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Application Of "Upcycling" Design Technique For Managing The Synthetic Waste Of Sarees For "Lifestyle Design' To Achieve Sustainability."

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***Abstract*:**

Fast Fashion leads to the disposal of more than 1 million tons of textiles every year, in this context even India in not far. In fast fashion, clothing is produced for sale based on a false expectation of freshness, which in turn leads to massive waste when the clothes are not sold. As a result, unsold clothes end up in garbage dumps, contributing to a cycle of contamination. Fashion has begun to embrace upcycling textile waste as a response to fast fashion's wastefulness. Prior to the modern age, consumers purchased items that would last for 50 to 80 washes. Now, the excitement for new items or trends has surpassed quality considerations. Consequently, more products are thrown away, many of which are made from synthetic fabrics. A majority of domestic women's apparel sales in India were made up of traditional clothing, such as Sarees, which account for 70% of all textile waste produced in India. The apparel market is predicted to account for 65% by 2023 due to the cultural and sentimental value of Sarees, which will not fade away anytime soon. In response to the enormous demand for Sarees, a wide variety of them are produced on a large scale, which include cotton, pure silk, and the most commonly produced is the Art silk Saree. Basically, they can be referred to as synthetic sarees, or plastic sarees. However, the demand for the same is still greater given their cheaper prices, so production of these Sarees is on the rise, but ultimately they will end up in the waste. Saree upcycling in India is not a new concept, it has been done for ages using various techniques. There is a practice of turning synthetic sarees into rope that can be used for multiple purposes, such as pulling water from wells and making furniture, in villages of India. In this thesis, we are investigating how these ropes can be turned into multi-purpose fashion products that revive sarees.

Key words- Upcycling, Sarees, Synthetic Sarees, Sustainability, Ropes, Zero waste.

INTRODUCTION

1.1 What is Zero Waste?

Zero waste is a collection of waste avoidance guidelines that supports restructuring resource life cycles to maximise product reuse. Avoiding dumping rubbish in landfills, incinerators, or the ocean is the aim of this campaign. Only 9% of plastic in the world gets recycled at the moment. The material will be reused in a zero waste system up until the point of maximum use. The definition adopted by the Zero Waste International Alliance (ZWIA) is:

Zero Waste: The conservation of all resources by means of responsible production, consumption, reuse and recovery of all products, packaging, and materials, without burning them and without discharges to land, water or air that threaten the environment or human health.

(ZWIA, 2020) (31)

1.2 What is Upcycling?

Known also as creative reuse, upcycling involves the conversion of by-products, waste, useless, or unwanted products into new materials or products that meet aesthetic or environmental criteria. Regenerative design culture is about creating products with better value than their material inputs, which are cleaner, healthier, and usually more durable. People in developing countries have been upcycling for years, reusing old packaging and clothes in new ways out of necessity, rather than environmental concern, according to upcycling advocates. Upcycling has taken off in other countries as well, indicating an increasing interest in eco-friendly products, particularly affordable ones. Fast fashion promotes a "throw away" mentality that is counterproductive to a sustainable lifestyle. This can be accomplished through upcycling, which applies circular economy principles. When resources are used for an extended period of time, they are repurposed and restored in a Circular Economy to maximize their value.

1.3 Practices involved in Upcycling Old Sarees

Saree is one of the oldest garment worn in India since it was introduced here. Initially sarees being made from only from Cotton, then gradually were manufactured in various materials and was liked by women. Going ahead, the artisans started to incorporate various motifs and dyes to weave the sarees to give it a more elegant look. These traditional sarees were then preserved by our ancestors and then passed on to the next generation as a symbol of blessings to them.

Some sarees were such that got torn or were on the edge to be dumped, then were these made into various usable products. One of such techniques to Upcycle the saree was by making Quilts out of it. These quilts had a warmth out into it which gave it a meaning. This technique basically involves taking pieces of the old sarees together and stitching them to make a nice blanket out of it. This practice was followed in Maharashtra, Gujrat, and Bengal etc. by different names, but with a same motto of Upcycling of Old Saree. This technique of Upcycling Sarees to give a new life and to avoid it from going into landfills is still practiced and various products are made out of it like Bags, wallets, clothes including jackets, skirts etc. This idea is not only of upcycling but also we tend to preserve the memories that are involved with that piece of Saree.

Today this generation has now moved on to the thought of "Old is Gold'' concept with not only having the idea of Upcycling and achieving sustainability but also having useful products out of it. Many of the homes in India utilize sarees to make new Outfits (Various dresses) from the saree, making Cushion Covers, Blankets, Curtains, and Bags etc. This idea of Upcycling is not only done with old Sarees but also with many old clothes. There are many such NGOs and Brands who are currently working on the system of Upcycling and contributing towards sustainability by various means. Some brands even are achieving Zero Waste policies by utilizing each and every piece of that garment or fabric and not letting piles of waste going into landfills.

1.4 Brand Study

Here are some Indian Brands that are currently working on Upcycling of Old Sarees to give it a new life.

I Was a Sari

Stefano Funari considers himself more of a problem-solver than a designer, since creating his company was motivated by empowering women and finding a solution to environmental issues. The company gives its customers style with soul through its zero dividend initiative. Underprivileged women living in Mumbai's slums are also employed by the label, which turns discarded saris into garments.

LataSita

It was not even considered cool to upcycle waste fabric and saris in 2012, when founder Meghna Nayak began upcycling. Rummaging through discarded wardrobes and upholstery for raw material, she transforms waste into something beautiful. LataSita most popular pieces include the Reversible Kimono Trench (which is created from eight layers of fabric), The Let's Playsuit and The Full Saree Pant, made with an entire sari with zero wastage. Her studio has not used any new stationary or packaging since they began production, proving her commitment to zero waste.

House of Wandering Silk

Founded by Australian designer Katherine Neumann, this six-year-old label is known for its Kantha scarves and statement sari neckpieces. Neumann sources her pre-loved saris from Gujarati sari traders in New Delhi, who in turn source from a network of scrap collectors across India. We recall these women coming to our homes to exchange saris and clothing for cooking vessels. Prior to sorting, the fabrics go through a rigorous quality check. In West Bengal, full saris with fewer defects undergo an elaborate Kantha stitching process to turn them into chic scarves. The design house's zero waste policy involves converting half saris into neckpieces from scraps of fabric.

Kumari

Designer Rashmi Varma is best known for her versatile sari dresses, which have found immense popularity in India. In addition to sari dresses, she launched Kumari, a label that focuses on good design and Indian aesthetics, and aims to bring them to a wider, global audience via affordable prices. Vintage saris are sourced from family collections, textile dealers, as well as vendors that burn silk saris to gather the gold from the Zari work. Whether darning, adding new embroidery motifs or darning on teary vintage fabrics, she has found innovative ways to handle them.

Bodements

In Bodements' view, our saris should be worn more frequently, rather than stored away in our closets. With their expert tailoring, they create suits, jackets, dresses and skirts out of precious heirloom pieces. Besides reducing waste, their pieces are a way to carry forward family heritage and reuse works of art.

Pitara

An Indian brand that produces colourful bags made from pre-loved saris and leftover textiles is based in Jaipur. They make slings, totes, cross-body bags and old-school batuas from the material. Their range of upcycled lifestyle products like passport covers, sunglass cases, tissue boxes, hangars and travel pouches is also worth checking out.

Aims and Objectives

Primary Objectives:
- To find solution on how Synthetic Old Sarees can be upcycled through innovating Lifestyle products.

Secondary Objectives:
- To study about the age old practise of making ropes from Synthetic Sarees.
- To find a solution on how the Rope making art can be preserved.
- To study about the adverse impact of synthetic waste if it is not properly disposed in environment.
- To suggest Brand Proposal related to up-cycling Synthetic Sarees.
- To assess about current practises related to upcycling of Old Sarees.
- To examine on how zero waste strategies can be achieved through upcycling waste sarees.

Review of Literatur

This article has talked about how in ancient times, ropes were made from grass, reeds, roots, leather and animal hair. Human history was changed forever by an invention that produced a finer form of rope, yarn, which was weaved into fabric. There is something fascinating about tiny delicate fibres that, when twisted and put together in large numbers, can carry huge loads and withstand violent forces. The fundamental of making these ropes

is twisting the fibers together to form a nice rope from it. Traditionally, twisted ropes are made in ropewalks, which are long spaces where ropes can be arranged side by side. A rope is formed by twisting two or three strands in one direction, then bringing them together and twisting them in the opposite direction. Despite the buzz around sustainability and climate change, these craftsmen have been making ropes for 40 years now. Hand-twisting plastic ropes, using a large charkha, in the city of Gandhi's Ashram, they carry on his philosophies of handwork and self-sustainability.

(Gaatha, 2014) (9)

This research paper aims on how the textile waste generated can be reused and recycled by using technologies like anaerobic digestion, fermentation, composting, fibre regeneration, and thermal recovery. Improved collection systems, automation of sorting, and discovering new technologies for textile recycling remains a challenge. To reduce the waste that is generated worldwide which is nearly 75%, many are trying to make it either to reuse or recycle, yet the researcher has used certain technology to do the same. Thus for the research thesis, it can be a topic where research about the waste generated and reusing it to make functional product.

(Jeanger P. Juanga-Labayen, Ildefonso V. Labayen, Qiuyan Yuan, 2022) (14)

This paper has highlighted about, 21st century world specially developed nations are worried about polluted environment and there adverse effects on nature. There prime concern is to seek various environment friendly ways for better present and secure future. Sustainability, recycling, corporate social responsibility, extended producers responsibility, circular economy theory is some of the very modern concepts to overcome the problem of pollution and wastes. Many industries and research institutes have taken this concept on a prime importance and trying to find out more and effective alternatives, especially in developed nations. Even industries are keen to search and produce eco-friendly products followed by strict environment related government policies to save the nature. In developed nations like India, the concept of sustainability is at infancy phase although door to door SHC (Second hand clothing) collection by Wagdi community in exchange of utensils and words biggest textile recycling industry (shoddy industry of Panipat, Haryana,) is situated in India. These different small and large scale textile recycling based businesses are practiced for the livelihood not for the sake of environmentalism. In India, along with shoddy various pre and post-consumer textile wastes recycling activities at both industrial and household level are practiced since long. Due to lake of awareness, government support and very low economy in last few decades, these recycling based various organised and unorganised businesses are losing their profit, identity and charm instead of get promoted and encouraged for the sake of environment.

(Prerna Jain, Charu Gupta, 2016) (20)

This research paper has talked about how recycling industry has to continuously cope up with the fashion industry. As customers will continue to buy more and more fashion, this industry will continue to produce more garments. As more and more garments will be produced, the same amount of waste will continue to generate. Thus this paper has concluded on how the shredded pieces of garments from different parts of the country are further been utilised to make variety of products. With this it has also been studied about how these shredded fibers are used as woven and non-woven fibers and made into several usable products. Thus this paper totally focuses on the waste old clothes are shredded and then further utilised. The thesis research can then be said about direct utilization of waste old clothes with weaving them to make functional products.

(Mundkur, 2022) (17)

This paper describes the re-use of silk saris from India by two groups of people: the Indian urban elite and western tourists travelling through the country. It analyses a particular series of material translations that these silk saris make through various technologies of reuse, and seeks to relate these to strategies of self-making through their adoption as dress and furnishings. By drawing on differing cultural understandings of materiality, pattern and style, the acts of both cutting up and reassembling textiles and clothing allows for translations between cultural registers, and the entwined mobility and generative mutability of cloth and personhood. The recycled sari clothes are not representative of any place or person, but have meaning only as an expression of the relationship between people, places and things. Thus the paper concludes, correlation between the journeys made by the saris and the transformation of the self during travelling is one of mutual aggregation and disaggregation of their component parts. The properties of cloth can be manipulated to make new garments, to be worn, wrinkled, creased and worn out once again, just as the perspectives and subjectivities of the wearer a reformulated during the process of choosing recycled sari clothing, which is at once exotic yet familiar.

(Norris, 2008) (18)

This article talks about the study of Indian brands that are currently working on how old clothes can be re-used by making different functional products and becoming a very conscious brand. 1. Punah (Indore based brand)- This brand creates clothes by collecting old used clothes and converting them to one of kind of wearable fashion apparels using different crafts. 2. Reimagined (Bengaluru based brand)-This brand collects old used

clothes and turns them into home decor items, and those they find are in good condition they make apparels from those clothes. 3. Twirl (Kolkata based brand)-This brand has donation boxed around the city, where people come and put unwanted clothes, and this brand then converts them into small usable items. 4. Pomogrenade (Bengaluru based brand)-This brand works towards upcycled fashion, wherein they offer their customers with gift cards once they donate into their brand. Their customers can then purchase from their brand with some discounts on the products. This study can then be concluded that, many small scale business are trying to upcycle on their own level by making functional products, thus this research is concluded where actual craft and usage of old clothes is being done.

(Dsouza., 2022) (7)

In this paper the researcher has highlighted the importance of waste management and shown the pros and cons of different waste management options. Researchers have thoroughly examined each stage of the waste management hierarchy after outlining the various types of textile waste. By drawing on technical data on alternative uses and designers' work, including novel and value-added products/items made using various upcycling techniques, where the designers take responsibility for raising public awareness of this issue, we have also described engineering solutions for textile waste. Discussion of management alternatives in every element and methods of usage from various angles has brought to light the ever-increasing risk of textile waste that is disposed of in landfills. Additionally, it is hoped that by encouraging readers to think about the history of textile products before purchasing, while using, and after consuming them, the enhanced content of this work may contribute to raising awareness among both consumers and those who produce, distribute, and sell these items.

(Ipek Yalcin-Enis, Merve Kucukali-Ozturk, and Hande Sezgin, 2019) (12)In this paper the researcher has described the sculptural seating options such as pouf's, ottomans, stools, benches, chairs, and various accessories that are made by converting old and discarded silk saris—bright and vivid draped clothing worn by Indian women throughout India—into upcycled and sustainable collection of textile stools and pouf's. The unique line of objects in the repurposed saree series has been painstakingly created. Hence, no two pieces will be alike. The unique line of objects in the repurposed saree series has been painstakingly created. For easier maintenance all of the poufs come with a zipper closer attached with it. In order to create a sensory experience employing numerous handcrafted techniques reminiscent of Indian handicrafts and tradition, designer Avni Sejpal also had to overcome some significant obstacles. The idea was to support cradle to cradle design and offer abandoned textiles a second chance at life. The goal was to use the entire length of the used fabric for Pompom pouf's without leaving any discarded scraps of the luxurious fabric. This the researcher has discovered various ides from the roots of India itself and has created a design line of furnishing to achieve sustainability.

(Avni Sejpal , 2015) (4)

This research has aimed towards how polyester clothes are recycled to make chemicals from them. The post-consumer polyester clothing was chemically recycled with the intention of reducing the build-up of fibre grade PET waste, recycling, and offering a technically viable path leading to the preservation of the environment and natural resources. In the presence of ethylene glycol as a depolymerizing agent and zinc acetate as a catalyst, post-consumer polyester clothing was recycled into bis (2-hydroxyethyl) terephthalate (BHET) monomer. Chemical and analytical methods were used to characterise the depolymerized product.

(Amit A. Barot, Vijay Kumar Sinha. , 2015) (3)

The Research makes an effort to investigate any potential links between sustainable development and artisan practise. This study shows how fair-trade principles may be successfully applied to create sustainable businesses and communities. It also makes a case for a sustainable business strategy that other textile and craft companies may decide to use. This concept would have a good impact on the local economy and society by reducing poverty, re-establishing cooperative connections between various ethnic groups, and preserving Sri Lanka's cultural identity if it were to be greatly extended to include populations impacted by war. This study has only one case study and cannot be applied to a larger population. To harness social and economic growth, this research encourages other craft practitioners to review their production methods and look at the possibility of incorporating sustainable and fair-trade principles into their operations.

(D. G. K. Dissanayake, Srimala Perera & Thushari Wanniarachchi , 2017) (6)

This survey research has aimed about the consumers buying behaviour and with this context how it affects problems related to sustainability. According to the report, 68% of people buy for clothes each month. It was shown that the major drivers of the intention to acquire new clothing were impulsive buying and genuine necessity. The majority of the respondent's wardrobe is made up of 45+ items, with tops/shirts/upper wear dominating all other categories. Nearly 88% of the apparel was made up of tops, shirts, and upper clothes. Therefore, upper wear for people in their 20s and 30s makes up the majority of post-consumer garment trash.

Sarees, dupattas, and dhotis were the most common kind of recycled clothes in Indian houses a few decades ago since they could be readily turned into various items like bags, blankets, pillow coverings, curtains, etc. Nearly half of the poll participants in India expressed a desire to get rid of clothing that was no longer in use. Despite the fact that the majority of respondents were eager to contribute, there is a lack of knowledge regarding the channels accessible for used clothes donations. The majority of the donated apparel is tops. The majority of NGOs utilise post-consumer recycled clothing for charitable purposes or upcycle it into new items with the help of an artisanal community that depend on it for a living. Few Indian companies are now recycling post-consumer garment trash to make designer goods. Reselling used apparel through brand and company web apps is the other alternate channel that has emerged in India.

(Bairagi, 2018) (5)

The purpose of this study is to determine consumer awareness of various textile recycling and reusability issues. We found that respondents to this study are aware of numerous textile recycling and reusability factors. There were a large number of replies in favour of recycling textiles in the ways that were mentioned. Numerous responders also showed up to contribute different textile items, such as discarded jeans, children's clothing, shoes, curtains, etc., as textile consumption increased. Additionally, when asked to choose a garment that exemplifies the sustainable future of the apparel business, respondents chose clothes manufactured from recycled fibre. Cradle to cradle, carbon footprint, and other terms are familiar to many responders. Overall, respondents' attitudes on recycling and the potential to reuse textiles were favourable.

(Parshant Swarnkar, Kedar Kulkarni and Aranya Mallick, 2022) (19) This researcher has specified about how awareness regarding recycling should be promoted, to make usage of the products and achieve sustainability. One of the most important industries in the consumer goods sector is textiles. The textile sector is, nonetheless, considered as one of the most polluting ones. Textile use and manufacture both generate waste. The textile industry has implemented several strategies to combat the issue and lessen its impact on the environment. Textile recycling, which involves both the reuse and replication of fibres from textile waste, is one of these approaches. Thermal, material, chemical, and mechanical processes can all be used for recycling. Recycling textiles helps the environment and economy by lowering the need for textile chemicals, reducing the need for landfill space, using less energy, and using less water. To raise customer awareness and persuade producers to employ more recovered textile waste in new goods, market research and other initiatives are required.

(Jamal, 2017) (13)

The many ways for recycling textile wastes, including composting, paper-making, and strategies used by fashion firms to recycle used garments, are all reviewed in this study. Technical textiles, composites, and non-woven industries that entail product development employing upcycled wastes are given special attention. This may serve as a wake-up call for scientists and businesspeople throughout the world to conduct more study and contribute to lowering landfill pollution. According to a recent US government investigation, NPE (Nonylphenol Ethylates), a dangerous chemical that might potentially be generated during washing and result in the creation of a toxin when combined with water bodies, is identified in 50 out of 80 clothes. It is one among the numerous substances that are frequently present in textile fabrics and has been shown to be hazardous. Pollution and harmful effects of textiles are ever increasing. The management of textile waste is as important as developing new goods and technology. Especially if the organisation is engaged in exporting, sustainability is essential in today's economic world. Waste textiles that were formerly discarded are now recognised as a valuable resource.

(Aishwariya, 2018) (1)

This research paper has found techniques can be recycled using certain technological innovations. A number of existing finishing processes could be replaced by laser welding in this project, as well as some innovative techniques that are not a part of existing processes. It was possible to preserve 100% mono-materiality and to make the resulting materials recyclable. This technology requires several developments in equipment and processes in order for it to be available for full scale production. It is hoped that cooperation with an appropriate industrial partner can be achieved to fully resolve the potential for an integrated, highly responsive manufacturing and recycling system that will fit into the future vision of a closed loop polyester economy.

(Goldsworthy, 2010) (11)

This paper highlights about the consumer's perception regarding textiles and eco-friendly supplies. Textile supplies the vital material essential for survival. A circular economy, instead of a linear economy, is essential despite pollution from production. Till last century it was common that the textile waste generated ended- up in landfills. A variety of techniques are used in the industry today, including recycling, redesigning, upcycling, down-cycling, restoring, repairing, using, and reducing. Educating consumers about their choices and incorporating sustainability into their daily lives is essential. Textiles have been impacted by green consumerism, which has decreased waste and infused eco-friendly practices into the industry. This paper thus

talks about the how consumer's contribution is important in reducing textile waste for the sake of sustainability, and also talks about how now consumers are shifting towards eco-friendly supplies.

(Aishwariya. S, 2020) (2)

This research paper has addressed about the increasing awareness day by day about the environment, and the reason for the pollution is mostly the waste that is generated from various industries. Considerable amount of fabric is wasted when making garments. Clothing and apparel wastes cause pollution seriously. In many countries, there is no rational recycling sector that belongs to clothing sector. When waste textile materials are burned, stored, languished, or destroyed, they do not have to damage people or the environment. Additionally, fast fashion waste is also contributing to pollution because of its daily life fashion waste. Thus the paper also writes about what can be solutions to decrease the rate of the waste material generated by up-cycling or re-cycling. It has been demonstrated in this study that waste clothes can be used as part of a sustainable design technique. How upcycling can be done with waste sarees, with various designs is thus showcased into this paper. The purpose of this study is to raise awareness about reusing our own fabric and using new sustainable techniques.

(Kamrun Nahar Naznin, Rayed Barkat, 2018) (15) This research paper has talked about how changing fashion preferences, developing technology, and increasing populations, textile products are considered to be one of humanity's most basic needs. There have been many hot topics in this field, including the discovery of alternative energy sources, the recycling of all sorts of materials, the enhancement s engineering methods and technologies for recycling, and trends like sustainable fashion that promote sustainability. Recycling studies are also common in textile science. By the utilization of recycled fibers, it is feasible to reduce the usage of natural fibers. With this, there are many limitations to textile recycling, which led to alternatives to natural fibers and are sustainable. In this context, recycling and sustainability-based research in this field usually emphasizes the subject's necessity, without acknowledging its limitations. A focus of this chapter is therefore on the limits of recycling in textiles and the development of new fibers to overcome them.

(Gizem Celep, Gamze D. Tetik and Fulya Yilmaz, 2022) (10)

This study investigated how pattern making and the use of fabric waste in clothing design may help KAD Manufacturing Limited eliminate fabric waste. When making fabrics and apparel, the fashion industry wastes a significant amount of materials. Post-consumer textile waste now makes about 5% of solid trash, and the majority of this garbage, which is disposed of in landfills, causes environmental difficulties. This trash might consist of cut fabric scraps, fabric remnants from rolls, sample yardage, damaged textiles, apparel samples, unsold items, and waste from used clothes. Additionally, fabric waste might occur throughout the production process, the trimming phase, or the printing and embroidery phases. However, the product's style or design might also affect the amount of fabric scraps. These extra materials might be applied to new financial breakthroughs and improvements. Thus, it has been investigated what kinds of clothing may be made from the remaining textiles.

(Mifetu, 2020) (16)

The present field circumstances and difficulties are thoroughly described in this thesis. It also provides a framework for the value generation precursors along the recovery processes connected to reuse and value chain redesign. The theoretical framework's themes are supported by the empirical framework, which comes to the conclusion that value generation in reverse textile value chains has a set of universal antecedents. However, it's also important to take into account category-specific antecedents. Increased collaboration is advised to improve value generation from PCTW since the unique experiences of one actor type may as well be good lessons for another.

(Emelie Johansson, Matilda Nyström , 2015) (8)

With the above research, with the context of synthetic waste being generated, many of the researchers have found out different solutions to manage the waste. Not only from fashion background but also making chemicals or furniture's or fashionable products etc. All of them have been working to see how the waste of synthetic fibers can be reduced or how in general textile waste can be re-purposed in some or the other ways on their levels. Usage of these old waste fabrics, rather sarees in particular are not new in India. This tradition has been carried throughout many generations. We also see that many articles are also published talking about the Rope making Art which is majorly common in many villages in India.

It also concludes that, very less amount of research is been done on this particular rope making, which can be otherwise used to make many wide variety of product range that could actually not only be fashionable, but also functional at the same time. Thus this Dissertation/ Thesis has explored those options that could not only be Sustainable but also could be Productive.

Today's era being a fast pace, with fashion people need more functional products, at the same time want something which is sustainable. Thus, with going through all the perspectives of recycling/ reusing textiles,

this Thesis/ Dissertation has found solution which contribute to all the aspects which can be fashionable yet productive solution that will also last long and has a longer life span.

RESEARCH METHODOLOGY

- Finding about what are different methods used to upcycle the old Sarees in making new products.
1. Data collected through Primary sources.
2. Data collected through Secondary sources.
3. To examine how these practices are contributing in reduction of waste and achieving sustainability.
- To study about the technique of making traditional Ropes.
1. To know how the synthetic ropes are made and how is it used in particular areas.
- Solutions providing Lifestyle products made from used old Synthetic sarees.
1. Lifestyle products made as a solution to upcycle the synthetic waste from old sarees.
2. Brand Creation with promotion of the lifestyle products created, through different platform, showcasing on upcycling of old synthetic sarees.

Product Development Process

Step 1- Collecting Waste Sarees
Step 2 – Cut Sarees into Pieces and sorting them accordingly.

Step 3- Joining the Ropes together.
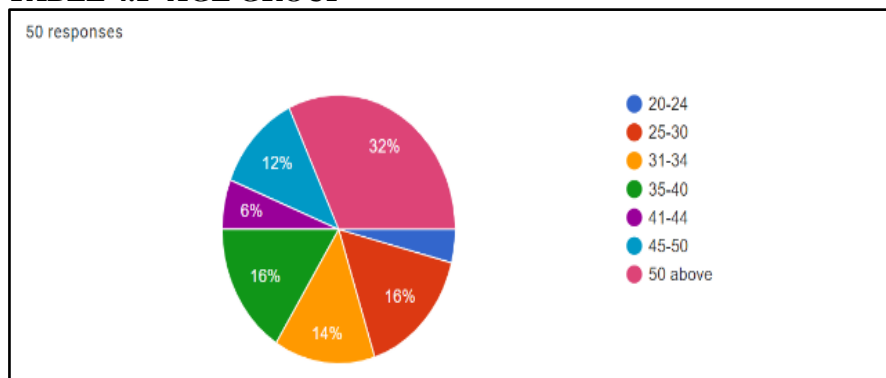
4. Final Lifestyle Product Line

3.3 Brand Promotion

DATA ANALYSIS

Q1. You're Age Please

| You're Age Please	20-24	25-30	31-34	35-40	41-44	45-50	Above 50
Percentage of the respondents	4%	16%	14%	16%	6%	12%	32%
Number of respondents	2	8	7	8	3	6	16

TABLE 4.1- AGE GROUP

GRAPH 4.1

Analysis- From Data Table 1, out of 50 respondents, 4% of them fall between age group of 20-24, 16% of them fall into age group of 25-30, 14% of respondents fall into age group of 31-34, 16% of them fall in the age group of 35-40, 6% of them are from the age group of 41-44, 12% of them are between age group of 45-50, and 32% of them are above 50 years of age.

Q2. Do you like to wear a Saree?

| Do you like to wear a Saree?	Yes	No	May be
Percentage of the respondents	92%	4%	4%
Number of respondents	46	2	2

TABLE 4.2- SAREE WEARING
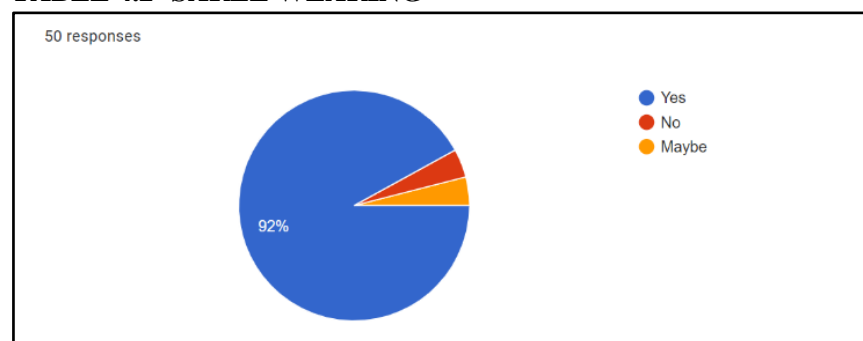
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Analysis- From Data Table 2, out of 50 respondents, 92% of them like to wear a saree, 4% of them don't wear a saree, and 4% of them are not sure if they like to wear a saree.

Q3 . What are the types of Sarees you have in your closet? (Choose all that apply)

What are the types of Sarees you have in your closet?	Cotton Saree	Silk Saree	Synthetic/Art silk Saree	Designer Saree	All	Other
Percentage of the respondents	44%	78%	90%	56%	2%	2%
Number of respondents	22	39	45	28	1	1

TABLE Error! No text of specified style in document.**.1- TYPES OF SAREES**
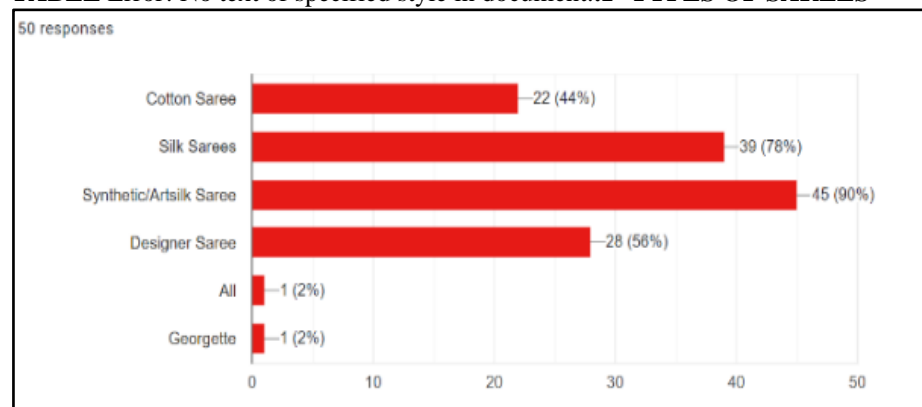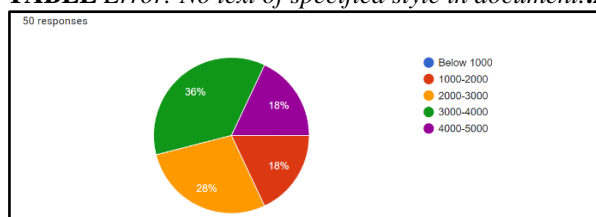

GRAPH Error! No text of specified style in document.**.2**

Analysis- From the Data Table 3, out of 50 Respondents, 44% of them have Cotton Sarees, 78% have Silk Sarees, 90% of them have Art-silk/Synthetic Sarees in their closet, 56% of them have Designer Sarees, 2% of respondent have all of the mentioned Sarees and 2% of them have other sarees.

Q4. What is the price range of these Sarees that you have?

What is the price range of these Sarees that you have?	Below 1000	1000-2000	2000-3000	3000-4000	4000-5000
Percentage of the respondents	0	18%	28%	36%	18%
Number of respondents	0	9	14	18	9

TABLE *Error! No text of specified style in document.*.**2- PRIVE RANGE OF SAREES**

GRAPH Error! No text of specified style in document.**.4**

Analysis- From the Data Table 4, out of 50 Respondents, 18% of them have sarees ranging between 1000-2000, 28% of them have sarees in the range of 2000-3000, 36% of them have sarees between price range of 3000-4000 and 18% of them have sarees ranging in 4000-5000.

Q5. Amongst your saree collection, how many of them are Synthetic/Art-silk Sarees?

Amongst your saree collection, how many of them are Synthetic/Art-silk Sarees?	10%-20%	21%-30%	31%-40%	41%-50%
Percentage of the respondents	20%	24%	34%	22%
Number of respondents	10	12	17	11

TABLE *Error! No text of specified style in document.*.3- SYNTHETIC SAREE COLLECTION
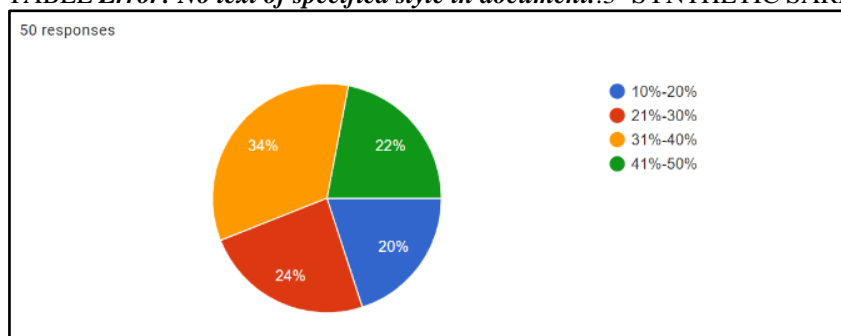
GRAPH Error! No text of specified style in document.**.5**

Analysis- From the Data Table 5, out of 50 Respondents, 20% of them have Synthetic sarees in their closet between 10%-20%, 24% of respondents have 21%-30% synthetic Sarees in their closet, 34% of them have 31%-40% of Synthetic sarees in their closet, and 22% of them have Synthetic sarees between 41%-50%.

Q6. What is the time span of usage of these Synthetic Sarees that you have?

| What is the time span of usage of these Synthetic Sarees that you have?	1-2 Years	2-3 Years	3-4 Years	4-5 Years
Percentage of the respondents	8%	20%	26%	40%
Number of respondents	4	10	13	23

TABLE **Error! No text of specified style in document.**.4- USAGE OF OLD SAREEES
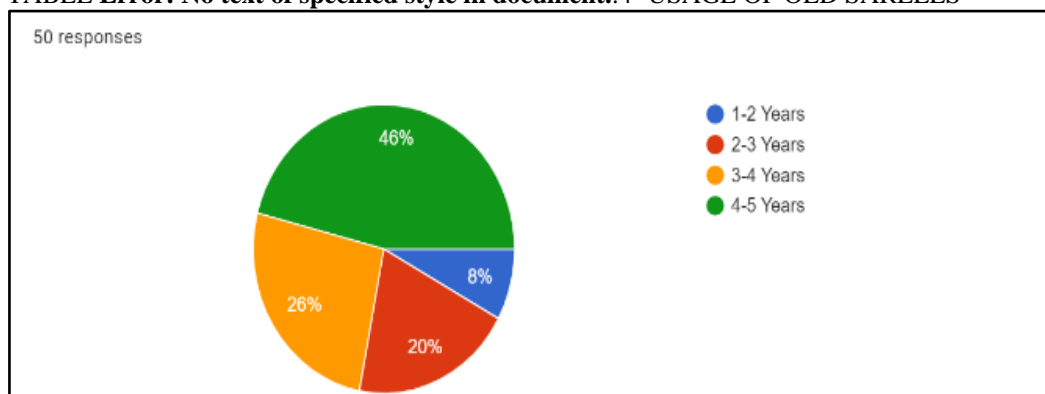
GRAPH Error! No text of specified style in document.**.6**

Analysis- From the Data Table 6, out of 50 Respondents, 8% of them use saree for 1-2 years, 20% of them use sarees between 2-3 years, 26% of respondents use sarees between 3-4 years and 46% of them use sarees for between 4-5 years.

Q7. What do you with Old Synthetic sarees once they are not in the state to be used? (Choose all that apply)

What do you with Old Synthetic sarees once they are not in the state to be used? (Choose all that apply)	Dump/Throw	Give them to maid	Make a dress from it	Make Godhadi/Blankets from it	Make Home Furnishing product…	Other
Percentage of the respondents	20%	84%	68%	48%	32%	4%
Number of respondents	10	42	34	24	16	2

TABLE *Error! No text of specified style in document.*.5- RE-USING OLD SAREES
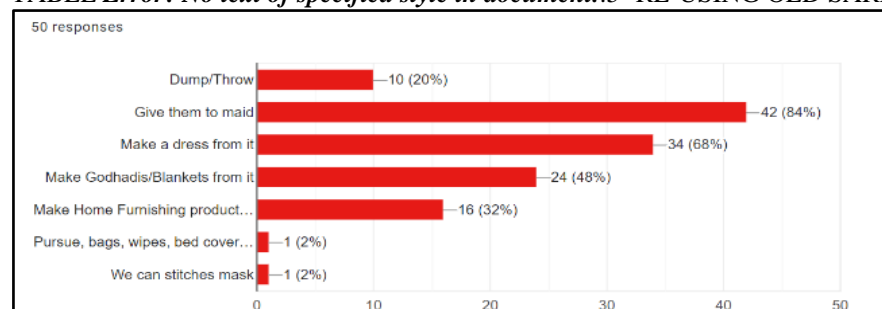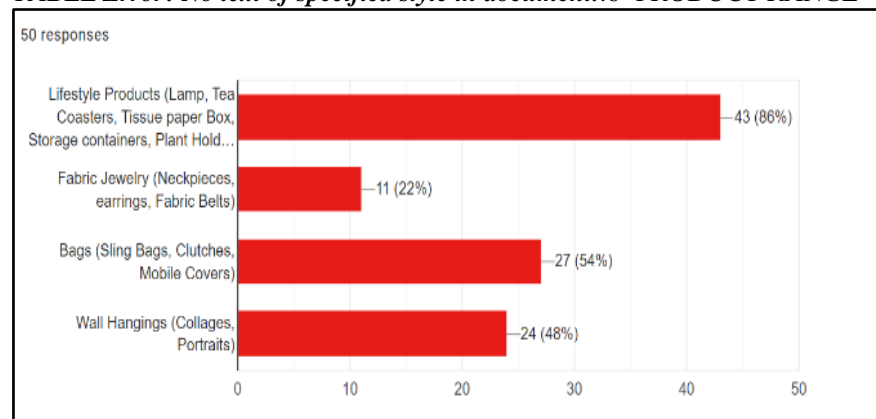

GRAPH Error! No text of specified style in document..**7**

Analysis- From the Data Table 7, out of 50 Respondents, 20% of the respondents Dump/Throw the old sarees that are not in the state to be used, 84% of them give old sarees to maid, 68% of them make a dress form old sarees, 48% of them make Godhadi? Blanket from old Sarees, 32% of them make home furnishing products from old Sarees (Cushion covers, curtains, shopping Bags etc.) and 4% of the respondents make other things from old sarees.

Q8. If following options were provided to you what are other products you would like to have from Old Synthetic Sarees? (Choose all that apply)

If following options were provided to you what are other products you would like to have from Old Synthetic Sarees?	Lifestyle Products(Tea Coasters, Lamp, Tissue Paper Box, Storage Containers, Plant Holders)	Fabric Jewellery (Neckpieces, earrings, Fabric Belts)	Bags (Sling Bags, Clutches, Mobile Covers)	Wall Hangings (Collages, Portraits)
Percentage of the respondents	86%	22%	54%	48%
Number of respondents	43	11	27	24

TABLE *Error! No text of specified style in document.*.6- PRODUCT RANGE
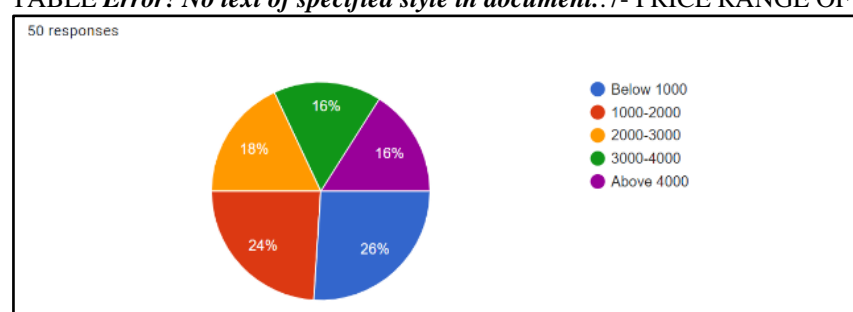

GRAPH Error! No text of specified style in document..**8**

Analysis- From the Data Table 8, out of 50 Respondents, 86% of them would like to make Lifestyle products from their old Synthetic Saree, 22% of the respondents opted for Fabric Jewellery, 54% of the respondents would like to make Bags from Old Synthetic saree, and 48%of them would like to make posters from it.

Q9. What is the Price range you are accepting for the above mentioned Products?

What is the Price range you are accepting for the above mentioned Products?	Below 1000	1000-2000	2000-3000	3000-4000	Above 4000
Percentage of the respondents	26%	24%	18%	16%	16%
Number of respondents	13	12	9	8	8

TABLE *Error! No text of specified style in document.*.7- PRICE RANGE OF PRODUCTS
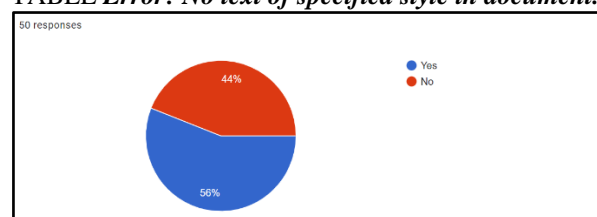

GRAPH Error! No text of specified style in document.**.9**

Analysis- From the Data Table 9, out of 50 Respondents, 26% of them would like to have the above mentioned products in the price range below 1000/-, 24% of them would like to have the above mentioned products in the price range between 1000- 2000/-, 18% of them would like to have the above mentioned products in the price range between 2000-3000/-, 16% of them would like to have the above mentioned products in the price range between 3000-4000/-, and 16% of them would like to have the above mentioned products in the price range above 4000/-.

Q10. Do you have any special Saree or a saree which is inherited by your Mother/Grandmother which has an emotional connect with it?

Do you have any special Saree or a saree which is inherited by your Mother/Grandmother which has an emotional connect with it?	Yes	No
Percentage of the respondents	56%	44%
Number of respondents	28	22

TABLE *Error! No text of specified style in document.*.8- SPECIAL SAREE
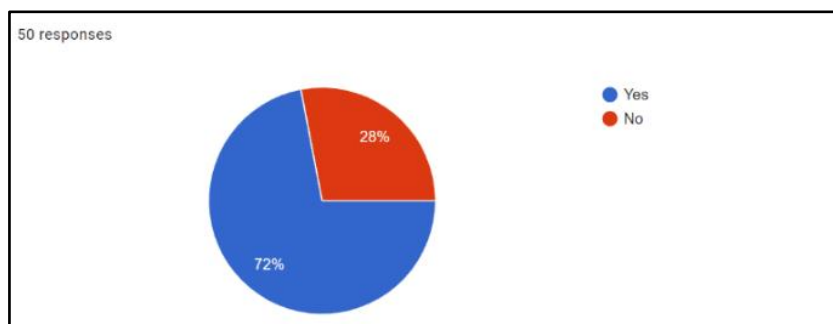

GRAPH Error! No text of specified style in document.**.10**

Analysis- From the Data Table 10, out of 50 Respondents, 56% of them have a special Saree that is inherited to them, 44% of them don't have a special Saree that is inherited to them.

Q11. Would you like to have a personalized experience, to give you an idea to make usage of those sarees, to keep it with you in a different manner?

| Would you like to have a personalized experience, to give you an idea to make usage of those sarees, to keep it with you in a different manner?	Yes	No
Percentage of the respondents	72%	28%
Number of respondents	36	14

TABLE 4.11- CUSTOMIZATION OF OLD SAREE

GRAPH Error! No text of specified style in document.**.11**

Analysis- From the Data Table 11, out of 50 Respondents, 72% would like to have a personalized experience to get an ideas on how to utilize old Sarees, 28% would not like to have a personalized experience to get an ideas on how to utilize old Sarees.

Q12. Would you like to give your own sarees to our Brand, which re-cycles it to make a much wider range of products?

Would you like to give your own sarees to our Brand, which re-cycles it to make a much wider range of products?	Yes	No
Percentage of the respondents	86%	14%
Number of respondents	43	7

TABLE *Error! No text of specified style in document.*.9- RE-CYCLING SAREE FOR A BRAND
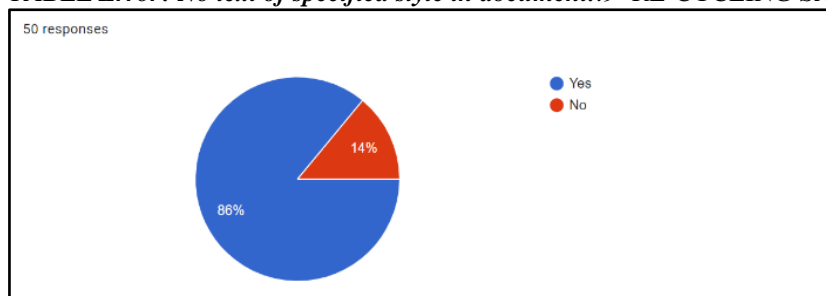
GRAPH Error! No text of specified style in document.**.12**

Analysis- From the Data Table 12, out of 50 Respondents, 86% would like to give old sarees to our Brand, which will re-cycle them into new products, and 14% of them would not like to give old sarees to our Brand, which will re-cycle them into new products.

4.2. Key Findings
In relation to the above Data analysis, following are the findings that are generated to support this research-
Section 1- Amount of the Synthetic Sarees in a women's closet.
- The above analysis states that, Saree one such garment that many of the respondents like to wear.
- 90% of the respondents' collection of sarees, which also includes designer and silk sarees and cotton sarees, are made of synthetic materials.
- It can also be found that respondents use nearly 31%-40% of Synthetic sarees.
- The analysis also suggests that the price range it falls into is between 3000Rs 4000Rs.
- Since many synthetic sarees do not easily rip or deteriorate, the average lifespan of these garments is close to 4-5 years.
- As a result, these sarees are stored for a longer time before being used.

Section 2- What actually happens to these Sarees when they are not in the state to be used anymore.
- From the analysis it is found that 20% of the sarees are being dumped once not in the state to be used.
- Also it is found that 68% of the respondents either make Dresses from it or blankets are made from old synthetic sarees.
- Majorly it is found that most of these old sarees are been given to maid, but what happens with it we have no idea.

Section 3 - What new products are liked by Respondents?
- Amongst the new options provided to the respondents, 54% of them choose to make Bags from them, and those ladies fall under the age group between 31-40 years old.
- 48% respondents choose to make Portraits from the options provided to them.
- 22% of them would like to see Fabric jewellery made from Old sarees.
- And the major category of the respondents would like to have lifestyle products to be made from old sarees which include Tea coasters, Lamps, Containers etc.

Section 4 - Do respondents want their sarees to be Re-cycled.
- It was discovered that 56% of the respondents owned sarees that they felt an emotional connection to and that were passed down to them by their mother or grandmother.
- 86% of the respondents said they would be willing to donate their old sarees if they could be recycled and turned into things that weren't the same as usual.
- Even some of the respondents said they would prefer a tailored experience in which the brand helped them turn their desires into certain things.

CONCLUSION

To conclude, it is seen that Saree waste is one such category of waste that is being Re-cycled/Up- cycled in many ways since past decades. Then making blankets from it or saree dresses or even making home furnishing products from it. These have become some common types of products that are being made from saree waste so far. Some sarees are said to be emotionally attached with us that we don't want to throw so piles of these sarees are created on a larger level and sometimes even get worse that it cannot even be used.

This traditional rope making was something that is not being manufactured on large scale, rather it is seen to be made on either road sides of the villages or these vendors take their machinery of rope making and roam around the village to make ropes. This practise was very common there, until Covid-19 hit and these vendors stopped manufacturing these Ropes. So this Rope making can actually be a difficult task to be done if it is done manually by twisting them with hands. Yet these ropes are traditionally meant to be used only to tie cattle's and draw water from wells. But even here these ropes look really elegant if they customized and make into thin Ropes. These Ropes as they have strong strength because they are been made of Synthetic Sarees.

The main Purpose here of making use of Synthetic Sarees was that these sarees have a lot of man-made material that cannot decompose easily if they are not dumped properly. It is also found that in Fashion Industry many fabrics that we get are either made-up of totally natural fibers or they are mixed up using Synthetic/Man-made fibers. Though today our industry is entering into the ear of sustainability and promoting to use products that are made from nature, yet still in some part we find this synthetic material still being used.

This Thesis/Dissertation has concluded with thinking from both the perspectives, one that is keeping-up with the Rope making tradition and on the other hand making use of these old Synthetic sarees. A mixture of both has resulted into creation of Lifestyle Products that not only aesthetically will enhance the look of the place but at the same tome is also functional. These products are hand-made and also highly demanded in the International market, but this also requires a lot of branding and promotion for the same. So for this branding and Promotional material have been created to further get a nice Brand from it known as "TOUCH ME KNOT". Concluding statement is that these kind of ropes can be creatively used to make Products and also promotes sustainability at the same time.

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