nikolaou, I. (2022). A Framework to Evaluate the Social Life Cycle Impact of Products under the Circular Economy Thinking. *Sustainability*, 14, 2196. <https://doi.org/10.3390/su14042196>
36. Verma, G. G., & Biswas, S. N. (2023). Ethical workplace climate in nonprofit organizations: Conceptualization and measurement. *Business Ethics, the Environment and Responsibility*, 32(4), 1217–1232. <https://doi.org/10.1111/beer.12568>
37. Wei, W., Kim, G., Miao, L., Behnke, C., & Almanza, B. (2018). Consumer inferences of corporate social responsibility (CSR) claims on packaged foods. *Journal of Business Research*, 83, 186–201. <https://doi.org/10.1016/j.jbusres.2017.10.046>
38. Yokokawa, N., Amasawa, E., & Hirao, M. (2021). Design assessment framework for food packaging integrating consumer preferences and environmental impact. *Sustainable Production and Consumption*, 27, 1514–1525. <https://doi.org/10.1016/j.spc.2021.03.027>
39. Zhang, B., Fu, Z., Huang, J., Wang, J., Xu, S., & Zhang, L. (2018). Consumers' perceptions, purchase intention, and willingness to pay a premium price for safe vegetables: A case study of Beijing, China. *Journal of Cleaner Production*, 197, 1498–1507. <https://doi.org/10.1016/j.jclepro.2018.06.273>