



# A STUDY ON THE ATTITUDE OF WOMEN TOWARDS UPCYCLED PRODUCTS WITH REFERENCE TO ERNAKULAM DISTRICT

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## ABSTRACT

Upcycling is the process of transforming waste materials or unwanted products into new materials or products. The upcycled items often become more functional or beautiful than what it was. The value of the item increases on upcycling. It is considered as a creative process where a waste is looked at as a resource. In short it is often termed as "Trash to Treasure". Materials are reused in a clever way giving them a second life and function. The main aim of upcycling is to save materials and resources from ending up in landfill. It reduces the strain on valuable resources such as fuel, forests, and water supply and helps to safeguard wildlife habitats. Upcycling not only focuses on change or benefit of the environment but can have a variety of motivations and intentions, including emotional (e.g., having fun), economic (e.g., saving money), and social (e.g., helping others). Women can involve in community development initiatives through different ways. One such way of empowering women is by practicing the method of upcycling. It is not only about reducing wastes, but also an opportunity to enhance the creative skills of women. Different products can be upcycled in different methods thereby encouraging creativity and innovation. Compared to other countries India is a step back in upcycling. Therefore, to promote the importance of upcycling, special trainings and classes can be provided. Women from the lower socioeconomic strata should be provided with training. This would improve their employability and financial security, as well as contribute to women's empowerment. These upcycled products can be made available in both online and offline stores around the world. This study focuses on the attitude of women towards upcycled products with reference to Ernakulam district.

**Key words: Upcycling, women, awareness, perception, satisfaction, trash to treasure, environment**

## INTRODUCTION

Upcycling is the process of transforming waste materials or unwanted products into new materials or products. The upcycled items often become more functional or beautiful than what it was. The value of the item increases on upcycling. It is considered as a creative process where a waste is looked at as a resource. In short it is often termed as "Trash to Treasure". Materials are reused in a clever way giving them a second life and function. The main aim of upcycling is to save materials and resources from ending up in landfill. It reduces the strain on valuable resources such as fuel, forests, and water supplies and helps to safeguard wildlife habitats. Upcycling not only focuses on change or benefit of the environment but can have a variety of motivations and intentions, including emotional (e.g., having fun), economic (e.g., saving money), and social (e.g., helping others).

## REVIEW OF LITERATURE

**Ebbert et al.**, "Beyond lampshades - teaching upcycling in a meaningful way". Upcycling is the process of repurposing discarded resources to generate higher quality/value goods. This paper examines these issues using data from recent upcycling teaching initiatives in Sweden and China: six upcycling thesis projects and two upcycling workshops. These various examples demonstrate that contacting interested producers is critical if any benefit from upcycling operations is to be realised. Because designing with waste is such an ill-defined endeavor, limiting production possibilities as well as a target user group helps to narrow the solution field. Because the input material is known and pure, using "virgin" industrial waste makes the procedure easier. Upcycling post-consumer trash might have an even bigger environmental impact, but it's challenging due to a lack of solid material data. If upcycling is to be included in a sustainable design curriculum, it must be ambitious. To get beyond 'lampshades' and similar demonstrational situations, one must develop a systematic upcycling process and methodology, as well as incorporate important stakeholders who may benefit from the outcomes. The goal should be to achieve 'industrial scale' rather than one-of-a-kind solutions.

**Bridgens et al., 2018** studied on "Creative upcycling: Reconnecting people, materials and place through making" and concluded that creative upcycling has the ability to reconnect individuals with materials while also establishing making cultures and communities. The public's reaction to creative reuse is investigated by building a café entirely out of recycled materials, which serves as a steppingstone for further discussion of the contexts in which upcycling occurs, the motivations for (and barriers to) reuse and upcycling, the potential benefits of upcycling in affluent Western 'consumer' societies, and the scope for designers to imbue objects

with the potential for creative reuse. They suggested that designing for creative upcycling permits products' future lives to be determined by context and culture rather than by the designer, potentially resulting in extensive social, economic, and environmental benefits.

**Paras & Curteza, 2018** investigates the practice of upcycling in their study "Revisiting upcycling phenomena: a concept in clothing industry. The study's goals are threefold: to comprehend the concept of upcycling and, as a result, to comprehend the major terminologies used in the literature; to comprehend the process of upcycling and the problems associated with it; and to review current literature and practise of upcycling for clothing. The research has identified several terminology and meanings used in the literature, such as recycling, downcycling, up-cycling, and redesign.

**Sung, 2015** "A review on upcycling: Current body of literature, knowledge gaps and a way forward". This article examined 55 upcycling papers published between 1994 and 2014, adding to the body of knowledge by providing a wide overview of general publication and recycling trends. However, the overall number of materials on upcycling remains limited, and no comprehensive review has been published. As a result, in order to further establish this field, this paper examines and summarises the current body of literature on upcycling, focusing on various definitions, trends in practises, benefits, drawbacks, and barriers in a variety of subject areas, as well as making recommendations for future research by highlighting knowledge gaps in the field.

**Zhuo & Levendis, 2014** in their study "Upcycling waste plastics into carbon nano materials: A review" identified that stable and non-biodegradable nature, postconsumer polymers pose challenging issues to the environment and ecosystems. Upcycling waste plastics into high-value products CNTs are a long-term solution that enables for the conversion of post-consumer items into value added products while also helping to reduce the environmental impact of solid waste. Its conception through completion is extremely multidisciplinary. For integrating such a process with existing production methods, collaborations across fundamental science, engineering development, and other fields are required. Industry knowledge and experience on existing facilities, such as recycling, gasification/pyrolysis, and fluid catalytic cracking and hydrocracking plants, can be quite useful.

## STATEMENT OF THE PROBLEM

Waste management is a relevant issue today. The accumulation of waste in and around our premises are increasing day by day which makes it much more essential to find an alternative to overcome the problems related to waste management. As the population increases, so does the amount of solid waste. Disposing of them is expensive, and leaving them alone would pollute the environment. The traditional method of burning them produces additional pollutants, particularly smog. Dumping them in landfills takes up space, and their usefulness is ephemeral as the amount of waste produced grows. This is where the importance of upcycling and usage of upcycled product emerges. This study focuses on the attitude of women towards upcycled products with reference to Ernakulam district.

## SIGNIFICANCE OF THE STUDY

This study helps to identify and understand the importance of upcycling among women. The world has about 8 billion people and all the wastes produced has been harming the environment. In order to reduce this problem, it is important to identify the different strategies that can be adopted. One among those strategy is upcycling. Upcycling is a simple concept but can make a powerful impact on the environment. The best part about upcycling is that anything can be upcycled, whether it be clothes, furniture, glass, plastic etc. Women have the capability to contribute to the process of upcycling. Women in different sectors have different ideas and innovations. Thus, by doing upcycling a person's creativity can be understood. Different types of products can be upcycled in different ways by using different methods. Analyzing this process and finding out the attitude of women about upcycling and usage of upcycled products is the basic idea behind this research.

## OBJECTIVES OF THE STUDY

1. To study the awareness level of women towards upcycled products.
2. To examine the level of perception of women towards upcycling.
3. To study the satisfaction level of women in using upcycled products.

## HYPOTHESIS

H<sub>0</sub>: There is no significant difference between the awareness level and the age group. H<sub>1</sub>: There is significant difference between the awareness level and the age group.

H<sub>0</sub>: There is no significant difference between the perception level across the occupational status. H<sub>1</sub>: There is significant difference between the perception level across the occupational status.

H<sub>0</sub>: There is no significant difference between the satisfaction level and age group. H<sub>1</sub>: There is significant difference between the satisfaction level and age group.

## RESEARCH METHODOLOGY

Data was collected from primary sources by distributing a structured questionnaire using purposive sampling technique and 100 responses were received. Secondary sources such as articles, blogs, journals etc. were also referred for data collection. The data was analysed using Kendell's W Test and Kruskal - Wallis H Test.

## LIMITATIONS OF THE STUDY

- Collection of data was limited to a particular area.
- Lack of previous studies in the research area.

## DATA ANALYSIS AND INTERPRETATION

Table 1.1  
Awareness level of women towards upcycled products

Factors	Age	MeanRank	Asymp.Sig.	Kruskal-Wallis	Result	Accept/Reject
It's a process of generating treasure from trash	25-35 35-45 45-50 Above 50	49.74 47.93 50.77 55.61	0.853	0.786	Mean rank highest among age 35-45(47.93) and significance value more than 0.05	Accept
Products are again bought back to creative re-use	25-35 35-45 45-50 Above 50	46.88 57.98 47.50 54.71	0.370	3.141	Mean rank highest among age 25-35(46.88) and significance value more than 0.05	Accept
I believe that such products eliminate trash	25-35 35-45 45-50 Above 50	52.41 55.36 44.71 51.39	0.527	2.225	Mean rank highest among age 45-50(44.71) and significance value more than 0.05	Accept
I know these products are environment friendly	25-35 35-45 45-50 Above 50	49.88 45.90 48.92 62.39	0.330	3.426	Mean rank highest among age 35-45(45.90) and significance value more than 0.05	Accept
These days people prefer upcycled products as its pocket friendly	25-35 35-45 45-50 Above 50	48.69 62.38 45.06 49.11	0.157	5.211	Mean rank highest among age 45-50(45.06) and significance value more than 0.05	Accept
Most of the brands and designers are making use of this concept	25-35 35-45 45-50 Above 50	50.87 54.33 51.56 41.50	0.564	2.039	Mean rank highest among age above 50(41.50) and significance value more than 0.05	Accept
The popularity of such products are less visible	25-35 35-45 45-50 Above 50	51.15 56.81 48.02 44.96	0.560	2.059	Mean rank highest among age above 50(44.96) and significance value more than 0.05	Accept
It's less available in the market	25-35 35-45 45-50 Above 50	51.81 53.86 49.87 43.68	0.727	1.307	Mean rank highest among age above 50(43.68) and significance value more than 0.05	Accept
People are unsure about the quality of upcycled products	25-35 35-45 45-50 Above 50	58.59 51.38 44.05 43.82	0.114	5.950	Mean rank highest among age above 50(43.82) and significance value more than 0.05	Accept
Easy to buy and trending among youth	25-35 35-45 45-50 Above 50	52.28 54.60 45.77 50.50	0.665	1.576	Mean rank highest among age 45-50(45.77) and significance value more than 0.05	Accept

Upcycled products ensure sustainability	25-35 35-45 45-50 Above 50	53.76 46.95 49.76 49.54	0.819	0.926	Mean rank highest among age 35-45(46.95) and significance value more than 0.05	Accept
I think everyone should use at least one of such product	25-35 35-45 45-50 Above 50	54.69 49.90 47.26 48.39	0.707	1.395	Mean rank highest among age 45-50(47.26) and significance value more than 0.05	Accept
People who are users of such product should share among with their social circle	25-35 35-45 45-50 Above 50	55.21 44.05 50.74 48.21	0.501	2.362	Mean rank highest among age 35-45(44.05) and significance value more than 0.05	Accept
It will be better if everyone could support and promote such products	25-35 35-45 45-50 Above 50	52.74 46.93 49.92 51.71	0.871	0.710	Mean rank highest among age 35-45(46.93) and significance value more than 0.05	Accept
I believe that there is use out of every thrown product	25-35 35-45 45-50 Above 50	55.99 53.26 44.37 46.61	0.336	3.387	Mean rank highest among age 45-50(44.37) and significance value more than 0.05	Accept

❖ Perception level of women in using upcycled products

Table 1.2  
Perception level of women in using upcycled products

Factors	Occupation	Mean Rank	Asymp.Sig.	Kruskal-Wallis	Result	Accept/Reject
They are environment friendly	Banker Teacher Nurse  Engineer Homemaker	45.55 45.55 57.15  54.95 49.30	0.449	3.691	Mean rank highest among bankers and teachers(45.55) and significance value more than 0.05	Accept
It reduces landfill	Banker Teacher Nurse  Engineer Homemaker	48.15 54.60 49.98  56.75 43.03	0.472	3.541	Mean rank highest among homemakers(43.03) and significance value more than 0.05	Accept
Boosts creativity up and innovation	Banker Teacher Nurse  Engineer Homemaker	45.85 59.40 51.18  51.53 44.55	0.411	3.961	Mean rank highest among homemakers(44.55) and significance value more than 0.05	Accept
It's a source of income	Banker Teacher Nurse  Engineer Homemaker	41.68 54.73 50.08  66.43 39.60	0.10	13.356	Mean rank highest among homemakers(39.60) and significance value more than 0.05	Accept
Offers new employment opportunities	Banker Teacher Nurse  Engineer	44.40 51.93 54.90  57.88	0.335	4.568	Mean rank highest among homemakers(43.40) and significance value more than 0.05	Accept

	Homemaker	43.40				
Conserves limited resources	Banker	44.20	0.034	10.408	Mean rank highest among homemakers(37.95) and significance value less than 0.05	Reject
	Teacher Nurse	51.85 56.40				
It's a new fashion trend	Engineer	62.10	0.126	7.185	Mean rank highest among homemakers(41.65) and significance value more than 0.05	Accept
	Homemaker	37.95				
Women become more self- employed	Banker	46.00	0.043	9.863	Mean rank highest among homemakers(37.33) and significance value less than 0.05	Reject
	Teacher Nurse	62.13 51.05				
Generated out of passion	Engineer	56.00	0.418	3.915	Mean rank highest among nurses(45.53) and significance value more than 0.05	Accept
	Homemaker	37.33				
Prefer such products from influences	Banker	49.38	0.074	8.542	Mean rank highest among homemakers(37.05) and significance value more than 0.05	Accept
	Teacher Nurse	51.85 45.53				
	Engineer	59.78				
	Homemaker	45.95				

❖ Satisfaction level of women in using upcycled products

Table 1.3  
Satisfaction level of women in using upcycled products

Factors	Type of products used	Mean Rank	Asymp.Sig.	Kruskal-Wallis	Result	Accept/Reject
It offers great enjoyment	Fabric	49.31	0.484	4.466	Mean rank highest among jewellery(40.14) and significance value more than 0.05	Accept
	Craft Stationery	58.64 53.88				
	Apparels	45.32				
	Jewellery	40.14				
It saves my cost	Fabric	44.12	0.504	4.320	Mean rank highest among apparels(40.27) and significance value more than 0.05	Accept
	Craft Stationery	54.07 55.86				
	Apparels	40.27				
	Jewellery	49.00				
It gives me immense pleasure	Fabric	41.29	0.567	3.881	Mean rank highest among fabric(41.29) and significance value more than 0.05	Accept
	Craft Stationery	53.52 51.48				
	Apparels	52.18				
	Jewellery	48.36				
	Furniture	58.46				

I feel comfortable in using such products	Fabric Craft Stationery Apparels Jewellery  Furniture	42.79 55.77 50.48 45.41 48.59  59.32	0.504	4.321	Mean rank highest among fabric(42.79) and significance value more than 0.05	Accept
It gives greater utility for the price	Fabric Craft Stationery Apparels Jewellery  Furniture	43.57 59.66 51.48 41.27 47.36  54.75	0.359	5.491	Mean rank highest among apparels(41.27) and significance value more than 0.05	Accept
I strongly recommend such products to my social circle	Fabric Craft Stationery Apparels Jewellery  Furniture	42.12 54.27 52.60 50.18 53.59  51.82	0.750	2.676	Mean rank highest among fabric(42.12) and significance value more than 0.05	Accept
It gives me a feeling of productive disposal of scraps	Fabric Craft Stationery Apparels Jewellery  Furniture	48.36 56.45 49.74 49.36 51.18  45.86	0.903	1.585	Mean rank highest among furniture(45.86) and significance value more than 0.05	Accept
I always opt these products in terms of gift	Fabric Craft Stationery Apparels Jewellery  Furniture	44.24 57.68 50.14 46.86 45.27  56.11	0.611	3.585	Mean rank highest among fabric(44.24) and significance value more than 0.05	Accept
I used to buy different categories of these products	Fabric Craft Stationery Apparels Jewellery  Furniture	43.64 54.77 53.55 42.09 53.23  53.96	0.654	3.296	Mean rank highest among apparels(42.09) and significance value more than 0.05	Accept

## FINDINGS

- ❖ Out of the 100 respondents, 34 among them belongs to the age group of 25-35, with majority being Engineers and it is observed that 14 of the respondents belongs to the age category above 50 where none of them are engineers.
- ❖ It is identified that personal instinct is considered to be the most important source of preferring upcycled products over other products. However, the influence of social media is yet another vital source from which information on upcycled products have been gathered.
- ❖ The awareness level of the people in the age group 25-35 is higher in cases of process of generating treasure from trash, products bought back to creative reuse and brands and designers using this concept.
- ❖ The awareness level of the people in the age group 35-45 is higher in cases of products being environment friendly, ensuring sustainability, recommendations to social circle and support and promotion of such products.
- ❖ The awareness level of the people in the age group 45-50 is higher in cases of products eliminating trash, upcycled products are pocket friendly, trending among youth and use of every thrown product.
- ❖ The awareness level of the people in the age group above 50 is higher in cases of invisible nature of upcycled products, availability in market and surety about the quality.
- ❖ The perception level towards upcycled products was more in case of homemakers followed by bankers and teachers.

- ❖ Out of the 100 respondents, majority of the people were satisfied with upcycled fabrics.
- ❖ The satisfaction level of apparels and jewellery was also a leading factor.

## SUGGESTIONS

- ❖ To create more awareness about upcycling, special trainings and classes has to be provided to the weaker sections of the society.
- ❖ Upcycling should be included in academics at schools and colleges as it is important for the future. This also encourages the creativity and innovation skills of the students.
- ❖ People using upcycled products should recommend them to their friends, relatives etc.
- ❖ It would be better if everyone could support and promote upcycled products.
- ❖ Upcycled products should be made more available in the market.
- ❖ Online shopping sites especially for upcycled items can be implemented.
- ❖ Upcycling should be practiced by everyone irrespective of age, gender, status of living etc.
- ❖ By promoting upcycling and upcycled products, new employment opportunities can be provided.

## CONCLUSION

The process of upcycling has recently gained increased attention. It is a term that refers to a range of procedures through which 'old' things are updated and given a second life by being transformed into 'new' products. In short it is often termed as "Trash to Treasure". Upcycling has enormous potential for bringing India closer to a waste-free future. This study was done to analyze the women's awareness, perception and satisfaction levels towards upcycling and upcycled products.

After the study it can be concluded that upcycling as a process is used to reduce the waste materials into entering the landfills. It reduces the strain on valuable resources and helps to safeguard wildlife habitats. Upcycling not only focuses on change or benefit of the environment but can have a variety of motivations and intentions.

Upcycling can be done by everyone but the main target group of this project was women. Most of the women considered in the study had a positive impact towards upcycling. 75% of the women use different kinds of upcycled products such as fabric, apparels, jewellery etc. There are different women entrepreneurs whose business is mainly focused on upcycled products only. It would be a great pleasure if more and more women come up with such ideas.

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