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Eco-Friendly Packaging, Consumer Behavior, Environmental Protection, Sustainable Consumption, Recycling

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ABSTRACT | Objective: The study aims to explore the impact of eco-friendly packaging on consumer purchasing behavior in Chandigarh. The objectives include understanding consumer preferences for eco-packaging, the motivations behind their choices, and the role of information in shaping sustainable behavior. **Methodology:** A quantitative research method was employed, using an online survey with 268 valid responses from 300 distributed questionnaires. The survey consisted of various question types to gather comprehensive data on consumer attitudes and behaviors regarding eco-friendly packaging. **Results:** The findings reveal that a significant majority of consumers (86%) prefer to buy products in eco-friendly packaging, primarily influenced by environmental protection and the ability to recycle. The most preferred materials were paper (75%), glass (50%), and cardboard (15%). However, high costs and lack of information were major barriers to adopting sustainable packaging practices. **Conclusions:** Consumers in Chandigarh show a strong preference for eco-friendly packaging, driven by environmental concerns and the potential for recycling. To enhance sustainable behavior, it is crucial to improve consumer awareness and provide economic incentives. Marketing strategies should focus on educating consumers about the long-term benefits of eco-packaging and promoting eco-labeling.

Keywords | Consumer Behaviour, Packaging, Eco-friendly packaging, Environmental Protection.

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INTRODUCTION

Customer preferences can play a big role in how environmental concerns are solved. The environmental impact of consumers' desire for eco-friendly items and the usage of recyclable packaging will be substantial. Put another way, customers are crucial to the development of environmentally friendly product regulations. Therefore, it is important to promote and encourage responsible consuming practises in society. Sustainable food consumption should be the goal for a growing population. Rather than limiting the quantity of products and services, more favourable patterns of consumption can be established to achieve sustainable food consumption. The advancement of sustainable food consumption can be facilitated by identifying consumer attitudes on food consumption. In the meanwhile, eliminating food waste is crucial for sustainable food consumption.

Numerous environmental issues, including the depletion of natural resources, biological diversity loss, air, water, and soil pollution, and reduced water resources, have grown as a result of climate change and global warming, the effects of which are becoming more severe. Since environmental issues have peaked today, there is a greater need than ever to carefully consider how to influence customer behaviour when it comes to environmental issues. The advancement of sustainable food consumption can be facilitated by identifying consumer attitudes on food consumption. In the meanwhile, eliminating food waste is crucial for sustainable food consumption. Numerous environmental issues, including the depletion of natural resources, biological diversity loss, air, water, and soil pollution, and reduced water resources, have grown as a result of climate change and global warming, the effects of which are becoming more severe. Since environmental issues have peaked today, there is a greater need than ever to carefully consider how to influence customer behaviour when it comes to environmental issues.

One of the most crucial components of any product, whether food-related or not, is its packaging since a product that is well-packed can be guaranteed to protect the consumer. The package type has the ability to draw in customers and serves as a communication tool between companies and end users. But because of the new guidelines for environmental protection, it needs to be both ecologically friendly and safe for the products. Packaging in today's society needs to fulfil both certain environmental goals and basic product requirements. There are four distinct marketing purposes for the packaging. The product is first contained and protected by the packaging, and then the packaging serves to advertise the product. In addition, packaging makes products easier for customers to use and reduces environmental damage through recycling.

Eco-Packaging and Consumer Behavior

Packaging is a crucial component of sales. The need for environmentally friendly packaging is constantly increasing as it has been revealed in recent years that packaging contributes significantly to pollution levels. Packaging has changed radically lately, especially as a result of unlimited consumer access to information. In other words, consumers are well informed about the impact of packaging on the environment, the waste of resources, and looking for packaging that suits their needs and needs.

Studies have shown that consumers place a higher value on goods packaged in environmentally friendly ways. However, there are many organic products on the market, and little research has been done to find out what consumers think of them. As such, there is a need to pay greater attention to consumer preferences regarding environmentally friendly packaging for products.

Consumers must change their behaviour towards sustainable consumption and gain an ecological awareness in order to become environmentally friendly. They can do this by learning about the ecological effects of their actions, comprehending the consequences of their actions, or changing their attitude towards ecological aspects and products. According to Yaacob and Zakaria, people typically purchase eco- friendly goods in order to help the environment.



Behavior and Attitudes

There are various models that can be used to explain sustainable consumer behaviour. The theory of planned behaviour (TPB), which takes into account the normative and cognitive factors influencing consumer behaviour, is the foundation of the first model. Many academics use it to forecast and explain recycling habits, sustainable consumption patterns, or individual perspectives on sustainable development. In addition to the variables listed in the first model, values-beliefs-norms (VBN) are regarded in another model as significant determinants of attitude, which in turn influences the determinant element of consumer behaviour. In addition to other factors, moral standards can be a significant factor in explaining sustainable behaviour; however, their influence on consumer choice is limited. In fact, if an additional cost is associated with purchasing a typical product, this could potentially lead to a Business Strategies.

REVIEW LITERATURE

Julia Koch et al (2022) In recent years, there has been a steady increase in online retail sales, which has been further accelerated by the COVID-19 pandemic. However, the environment is harmed by the widespread use of packaging in online retail. While environmentally friendly packaging is becoming more popular, it is still unknown what factors influence consumers' intentions to use this kind of packaging.

This study examines consumer motivations for adopting eco-friendly packaging in online retail using a goal-framing approach. We use structural equation modelling to examine data from 1,491 German consumers. The findings show that while hedonic motives appear to be less significant, gain and normative motives have a positive impact on consumers' choice of eco-friendly packaging. The results uncover the key goal frames that influence consumers' intentions to use eco-friendly packaging in online retail, which advances our theoretical understanding of sustainable consumer behaviour. We offer guidance to e-commerce merchants on the functional needs that need to be taken into account in order to satisfy customer demands when implementing environmentally friendly packaging.

Boz, Ziyne (2020) The notions of packaging sustainability have developed in tandem with the growing adoption of sustainable development principles across industries and organisational structures. Plastic pollution, waste from packaging, deteriorating soil, water, and air quality, climate change, and other modern issues are currently having an impact on the packaging sector. Companies may be dissuaded from implementing more sustainable packaging by obstacles like value chain complexity and unfavourable consumer attitudes brought on by the demands of sustainable behaviours on the social, economic, and environmental fronts. Therefore, it's possible that packaging with increased sustainability will never be introduced to the market. Nonetheless, initiatives that foster a favourable consumer perception of sustainable packaging may serve as a source of inspiration for the next wave of sustainable solutions. A thorough grasp of consumer dynamics regarding ecological material preferences, willingness to pay, recycling, and factors influencing sustainable behaviours is crucial for directing efforts. The work's objectives are as follows: (i) investigate definitions, theories of consumer behaviour, and the impact of sustainable packaging in the value chain; (ii) evaluate current practises, factors influencing sustainable behaviours, and consumer testing methods; (iii) present three different case studies on consumer preferences and value perceptions regarding bio-based cellulose materials, as well as the influence of pre-evaluation education and on-label claims on consumer preferences; and (iv) identify areas of research gaps and opportunities for consumer research, as well as recommendations for stakeholders seeking to educate consumers about sustainable packaging.



Gyan Prakash et.al. (2017) This essay aims to investigate how eco-designed packaging affects consumer behaviour. The framework utilised to identify and assess the relative significance of the main antecedents of Eco designed packaging behaviour was the theory of reasoned action (TRA). The suggested conceptual model was tested and the data of 204 young Indian consumers was analysed using structural equation modelling. The study's conclusion demonstrated that attitudes, willingness to pay, personal norms, and environmental concern all have a substantial impact on consumers' intentions to purchase eco-friendly packaging. The study offers intriguing perspectives on the attitudes of younger consumers towards environmentally friendly packaging. Marketers will find these insightful ideas useful in crafting targeted strategies for younger consumers and motivating them to lessen the packaging's environmental impact worldwide.

RESEARCH METHODOLOGY

The quantitative research aimed to determine the familiarity of the consumer regarding the role of sustainable packaging in the formation of sustainable behavior. The research, through its major objectives, identifying consumer preferences for organic packaging, knowing the reasons for buying/not buying the environmental packaging and the role of information for the consumer, helps determine the major factors influencing the consumer's perception of ecological packaging and, implicitly, his/her sustainable behavior.

Sampling

268 valid questionnaires were obtained from the 300 respondents in the sample for the quantitative study. Despite being exploratory in nature, the results of the analysis and interpretation of the data gathered from respondents are valuable if they are supported by other earlier research on the same topic.

Table 1. Sample structure

Variables	Contribution in Sample	Result
Age	18-25	6.30%
	26-35	47%
	46-55	30.40%
	56-65	4.20%
	Above 65	0.5%
Residence	Tricity	60%
	Rural area	15%
	Urban Area	25%
Gender	Male	72.16%
	Female	27.84%

Data Collection

The online survey method was used to conduct the study as a tool based on a questionnaire that was created with the research purpose in mind. Six closed questions (Q3, Q4, Q6, Q7, Q8, Q9, Q11), two dichotomous closed questions (Q1 and Q10), two mixed questions (Q2 and Q5) that sought to identify additional reasons beyond those listed in the variants, an open question, and seven closed questions made up the total of sixteen questions. Five of the questions were sociodemographic classifications (age, gender, income, level of studies, and residence environment).



A systematic model has been developed that demonstrates how the analysed variables lead to the accomplishment of the goals and purpose of the research in order to analyse and interpret the results obtained in these questions as well as to generate bivariate correlations and analyses that lead to significant data for the researched subject.

RESULT

The findings (Table 2) indicate that consumers want to learn more about organic packaging and want to purchase goods in it. It's also notable that they focus on the information on the product label first. The majority of respondents stated that product labels are the primary source of information about product packaging, followed by online resources and informational campaigns from manufacturers and distributors.

Table 2

Questions	Measurement	Results
Buy products in ecological packaging?	Yes	86%
	No	14%
Source of information	Directly from the product label	88.4%
	From the information campaigns of producers and merchants	27.6%
	From social media	19.3%
	Others	1.8%
Preferred eco-packaging	Glass	50%
	Paper	75%
	Cardboard	15%
	Wood	18%
The reasons to prefer green packaging	Protect the environment	72.25%
	Reused/recycle organic	70.01%
		15%
The advantages of using organic packaging by producers and traders	Greater product protection	19.0%
	Possibility of recycling	77.0%
	Reducing waste of resources	72.7%
	Environment Protection	80.2%
	Higher product quality	14.15%
The disadvantages of using eco-packaging for consumers	Products packaged in organic packaging are more expensive	58.2%
	Requires more storage space	9.7%
	Greater recycling effort	15.3%
	There are no disadvantages	32.8%
Reasons why consumers are willing to pay more for green packaging	In the long run, the cost is lower due to reuse resistant in time better quality	36.9%
	It does not contribute to the degradation of the environment	10.8%
		19.0%
		70.9%
	I feel involved in environmental protection	49.6%

Data analysis reveals that a significant portion of consumers prefer packaging made of cardboard, glass, and paper. Because glass is reusable packaging and paper and cardboard are the easiest materials to recycle and have the least negative environmental effects, the results lend support to the idea that environmental protection is important. 14.5% of respondents said they preferred plastic, especially since some products have no other packaging options. While a sizable portion of respondents stated they preferred packaged goods in organic packaging, data analysis shows that less than half of respondents-42.5%-said they purchased goods in organic packaging on a weekly basis, 34.7% said they did so infrequently, and 19% said they purchased goods in ecological packaging two to three times per month. The results obtained lead to the conclusion that, while environmental protection is important, we are not



yet at a point where we can discuss sustainable behaviour. The ability to recycle and reuse products, environmental protection, and a sense of environmental responsibility are the primary drivers of product purchases in organic packaging, according to data analysis. Not many people think that environmentally friendly packaging is trendy or that it protects people’s health or the environment. The results of the data analysis support the conclusion that there is a high level of environmental awareness regarding the effects of packaging, as do the respondents’ comments regarding the advantages of purchasing goods packaged organically. In response to the question, “What do you think are the benefits of introducing the environmental packaging into the market?” the first thing that comes to mind is environmental protection, which is followed by the potential for recycling and reuse as well as a reduction in resource waste. When selecting products packaged in organic packaging, other considerations like product protection and superior quality are not taken into consideration.

Table 3. Correlation between age and the reasons for choosing organic packaging

Variables		Ages Range	Reasons for preferring organic packaging
Age Range	Pearson Correlation	1	0.045
	Sig. (2-tailed)		0.987
	N	268	267
Reasons for preferring organic packaging	Pearson Correlation	0.045	1
	Sig. (2-tailed)	0.987	
	N	267	268

Since age does not appear to be a factor in why consumers choose products packaged in organic materials, we believe that a more thorough examination of all the factors influencing consumer preference for organic packaging is required.

CONCLUSIONS

Managerial Implication

This study has important managerial ramifications because it informs marketing managers and decision makers about the variables that affect consumers’ sustainable behaviour. The decision to purchase ecological packaging can be influenced by two motivating factors, according to research results: saving money through recycling and protecting the environment. One of the main arguments against buying eco- packaging materials is their high cost and the dearth of knowledge regarding their advantages. Thus, one of the study’s main takeaways is that consumers need to be made aware of the long-term advantages of using eco-packaging. In order to create strategies for shifting consumer behaviour towards sustainability, managers must understand the advantages and disadvantages that consumers perceive when purchasing. In order to change the attitude and behavior of the selected study area’s consumer, companies must act in the following directions:

- Spreading awareness among the public about the benefits of environmentally friendly packaging through consumer education and promotion of eco-friendly purchasing practises;
- Product information based on labelling schemes, or “eco-labeling,” to inform and encourage consumers to purchase environmentally friendly products by giving them specifics about how products and packaging perform in terms of the environment.



The information that consumers anticipate finding and that would encourage them to recycle the packaging speaks to the consumer's health and safety as well as the cost-effective use of raw materials in the packaging's production. A suitable message strategy and content can help consumers use durable packaging more frequently by influencing their purchasing decisions and changing their attitudes about sustainability. Customers' knowledge, which is tied to market maturity as well as cultural values not covered in this study, affects how well they receive and comprehend this information. The study also identified low consumer income as a barrier, since it prevents consumers from paying extra for products packaged in organic materials. Businesses can provide financial incentives to customers who purchase goods packaged in organic materials.

Theoretical Implications

This study aims to ascertain consumers' opinions regarding environmentally friendly packaging, the factors and obstacles influencing the decision to buy packaged goods in organic packaging, and potential reasons for the discrepancies in green buying practices. Furthermore, because it draws from the findings of numerous earlier studies, it provides a synthesis of the body of literature already in existence. Based on our findings, scholars can establish a framework for further investigation into the sustainability behaviour of consumers concerning organic packaging. Studies examining respondents' perceptions of products and packaging are challenging from a limitations standpoint because each respondent may experience this variation, which could affect their responses.

REFERENCES

1. Zeynalova Z, Namazova N. Revealing Consumer Behavior toward Green Consumption. *Sustainability*. 2022; 14(10):5806. <https://doi.org/10.3390/su14105806>.
2. Gautam, V. Examining environmentally friendly behaviors of tourists towards sustainable development. *J. Environ. Manag.* 2020, 276, 111292.
3. Reddy, L.S.; Kulshrestha, P. Performing the KMO and Bartlett's Test for Factors Estimating the Warehouse Efficiency, Inventory and Customer Contentment for E-retail Supply Chain. *Int. J. Res. Eng. Appl. Manag.* 2019, 5, 1-13.
4. Leonidou, N.C.; Katsikeas, S.C.; Morgan, A.N. 'Greening' the marketing mix: Do firms do it and does it pay off? *J. Acad. Mark. Sci.* 2013, 41, 151-170.
5. Gupta, S.; Agrawal, R. Environmentally responsible consumption: Construct definition, scale development, and validation. *Corp. Soc. Responsib. Environ. Manag.* 2017, 25, 523-536.
6. Jerzyk, E. Design and communication of ecological content on sustainable packaging in young consumers' opinions. *J. Food Prod. Mark.* 2016, 22, 707-716.
7. Grunert, G.K.; Hieke, S.; Wills, J. Sustainability labels on food Products: Consumer motivation, understanding, and use. *Food Policy* 2014, 44, 177-189.
8. Nordin, N.; Selke, S. Social aspect of sustainable packaging. *Packag. Technol. Sci.* 2010, 23, 317-326.

Websites/ Books

9. Consumer Behaviour; Frank R. Kardes, university of Cincinnati.
10. <https://chat.openai.com/>
11. <https://www.google.com/>
12. <https://www.google.com/>