



A STUDY ON CUSTOMER AWARENESS TOWARDS GREEN PACKAGING USING COCONUT COIR IN COIMBATORE CITY

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ABSTRACT :

This study focuses on understanding the customer awareness of green packaging using coconut coir in Coimbatore city. With increasing environmental concerns, plastic pollution has become a major issue, and sustainable packaging is gaining importance. Coconut coir is a natural and biodegradable material that can replace plastic packaging. The survey was conducted among 110 respondents to know their knowledge, preferences and willingness towards coir-based packaging. Many are willing to pay more for such products. Social media plays a major role in spreading awareness. But high production costs and limited availability remain major challenges. The study also finds that customers prefer coir packaging for food and personal care items. Government support and awareness campaign are essential to promote coconut coir packaging. Overall, the study shows that coconut coir packaging has a strong potential. It can be a great step towards reducing plastic waste and promote sustainability.

Keywords: Green packaging, Coconut coir, Sustainable Alternative, Plastic pollution, Eco- friendly material, Biodegradable packaging, Environmental awareness.

1.1 INTRODUCTION

Today, people are more aware of how our actions affect the environment, especially when it comes to pollution caused by plastic. Every year, over 380 million tons of plastic are produced, and only a small portion gets recycled. Plastics are cheap and convenient, but they take hundreds of years to break down and severely harm our planet. As a result, more people and businesses are turning toward sustainable alternatives like green packaging. Green packaging uses eco-friendly materials that can be reused or recycled and reduces the amount of waste we create. It also helps businesses meet customer expectations and support environmental responsibility. Common green materials include paper, plant-based products, metal, and recyclable plastics. Since packaging is a major source of pollution, switching to sustainable options is becoming more important—especially in industries like food, e-commerce, and healthcare, where plastic is widely used and quickly discarded.

This study focuses on one such sustainable material—coconut coir. Coconut coir comes from the husk of the coconut and is known for being strong, natural, and biodegradable. It's already used in many industries, including food packaging, gardening, cleaning products, and even furniture. Items like trays, boxes, mats, and takeaway containers can all be made from coir. Because of its eco-friendly properties, coconut coir is a great alternative to plastic packaging. In this project, we explore how aware people in Coimbatore are about green packaging made from coconut coir and whether they are willing to adopt it in their daily lives.

1.2 STATEMENT OF THE PROBLEM

Plastic pollution has become a major challenge all around the world, although awareness and its harmful effect on human and environmental health, the use of plastic is still there. The increasing environmental concern has made businesses adopt sustainable and eco-friendly packaging, one of them is packaging made using coconut coir. However, this is a better alternative to plastic, customers awareness and acceptance of these are not certain. We need to know whether customers are aware of the negative impact that plastics have and whether customers are aware and willing to adopt green packaging using coconut coir. It is important to know what challenges are faced by customers in adapting green packaging using coconut coir. And the study about the customer preferences for green packaging using coconut coir is limited.

1.3 SCOPE OF THE STUDY

This research study aims to examine customer awareness and perception towards green packaging using coconut coir. It is to know about the knowledge

customers have and the willingness they have to adopt green packaging using coconut coir. It also identifies the challenges faced by customers like the lack of awareness, price, accessibility, convenience, limited availability and other factors that negatively affect them.

1.4 OBJECTIVE OF THE STUDY:

- To evaluate customer's awareness of green packaging using coconut coir.
- To know about the purchasing behaviour of customers.
- To know the challenges faced by customers while using green packaging using coconut coir.

1.5 RESEARCH METHODOLOGY:

Research methodology is the overall plan for conducting a research project. It outlines the steps that will be taken to collect and analyze data, as well as the theoretical framework that will guide the research. A well-defined research methodology is essential for ensuring that a research project is rigorous, reliable, and valid.

1.5.1 RESEARCH DESIGN:

- **Sampling Size:** 110 respondents
- **Sampling Type:** Convenience sampling
- **Sample collection:** Urban and semi-urban population of Coimbatore city.
- **Statistical Tools used:** Simple percentage analysis, Frequency, Likert scale analysis, Rank analysis.
- **Primary Data:** Collected 110 responses through questionnaire
- **Secondary Data:** Journals, Books, Websites

1.6 LIMITATION OF THE STUDY:

- The study is limited to Coimbatore city and therefore the study cannot be extended to other areas.
- The sample size is limited to 110 respondents.
- High production costs make large-scale adoption difficult.

2.1 REVIEW OF LITERATURE

Barida Rakhma Nuranti et.al. (2024): The increase in production leads to increase in consumption and waste, and it leads to environmental harm, due to which awareness has also increased. Consumers have started to adapt to sustainable packaging, so businesses have to adapt too, to meet the demand of consumers. This research study examines the impact of green packaging and environmental concern, towards the attitude and perception. This study analysed the direct and indirect effect of green packaging and environmental concern towards green purchase intention through environmental attitude. It was found that the attitude was influenced but the purchase intention were not influenced.

Dang Thi Dieu Thuy, Nguyen Bich Thuy (2024): The rise of consumerism has led to increased use of non-eco-friendly packaging, but many consumers are now embracing eco-friendly alternatives, especially in the food industry. Vietnam has introduced an environmental tax on plastic bags due to severe pollution. After COVID-19, the demand for takeaways has highlighted the need for eco-friendly packaging. The study found that personal attitude positively influences consumer purchasing behavior toward green packaging.

David Amani (2024): This study focuses on the importance of societal value and ethical branding. Consumers have start to use eco-friendly products like green packaging, taking into mind sustainability. Cosmetic industries have started to use eco-friendly packaging, as consumers are willing to adapt them. Consumers are willing to pay higher prices to eco-friendly products, and businesses have to adopt so that they can be on the competitive edge. This study tells us how green packaging influences consumers legitimacy, that contains knowledge, preferences, and action. Findings of the study show a positive impact on consumers legitimacy, and it also influences customers perception of a brand's ethical behaviour.

3.1 DATA ANALYSIS AND INTERPRETATION

❖ SIMPLE PERCENTAGE ANALYSIS

$$\text{PERCENTAGE} = \frac{\text{Number of Respondents}}{\text{Total Number of Respondents}} \times 100$$

3.1.1 TABLE SHOWING RESPONDENTS WILLINGNESS TO PAY MORE FOR ECO-FRIENDLY PACKAGING COMPARED TO REGULAR PACKAGING

S.NO	WILLINGNESS	NO. OF. RESPONDENTS	PERCENTAGE (%)
1	Yes	83	75.46
2	No	27	24.54
TOTAL		110	100

INTERPRETATION:

The data presented in the table 3.1.1 indicates that 75.46% of the respondents are willing to pay more for eco-friendly packaging compared to regular packaging and 24.54% are not willing to pay more.

❖ **FREQUENCY****3.1.2 TABLE SHOWING SOURCES OF INFORMATION ABOUT ECO-FRIENDLY PACKAGING**

S. NO	SOURCE	NO. OF. RESPONDENTS	PERCENTAGE (%)
1	Social media	63	39.6
2	Friends and Family	42	26.4
3	In – store promotions	22	13.8
4	Tv shows	16	10.1
5	School or Workplace	16	10.1
TOTAL		159	100

INTERPRETATION:

The data shown in table 3.1.2 indicates that 39.6% of respondents have learned about eco-friendly packaging from social media, 26.4% from Friends and Family, 13.8% from In-store promotions, 10.1% from Tv shows, 10.1% from School or Workplace.

❖ **LIKERT SCALE ANALYSIS**

$$\text{LIKERT SCALE} = \frac{\Sigma f(x)}{\text{Total Number of Respondents}}$$

f = Number of respondents

x = Likert scale

Σ f(x) = Total score

3.1.3 TABLE SHOWING AWARENESS OF THE CONCEPT GREEN PACKAGING

S.NO	FACTORS	NO. OF. RESPONDENTS	LIKERT SCALE(X)	TOTAL(FX)
1	Always	30	5	150
2	Frequently	33	4	132
3	Occasionally	35	3	105
4	Rarely	7	2	14
5	Never	5	1	5
TOTAL		110		406

Likert Scale = $\Sigma(FX)/\text{Total no of respondents}$

= 406/110

= 3.7

INFERENCE:

Likert scale value 3.7 is higher than the mid value (3), so the respondents are frequently aware of the concept green packaging.

❖ **RANK ANALYSIS**

3.1.4 TABLE SHOWING FACTORS THAT DISCOURAGE PURCHASING PRODUCTS WITH COCONUT COIR

FEATURES	1	2	3	4	5	TOTAL	RANK
Higher Cost	69(5)	16(4)	6(3)	6(2)	14(1)	453	1
Durability	10(5)	68(4)	11(3)	17(2)	5(1)	394	2
Lack of Availability	4(5)	11(4)	73(3)	12(2)	11(1)	318	3
Allergies or Sensitivity	11(5)	12(4)	13(3)	59(2)	16(1)	276	4
Lack of Information	17(5)	4(4)	8(3)	17(2)	65(1)	224	5

INTERPRETATION:

The data shown in table 3.1.4 indicates that Higher cost (453) is in rank 1, Durability (394) is in rank 2, Lack of availability (318) is in rank 3, Allergies or Sensitivity (276) is in rank 4, and Lack of information (224) is in rank 5.

4.1 FINDINGS

- 75.46% of the respondents are willing to pay more for eco-friendly packaging
- 39.6% of the respondents have learned about eco-friendly packaging from social media
- Likert scale value 3.7 is higher than the mid value (3), so the respondents are frequently aware of the concept green packaging.
- The highest rated feature is Higher cost with 443 and is the highest factor ranking among other factors that discourage purchasing products with coconut coir.

4.2 SUGGESTIONS

- Increase social media campaigns to educate consumers about eco-friendly packaging.
- Develop methods to lower the production cost of coconut coir packaging.
- Advocate for policies that support businesses using green packaging
- Ensure coconut coir packaging is easily accessible for businesses and consumers.
- Emphasize proven sustainability benefits to encourage adoption.

4.3 CONCLUSION

The study reveals that a significant proportion of consumers, particularly young adults and students, are aware of and interested in green packaging using coconut coir. Social media serves as a primary source of information, influencing purchasing behavior and encouraging sustainable choices. A notable percentage of respondents are willing to pay more for eco-friendly packaging and recommend it to others, demonstrating a strong inclination toward sustainability. However, high production costs pose a major challenge to adoption. To enhance market acceptance, businesses and policymakers should focus on cost reduction strategies, awareness campaigns, and policy support. By addressing these challenges, coconut coir packaging has the potential to become a widely adopted sustainable alternative.

REFERENCE :**JOURNALS:**

1. Barida Rakhma Nuranti, Sri Rahayu, Setiyawami Setyawami, Zuchdiawati Luthfi Utami, Azizah Nurmalita, Laila Nur Azizah.,(2024), "Mediating the Impact of Green Packaging and Environmental Concern towards Green Purchase Intention through Environmental Attitude"
2. Dang Thi Dieu Thuy, Nguyen Bich Thuy.,(2024), "Consumers' Behaviour and their Willingness to accept Green Packaging: A Case Study in Vietnam", pages: 01-22, ISSN: 2764-4170
3. David Amani.,(2024), "Is ethical packaging the right way to go? The impact of green packaging on consumer legitimacy in cosmetics industry", Vol. 10, no. 1, 2319375

BOOKS:

1. "Sustainable Applications of Coir and Other Coconut By-products" by Narendra Reddy, August 2019, Springer International Publishing.
2. "Sustainable Packaging Materials: Winning Solutions" by Muhammad Rabnawaz, October 2023, Hanser Publications

WEBSITES:

1. <https://ugenterprises.com/blog/the-role-of-coconut-fiber-in-biodegradable-packaging:-a-plastic-free-future>
2. <https://www.climajo.com/buy/Coconut%20Husk%20Containers>
3. <https://www.packagingdigest.com/sustainability/sustainable-packaging-coconut-fiber-based-packaging-to-be-developed-by-new-collaboration>