

# GREEN PACKAGING: A PRACTICE OF SUSTAINABLE MANAGEMENT IN CONSUMER PERSPECTIVE

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**ABSTRACT**  
The present situation of the planet pushes forward everyone to be more eco friendly. It urges us to be more eco conscious person. Due to various environmental issues like global warming, marine pollution, extinction of species, destruction of ozone layer, climatic changes and other natural disaster everyone as a consumer and as a manufacturer are aspire to practice sustainable management concept in all walk of life. Therefore green packaging is one of the ways to attain sustainability. So the consumers in general are conscious of their health and wellbeing. Hence they look for green products and services which are free them from hazards to their health and provide them an eco friendly ambience. For such benefits they are willing to pay an extra premium to green products and services. Hence it is the prime responsibility of the manufacturers and consumers to produce and consume the products which have environmental benefits to the society at large. Therefore this research paper focuses on addressing the consumers, manufactures and policy makers about the extent of pollution in and around coastal villages which affect the human and the living creatures. The data was collected with the help of an interview schedule. Proportionate stratified random sampling method was used to represent 395 respondents from the population of three taluk in Kanyakumari district, India. The result of the analysis indicates that the income group between ₹10,001- ₹20,000 respondents having more concern for future generation. Which shows that even the low income group has more concern for future generation and safety of the environment, thus it reflects in their behaviour. This paper too offers few suggestions to the policymakers, manufactures and the end consumers to follow the practice of sustainable management by way of green packaging.

**Key words:** green packaging, sustainable packaging, eco-friendly packaging, green consumers, Global consumers, sustainable development, sustainable management.

## Introduction

There is a globally link between these three concepts 'Green packaging', 'sustainable management' and 'the consumer'. The word sustainable management is the ability to maintain the economic viability and nourishing the needs of the present and future generations by limiting resources. This application can be practiced in three categories that are businesses, agriculture and society. Society which comprises of people that is consumers and they are the king of every business. As ever growing environmental issues such as global warming, pollution and the depletion of natural resources threatening the very existence of humankind, the consumers must learn to reduce, reuse and recycle in order to protect our planet. Green packaging is the practice of sustainable management in day today life of every consumer to avoid such issues. Using non green packaging is unsustainable because it creates pollutants, but using green packaging which is biodegradable can solve the problem of pollution. This

is not only contributing environmentally sustainable, but it also improves the physical and mental sustainability of the customer who uses green packaging. It is physical improvement because customers do not have to live with the countless non green packages on earth and the pollution that comes with it. It also improves the mental sustainability, because the person who uses green packages has feeling of accomplishment that comes from doing the right thing. Deciding to buy and use green packaging to make the society stronger through community sustainable management can also be emotionally, environmentally, and physically rewarding.

### Statement of the problem

The application and reliance on plastic in packaging is universal and used on a large scale in industries like food and beverage industry, healthcare, pharmaceuticals, cosmetics, and consumer based products. Hence the purchasing behavior of any consumer solely depends upon the package of any products. But after its usage it is littered and blown away every nook and corner of the streets which contaminate the earth to the maximum. Typically the coastal villages of Kanyakumari are highly polluted as it is located at the edge of the country all the waste collected from other parts are dumped near the coastal belt and the people who reside also contribute for such pollution. Therefore, in the marketing scenario the new concept of green is emerged by all the tycoons of the business sector to produce a package which is easily bio-degradable or reusable or recyclable. At the same time environmental sustainability and business don't always go hand in hand, especially when it comes to product packaging, some of the most common household packages including potato chip bags, pizza boxes and toothpaste tubes are not recyclable. The typical snack chip bag is made from up to seven layers of foil and plastic. Companies like this, because these bags are light, reduce shipping volume, do not take up much space on a shelf, and are graphics friendly. The downside is that there's currently no machinery to separate these layers, so they are not recyclable. Hence it is one of the emerging needs of the day to be addressed to this issue. To fill this gap, the problem is chosen by the researcher.

### Review of literature

Green packaging is to enable packaging of lightweight, recyclable, re-use, biodegradable materials, and to prevent the use of non-ecological materials (Guirong Zhang and Zongjian Zhao, 2012). Sustainability was once the concern of only a few, it is now a significant issue to the general public due to higher levels of awareness through developments in media and technology and negative changes in the environment (Jesse van den Elzen, 2016). Sustainability perspective on packaging is to reduce the environmental impact or eco-burden of the packaging, using life cycle assessment to evaluate different design alternatives (Renee Wever and Joost Vogtland, 2012). Green packaging would certainly prove to be innovative and creative method for a sustainable business and sustainable environment (Sangeetha Padmanabhan and Magesh, 2016).

### Methodology

The present study is empirical in nature based on both primary and secondary data. Primary data were collected from the coastal taluks in Kanyakumari district. The District is divided into six taluks. Among the six taluks Agastheeswaram, Kalkulam and Vilavancode are in the coastal belt. The fishermen population of Kanyakumari District forms the universe for the study. The total sample respondents are 395. The data were collected with the help of proportionate stratified random sampling. The results obtained after the reliability test Cronbach's Alpha value of 0.870 in the 25 items suggest that the questionnaire is reliable and the results are higher than 0.8 are considered as reliable.

### Objectives

The general objective of the study is to acquire knowledge about green packaging: a practice of sustainable management in consumer perspective. The following are the specific objectives.

- To study the demographic profile of the sample respondent
- To analysis the usage pattern of green packaging behaviour of the respondents which will lead to ecological sustainability.
- To identify the difficulties faced by the respondents in adopting green packaging.

**Limitations**  
The sample was restricted to coastal villages. The other villages in Kanyakumari district are excluded from the study.

**Tools of Analysis**  
In this study, various statistical techniques like Percentage analysis, ANOVA, Mean and Standard Deviation were used to analyze and interpret the collected data.

**Data and Discussion**  
**Demographic Composition**  
Demographic profile is a statistical data to characterize the age, gender, marital status, income of the population in the study area. Consumers in coastal line are mainly of fishermen community; their occupation and educational status tend to change according to their economic status. The following table shows the demographic profile of the respondents which is very much important to know their purchasing behaviour and their level of awareness regarding the factors which affect the environment.

**Table 1**  
**Demographic profile of the respondents**

Variables	Particulars	No.of respondents	Percentage
Age	18-35 Years	252	63.8
	36-55 Years	135	34.2
	56 Years and Above	8	2.0
	<b>Total</b>	<b>395</b>	<b>100.0</b>
Gender	male	207	52.4
	female	188	47.6
	<b>Total</b>	<b>395</b>	<b>100.0</b>
Educational qualification	Up to School Level	186	47.1
	Graduates	121	30.6
	Post Graduates	49	12.4
	Illiterates	14	3.5
	Others	25	6.3
	<b>Total</b>	<b>395</b>	<b>100.0</b>
Occupation of the Respondents	Government	13	3.3
	Private	80	20.3
	Professional	19	4.8
	Business	13	3.3
	Fishermen	141	35.7
	Others	129	32.7

Monthly income	Total	395	100.0
	Below ₹ 10,000	71	18.0
	₹ 10,001- ₹ 20,000	120	30.4
	₹ 20,001- ₹ 30,000	78	19.7
	₹ 30,001- ₹ 40,000	64	16.2
	₹ 40,001- ₹ 50,000	29	7.3
	Above ₹ 50,000	33	8.4
Total	395	100.0	

Source: primary data  
 Table 1 shows that, 63.8 per cent (252) of the sample respondents belong to the age group of 18-35 Years. 34.2 per cent (135) of the respondents belong to the age group of 36-55 Years. 52.4 per cent (207) of the respondents are male and 47.6 per cent (188) respondents are female. 47.1 per cent (186) of the respondents did only schooling and 3.5 per cent (14) of the respondents are illiterate. 35.7 per cent (141) of the respondents are fishermen and 3.3 per cent (13) are government employed and doing business. 30.4 per cent (120) of the respondents monthly income is between ₹10,001- ₹ 20,000 this is the average income of a fishermen who go in Mechanized boat. And 7.3 per cent (29) of the respondents belong to ₹ 40,001- ₹ 50,000 they are the government employee, Businessmen and other professionals, this also includes fishermen who has share in the boats and has own boat.

**ANOVA TEST FOR THE SIGNIFICANT DIFFERENCE BETWEEN MONTHLY INCOME WITH RESPECT TO BEHAVIOUR TOWARDS GREEN PACKAGING**

Eco-friendly packaging is usually made from biodegradable, recycled material which reduces the waste of natural resources for production. In addition, the manufacturing process tends to be more efficient, further reducing precious resources and minimizing the negative impact businesses have on the environment. Therefore it is necessary to know the behaviour of the respondents towards green packaging for today's context.  
 Ho: There is no significant difference between monthly income with respect to behaviour towards green packaging.

**TABLE 2**  
 ANOVA test for the significant difference between monthly income with respect to behaviour towards green packaging

Behaviour Towards Packaging	Green	Income					F value	P value	
		Below ₹10,000	₹10,001- ₹20,000	₹20,001- ₹30,000	₹30,001- ₹40,000	₹40,001- ₹50,000			Above ₹50,000
Avoiding plastic bags		4.13 (.999)	4.08(.918)	4.08(.171)	3.63(.120)	4.21 (.940)	4.18 (1.074)	2.475	.032
Carrying eco-friendly bags while shopping		3.77 (1.124)	3.94(.892)	3.94(.166)	3.64(.014)	3.66 (1.111)	3.97 (.918)	1.193	.312
Care for the earth		3.87 (1.218)	4.09(.987)	4.13(.972)	3.70(.191)	3.86 (1.246)	3.97 (1.045)	1.570	.168

Concern for future generation	3.94 (1.229)	4.06(1 .087)	4.03(1 .162)	3.52(1 .127)	3.41 (1.323)	4.00 (1.118)	3.144	.009**
Want to protect the nature	4.14 (1.125)	4.03(1 .084)	3.83(1 .121)	3.64(1 .187)	3.66 (1.010)	4.06 (1.059)	2.157	.058
Do not litter the plastic cover	3.70 (1.113)	3.75(1 .063)	3.63(1 .239)	3.25(1 .272)	3.38 (1.083)	3.91 (1.100)	2.386	.038*
Purchase product which are recyclable in nature	3.80 (.995)	3.70(1 .009)	3.79(1 .024)	3.38(1 .047)	3.59 (1.181)	3.88 (1.083)	1.795	.113
Social responsibility	3.86 (1.099)	3.83(1 .026)	3.85(1 .117)	3.48(1 .168)	3.55 (1.121)	3.45 (1.201)	1.743	.124
Purchase to store products	3.69 (.994)	3.51(1 .160)	3.64(1 .105)	3.38(1 .106)	3.41 (1.211)	3.64 (1.113)	.808	.544
Reduces carbon foot print	3.45(. 938)	3.34(1 .226)	3.35(1 .226)	3.19(1 .111)	3.07 (1.252)	3.30 (1.262)	.628	.678
Not affect the health of the humanity	3.72 (1.185)	3.52(1 .243)	3.54(1 .192)	3.56(1 .082)	3.17 (1.197)	3.55 (1.277)	.875	.498
Do not pollute the Environment	3.58 (1.142)	3.57(1 .228)	3.35(1 .226)	3.31(1 .067)	3.34 (1.317)	3.48 (1.417)	.702	.622
Green packaging are reusable	3.77 (1.149)	3.75(1 .063)	3.49(1 .256)	3.52(1 .221)	3.31 (1.168)	3.79 (1.166)	1.398	.224
Green packaging are renewable	3.83 (1.055)	3.58(1 .066)	3.53(1 .136)	3.42(. 956)	3.62 (1.115)	3.91 (.980)	1.672	.140
Biodegradable	3.77 (1.031)	3.63(1 .181)	3.56(1 .146)	3.55(1 .022)	3.72 (1.131)	3.58 (1.226)	.415	.838

Easily disposable	3.80 (1.050)	3.62(1 .070)	3.47(1 .181)	3.25(1 .024)	3.66 (1.143)	3.61 (1.197)	1.925	.089
Longer shelf life	3.56 (1.079)	3.52(1 .092)	3.35(1 .277)	3.20(1 .072)	3.17 (.928)	3.30 (.984)	1.313	.257
Attractive	3.52 (1.080)	3.64(1 .091)	3.53(1 .170)	3.39(1 .093)	3.14 (1.274)	3.45 (.938)	1.160	.328
Available everywhere	3.46 (1.040)	3.50(1 .085)	3.41 (1.323)	3.09(1 .035)	3.34 (1.143)	3.39 (1.171)	1.180	.318
Buying product in green packaging due to Government compulsion	3.30 (1.224)	3.61(1 .110)	3.41(1 .145)	3.14(1 .067)	3.14 (1.329)	3.09 (1.100)	2.247	.049*
Contribute to reduce waste of resources.	3.51(1 .026)	3.46(. 969)	3.45(1 .276)	3.22(. 917)	3.34(.8 14)	3.58(. 902)	.821	.535
Buying product which are packed in eco-friendly materials	3.49(1 .094)	3.45(. 969)	3.63(1 .094)	3.30(. 954)	3.48(1. 056)	3.12(1 .023)	1.460	.202
Willing to pay extra premium for green packaging	3.32(1 .131)	3.41(1 .025)	3.63(1 .118)	3.25(1 .113)	3.62(1. 115)	3.39(1 .248)	1.164	.326
Pleasure in buying green packaged product	3.58(. 995)	3.72(. 963)	3.67(1 .202)	3.20(1 .262)	3.62(1. 083)	3.73(1 .039)	2.140	.060
Recommending others to buy green packaging	3.59(1 .154)	3.56(1 .044)	3.55(1 .234)	3.61(1 .078)	3.31(1. 417)	3.97(. 984)	1.132	.343

Source: Statistically analyzed data

Note: figures in parentheses are SD

\* denotes significant at 1% level.

Since the P value is less than 0.01 the null hypothesis is rejected at 1 per cent level with regard to Concern for future generation. Hence there is significant difference among income groups with respect to Concern for future generation. Based on mean values (4.06) is the income group between ₹10,001- ₹20,000 respondents having more concern for future generation. It is inferred that even the low income group have more concern for future generation, it shows that whatever might be their income, everyone

has the concern and safety of the environment and about the future generation, that is why it reflects in their behaviour. This assertion is supported by (Gbadeyan R.A. and Omolekan O.J 2015) and (Abdullah Zakersalehi and Amin Zakersalehi 2012) that the behaviour of adopting green packaged product will reduce the environmental degradation and environmental harm.

**DIFFICULTIES IN ADOPTING GREEN PACKAGING**

New technology and new practices are always harder in the beginning till it get used as routine in life. Green packaging for all the product is a new concept to the customers in coastal belt therefore it's reasonable to analyse the current situation that persist in coastal villages regarding the adoption of green packaging in the daily life. The following are the table shows the difficulties in adopting green packaging.

**Table 3**  
**DIFFICULTIES IN ADOPTING GREEN PACKAGING**

variables	Mean	Std. Deviation
Non availability for all products	3.99	.966
Lack of government support	3.89	1.023
Difficult to carry the liquid items	3.81	1.080
Lack of public awareness	3.77	1.071
Lack of recycle centers provided by the government.	3.61	1.142
No recycle disposable area	3.60	1.123
No proper facilities by local bodies	3.67	1.073
Unwillingness to pay a premium price	3.60	1.046
It is costly	3.48	1.186
Additional amount to buy a bag	3.67	1.180
Shorter life span	3.45	1.138
Inconvenient for usage	3.46	1.207
Poor resistant to water.	3.49	1.191
Lethargic attitude of the customers	3.42	1.104
Carrying own bag is inconvenient	3.35	1.183
Unforeseen activity of the government	3.46	1.155
Forgetting to carry bags	3.53	1.191
Unplanned decision to buy	3.40	1.265
Interested only in the product and not the packaging	3.50	1.136
Small sellers are affected	3.68	1.166
Encourages corporate sectors	3.63	1.226

Source: primary data

Based on the mean score out of 21 variables the coastal respondents are agreed about the problems and hurdles faced while adopting green packaging are Non availability for all products (3.99), Lack of government support (3.89), Difficult to carry the liquid items (3.81) but disagree with the problems of Unplanned decision to buy (3.40) and Carrying own bag is inconvenient (3.35). It is inferred that most of them agree with the problem of Non availability for all products, Lack of government support and Difficult to carry the liquid items. Rests of the other problems are not much affecting the respondents. These results agree with similar study made by (Kuralovian and Paulraj 2016) that packaging should be more convenient in carrying product in accordance with the preference of the consumer. The results of (Abdullah Osman et.al 2015) also goes intune with this study that lack of government support is also a reason for the difficulty in adopting green packaging. Therefore adopting green packaging may not be

the highest problem instead availability of green packaging for all products is the major problem to the coastal respondents. It requires the attention of the policy makers and the manufacturers too.

**Findings**

- 63.8 per cent (252) of the sample respondents belong to the age group of 18-35 Years. 34.2 per cent (135) of the respondents belong to the age group of 36-55 Years.
- 52.4 per cent (207) of the respondents are male and 47.6 per cent (188) respondents are female.
- 47.1 per cent (186) of the respondents did only schooling and 3.5 per cent (14) of the respondents are illiterate.
- 35.7 per cent (141) of the respondents are fishermen and 3.3 per cent (13) are government employed and doing business.
- 30.4 per cent (120) of the respondents monthly income is between ₹10,001- ₹ 20,000 this is the average income of a fishermen who go in Mechanized boat. And 7.3 per cent (29) of the respondents belong to ₹ 40,001- ₹ 50,000 they are the government employee, Businessmen and other professionals, this also includes fishermen who has share in the boats and has own boat.
- Since the P value is less than 0.01 the null hypothesis is rejected at 1 per cent level with regard to Concern for future generation. Hence there is significant difference among income groups with respect to Concern for future generation.

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- agreed about the problems and hurdles faced while adopting green packaging are Non availability for all products (3.99), Lack of government support (3.89), Difficult to carry the liquid items (3.81) but disagree with the problems of Unplanned decision to buy (3.40) and Carrying own bag is inconvenient (3.35).

**Suggestions**

- Government can levy tax on usage of disposable plastics and the non recyclable, non biodegradable one, which may increase the use of green packaging.
- Government could grant subsidiary to the companies which manufacture green packaging. So as motivate green package producers.
- The local authority can set recycle centre in municipal and panchayath area of coastal villages, which might reduce the wastage in the coastal belt.
- The manufactures of green packaging should allot reasonable and cheap price which may induce all customers to prefer and use green packaging.
- Manufacturers of product can also set a recycle centers where they distribute their product for sales. This may contribute to protect the environment to the utmost care.
- Producers of packaging industries on the whole can consider the current situation of ecological destruction and to provide cheap alternatives to plastic bags made out of wastes of maize, vegetables and paper, which will degrade in three months' time without causing any damage or reducing fertility of the soil.
- Consumers can contribute more to promote green packaging which will solve the problem of pollution and bring healthy environment.



CONCLUSION

As every problem has a solution, so there is a solution for the problem of pollution which the environs face today. The problem of pollution is because of the waste packages that are non green, non biodegradable and not decomposable. Hence it creates a lot of threat to the environment. The better solution of practicing sustainable management with the consumer perspective is to say "NO" to non green packaging and start adopting Green packaging. It is a due time to switch on to green packaging. As the findings clearly portraits that the consumers are more environmental friendly and they aspire to use green packaging their only obstacle is green packaging is not available for all the products. Thus it's a great opportunity for the manufactures and the producer of product packaging to be innovative in handling green initiative that is the sustainable management in their business. It could be an apt ending to conclude with the sayings of Sheryl Sandberg an American technology executive and chief operating officer (COO) of Facebook. *"We cannot change what we are not aware of, and once we are aware, we cannot help but change"*.

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