A Study on 3'R Strategy Among Consumers in Coimbatore

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ABSTRACT

The growing amount of waste from shopping bags (SB) poses a serious threat to environment causing various environment problems (EP). It is high time to create awareness about the shopping bags waste and the need for its effective and efficient management. The best and practical way to solve this pressing problem is to create awareness about the three R's – Reduce, Reuse and Recycle - which will effectively help to cut down the quantum of waste we throw away. The strategic solution best to conserve natural resources, landfill space, energy and the consequent increase in the cost is being discussed in the research article in a thread bare manner.

Keywords: Three R's (Reduce, Reuse and Recycle), SB (shopping bags), EP (environment problems).

INTRODUCTION:

Humans have been around the world over 200000 years. Early humans were nomadic hunters and gatherers. The constant movement and relocation of these people out of necessity forced them to construct devices for containing food, tools, and other valuables just to carry goods from the point of production/sale to the point of consumption. During ancient times people used to carry their goods with the help of leaves, nuts or grouts, animal skins and woods. As the technology advanced over a period of time the method of carrying goods also simultaneously advanced. Shoppers either carried their goods home in baskets or had the merchants deliver them at home using some means of transport or others.

The industrial revolution brought tremendous changes in everyone's way of life. The rise of cities and enormous increase in the volume of goods traded brought about the exchange of goods from the point of production/ sale to the point of consumptions. During this period humans evolved a convenient lifestyle where products began to be produced mechanically instead of manually. The revolutionary changes in the levels of production and the impressive increase in the disposable income of the people encouraged producers to develop durable, dependable, reliable and efficient methods for carrying their goods home.

The migration of citizens towards the city reduced the need for bulk consumer packaging options and increased the need for individual and smaller packaging option. Bulk packaging had been around for over hundreds of years in the past, but individual packaging was something new. A variety of paper packing methods was implemented during this period to fulfil the needs of the demands listed above. Paper bags remained the standard for carrying goods over 100 years. In 1975 wood pulp became expensive and oil was cheap, the paper bags were replaced by plastics. In 1900's plastics were introduced. A large variety of different plastics has been produced since the first introduction. Plastic bags required less energy, less water; the finished bags took up less space; they were more durable for customers and their cost of production was about 1/3 the cost of paper bags. These plastics have increased the quality of life for people around the globe and continued to revolutionise the packaging industry. The plastics have enabled manufacturers and producers to extend the life and have become a better means to protect the products. Plastic shopping bags have over the period become the most popular choice for retailers. It also created simultaneously the problems of wastes and their disposal.

The growing amount of these wastes lead to the development of new mantra 3r strategy- reduce , reuse and recycle and development of wide range of eco-friendly shopping bags such as biodegradable and compostable.

OBJECTIVES OF THE STUDY:

- To study the theoretical aspects of 3R strategy
- To create the consumer awareness towards 3R strategy
- To understand the barriers in implementing the 3R strategy

REVIEW OF LITERATURE:

Subramanian et al. 2012 in their research article "Eco-impact of plastic and paper shopping bags" using the life cycle impact assessment technique. They had concluded that among different phases of a product life cycle disposal phases assessing greater significance as far as the eco impact to concerned. The peculiar part according to them is; it is manily decides by consumer behaviour and governmental policies to decide upon the end of life scenario.

Nalini et al.2013 in their article on "Assessment and qualification of plastic waste generation in major 60 cities of India" highlighted that municipal solid waste (msw) contain organic as well as inorganic matter, the total quantity of waste generated depends upon the rapid population , composition of waste and the technology adopts to reduce the waste. According to their the organic matter in msw in developing countries. They projected India to be one among the lager consumer market of plastics in the used. Hence the efforts should be made to the extent feasible such as in road construction and co-processing in cement rides, in addition to mechanical recycling practiced widely in India. This study was made by them for fulfilling

1. The objective of assessing the type, native and quantum of plastic waste
2. Identifying the dump sites/localities of higher plastic waste generation
3. Description of existing methodology for collection of plastic waste by urban local bodies
4. Overcoming the deficiencies of the existing system to suggest viable and appropriated recycling technologies at major cities

They had selected Coimbatore city as one of the 60 cities and found out the quantity of plastic waste generated therein. According to them Coimbatore generate 700 tons/day of waste out of which 9.5% is constitution by plastic waste. They had not studied the most important component of plastic waste viz, waste of plastic shopping bags separately.

Riyad.Moharam and Maher Ali.Al.Maqtari, 2014 in the research study on "The impact of plastic bags on the environment : A field survey of the city of Sana'a and the surrounding areas, Yemen" states that thousand of plastic factories are producing tones of plastic bags which are very popularly used by the people for shopping purpose because of its ease , cheapness and convenience of use but their very hazardous negative serious toxic. In this article, the researchers have exhibited the decomposite of plastic in public places and have shown how they disrupt the environment of less city of Sana'a and the surrounding areas in Yemen.

Arwaty et al. 2015 in their article "the relationship between environmental knowledge for housewives graduated from senior high school and environmentally sound waste management in Makassar, Indonesia" aims at finding out the relationship among environmentally knowledge , ecological knowledge , polluting knowledge, attitudes and motivations of any educated housewife graduates from senior high school towards waste management environmentally sound in Makassar. They found that there is significant relationship between knowledge and participation of housewives in environmentally sound waste management in Makassar.

RESEARCH METHODOLOGY:

Sources of data:
Both primary data and secondary data have been used for the study purpose. The primary data are collected from the customers with the help of structured questionnaires. The secondary data have been collected by referring the journals, articles, magazines and various relevant websites.

Sampling design: In this study, convenience sampling technique has been used.

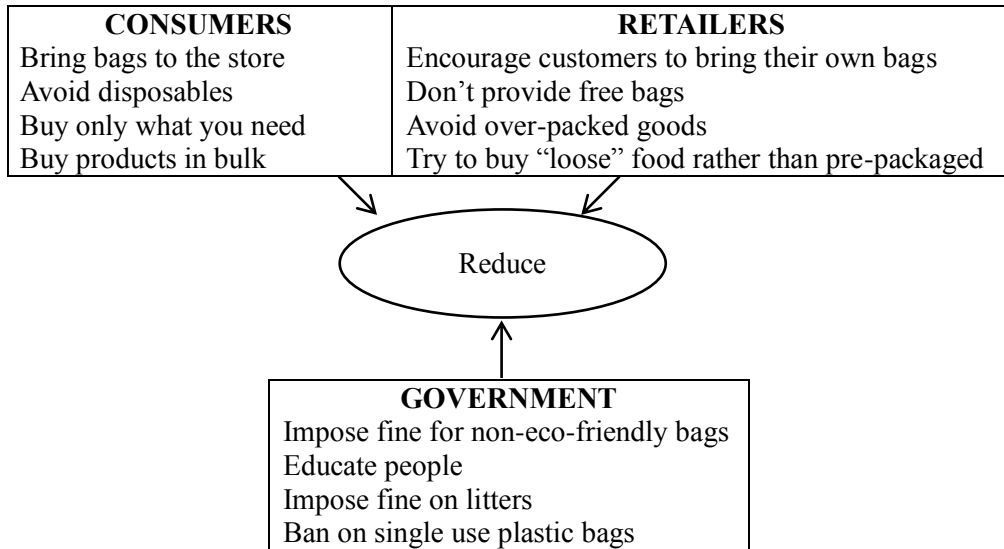**Sample size:** Based on the research plan, 50 respondents have been selected for the study

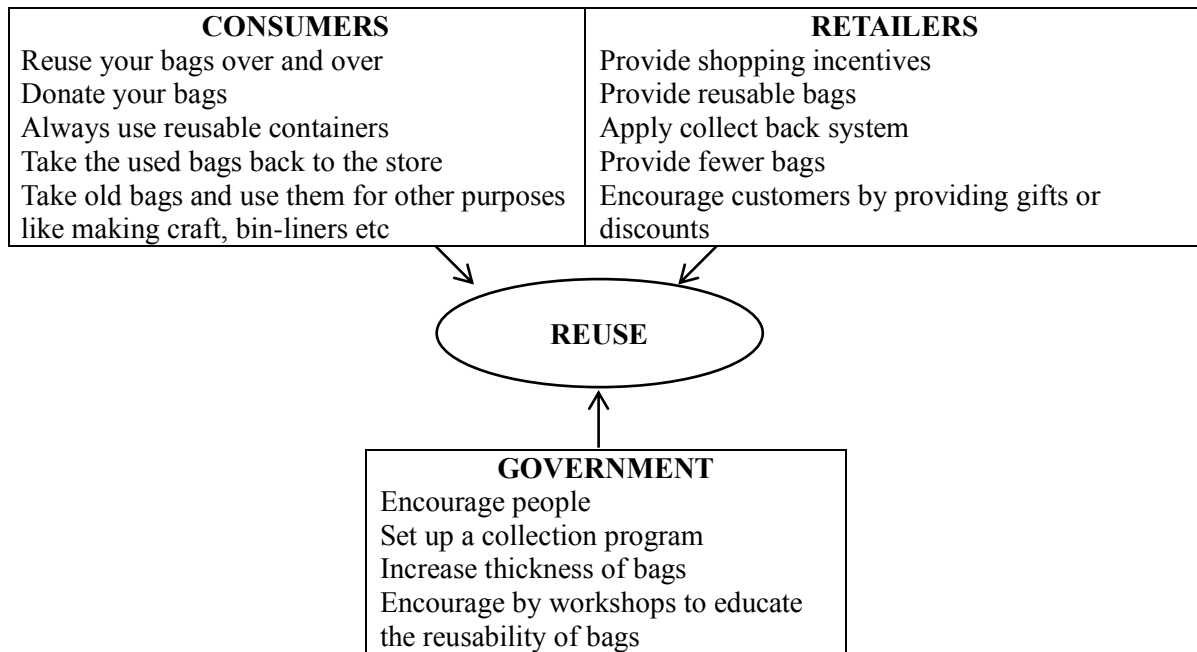**Tools used:**
- Simple percentage
- Average ranking method

CONCEPTUAL FRAMEWORK:

The 3Rs stand for:

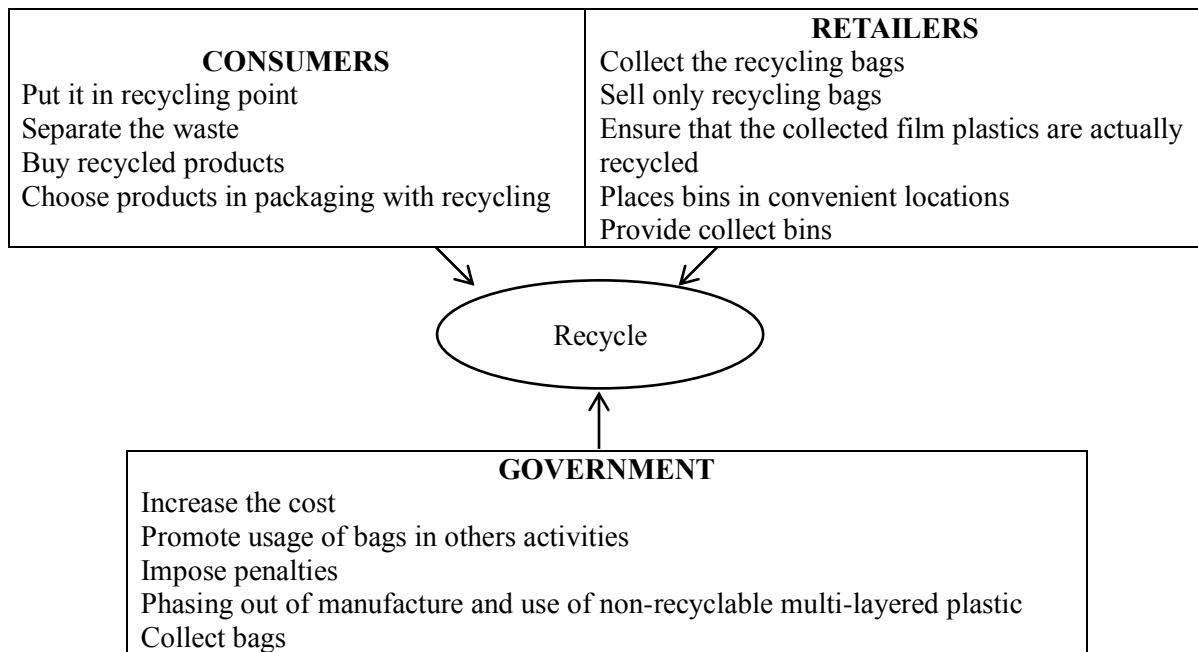**Reducing waste –** to avoid waste at source so as to minimise the quantity of waste that needs to be treated or disposed of

CONSUMERS	RETAILERS
Bring bags to the store	Encourage customers to bring their own bags
Avoid disposables	Don't provide free bags
Buy only what you need	Avoid over-packed goods
Buy products in bulk	Try to buy "loose" food rather than pre-packaged

Reduce

GOVERNMENT
Impose fine for non-eco-friendly bags
Educate people
Impose fine on litters
Ban on single use plastic bags

Reusing waste – to use an object or material again and again, either for its original or similar purpose, without significantly altering the physical form of the object or material

CONSUMERS	RETAILERS
Reuse your bags over and over	Provide shopping incentives
Donate your bags	Provide reusable bags
Always use reusable containers	Apply collect back system
Take the used bags back to the store	Provide fewer bags
Take old bags and use them for other purposes like making craft, bin-liners etc	Encourage customers by providing gifts or discounts

REUSE

GOVERNMENT
Encourage people
Set up a collection program
Increase thickness of bags
Encourage by workshops to educate
the reusability of bags

Recycling waste – the process of transforming waste materials into reusable form which may or may not be similar to the original product

CONSUMERS	RETAILERS
Put it in recycling point	Collect the recycling bags
Separate the waste	Sell only recycling bags
Buy recycled products	Ensure that the collected film plastics are actually recycled
Choose products in packaging with recycling	Places bins in convenient locations
	Provide collect bins

Recycle

GOVERNMENT
Increase the cost
Promote usage of bags in others activities
Impose penalties
Phasing out of manufacture and use of non-recyclable multi-layered plastic
Collect bags

3R practices encompass all measures that minimise the amount of waste disposed of. The preferred waste management practice is to reduce waste at source, i.e. to prevent waste from being generated. Where waste generation cannot be prevented other options such as reusing the item(s), followed by recycling of the waste should be considered

Field Survey:

Table 1

| Socio- Economic Background	Frequency	Percentage
Gender		
Male	13	26
Female	37	74
Age		
Upto 30	23	46
31-40	21	42
41-50	5	10
Above 51	1	2
Education		
Primary	13	26
Secondary	17	34
Higher secondary	8	16
Graduate /post graduate	10	20
Others	2	4
Type of Family		
Nuclear	43	86
Joint family	7	14
Monthly Income (in thousand)		
Less than 10	11	22
11-20	17	34
21-30	9	18
31 and above	4	8
Non-earning member	9	18

The information of the table shows that majority of respondents 74% were female, 46% were aged (upto 30 years), 34% were secondary level educated, 34% were income group between 11,000-20,000 majority 86% were living in a nuclear families.

Chart 1: 3R Awareness Level
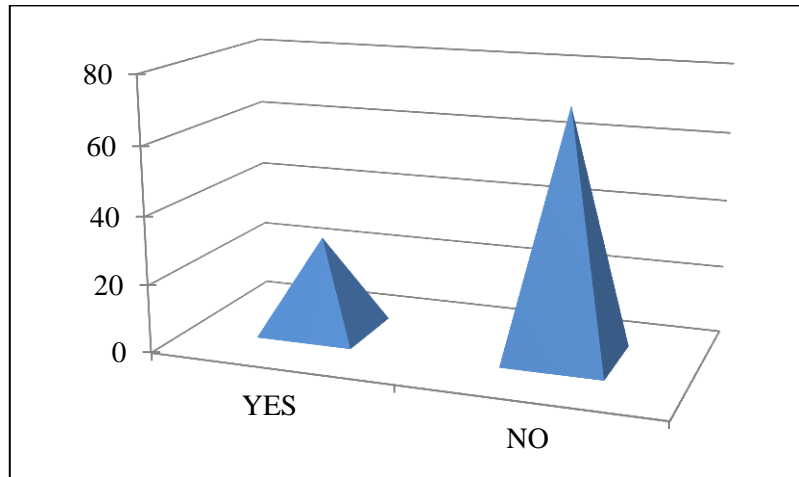
The information shows that majority 72% of respondents are not aware of 3'R strategy followed by 28% of response having knowledge about eco-friendly shopping bags and 3'R strategy.

Chart 2: Best Way to Managing Shopping Bags Waste
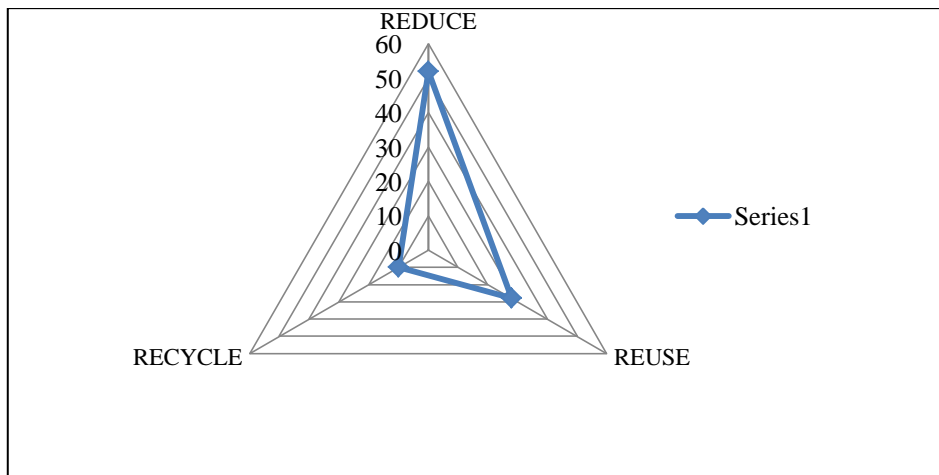
The information shows that majority (i.e.) 52 % of respondents feel that "REDUCE" is the best way to manage shopping bags waste.

Table 2: Barriers to 3'R Strategy

Barriers	Rank
Behavioural barriers	3
Not in the habit in life	4
Lack of time	2
Lack of education	1
Forget to do my task	5

The information shows that the first rank is being given to lack of education and least rank is given to forget to do my task   .

SUGGESTIONS:

It is clear from the above analysis that there is need for education among the people. Lack of education is the main barrier to manage shopping bags waste. The government, the organisation and the customers have to put hands together in creating awareness of 3'R managing shopping bag wastes.

CONCLUSION:

The success of 3R strategy depends on the right mix of facilitative policies and programs that are implemented at the community level. The key sphere of action will revolve around governance, education, technology and availability of finance. We, the citizen should think before throwing these shopping bags into garbage. They should make sure to try 3R strategy first. The garbage should be your last resort after you have tried the 3R and in lieu of any other option. It is important for everyone to make an effort in reducing the amount of garbage we used to send to landfill and ocean. It's not easy to find a new location for landfill due to space constraint. If we venture to the practice the 3R we can economies the need for landfill spaces and extend the life of current ones.

ACKNOWLEDGEMENT:

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