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**A STUDY ON HOW YULU IS AIMING TOWARDS NET ZERO****Aniket Swaraj and Mahek Shah**

SIES College of Commerce and Economics (Autonomous)

**ABSTRACT**

*Carbon emission has increased tremendously due to rising urbanisation and use of fuelled vehicles. The country in turn has to face several challenges like traffic congestion & environmental degradation. Short term travel has come an unsettled matter. To avoid similar issues and challenges, an alternative transportation system arises, i.e., electric vehicles. Aim of current study is to examine how electric bikes are helping in reducing carbon emission and contributing towards sustainability. In this study, a consumer survey has been conducted through circulating a questionnaire. The paper gives an overview of how the invention of Yulu bikes have made short term commute quick and affordable.*

*Keywords: Electric Bikes, Sustainability, Carbon emission*

**INTRODUCTION**

With the ever-adding use of fuelled vehicles since former many times, the emission rate of CO<sub>2</sub> has largely impacted the environment. Large number of people enjoy their private vehicles and use them for diurnal commute. The use of private vehicles has caused an enormous increase in the levels of pollution. Carbon emission has numerous adverse effects on the health of people, on the food chain of creatures and on the environment. Sustainable development has now become the need of the hour. Now, people need to understand how important it is to protect the environment for the future generations to be able to access all the resources. Then arises an invention of Yulu bikes. Yulu is a technology-driven mobility platform that enables Integrated Urban Mobility across public and private modes of transport. Using Micro Mobility Vehicles (MMVs) through a user-friendly mobile app, Yulu enables first and last-mile connectivity that is flawless, shared and sustainable. Yulu is driven by three guiding principles of urban mobility – Accessibility, Availability, and Affordability. Yulu's mission is to make urban mobility in India smooth & sustainable. What started off as an initiative to reduce traffic congestion and pollution in Indian cities, is now redefining urban mobility across the country.

Amit Gupta, an occupant of Bangalore and an alumnus of the Indian Institute of Technology (IIT), understood the need for creating a sustainable mode of transportation, particularly for short distance commute which redounded into establishment of bike-sharing venture named Yulu. Yulu was meant for furnishing a sustainable transport system which is erected on the three pillars of sustainable development (economic, social and environmental aspects of sustainability).

This describes how brilliantly the idea of sustainable and shared transport has been executed by the Yulu co-founders.

**STATEMENT OF PROBLEM**

Due to surge in traffic congestion, it takes longer than normal for an individual to reach at their desired destination. Yulu bikes have come into existence to solve the problem of public transportation. Solving this “first and last mile problem” has become its reason for existence. Another problem fuelled vehicles have caused is increase in the levels of carbon emission having adverse impact on the environment and health of individuals.

**LITERATURE REVIEW**

The following studies on electric bikes are aiming towards sustainable transportation have been conducted by various researchers to form the review of literature for A study on how Yulu bikes are aiming towards net zero in India:

Deepika Upadhyay, Geetanjali Purswani & Pooja Jain (2020) in their research paper titled “Yulu: Moving Towards Sustainable Future” in sage journals, have identified that increased congestion and longer duration to commute has provoked people to choose an alternate mode of transport that is faster and sustainable.

Isabel Neumann, Peter Cocron, Thomas Franke and Josef F. Krems (2010) in their research paper titled “Electric vehicles a Solution for green driving in the near future? A field study examining the user acceptance of electric vehicles in Humanist Publications have summarized the issues that affect the acceptance and suitability of electric vehicles for everyday mobility.

Monisha G, Pranati Sinha and Ashwini Gowda (2019) in their research paper titled “A Systems Perspective of Cycling and Bike Sharing in Urban Mobility” in the SSRN electronic journal DOI:10.2139/ssrn.3379739 have cited that umpteen problems of mobility, pollution and congestion on our roads, a shift to a more environmental friendly and economic mobility in transportation has not only become an alternative but a necessity.

Dr Ulrich Eberle and Dr Rittmar von Helholt (Issue 6, 2010) in their research paper titled “sustainable transportation based on electric vehicle concepts: a brief overview” in the energy and environmental science journal have cited the advantaged, limitations and impacts of electric energy storage using batteries and energy in chemical form as hydrogen and the application of a fuel cell as energy converter.

**OBJECTIVES**

1. To make urban commute more efficient and eco-friendlier
2. Reducing traffic congestion and fuel usage
3. To reduce import of fuels from gulf countries
4. To make people aware about how electric bikes can be beneficial and sustainable for India’s economy.

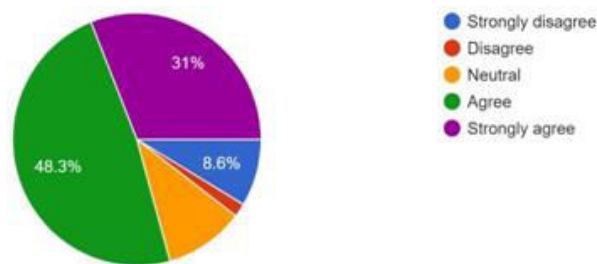
**RESEARCH METHODOLOGY**

The type of research is problem solving research. The research aims to solve various problems that the society and economy faces due fuelled vehicles. The problem can now be solved by the introduction of electric bikes (Yulu bikes). A survey was conducted for the purpose of data collection among college students. A questionnaire was circulated through Google forms to the students. Questions were formulated to understand what people think about electric vehicles.

Following are the deductions and analysis of the data collected.

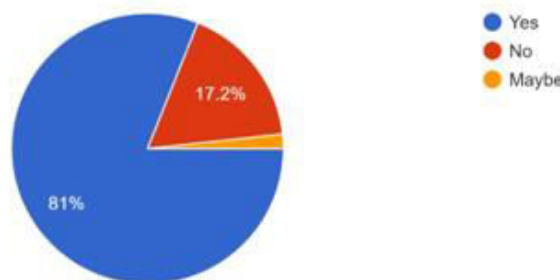
**DATA ANALYSIS AND FINDINGS**

Would you agree that petrol bikes & cars contributed largely towards carbon emission?  
58 responses



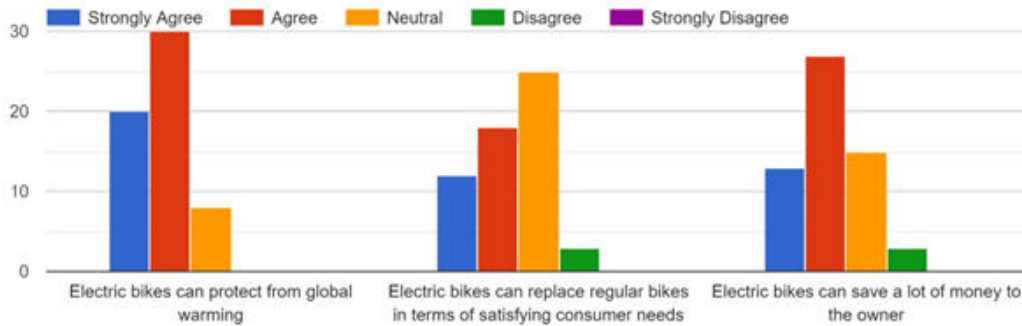
This question is trying to understand whether the respondents agree that fuelled vehicles largely contribute to carbon emission. This question is asked as a base, if respondents agree to the fact that fuelled vehicles emit huge levels of carbon and it’s a major problem, they will understand how important it is to find an alternative to solve the problem. 31% of respondents strongly agree, 48.3% respondents agree 8.6% of respondents strongly disagree and the remaining respondents have a neutral opinion about fuelled vehicles contribution towards carbon emission.

Have you heard about Yulu bikes before?  
58 responses



It is a very positive response and a great deal for Yulu company that many people are aware about Yulu bikes. 81% of the respondents are aware about yulu bikes and how they work, 17.2% of people are not aware about what Yulu bikes are and the remaining percentage of respondents are still unsure about Yulu bikes. But, this google form and research paper will make the respondents aware about Yulu bikes and their operations.

What do you think about the following statements



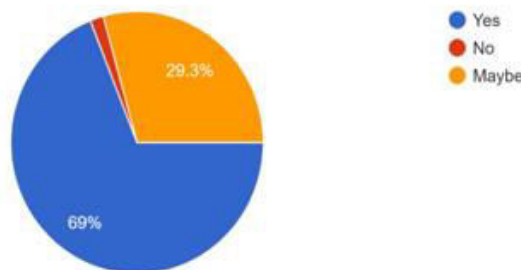
20 respondents strongly agree that electric bikes can protect the environment from global warming, 30 of them agree and 8 respondents have a neutral opinion.

12 Respondents strongly agree that electric bikes can replace regular bikes in terms of satisfying consumer needs, 18 respondents agree & 25 respondents have a neutral opinion about the same and 3 respondents disagree.

12 Respondents strongly agree that the electric bikes can save a lot of money to the owner, 27 respondents agree, 15 respondents have a neutral opinion and 3 respondents disagree.

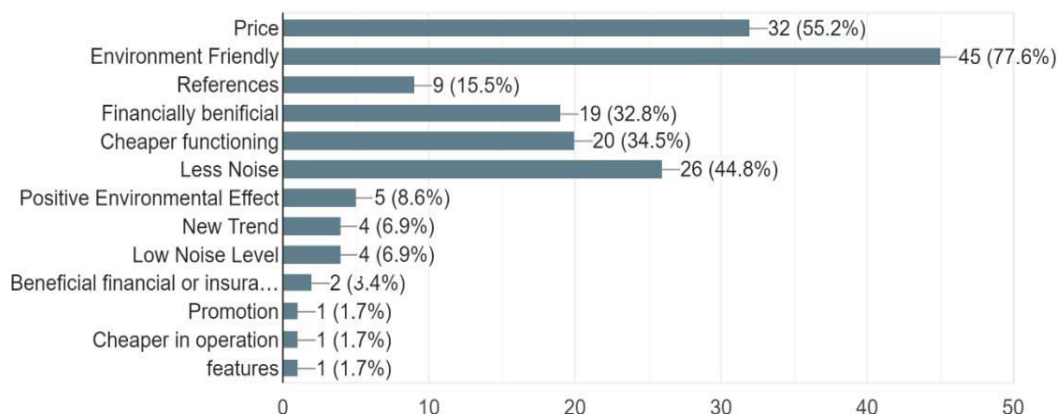
Do you think electric bikes are helping environment remain sustainable and reduce carbon emission?

58 responses



What factors encourage you to consider buying an electric bike?

58 responses

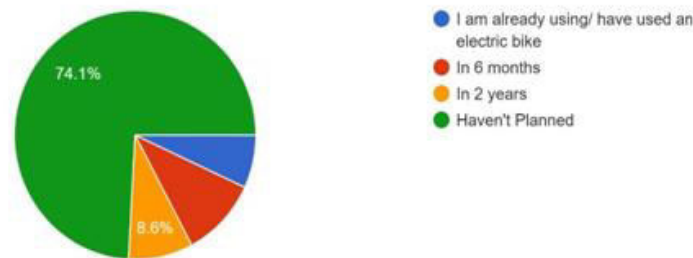


There are several factors mentioned that persuade the buyers to purchase an electric bike. The respondents have filled their response and environment friendly being the most persuasive factor for an individual to buy an electric vehicle, followed by Price, less noise, financially beneficial, etc.



How likely are you to use an electric bike?

58 responses



6.9% of respondents are already using or have used an electric bike which proves a good beginning of moving towards adoption of electric vehicles. 10.3% of respondents are planning to buy in coming 6 months, 8.6% of respondents are planning to buy in 2 years and 74.1% of the respondents haven't planned yet.

The data indicates that people have started being aware about electric vehicles and their benefits to the economy and benefits at personal level.

### RECOMMENDATIONS

Electric bikes are a good alternative to fuelled vehicles which is low in cost. It is financially beneficial for an individual as the government is trying to encourage people to shift to electric vehicles. Yulu bikes are compact which reduces traffic congestion and makes short distance commute easier and faster. Hence, it is highly recommended for individuals to start using electric bikes for short distance commute. Not everyone uses or is comfortable with using online modes of payment (for example- housewives), so if they would want to use yulu bikes for buying groceries or to go somewhere, it will be really challenging for them to use yulu bikes. Therefore, it is recommended to make payment easier and user friendlier. Riding Yulu bikes at night is unsafe because yulu has reflectors at the back side of the bike which makes it really unsafe for the rider, there are no indicators as well. So, it is recommended that the reflectors should be upgraded to indicators as a safety precaution. The structure of Yulu bikes needs to be redesigned to make it spacious and accommodate more things that can be carried along from one place to another (example- groceries)

### CONCLUSION

Increase in traffic congestion and deteriorating air quality has been one of the substantial issues for which there were no solutions. Longer durations of travel have triggered people to think about alternative solutions and a solution to traffic congestion. People are looking out for alternatives that are sustainable, viable and economical. The only sustainable source of travel for shorter distances was a bicycle, but, establishment of Yulu has successfully given a solution to almost all the transportation problems. Yulu bikes have met 7 out of 17 sustainable development goals. They are, Good Health & Wellbeing, affordable and clean energy, Industry, innovation and infrastructure, sustainable cities and communities, climate actions, partnership for the goals and decent work and economic growth. Yulu brings its bikes as economic sustainability by offering rides and low cost while compared to other modes of transportation. The overall operations of Yulu bikes are completely sustainable from their charging points or batteries to their mobility. Whilst other conventional vehicles emit huge amounts of carbon footprints that adversely effects the environment. Therefore, now is the time to think about the environment and make a shift from fuelled vehicles to electric vehicles which are sustainable, economical and convenient.

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**SUSTAINABLE MENSTRUATION- A STUDY ONSIRONA****Aniket Swaraj and Aneri Shah**

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**ABSTRACT**

*The terms "biodegradable materials," "eco-friendly solutions," "natural products," and "sustainable resources" have gained popularity in recent years, particularly since they may provide solutions to issues with trash disposal. The scale of this serious issue can be comprehended by the fact that around 1,50,000 tonnes of sanitary napkin trash are generated each year, and these single-use sanitary napkins are composed of more than 90% plastic that does not biodegrade, therefore exhausting landfill sites for another 700-800 years. This article reviews the researches carried out to understand awareness about sustainable menstruation and the popularity of products which contribute to the same. A questionnaire was prepared focusing on what products are used by women and how much knowledge they have about sustainable menstruation. There are many biodegradable materials being proposed as possible remedies for the growing global garbage problem.*

*Keywords: Sustainable, menstruation, disposable, biodegradable, sanitary napkins, Sirona.*

**INTRODUCTION**

Since women spend the majority of their lives managing menstruation—32–35 years, assuming they reached menarche at the age of 13 and reach menopause by the age of 45–50—knowledge about menstruation and the need to manage it healthfully and successfully is essential for women. Indian women reach menopause on average at age 46.2, while their Western counterparts reach menopause at age 51. If just menstruation days are counted, then 6-7 years of a person's life would be spent menstruating, assuming that each period lasts an average of 5 days every month. Women often manage their periods for a significant portion of their lives, yet given the effect of menstruation on their lives, little attention is made to making this process safe and hygienic or to making the services and products available and inexpensive.

Though disposable pads are super convenient they are full of toxic chemicals and some are often heavily scented containing over 3000 artificial fragrances, the skin around the reproductive areas is highly permeable. The chemicals in these pads are absorbed into your blood stream & distributed through your body and can lead to reproductive disorders. One single pad thrown in the bin stays for up to 800 years on the earth. Average woman uses 11000 pads in her lifetime.

It is common knowledge in the medical community that vulvar tissue is more permeable than exposed skin, and thus the safety assessment of menstrual hygiene products should take into account the increased permeability of the vulvar skin and vaginal mucosa (Farage & Maibach, 2004). Due to socioeconomic constraints, low-income women and adolescent girls frequently use disposable sanitary napkins for longer than the recommended 4-6 hours, putting them at risk for medical complications such as reproductive tract infections (RTIs), cervical cancer, and interference with embryonic development.

Women's Voices for the Earth conducted testing in August 2014 of Always menstrual pads, manufactured by Procter and Gamble and sold as Whisper in the Indian subcontinent, and found that both scented and unscented Always pads emit toxic chemicals ("Always Pads Testing Results - Women's Voices for the Earth", 2020). Our concern grows as we learn that the manufacturer fails to disclose several of these chemicals, which have been identified as carcinogens and reproductive and developmental toxins. Styrene (carcinogen), Chloromethane (reproductive toxicant), Chloroethane (carcinogen), Chloroform (carcinogen, reproductive toxicant, neurotoxin), and Acetone are examples of these (irritant). The National Institutes of Health (NIH) and other institutions consider furan to be "reasonably anticipated to be a human carcinogen" (National Toxicology Program).

Sirona is one of the first Indian businesses to adapt and develop a more modern and sustainable approach to menstruation hygiene in India. Menstruation hygiene goods are produced by Sirona, a company started in 2014 by Deep and Mohit Bajaj. These items include India's first herbal pain relief patches, biodegradable sanitary napkins, oxo degradable disposal bags, anti-chafing rash cream and menstrual cup kits. PeeBuddy, a stand-and-pee device for women, is also available.

Deep Bajaj, the brand's Co-Founder, was on a road trip with his wife and friends in 2014. The inability of the female co-travelers to find a clean toilet resulted in the creation of PeeBuddy. Sirona has been dedicated to achieving a specific goal since then: developing innovative products and promoting discussions about feminine hygiene issues. Simply put, its existence, innovations, and solutions all begin with hygiene issues faced by women and end with their overall health.

Sirona is a domestic FemTech company dedicated to developing innovative solutions that address challenges in feminine hygiene and promoting dialogue about these issues. It addresses issues with feminine hygiene that women experience from puberty through menopause. The demands of women have not always received much attention. The Femtech Market was estimated to be worth approximately USD 22.5 billion in 2020 by GMSinsights, and from 2021 to 2027, it is projected to expand at a CAGR of 16.2%. The consumer-centric strategy is what is sustaining the enormous expansion in the sector.

Sirona has expanded its commitment to addressing women's hygiene issues by establishing the Sirona Hygiene Foundation, which aims to raise awareness and educate women from all

### **OBJECTIVE**

1. To evaluate the environmental impact of sustainable menstrual products.
2. To investigate the popularity and awareness of environmentally sustainable menstrual products.
3. To examine the effects on women's attitudes towards menstrual materials after they have been exposed to sustainable alternatives compared with disposable pads.
4. To find out start-ups like Sirona that contribute to the concept of 'sustainable menstruation'.

### **LITERATURE REVIEW**

In the research paper titled Sustainable Menstrual Alternatives: The Journey, Dr. Sabrina Sareen (2021) So far, identified studies conducted over the last decade have allowed us to gain an understanding of the numerous biodegradable materials being proposed as potential solutions to the world's escalating garbage crisis. The evolution over the last ten years has demonstrated unequivocally that, once commercialised, these sustainable alternatives will be the best option for the future.

According to Bharadwaj and Patkar (2004), menstrual management is missing from the literature, and there is an urgent need to investigate the issue thoroughly and demonstrate viable, practical solutions on the ground related to MHM. The broader issue of menstruation is related to cultural practices and taboos surrounding menstruation, which do not provide a healthy environment for menstrual cycle management. There is an increasing need to provide adolescent girls/women with adequate school infrastructure, affordable menstrual products, the necessary knowledge, facilities, and culturally safe practices, as well as gender equity, in order for them to manage their periods with dignity. Education is essential for achieving long-term social change.

Suneel Garg and Tanu Anand (2015) identified the myths about menstruation in India, the impact these myths have on women's lives, and the importance of primary care physicians addressing and combating them in their research paper titled Menstruation-related Myths in India: Strategies for Combating It. They offer strategies for dispelling these myths here.

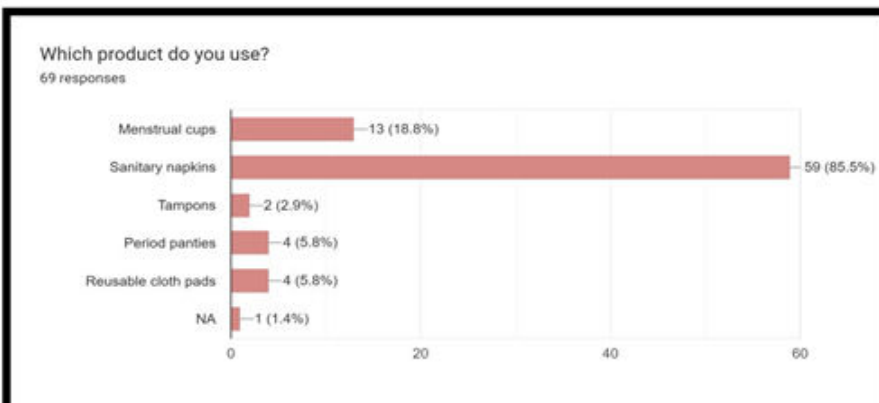
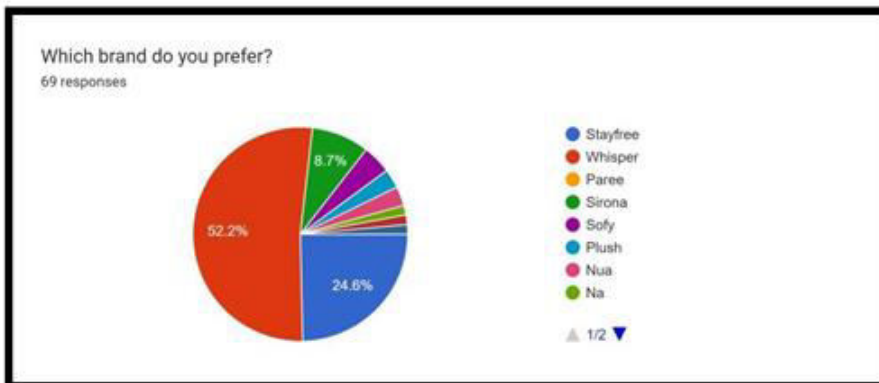
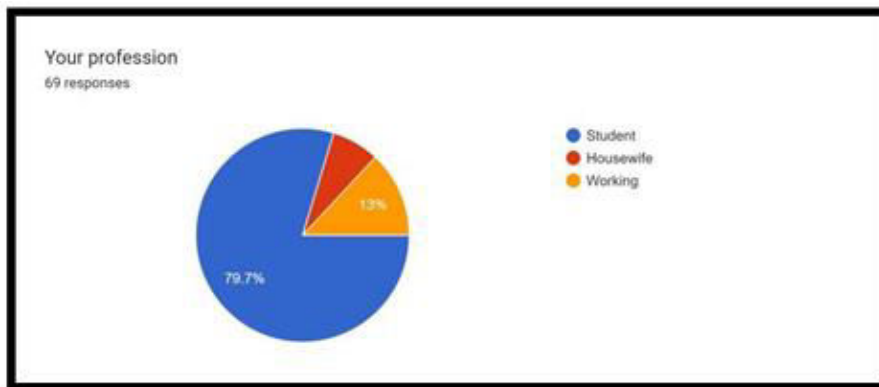
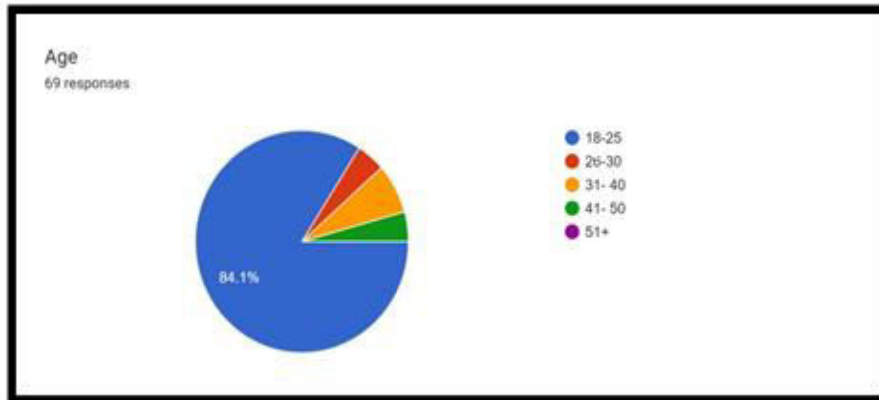
### **RESEARCH METHODOLOGY**

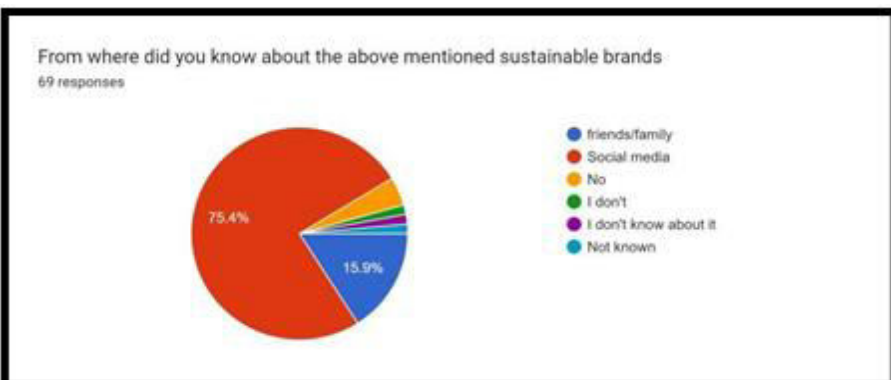
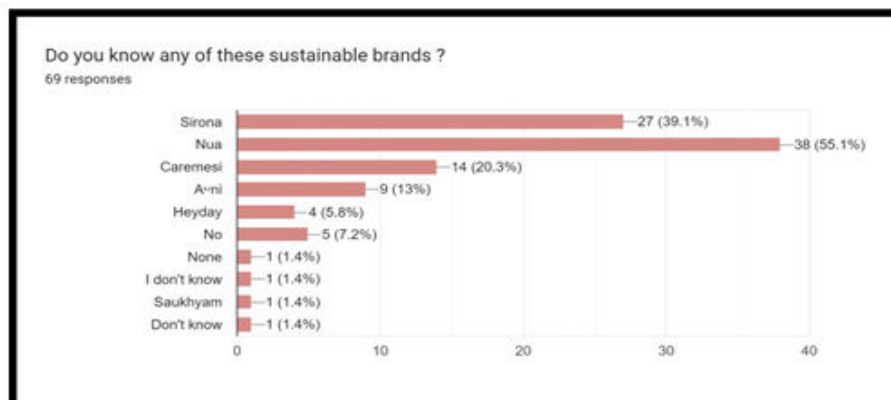
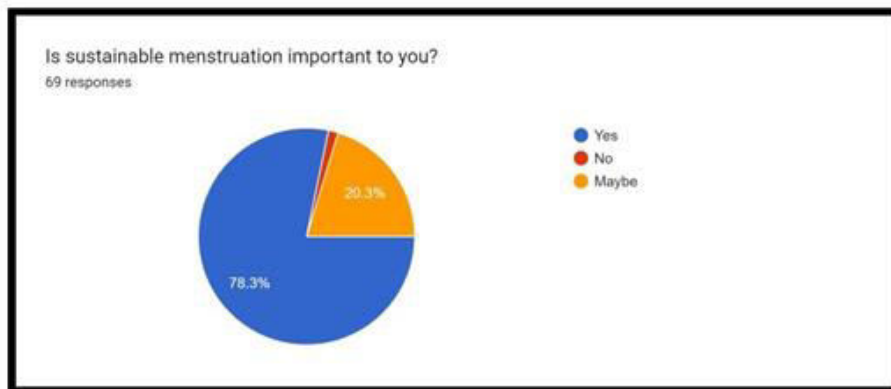
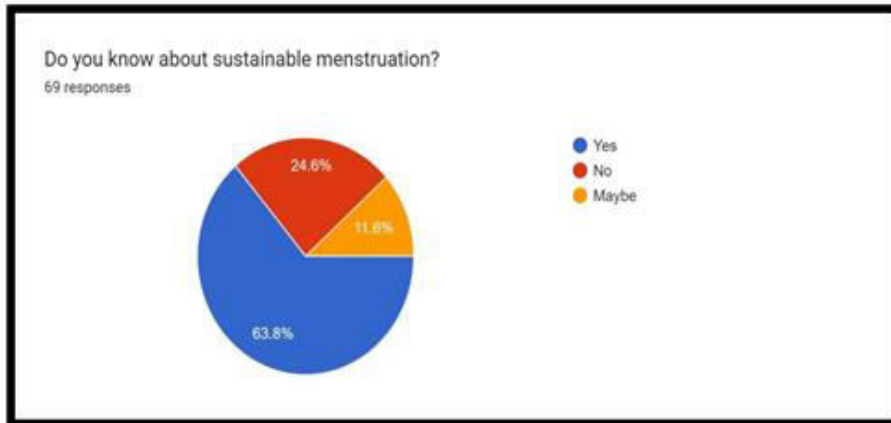
The universe of the study are mainly women of different age groups. Simple random sample collection was used to collect data. The information is collected from both primary and secondary data.

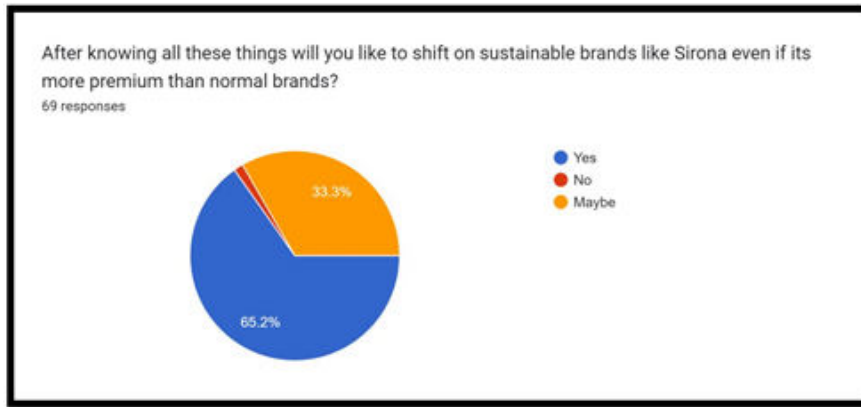
Primary sources: The main sources of collection of data are primary sources. Google form was used to conduct a survey and collect data through a questionnaire. The questions were answered by choosing predetermined responses. The questions were related to examine the effects on women's attitudes towards menstrual materials after they have been exposed to sustainable alternatives compared with disposable pads.

Secondary sources: The other data for research have been collected from secondary sources like websites, etc.

DATA ANALYSIS







**FINDINGS**

1. Majority of the audience were between the age group of 18-25
2. The form was filled majority by students.
3. 52.2% prefer using Whisper and others uses Stayfree, Patee, nua etc.
4. The majority of women uses sanitary napkins (85.5%) on a regular basis and only a small percentage of women uses products like reusable cloth pads and menstrual cups.
5. Almost 64% of women are aware about sustainable menstruation.
6. 78.3% of women feel that sustainable menstruation is important for them.
7. Among women Nua is most known sustainable brand and Sirona comes in the secondplace.
8. 75.4% are aware about sustainable brands through social media and 15.9% of women are aware through friends and family.
9. 65.2% of people agree to switch to sustainable brands like Sirona even it is costlier thannormal brands after knowing the side effects of sanitary napkins.

**RECOMMENDATIONS**

1. As majority of women uses sanitary napkins on regular basis so as to reduce the negative impact on the environment the usage of sustainable menstruation products has to be increased and more awareness needs to be created.
2. Almost 64% of women are aware about sustainable menstruation but still majority of women are using sanitary napkins instead of sustainable products. This shows that more information about sustainable products is to be made available in an efficient manner.
3. According to survey most women are aware about sustainable brand through social media so Menstruation sustainability-oriented start-ups should focus more on digital marketing to get more visibility of brand and to make women aware about sustainable products.
4. The government should take the initiative to promote sustainable menstruation products, should provide grants or incentives to start-ups that contribute to sustainable menstruation which will help make these more products affordable and easily accessible.
5. Measures should be taken to spread awareness regarding the use of sustainable menstruation products in urban as well as in rural areas through seminars, awareness programs to bust the myths about menstruation and to educate people regarding the usage, maintenance, and disposal of products.

**CONCLUSION**

If we want to live among civilization, there are no easy sustainable and organic options in today's world. We can't go from breakfast to lunch without causing environmental damage in some way. However, life is about choices; the decisions we make every day shape the rest of our lives. As a result, if we have access to and the privilege to make sustainable choices, we can make conscious choices in favour of preserving our health and preserving our environment. It is the responsibility of the state to encourage and make available sustainable choices for those who do not have access.

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In the above research conducted almost 64% of women are aware about sustainable menstruation but still majority of women are using sanitary napkins instead of sustainable products. Hence more information about sustainable products is to be made available in an efficient manner. It is important to educate people and to bust the myths in both urban and rural areas.

Even though menstrual cups and washable cloth pads may not be a permanent solution in our campaign to save the planet, they are the most suitable sustainable alternatives to disposable sanitary napkins available today.

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- [file:///C:/Users/kavit/Downloads/WP201907\\_WhatstheBleedingProblem\\_GarikipatiPhillipsHoward\\_updatedDec19%20\(1\).pdf](file:///C:/Users/kavit/Downloads/WP201907_WhatstheBleedingProblem_GarikipatiPhillipsHoward_updatedDec19%20(1).pdf)
- [file:///C:/Users/kavit/Downloads/7-3-35-838%20\(1\).pdf](file:///C:/Users/kavit/Downloads/7-3-35-838%20(1).pdf)
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**A RESEARCH ON HOW EFFECTIVE REMANUFACTURING IS REDUCING CARBON FOOTPRINTS AND COSTS**

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**ABSTRACT**

*Remanufacturing, which emphasizes value-added recovery, offers a higher form of reuse (i.e. recycling). One of the most promising approaches to advancing the concepts of the circular economy and accomplishing economic and sustainability objectives is remanufacturing. The traditional remanufacturing process offers the ability to apply Industry 4.0 enabling technologies like cloud computing and the Internet of Things, which are shared and managed in a centralized environment yet located at several geographical areas. In this essay, we examine how remanufacturing parts can save prices and carbon footprints. For certain current manufacturers, the remanufacturing process is economically advantageous, and it is widely believed that such systems would also be more environmentally friendly. The study discovered that over the course of a piece of machinery's life, remanufacturing can lower resource consumption and waste generation. The primary focus of this study is on pupils' awareness of this procedure. This study is meant to serve as the foundation for a wider, more in-depth investigation of how remanufacturing might cut costs and carbon footprints.*

*Keywords: Remanufacturing, sustainability, carbon foot prints.*

**INTRODUCTION**

Only closed "cyclic" systems, in which resources are recovered from the waste stream at the end-of-life (EOL) of a product, can allow for sustainable production and consumption. A system that "closes the loop" via recycling may, however, only be somewhat more economical and environmentally responsible than one that just discards the EOL product as garbage. Energy is used throughout each stage of a closed recycling system, and depending on the "specifics" of the system, this could have a big influence on the environment. If created parts or subparts may be returned and reused in the production of another product, doing so should always be considerably more environmentally friendly than recycling raw materials. Because of this, sustainable systems of production and consumption that involve manufactured material items typically include some type of "remanufacturing," which involves refurbishing and/or partially rebuilding discarded products or product components to return them to "as new" condition.

In theory, remanufactured goods and parts perform the same tasks and have comparable quality to new goods. Remanufacturing ought to be able to lower the financial and environmental costs of producing and discarding goods and components by using recovered EOL parts. Remanufacturing reduces the amount of EOL resources that need to be recycled significantly. Additionally, with the help of intelligent remanufacturing technologies, products can be upgraded, prolonging their useful lives and introducing less damaging technology. Businesses can use less resources to deliver the same level of service by offering

clients remanufactured products. Remanufacturing can lessen the demand for resources and boost the eco-efficiency of product systems in this way.

Remanufacturing proponents assert that it may greatly minimize the quantity of waste that needs to be disposed of, as well as the use of energy and raw materials. These claims are largely supported by Xerox's experience in Europe, the United States, and Australia.

However, those touting the environmental benefits of remanufacturing frequently neglect the additional system needs for this process. For instance, returning products for remanufacturing necessitates additional packaging and shipping. The process of remanufacturing also requires the use of energy, water, and materials. It is crucial to take into account the complete product/system life cycle when evaluating the environmental advantages of remanufacturing.

**LITERATURE REVIEW**

The following studies on remanufacturing have been conducted by various researchers to form the review of literature for A study on how remanufacturing can help in reduction of carbon footprints and decrease cost.

Wendy Kerr and Chris Ryan (2021) in their research paper titled "Eco-efficiency gains from remanufacturing: A case study of photocopier remanufacturing at fuji Xerox Australia" in the journal of Cleaner production Vol. 9, Issue 1, February 2001, pages 75-81, have identified that remanufacturing can reduce resource consumption and waste generation over the life cycle of a photocopier by up to a factor of 3.

René Va Berkel and Rajiv Ramchandra in their article titled “India: Building back better through remanufacturing” published by United Nations Industrial Development Organisation on 21st Sep 2020, cited Remanufacturing offers a case in point as it creates good business sense, creates valuable jobs and supports the transition to a circular economy.

V. Daniel R Guide Jr. (2000) in their research paper titled “Production planning and control for remanufacturing: industry practice and research paper needs”. In the Journal of operationsManagement volume 18, Issue 4, June 2000, Pages 467-483, have highlighted the importance of how remanufacturing represents a higher form of reuse by focusing on value added recovery, rather than materials recovery (i.e. recycling).

Koshi Kamigaki, Mitsutaka and Yun Arifatul Fatimah (2017) in their research paper titled “Remanufacturing and Refurbishing in Developed and developing countries in Asia” in the Procedia CIRP, volume 61, 2017 pages 645-650, have stated in Asian region where consumptions of products, materials and energy as well as economies are gaining rapidly; product reuse, refurbishing and remanufacturing are critical elements in realizing sustainableconsumption and production in our country.

**OBJECTIVES:**

1. To study how remanufacturing can be more efficient than recycling.
2. To study how remanufacturing can reduce carbon footprints and help in sustainablegrowth.
3. To study how remanufacturing can help in reduction of machinery costs on a longerrun.
4. To understand how remanufacturing if implemented well can help in developing a whole new sector of employment creation.
5. To study the impacts of industries already following this process.
6. To study the awareness among youths on remanufacturing.

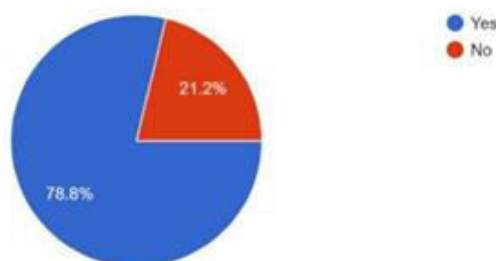
**RESEARCH METHODOLOGY**

Understanding how remanufacturing can lower carbon footprints and equipment costs is the main objective of this project. I conducted a systematic literature review in four steps to accomplish this purpose. First, I looked for potential documents on that topic in databases andjournal directories. Then I read the documents on that topic and skimmed the title and abstract. Then, in order to choose a more focused group relevant to cost and carbon footprint reduction, I skimmed the title and abstract of those documents. After reviewing the complete texts of the chosen papers, I eventually decided which documents to include. I also sent a Google form to students to obtain primary data on their knowledge about remanufacturing.

Detailed analysis regarding the same is explained below in the paper.

**DATA ANALYSIS AND FINDINGS**

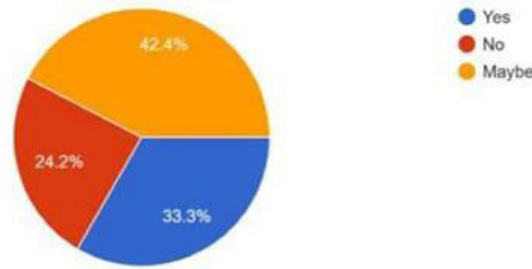
Are you aware about remanufacturing as a process?



While remanufacturing as a process is new in India it was mandatory to first know if youthsare aware about the process. 78.8% respondents voted for ‘yes’ saying that they are aware about the process which creates a strong base for my research as the respondents have someknowledge regarding the same giving my findings credibility. 21.2% respondents said ‘no’ they are not aware about the process which encourages me as through my research paper a value addition would be created.



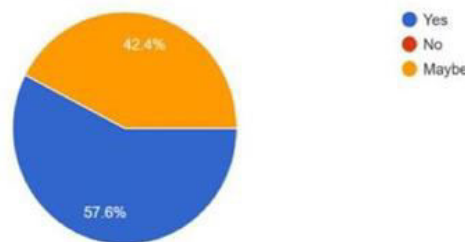
Did you know remanufacturing is better than recycling?



Considering the common notion in society at large for many recycling is a good source of reduction in carbon footprints but which is not the reality recycling too emits pollution.

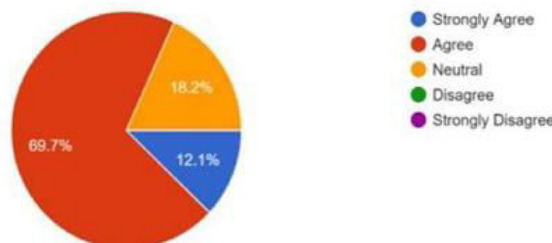
Through my survey I concluded people are still confused if recycling is the only way they are found inquisitive to know about more such ways. 42.2% people voted for maybe with 33.3% saying yes. Remanufacturing helps upgrading the existing product with minimal carbon emissions. 24.4% voted for no they still feel recycling is preferable over remanufacturing.

Remanufacturing can reduce costs drastically without hampering quality or capability. Now would you prefer to choose remanufactured products over conventional products ?



Remanufacturing upgrades the existing products without hampering its quality, capacity or capability rather it helps increasing the same. Through remanufacturing product does not loose its original form which through recycling it does. Thus, on a longer run remanufacturing is always beneficial hence through my research 57.6% agreed that if this is the case they would prefer remanufactured products neverthelss american and european countries already have established ministry and firms to look after the same. Some we still found confused and would like to know more about the same which were 42.4%. No one denied that they do not agree to the saying which in turn is a good sign.

Remanufacturing is a win-win situation for business: with sustainable growth it can attract higher profits.



With prevailing time it is moral duty of every business to adopt sustainable practices but nobusinesses can do it at the cost of their profits. Remanufacturing can help in sustainable growth with higher profits as costs are reduced. 69.7% in my survey agreed that remanufacturing is a win-win situation for business. 18.2% had a neutral opinion where 12.1% strongly agree that remanufacturing can yield higher profits without harming environment.

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**RECOMMENDATIONS**

The procedure for identifying and grouping the primary issues, worries, desired outcomes, and potential solutions was discussed in the earlier sections. The previously employed categorization—recommendations pertaining to business models, processes, and design—was found to be unnecessary from the perspective of the targeted stakeholders for each recommendation. Thus, the category was changed to the intended stakeholder types in order to obtain a condensed and clear presentation of recommendations (regulation, academy & research, industry, general public). While the majority of the recommendations could be directly addressed to a particular stakeholder group, others (such as raising knowledge about remanufacturing) were relevant to various stakeholder types.

**Recommendations for Policy Makers**

1. Gather structured economic data for comparison on Indian and international remanufacturing
2. Construct financial inducements that encourage remanufacturing.
3. Defining waste and items that can be reprocessed legally.
4. Establish extended producer duty to bolster product take-back duties.
5. Encourage remanufacturing through rules governing public procurement.
6. Define liabilities and create a certified mark for remanufacturing.

**Recommendations for Educators and Researchers**

1. Encourage the teaching and learning of remanufacturing across disciplines.
2. Create educational resources and tools to help existing remanufacturers, as well as those looking to expand into remanufacturing.
3. Expand research and global cooperation to support remanufacturing.

**Recommendations Business and Industry**

1. As an alternative to make/sell models, remanufacturers should think about integrated product-service based solutions.
2. Create and market products that can be remanufactured.
3. Work together to develop sustainable product solutions along the supply chain.
4. To strengthen circularity, support policies that raise the transparency and worth of the options available to consumers, users, etc. at the end of their useful lives.
5. Emphasize the benefits of remanufacturing to prospective customers.
6. Emphasize to finance institutions the benefits of remanufacturing.

**CONCLUSION**

The Ministry of MSME has taken great initiative to encourage remanufacturing activities in India. By outlining suggestions to get beyond the remanufacturing hurdles, this article intends to promote the transformation scenario. Based on the literature and the inclusion of industry viewpoints, the barriers for remanufacturing processes, business models, and design for remanufacturing were identified. The recommendations to various stakeholders, including those involved in policymaking, research and education, industry, and the general public,

were analysed in accordance. The study presented attempted to be as comprehensive of the opinions of various practitioners in various fields. So structuring, grouping, and prioritisation were required in order to report them.

Some of the recommendations are still quite generic as a result of the aggregate. Therefore, they need to be further examined and concretized in order to be used in the future. For instance, it would be wise to study the restrictions that currently prevent remanufacturing and outline the necessary adjustments to them. The necessary knowledge and curricula, as well as a research roadmap, should be further established for remanufacturing education and research. Analysis and validation of the recommendations' applicability to the industry in various industries, company sizes, and business settings should be done before they are translated into more specific instructions for particular types of companies or specific companies.

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**INNOVATIVE BIKE TAXI COMPANY RAPIDO**

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**ABSTRACT**

*Rapido is a bike taxi service provider, which connects travelers to drivers for short-distance drives. It is fundamentally a bike taxi form of Uber, a lot less expensive and more helpful in rush hour traffic. This paper reviews the current status of online 2-wheeler traveling apps for Intra City and Inter City transportation and discusses the related aspects of growth. With the increasing stress on owning 4-wheeled vehicles by the arrival of Ola and Uber as modes of transport, this study will show the change which has occurred with the arrival of apps like Rapido.*

*Keywords: Two Wheelers, Commute, Bike Taxi, Innovation*

**INTRODUCTION**

The company was founded in 2015 and was called Karrier in the beginning by two IIT alumni and a PESU alumni – Aravind Sanka, Pavan Guntupalli, and SR Rishikesh. In September 2018, reports were that Rapido has over 15,000 registered riders, with average rides of 30,000 per day. The app allows the user to book a ride, after which a rider arrives at the location. The fare includes a base fare of ₹15 in addition to ₹3 for every kilometer of the ride.

The Indian two-wheeler industry's future provides important information on the two-wheeler industry. According to ACG, the industry's three-tier structure, which at one point comprised 20 percent for the entry-level segment, 60 percent in value for the mid-level, and 20 percent at the premium level, has changed to 30-50-20 percent and is En-route to becoming a 35-40-25 percent structure over the course of the upcoming year. The following research paper will shine a light on information collected from the primary and secondary source

**LITERATURE REVIEW**

Serial number	Name of journal	Name of author	Country	year	Sample size	Methodology	Key finding	Source
1)	A case study on Rapido: India's largest online bike service provider	Ashok Kumar Panigrahi Manan Darda Ishtiaque Ahmed	India	2021	-	Research Analysis Funding Graph SOURCE	This study shows how Rapido is different from its competitors and its effective business model to maintain business sustainability	Journal of Management Research and Analysis
2)	Review of Urban Transportation in India	Sanjay K. Singh	India	2005	230	Growth Modal Split Existing Modal Split	Measures to be taken and policies to be framed which are environment and commuter-friendly	Journal of Public Transportation
3)	Travel Characteristics of Commuters Accessing Transit	Rajat Rastogi K. V. Krishna Rao	India	2003	93	Salient Features City graphs and choice of commuters	Different policies were framed according to the different	Journal of Transportation and Engineering

							stats, environment, preferences, and economic status of the city	Rin G
4)	The Bike- Taxi Alternative to Enhancing Urban Mobility in India	RamanathJha	India	2022	-	Comparison of different states and current scenario	Highlightsthe benefits and advantages of bike taxis in a state	Observer Research Foundation.
5)	Covid-19: An Opportunity to Redesign Mobility Towards Greater Sustainabilityand Resilience	Teodora Serafimova, EUI	Europe	2020	20	Understanding, The European Green Deal, Moovit Public Transit Index	This study shows thatthe emergence of innovation during the pandemic	Florence school of regulation
6)	Business Innovationsin the New Mobility Market during the COVID-19 with the Possibility of Open Business Model Innovation	Katarzyna Turo, Andrzej Kubik	Poland	2021	21	Comparison of business models in new mobility systems, Desk research method process.	This research indicates the emergence of bike taxis	Journal of open innovation
7)	Powered two-wheelersfor sustainable mobility: A review of consumer adoption of electric motorcycles	Timo Eccarius, Chung- Cheng Lu	East/south Asia	2019	30	Classification of powered/motorized vehicles and numberof vehicles registered	This study shows the change in consumer perceptionand adoption of EV bikes	International journal of sustainable transportation
8)	Commuting Economy: An Alternative Approach for Assessing	Enda Murphy, James E.Killen	Ireland	2010	74	Schematic of the commuting economy approach, Dublin	This study shows the effectiveness of efficient urban	Journal of urban studies
	Regional Commuting Efficiency					study area, and system of zonal configuration	policy making	
9)	Informal transportation as a feederof the rapid transit system. Spatial analysis of the e-bike taxi service in Shenzhen, China	Gianni Talamini, Diogo Pires Ferreira	China	2019	13	Common changes adopted to transform normal bikes, distributionof the rapidtransit stop	This study shows the advantages of bikes and the proper distribution of transit stops	Transportation Research Interdisciplinary perspectives

**OBJECTIVES**

- 1) To identify the need of finding the most convenient mode of transport for intra-city travelers
- 2) To understand what is causing the overflow of 4 wheelers taxis in the city
- 3) To justify the reduction in the carbon emission with the ever-increasing use of Bike taxis

**HYPOTHESIS**

We predict that With the ever-increasing use of two-wheelers as taxis to commute in urban areas, the dependence on bike taxis and local commuters has become a vital part of daily commotion as it helps the commuters to travel intercity with high efficiency and has an alternative relation (H1), considering the switch of bike taxis over 4 wheelers has a direct impact on the environment since less fuel is burned, and fewer emissions are done, so it has a direct relation with the environment(H1), both of these variables will lead to environmental and business sustainability

**NEED FOR STUDY**

From roads being constructed to the rise in the number of four vehicles, commuters were facing several issues. Traveling by four vehicles becomes time-consuming and leads to fuel exhaustion. To help commuters travel without any hurdles, a Bangalore-based startup Rapido was introduced. A fast and cost-effective company for all.

with the ever-rising population of India, it has become practically absurd to own a 4-wheeler or any mode of transportation, since everything is available online i.e., one can rent these vehicles online through various services.

From roads being constructed to the rise in the number of four vehicles, commuters were facing several issues. Traveling by four-wheeler vehicle becomes time-consuming and leads to fuel exhaustion

This has led to a rise in traffic and due to which total pollution levels are rising, it also impacts the punctuality of people. To combat this, a company Rapido was founded in Bangalore, its basic essence was to provide customers with a way of transport, which is faster, cheaper, and more efficient, so they came up with the BIKE TAXI concept

**METHODOLOGY**

The type of research conducted on this topic is a qualitative research which includes factors like a bike taxi, intracity travelers time constraints of every individual it is a type of basic pure research that will only be used for academic knowledge. tools used in the research paper to make it more relevant include, google questionnaire, a sample research paper, a case study from different websites, and a teacher’s guidance

We used a combination of both primary and secondary data to understand the relevant relation between two different variables and reach a solution. as our research paper is for academic knowledge it has a probability that is open for all. we choose this method so that it won’t create research bias and show a clear understanding of our topic

**Research Method-** survey research

**Sampling Frame-**SYBMS Students of SIESCE Data Collection-Secondary Data

**Sampling Unit-**18-24+

**Method of Collecting Data-** Google form, Internet Software Used- Google Forms

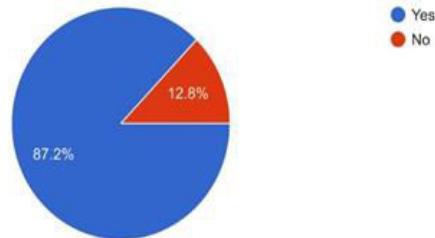
**DATA ANALYSIS AND FINDINGS**

While travelling what factors affect the selection in the mode of transport  
85 responses



In the questionnaire which we circulated, we asked what factors would affect your travel, most people answered saying the price is the biggest factor which contributed for 45% of the answers and second place was taken by time efficiency with 33% and the rest was taken by factors like comfort, discounts and price-time efficiency for short trips and comfort for short trips.

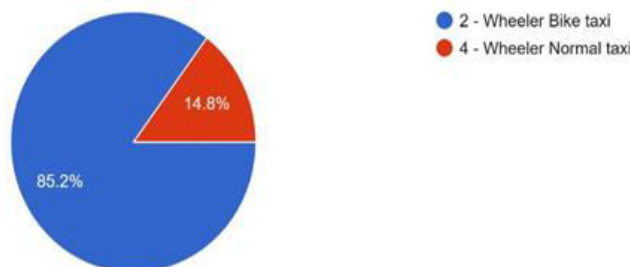
Do you think usage of bike taxi has reduced the carbon emission as compared to normal taxi  
86 responses



As you all know the carbon emitted by 2-wheeled vehicles is low as compared to 4-wheeled vehicles so while keeping that in mind we asked people whether the change in the mode of transport has resulted in a change in levels of carbon emitted and 87% people said yes. The addition of catalytic converters to motorbikes solves this problem.

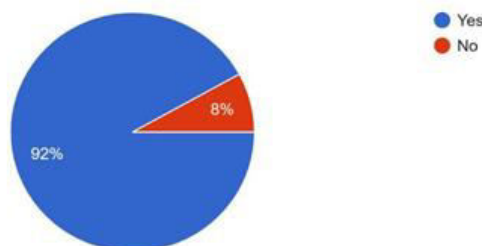
An increasing number of motorcycles have been built with catalytic converters, which convert carbon monoxide, nitrogen oxides, and hydrocarbons into carbon dioxide, water, and nitrogen and thus allow motorcycles to contribute less to air pollution. So that's how carbon emissions are reduced.

Looking at the traffic situation in your Locality what would you prefer for convenient travelling  
88 responses



In Urban areas, it has become impractical to own a 4-wheeler, so people use taxis to travel, but this has led to a rise in traffic levels in urban areas which leads to the commuters being late. So, we asked people whether they would travel via bike taxis to reach their destinations on time and cut through all the traffic with ease. To no surprise, 85% of people said yes, they would happily travel via bike taxis if that led to them being punctual.

As we all know about the collaboration of Rapido and Zypp, do you think the use of electronic bikes as their mode of commute, will it help sustain the environment and the business  
87 responses



Zypp has partnered up with Rapido to launch a line of bikes which are electric, they already have 100 EV bike taxis in Delhi NCR, with that in mind more than 82 percent of the people have opted to willing to use electric bikes as their mode of transport

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**CONCLUSION**

We have found out that, with the rise of Rapido, over 49 percent of people chose to use a two-wheeler taxi over a four-wheeler taxi, and over 88 percent of people have agreed to the fact that with the use of bike taxis pollution levels have subsided and traffic levels have gone down along with the rise in traveling efficiency, Rapido has partnered with zypp and started with EVbike taxis

In Delhi NCR they started with 100 EV bike taxis. Rapido also started with Rapido corporate in which they sign a contract with corporates it picks employees from home and drops them at the office Rapido also started with delivering logistics through this segment they are trying to be sustainable from the business point of view .our key findings through this research paper are how we can sustain our environment through reducing the emission of harmful gasses and how we can sustain our economy through providing employment even at the time of pandemic rapido came up with 10 km distant traveling which allowed intracity travelers to travel with convenience

Through the survey we conducted on google form, the majority of people think that there is a lot of traffic in their areas and 90 percent are ready to switch to 2-wheeler bike taxis because of the low price, convenience, and understanding of time constraints of every individual

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**MAMAEARTH THE CONTRIBUTOR TOWARDSSUSTAINABILITY AND INNOVATIONS**

**Aniket Swaraj, Shreyas Gurav, Kashvi Shetty, Vinay Nair and Ramya Prabhu**  
 SIES College of Commerce and Economics (Autonomous)

**ABSTRACT**

*The main aim of the study is to take into consideration the company Mamaearth's various sustainability and innovative practice techniques and then understand the main techniques and various processes which have been included and evolved time in time to take into account the profit as well as the company's contribution to environmental impacts .All the facts has been found out in detail and also in a easy way so that all the doubts can be cleared without any questions .The study also includes various graphs and references taken from internet and the opinion of various people regarding the products of Mamaearth.At the end we also come across the conclusion of the research and what Mamaearth has done to bring on innovations along with innovative practices and sustainability in their career.This has also helped many people to understand each other's opinion towards various products we got to know the difference of opinion of every customer who uses Mamaearth on daily basis as well as irregularly. This research and study will be an important piece of matter for a person who doesn't know what Mamaearth is and what it has done to prove itself in the field of sustainability and innovations.*

*Keywords: Purity, toxin-free, organic, Affordable, Effectiveness, Acne*

**INTRODUCTION**

Company Name: Mamaearth Date of Establishment: 2016

Founder: Varun Alagh, Ghazal Alagh Establishment Place: India

Mamaearth is distinguished in the cosmetics industry of India as an online platform that offers natural and toxin-free skin care products.It was Co-Founded by Ghazal Alagh and Varun

Alagh.Starting as a Baby-care product Mamaearth pivoted to Personal Care brand.Mamaearth delivers the products made of naturally available best ingredients be it Plant based or

man-made.Its the only 'MadeSafe' Certified brand in Asia.Apart from 'MadeSafe' certification the brand holds the recognition as being 'Plastic Positive', 'Toxic Free', 'Cruelty Free' which acts as a key factor in the sustainability of the brand.The brand has also supported in Environment Conservation through their CSR Programme 'We Plant Goodness' by planting 1 sapling behind every order the brand receives and aims to plant approximately 1 Million+ trees within next 5 Years.-

**LITERATURE REVIEW**

Sr. No	Author	Title	Year	Country	Sample	Methodology used	Key Finding	Source
1	Ana Sofia Ribiero Marilene Estanquiro	Main Benefits and Applicability of Plant Extracts in Skin Care Products	2015	Portugal	270	Representation of the melanin synthesis Article Metrics	The study shows that nowadays the consumer have interest on cosmetics mainly on Mamaearth	Journal on open access cosmetics
2	Amparo Salvador Alberto Chisvert	Analysis of cosmetic products	2007	Spain	228	Research on ingredients of cosmetics products	The study indicates that all harmful ingredients are added to cosmetic products which are not good for skin.	Analysis of cosmetic products
3	Sanjay Koli	FORMULATIO	2016	India	135	Composition and evaluation	As herbal face wash have	Journal on Anti-Acne

		N & Evaluation of Herbal Anti-Acne Face Wash				of developed formulation	growing demand in market good attempt to establish the nature also	face wash
4	Marija Radman	Conception and perception of organic product	2005	Croatia	263	Purchase frequency supply satisfaction and beliefs about baby products and skincare.	Though the products were bit costly but they preferred organically trusted products	Journal on healthy skincare products
5	Parker Magin Wayne Smith	Myths and misconceptions in acne management	2005	Netherlands	208	Research on different ways whether the product is skin sensitive or not	Research of dietin acne Research of washing and cleansers in acne	Journal on evidence for myths and misconceptions in acne management
6	Sheela Sathyanarayana	Dermaly applied infant care products	2008	India	354	Exposion to any infant care product	Research on Phthalates are man made chemicals found in personal care and baby care products	Journal on possible source of Phthalate Exposure

**RESEARCH OBJECTIVE**

- The main objective of this research was to identify the unique and innovative practices used by Mamaearth for their Sustainability and Enrichment.
- Another objective behind this research study is to make people understand about two of many natural products of Mamaearth and detailed information about its ingredients.
- This research is conducted to make other companies act the same way Mamaearth is doing by joining hands in the sense of sustaining and also in the sense of innovations to bring upon new products by keeping in mind the environment.

**RESEARCH METHODOLOGY**

This study which deals with Mamaearth's contribution towards sustainability and innovations or innovative practices is highly descriptive and quantitative in actual. This research paper has been written and all the points have been jotted down by the SIESCE SION EAST SYBMS students. This quantitative and descriptive study of the research tells us in detail about the

research paper and also in a descriptive manner. The research paper tells us about various products of Mamaearth and also their part in taking the sustainability towards great heights by including innovative practices.

The data was collected in a secondary way and so it's the Secondary data format. We had circulated a google form to jot down the opinion and thinking of customers and what Mamaearth is to them and collected various papers, read it and reviewed it from the Internet along with group coordination.

**Research design-** Survey Research

**Sampling frame-** SYBMS Students of SIESCE Data collection - Secondary Data

**Sampling unit-** 18-24+

**Method of Collecting Data-** Google form, internet. Software used - Google forms.

**FINDINGS AND INTERPRETATION**

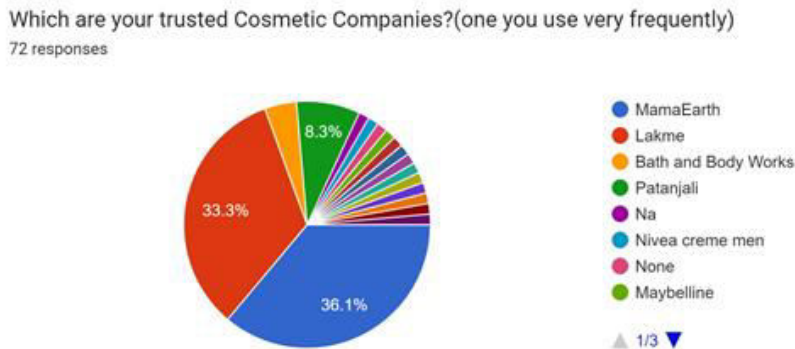
Mamaearth brings the concept of Science and Ayurveda in their products combining herbal products with plant extract for the manufacture of their products. The use of bioactive extracts from botanicals in skin care is the main highlight of mamaearth. The following is a detailed information of a product of the brand to analyse the sustainability of the brand

**1. Mamaearth Hydrigel Indian Sunscreen**

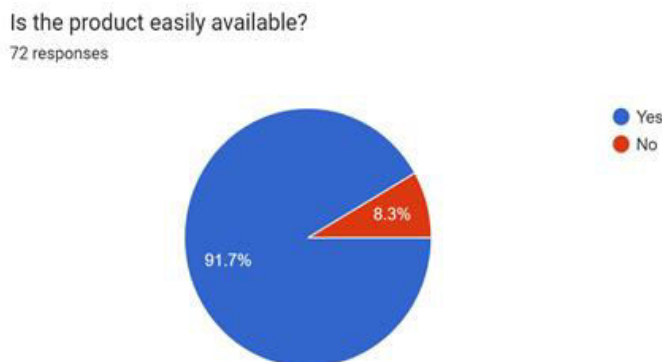
Mamaearth Hydrigel Indian Sunscreen is made by keeping in mind the skin tone of Indians. It soothes the skin and protects from the harmful rays of sun as it contains SPF 50. The sunscreen contains aloe vera and raspberries. The aloe vera contains high anti-inflammatory properties. The raspberries rejuvenate the skin, it also reduces dark spots and wrinkles. It is a lightweight formula. It leaves a non-greasy finish. It gives up to 6 hour protection. It provides protection against UVA & B rays. Besides protection of Skin and being a combination of various ingredients it contains no harmful chemicals, it is made with natural ingredients and has no side effects. All the Mamaearth hydra gel sunscreen ingredients are natural and free from toxins. A list of other key ingredients is as follows:

- Carrot Seed Oil
- Orange Oil
- Turmeric
- Cananga Oil

A Survey was conducted to gather the general public’s view on the Cosmetic industry and as a customer their preference and demands from their products.



Mamaearth is one of the most trusted brands over the other old competitors in the Cosmetics Market. Being comparatively new in the market it still gained more popularity than other brands and is preferred by the customers.



The Availability of the Product is the most basic and an important factor for the customers to stick to the particular product or a brand, it decides if the product will continue to exist or get ghosted in the market. Mamaearth products being natural and Eco-friendly are also easily available due to the brand's B2C approach which implies that the customer can directly order it from the Company (Official Mamaearth site) and also many third-party options are available to the customer (Amazon, Flipkart)

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**VALUE ADDITION**

This research paper acts as a medium to input minute yet mandatory details of Mamaearth's innovative way of using basic but effective strategies for long term sustainability in the Cosmetics Market. It uses Consumer Satisfaction and binds the loyalty of the customer with the brand, moreover the use of natural ingredients instead of toxins and chemicals helps Mamaearth to retain and widen their exposure in various other products as it started as a baby care product and is now in the Cosmetics industry too. It also ensures with their use of nature the nature also benefited by planting a sapling on every order they receive which in turn leads to more support from the Customers which in turn results into long term sustainability in the market. The key strategy of Mamaearth is their B2C approach which cuts off any middle men and the customer has complete freedom to order it from wherever he/she wants. Mamaearth makes its products available to its customers at their fingertips.

**CONCLUSION**

As per the research of the Mamaearth company, mamaearth is slowly and steadily achieving success and reaching on towards the sustainability process because of the products and newly brought goods and service techniques. Customer satisfaction is the main aim of the company and it has wonderfully achieved great success in this too. Mamaearth because of its techniques which are unique acts as an idol company for many newcomers. The technical process and the models which are used by them is easily understandable and precise.

Natural products is the strong point of Mamaearth because of which the various side effect cannot be completely eradicated but can be avoided to its maximum. Ingredients used are very much of high standard and not inferior the easy customisation and the ease of finding the Mamaearth product along with the affordable rates concludes that the Mamaearth company holds a sense of reliability.

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4. <https://mamaearth.in/>

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**A CASE STUDY ON PRE-OWNED CAR MARKET IN INDIA**

**Dr. Mrityunjay Kumar, Mangesh Shirole, Rutuja Kaware, Shraddha Patil and Bhavana Chamate**  
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**ABSTRACT**

*In India, over the last couple of years, the domestic passenger car market has witnessed phenomenal growth. High degree of competition compels players in this industry to understand specific market needs while still providing value, in order to ensure success. In a particular year, a large portion of customers buy their second car. So, for marketers, it is important to understand the variables that influence consumer's decision to purchase a second car. In this backdrop, an attempt has been made to uncover influencing factors behind purchase decision of a second car. From the research, it has been found that the segment who is buying a second car has different priority factors that guide its buying decision. The study reveals that there are seven major factors that influence buying behavior of a second time car buyer.*

*Keywords: Phenomenal growth, Influencing factors, Influence buying behavior*

**INTRODUCTION**

A used car, a pre-owned vehicle, or a secondhand car, is a vehicle that has previously had one or more retail owners. Used cars are sold through a variety of outlets, including franchise and independent car dealers, rental car companies, buy here pay here dealerships, leasing offices, auctions, and private party sales. The Indian secondhand car market has witnessed significant growth in the last few years as the price competitiveness among the new players has been one glowing spot in the used car industry. Further, the role of online sales has become a critical growth factor in the market. Online sites in auto marketplaces have played an essential role in bringing access to consumers with a single touch. A combination of such developments created a significant upsurge in the demand for used cars. In addition, the factors such as affordability, the availability of used cars, the hike in the need for personal mobility, and the emergence of various online players to organize the market have resulted in the growth of the market growth.

The need of buying a second car varies from one person to another; also, the Buying intention is the outcome of several independent needs. The need for recognition and style for the purchase of a second car may be actual state type, where the customer realizes that they need a car or it may be desired state type, where the desire for something new or the desire to climb up the social ladder may be the cause to purchase another car.

(Erdem and Swait, 1998)

**OBJECTIVES:**

- To Know How Secondhand Car Business Works.
- To Know About the Used Car Players in Indian Markets.
- To Study about Popular cars demanded In This Markets.
- To Study in Detail About the Pre Owned Car Market.

**METHODOLOGY: CASE STUDY APPROACH**

The information we have used in this case study is based on a secondary data. We collected it from various secondary sources such as internet, newspapers (Times of India, The Hindu Newspaper), magazines. We have also included primary data in our case study. We collected the reviews from the manager and the employees of the pre-owned car market. We have also included the reviews of the people in our college who owns or have previously owned a second hand car.

**DISCUSSION**

The global used car market size was valued at USD 1.57 trillion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 6.1% from 2022 to 2030. The used car shipment was recorded at 120.3 million units in 2021. The market has witnessed significant growth in the last few years as the price competitiveness among the new players has been one glowing spot in the used car industry. The inability of customers to buy new cars became one of the reasons for the growing used cars sales volume, which is complemented by the investments made by the industry participants to establish their dealership network in the market. These dealership networks helped market participants to brand and make used car options viable.

Until recently, automobile manufacturers and dealers have mainly focused on their new vehicle business with the exclusion of used cars, often viewed as a byproduct. However, the competition in the market and the threat of new entries have created a great extent of an upsurge in the used car dealership. Moreover, the added quality and reliability of used cars changed the consumer attitude and increased the sales of the used passenger cars. Investing in used car management has become one of the market's requirements characterized by a slimming margin, relentless competition, and demanding consumers. The global used car market size was valued at USD 1.57 trillion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 6.1% from 2022 to 2030. The used car shipment was recorded at 120.3 million units in 2021. The market has witnessed significant growth in the last few years as the price competitiveness among the new players has been one glowing spot in the used car industry. The inability of customers to buy new cars became one of the reasons for the growing used cars sales volume, which is complemented by the investments made by the industry participants to establish their dealership network in the market. These dealership networks helped market participants to brand and make used car options viable. India is one of the fastest-growing markets for premium and large vehicles, making it attractive for organized second-hand automobile firms. For instance, OLX Group, Quikr India Private Limited, and CarDekho.com provide online platforms to compare the prices and availability of used cars near people's locations. This makes the entire purchase process simple and quick, without any need for prior appointments or unwanted negotiations with dealers.

### Used Car Players in Indian Markets & Global key Companies

The Competitive Scenario presents a prospective study of the various business expansion strategies used by competitors. Keeping businesses up to date while integrating stakeholders in the economic conversation. The report also includes press releases and news about the businesses that fall under the headings of Merger & Acquisition, Agreement, Collaboration, and Partnership, New Product Launch and Enhancement, Investment & Funding, and Award, Recognition, and Expansion. Using the data, they have obtained from all the news sources, the vendor can identify market insufficiencies as well as the strengths and weaknesses of rivals, which they can then use to improve their goods and services. Indian players in the market: •Cars24 Services Private Ltd. •OLX Group •Big Boy Toyz

Pvt. Ltd. •Quikr India Private Limited •Truebil •Droom Technologies Pvt. Ltd. •Maruti Suzuki India Limited •CarDekho.com •Mahindra & Mahindra Limited.



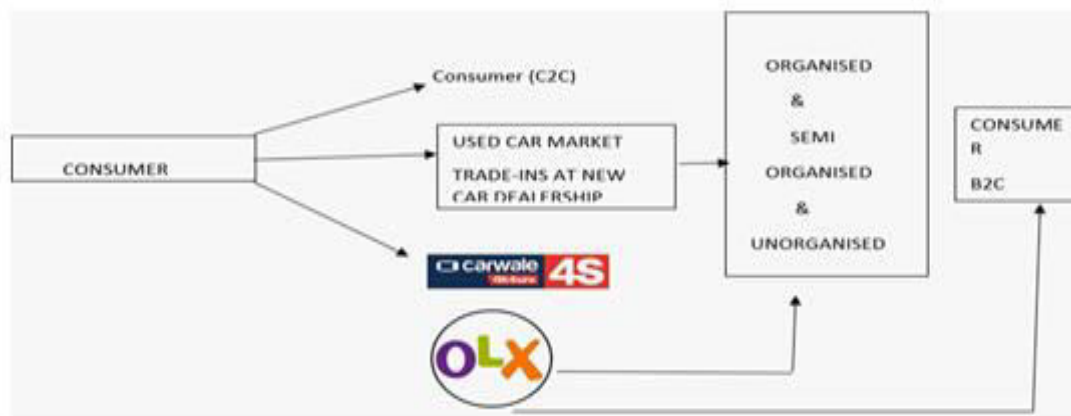
The key players in the market are focusing on expanding the customer base to gain a competitive edge in the market. Thus, vendors are taking several strategic initiatives, such as collaborations, acquisitions & mergers, and partnerships. For instance, in 2020, Volkswagen announced a major investment in the market for used cars by a collaboration of its own used-car chain, Das WeltAuto, with various used car platforms. Mainstream automakers have also been expanding their presence in this space with their pre-owned car sales networks like Maruti Suzuki's True Value, M&M Mahindra's First Choice Wheels, and Toyota's U Trust. Some prominent players in the global used car market include:

Alibaba.com, Asbury Automotive Group, AutoNation Inc, CarMax Business Services, LLC Cox Automotive, eBay Inc, Group 1 Automotive Inc, Hendrick Automotive Group.

### How a Secondhand car Business Works?

**CUSTOMER TO CUSTOMER (C2C):** In case of an under-developed used car market, C2C segment has a dominating share. In this option, sellers usually possess greater information (about the upkeep / maintenance of the vehicle being sold) and as a result, control pricing of the vehicle. Given the asymmetry of information between buyers and sellers, the former are usually cautious and judge the quality / price of a used vehicle on the basis of the seller's reputation. This usually leads to under-performance of the used car market. Unorganized dealers usually gain confidence of buyers by eliminating subjective bias about the sellers while simultaneously easing the purchase process. However, unorganized / independent dealers usually have limited inventory with mostly uncertified cars without a warranty. While, independent dealers increase the supply of used vehicles, reliability of these cars and ease of RC (registration certificate) transfer remains a concern.

Semi Organised Used Car Dealers (Brokerdealal)



Dealers usually gain confidence of buyers through certified vehicles, limited warranty, inspection checks and ability to return/exchange vehicles. However, these programmes are usually not backed by OEMs. As a result, the buyer’s level of confidence, although higher than independent dealers, is still low. ORGANISED CAR DEALERS (True Value, First Choice, etc.) : With all benefits of semiorganized players, organized dealers are OEM- backed dealers providing more peace of mind and ease of transaction. As a result, buyers’ confidence is the highest.

Indian people while buying cars: If buying a diesel car, take a long test drive (~5km) and check for any spill oils. Always check the stepney (Spare tyre). After market accessories should never be added in Price unless you want them and the seller has proper bills. Maybe a seller bought the ICE from Gray market and quoting you the market Price. Check Alloy Wheels for crack. check all car history and detail and also check the due payment of RTO office on second hand car. some of the major problem faced while buying second hand car: Meter Tampering Accident Repaired Parts. Rusting. Engine Damages. Normal Wear and Tear. Extreme case – Stolen car sold as used.

**Cars24 Services Private Ltd:** CARS24 is a next generation ecommerce platform for pre-owned cars. We provide the best experience for car buyers by offering a wide assortment of certified cars that are home delivered in a click of a button while sellers get the best price of their vehicles in less than 1 hour. CARS24 is your single stop for buying or selling used cars, all over India. We've brought together cutting-edge technology with country-wide partners and more importantly, deep understanding of what buyers and sellers need. We solve all pain points associated with selling an existing car, or purchasing a pre-loved one. Whether you're buying or selling, you get a quick, easy, fair, transparent, hassle (and haggle) free process.

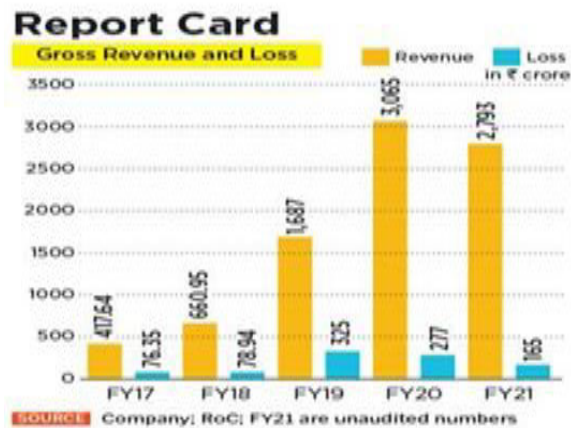
**So how can I buy a car on CARS24:**

If you've ever bought clothes or groceries online, you already know how this works! It's simple.

- Start by browsing the huge variety of cars listed here. Use our Car Finder to help you narrow it down as per the style, brand or colour of your choice. When you find that perfect car, you can check out its features, see the pictures, and look at the car from every angle with the 360 views.
- Now go ahead and book a test drive by paying a refundable deposit.
- And now, you and the car meet. You can either pick it up from a CARS24 hub close to you or get it conveniently home-delivered. We told you it was as easy as buying clothes online!
- Now, it’s test-driven time! Go on a drive, decide if you want to buy it. If you don’t, your deposit gets fully refunded and congrats now the car is yours.



Reviews about Pre-Owned car in India [Positive and Negative Review] :



Some Collected Reviews

➤ Name: - abhishek46 - Buying from Platforms like Ola Cars, Cars24, Spinny will give you peace of mind, over regular dealers, and private sellers. Naturally, the prices will be higher than individual sellers/dealers. However, what you get in return for the extra money paid, is hassle free RTO transfer & Comprehensive

Evaluation Report which is genuine in most cases. Spinny, provides 1 year warranty too on any car purchased from them. Not sure about Ola Cars. If you are getting the right vehicle at the right price, in any of these platforms, just go for it.

➤ Name: -Mrs.Goenka- impressed with the services of Truebil.com. Took only one visit to buy a used car for my family. Have been recommending Truebil to my neighbours and relatives

➤ Name: - Nupur Pandey- Bought Jazz for my mother from Spinny. These guys were wonderful in their service and the entire pre- and post-sale journey was hassle-free. They made sure that the ladies do not get worked up with the magic of their perfect customer dealing. The car has all the feel of a brand new one, it looks great, and the ride is comfortable and smooth.

➤ Name: - Alok Bhardwa- Recently purchased Nissan Sunny from Spinny car hub, Gurgaon. Mr. Shubham Sahani is a good person with a very helping attitude. Fully satisfied with the service. After the purchase of the car, I got it checked at Nissan authorized service center, the information provided by Spinny was the same provided by Nissan service guys. Will highly recommend Spinny to all.

Reasons why you should buy a used car

**Reason 1:** Economical, save money- All it takes is less than a minute for a new car, straight out from a showroom, to lose 8-10% of its purchase price as it enters used car territory. Going for used purchase means you have to pay a lot less than the original value of the car (depending on year of manufacture and kilometres done) which means you can save some serious money. Consider the example of a new Maruti Suzuki Swift Lxi available in New Delhi, costing close to Rs 5, 28,057 on road. Here is the breakup: Ex showroom Rs 4,71,613

+ RTO Rs 18,948 + Insurance 17,689 + Other charges Rs. 19,807 = Rs 5,28, 057. Now, considering depreciation, suppose if you go for a 1 year old, same car and model (Swift LXi Delhi) which is roughly driven



12,000 km, it can be yours by paying only Rs 4,15,000/- if you buy from a dealership and Rs 3,85,000/- if you buy directly from an individual first owner. You can clearly see the difference that you will be saving when opting for a used car.

**Reason 2:** Tension free drive 24x7 - The primary benefit has to be the feeling of driving tension-free, without the fear of getting that first dent or scratch, something only a brand new car is prone to. Let's understand this better. First, suppose you just bought a brand new Hyundai i10 and the very second day you are asked to travel to a congested part of the city for work. Considering the potential risk of getting dents or scratches, chances are that you might not even take your new car out and choose public transportation instead. Now, consider the same scenario when you just bought the same used car instead. Now, you won't really hesitate much in taking your car through those narrow lanes, would you?

**Reason 3:** You get certified used cars with warranty- As the auto industry has evolved, the way used cars are sold and purchased has evolved as well. Now, you don't really need to rely on just the verbal assurance of a cunning car salesman, dealer or an individual regarding the used car being perfectly fine. You now have the power of certification at your fingertips! One can easily go online and check for car certifications such as CarDekho Trustmark certified cars, which are meticulously checked by a certified car engineer to make sure your purchase is hassle free. Not just this, you can also get an additional post purchase warranty to ensure that the used car you just bought runs more like a new one!

**Reason 4:** Slower depreciation means you lose less money- Every car undergoes depreciation, but a used car has an upper hand for the same when compared to a new car. It depreciates at a slower rate when compared to a brand new car. Let's find out how: Depreciation of a vehicle is at its peak during the first three years of purchase. When you are buying a used car, you will obviously purchase it at a price which has already gone under major depreciation.

## SUGGESTIONS

Future the study pointed out that despite being backed by a strong network and brand reputation, approximately 54% of respondents recommend the un-organized market for the purchasing a pre-owned car because the price is negotiable. The organized market players should make efforts to reduce the price and bring the price in line with the competition posed by un-organized market. The organized players should create awareness about their quality certificate which would act as an advantage over the un-organized players. Un-organized market participants should make efforts to build after-sales service network by collaborating with service providers and car repair workshop and by using relationship marketing techniques as they already have the buyer's trust.

## CONCLUSION

The pre-owned car market may be transformed into a more organized market with the advent of Indian and global car makers and other major corporate houses of India. Auto majors not only increase their market penetration through the pre-owned car business, but also make a profit out of this venture. Unorganized pre-owned car dealers are trying to match the service standards of organized used car dealers to become more professional in their marketing approach. The general consensus among the industry is that the pre-owned car segment may become almost double of the new car market in another five years as is the case in the developed countries.

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**CUSTOMER BEHAVIOUR TOWARDS START UP ONLINE ADVERTISING WITH RESPECT TO INSTAGRAM**

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**Dr. Mrityunjay Kumar, Vikrant Pardeshi, Purva Chandak, Sejal Sahu and Kajal Dave**

Indira School of Business Studies, Pune

**➤ ABSTRACT**

*Due to Instagram's quick growth, start-ups are increasingly adopting it as a publication tool to reach their target audience. The numerous advantages and functionalities of Instagram have simplified publishing even further. To be picked by the audience, start-ups must have a favourable brand image due to the fierce rivalry among firms on this platform. This study is based on an analysis of how Instagram adverts affect consumers' purchasing decisions. Surveys were used to gather the study's primary data, and the internet and academic journals were used to gather secondary data. Data was collected from 102 Respondents who have used either online shopping or teleshopping or both for purchase of goods, through questionnaire the tool which was used for analysis is MS Excel. Therefore, the goal of this study is to pinpoint the numerous elements that affect a consumer's desire to make a purchase of a product or services from start up on Instagram. The study investigates the impact that well-conceived and executed advertising*

*➤ Keywords: Advertising value, attitude towards advertising, start-ups Instagram ads, Instagram Use and Purchase Intention, Social Influence, Endorsement by Instagram Influencers, Consumer Trust.*

**➤ INTRODUCTION**

The expansion of social media sites and applications over the past ten years has been made possible by the quick development of information and communication technology. People use social media primarily for two purposes: sharing information and maintaining social relationships with loved ones, friends, and business partners (an entertainment event or talking about something). Entertainment is a type of content that is frequently consumed and shared on social media sites, according to earlier studies. (Mahatma Vidya & Yasa Ni, 2020)

Instagram, one of the social media networks favoured by millennials, reported that its user base is expanding and that, as of June 2018, its monthly active user base has surpassed 1 billion. India is a nation that actively contributes people to social media, particularly Instagram.

Instagram is a social networking platform that allows for marketing. A business may choose from a variety of Instagram advertising options, including image advertisements, stories ads, video ads, carousel ads, collection ads, explore ads, IGTV ads, shopping ads, and reels ads. Instagram Stories is a feature that is rapidly growing in popularity. (Mahatma Vidya & Yasa Ni, 2020).

Start-ups have the chance to take use of Instagram stories' potential to interact with clients in their active social networks. After seeing anything on Instagram stories, consumers are more intrigued by it. Start-ups may market their products, increase brand recognition, and boost sales by using Instagram Stories adverts in a way that complements their customers' browsing experiences. Utilizing Instagram Stories marketing has started to yield rewards for businesses. For their summer product promotion campaign, Tropicana, for instance, conducted video commercials on Instagram Stories and was able to enhance ad recall by 18 points. Another illustration is how Samsung is heavily promoting Instagram Stories to Indonesians who are 18 and older, in order to increase the number of users.

An evaluation of an object based on one's attitude can be extremely favourable or extremely negative. This attitude can be defined as a consumer's appraisal of Instagram advertising, either positively or negatively, based on the broad understanding of this attitude. In this study, 317 consumers were the subject of a research project based on Instagram advertisements. Instagram is one of the major social media platforms and studying consumer behaviour on these platforms is a relatively new field of study that has attracted the interest of many academic and professional marketers. There are 51 million active social media users, or 63% of the population, according to the 2018 digital media study from We Are Social and Hootsuite. There is a gap in the body of knowledge regarding online advertising for start-ups in developing nations because most studies in this field have been conducted in the US or other wealthy nations. (Karadeniz, M & Kocamaz, İ., 2019)

**➤ LITERATURE REVIEW****Social Media (Instagram) Use and Purchase Intention (SMUP)**

Instagram is used widely. Perhaps not all, but a large percentage of people do. According to estimates, 71% of Instagram users are under the age of 35 and the platform is used by one billion people each month. This

indicates that a sizable number of people, most of whom are young, utilise Instagram. Because they observe what other people do and a lot of what they see on Instagram, young people have a lot of influence. (Kenneth & Nirmal G, 2021).

### **Social Influence of peers to use Instagram (SIPI)**

As consumers become more technically advanced and social media-driven, platforms that can be used to connect with the younger generations are constantly under scrutiny. Despite in terms

of consumer purchasing decisions, Instagram has a significant influence. Numerous consumer conversions might be attained because of peer recommendations. 71% of individuals are more inclined to make an online purchase, according to HubSpot data, if their peers recommend the good or service. This might be a result of people's innate cynicism toward products and traditional advertising. (Kenneth & Nirmal G, 2021).

### **Trustworthiness**

There are numerous sources of data and information available nowadays. The issue of these sources' reliability and credibility has taken on increasing importance. One of the most important components of an organization's long-term success is its ability to be trusted. Several factors, including trust, transparency, listening, responding, and affirmation, can be used to explain the trustworthiness of advertising. (Karadeniz, M., & Kocamaz, 2019).

### **Informativeness**

The roles of advertising include informing, persuading, reminding, offering value, and assisting the business in its various endeavours. In this perspective, one of the most fundamental qualities that distinguishes ads as valuable is their informativeness. Giving accurate information satisfies a fundamental consumer right and compensates for the harsh criticism's society has levelled at advertising. The educational value of the information presented in commercials is substantially correlated with sentiments toward the advertisement when it is broadcast through conventional media. (Karadeniz, M. & Kocamaz, 2019).

### **Economic Advantage**

A brand's value to its customers can be explained in an Instagram advertisement. A brand's perceived worth among consumers is influenced by the portion of the marketing budget allocated to Instagram advertisements. It is, however, quite challenging to quantify the exact contribution that each and every penny makes to the value of a brand. Instagram adverts can encourage the purchase of any product imagined (Karadeniz, M., & Kocamaz, 2019).

### **Consumers' Buying Behaviours**

Every day, consumers make a variety of purchasing decisions, and marketers concentrate their efforts on these choices. To find out what customers purchase, where they buy it, how much they spend, when they buy it, and why they buy it, most start-ups conduct extensive consumer research. In the literature on consumer behaviour, numerous distinct models of consumer behaviour have been established (Karadeniz, M., & Kocamaz, 2019).

### **Influencer Marketing and Social Media**

Start-ups can engage their target audience in a variety of methods online, including brand advertisements, paid advertisements, electronic word of mouth (eWOM), and more. In the

recent years, eWOM has expanded beyond the influence of friends and family members and transformed into a bigger field termed influencer marketing. (Lou, Tan, & Chen, 2019).

#### **➤ OBJECTIVE**

- The purpose of the research paper is to find out the buying habit of consumers through Instagram advertisement for start-ups.
- To study the scope of marketing via Instagram for start-ups.
- To study the pros and cons associated with the use of Instagram marketing for start-ups.

#### **➤ METHODOLOGY**

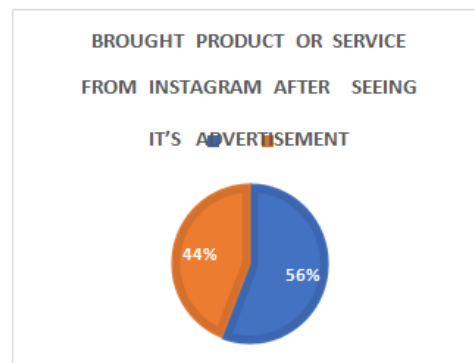
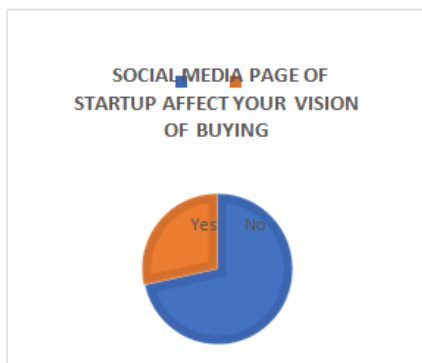
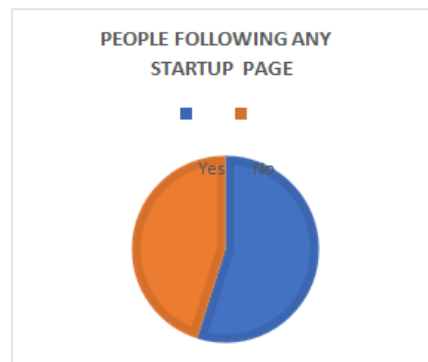
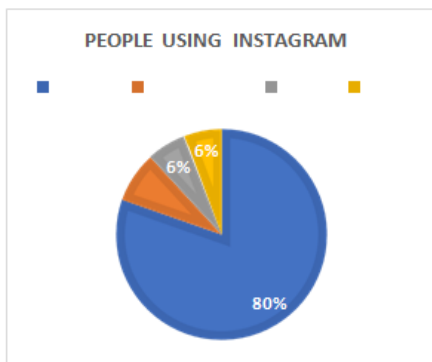
The research method used is descriptive research method [main area of focus is start-up via Instagram] with a clear thought approach according to Sekaran and Bougie "a descriptive study is carried out in order to be able to describe the characteristics of variable in interest". This study aims to produce an accurate picture of a group, describe the mechanism of a process provide a complete picture about the customers perspective towards start up advertising on Instagram.

A structured 22 set of questions was used to elicit information from the respondents and simple random method was used to get the responses. the design was chosen in accordance with research objectives and is expected to

achieve the desired goals. Data on the number of Instagram’s user are unknown and unrecorded. Many of the questions were interconnected with each other for effective study .Some references were also used during this process which helped a lot in our study. Some numerical data were also used for the better research. Fully detailed overview of some start-up was done by our members on Instagram.

➤ **Analysis and Interpretation**

Particulars	Frequency	Percentage
<b>Gender</b>		
Male	52	50.98
Female	48	47.06
Other	02	01.96
<b>Age</b>		
Below 20	05	04.90
20-25	83	81.38
25-30	07	06.86
Above	07	06.86
<b>Education</b>		
Hsc-Ssc	04	03.92
Graduate	53	51.96
Postgraduate	45	44.12



➤ **FINDINGS**

1. Start-ups should be present at the social media platform because according to the survey it is important for more than 55% of the people.
2. Start-ups social media accounts should be well managed because according to survey 72% people vision of buying is affected by social media account of start-ups.
3. According to survey many people face problem while purchasing from start-ups advertisement links through Instagram as the process was long, website was not that smooth which made people fallback and not purchasing.
4. Online advertisement interfere in your work life while browsing users population responded "Yes" so from this we can conclude that 76% of users thinks advertisement interfere while browsing. while the rest are not interfered by it.

5. After watching the ads 56% of users have bought products from the start ups page and 44% of users didn't bought after watching it. "From this it seems that majority of users have a impact of advertisement".
6. If the brand follows up complaints, questions, comments have a positive impact on their brand image and 75.6% of users truly agrees with this. 76.7% of users shares their satisfaction and dissatisfaction to inform others about their experiences and rest of the public are not willing to share their experiences social media tools encourages people to do online shopping.

#### ➤ CONCLUSION

Based on the results of this study entitled "customers perspective towards start up advertising on Instagram". The following are conclusion from the results of the online shopping is metered on a scale of 1-5 got various suggestions how can one improve social media advertisement of start-ups like;

1] - It should be easy and short to understand. And should have their own web pages for further details.2]-By collaborating with more influencers.

3] - Bringing more innovations in advertising.

From this analysis we can conclude that advertisement on Instagram. somehow changes mindset of buyer while some have the rigid kind of mindset so some of the start-ups needs to change the way of their advertisement and let people know more about it by promoting more by considering choices of people shown in this survey.

#### ➤ LIMITATIONS

- This study could not touch all aspects relating to online shopping and teleshopping
- Inherent limitations of sampling will also affect the study.
- Statistical implication of various constraints has not been examined.

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**INNOVATIVE TECHNOLOGY AND SUSTAINABILITY**

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**Ashiya Miyaji, Rabiya Esaf and Charul Phul**  
MMP Shah Women's College of Arts & Commerce

**ABSTRACT**

*In this research paper we have mentioned how important and effective technologies are for a sustainable business. Innovative sustainable technologies have a great impact on businesses and benefit them in the best ways. Our findings show the projects carried out by certain cities for a sustainable future as well as the challenges faced while doing so. A proper data analysis and survey was undertaken for the following .*

*Keywords ; Sustainable, Technology, Safe resilient, Zero- carbon*

**INTRODUCTION**

Our planet is facing a climate emergency which if we don't tackle it immediately threatens every aspect of our life. We believe it is the number one challenge the world is facing at this period and the implication could dwarf those of the coronavirus pandemic. It has never been more urgent to create a more sustainable future for everyone instead of exploiting our planet. We need to look after it. It is believed that technology and tech companies have a major role in the path of a more sustainable future. Even in the conferences conducted by the MOBILE WORLD CONGRESS in SHANGHAI 2021 sustainability and technology was a major part of their agenda. The tech giants have taken many successful steps and it is good to see them taking sustainability as a very serious topic by improving their product and production processes towards a carbon-free future. This company also plays a significant role in innovating technology that will help in tackling the sustainability challenge

The digitization and electrification of our world in conjunction with the production of zero-carbon energy is a major step in the right direction and for this to happen we need the right technology and infrastructure in place. So the below research is based on innovative technology and the awareness among the people about sustainability.

**LITERATURE REVIEW**

**Karel Mulder, Didad Ferrer and Harro van Lente (2011)** their research says- "That more efficient technologies might boost consumption and thereby contribute to resource depletion instead of saving resources."

**Tahani Al Hammadi , Haitham Nobanee (December 2019)** according to their search "Studies ensured that banks that applied fintech innovation have saved significant cost and provide flexible financial services for all sectors."

**Marco Vacchi, Cristina Siligardi, Fabio Demaria, Erika Iveth Cedillo-González, Rocío González-Sánchez , Davide Settembre-Blundo (2021)** According to their article, "Together, technology and sustainability enable companies to achieve higher earnings, reach new markets, expand their customer base, and increase their margins. However, for this to happen, firms need to embed technology and sustainability within their strategies and corporate culture."

**Yinlun Huang (2021)** According to his findings "Technology determines, to a great extent, the demand for raw materials and energy, the ways and efficiency of manufacturing, product performance, waste reduction and waste handling, health and safety, transportation and infrastructure, etc., thereby making significant impacts on the economic, environmental, and social dimensions of industrial development."

**Ondrej Stopka, Vladislav Zitricky, Borna Abramovic, Marin Marinov, and Stefano**

**Ricci (2019)** Their Article says - Technological premise creates the prerequisites for organizing, operating, and managing traffic and transport with as little negative environmental impacts as possible and helps to create a system of sustainable mobility.

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**OBJECTIVES**

To know about the innovative sustainable technologies

To understand the different city projects undertaken to make the city more sustainable To see the awareness among the people for the concept of sustainability

To understand the challenges faced in the path of a sustainable future

**RESEARCH METHODOLOGY**

The research is primarily based on youtube information, google search And the survey data.

**DATA ANALYSIS AND FINDINGS**

Innovative Projects Carried By Different Cities to Build A Sustainable future Innovative projects making cities more sustainable with an ever-increasing global population and rising urbanization creating Safe resilient and sustainable cities are written on top of the green agenda. The United Nations included this mission among 17 sustainable development goals which together form a blueprint for collectively addressing the challenges the world faces here are some of the innovative ways cities are rising to the challenge.

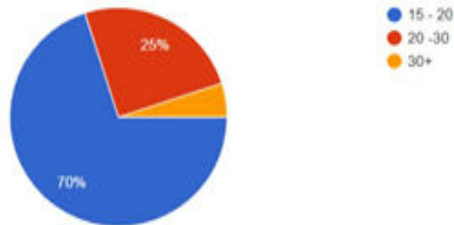
- **The 20-minute Neighbourhood** imagine if everything you need for a happy healthy life can be found within a 20 minutes public transport trip like bike ride or walk from home. Some cities are working to make this a reality with Melbourne leading the way. It wants residents to always be within easy reach of things like shops, business services, education, and leisure facilities.
- **Smarter Commuting** in Israel A new app could hold the key to creating faster, cleaner and more convenient commutes. Users enter their location and destination and an algorithm calculates the most efficient journey. The Public transport is then rerouted accordingly. The system was introduced to help fight COVID-19 but if implemented permanently it thought it could Save \$25 million dollars a year
- **Vertical forests** are short on space people in cities have often look upwards for places to expand in Milan, Italy architects have done the same with tree cover creating a vertical forest on two residential tower blocks boosting 800 trees 4500 shrubs and 15,000 plants the forest recover an area the size of 3 1/2 of football pictures if planted on the ground similar projects are underway in cities in Switzerland the Netherlands and China

**Challenges Faced in Developing A Sustainable Environment**

1. **Lack of Funds:** Lack of financial resources to carry out and plan sustainable development
2. **Weak Countries:** Sustainable development is often not possible in financially weak countries as there are other priorities on hand.
3. **Natural Calamities:** Natural occurrences, such as earthquakes and tsunamis, can pose a threat to sustainability as they can shift the flow of water and destroy certain elements of infrastructure.
4. **Government Conflicts:** The governmental conflict between immediate profit and investment toward sustainable technologies. (In Poland, the government has even increased financing towards the mining sector instead of moving full steam ahead towards adopting sustainable energy sources, with coal amounting to 80% of total energy generation
5. **Corruption:** (Funding to developing countries is usually provided through foreign grants, eg; In Nepal, foreign grants constitute the majority coming from the UK. Nevertheless, due to bureaucracy and corruption in Nepal, in order to pass certain development projects a stipend needs to be paid to ministers as well as service fees to the Nepal government which significantly slows down the processes

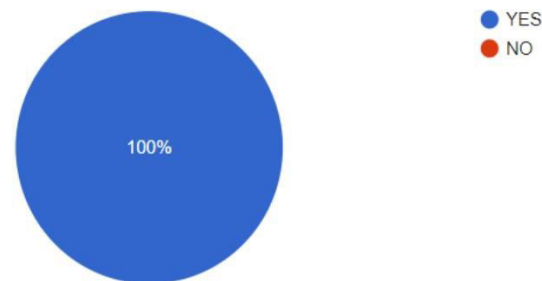
SURVEY DATA

AGE  
20 responses



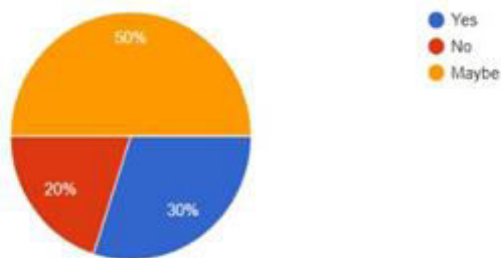
ARE YOU AWARE ABOUT THE CONCEPT OF SUSTAINABLE TECHNOLOGY

20 responses



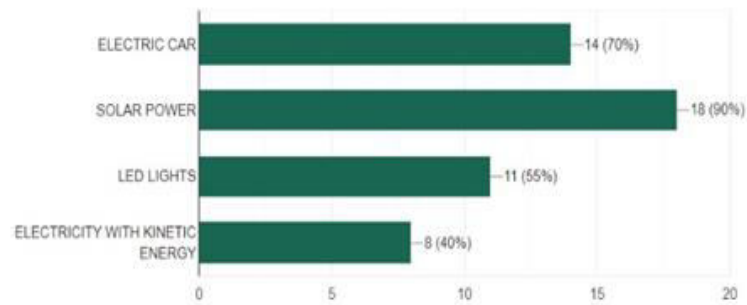
IS COST A BARRIER TO A SUSTAINABLE FUTURE

20 responses



WHAT ARE THE SUSTAINABLE TECHNOLOGIES YOU ARE AWARE OF

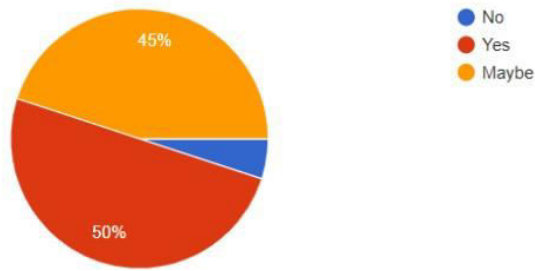
20 responses





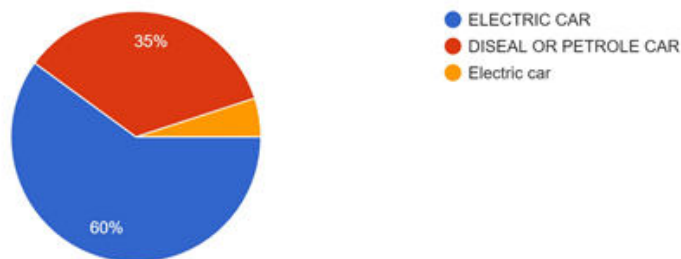
would you like to own any of the sustainable technology in future

20 responses



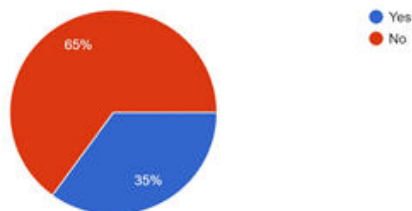
what will you prefer an electric car or a diesel car

20 responses



DO YOU USE ANY OF THE SUSTAINABLE TECHNOLOGY IN YOUR DAILY LIFE Eg: electric car, solar power, etc

20 responses



1. Solar power
2. Electricity generated through foot steps
3. Public and electric transport
4. Led lights
5. Electric car
6. LED light technology.
7. Solar power in Villas
8. Electric Automobiles

Can You Give an Example of a Sustainable Technology 8 Responses

Reason Why You Would Like To Own a Diesel or Electric Car 17

1. Because it won't cause pollution
2. Right now petro but further it will be out electric

3. It is easy to move
4. Affordable
5. To best the pollution
6. Less pollution and no sound
7. Saves money
8. Diesel cars are love♥
9. Need the thrill
10. As electricity can be generated but fuel can't be used for a longer time
11. Electric vehicles are more efficient, and charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.
12. It's easier to control
13. Less energy consumption
14. It is more common and hassle-free
15. BECAUSE OF THE USAGE
16. Environment friendly
17. In Indian conditions, we couldn't travel in electrical vehicles due to the unavailability of Charging stations which makes electric cars useless for long-distance drives

### **RECOMMENDATION**

As per our research and analysis, we came to know that cost, infrastructure, awareness, and corruption are the main barrier to a sustainable future.

We also noticed that many countries are skilfully talking this situation and have also successfully implemented many technologies that are eco friendly

And our recommendation is that the dream of a sustainable environment is possible only if the authorities take this as a priority and work on it as soon as possible and it is not alone the responsibility of the government authorities we as a responsible citizens can also contribute to lowering our carbon footprints by taking some small and general efforts like carpooling, using public transport, using solar energy, etc.

### **CONCLUSION**

After all the research and analysis we came to the conclusion that the dream of a carbon-free future is difficult but not impossible a little effort from each one of us will help to fill the potholes in the path of sustainability because this effort is not an option it is a responsibility which we have to take up because we don't have a planet 2. And it was also good to see many new sustainable technologies that are rapidly emerging by replacing the traditional non-eco-friendly technology this gives hope that though it might be difficult but soon we 'll have a green environment

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**A STUDY ON THE CONTRIBUTION OF YULU BIKES TOWARDS ENVIRONMENTAL SUSTAINABILITY WITH REFERENCE TO MUMBAI**

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**Shamim Shaikh, Gilchrist D'Souza, Kenneth Fernandes, Fiona Mathias, Mabelle David, and Mitali Patil**  
Don Bosco College

**ABSTRACT**

*Traffic congestion is a major problem in an urban city like Mumbai. Especially after the lifting of lockdown restrictions and the threat of the coronavirus reduced, people have begun commuting now, more than ever. An increase in vehicle usage leads to an increase in pollution due to the gases released by vehicles. This, in turn, lowers the quality of the air, leading to various respiratory illnesses. It also contributes to global warming and increases the temperature of the city. Yulu Bikes- a Bangalore-based startup, founded in 2017, is trying to solve all these issues with its innovative two-wheelers. Their two-wheelers aim to solve congestion with their compact size and reduce pollution by promoting the use of electronic bikes. Yulu Bikes aims to solve first and last-mile connectivity and small-distance commuting problems in a cost-effective way. The aim of this study is to understand Yulu Bikes' contribution towards sustainability in the Mumbai region.*

*Keywords: Eco-Friendly Bikes, Electric Bikes, Affordable Transport, Yulu Bikes*

**INTRODUCTION**

In Today's times, transportation has been given a lot of importance. When we think of going somewhere it's only with the help of transport our lives have become easier. In today's times, the lives of people have become such that people require transport even to travel short distances which was not the case earlier. People own cars, and bikes and hence nowadays it's termed as a necessity. But India being a developing country, not all citizens here can afford to have one. Even though people purchase their own vehicles, it is definitely adding to the increase in pollution.

**ENVIRONMENTAL SUSTAINABILITY**

With the growing pollution worldwide, environmental sustainability is to be practiced. The topic today emphasizes more on sustainable environment through the introduction of e-bikes. Yulu bikes is one such bike that is meant to be used to move around in the city. It is a lightweight battery-powered electric bike that can be used for short-distance commutes. It comes with a comfortable seat and it can be used by both men and women. The Yulu E-Bike comes equipped with a 48V battery-powered electric motor. For unlocking a vehicle it costs 10 rupees which is a fixed charge. Once the vehicle is unlocked, the user is charged 10 rupees every 10 minutes. The Yulu bike price is based on time and not on kilometers, so one can cover as much distance as they want without worrying about the fare.

The introduction of Yulu bikes has led to an environment that reduces the carbon footprint a little at a time. According to Yulu Bikes, they have cut down on nearly 2.1 billion Kg of

carbon emission, which is almost equivalent to planting 100 million trees (<https://www.Yulu.bike/blogposts/5-ways-Yulu-is-helping-build-smarter-cities/>). Thus, the purpose of presenting this study is to understand and promote a sustainable environment by using all the means by which pollution is reduced so that we can have a clean and healthy planet.

**LITERATURE REVIEW**

1. D Upadhyay, G Purswani and P Jain in their journal titled 'Yulu: Moving towards a sustainable future' which was published on November 1, 2020 have identified the contribution of Yulu towards a sustainable future. The speciality of this venture is that it offers a sustainable solution to ever-increasing problems of traffic congestion and aggravating air pollution issues in metropolitan cities.
2. Dr. S Modi in her research paper 'Experimental and value driven ride in eco - friendly way: case of Yulu' which was published in the year 2020 has expressed that Yulu is a technology-driven mobility platform to enable Integrated Urban Mobility across public and private modes of transport.

**OBJECTIVES**

To understand the impact of E-bikes on traffic reduction.

To find out the level of awareness of the population about Yulu Bikes.

To examine the contribution of Yulu bikes in reducing pollution in Mumbai.

**STATEMENT OF THE PROBLEM**

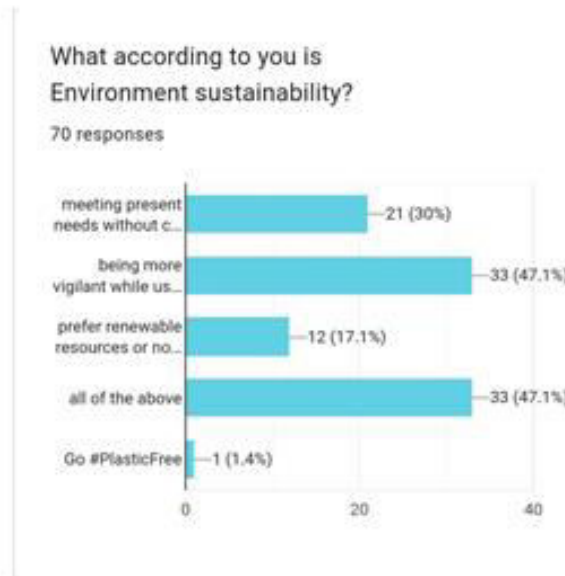
Rapidly deteriorating air quality and traffic congestion due to population growth are among the major problems faced by Mumbai city. This research paper aims to find out how Yulu bikes is contributing towards environmental sustainability and solving these issues.

**RESEARCH METHODOLOGY**

Both primary and secondary data were used to conduct research. To collect primary data, google forms were circulated among the students of our college, and secondary data was collected from the internet.

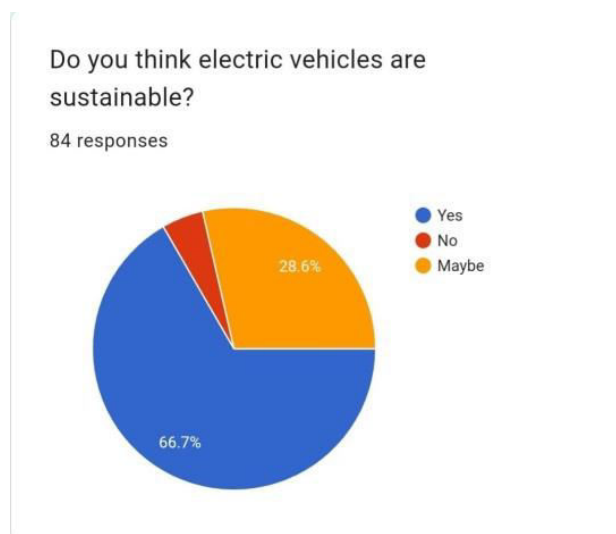
**DATA ANALYSIS AND FINDINGS**

**From Primary Data:**

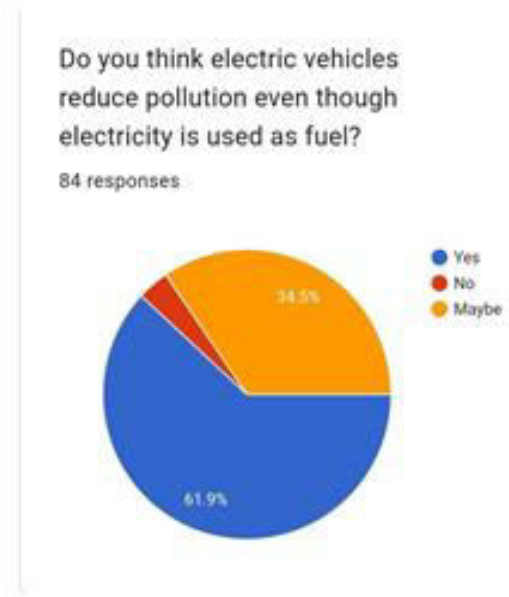


The above question was asked to gauge the awareness and understanding of the people regarding environmental sustainability. A Majority of the people selected the option "all of the above", which included the options "meeting present needs without compromising the needs of the future, being more vigilant while using resources, prefer renewable resources or non-renewable". One respondent selected the option "other" and wrote a custom response

"#PlasticFree", which according to them meant that environmental sustainability only includes avoiding the usage of plastic.



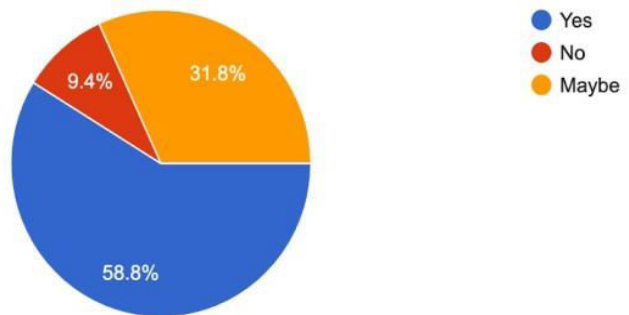
As per the above pie diagram, 66.7% of the 84 respondents (56) are of the opinion that electric vehicles are sustainable, whereas 28.6% (24) weren't sure and 4 respondents believe that electric vehicles are not sustainable.



From the above figure, one can infer that 61.9% of the 84 respondents(52) believe that electric vehicles reduce pollution as they don't burn fossil fuels to work and 34.5%(29) aren't sure and 3 people feel that they don't reduce pollution.

Would you consider using electric vehicles over traditional fuel-based vehicles?

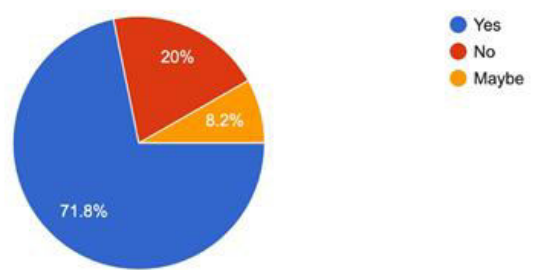
85 responses



From the above figure, one can infer that 58.8 % of the 85 respondents(50) would consider using electric vehicles probably to give their contribution in reducing pollution, 9.8 % (8) said no and 27 people voted for maybe.

Have you heard about Yulu bikes?

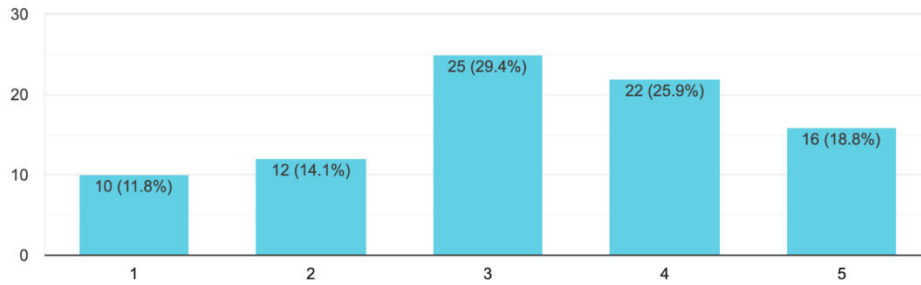
85 responses



The above question was asked to gain information about how many people are aware of Yulubikes. Of the 85 responses, 71.8 % (61) are aware, 20% (17) are not and 8.2% (7) people are somewhat aware of them.

How often do you see these bikes?

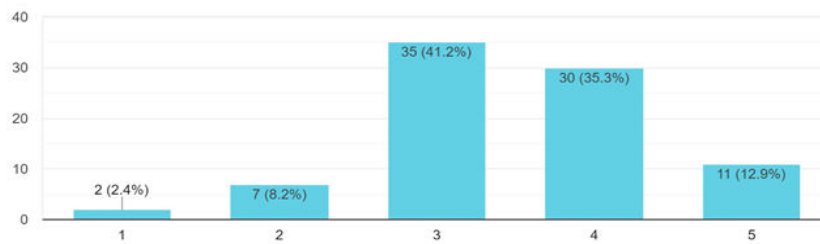
85 responses



From the diagram given above, it can be inferred that the majority of the people have seen Yulu bikes in moderate amounts.

How effective do you think yulu bikes are in contributing towards environmental sustainability?

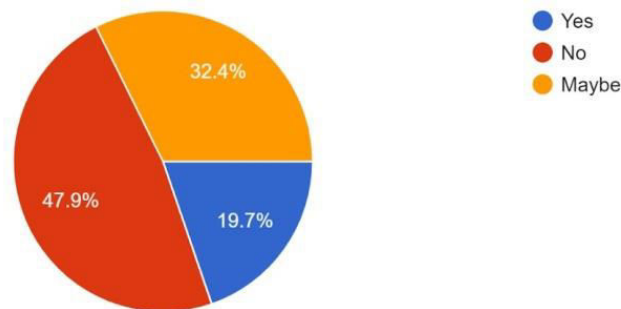
85 responses



In the above figure, it can be understood that Yulu bikes are environmentally friendly as it stands  $\frac{3}{5}$  on the rating scale. This helps us understand that Yulu bikes are convenient, affordable, and environment friendly. If we compare individuals who rated Yulu bike’s contribution to the environment  $\frac{1}{5}$  and  $\frac{2}{5}$  with the ones who rated  $\frac{4}{5}$  and  $\frac{5}{5}$ . It can be clearly understood that the percentage of rating  $\frac{4}{5}$  and  $\frac{5}{5}$  is > than  $\frac{1}{5}$  and  $\frac{2}{5}$ .

Do you think one needs a license to use them?

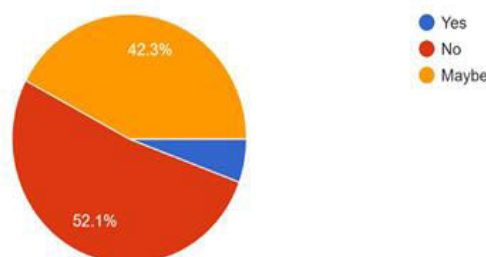
71 responses



According to the pie chart mentioned above, 47.9% of individuals have opted for the answer ‘NO’. Which is the correct answer. Yulu bikes do not require an individual to have a license which makes them more user-friendly. People are aware of Yulu bikes which is one of the most affordable and user-friendly vehicle innovated so far.

Will they be feasible for long distances?

71 responses



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According to the pie chart, 52.1% of people have chosen the answer 'NO'. Which is quite right. Yulu bikes are used for short-distance commutes. And works on a chargeable battery.

**From Secondary Data**

Since Yulu began its operations in January 2018, it has prevented over 935 tonnes of carbon emissions. This has been calculated by looking at the total mileage covered by Yulu vehicles and what the emissions would have been (based on existing statistics) if that distance was covered by other vehicles that run on fossil fuels.

(<https://www.thebetterindia.com/193489/yulu-electric-bike-sharing-service-startup-sustainability-india/>)

**RECOMMENDATIONS**

- Through this research we encountered that these e-bikes are suitable for shorter distances, so the solution to this problem is that they can build charging stations at the required distance which will cater to the consumers for the longer distance.
- Also, these bikes are used in metropolitan cities whereas this Yulu service can be provided to school-going students in rural areas as well.

**CONCLUSION**

Yulu bikes can be a solution to the traffic congestion in the big cities, these E-bikes can act as a means of transportation that offers eco-friendly, sustainable & affordable services to their customers, this startup has brought a change in society by creating a bond between the technology and environment which has created an effective means of transportation to the consumers. There can be a drawback as Yulu bikes won't be suitable for rural areas and also for the long distance; it can only be a solution for urban areas, but it can be used for various other means like delivery on the contrary.

This research shows that Yulu bikes can be a great solution for urban cities as it helps in the reduction of pollution and traffic congestion. Also, through its technology, it can create a great impact on transportation quality services and time consumption. So overall it is a nice solution for the sustainability and growth of society.

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**A STUDY ON THE BUSINESS SUSTAINABILITY OF JUNGLE JUICE****Shamim Shaikh and Soumili Ghosal**

Don Bosco College, Kurla

**ABSTRACT**

*Sustainability is the word on everybody's lips across the fruit juice and produce industries at the moment. Far from just being an environmental concern – and that should surely be good enough in itself – being sustainable can help differentiate a fruit juice or processing business and, crucially, make a positive difference to the bottom line. The fruit processing industry in which the juice segment is probably the largest produces a huge amount of waste and by-products annually. If not handled correctly, these by-products and waste can create serious environmental and economic problems for the customer and the surrounding area where they are located. Given this renewed focus on sustainability, we have developed technologies to make better use of all by-products and waste generated by the juice extraction process. Orange peel, pulp and even seeds are rich in valuable components. The Jungle Juice is one such example of these types of business models.*

*Keywords: (Sustainability, Zero wastage, Eco-friendly, Juice)*

**INTRODUCTION****● Business Sustainability**

Business sustainability means that working in a business in such a manner that it should harm the environment, or society for the future. The main goal of sustainability is to have a positive impact. An environmentally aware business considers more than just profits. It considers its impact on society and the environment. Such a business is sustainable because it contributes to the health of the structure within which it operates, thereby helping construct an environment in which the business can thrive.

The jungle juice in Mumbai, (Kandivali West, Mahavir Nagar) serves fresh fruit juices in fruits such as Shells, Coconuts, Pineapples, Strawberries. They are hygienic, cleanliness, and quality as their first priority. The main tagline of the jungle juice is “To drink and eat things”. “THE JUNGLE JUICE” is a health-conscious food and beverage concept. Over fruit juices provide essential vitamins and minerals and are also very delicious and eco-friendly. They pride themselves in only sourcing the freshest and best quality fruits in the market to enable for providing the customers with great quality juices.

A perfect filling of a tropical drink with its seasonal fruit that is strawberries. It's delicious, creamy, and a great substitute for the dairy products that serves a huge variety of coconut fruits as delight. The Jungle juice is a natural juice with a full load of dry fruits. Perfect place to cool down in summers. Their juices are super fresh, served in a unique style. Its cost friendly. It consists of variety of mix and match juices and well presented and a lesson in minimal waste management. The jungle juice is served in a fruit shell of which they are made up of. It can be consumed for breakfast, during fasting or else if you are vegan, everyone can have this. The chilli guava in shell, the rim of the shell is coated with chilli and salt mix. Business sustainability of the jungle juice are sustainability is a part of their daily basis, they have negative emissions from their product, the jungle juice provides biodegradable so that it can be reused, recycled. They also have this unique concept of zero waste drink in which they serve the juice in the fruit shell itself.

Their best-selling items on the menu are Coconut Strawberry Fruco in Coconut shell, Pineapple Strawberry in shell & Guava Chilli. Truly innovative & tempting.

**REVIEW OF LITERATURE**

1) **G. Kouwenhoven, V. Reddy Nalla, T. Lossonczy von Losoncz, (2012)** - this paper states how to create sustainability in the businesses by reducing the day to day food waste. It also states how to increase the profitability of the business.

2) **CY. Young, SP Ni, and KS. Fan, (2010)** - talks about how they are working towards a zero waste in Taiwan by practising certain steps like waste recycling programme, promotion of cleaner production, a green procurement programme, etc.

**SCOPE OF THE RESEARCH**

The scope of the “Jungle Juice” are as follows:

- The research is based on both primary data as well as secondary data.
- The scope of the research is how sustainable practices have been adopted.
- The scope of the research is how the “Jungle Juice” will help to understand the future trends and growth of this company.



**OBJECTIVES**

The objectives of the study are:

- 1) To study about the innovative practices adopted by ‘Jungle Juice’.
- 2) To find out the level of awareness of the respondents about the sustainable practices of ‘Jungle Juice’.

**RESEARCH METHODOLOGY**

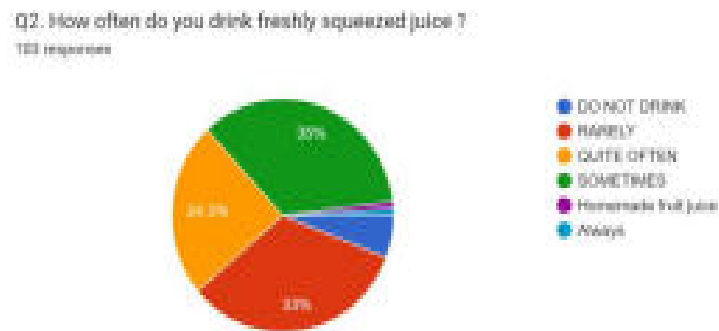
This paper furnishes information about a study on the business sustainability of the ‘JUNGLE JUICE’. Research methodology are the techniques used to identify, select, process and analyse information through the study. This research includes both the combination of primary as well as secondary sources.

**Primary Data** – It’s obtained from the original source of information. For this method only questionnaire that is the google form was used. The google form was circulated through social media such as WhatsApp and Instagram, etc. The number of responses were 103 which was only limited to Mumbai only.

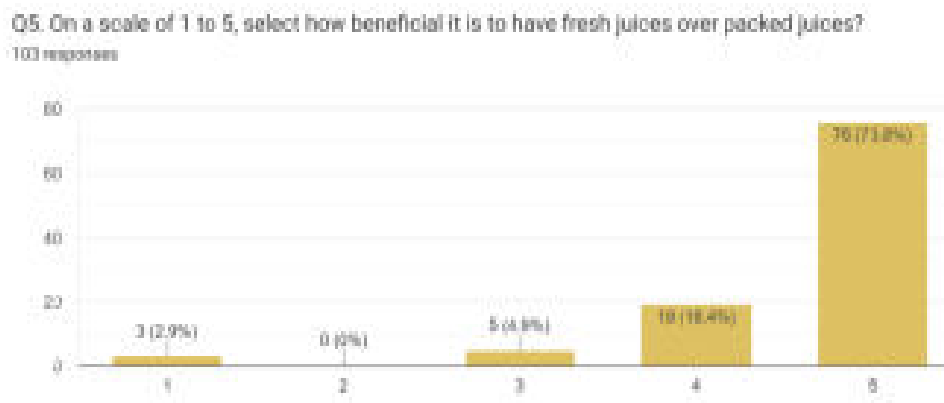
**Secondary Data** – In this, the data is collected through the internet, newspapers, articles and some of the various research papers.

**1. DATA ANALYSIS AND FINDINGS**

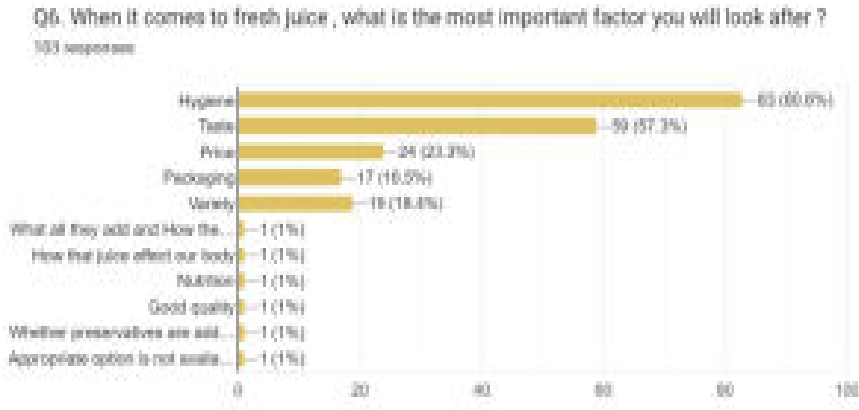
A survey using a questionnaire was conducted for the following research that is “A Study on The Business Sustainability on The Jungle Juice”. The data collection is analysed and interpreted in accordance with the objectives of the study and for testing the hypothesis.



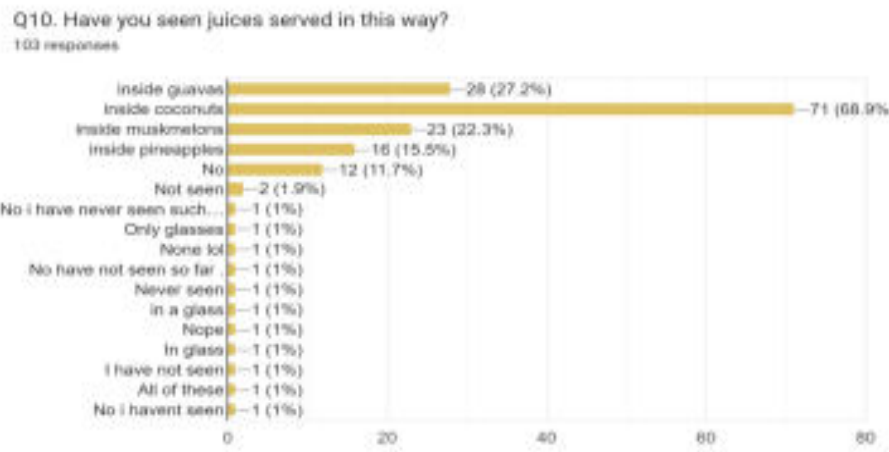
□ According to the survey from 103 responses the maximum percentage is 35%, that is, most of the people drink freshly squeezed juice sometimes. Then comes 33% that rarely people drink freshly squeezed juice. 24.3% that is quite often people drink freshly squeezed juice. The rest are people who always drink 1%, 1% home-made fruit juice, 5.8% people don't drink only.



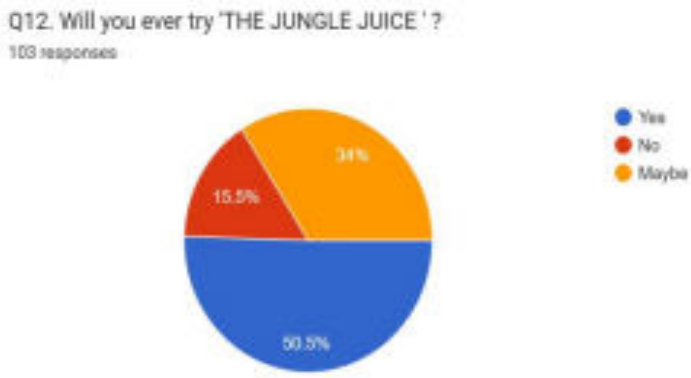
□ On the measurement from 1 to 5 people think that it's very much beneficial to have fresh juices over packed juices.



□ The highest number is 80.6%. That is hygiene when it comes to the most important factors that they will look for. Then comes the taste that is 57.3% , 23.3% for price , 16.5% for packaging, 18.4% for variety, and rest are all 1 %.



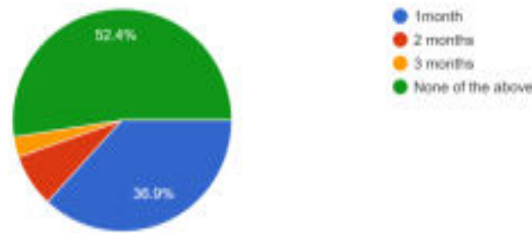
□ According to the survey inside coconut is the highest that is 68.9% people have seen juices served in this way, then comes 27.2% people have seen inside guavas. Then comes inside muskmelons that 22.3% of people have seen. For the inside of the pineapple only 15.5% people have seen.



□ According to the reports majority of them will try to have “ JUNGLE JUICE ” that is 50.5%, them 34% people may or may not be , and the last 15.5% people will not try “ THE JUNGLE JUICE ”.

Q13. For how long do you think the jungle juice be preserved ?

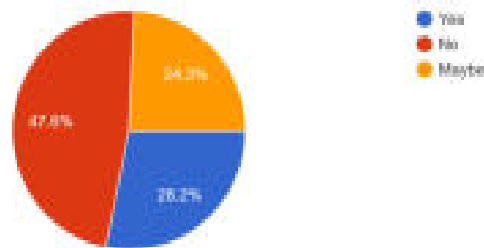
103 responses



□ So majority of them think that not a single time the jungle juice will be preserved that is 52.4% , them 36.9% people think that for 1 month it might be preserved and the rest of them will 2 to 3 months.

Q14. Have you ever tried healthy , eco friendly and zero wastage fresh juice in your life ?

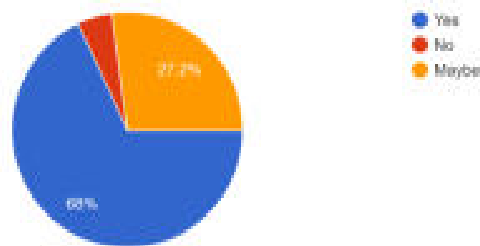
100 responses



□ The highest is 47.6% people have never tried healthy, eco-friendly, and zero wastage fresh juice in their life. 28.2% of people have tried and 24.3 % people are unsure.

Q16. Would you want other companies to learn from their innovative serving styles ?

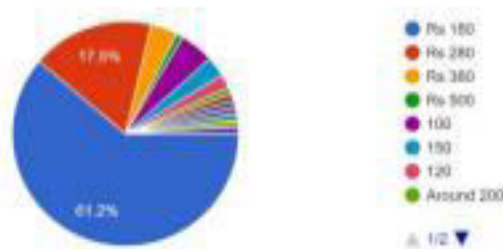
100 responses



□ Most of the people think that other companies to definitely learn from their innovative serving style that is 68%, then maybe 27.2% maybe and 4.9% do not believe in that.

Q17. What price would you like to pay for this - Coconut Crunch?

100 responses



□ 61.2% of the population are willing to pay Rs. 180/- for the Coconut Crunch.

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**RECOMMENDATIONS**

- 1) Overall review of the responses is that people are curious to know the innovative practices that the “JUNGLE JUICE ” that they have adopted.
- 2) Other juice making companies should learn and adopt their innovative and sustainable practices.
- 3) The ‘Jungle Juice’ should expand more to attract a wider customer base as there are many consumers who haven’t heard of it at all.

**CONCLUSION**

As per the reports the overall conclusion of this research paper is to try something new in life whether that will succeed in your life or not. However, the majority of them think from getting the maximum amount of the jungle juice from different fruits during the extraction process to making the best use of previously wasted by-products, sustainability is a phenomenon whose time has come in the fruit juice industry .

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- vi. CY. Young, SP Ni, and KS. Fan, (2010) - talks about how they are working towards a zero waste in Taiwan by practising certain steps like waste recycling programme, promotion of cleaner production, a green procurement programme , etc.
- vii. <https://www.localsamosa.com/2022/06/17/sip-fresh-juices-in-fruit-shells-at-the-jungle-juice-in-mahavir-nagar-mumbai/>

**A STUDY OF ECO-FRIENDLY PRODUCTS THE PINNACLE OF SUSTAINABLE DEVELOPMENT**

**Aniket Swaraj, Karthik Thangapandi, Keerti Addagatla, Murali Bala, Shruti Kasturi and Mehak Aggarwal**

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**ABSTRACT**

*Innovation means the action or process of innovating or Innovation means a new method, idea, product, etc. Sustainability is the ability to exist constantly. Present research paper explains how innovative practices in startups and MSMEs of the country lead our country towards sustainable development. The purpose of this study aims at analyzing Eco-friendly preference and eco-friendly product quality and their implications on the customer satisfaction either partially or simultaneously. The paper also focuses on various innovations made in the field of startups and MSME's. The researcher is of the opinion that there is a strong need of sustainable and innovative development in startups and MSMEs through proper research.*

*Keywords: Eco-friendly products, Sustainable development, Future generation, Natural Resources, Environment*

**INTRODUCTION**

Sustainability is the usage of resources without making them scarce by reusing it as much as possible for a long period of time. "Natural resources might look plenty but it may get scarce one or the other day". To avoid this Sustainable Development is the need of the hour. Sustainable Development is achieved by 3Rs that is "Reusing, Recycling and Reducing the artificial."

If we follow this 3Rs in our life there is a very low possibility of resources to become scarcity for the future generations. "It is rightly said that we have leased the resources on the earth from the future generation rather considering it as a gift from forefathers." So it's our duty to handover the resources to Future generations without any scarcity for their well being. For attaining Sustainable Development at individual level a person should use products in his daily life which falls under the 3Rs Category. "These products must be more of eco friendly," rather than artificial to fall under the 3R's category so that it's easier to use it for a long term and also possible to reuse or recycle the product.

To connect the gap between the Eco-Friendly products and Consumer many Start-ups have innovated products which are eco friendly or not harmful to the environment "Beco is one such Start-up, which produces products which are Eco Friendly in nature."

Beco was a start-up started by three youngsters 'Aditya, Anuj and Akshay'. It was surprised to know that a 'beach clean up' made this trio to start the start-up. On the day of beach clean up these three people found a plastic wrapper dated 1990's which made them to enlighten the idea of Beco a eco-friendly company they have a very strong vision to save the environment for the future generation by producing eco friendly and sustainable products. The ban of plastic in the state have effectively helped Beco to rise up." Today Beco helps the people to lead a eco friendly and sustainable lifestyle by providing amazing eco friendly products." There products include a wide variety of Laundry, Kitchen and Personal Care Products.

**LITERATURE REVIEW**

The studies undertaken by various other researchers in the past relating to the current research problem that have been reviewed in this chapter. A detailed review has been made to find out the research gap and to identify the researchable issues for the study. Various studies, books and journals have helped the researcher to compare with the present scenarios collected through primary data. The secondary data helped to understand the sustainable and innovative practices taken up by startups and MEME's

1. Sustainability-oriented innovation of SME's: Johanna Klewitz, Erik G. Hansen (2014) In this paper, it was conducted that a systematic review of SOI practices of SME's in order to develop an integrated framework covering a category of strategic sustainability behaviours linked to different innovative outcomes.
2. Drivers and consequences of green product and process innovation: Adeel Tariq, Yuosre F. Badi, Waqas Tariq, Umair Saeed bhutta (2017). This paper main objective was to provide a systematic literature review of studies on the drivers and after effects of green products and processes, with the aim of enhancing visionary clarity and flexibility and advancing theory and research. green process innovation can bring a competitive advantage through improved production processes and better usage of materials, which lowers overall costs, result in greater efficiency. Moreover, green product innovation helps firms to develop new market opportunities and attract new customer.

3. Environmentally friendly as a new dimension of product quality : Kamyar Kianpour, Ahmad Jusoh, Maryam Asghari (2014) The purpose of this paper was to extend the existing dimensions of product quality to cover ecological phenomena. It proposes adding a new dimension – environmentally friendly – to the existing dimensions of product quality in order to solve environmental issues. The results indicated that consumers are more concerned about environmental issues in recent decades, and they responded that eco friendly is an important part of a product along with other dimensions of product quality which should be considered by manufacturers and producers.
4. Green Entrepreneurship: Ik Muo , Adebayo A. Azeez (2019) This research throws light on current views in the field in view of clarifying relevant concepts in green entrepreneurship context. Also, to identify behavioural and performance standards required of green entrepreneurship growth and development
5. Success factors for environmentally sustainable product innovation: Janine Fleithde Medeiros Jose Luis Duarte Ribeiro Marcelo Nogueira Cortimiglia (2014) This research highlights several contributions related to the development of environmentally sustainable product innovation and guide companies to succeed in environmentally sustainable product innovation.
6. Innovations in developing countries : Pedro Gilberto Alois , Janaina macke (2017) This research aims to identify factors that promote or curb eco-innovations in this context by interpreting the impact of these drivers and companies' orientation to innovation. Research analyses drivers of eco innovation in developing countries, especially in free trade zones.
7. Startups and Open innovation : John Christopher, Vincenzo Corvello, Michele Grimaldi (2017) The purpose of this paper was to represent a first step in building a map of the state-of-the-art knowledge of the “start-ups in an Open innovation context” review produced valuable insights for both managers and policy decision-makers. The paper allows a better understanding of the role of start-ups in Open innovation processes. This improved understanding can help managers of corporate firms as well as policy makers involved in Open innovation in making their decisions. This review of the literature represents the first attempt to organize the scientific knowledge related to the intersection between the start-ups and Open innovations.

## **OBJECTIVES**

1. To Study about sustainability and usage of environmental friendly products.
2. To create awareness amongst the people about eco-friendly products and to minimize the usage of plastic products.
3. To motivate people to use eco-friendly products and move towards Sustainable lifestyle.
4. To encourage people to buy eco-friendly products and make them aware that a small change at their level can lead to a big impact in the environment.
5. To encourage start-ups, MSME's to produce eco-friendly products.

## **Hypothesis**

Hypothesis 1:

Null Alternative (H0): People who are not currently using Eco-friendly would shift in future.

Alternative Hypothesis (H1): People who are currently using would not shift in future. Hypothesis 2:

H0: Price and Eco-friendly products are interrelated.

H1: Price and Eco-friendly products are not interrelated. Hypothesis 3:

H0: People think that Eco-friendly products are old fashioned.

H1: People think that Eco-friendly products are fashionable and trendy. Hypothesis 4:

H0: People think that it's time to shift to Eco-friendly products H1: People think it's not to shift in Eco-friendly products.

## **NEED OF THE STUDY**

Even though we believe that Natural Resources are plenty in nature but there is a scarcity of Natural Resources which will lead to threat to the future generation's well being. Soil has becoming infertile due to the dumping of artificial products made of plastics. This study will help to create awareness among the people and also encourage businesses to shift to Eco- friendly products for a better future.

**RESEARCH METHODOLOGY**

Research Methodology is the systematic way of collecting Data. Methodology is of two types Primary Methodology and Secondary Methodology. This Study Includes the both Primary and Secondary Methodology.

Primary Methodology is used to collect data for the first time. Collected data is used and analysed to increase our understanding of a topic. For this study the survey method was used. The survey is customized as per the research. Survey is circulated among individuals using social media platforms like WhatsApp, Instagram, LinkedIn etc. A total of 104 people responded to the Survey.

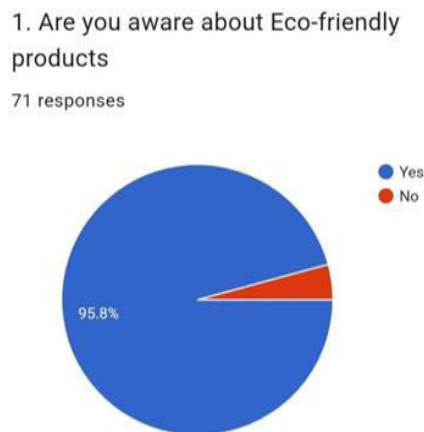
Secondary Methodology is the data collected by someone else and it is used in the research. For this study the data is collected from various websites and articles available on Internet.

**LIMITATIONS**

1. As the data which is collected is from small group of people residing from cities like Mumbai and Chennai which all together do not cover the whole population of India as we couldn't reach to majority of people.
2. The resources had been limited and the research was restricted by time constraints.
3. Lack of personal interaction with the start-up(Beco) was also a major limitation.
4. Visiting the factory was not possible and we were rely on the information provided on Internet. (Secondary data)
5. The Primary data has been collected through online mode so the trustworthiness of the data is not accurate.

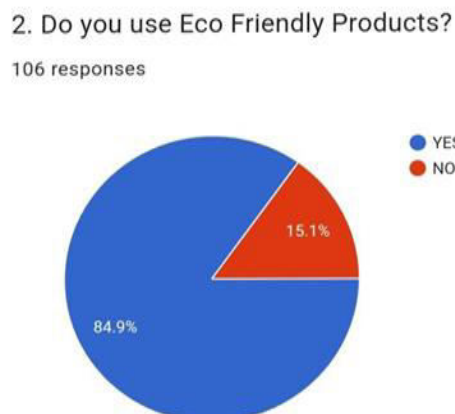
**DATA ANALYSIS AND INTERPRETATION:**

**Figure 1:**



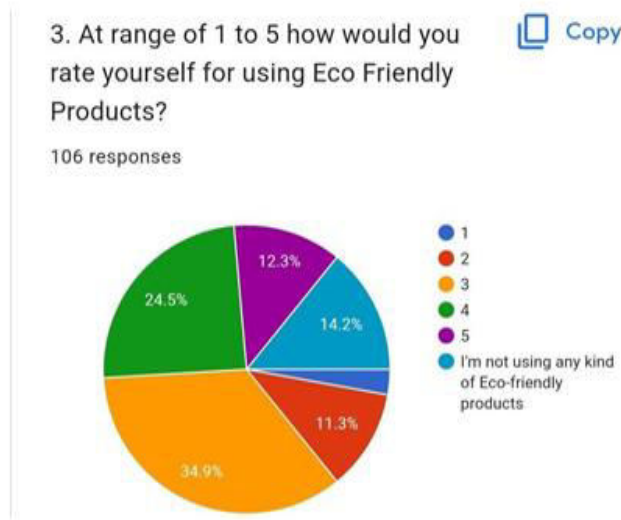
The Pie Diagram shows how many people are aware of eco friendly products From the study of pie diagram that highest number of people among the respondents are aware of Eco friendly products that is 95.8% and least number of people are unaware of eco friendly products.

**Figure 2:**



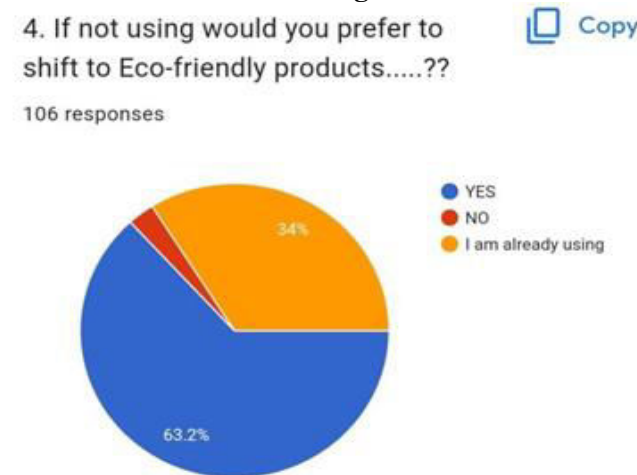
This Pie Chart Shows How many respondents are already using Eco Friendly products It is clearly visible that a mass bunch of people are using Eco Friendly products that is 84.9% of respondents and the remaining 15.1% respondents do not use eco friendly products.

Figure 3:



The Pie Chart shows the Ratings of Respondents of themselves for using Eco Friendly Products. From the study of the pie chart that the respondents highest ratings is 3 star that is 34.9% .Followed by 24.5% respondents rated themselves for 4 stars and 12.3% respondents rated themselves for 5 stars. 11.3% respondent's ratings is 2 star and very least number of respondents rated for 1 star.

Figure 4:



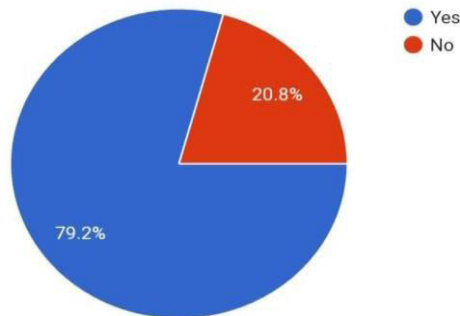
The Pie Chart shows the preference of respondents who are not using eco friendly products to shift towards eco friendly products from a study of the pie chart that a huge number of respondents preferred to shift towards eco friendly products that is 63.2% and very least number that is 2.8% of respondents are not familiar to shift towards eco friendly products.



**Figure 5**

5. Would you prefer to pay more for any products which helps in sustaining environment???(Eco-friendly products)

106 responses

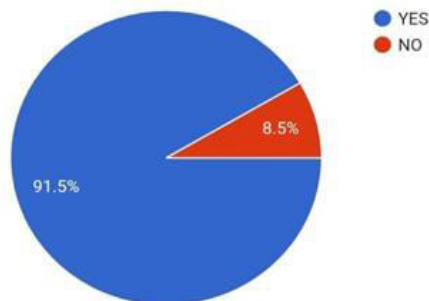


The pie diagram shows the preference of people to pay more for eco friendly products from the study a large number of people among the respondents that is 79.2% are fine to pay more for eco friendly products and 20.8% respondents do not agree to pay more for Eco Friendly products.

**Figure 6**

6. Do you think it's high time to shift to Eco Friendly Products?

106 responses



The pie diagram shows the respondents opinion of high time to shift towards eco friendly products from the study a large number respondents that is 91.5% agree that it's high time to shift towards eco friendly products and 8.5% respondents disagree with the statement.

**RECOMMENDATIONS**

**1. Constitute brand position**

When customers see that you're taking steps to be more eco friendly they are more likely to collaborate with your company with being accountable and punctilious so to gain advantageous position.

**2. Solicitude Why Sustainability is necessary?**

At time where society is becoming more aware of their impact on the environment their collective movement towards a sustainable future is leading to huge changes in the start-ups and MSME's.

**3. Generate a Green Group**

A Green Group is a brunch of workers missioned on the agenda with ideas and master plan to minimize the company's environmental influence. The green group is usually accountable for research, planning and implementing initiatives to construct a company more renewable. Ensuring the team has the resources to prosper such as budget, and access to decision-makers Eventually motivate employees to develop inventive solutions and keep abreast of ongoing sustainable practices relevant to your start-up.

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**CONCLUSION**

Sustainable Development is a development which maintain the stability of environment in a required way it deserves by protecting the natural resources and conserving them for Future Generations. Eco-friendly products plays a vital role in Sustainable Development. Eco friendly products are often made from natural, organic ingredients which do not harm any person's lifeand health and also protect our planet Earth. Using Eco-friendly products can help support businesses that are committed to social responsibility and can sustain for a longer period of time. Our research says that many people are ready to shift towards eco-friendly products which can make a good difference in the surrounding environment. By producing Eco-friendly products a company helps to grow themselves and also uplift the society. By adoptingsustainability in their business model a company can achieve economic growth as well as environment is protected. Our Study states that many People among the respondents are alreadyaware about eco friendly products and using it and a large number of respondents are also familiar to shift towards eco friendly products so we recommend that the upcoming Start-ups or MSMEs to have significant principles of Sustainable Development and Eco-Friendly Products by which they can achieve their goals by following Sustainable Development. Therefore, A Sustainable green economy is the need of time, and eco-friendly products can play a decisive role in this goal.

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**DOES UPCYCLING SHOES HELP IN CREATING A SUSTAINABLE ENVIRONMENT**

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**Aniket Swaraj, Tanushree Muthukumar, Dinesh Kumar Mani, Priyanka Naidu, Ramalakshmi Konar and Kohila Thevar**

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**ABSTRACT**

*The primary causes of environmental deterioration are the economy's current rapid growth and global patterns of consumer demand and behavior. As the state of the environment worsens, it has gained widespread attention in rich nations and has recently sparked the green movement in developing nations. This analysis has been done to show that we can convert into vegan products. The movement toward vegan and environmentally friendly items in the country will be examined in this study report. This work uses both primary and secondary research techniques and is exploratory in nature. The research paper's findings show that although the business sector was the most severely affected by the pandemic, there will be an increase in demand for such products in India in the near future. The group members honest goal in writing this essay was to determine how the epidemic affected consumers' decisions to buy vegan and sustainable products. However, after purchasing green products, people act less benevolently and are more likely to cheat and steal. Our findings show that consumption is more broadly linked to social and ethical behaviors than previously thought.*

*Keywords - Vegan shoes, sustainability, recycled shoes, eco- friendly, environmentally friendly*

**INTRODUCTION**

When individuals discuss the term 'vegan', they often mean abstaining eating meat, dairy, eggs or eventually any animal derived products. Mr. Donald Watson and his then future wife, Ms. Dorothy Morgan first used the word 'vegan' in the year 1944. 'Veganism' is characterized as a way of life that makes an effort to shun using animals in a way, whether it be food, clothing or any other needs. A vegan shoe is one that wasn't created with any animal components. Products that have undergone animal testing are also excluded. Numerous components commonly used to make shoes, including leather, wool, fur, and several glues, are not included in this. Fortunately, there are more possibilities for vegan footwear now than ever before. In addition to synthetic leathers being used often in all sorts of footwear, material technology has evolved, making all-synthetic or predominantly synthetic material shoes more widespread, particularly in footwear for active lifestyles. According to Greensole, Vegan footwear is typically thought to have a lower carbon footprint. Greensole upcycles used shoes into cozy footwear gives them a second chance at life. The non-biodegradable shoes are kept out of landfills and the procedure reduces carbon emissions. These processes keep the shoes environment friendly and creates a sustainable fashion, because that's what people love in this generation.

**STATEMENT OF PROBLEM**

Human-made footwear is an article of clothing that covers and shields the foot, including the soles. People may walk on uneven areas like gravel roads without harming their feet thanks to footwear. Boots are one example of a form of footwear that preserves people's feet warm or dry in cold weather.

- Left over materials: materials that were left over and were simply thrown away by the factory since they were no longer needed. The fact that all of these fresh and unneeded parts end up in landfills is startling.
- Disposals: one of the sites where pollutants from the factories are dumped. It is full of toxic pollutants that are very harmful to the health of any organism.
- Carbon emissions: Our atmosphere is being flooded with a lot of carbon dioxide and other contaminants. One of the main causes of global warming is these greenhouse gases from the shoe industry.
- Biodegradation: A shoe's biodegradation could take anything from 25 to 1,000 years. Leather shoes require 25 to 40 years to decompose while natural materials take 25 to 80 years. Rubber shoes can take 50-80 years to break down. It can take up to a thousand years for synthetic materials composed of plastic to degrade.

**LITERATURE REVIEW**

Zhang Zulin, Wei Xiang, Wu Huaqiang, Wang Qian, Zheng Weigang and Tang Xian (2018), from Hubei, China, stated the benefits of recycling and upcycling old shoes, in their paper, titled, "The present situation of the old shoes recycling and the existing old shoes treatment method" published in the journal "Journal of Physics: Conference series". The researchers found that in keeping with the current policy background of energy saving and emission reduction, discarded shoes are recycled and repurposed for other products, such as rubber particles used in road laying, which increase road noise reduction, anti-skid, and other performance. Think about

domestic shoe recycling. Not only does it require government policy support, but there is a long way to go. Building various types of infrastructure, but also providing financial support to companies who recycle used shoes, boosting business productivity, or pressuring manufacturers of footwear to create their own industry chain for product recycling.

Mark Esposito (Harvard University Extension School), Terence Tse (Professor of finance at ESCP Europe), and Khaled Soufani (senior faculty in management practice economics) (2016), produced a journal, named, "Companies are working with Consumers to reduce waste", published in the journal "Harvard Business Review". Their research includes that There are other factors at play than just money that might help build a better bond between the retailer/producer and the consumer. One can generate customer loyalty based on shared values and duties by raising awareness of your waste reduction efforts and building a culture of responsibility, repair, and reuse.

**OBJECTIVES**

- To spread and make people practice the concept of recycling shoes.
- To reduce landfilling that occurs due to improper disposal of torn and used shoes.
- To make people use recycled and vegan shoes that are made from animal-free products.
- To reduce CO2 (carbon) emission released by normal shoes.
- To encourage more companies to start producing animal-free and sustainable shoes.

**RESEARCH METHODOLOGY**

In this study, a combination of both Primary and Secondary data has been used. Primary data: used in the form of Questionnaire method, which has been created using Google forms and distributed among Internet and Social media users. Secondary data: it has been used to support the study. The research is conducted to make people understand the concept of Vegan and recyclable shoes for a sustainable living. The primary research is used to understand people’s perspective and their knowledge about sustainable shoes.

**Data Analysis and Findings**

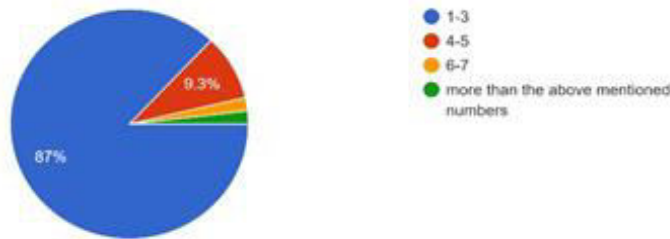
Question	Options	Percentage	Count (Respondents)
Age	-15-25	88.9	48
	-26-35	3.7	2
	-36-45	5.6	3
	-45+	1.9	1

How many shoes do you purchase a year?	-1-3	87	47
	-4-5	9.3	5
	-6-7	1.9	1
	-More than the above-mentioned numbers	1.9	1
When shoes are worn out, what do you do?	-Sew it or stick it with a glue.	61.1	33
	-Throw it in the garbage	25.9	14
	-Give the shoes to someone else.	13	7
Are you aware of the fact that shoes are recycled and made into new and good conditioned shoes?	-yes	61.1	33
	-no, never heard of it.	38.9	21
Have you ever participated in shoes recycling activity?	-yes	7.4	4
	-no	92.6	50
Are you familiar with the term vegan?	-yes	46.3	25
	-no	18.5	10
	-heard the word, but don't know what it means.	35.2	19

Did you know that shoes can be vegan? That is, made without any animal extracted materials.	-no, hearing it for the first time.	44.4	24
	-yes	55.6	30
Do you think recycling shoes and using vegan shoes help us build a sustainable environment?	-yes, strong belief	75.9	41
	-no, I don't think so	24.1	13

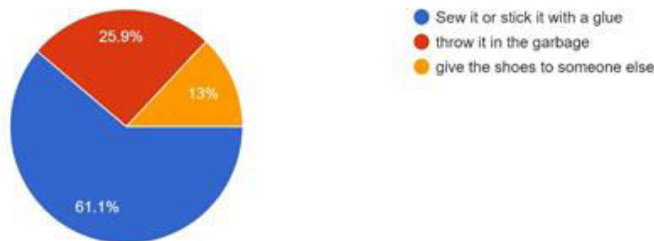
**Intepretation of the Data**

How many shoes do you purchase a year?  
54 responses



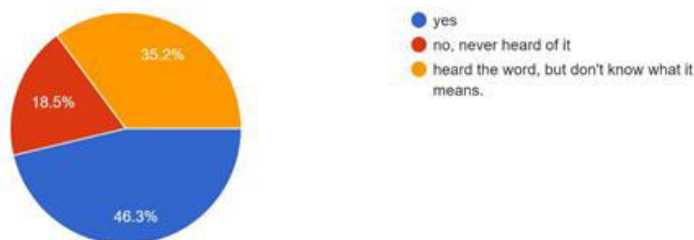
The demographic profile of the respondents is depicted in the table above. The number of shoes majority of the population purchases is between 1 to 3. In the table, 87% people have responded to be buying shoes between the quantity of 1 to 3.

When shoes are worn out, what do you do?  
54 responses



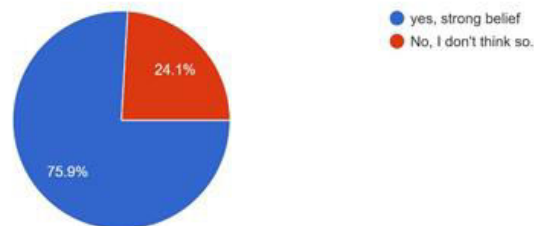
According to the survey, 25.9% of people throw the shoes in the garbage, which shoes that there are chances of landfilling, which might lead to improper disposal of the shoes.

Are you familiar with the term "vegan"?  
54 responses



53.7% of people don't know the meaning of the word vegan, out of which 18.5 people have never heard the word before. The previous findings, bring in a conclusion that maximum part of the respondent isn't aware of shoes being recycled or about vegan shoes being produced.

Do you think recycling shoes and using vegan shoes help us build a sustainable environment?  
54 responses



But, from the responses received, it at least proves that a lot of people want to adopt the idea of upcycling shoes and using vegan shoes, since it is believed that they help in the sustainable development of the society.

### RECOMMENDATIONS

- The number of people converting into vegan is increasing day by day. The western culture has brought in a dramatic change in their lifestyles. In India, even though the number is less, but citizens are at least aware of the term.
- Children should be taught about recycling shoes and its uses of sustainability by teachers and parents, in order to ensure proper disposal of the used and torn shoes.
- Awareness about recycled shoes is being spread in the internet and social media. But there is quiet less. More people should be educated about vegan shoes.
- If more people start giving their shoes for recycling, land filling could be avoided, since shoes are not easily degradable.

### CONCLUSION

Our way of living and level of comfort shouldn't in any way jeopardize the environment. The global buildup of 35,000,000 pairs of abandoned shoes has been resulted from the era of purchasing at least three new pairs of shoes each year. An average pair of shoes produces roughly 30lbs of CO<sub>2</sub> emissions during the manufacturing process. By utilizing leather, rubber, and other non-degradable materials in our footwear, we citizens have forgotten to consider our "Mother Earth" in our focus on trends and fashion. Greensole

Take away: The interpretation of our research glistens the significance of Reuse, Reduce & Upcycling

- Reuse the discarded shoes and make new footwear.
- Reduce the emission of CO<sub>2</sub> into environment.
- Upcycling of discarded shoes by giving them a second life.

Vegan Product: The majority of shoes are fashioned from animal skins, including those of goats, sheep, calves, pigs, etc. According to our observations, goat skins are primarily used in Mumbai to make shoes. By using vegan products made of mushrooms, bananas, apples, and even cactus, we can put an end to this savagery.

Comparatively less water is used in the production of vegan leather than in the production of genuine leather.

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<https://simple.wikipedia.org/wiki/Footwear>

**ECOKAARI: A SUSTAINABLE SOLUTION FOR ENVIRONMENT VIABLE FASHION**

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**ABSTRACT**

*This research paper gives a brief information about how plastic can be recycled using the traditional method using charkha and handloom. It shows the unique idea taken by the enterprise of using the wrappers of chips, video cassette etc woven into fashionable handbags, wallets, pouch, backpacks, home decor by the artisans known as (kaarigar). "Eco- Kaari" as it suggests the relationship of the artisans with the environment. This study tells us that even the waste plastic by using different methods can be modified into fashionable accessories. Two lakhs' pieces of plastic being recycled by the enterprise. This initiative enlightens rural women empowerment and gender equality. A survey was conducted using the questionnaire method consisting of 8-10 questions which was made with the help of google form it revealed how consumers react and accept to the green product and even the amount of knowledge the consumer has on such green businesses.*

*The enterprise started various donation camps by asking for plastics and providing awareness how can we as an individual contribute to mother earth.*

*Keywords: Upcycling, Single use plastic, Green Consumerism, Green Product.*

**INTRODUCTION**

Plastic pollution, which endangers not only humans but also marine organisms, is the world's most serious threat. According to many reports, India generates approximately 9.4 million tonnes of plastic waste per year, out of which approximately 5.6 tonnes are recycled, and the remaining 3.8 tonnes are littered. A comprehensive overhaul of the supply chain is known as the circular economy, in which materials are continually cycled rather than moving linearly from use to waste. To reduce waste streams and close resource loops, these circular business concepts. However, some people are attempting to address this concerning situation in novel ways, in which resources do not flow linearly from usage to disposal, but instead are cycled perpetually. The social enterprise start-up "Eco-Kaari" also working toward a more sustainable world by "upcycling" non-biodegradable and difficult-to-recycle plastic bags, chip wrappers, glittery gift wraps, and old audio and video cassette tapes, grocery bags, multi-layered cookie. Our craft skills have historically prioritized upcycling, material optimization, and waste reduction since many millennia ago. "Eco" denotes "eco-friendly," and "Kaari" denotes "Kaarigar" (Artisan). The name is a representation of the interconnectedness and dependence that exists between artists and the environment. The environment has consistently served as an inspiration for India's handicraft history, and Mother Earth has always played a significant role in our daily life.

Both the large-scale waste collection company and conscientious individuals who give their domestic waste plastics are sources of waste plastics that Eco Kaari gathers. After the waste plastic has accumulated, it is cleaned with a biodegradable cleaner, and care is taken to use as little water as possible to prevent waste. The collected plastics are then hand cut into strips after being cleaned and sun-dried. Then, using a handloom and a traditional charkha, these strips are rolled out to create fabric. The eco-friendly items are then created using these textiles and sewed together. It is then woven into fabric on a handloom before being designed and stitched into one-of-a-kind eco-friendly fashion accessories, handbags, home decor items, laptop bags, planters, tissue holders, and many other items.

Eco Kaari currently recycles 2 lakh pieces of used plastic every month. "We take into account and respect the values of our people, our earth, and our communities while we create our eko items." - Nandan Bhat (founder of ecokaari). EcoKaari uses a Charkha (spindle) and a handloom to recycle waste plastic into lovely handwoven fabrics. Women and young people from low-income families HANDWEAVE these materials. We want to develop and offer sustainable alternatives by fusing conventional Indian crafts with our UPCYCLED-HANDWOVEN materials in modern patterns.

**LITERATURE REVIEW**

**H Dijkstra, P van Beukering, R Brouwer (2020)-** This study concentrated on recycling and producing value from waste, and those who develop bio - plastic as well as business strategies that aid in sustainable plastic management are reviewed, with new directions for research suggested.

**Carla Binotto & Alice Payne (2017)**- This study is linked to guilt and damage, which ought to be avoided through better practises and processes. Another viewpoint considers waste to have potential for beauty and symbolism. In developing a rich and meaningful engagement with waste and its meanings within fashion exercise, both rational problem-solving approaches and lyrical waste reflections are essential.

**Y Chen, AK Awasthi, F Wei, Q Tan, J Li(2021)** - This study fully depicts the situation in various parts of the world, such as those affected by single-use plastic, as well as case solutions. It also demonstrates a general increase in the use of single-use plastic packaging, as well as its consequences and solutions. The purpose of this article is to provide an overview of global SUP production as well as identify environmental impacts from poorly managed SUPs.

**A do Paço, C Shiel, H Alves (2019)**– This study aims to investigate the connections between a few constructs to develop a model for green consumer behaviour based on a different set of purchasing behaviour antecedents: a prosocial attitude, the value placed on green, and green communication. as well as state Several green consumer behaviour models based on traditional concepts have attempted to explain the relationship between green attitudes and individual behaviours related to green consumption.

### **OBJECTIVES**

- To learn about the impact of single-use plastic packaging.
- To study how plastic can be recycled for businesses
- To analyse pros and cons of reusing plastic
- To know what people, think about green consumerism.
- To promote gender equality

### **LIMITATION**

- The study had done with small number of participants.
- Instead of having a face-to-face discussion, a survey was conducted using a Google form.
- The study's findings were based on the assumption that respondents provided honest answers.
- The information gathered is limited to the city of Mumbai.

### **SIGNIFICANCE OF NEED**

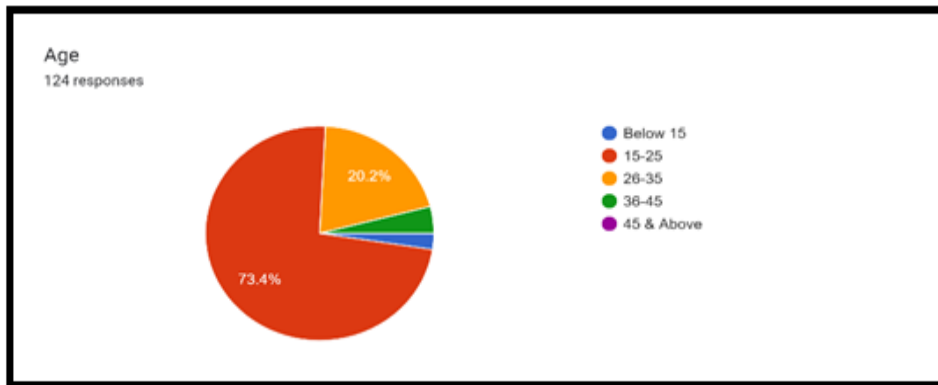
Plastic is well-known for having a negative impact on our planet, but it is also very important in our daily lives. Otherwise, due to the large population, it is difficult to provide environmental products to everyone. Reusing plastic for commercial purposes would be very promising and feasible for global sustainable development. As a result, this research is conducted in a straightforward manner with the goal of analysing and comprehending the various parameters of reusing plastic. It will also help to recognise business opportunities with Eco Kaari's green and innovative sustainability, as well as enlighten rural women empowerment and gender equality. This study will be beneficial to future generations and will appreciate green consumerism.

### **RESEARCH METHODOLOGY**

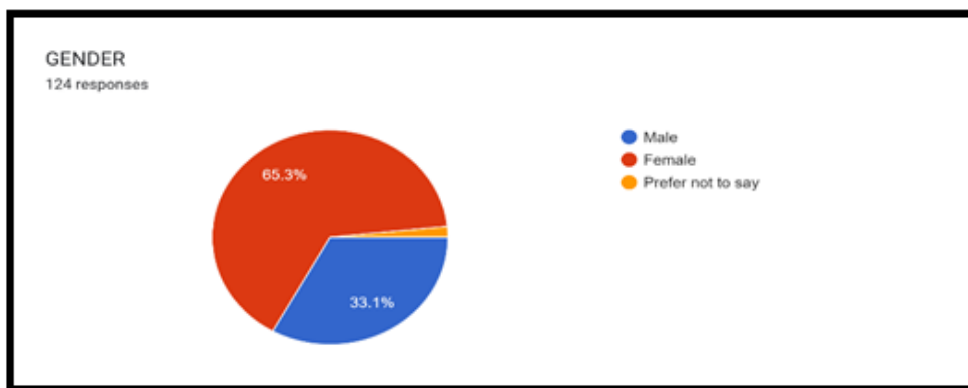
This research was focused to innovate and present Sustainable Alternatives by pairing traditional Indian crafts with Upcycled-handwoven fabrics with contemporary designs. While research being descriptive in nature, Research was conducted in a mixed form to make precise analysis and establish an accurate relationship between variables. 'Recyclation of waste plastics' and 'innovative practices by start ups' are the two-variable established wherein plastic recyclation(independent) and the process of attaining sustainability through innovative practices(dependent). The Primary data for research was achieved using a survey form which was circulated as a Google form. The form consisted of multiple-choice questions which asked for the form filler's opinion on the topic, whether they are open for spending extra amount for Eco-friendly products, their opinion about the pricing, how often they buy green products, their preferences. The Survey form was circulated for 1 week and 124 responses were collected. Convenience Sampling method was performed. Edited and Filtered data was made use of for required information. Graphs and Pie charts were used to interpret the data acquired from the Google forms. The analysis was carried found on the results which were exhibited accurately. Several Blogs, Articles & Prospectus were utilised as reference.



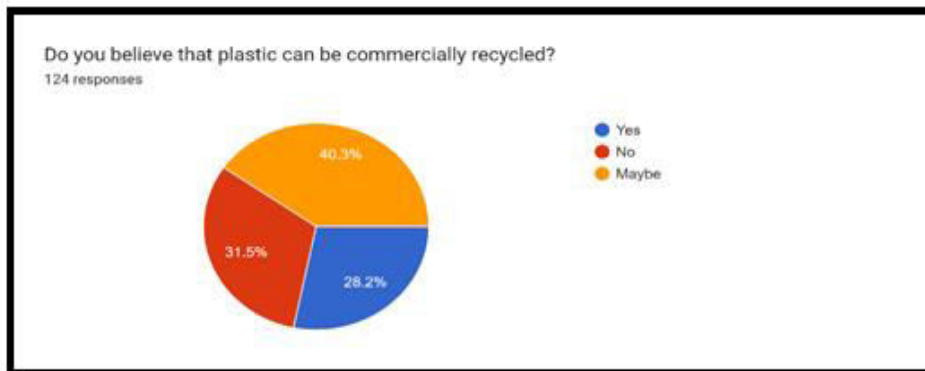
DATA ANALYSIS AND FINDINGS



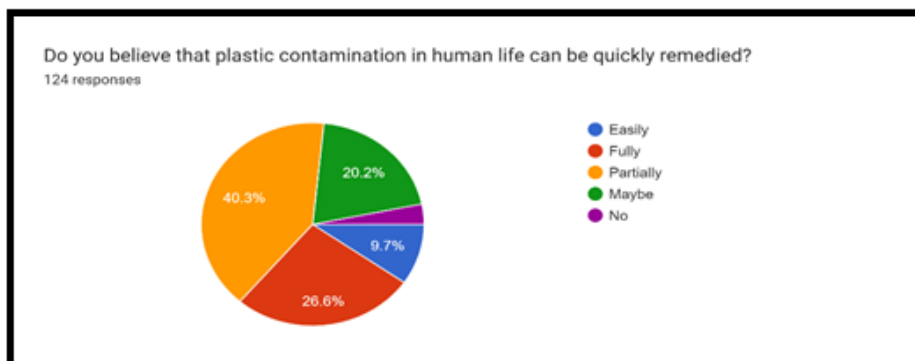
**Fig.1** Inference: The above data shows most of the respondents were teenagers i.e., 73.4% and some by the middle age group i.e., 20.2%. This shows younger generation response more than older.



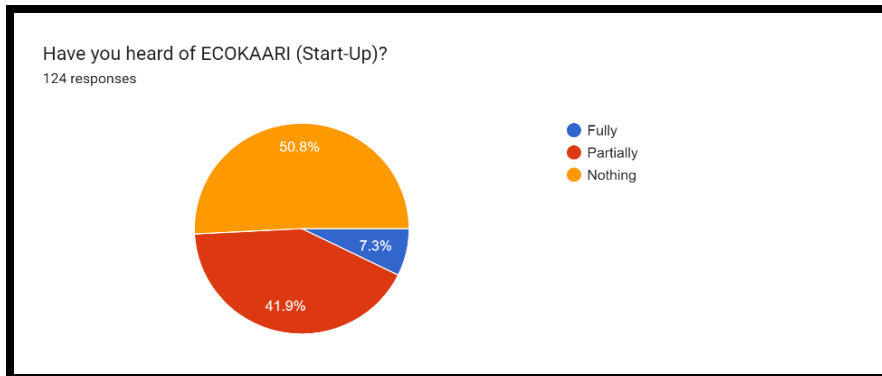
**Fig.2** Inference: From fig 2 It can be stated that most of the respondent were females (65.3%) than male (33.1%). Which denotes females are more interested in green consumerism and sustainable fashion.



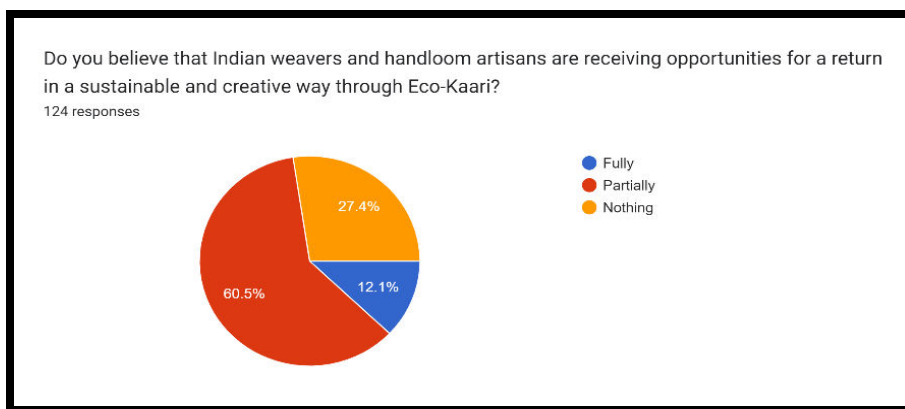
**Fig.3** Inference - In this case, 31.5% of respondents say plastic cannot be commercially recycled, while 28.2% say it can and others say it may be with a majority of 40.3%. It demonstrates that there is a significant shift in perception regarding green consumerism.



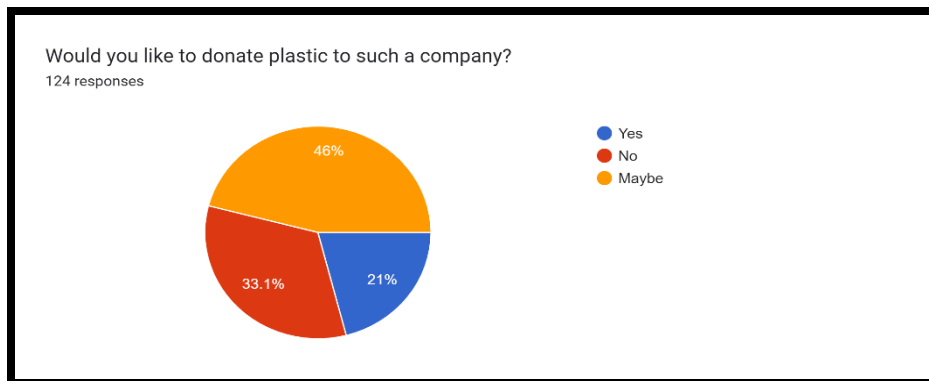
**Fig.4** Inference - Figure 4 shows that 40.3% of respondents believe that plastic contamination in human life can be partially remedied, while 26.6% believe that plastic completely contaminates human life.



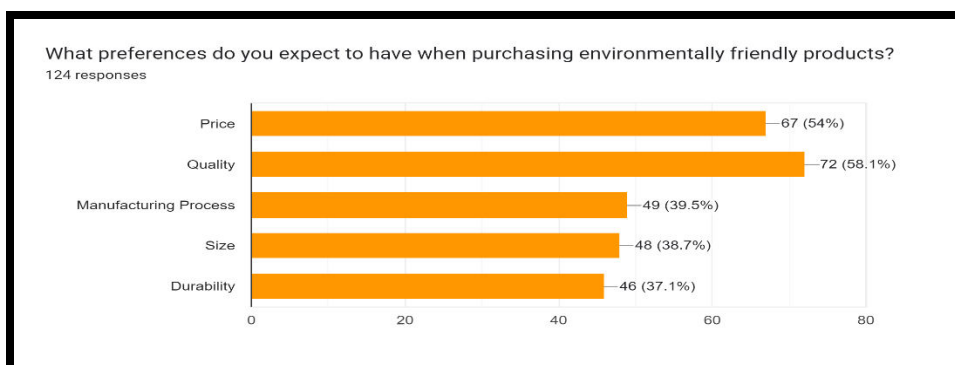
**Fig.5** Inference: 50.8% of the respondents are not aware of the Eco-Kaari enterprise, only 7.3% are aware of it. 41.9% are partially aware of it (may be only by name)



**Fig.6** Inference - Fig.6 indicates about the Indian weavers and handloom artisans are receiving the opportunities from Eco- Kaari i.e., 60.5% of the people says it is partially possible that the artisans can receive opportunities in creative way. On the other hand, 27.4% and 12.1% stands for nothing and fully respectively.



**Fig.7** Inference: - Figure 7 shows that 33.1% of respondents are unwilling to donate plastic to other businesses, while 21% want to donate in the future to help the environment.



**Fig.8**

Inference: From the above given bar graph respondent perception green product pricing should: -

Home Decor & Handbags - Premium price

Backpack And Sleeves- Medium price

Wallets/Pouch- Premium price/ Medium price/Low price

Carry Bags - Cheap price

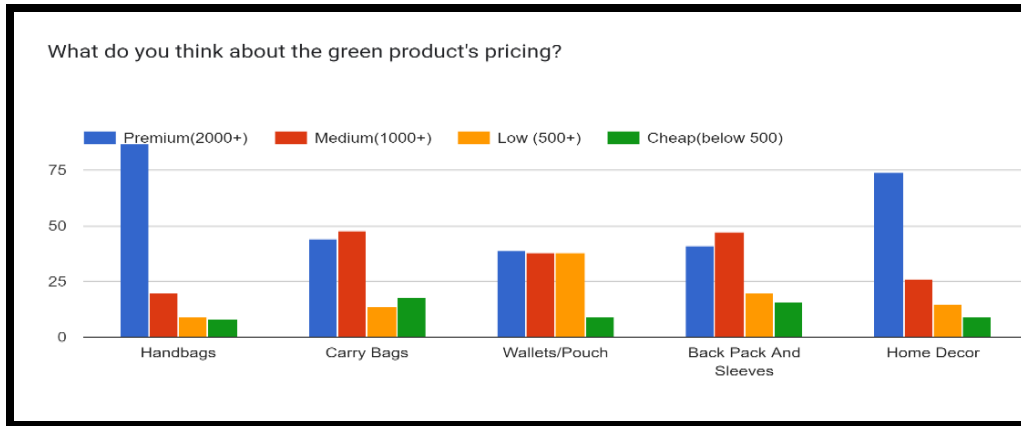


Fig.9

Inference: - According to consumer preferences for purchasing environmentally friendly products, quality is the most important factor, accounting for 58.1%, followed by price (54%), manufacturing process (39.5%), size (38.7%), and durability (37.1%).

The graph above shows that when it comes to purchasing a sustainable product, price and quality are two of the most important factors for the consumer.

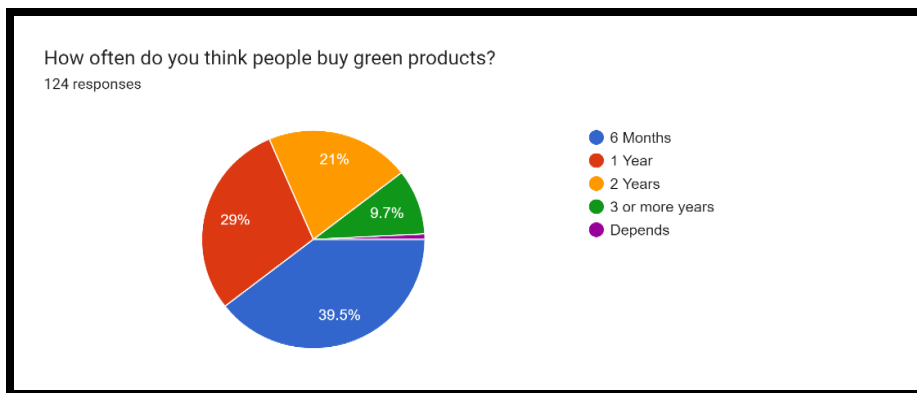


Fig.10

Inference - As per above given pie chart mass of the respondent changed their product after every 6 months and some by 1 year.

This demonstrates the consumer's perception of durability when they consider changing their item on a regular basis.

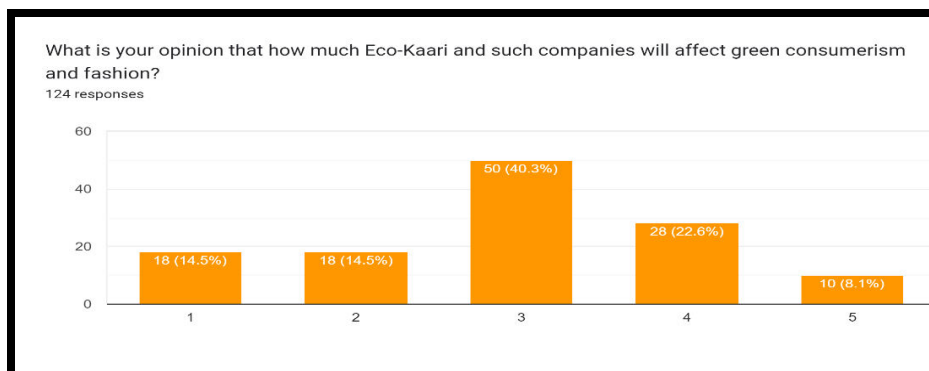


Fig.11

Inference - Figure 11 shows that companies like Eco-Kari will have a small but significant impact on green consumerism and fashion (range 3). This shows that it is only the beginning of green consumerism and sustainable fashion, which will have a significant but also long-term impact if the product meets all the parameters of sustainable development.

**Secondary Data Analysis:** "Women artisans convert plastic wrappers into bags, netizens laud the initiative" - (HINDUSTAN TIMES). As it is seen that many people those are aware of ecokaari loves their concept, but also from some of their online reviews (secondary data) it is found that they must work on product design by educating the local artisans about the current trends and fashion.

### **SUGGESTION**

They may concentrate on offering eco-friendly (recycled plastic) packaging materials to businesses and the government, which would give them enough money to increase manufacturing of their eco-friendly clothing items and to promote them to a wider audience.

This might also lead to a decrease in the product's selling price, making it more accessible to the general population. They might sign up for government assistance to make their initiative programme even easier. They might capitalise on the rising conservationist movements around the world to grow their clientele. They should expand and improve their green marketing to gain a hard image in the market by opening a small virtual shop or workshop in a densely populated area of green consumerism in India. This will help them manage their supply of single-use plastic collection. In some areas, they can provide separate dustbins for easily collecting single-use plastic. They could join hands with environmental Institute to increase their reach for collection of waste plastic from various regions.

### **CONCLUSION**

As per our research, and all the data we have conducted through our survey, majority of the people believe that plastics cannot fully be remedied, or we cannot find a solution to solve the problem of plastics at a greater extent. The main reason we found for this belief is that people don't even know companies which deals with such problems, if people are made aware of companies like Eco Kaari which converts plastics into fashionable products, and show them what they do, how they do the work etc., Their perspectives might change and they come forward to not only investing in the companies but also helping in solving problem of plastic which harms the environment and contaminate human life.

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**INNOVATIVE PRACTICES BY ZERODHA FOR SUSTAINABLE DEVELOPMENT**

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**Fleur Fernandes and Sweety Dudyala**

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**ABSTRACT**

*Technology has changed the mechanism of world from past few decades. Financial sector has evolved from traditional ways of providing services till today. All organizations and companies are adopting internet-based technology to provide their services to customers. Due to digitalization people are getting more aware about the various financial services and companies. Online trading platforms like zerodha came into existence to provide barrier free services to retail traders and all the investors. Which today acquires more than 1 crore users. Research is done through collecting secondary data and online google form survey in convenience sampling method. It was found that existence of zerodha has brought changes in way people use to invest and that it will make a sustainable future.*

*Keywords: Online Trading, technology, zero brokerage*

**INTRODUCTION**

Technology has come a long way in the financial industry. Since the traditional method of providing financial services to internet based one. The industry has been evolving at a very fast pace and today almost everything is online. Back in 2010, Nithin Kamath along with Nikhil, founded Zerodha an online brokerage firm. The company was started with a team of five people. Zerodha is derived from sanskrit word rodha which means "obstacles". The name zerodha means "No Obstacles". By keeping the same thing in mind the company aimed to provide zero commission trading to consumers and yet generates revenue through business model.

Interestingly, trading is provided free of cost at his stockbroking firm if the period of holding for shares is longer than a day. They make money by charging a flat fee of Rs. 20 for futures, options, and intraday trading. While other competitors charge much more than this which is based on the percentage of a transaction traded. Its business model on which it works is 'low margin – high volume'. In order to stay competitive, the firm launched many products to expand its reach and to overcome some challenges they were facing. Below is a brief on what each product provides:

**Console:** It is a central dashboard of a customer's account with Zerodha that will provide in-depth reports and visualizations to get more insightful ideas.

**Kite:** It is a sleek trading and investment platform using the latest technologies. It eases the customer's experience to trade and transact in the stock market.

**Kite Connect API:** This is mainly focused on independent traders and startups to enable them to build an innovative trading and investment platform. Using algorithms, retail traders can automate their trades.

**Sentinel:** A platform that enables you to create market alerts. The alerts can be customized based on price, trade quantity, and open interest. The interesting aspect of this product is that you do not need to be zerodha customer in order to use sentinel.

**Z Connect:** This is a blog facility regarding stocks, trading, and investment with Zerodha. They publish articles and information on this blog and any user is allowed to ask questions and post comments.

**Varsity:** One of the challenges faced by this firm was that it lacked in providing research services to its customers who are sometimes clueless about what and when to buy or sell. To overcome this, they come up with Varsity that gives a vast collection of stock market lessons on the go.

**Coin:** It provides a commission-free purchase of mutual funds directly delivered into the customer's Demat account.

**Rainmatter:** It is an incubator that provides funding as well as mentorship to startup companies in capital markets and gives a minority stake in the exchange.

In addition, Zerodha has also partnered with a lot of leading stock market platforms and portals like Streak, Sensibull, etc to create more value for their clients. The firm has ever since been growing based on the principle of Technology first by bringing valuable services to the customers. Interestingly, the firm has spent little on marketing and the growth has been riding on the back of customer satisfaction.

**LITERATURE REVIEW**

In this study titled ‘Risk and Return analysis of zerodha’ The aim is to study best investment options available in mutual funds. Primary data is collected through a detailed personal interaction with managers and other department of the company and secondary data is also collected. Before investment in any funds investors are suppose to do industry analysis, company analysis and company financial statement analysis (Dr Bhadrappa Haralayaa, 2018)

In this study titled ‘Zerodha -A success story’ the aim is to understand the effective business model of zerodha . Secondary data has been collected. The firm growing is based on the principle of technology first by bringing valuable services to the customer ( Archit Garg, Ashish Gupta, Garima Maheshwari, Ankur Sinha, Anish Sugathan, 2018)

The paper titled “A study on online trading system in India” the purpose is to study the challenges in online trading in India. The research is based on the secondary data collectedthrough various sources. In year 2019, the first- time user of online trading increases acrossvarious organisations. Contribution to capital market is very important, it reduces the gap between capital deficit and capital revenue (Sandeep Sharma, Nilesh Anute, Devyani Ingale, 2021)

In this study titled “A study on customer awareness towards online trading “the aim is to know the people perception regarding the online trading. The stock business of online trading businesshave been increasing since it’s existence in India. Major reason for customers to invest in onlinetrading is its conveyance and user friendly (N. Renuka, 2017)

**OBJECTIVES**

1. To study how zerodha runs on zero brokerage business model.
2. To understand how zerodha brought online trading culture in India.
3. To study how technology as helped zerodha for expanding their business.

**Hypothesis**

**H0:** People do not trust that zerodha has contributed 15% of retail order volume inIndia

**H1:** People trust that zerodha has confirmed 15% of retail order volume in India

**H0:** People are not confident to invest their money in zerodha.

**H1:** People are confident to invest their money in zerodha.

**H0:** Zerodha will not sustain in the future market.

**H1:** Zerodha will sustain in the future market.

**H1:** There is a significant difference regarding the future survival of Zerodha among males andfemales

**Ho:** There is no significant difference regarding the future survival of Zerodha among males andfemales

	<b>Males</b>	<b>Females</b>
Mean	3.86	3.65
S.D.	1.004	1.004
T- value	0.93315	
P- value	.353294	

Result: Ho is accepted. There is no significant difference regarding the future survival ofZerodha among males and females

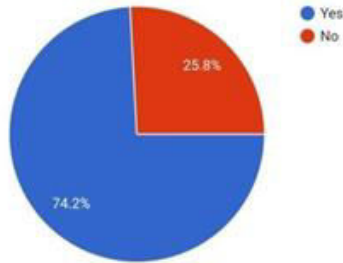
**RESEARCH METHODOLOGY**

The research is conducted through Secondary data collection and questionnaire method. Secondary data is acquired from websites, journals, articles, blogs and news. The online googleform survey method was used for collecting 89 responses through convenience sampling method it was conducted on 19<sup>th</sup> December,2022 to determine the impact of online trading through zerodha.

DATA ANALYSIS

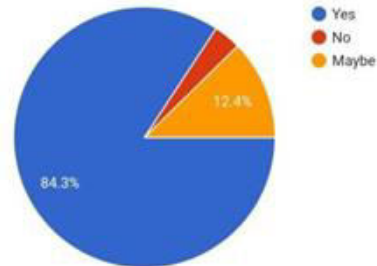
Do you invest?

89 responses



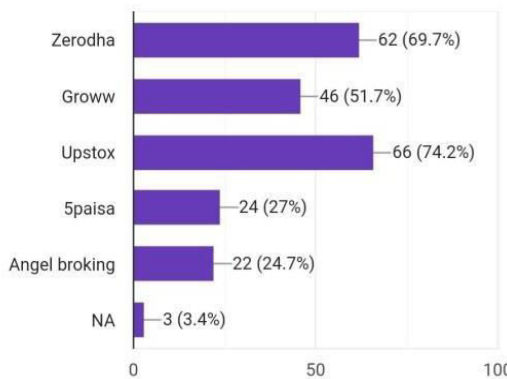
Are you aware about online trading platform?

89 responses



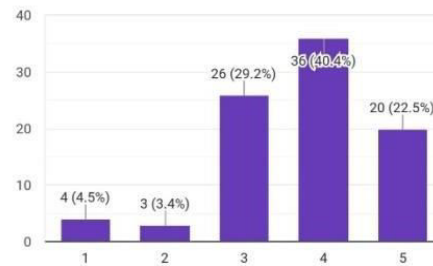
Which of these online trading platforms you have heard before?

89 responses



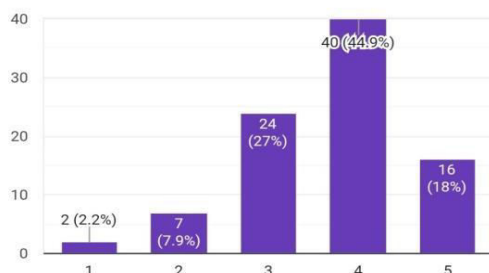
Zerodha has more than 1+ crore client base who contribute to over 15% of all retail order volumes in India daily by trading and investing, how much are you confident in this company?

89 responses



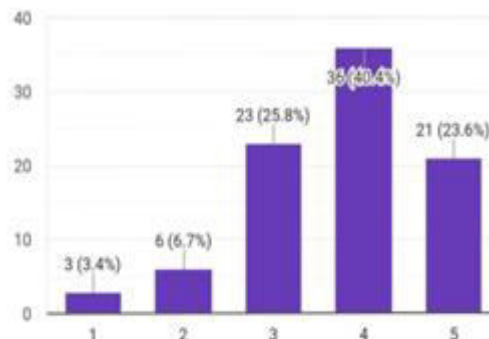
Zerodha charges ₹ 0 brokerage for equity delivery trades and direct mutual funds. For intraday and F&O, it charges flat Rs 20 or 0.03% (whichever is lower) per trade. With Zerodha, the maximum brokerage you pay for any transaction is Rs 20 for an order (of any size, amount or segment). Do you feel confident in this company to invest?

89 responses



How much are you confident about company like zerodha to survive in future?

89 responses



**FINDINGS**

The data has been collected through 89 respondents from both male and female

1. It is found that 74.2% of people invest their money and almost 25.8% people have not done any investment so far.
2. It got to know that almost 84.3% of the respondents are aware about the online trading platforms which are available in the market and 12.4% are those who have maybe heard about such platforms but not sure about its existence just 3.3% are those who don't know anything about it.
3. It is found that Upstox is more well-known among people than Zerodha. Almost 66 respondents know about Upstox and 62 of them know Zerodha, where Groww is known by 46 of the respondents. These three have been the most known online trading platforms than others. 5Paisa is known by 24 respondents and Angel Broking by 22. Among all the respondents three were those who didn't hear any of this online trading app.
4. It is found that 62.9% of the respondents are confident that Zerodha has contributed to over 15% of all retail order volumes in India daily by trading and investing.
5. It is found that 62.9% of the respondents are confident to trade and invest their money in stocks, mutual funds and intraday trading through Zerodha.
6. It got to know that more than 64% of the respondents are sure that Zerodha will make a sustainable future ahead.
- 7: In all 3 cases of Hypothesis it is found that Null Hypothesis (H0) is rejected and not significant that's why Alternate Hypothesis (H1) is been accepted.

**RECOMMENDATIONS**

Since Zerodha has been in market for more than 10 years and it is mostly online service provider company and there is no offline support branches for their customers to solve queries it is suggestible for them to offer an offline customer support and ensure customer interest. Zerodha does not provide any advice or information related market moments to its customer to decide on what to buy or sell which will be a huge challenge to tackle in a long run. Today there are many competitors for Zerodha who offers somewhat the same services like Groww, Upstox, 5 paisa and Angel Broking it's time for Zerodha to come up with new business strategies and modify the business model to sustain in the market. Zerodha has never made a strong advertisement to lure the customers since the time it started, but now due to increase in the competition it is important to remind their existence in the market and create strong customer.

**CONCLUSION**

Technology has really helped the financial sector to grow and created an online platform to trade and invest. Zerodha being the first player to start an online trading platform for trading and investing it gained a strong customer base even without advertisement because of its zero brokerage business model and till now it has created 8 different categories of platforms for different kinds of service. Though there is tough competition in the market in this day but Zerodha has still managed to be the largest stock broker in India and 15% of all retail volume in India is contributed by them.

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**A STUDY ON INNOVATIVE FLORAL WASTE MANAGEMENT STRATEGIES BY INDIAN STARTUPS FOR ENVIRONMENTAL SUSTAINABILITY**

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**ABSTRACT**

*This study examines the concept of floral waste management and the various startups and businesses that have sprung up to support it. Previously, floral waste was either composted, or turned into biogas or left to get decomposed on its own. But now, everything is different. There are many creative ways to recycle floral debris. The collection, sorting, and processing of flower waste to produce goods with additional value is known as floral waste management. This study describes the various strategies these businesses are using to enhance sustainability. It provides insights into how Mumbai residents view and are aware of floral waste management firms.*

*Keywords: Floral waste management, awareness of people, floral waste management startups, Sustainability*

**INTRODUCTION**

The safe and efficient collection, transport, treatment, and disposal of garbage, sewage, and other waste products and chemicals is the ideal definition of waste management. Waste is a natural byproduct of human activity. It poses a risk to human life, the lives of all other creatures, the lives of all plants, and the ecosystem as a whole if it is not managed, recycled, or disposed of properly. Solid, liquid, and gaseous waste all require different disposal methods.

People never really realize how harmful floral waste can be for the environment. Most of the floral trash is dumped directly into our water bodies. The flowers still have residue of pesticides and insecticides used to cultivate on them when it is dumped into the water. It mixes with the water and pollutes the delicate ecology.

Mountains of wilting marigolds, roses, jasmine, carnations, orchids, and other flowers are regularly found in garbage dumps outside of places of worship and event locations. It is impossible to avoid the amount of floral waste generated in a country where flowers are used to decorate important moments in people's lives and add a sense of solemnity to places of worship. According to the Journal of Cleaner Production, Elsevier, at least 300 tonnes of flowers are wasted after only a "single use." However, some ethical entrepreneurs are diving headfirst into recycling flower waste to cut down on pollution and give dead blooms a second chance.

This study is important because not many people are familiar with this idea. Yes, people are aware of the importance of adopting sustainable practices, but they seldom grasp the fact that if they don't make the effort to learn about brands that support sustainability, there will be no room for the startups that are growing in our nation.

Even though floral waste is biodegradable, it is not suggested to dump it outside because it contains toxins used as pesticides and insecticides that are bad for the environment and aquatic life. Startups are taking initiatives to recycle floral waste and turn it into value-added products, including Phool.co, Holywaste, esscent by Arpan, Yuvan, and others. Previous studies have shown that flower waste can be turned into biogas, but numerous creative techniques are being employed to expand the alternatives. These businesses support not only sustainability but also women's empowerment, recycling, job creation, etc.

Even though floral waste is biodegradable, it is not suggested to dump it outside because it contains toxins used as pesticides and insecticides that are bad for the environment and aquatic life. Startups are taking initiatives to recycle floral waste and turn it into value-added products, including Phool.co, Holywaste, Esscent by Arpan, Yuvan, and others. Previous studies have shown that flower waste can be turned into biogas, but numerous creative techniques are being employed to expand the alternatives. These businesses support not only sustainability but also women's empowerment, recycling, job creation, etc.

According to Phool.co, they currently employ about 100 individuals to remove flower trash from the Ganges in Kanpur. By recycling, this not only lowers pollution in the Ganga River but also encourages sustainability. Then, this floral waste is transformed into products with added value, including paper, water colors, incense sticks and incense cones, Vegan leather goods etc. They have other sustainable qualities as well. Since many people believe it is sinful to place flowers or anything else that is somehow connected to Gods in a regular trash can, they instead prefer to throw it in the river. They circumvent it by infusing the paper with basil (Tulsi) seeds instead of stamping any images of Hindu deities on their box. They hire ladies who were unemployed or manual

scavengers in the past. Phool. Co has been able to get funds totaling roughly \$12.1 million. And revenue of about \$15 million.

Another such company is Holywaste which also happens to be a competitor of Phool.co. This company is based in Hyderabad. Currently, HolyWaste prevents a humble quantity of ~1000kgs/week from clogging the water bodies or rotting in the landfills. HolyWaste partners with places of worship, vendors, event planners, decorators and just about anybody who generates floral waste. Today this company operates 40 temples, twoflower stands and a market area that diverts over 200 kg of floral waste every day from dumps and lakes Yuvan, Esscent by Arpan, and Aruhi enterprise are all the other companies working for a single cause i.e.floral waste management.

It is important for these companies to get the recognition which they deserve.

**STATEMENT OF PROBLEM**

This study focuses on how people perceive the concept of managing floral waste and how much they are aware of it. Even though this idea has been around for a while, very few people are aware of the start-ups that are being formed to further this cause. Their understanding of floral waste management concept and the businesses for the same will be put to the test in this study.

**LITERATURE REVIEW**

Shreshtha Das and Shreyash Subudhi (2019),found that temple garbage is frequently neglected, which hurts aquatic life. The open dumping of this material produces a bad stench and serves as a fly breeding ground. They recommended using vermicomposting as a practical method of getting rid of floral debris. The location of this study was Bubaneshwar.

Arun Lal Srivastav (2021) in his paper stated that due to urbanisation and population growth, solid waste management has become a significant issue. It was discovered that almost 50% of the total solid trash was organic waste. It looks to include floral trash. This is yet another kind of priceless biological waste that canbe converted into precious goods.

Isha Yadav, Shelja K. Juneja and Sunita Chauhan (2021) in their paper claimed that temple waste could be securely disposed of in the environment as well as used to manufacture colours, biogas, incense sticks, andother items. Since the waste would be used as a resource that could be recycled rather than being burned orthrown in a landfill, their research showed that there is another approach to handle rubbish.

Adhikary Kunal(2020) in his study presents an alternative method for managing garbage so that the floral waste will not be dumped on land but rather used as a resource to be recycled. Compost, which can be utilised for a variety of plant development, biogas for electricity production, and food goods as additives, are value-added products made from flower waste. While biofuels and bioethanol can help with the energy crisis, dyes and pigments can be used in a variety of textile businesses.

**OBJECTIVES**

- To understand the creative strategies a business employs to recycle temple waste
- To observe the cognisance of people when it comes to the concept floral waste management and their companies
- To study how the emergence of these companies have not only favoured the environment but also promoted other aspects.
- To examine the emergence of various floral waste management start-ups

**Hypothesis**

H1: There is a significant difference in the perception of Phool products among males and females Ho: There is no significant difference in the perception of Phool products among males and females

	<b>Males</b>	<b>Females</b>
<b>Mean</b>	4.12	4.58
<b>S.D.</b>	1.70	2.22
<b>T-value</b>	1.52624	
<b>P-value</b>	.14433	

Result: Ho is accepted. There is no significant difference in the perception of Phool products among malesand females.

**RESEARCH METHODOLOGY**

To gather accurate and sincere responses from the respondents, the primary data collection approach was chosen. This study used descriptive and quantitative methods. The two variables established were "floral waste management" and "awareness among people," where floral waste management is the independent variable and awareness among people is the dependent one. As a result, the objectives were bivariate in character.

A google form-based questionnaire was distributed wherein 100 respondents were tested on their knowledge of this topic and their opinions on it. Additionally, they were asked if they were aware of different floral waste management start-ups. The questionnaire was distributed for three days. Another survey was conducted wherein 20 respondents were given a product i.e Incense sticks made from recycled floral waste from the company Phool.co. They were asked about their thoughts on the product after they physically got to see and touch it. Responses from age groups 15 to 55 were gathered.

Respondents who resided in Mumbai were the ones who provided the responses. Convenience sampling was the sampling technique used.

**DATA ANALYSIS AND FINDINGS**

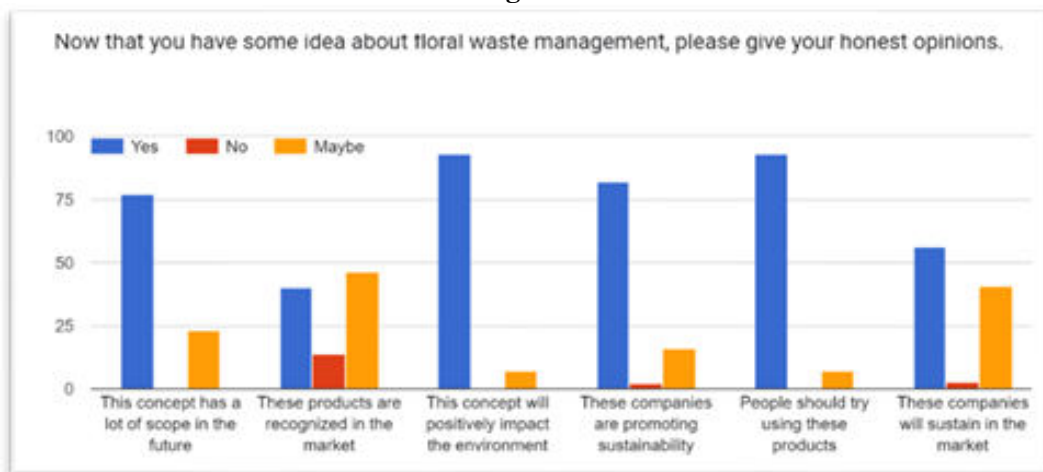
**Online Survey**

**Figure 1**



From the above pie chart, it can be concluded that 63% which makes it the majority of the respondents were not aware of this concept.

**Figure 2**



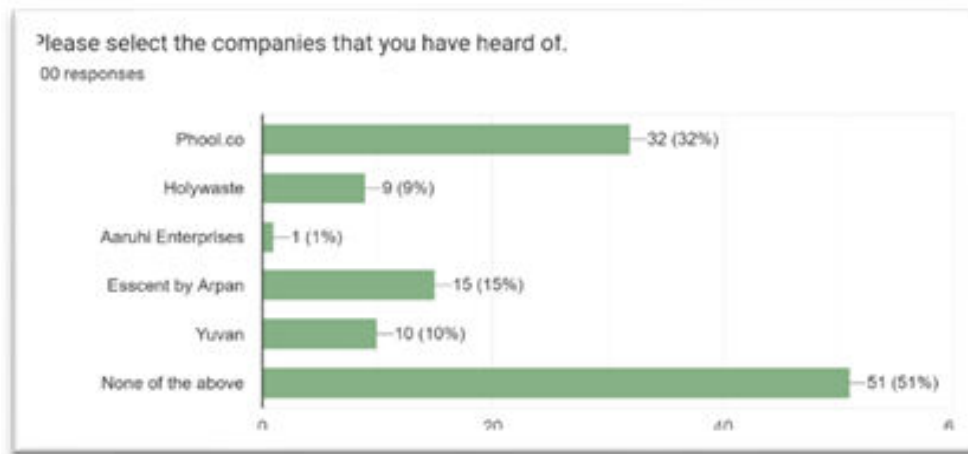
The respondents were given six assertions, as seen in the above figure, and they had to react with a yes, no, or maybe. People genuinely believe that this approach to managing floral waste and these businesses will have a beneficial environmental impact. These businesses should aggressively promote their items, which are not well known on the market. Most of them believe that this idea has a bright future and that there is a good chance that these businesses will survive in the marketplace.

Figure 3



We can deduce from the preceding graph that the majority of them are unaware of floral waste management firms.

Figure 4



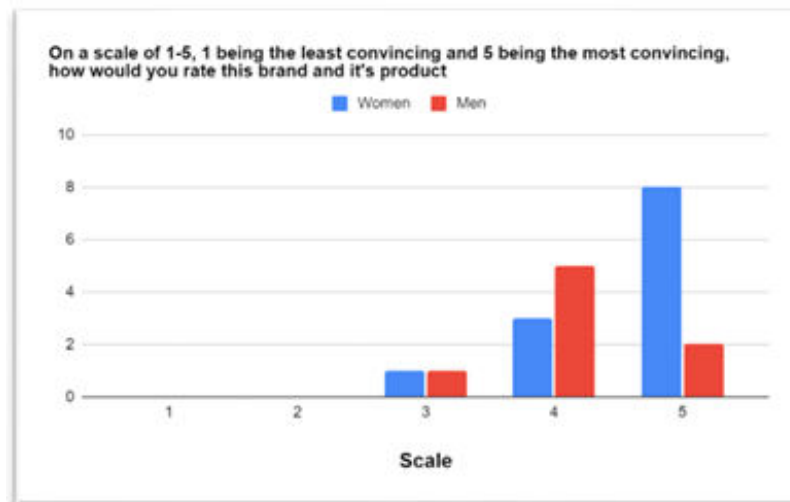
Most of the respondents did not know these companies when asked if they were aware of them. Some of them were aware of Phool.co.

When asked about their thoughts on the idea and their companies, majority of the respondents found the concept of floral waste management to be a unique one and that initiatives taken by companies for this cause should be more recognized by the media and in the market.

**OFFLINE SURVEY**

- The majority of the respondents said "yes" when asked if they would think about purchasing the product after seeing it in person.
- When asked if they would consider moving from their ordinary products to these sustainable ones, several of them expressed uncertainty.
- If they would suggest this brand to others, was the question. The 20 respondents all provided affirmative responses.
- On a scale of 1 to 5, they were then asked to grade the product based on its sustainability and whether they were persuaded by it. The greatest and least persuasive numbers were 1 and 5, respectively. Most of them gave the product a 5 or 4.

Figure 5



These findings show that a significant portion of people are ignorant about these eco-friendly businesses and products. But after some of them had the chance to touch and feel the product, the majority of them were impressed by it and were eager to test it.

### RECOMMENDATIONS

It is abundantly evident from the data analysis above that this idea and these businesses demand awareness. The vast majority of responders claimed they were completely unaware of these companies. If there is no knowledge, these enterprises won't be able to endure in the market for very long. They should actively promote their brand and enterprises to gain some traction. Without a detailed marketing strategy, they won't be able to generate any revenue. These companies, majorly make incense sticks. The majority of consumers are unfamiliar with the additional items on the product list, despite their presence. The general people have to be made aware of these things. Having tie ups with organizations that generate floral waste could prove to be quite successful. They can promote the usage of these goods in temples and other places where these products can be used.

### CONCLUSION

Recycling rubbish is a vital duty that protects the planet from disasters and promotes a healthy, environmentally friendly lifestyle that is advantageous to many people. Floral waste is ignored and left untreated for a very long time. Due to this carelessness, aquatic animals in the water bodies where the trash has been placed suffer. Additionally, since floral waste is often thrown in open spaces, breeding grounds for flies result in harming both the environment and human health. Hence, we need to support companies who are taking initiatives to promote sustainable practices. Change starts with YOU. Who will make our world sustainable, if not YOU?

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- <https://www.globalindian.com/story/entrepreneur/flower-recycling-these-startups-are-giving-indias-floral-waste-a-new-lease-of-life/>

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**A STUDY ON INDIA'S READINESS ON YULU BIKES****Sumita Prasad and Rachel Saldanha**

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**ABSTRACT**

*This study analyzes the impact of Yulu bikes in India. The prime objective of the study is to know if the citizens of Mumbai really want to switch from petrol bikes to electric bikes, which are sustainable and eco-friendly to the environment. The sample respondents were taken from nearby colleges in Mumbai. The age group for the study was specifically 18-30. Using its distinctive and intelligent vehicles, the Yulu team has developed a technology platform centered on micro mobility and is utilizing technology to address challenging urban mobility issues.*

*Keywords: Electric Bikes, Yulu, Sustainability*

**INTRODUCTION**

The future belongs to electric vehicles. They provide an appropriate level of utility, that are environmentally friendly, and hence are a great option for individuals. The 19th century saw the invention of electric cars. Because of their high price, slow speed, and small range, they did not perform as well on the market earlier. The demand, therefore, initially decreased globally. Gas-powered cars create a lot of smoke and are very bad for the atmosphere, which is a problem in the 21st century as environmental awareness has grown. Every nation needs to have a functional transportation infrastructure in order to develop. The majority of the means of transportation we use today, however, are seriously polluting the air and harming the ecosystem. According to IQAir's 2021 World Air Quality Report, 11 of the world's 15 most polluted cities are in India, where air pollution has become a major problem in the majority of its cities. The Swiss business IQAR specializes in protection against airborne pollutants and creates air quality monitoring and air purification equipment. Yulu's goal is to address these issues by offering hassle-free, sustainable micro mobility options for short-distance commuters. Through 2024, the Indian government wants battery electric vehicles to account for 25% of all new vehicle registrations by providing incentives and other support. Only 0.29% of all new vehicle registrations in India are electric automobiles at the moment. A double strategy must be launched in order for this to occur. India must first establish the required infrastructure and technological capabilities to enable the production of electric vehicles in order to be truly EV-ready. Second, measures must be put in place to allow for the retrofitting of old cars to create hybrid electric vehicles in order to reduce the growing pollution levels.

Yulu offers a network of approximately 10,000 shared vehicles, including Yulu Move (smart bicycles) and Yulu Miracle (smart, light-weight electric scooters), in Bengaluru, Pune, Mumbai, and Bhubaneswar, The company was founded in December 2017. On a pay-per-use basis, these cars can be rented using a user-friendly mobile app. However, the management team of Yulu is aspirational, and they have infrastructure across India in their sights in addition to smart bicycles and electric scooters. With time, Yulu has developed into a movement as a result of its success in resolving the complicated issue of first- and last-mile connections while also assisting in easing the burdens of traffic and air pollution.

**STATEMENT OF THE PROBLEM****● Yulu Bikes' Battery Problems**

A completely charged bike, in Yulu's estimation, has a range of 50–55 kilometres. A battery lasts for around four to five hours until the driver must return and swap it out at the charging station. The demand for Yulu batteries is rising along with the demand for Yulu bikes. However, due to strong demand and greater number of drivers there is a scarcity of batteries whenever a user comes to switch their batteries. The rainy season makes the issue worse since you cannot charge a wet battery because doing so would result in a short circuit. One of the cases in Bandra West in Pali Naka where a Swiggy driver had to wait for two hours in line just to exchange a Yulu bike so he could proceed with his other deliveries. The battery's level is shown on the bike's handlebars and in the app, however one rider claims that this information is not always correct, making it more urgent for them to replace the battery when instructed to do so. If batteries aren't available, then the drivers are frequently instructed to travel to another station to try their luck after arriving at the Yulu Max station, sometimes even as far as Bandra East. As a result, being held up in line for a long time carries the risk of a fine or time-out from the app, costing them money out of their own pockets on top of the daily trip ticket. The waiting line wraps around the building's curb and is synchronised with the delay procedure. Such types of identical issues were raised by all the other drivers as well. These issues need to be addressed by the company so that it doesn't lose its potential customers.

**● Inefficiency of Employees at Charging Stations**

As mentioned in the above stated problem, during the monsoon season you cannot charge a wet battery because doing so would result in a short circuit. The service representative at the Yulu Max station wasn't bothered by the drivers queuing up for new batteries. While keeping an eye on the three charging devices, each of which has the ability to charge 12 batteries in four and a half hours, he assigned the first few people in line a wait time of 30 minutes. But one of the swiggy drivers spoke on the condition of anonymity and stated, "These lines develop several times daily." When questioned about the reason for the delay in sending out batteries, he blamed the rain. We cannot charge a wet battery since doing so would result in a short circuit. Informing the company's higher-ups has not resulted in any changes. Several others challenged this reasoning; Raghav claimed that the pattern was not specific to the season, and Mujeeb remarked that a blower may speed up the drying process. Another driver mentioned that the machine not working was a common justification. The service staff at these charging stations usually deny these accusations or simply say that these issues will be addressed and informed to the higher ups, but these have not been solved till date.

**● Less Marketing Initiatives Within the Business**

Despite being consistently engaged on social media, Yulu is unable to connect with additional potential clients. During the Pandemic, Yulu shifted the topic of their discourse to include cleanliness and safety. They also attempted to keep their target audience (TG) engaged by utilising a variety of trendy formats. The respondents claimed to only be familiar with word-of-mouth marketing. They were ignorant of the company's consistent postings on social media platforms like LinkedIn, Instagram, etc. The corporation must thus additionally concentrate on digital marketing. They can even offer a free trial of their Yulu Move (smart bicycles) and Yulu Miracle (smart, light-weight electric scooters) services to a new prospective client.

**LITERATURE REVIEW**

Dr. Harish Kumar S. Purohit (18th July, 2021) in his research paper "Electric Vehicles and Attitude of Metropolitan Consumers" states that when it comes to attitude regarding EVs, there is no difference between a guy and a female. The similar mindset is seen in all socioeconomic categories. According to his research, most people are prepared to accept this technology if it has the above attributes and the appropriate infrastructure is in place.

Deepika Upadhyay, Geetanjali Purswani and Pooja Jain (2020) in their research paper "Yulu: Moving Towards a Sustainable Future" have explained the conception, execution, and application of Yulu, and moves on to explore the difficulties faced by the business in regards to its growth and branding from the perspective of sustainable development.

Dr. Sapna Modi (2020) in her research paper "Experiential & Value Driven Ride In Eco-Friendly Way: Case Of Yulu" explains the challenges of Yulu Startup that came their way while setting up such a successful company.

Sreeram K, Preetha P K and Prabhakaran Poornachandran, (2019) states that electric vehicles (EV) have won appreciation for their environmental friendliness. Compared to traditional gas 2-wheelers, electric motorcycles are far cleaner. EVs save fuel expenses, create less noise, and have a simple operating system.

**OBJECTIVE OF THE STUDY**

1. To fully comprehend the relationships between the impact of Yulu Bikes on India.
2. To comprehend the issues individuals, experience while renting Yulu bikes and provide solutions.
3. To understand the reasons of various individuals in India not opting for Yulu bikes for their day to day activities.
4. To understand how sustainability can help the company attract more customers.
5. To know what factors can help the company in increasing their customer base and turnover.

**HYPOTHESIS**

**Null hypothesis (H0):** There is no relationship between the impact of Yulu Bikes on India

**Alternate hypothesis (H1):** There is a relationship between the impact of Yulu Bikes on India

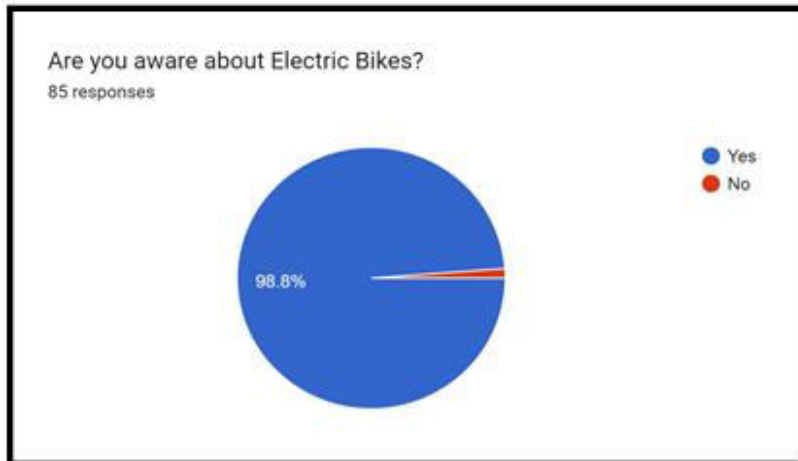
**RESEARCH METHODOLOGY**

In this study the participants were selected who belonged to the target group of (16-30) majorly from nearby colleges in Mumbai. Questionnaire method was used for the data collection. Simple random sampling was considered for study. The platform used for the purpose of data collection was Google forms. In order to get better insights the study used a qualitative research method. Primary data was the main source of information.

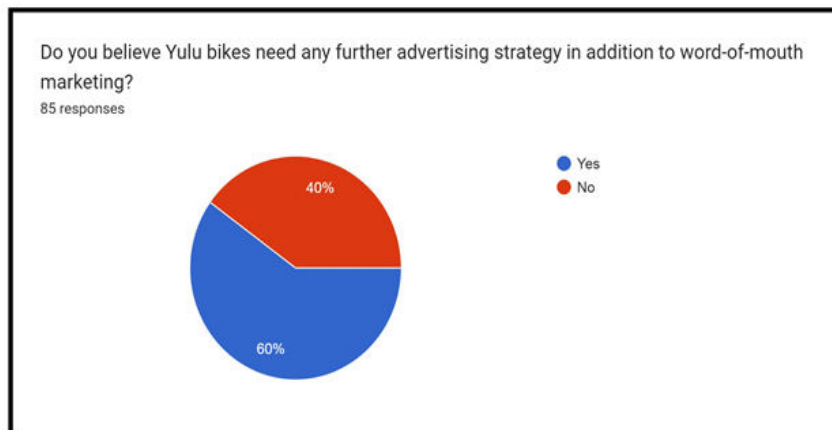


**DATA INTERPRETATION**

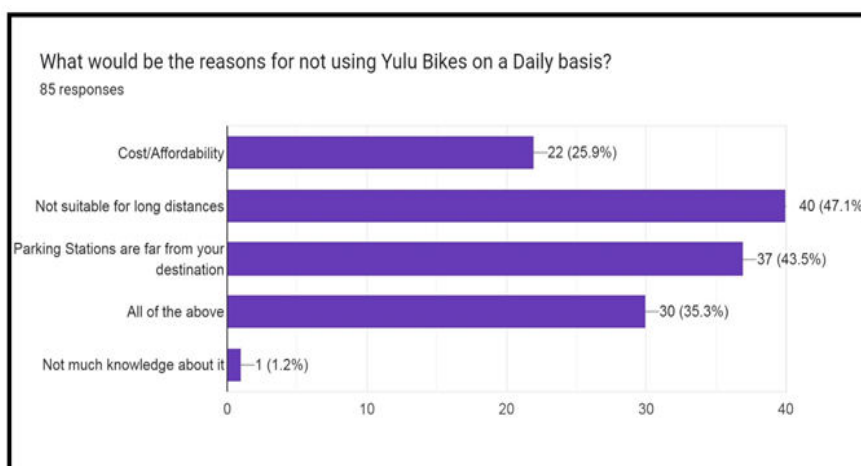
An online survey was conducted and the following results have been received.



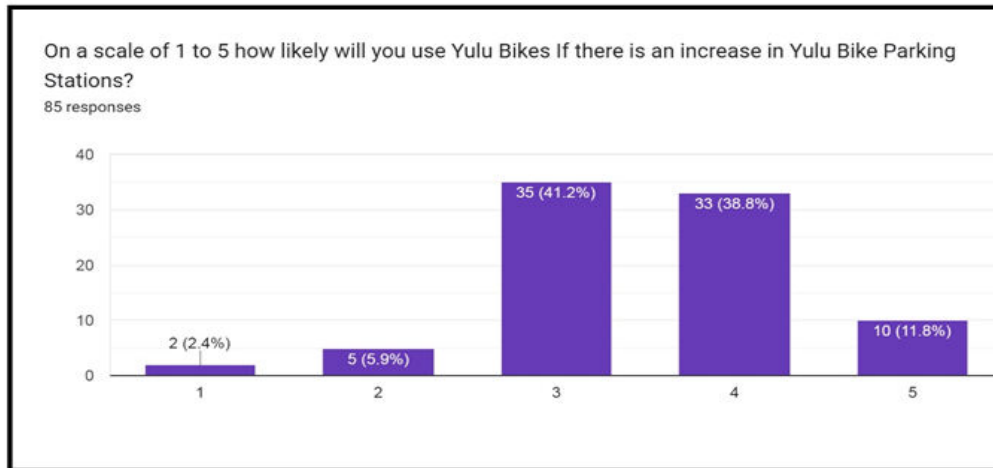
From the pie chart it can be seen that around 98.8% of the respondents were aware about Electric Bikes being into existence.



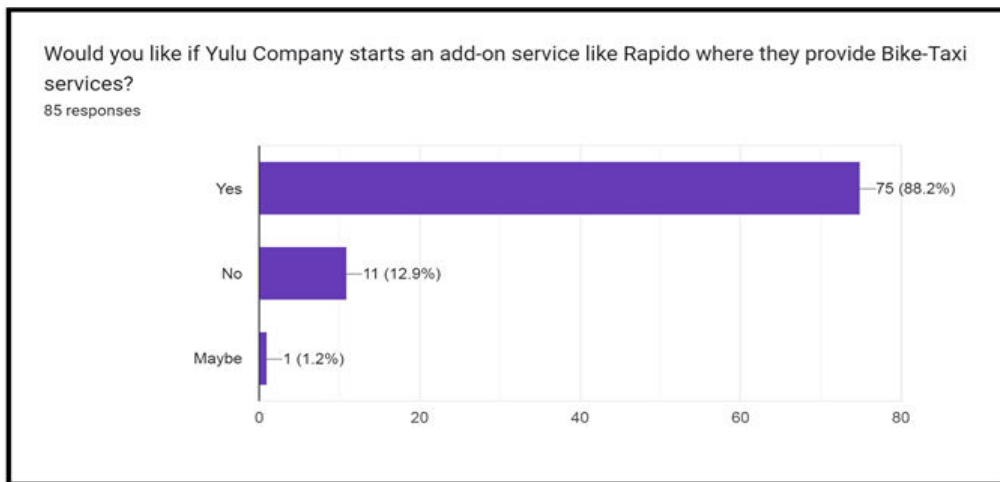
From the above pie chart it can be seen that most of the responses i.e. 60% of the respondents indicate that the marketing strategy of Yulu needs to shift from word of mouth to other forms of marketing. But in reality the respondents were ignorant of the company's consistent postings on social media platforms like LinkedIn, Instagram, etc.



Major responses from the respondents reasons for not utilising Yulu Bikes on a daily basis include that the bikes are not appropriate for long trips and that the Yulu Zones, where the bikes are parked, are too far away from the respondents locations.



According to the graph above, if the number of Yulu Bike Parking Stations increases, 33% of respondents will most likely use Yulu Bikes, while 35% will remain neutral.



According to study, if Yulu Company launches an add-on service like Rapido, where they provide Bike-Taxi services, 75% of respondents will be more motivated to use Yulu

**RECOMMENDATION OF THE STUDY**

1. The study suggests that the organisation increases their presence on various other platforms such as YouTube, in addition to this it also suggests business should use marketing in areas where it is most noticeable and required, such as at night when taxis and rickshaws are not readily accessible.
2. The study suggests to diversify their B2B by selling their bikes to bike renting companies and then by analysing the responses towards it they should strategize their future move.
3. The study recommends expanding the amount of parking stations i.e. Yulu Zones near commercial centres as well as remote areas to increase and encourage other potential users to use Yulu Bikes more frequently on a Daily basis.
4. It also recommends increasing ‘Yulu Max’ stations i.e. charging stations at peak areas such as Bandra West, Bandra East, and Kurla also have more backup of batteries at charging stations at regular intervals.

**CONCLUSION**

To conclude, although India is a developing country and is now processing the fact that there is something called electric vehicles which is eco-friendly and sustainable for the future, it still lacks awareness about this topic. India's economy made sure that basic necessities were not hindered during the period when life came to a standstill as a result of the Covid-induced lockdown and everyone was trapped inside the four walls of their homes. In Bangalore, Yulu e-Bikes were the only vehicles on the road at the time delivering necessities to households. The electric vehicles that everyone was raving about have been around for a while. Simply put, Indians haven't been able to recognise it. Finally, India does not specifically adhere to a regimen. There are numerous issues that need to be resolved, which opens up more chances and encourages development. Growth means change, which is exciting. India offers the best opportunities and prospects for qualified people, not just

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in terms of economic growth but also in terms of a greater standard of living. Therefore, if Yulu is successful in resolving the problems encountered by their users, they will succeed to great heights.

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**A STUDY ON CONSUMERS' PERCEPTION TOWARDS UPCYCLED PLASTIC PRODUCTS****Sumita Prasad and Neha Shetty**

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**ABSTRACT**

*Disposal of single-use plastic has long been a challenge. By upcycling and recycling waste, we can assure proper waste management. Upcycling is the process of giving anything that is no longer in use a new purpose and a second life. This paper with a sample size of 130 people, looks into the impact of single-use plastics and the initiatives of a few start-ups to promote sustainability by upcycling plastic waste. It goes into further detail about how consumers feel about these things. The consequences and impacts of buying a product manufactured from waste are thoroughly discussed.*

*Keywords: Sustainability, upcycling, Waste management, start ups, consumer perception.*

**INTRODUCTION**

One of the most widely utilised materials in use today is `Plastic` Almost everything that you can think of is composed of plastic! Plastic can be found in everything from water bottles and carry bags to electronics and batteries etc. The amount of garbage produced by the element's use is staggering given how frequently it is utilised worldwide. Due to its low cost, strength, light weight, and corrosion resistance, plastic is practically unavoidable in many applications. Plastic is most frequently utilised in packaging. While the overuse of plastic packaging is alarming, it is frequently necessary to employ some sort of packaging to preserve food's hygiene or freshness or to protect a product's integrity while being transported. If this trash is not adequately managed, it can have a number of negative consequences on the environment and other living things. Thus, proper handling of plastic waste is crucial.

In order to collect and recycle our plastic waste after we are finished with it, we also need to make sure that we have effective waste management systems in place. In this approach, plastic can support our efforts to address environmental and public health issues while preserving natural resources and developing into a more sustainable product.

India's plastic demand was 20.89 million tonnes in 2021–2022; by 2023, it is anticipated to reach 22 million tonnes. According to the Plastic Industry Status Report 2021, India produces over 3.5 million tonnes of plastic waste annually. The shocking fact is that per capita plastic waste generation has almost doubled over the last 5 years making India the 5th largest plastic waste generator so even though a government has banned various single use plastic items. Less than one tenth of plastic is recycled. Numerous solutions to handle plastic trash in the country are required due to the enormous numbers of plastic waste leakages.

A few start-ups have been working towards sustainability and bringing about change in the world through upcycling. Upcycling is different from recycling. Upcycling is the practice of using waste materials again without reducing them to their original form in order to produce something of higher value or quality. Since the processes needed in upcycling typically simply include cleaning and assembly/disassembly of parts, it uses relatively little energy.

Products made from upcycled materials typically have a similar or higher quality than those made from raw resources whereas Recycling is the conversion of waste into fresh raw materials for the production of new goods. Due to operations including transportation, cleaning, sorting, melting, purification, granulation, and extrusion, recycling involves a considerable energy expenditure. Due to contamination and ineffective separation, recycled items, including plastics, are typically of inferior quality than those that employ virgin ingredients. For example, startups like ECOKAARI, ECONITURE etc

- EcoKaari is a social enterprise founded by Nandan Bhatt on the team's strong desire to create a community in which bottom-up development is the key to improving living conditions for all beings in a sustainable manner. The name represents the artisans' interconnected and interdependent relationship with the environment. EcoKaari upcycles waste plastic into beautiful handcrafted fabrics using Charkha and Handloom. These fabrics are handwoven by women and young people from humble backgrounds. Ecokaari received numerous awards and was featured on New York's 'IT screen.'
- Econiture founded by Madhur Rathi began segregating waste after discovering that the amount of plastic waste was increasing. The company decided to segregate those and eventually convert plastic waste into furniture in eco nature by simply segregating to plastics that are hard plastic and soft plastic and making logs and numbers out of it. The logs are cut out of that and turned into beautiful functional furniture.

Such initiatives aid in the preservation of the environment.. Because all living things survive within their own favourable zones of the environment, which cannot be easily ignored. We must protect our environment if we are to continue living on this planet in a healthy and safe environment.

### **STATEMENT OF PROBLEM**

The most common material used worldwide is plastic. One of the biggest issues the world is currently experiencing is how to manage plastic waste because it cannot decompose and remains in the environment forever. It leads to health problems and water contamination.

Wildlife is significantly impacted by plastic disrupting the food chain. Earth is in grave danger if the waste management issue is not resolved.

### **LITERATURE REVIEW**

**The following publications and articles served as literature review:**

Anuj Kha (2022) in his research paper titled “Sustainability in Fashion: A Consumer Oriented Approach” in the International Journal of Multidisciplinary Research and Publications(IJMRAP), Volume 4, Issue 9, pp. 87-90, 2022, has emphasised on the need to prevent being overburdened with non-biodegradable garbage and stated that it is important to understand that sustainable products should be prioritised as the standard rather than the exception.

Charlotte Wegener (2016) explained upcycling in a book which is also a part of the Palgrave Studies in Creativity and Culture book series (PASCC)

Himani Choudhary and Prof P. K. Agarwal, Motherhood University, Roorkee, U.K , in their paper titled “Green Marketing : Need of the 21st century ” emphasised to respect the ecosystem that is begging for assistance and to take advantage of the opportunities presented by green marketing, environmental responsibility and sustainability must be carefully studied and integrated into a company's strategy by using upcycling methods . Green enterprises are therefore necessary, as is a change in customer behaviour and attitude toward more environmentally friendly ways of living.

DR. Harvinder Singh & Anjali Sharma (2020) Lovely Professional University Phagwara, India in their paper titled “Green Marketing: A Conceptual Study on Initiatives and Start-ups Taken By Industries for Making Green India” ISSN: 2394-3114 Vol-40-Issue-56-March - 2020 , explained that companies should constantly look for ways to adopt green production and packaging practises to reduce the use of natural resources through recycling or upcycling

### **OBJECTIVES**

- To measure the level of customer awareness about companies that promote sustainability and sell goods manufactured from upcycled plastic trash.
- To determine the attitudes of consumers about upcycled goods
- To analyse the strengths and weaknesses of upcycling products

### **RESEARCH METHODOLOGY**

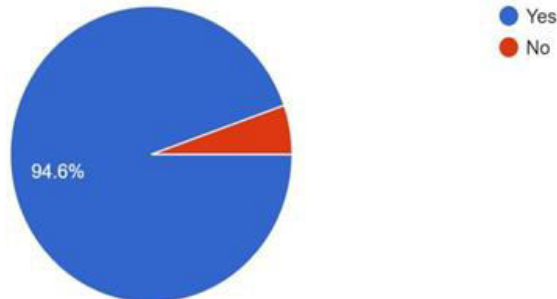
The purpose of this study was to better understand public perceptions of sustainable startups that promote upcycled goods and seek to solve the issue of managing plastic waste. So Primary method of data collection was chosen to have trustworthy data and to reduce the possibility of tampered data.. It was a descriptive piece of research. The questionnaire, which was distributed as a Google form, was used for the research. The questions were multiple choice. The data was analysed using Google form results, which were displayed as graphs and pie charts. The analysis was based on the statistically displayed results. The questionnaire was distributed for a week, and 130 responses were received. The Convenience Sampling method was used .Secondary data for this study was gathered to know about the startups from a variety of websites and research publications on the research topic.

DATA ANALYSIS AND FINDINGS :

Figure 1

Have you ever heard of products made from plastic waste ?

130 responses



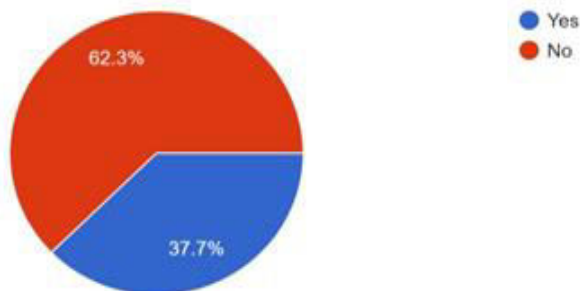
According to the data presented above, approximately 94.6 % of people are **aware** of products made from plastic waste and social media is the most common way for people to learn about upcycled products, followed by friends and family, while the remaining 5.4% are unaware

Figure 2

2A)

Have you ever bought any products made from plastic waste ?

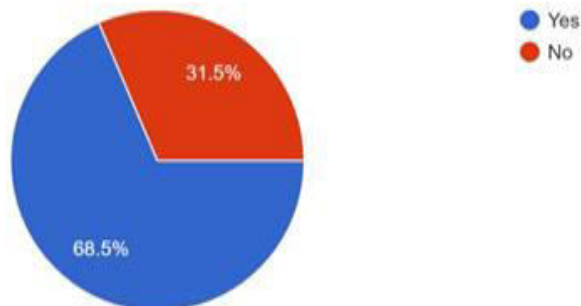
130 responses



2B)

Are you familiar with the term ' PLASTIC UPCYCLING' ?

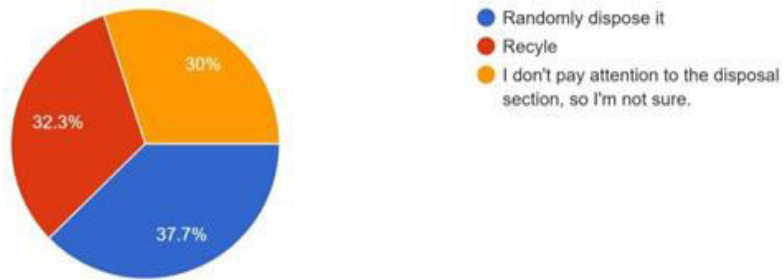
130 responses



According to the charts presented above, approximately 37.7 % of people have bought products made from plastic waste and while the rest 62.3% haven't. In fig 2B, 68.5% of people are aware of aware about the concept while the rest 31.5% are not aware

Figure 3

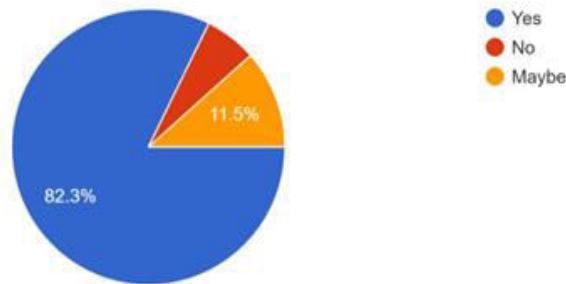
How do you get rid of plastic after buying it, be it the product itself or its packaging?  
130 responses



According to the data above, approximately 37.7% of people randomly dispose of waste without segregating it, 32.3% of people recycle waste, and the remaining 30% do not pay attention to the disposal section and are thus clueless.

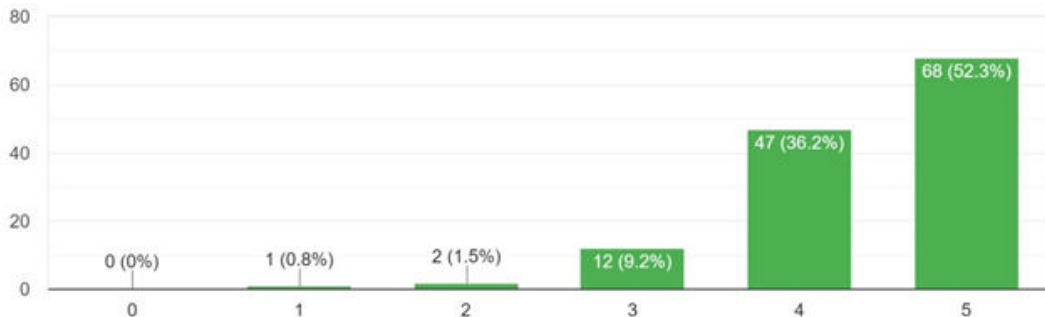
Figure 4  
4A

Will you purchase such products made from waste plastic, now that you have a better understanding of the above-mentioned concept?  
130 responses



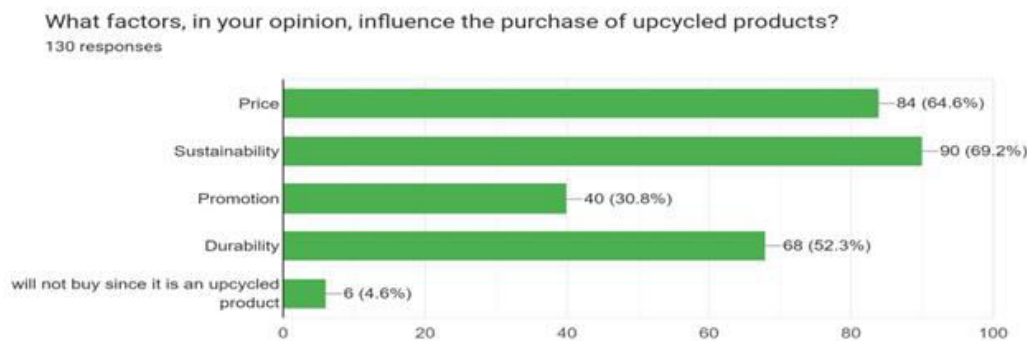
4B

How likely are you to recommend such upcycled products to others?  
130 responses



According to the charts presented above, people are willing to buy upcycled products and believe that such companies will be successful in the market, and they are very likely to recommend and purchase such products.

Figure 5



According to the data presented above, sustainability is the most influential factor, followed by price durability, promotion

### FINDINGS

According to my findings, most people are aware of recycled products, but when it comes to whether or not they have used them, the number of people who have used them is low, implying that there is a need for education about why it is important to use such products in order to protect the environment.

### RECOMMENDATIONS

Companies should improve their digital presence because social media has proven to be the most effective means of spreading awareness. They should enhance their website content.

Also by spreading awareness about their company by incorporating press releases into their startup storytelling, their recognition in market would boom and more campaigning is required.

### CONCLUSION

There are three dimensions to the concept of sustainability: social, environmental, and economic. Plastic is the most widely used material in the world. As a result, should be managed properly. People must realise that change begins with them, not with other authorities; the general public must act in this regard. By suggesting different ways to combat this problem by taking a step each day towards sustainability. True, not every product you buy will help the environment; however, with the right information and a small shift in preferences and purchasing habits, consumers can help add more green to the environment, necessitating the development of a waste management concept if the planet is to be saved. For example, Ecokaari, and Econiture benefits the environment while also creating jobs and making profits.

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**SUSTAINABILITY OF MEME MARKETING AMONG STARTUP**

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**ABSTRACT**

*Over the past decade, memes have become part of modern culture, a way to express emotions and a rapidly spreading humorous phenomenon. Memes have crept into every aspect of our lives, and business is no exception. Meme marketing isn't just a phase, it's something that needs to be taken seriously. Also, the power of meme marketing is growing to the point where you can't open a digital device without seeing at least one. Sharing a good meme is a guarantee of likes and shares, especially on social networks where people come to relax. Humor is always a good way to make a good first impression and attract new customers. And what better first impression than someone associating your brand with positivity and freshness, as memes do. In fact, 74% of millennials send memes to make people smile. And that kind of engagement is the best. Moreover, various start-ups use it to create buzz around their product or service, while others use it as a way to promote themselves in the social media world. Therefore, the purpose of this research is to gain a better understanding of why companies are using meme marketing as their advertising strategy, their impact on consumers as well as their benefits and drawbacks.*

*Keywords: Meme Marketing, Sustainability, Start-up, Impact on Consumers*

**INTRODUCTION**

Memes are images, videos, or other types of media that are spread online to make people laugh. They are often used as jokes and are usually shared on social media. Memes can be seen as a form of entertainment and have been around in some form since the 1990s. The term "meme" as it is widely used in advertising and popular culture has become the home of freely adapted and interesting online content (Gunders and Brown, 2010; Murray et al., 2014). The word and term "meme", an abbreviation of "mimesis" (mimicry), in the seminal 1976 book *The Selfish Gene* by renowned Oxford biologist Richard Dawkins" from where it is derived. A meme is a cultural unit that spreads from person to person. It can be an idea, behaviour, or style that spreads within a culture. Memetic is a word that is created from the combination of the words "meme" and "genetic". It can be used to describe any idea, concept, or object that spreads from person to person in a society. Memes have been around for as long as humans have had the ability to share ideas and images with one another. They sometimes can even be offensive in nature.

Meme marketing is a trend in marketing that uses internet memes and viral images to promote brands. Memes are used to generate a sense of humour and emotion in consumers and make them more likely to purchase the product. Memes are popular in the internet world and they are not going anywhere. But meme marketing is a new trend that is starting to take over. Meme marketing is a content marketing technique where people make memes as a way of marketing their business or product. It can be used as an ad for your business or product, but it can also be used as a blog post with some text and images on it. Memes are very popular because they are funny and easy to share, but meme marketing has the same qualities that make memes so popular. Meme marketing can be used for marketing purposes in many different ways. It can be used as an ad for your products, or you could use it as an article on your blog with some text and pictures on it to promote your product without making people feel like they're being sold something. Memes are not just for the younger generations anymore; they have become an effective tool for marketers who want to reach a wider audience. Some start-ups are using it to generate buzz around their product or service, while others use it as a way to promote themselves in the social media world. Various start-ups like Disney Hotstar, Zomato, Brandfactory, Tinder, etc. attract their audiences with such memetic. Memes are usually created with a specific goal in mind, and they can be used for different purposes such as introducing a new product, making announcements, and getting feedback from customers on what they want from the company. It can be seen as an effective tool for branding because it attracts attention and appeals to people's emotions in ways traditional ads cannot. Meme Marketing is also cost-effective because it requires little time investment on the part of the creator and less money than other forms of advertising like TV commercials and radio spots.

The popularity of meme marketing rose in 2018 when start up brands like Zomato and Swiggy used them as a way to attract audience (mostly of the age group of 18 to 35). Due to its quick accessibility through tech savvy gen it is gaining a lot of attention. Hence the aim of this research paper is to understand the sustainability of meme marketing as a marketing strategy for companies.

**STATEMENT OF PROBLEM**

- **They are not easy to put into context:** Memes may be easy to spot, but that's true for those who know the full context of the meme. However, not every audience may have sufficient knowledge to correctly interpret the meme.
- **They can easily get Offensive:** People who go too far with memes and don't pay attention to them offend certain groups in society. Especially when you know the wide range memes can reach, it's almost inevitable.
- **It May Give the Unwanted Feeling of Unprofessionalism:** Excessive use of memes can have the opposite effect of what the brand is trying to achieve. Too many memes will make the customers feel like the brand is unprofessional and they won't engage with it.

**LITERATURE REVIEW**

- Russell Williams, 2016 in his research- The business of memes: memetic possibilities for marketing and management discussed that the concept of memes for business audiences varies. Memes have an intuitive appeal, but there is so much more to be done before the human mind can be understood, "filled" and manipulated at the discretion of advertisers and business thinkers using their understanding is required.
- Suresh Malodia, Amandeep Dhir and others 2022 in their research- Meme marketing: How can marketers drive better engagement using viral memes, highlights the potential of viral his memes in marketing communications to improve brand recall and engagement. The study found that viral memes are topical and highly identifiable, which is why they are well-liked by audiences, increasing customer retention and brand recall.
- Andrew Kurochkin and Kostiantyn Bokhan 2020 in their research- Generation of Memes to Engage Audience in social media have aimed to develop a New to Social Media Engagement We will develop an approach and compare it to existing foundations in the field of social media content generation, more specifically meme generation.
- Dr Arsha Meer 2022, in her research- Meme Marketing and Purchasing Behaviour: A Study of Active Social Media Users has studied how meme marketing influences people's purchasing behaviour and how memes influence active social media purchase decisions.
- Prashant Kumar Verma, 2022 - 14.139.251.106 in his research focuses on examining the growth of meme marketing culture in the Indian market. The study represents a step towards a huge research opportunity, as meme marketing plays an important role in a company's market penetration and customer retention strategy.

**Figure No. 1**

The above figure shows the growth of meme marketing over the years. It is seen that there is a raise in the use of meme marketing as a promotional tool in 2020 due to covid-19.

**OBJECTIVES**

- To understand how brands, utilize meme marketing to improve their content strategy.
- To review the growth of meme marketing over the years.
- To understand the impact of meme marketing on consumers.
- To know the perceived benefits and drawbacks of using meme marketing strategy.

**RESEARCH METHODOLOGY**

This research is descriptive and quantitative in nature. The data was obtained from students of SIESCE Sion East. Descriptive study can provide a picture or description as clearly as possible. The research paper describes how start up brands utilizes meme marketing to attract audience and how the audience reacts to their strategies. The primary data was collected with the help of a questionnaire which consisted of 09 questions and secondary data was referred through research papers on meme marketing. The survey was conducted through Google forms. 108 students surveyed between the age group 18-25 years as the target audience.

- **Research design:** Descriptive research
- **Sampling method:** Convenient sampling
- **Sampling frame:** 18-25 years
- **Sampling size:** 108
- **Data Collection:** Primary and secondary data
- **Method of data collection:** Questionnaire
- **Type of questionnaire:** Open and close ended questions

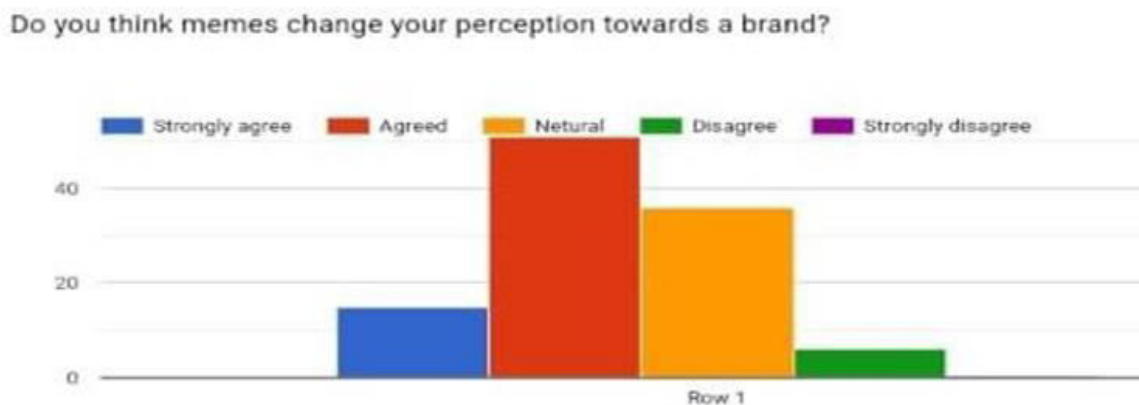
**DATA ANALYSIS AND FINDINGS**

The following diagrams shows the data of 108 respondents.



**Figure No.1**

The first pie diagram shows the number of respondents agreeing or disagreeing on whether they know of the term ‘meme marketing’. Here, we see that the majority of respondents agree that they have heard of meme marketing. In the second diagram it is seen that most of the respondents have viewed ads using meme marketing strategy on social media.



**Figure No. 2**

The above diagram (fig.2) represents whether memes can change ones perception towards a brand. It is seen in the figure above that majority of the participants have agreed that memes do change their perception regarding a brand and quite few of the respondents disagree with the same.

The below (fig.3) diagram shows the effectiveness of meme marketing on consumer purchases. On a scale of 1 to 5 where 1 is no effects and 5 is strongly effective; It has been noted that 71% of the respondents have agreed that meme marketing can effect consumers buying behaviour, 39% people think that it neutrally effectsthem and 3% think that it has no effect on them.

How effective do you think meme marketing is on the consumer purchases

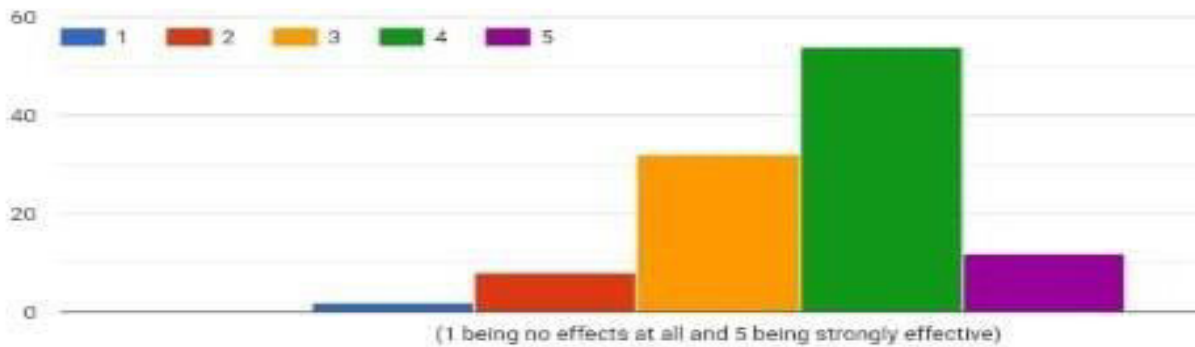


Figure no. 3

The below diagram (fig. 4) shows that when referred to meme marketing majority of the respondents associate it to Zomato. A start-up company that popularize the concept of meme marketing in 2018.

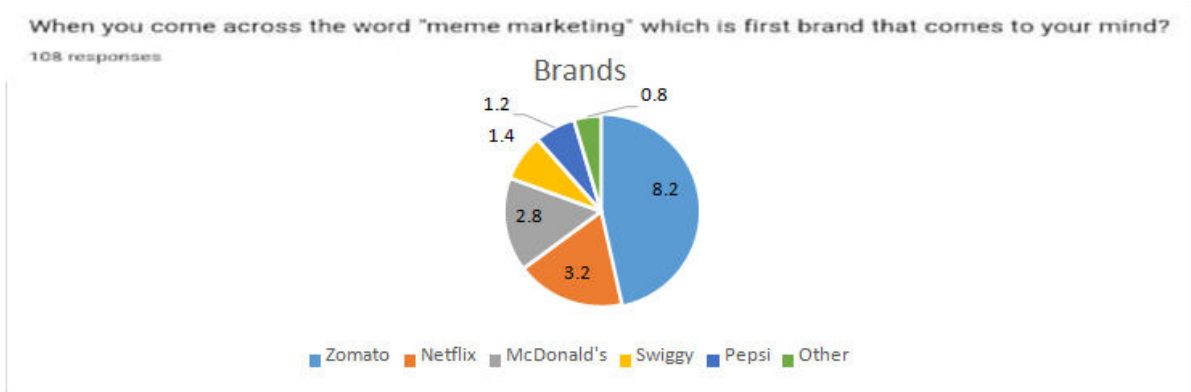


Figure No.4

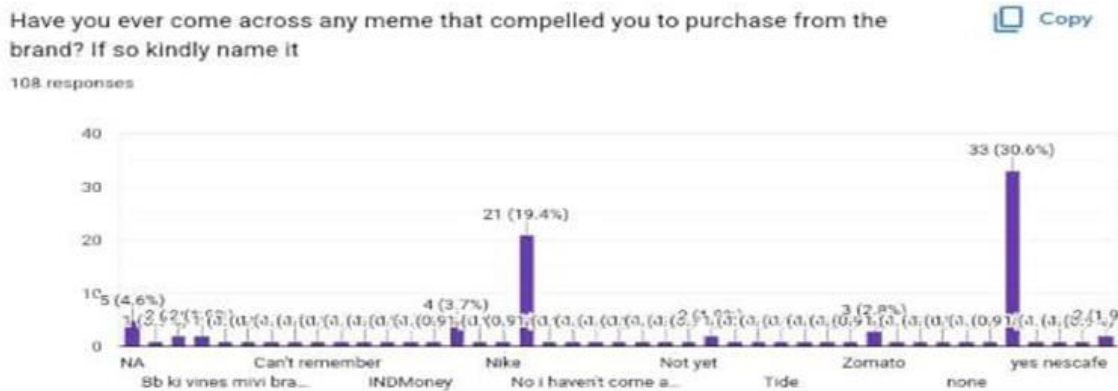


Figure No. 5

This bar graph (fig.5) shows the brands that have compelled the respondents to purchase their respective products. It is seen that 30.6% of the respondents have given their answer as Nescafé as a brand that allured them to purchase from them and 19.4% have said that they have never been compelled by any sorts of ads of any brands whatsoever.

According to you, how frequently does a brand needs to create memes?

108 responses

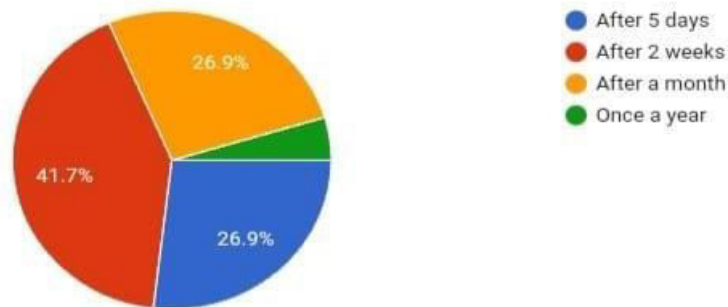


Figure No. 6

The above pie diagram shows the opinion of the respondents on how frequently do brands need to create meme content so as to not lose the customers attention. It is seen that most of the respondents prefer if the brand keep updating their marketing contents after every 2 weeks.

Due to Meme Marketing, there has been both negative and positive impact on one's social decisions

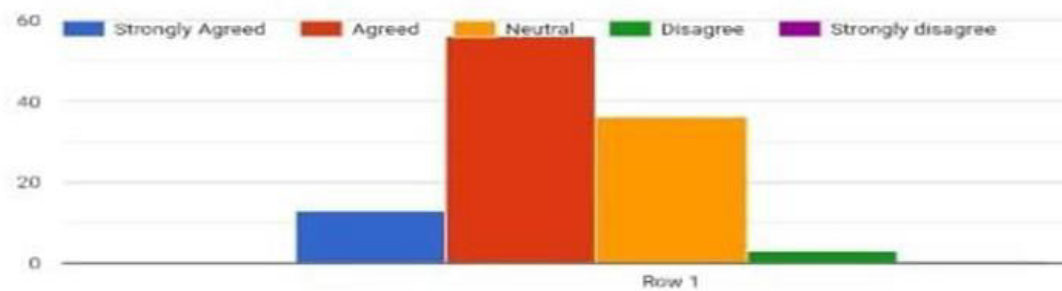


Figure No. 7

The above bar graph represents the impact of meme marketing on people’s social decisions like purchases, social culture, etc. On a scale of 1 to 5 where 1 is strongly agreed and 5 is strongly disagree; it is seen that majority of the respondents have agreed that meme marketing has both positive and negative impact on their social decisions.

What according you, are the brands trying to achieve through promotional memes?

Copy

108 responses

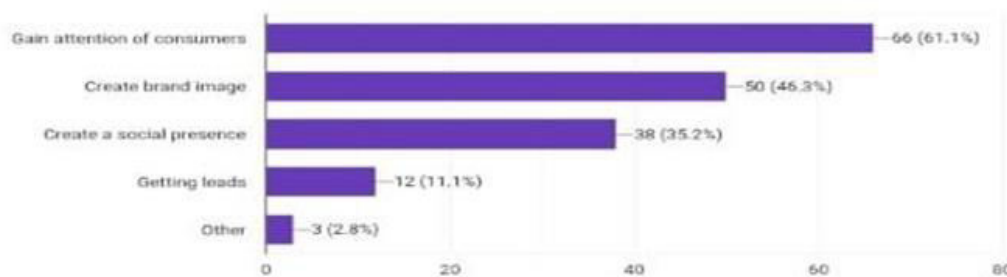
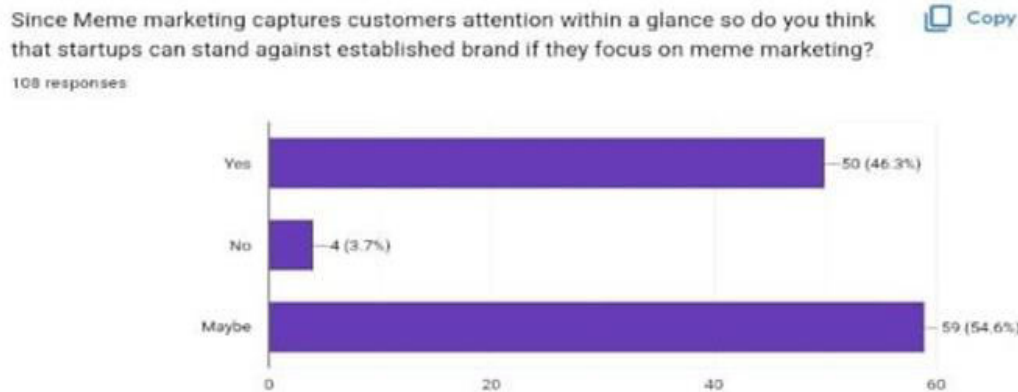


Figure No. 8

The above graph shows what brands achieve through promotional memes. It is seen that 61.1% of respondents believe that brands are trying to gain the attention of the consumers through meme marketing, which is followed by 46.3% believing that they are concerned to improve their brand image and 11.1% believe that they are trying to attract leads to their company.



**Figure No. 9**

Figure no. 9 shows that majority of the respondents believe that there is a chance for start-up companies to raise to the level of their competitor if the focus on the content of their memes.

### RECOMMENDATIONS

Before the introduction of memes as one of our awareness tools, the digital marketing field was doing very well. The meme industry has had to enlist the help of digital platforms to showcase its talent to the world. So if you look at the history of its creation, every form of digital content has been associated with digital marketing, and memes soon emerged as the most important content force of this decade. Some recommendations on the limitations of meme marketing are as follows:

- As memes become more complex, the target audience stream narrows. For example, you cannot associate it with a Squids game meme and expect it to appeal to senior citizens in our country. Doing this automatically excludes a large portion of your target audience and doesn't convey your meaning properly. Therefore, it's a good idea to have simple content that all segments of your audience can understand.
- The concept of meme marketing is fraught with risk and uncertainty. The meme journey is risky at some point, as one misunderstanding can destroy your brand's image in the public eye. Capture legal issues that can last longer than your loss. Therefore, the context of your meme should be non-binding, simple and understandable.
- In linguistics, symbolism describes the cognitive component of language represented by letters and words. As memes are used as a medium for digital communication, symbolism is essential to reach the threshold of minimal understanding. Consumers who actively participate in meme construction and communication must deconstruct and reconstruct the hidden meanings (symbolism) of memes. Therefore, a successful meme must be highly iconic.

### CONCLUSION

Overall the study provides a comprehensive theoretical framework for the sustainability of meme as a promotional tool for brands that are newly emerging into the market. Meme marketing is an effective tool for attracting talent, and it has proven to be beneficial to businesses for a variety of reasons, including increased job visibility, higher-quality personnel, and lower hiring costs and time. While the effectiveness of meme marketing is undeniable, its sustainability is a matter of uncertainty. This study is also helpful for marketers working to design and launch meme marketing campaigns/ads, though they still must identify whether an event is meme-worthy or not. Conclusively, it's seen that the concept of meme marketing has created a hype in the business world, but whether it will sustain is a question no one can give an answer to.

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**A STUDY ON TRACEABILITY IN FOOD AND AGRICULTURAL PRODUCTS**

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**ABSTRACT**

*Traceability refers to the ability to follow the movement of a feed or food through specified stage(s) of production, processing and distribution. This means that you can scan your food product and get to know its journey from the farm to your home! This paper investigates the impact of traceability and the process of attaining traceability for various enterprises. It also demonstrates how traceability can be used by the Micro, Small, and Medium-sized Enterprises (MSMEs). It further elaborates the problems faced by the enterprises which have started using traceability. It emphasizes the various standards set to meet the traceability needs. A special study on traceability of coffee at Starbucks was conducted as part of this paper. It found that coffee traceability is implemented at a superior level in Starbucks, USA but it is still at a nascent stage in Starbucks, India.*

*Keywords- Sustainable Development, Traceability, Coffee*

**INTRODUCTION**

The International Organization for Standardization (ISO) defines traceability as: “ability to follow the movement of a feed or food through specified stage(s) of production, processing and distribution”. Due to a series of food safety scandals, food safety is currently a problem on a global scale. Moreover, as more people are preferring to travel internationally, the diseases are about to reach world wide. Trade in agri-food and commodities is increasing day by day. The changing trends in the world of trading results in an expansion of the global production network. The supply chain structure has evolved to increase fragmentation and complexity across multiple enterprises, as well as the global reach of agri-food supply chains. Due to the vast number of participants, unpredictability of supply, and perishability of food, quality and safety of food items and production processes, as well as traceability and compatibility of food safety measures, are more important than ever.

Implementing verifiable safety and quality compliance programmes is made easier by efficient traceability systems. Agri-food businesses are now better equipped to control risks and react swiftly to emergencies, recalls, and withdrawals because to the enhanced availability of pertinent information. Effective traceability systems considerably shorter reaction times in the event of an animal or plant disease outbreak by enabling quicker access to pertinent and trustworthy data that assists in locating the origin and location of implicated items. Information (regarding the health of animals and plants, the nation of origin, and other factors) is now essential at every stage of the supply chain, from the producer to the consumer.

There are companies like TraceX Technologies (based in Bengaluru, India) who are working towards traceability of agriculture and food products and are creating awareness for the same. TraceX has improved the authenticity of seeds for Telangana State Agricultural University through Seed Traceability. It is also collaborating with the International Trade Centre (ITC) for Potato traceability.

**TRACEABILITY SYSTEMS****A. Effectiveness of Traceability Systems**

Traceability requires accurate data collection and recording within a food safety management system. Analytical testing can verify data. Traceability works when food goods can be tracked throughout the supply chain. Food safety concerns require easy access to information on what, how much, and where products must be recalled. Farm-to-fork traceability requires effective internal and external operations. Each traceability partner should know the direct source and recipient of traceable goods in their process. The notion is not that all supply-chain participants know all traceability data, but that relevant members/partners have taken the appropriate procedures and that information may be retrieved if needed. The one-step-forward-one-step-back approach and distribution channel participants collecting, recording, storing, and sharing the minimal information for traceability are required.

**B. Ways to Implement Traceability Requirements**

The following is a basic four-step methodology that can be used:

1. Determine context and needs: Traceability execution must be adapted to the organisation, industry, supplier profile, customer contractual requirements, and regulatory requirements. Assess both internal and external needs with all these. Trace data and set traceability parameters.



2. Evaluate internal capabilities: Check production management, customer relations, marketing, and financial data. Compare external requirements.
3. Combine internal and external: Set goals, then find answers and resources. Create a reaction and traceability plan. Explain the corporate and internal client benefits.
4. Create a project with an administrator, working method, timeline, budget, and reporting. Use a "Plan-Do-Check-Act" cycle to enhance a process on-site or in a "pilot." Employees should learn the new task/requirement. Add sections. Assess the system's resilience and examine it often when context, clients, suppliers, procedures, goods, and regulations change.

### **C. TOOLS IN FOOD AND AGRICULTURAL TRACEABILITY**

#### **1. Barcodes**

The data on a barcode is machine-readable. Barcodes encode data by regularly altering the lengths and spacing of parallel lines (1D) or rectangles, or other two-dimensional geometric patterns (2D). Scanners and interpretive software were later made available on devices such as desktop printers and smartphones. To achieve traceability, product traceability initiatives employ a Global Trade Item Number (GTIN).

#### **2. Radio Frequency Identification Device (RFID)**

RFID technology involves inserting a chip that can be recognised by the frequency of radiowaves it emits. For better information transmission, some RFID devices also incorporate a memory capability (that retains data). RFID devices can either be passive (can only reflect Electronic waves from an RFID reader) or active (can send electronic waves). In many situations, RFID tags can be used to automatically identify livestock in addition to paper tags or branding them.

#### **3. Wireless Sensor Network (WSN)**

A wireless sensor network (WSN) is a geographically dispersed autonomous network of sensors that collaboratively transfer their data to a central point while collecting and monitoring physical or environmental factors like temperature, sound, pressure, etc. Recent bi-directional networks provide sensor activity control.

Additionally, more advanced technologies may also be used.

### **D. CHALLENGES IN IMPLEMENTATION**

#### **1. Costs**

Costs associated with traceability include those linked to services, technology, and software, process changes, training, and ongoing operations expenses. Particularly for SMEs in developing nations, these expenses can be very burdensome for a business with no apparent return.

Traceability, however, can offer significant advantages if used collectively across businesses in a supply or value chain and seen as an investment in process development, as mentioned in the preceding section.

#### **2. Skills and implementation**

SMEs that want to sell their products to industrialized nations' lucrative marketplaces need a solid system for gathering and presenting the evidence that their products are in conformity with those purchasers' standards. However, several smallholder farmers are a crucial component of food supply systems in emerging nations. Related support organizations might not be able to give the producers the orientation and training they would need to build up the appropriate systems and processes, establish their traceability, and create the necessary paperwork.

#### **3. Multiple Requirements**

Even the simplest export supply chains involve numerous exchanges of food items. As a result, completely traceable documentation of the transportation of food products quickly becomes quite challenging.

#### **4. Framework of Food Safety Management Systems**

One part of a larger plan to achieve effective supply management, product diversification, or quality management is traceability. Food safety cannot be achieved by tracking food by lot alone; a successful safety control system must be in place as well. This system must contain good practises such as good agricultural practises (GAP), good hygienic practises (GHP), good manufacturing practises (GMP), HACCP, and others.

#### **5. Not for MSMEs**

Traceability systems favor vertically integrated businesses and large-scale producers. There is a significant volume of data that must be archived and readily accessible. It is essential to be able to demonstrate how

standards are being implemented if the introduction of the traceability system is intended to demonstrate that particular standards are being met. Standards related to traceability

### **E. Standards Related to Traceability**

Agricultural practices that the Global Food Safety Initiative (GFSI) has developed benchmarks for agricultural output that can be used to compare a private voluntary norm. When a food safety management system satisfies the minimum food safety standards established by many stakeholders and outlined in the GFSI Guidance Document, it is said to have been "recognised" by GFSI. GFSI does not operate as a scheme in and of itself, nor does it perform any accreditation or certification functions. Below is a list of requirements from some of the above mentioned schemes.

#### **1. The SQF**

A branch of the Food Marketing Institute (FMI), the SQF (Safe Quality Food) Institute was created to handle the SQF Program, a global system for managing and certifying food safety and quality.

#### **2. The BRC Global Standard**

Responding to market demands, the British Retail Consortium (BRC) created and launched the BRC Food Technical Standard in 1998. This standard is used to assess food producers of retailers' own brands. In the event that merchants or brand owners are charged by the enforcement authorities, it is intended to be used as a pillar to support their "due diligence" defence.

#### **3. International Food Standard (IFS)**

The International Food Standard, or IFS, was created as a reaction to concerns about food safety with assistance from other worldwide merchants, the German and French food trade associations.

The standard's objective is to unify the diverse store requirements into one framework. The standard has advantages such as increased openness throughout the food chain and a decrease in consumer audits, which saves money. An independent third-certification party to IFS enables suppliers to show retailers that their products meet safety, quality, and regulatory requirements.

#### **4. EFSIS**

The SAIGLOBAL agri-food division is called EFSIS. To ensure that standards are upheld, EFSIS offers expert inspection and certification of their operations to retailers, producers, farmers, and caterers all around the world.

### **LITERATURE REVIEW**

Pradeepa Babu, B.N, Nagaraj Gokavi Rudragouda, C.S and Y.B. Venkata Reddy (2019) identified that Coffee Board of India has taken up many initiatives to enhance the income of small coffee growers by empowering them to move up in the value chain. Coffee Board is focussing on increasing the value of exports by focusing on the strengths and uniqueness of Indian coffees in the international market through branding and promotional campaigns.

Laura T. Reynolds (2009) mentioned that some coffee purchasers are utilizing Fair Trade certification primarily as a technique to improve traceability and labeling as a means of capturing markets. Producer groups suggest that Fair Trade may forge fresh kinds of alliances for raising bean quality, snatching up gourmet tastes, safeguarding coffee origins, and expanding markets.

#### **Case study on Starbucks**

The new Starbucks Digital Traceability technology turns each bag of coffee beans into a digital passport, taking coffee lovers on a virtual tour of coffee farmers, roasters, and baristas as well as coffee-growing regions all over the world. The C.A.F.E. (Coffee and Farmer Equity) Practices were created in collaboration with Conservation International, a nonprofit organisation devoted to environmental conservation, and were first introduced in 2004. They are a comprehensive set of social, economic, environmental, and quality standards for how coffee should be sourced ethically. The new traceability system, developed in partnership with Microsoft, will be helpful to farmers who are proud of the coffee they grow but frequently are unaware of the final destination of their green coffee beans once they are harvested and sold.

This is how the Starbucks Digital Traceability technology functions: Visit [traceability.starbucks.com](https://traceability.starbucks.com) on a laptop or mobile device to scan or input the number on the back of any bag of whole bean coffee at any Starbucks location in the United States. With the help of the mobile web app, you may go to the region of the world where your coffee was grown, get to know some of the local coffee growers, and even meet some of the roasters who turned the raw beans into your preferred roast. (Although entertaining, scanning a bag of coffee is not necessary to use the programme to learn about farmers or study the roots of coffee production; you may visit the mobile web app and explore whenever you choose.

**OBJECTIVES OF THE STUDY**

- To study about traceability and its awareness in india
- To understand how traceability works
- To understand how Starbucks uses coffee traceability

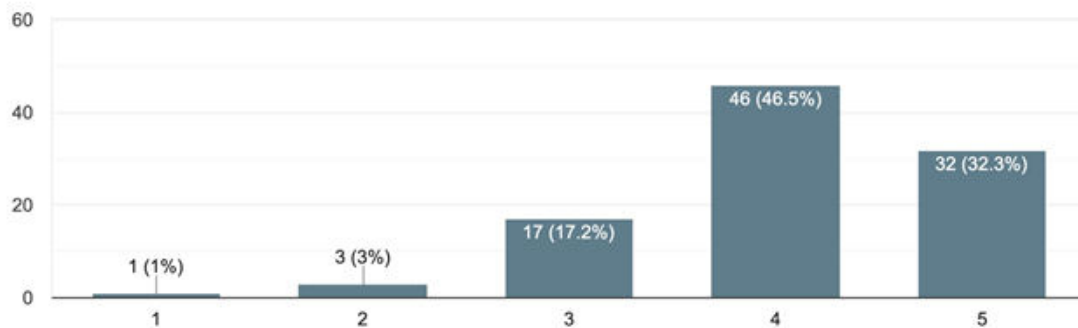
**METHODOLOGY**

Multiple outlets of various food brands such as Starbucks, McDonalds were visited for primary data. Starbucks has been the primary goal to determine coffee traceability. The staff of the outlets have shared as much knowledge as they could. Further, research was carried out using a questionnaire which was circulated as a Google form to residents in Mumbai. 100 responses were collected. Secondary data was based on blogs, publications by industry bodies and journals.

**DATA ANALYSIS**

How important will it be for you to know the traceability of a product? (Rate from 1 to 5, where 1 being the lowest and 5 the highest)

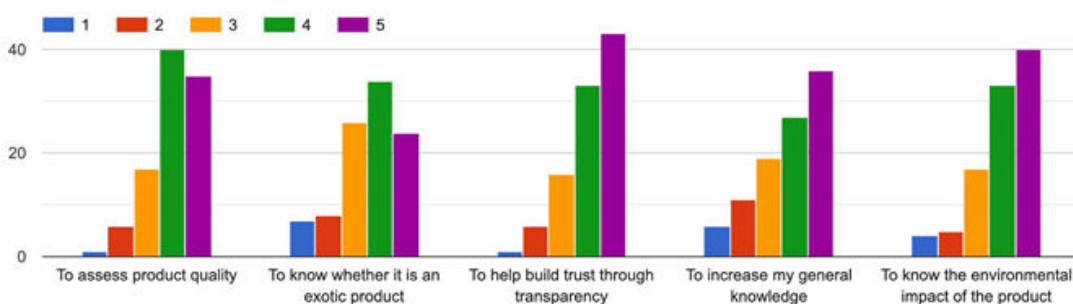
99 responses



**Figure 1**

The above data highlights that almost 78% of the universe would like to know the traceability for the products.

Rate the importance of following factors which would prompt you to find out the origins of a product (Rate from 1 to 5, where 1 being the lowest and 5 the highest)



**Figure 2**

From the data, we infer that traceability helps companies build trust through transparency being the major reason for it. Followed by to assess the product quality and to know the environmental impact of the product.

From a companies perspective, do you think traceability adds value?  
100 responses

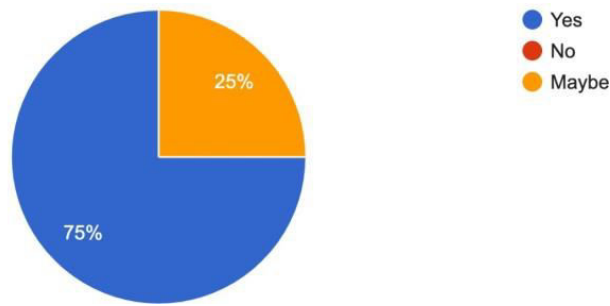


Figure 3

The above data helps us know that 75% of the people think that traceability adds value.

Do you think traceability helps in achieving the Sustainable Development Goals?  
100 responses

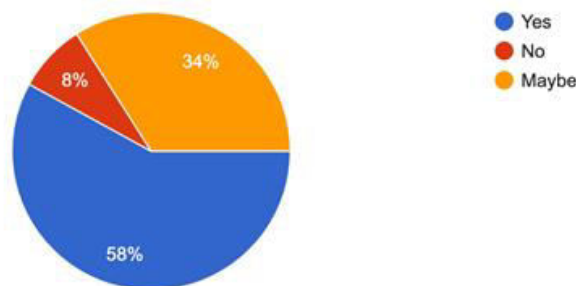


Figure 4

While 58% believe that traceability helps in achieving Sustainable Development Goals, 42% are still unsure about it.

**FINDINGS**

Better coffee traceability makes coffee a rare agricultural product whose quality and price vary based on various aspects, rather than a homogeneous commodity whose worth is assessed in volume. Traceability lets coffee supply chain stakeholders acknowledge producers' efforts. It educates buyers and consumers about specialty coffee bean production in different nations and the technical procedures involved. Transparent specialty coffee shops, buyers, and roasters sell more. Sourcing may be a company's branding. Starbucks in the US is using traceability and has software updated from Microsoft. So if we visit their site, there's actually a section where we can scan the product and trace its origin. After visiting a few Starbucks in India, we got to know that traceability as a feature is not yet known about. The respondents from Mumbai who participated in the primary survey displayed interest in wanting to know the origins of a product.

They found it valuable to companies to share traceability information and also exhibited interest in attaining Sustainable Development Goals.

**SUGGESTIONS**

Companies should start researching and investing in traceability systems. This would help them maintain better relations with their customers via transparency. Also, more awareness is to be created with respect to traceability systems for both the industries as well as the customers. While other countries have already started with traceability, India should also look into it and start investing.

**CONCLUSION**

This article introduces to the world of food and agricultural product traceability. Traceability's effectiveness makes it more important in the modern era. This paper discusses various approaches to implementing traceability. Barcodes, RFID technology, WSN, and other tools are available for implementing traceability in food and agricultural products. Traceability implementation is not without drawbacks. Traceability does have a few disadvantages, including higher costs, multiple requirements, skills and implementation, and so on. For it to function properly, one should be well-versed in the Quality Standards associated with traceability.

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Traceability of coffee beans is the journey from bean to cup. Coffee has been around for a long time. Consumers should know the tale behind each bean. The coffee value chain is complicated, with many processes and actors. Traceability lets firms trace produce from cultivation to consumption. Starbucks' Digital Traceability tool informs customers about the bean-to-cup journey of their coffee. This allows customers to identify which region the coffee belongs to and who farmed it.

The traceability tool is more than just a consumer transparency tool; It's a process that brings coffee lovers closer to the manufacturers and growers of coffee. It helps customers support farmers. While this feature of traceability is currently available for the stores in the US, in the near future traceability will be a worldwide thing.

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**STUDY OF PREFERENCE OF ONLINE PHARMACY POST COVID****Divya Thakur and Akhilesh Laxman**

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**INTRODUCTION**

The world has been completely taken over by the Internet, therefore it is only natural that numerous pharmacies will follow suit. It describes a company that sells medications that may be purchased online and sent to customers by mail. The idea of online pharmacies, commonly referred to as E-Pharmacies, has contributed to a growth in the pharmaceutical industry because of Covid-19. The impact of COVID and the accessibility of the internet are two factors that may have contributed to this. One of the innovative developments is e-pharmacy, which is likely going to bridge the gap between services and end-users in remote areas by providing easy and reasonable access to medications at the customer's doorstep with only a small click of the finger. It enhances the comfort and accessibility of the buyer. The nation's remote regions benefit from retail drug stores much like they did before. E-Pharmacy in India is still in its infancy due to a number of causes, but it has the potential to grow into a sizable industry area in the future. Things are changing right now because of rising computer knowledge, internet accessibility, and smartphone popularity. Even though pharmacies were permitted to remain open during the lockdown, many people chose to obtain their medications and other pharmaceutical supplies online for their own protection. Though the quarantine period has ended people still tend to buy medicines online sitting at home which is resulting in habitual change. Film stars who have no medical background are promoting online pharmacy via the medium of advertisement, and general people are getting motivated to buy online i.e., use online pharmacy. People neglect to give a thought on the aspect of safety while using online pharmacy apps.

**Some Reasons Why People Prefer E-Pharmacy Over Offline Pharmacy**

1. Comparatively more discounts.
2. Home deliveries.
3. Availability.
4. Saves energy.

**Some India based E-Pharmacy Start-ups**

1. Pharmacy (2015)
2. 1mg (2015)
3. Healthkart (2011)
4. Medlife (2014)

**REVIEW OF LITERATURE****1. A study was Undertaken by Anwar et al., (2020) on Factors Leading to Preference for buying Online Medicines and their Effects on Actual buying Behaviour**

This essay focuses on a few of the reasons why many people are comfortable buying medicines online. Cost-effectiveness, convenience, and the availability of uncommon drugs are a few of the deciding criteria. The author also learned that e-pharmacies are leading the way due to the Digital India programme, a government of India-led e-health care initiative.

**2. A study was undertaken by S.V.Chordiya, B.M.Garge (2018) E-Pharmacy vs Conventional pharmacy :**

This essay focuses on the benefits and drawbacks of traditional and online pharmacies. It provides information on e-pharmacy. This study demonstrates the trend of people purchasing medications online. It also demonstrates the operation of the e-pharmacy model.

**3. A study was undertaken by Roshni Selvam, Pavithra GM, Venugopal N (2021) E-pharmacy –a boon or bane**

This essay focuses on the difficulties that face e-pharmacies. It also discusses the benefits and drawbacks of online pharmacies. This essay demonstrates the operation of the e-pharmacy model. The research demonstrates that, despite some favourable factors, e-pharmacies lack the personalised attention of a traditional pharmacy.

**OBJECTIVES**

1. To study if there has been a habitual change with regarding to online pharmacy post covid.
2. Effects of advertising on people's mind with respect to online pharmacy.
3. Reasons why people are preferring online pharmacy.
4. To study in online Pharmacies are completely safe.

**RESEARCH METHODOLOGY**

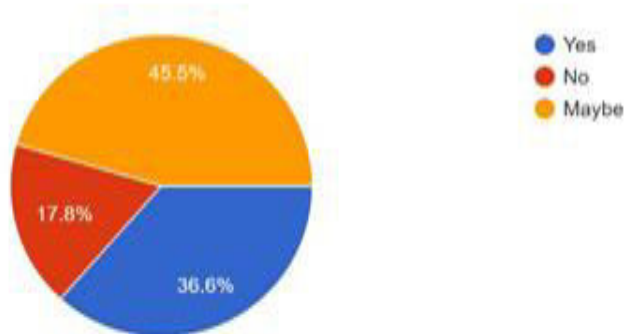
**Research Design:** For this study, which was based on the focused study, the descriptive research method was applied.

**Data Collection Method:** In this research, data was collected in two methods i.e. Primary and Secondary.

1. Primary Data – Google forms were floated to collect the required responses [Data]
2. **Secondary Data** – The secondary data was collected by using the internet and from research articles in different journals.

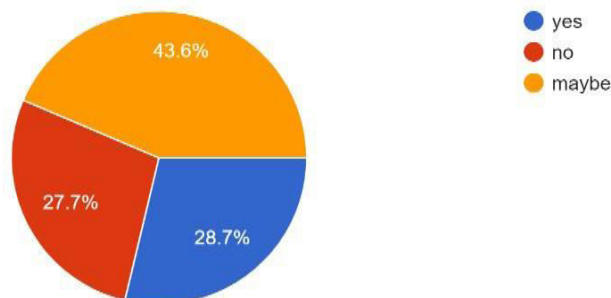
**DATA ANALYSIS AND FINDINGS INTERPRETATIONS FROM PRIMARY DATA**

Do you feel advertising motivates you to use or try online pharmacy?  
101 responses



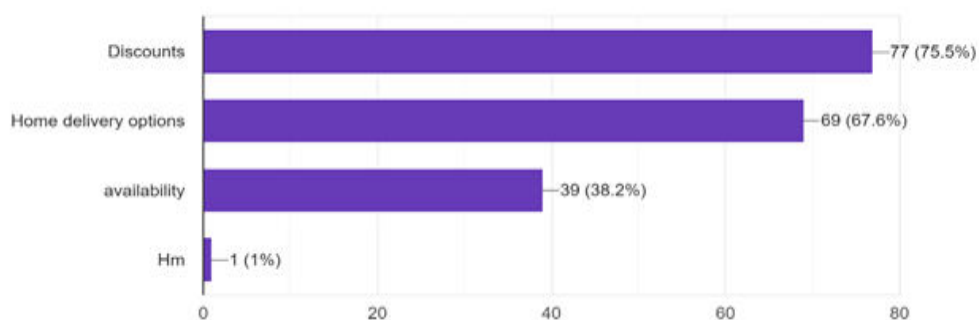
Pie Chart representing the proposition of sample space influenced by Ads with reference to E-Pharmacy, which shows around 36.6% people are influenced while 45.5% are not sure if they are influenced.

Do you feel that big personalities, stars, influencers motivate you to use online pharmacy?  
101 responses



The above chart shows around 28.7% are motivated by big personalities who represent the E-Pharmacy brands in commercials and advertisements while 48.6 % do not realise that if are getting influenced or not.

Out of the below what are the reasons you would prefer online pharmacy?  
102 responses

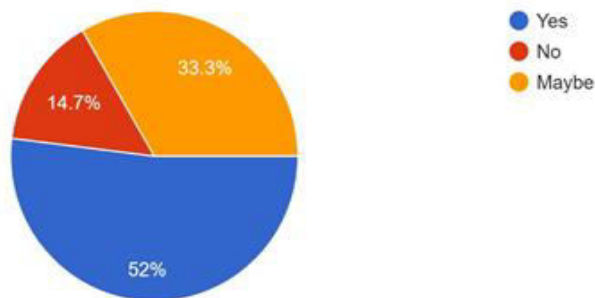


According to the responses collected around 75.5% people use these apps for the discounts they offer while 67.6% buy through E-Pharmacies for the Home Delivery option and around 38.2% people say they get their preferred medicines only on E-Pharmacies.



Do you feel laziness is one of the reasons people use online pharmacy?

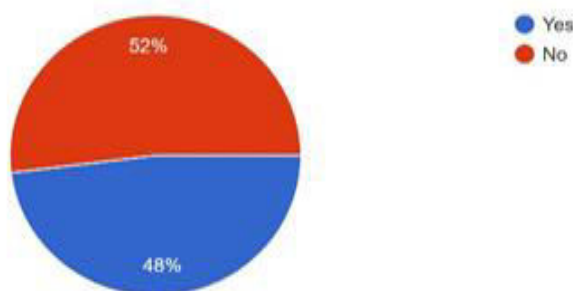
102 responses



According to this chart 52% of the sample size realises that apart from other reasons laziness is one of the major reasons behind them making a purchase on E-Pharmacy apps while 33.3% think laziness maybe a possible reason.

Do you see any threats in online pharmacy?

102 responses



Around 52% people are not aware about any possible threats with respect to E-Pharmacy while 48% think there might be some sort of threats involved.

**INTERPRETATIONS FROM SECONDARY DATA**

Due to a limitation on public movement outside the home imposed by the Covid-19 outbreak, many people choose to purchase their medications online.

1. Even while buying medications from E-Pharmacies online is generally safe, there are still dangers associated with choosing the proper medication. Due to the savings and incentives that internet pharmacies provide that are not offered by conventional pharmacies, many consumers buy their medications from them.
2. Advertisement, not major but has impact to a certain level in mind of people. When people tend to see their favourite star promoting online pharmacy there are chances of people getting influenced and they might give a chance to use the E-pharmacy.
3. The study found that individuals in our nation still favour traditional pharmacies over online pharmacies. because they consider neighbourhood pharmacies to be more dependable than online pharmacies.

**SUGGESTIONS**

1. Customers must ensure the reliability of the E-pharmacy app they are using or going to use.
2. People should look upon to professionals and not influencers when it comes to subject like pharmacy.
3. Safety of the customer is in the hand of customer to a extent they should make sure if precautions are taken in order to maintain safety.
4. E-pharmacies have gained popularity as a result of Covid-19, so they may be considered and will enable customers to acquire medications online without taking any chances.



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**CONCLUSION**

Despite all the aforementioned, I believe that local pharmacies and e-pharmacies have a lot of potential in the Indian market because, at the same time that many conservative people are turning to both e-pharmacies and local pharmacies, more and more educated consumers are turning to online purchases from e-pharmacies. Since E-Pharmacies entered the Indian market, it is now simple to get drugs anywhere in the world. Because of its effective customer relationship management, offers, and discounts, it is growing in popularity among consumers. Many people prefer to walk outside to get medications since online pharmacies lack the physical interaction of traditional pharmacies. When making online purchases, people should be cautious of such dangerous websites. For pharmacies worldwide, the current scenario presents both opportunities and challenges. Given that there are many benefits to using an online pharmacy and that e-commerce has expanded as a result, the Indian government should consider improved chances that will benefit the pharmaceutical industry in the years to come.

People should make informed decisions and must refrain from believing or getting influenced by random social media influencers and celebrities who do not have any specialised knowledge in the domain.

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**THE UPSHOT OF FAST FASHION TRENDS IN MUMBAI BROUGHT ON BY SOCIAL MEDIA**

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**ABSTRACT**

*The fashion industry is one of the fastest growing industry in the whole world and India is one of the top locations for producing fast fashion, and its own demand for clothing is rising. In the modern world, social media has a great deal of power to bring about both positive and negative change. Social media frequently encourages unfavourable change in the fast fashion industry. Social media plays a significant role in the success of the fast fashion industry through the culture it creates and the techniques brands use to reach broad audiences.*

*Social media's "haul culture" is one way it encourages the purchase of fast fashion. Everybody has seen the videos of influencers showing off the vast quantities of clothing they recently bought for a new season or a trip. Only the availability of cheaply made clothing that can be quickly produced and purchased for little money makes it possible for these hauls. The most common haul is a Shein haul—this company not only sells fast fashion products but each individual piece of clothing comes individually wrapped in plastic. Other fast fashion brands popular on social media include Urban Outfitters and Zara, though these hauls are not typically quite as large because their products tend to be more expensive than Shein. While hauls are fun to watch, they promote harmful ideas about clothing consumption and encourage viewers to overconsume.*

*(Keywords: Fast fashion, environmental impact, social media)*

**INTRODUCTION**

Firstly, let's define "fast fashion". Two decades earlier there used to be only two seasons in the fashion industry. Each season used to bring new collections from manufacturers and designers. However, in 2000, a few global businesses debuted 52 micro seasons annually. Fresh arrivals flooded almost weekly in the market with an increasing number of fashionable clothes. It was referred to as "fast fashion."

We have been successful in developing more affordable and quick manufacturing and delivery procedures, as evidenced by the growth of fast fashion. Additionally, it shows how consumer spending power has increased, particularly among young people. fast fashion causes a significant rise in waste. Also keep in mind that these clothes travel all over the world before they get to you. Carbon dioxide emissions rise as a result. About 53 million tonnes of fibre are produced annually by the fashion industry, 70% of which are disposed of in landfills.

**• ENVIRONMENTAL EFFECTS OF FAST FASHION****1. Landfills**

Globally, the fashion industry produces and sells between 80 billion and 150 billion garments per year, with approximately three out of every five of these garments ending up in landfills within years of production. Each year, an estimated 92 million tonnes of textile waste is generated globally. Landfills are the most hazardous to our planet. Clothes do not biodegrade in landfills and can remain there for more than 200 years before decomposing. This also increases the carbon footprint of the garments in the landfill.

**2. Water**

The consumption of enormous amounts of water and energy, as well as the exhaustion of non-renewable resources, are all examples of how fast fashion has an adverse effect on the environment. The production of one cotton shirt uses roughly 700 gallons of water, while the production of a pair of jeans uses nearly 2000 gallons, making the fashion industry the second-largest consumer of water.

**2. Microplastics**

Additionally, companies use synthetic fibres like nylon, polyester, and acrylic that take hundreds of years to disintegrate. According to 2017 research from the International Union for Conservation of Nature (IUCN), washing synthetic textiles like polyester is responsible for 35% of all microplastics, which are microscopic bits of non-biodegradable plastic, in the water.

**3. Power**

It takes a lot of energy to produce plastic fibres for textiles, and the process also generates a lot of volatile particulate matter and acids like hydrogen chloride. Additionally, cotton, which is used in a lot of fast fashion items, is not produced in an environmentally responsible manner. Farmers face health concerns from pesticides deemed vital for the growth of cotton.

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**• Variables Studied**

The variables selected for this study are Changing Trends, Social Media, Poor resistance power, Friends & Family and others.

**1. Changing Trends**

People are getting exposed to different way of lifestyle. Accordingly, fashion trends also keep changing. As buying fashionable clothes requires an investment, the customer is more focused on the trends in which he would be investing the money. They facilitate the main stream customer to buy stylish apparels with matching with the current trends, and at an affordable price. With new trends springing up every now and then, consumers preferences keep changing in the wink of an eye.

**2. Social Media**

Social media companies and fast fashion brands collaborate to create and target user-specific ads. Social media sites gather user data and sell it to other businesses so they can target their ads to the most profitable and vulnerable audience. However, they are also frequently displayed on users screens with flash sales that last for a limited time, encouraging them to make rash and unnecessary purchases. Fast fashion, brand advertising on social media is problematic because it promotes unnecessary consumption of goods.

**3. Poor Resistance Power**

There are ways to limit your own consumption of fast fashion, pursue alternative options that may not even involve buying. And, if you want to potentially get involved with your community more, maybe swap clothes with other people, or even organize clothing drives for used clothes in good condition.

**4. Friends & Family**

When it comes to fashion you are being judged by your own family & friends. This also influence you to buy more clothes, accessories, make over product etc. You also buy products based on their recommendation, review & personal experiences.

**5. Others**

To maintain a societal standard, necessity, self-interest, fear of looking average etc. may be the reason for the success of fast fashion in the world.

The new fashion trends, is especially influenced by western culture and Bollywood movies, create difficulty in young generations' and, as a result of this, many of them indulge in unsocial activities.

**LIMITATIONS**

- This research is limited to the city of Mumbai.
- The sample size may not be a true representation of the population.
- Findings of the study are based on the assumptions that the respondents have given the correct information.

**STATEMENT OF PROBLEM**

This research focuses on the fast fashion trends that is happening in Mumbai. To check whether Social Media is the main cause of these Fast Fashion Trends.

**LITERATURE REVIEW**

1) **S. Saha, P, Saha, (2021)** - states that this industry was a late adopter of social media as their marketing strategy. They found out that Facebook is the most commonly used social media then it follows by Instagram, YouTube, Snapchat, and Twitter. They believed that businesses should make their social media strategy keeping in mind that in which social media pages they have more followers.

2) **N. Aggarwal, C. More (2020)** in their research paper addressed the violation of the environment and the human rights of garment workers by fast fashion industries. They believed that the fast-fashion model creates a substantial carbon footprint in particular and poses a variety of social and environmental issues.

**OBJECTIVES**

- To study the harmful effects of fast fashion on the environment
- To find the impact of social media on the fast fashion trends.
- To examine whether social media is the most impact variable responsible for these fast fashion trends.

**RESEARCH METHODOLOGY**

This paper discusses the fast fashion trends that have emerged in Mumbai as a result of social media. The technique is used to identify, select and analyse the information gathered during the study are referred to as research methodology. This research incorporates both primary and secondary sources.

**Primary data:** The questionnaire method was used for this study. A self-designed questionnaire was used to collect data. The questionnaire was distributed through digital platforms such as WhatsApp and other social media. The questionnaire had in total of 101 respondents, and the survey was limited to Mumbai City.

**Secondary data:** In this, the data is collected, compiled, organized, and published by others. The secondary data was collected with the help of the internet, newspapers and research papers.

**DATA ANALYSIS & FINDINGS:**

Q2. When it comes to fashion items what do you buy the most ?

101 responses



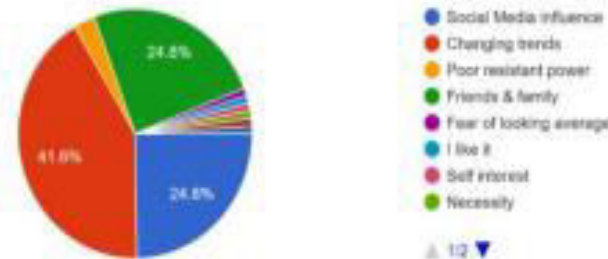
Q3. How many times in a month do you go for shopping for the above items ?

101 responses



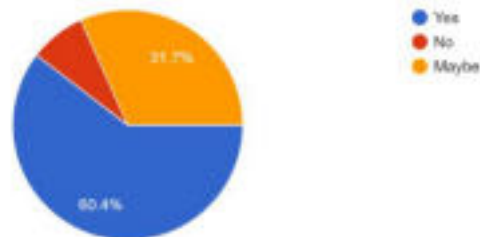
Q5. What induces you to buy more of the above items selected ?

101 responses



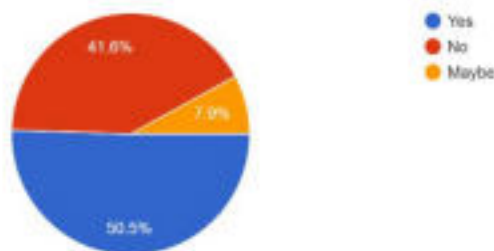
Q6. Do you think these fast fashion trends created any kind of impact on environment ?

101 responses



Q9. Have you heard of "Sustainable Fashion" ?

101 responses



A survey was conducted using a questionnaire method for the following research. The data collected and analysed in accordance with the objectives.

➤ 8.9% respondents were below 18; 70.3% respondents were from the age group of 18- 25; (5%) respondents were from the age group 25- 30; 6.9% respondents were from the age group 30- 35 and 8.9% respondents were from the age of 35 & above.

➤ 68.3% respondents were females and (31.7%) were males. The third question was about their profession in which (58.5%) were students; (34.1%) were working professional; (2.4%) were from retired category; (2.4%) were nothing (unemployed) and (2.4%) were homemaker.

➤ 79.2% people buy clothes, while 8.9% people are more into buying makeup & skincare products. The remaining (7.9%) buy footwear and (4%) are into buying accessories.

➤ 63.4% of respondents go for shopping less than 2 times in a month; 27.7% respondents go less than 4 times; 6.9% of respondents go less than 8 time; while remaining 2% go more than 8 times for shopping.

➤ The graph shows that 60.4% respondents spend 10% of their income; 29.7% spend 20% of their income and 9.9% respondents spend 30% of their income on shopping. ➤ 41.6% respondents are influenced by the changing trends; 24.8% are influenced by friends & family; 24.8% respondents are influenced by the social media ➤ 60.4% respondents agreed to the statement; 31.7% neither agreed nor disagreed & 7.9% disagreed to the statement.

### RECOMMENDATIONS

1. Buy Better Quality
2. Buy second Hand, Rent or Swap Instead of buying new clothing, have a look at alternative options: Second-hand store, Swap clothes, rent clothing, donate
3. Buy Less

### CONCLUSION

We can conclude with the help of finding & analysis that people tend to buy more clothes and this is due to the changing trends in the surroundings. The social media and Friends & family are the other major ones to influence them to buy more clothing stuffs etc. We need to be a lot more conscious before making our purchase decisions.

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**SUSTAINABILITY IN FOOTWEAR INDUSTRY**

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**ABSTRACT**

*Sustainability means using resources in such a way that it does not compromise the future requirements and the needs of the people. Sustainable products are usually very rare and difficult to find. One of such industry is the footwear industry. Footwear manufacturing requires many different components. Some companies use synthetic rubber, modified cotton, and chemical adhesives due to which their production as well as their disposal requires a large amount of water and energy. They are not sustainable and therefore there is a need of environment friendly resources. One may doubt about the authenticity of the product when they hear the word sustainable. Due to this it is very difficult to approach people and create awareness regarding sustainability. The demand for footwear has increased globally over the decade. More than 40 different materials are used for producing a single pair of footwear which takes years to decompose. Major foot wear brands have started taking efforts to produce footwear for long term use, as well as upcycling waste and using biomaterial that dissolves faster. This paper discusses about the impact of sustainable footwear on the environment. It also shares information about the companies that use such innovative practices for sustainable development.*

*Keywords: Sustainable footwear, biomaterial, upcycling, authenticity, environment.*

**INTRODUCTION**

Research on sustainability has been difficult as there is no clear definition to it. Sustainable products and resources are not easily accessible and one may have a hard time in differentiating between a normal product and a sustainable product. Recently, many companies have started using such terms of sustainability in their products and brands to attract more number of people and as to have a competitive edge. This research paper clearly focuses on what impact a sustainable footwear producing company has on the environment and the awareness people have regarding such sustainable footwear industries. According to recent research, 300 million pairs of shoes are discarded annually, and it typically takes 30 to 40 years for a pair of shoes to totally degrade in landfills. The majority of market participants in sustainable footwear find it difficult to invest in skill and technology to create entirely sustainable footwear from scratch.

Modern technology has allowed us to realize that leather can be sustainable. In the past, leather that had been chrome-tanned predominated in the production of shoes, but the introduction of vegetable-tanned leather in recent years has changed that. The tanning agents used to produce vegetable-tanned leather include gall nuts, quebracho wood, mimosa trees, and others. Vegetable-tanned leather is produced without the use of hazardous compounds like chromium III, in contrast to conventional chrome-tanned leather. Vegan leather is an additional substitute for chrome-tanned leather. Polyurethane, a substance derived from plastic, is the main component of vegan leather. Others start to doubt their environmental credentials because of the use of such materials.

However, there are processes for producing vegan leather that are regarded as environmental friendly. For instance, it can be produced using cactus and pineapple plants. The footwear business has struggled to fully realize the potential of sustainability without alienating consumers due to constraints like complexity, size, and a lack of adequate infrastructure for recycling or repair.

There are many different startups in India that follow sustainable development like House of Prisca (founded in 2019) and Padauks (founded in 2013) that produce handmade footwear and Paio (founded in 2013), Green sole (founded in year 2013) that produce vegan products. One of such startups is Neeman's (founded in 2017). It is the company that opt for sustainable footwear over synthetic fiber. The product has the passion for reducing the carbon footprint and thus they found the direction of finding yarns that are natural and organic. The components used in the manufacturing are all renewable and natural. The concept of using recycled pet bottles is very unique and it helps in reducing the carbon footprints.

They ensure that fibers are produced only from sustainably managed wood sources, meaning that the trees they source their fabric from are not only fast growing but also grown specifically for the creation of this material. They ensure that these trees are not grown in or around areas dense in biodiversity to ascertain the least possible damage to our environment.

With almost 700 million metric tons of CO<sub>2</sub> produced annually as a result of its manufacture and the extraction of its raw materials, footwear represents a fifth of the environmental effect caused by the entire footwear industry. NPD data shows that 36% of people aged 18 to 34 have recently started shopping to support businesses'

ethical positions, demonstrating how social conscience is becoming a bigger platform for innovation and the fuel to ignite step-change improvements within the footwear sector.

Consumers, manufacturers, and the environment all benefit from sustainability in the shoe sector. The cost of acquiring sustainable raw materials is higher. However, they ultimately save resources for manufacturers because they are made to cut waste and safeguard the environment. The usage of waterless dye by Nike, for instance, is said to "save energy and reduce the need for additional chemicals in the fabric dying process" for the corporation. The treatment of the animals used to produce the raw materials is another issue that is brought to light by sustainable footwear. Fewer animals are killed for fashion needs for other footwears while sustainable leather is manufactured from recycled materials and vegetable-based sources, aiding in the preservation of the ecological balance.

## LITERATURE REVIEW

The studies and research papers of various researchers have been studied. The review helped in understanding the detailed review and perception of various other researchers and helped in identifying the gap and issues faced.

### 1. The environmental impact of footwear and footwear materials, Subramaniyam:

Studied the environmental impact of footwear on the environment. They mentioned that the impact of a particular product to the environment is a significant issue. Products such as footwear may have different materials and their method of production is different this creates an impact of the product on the environment. Footwear materials have different life cycle process.

### 2. Adhesiveness among the footwear Industry -A Critical Review, Elena Orgilés-Calpena, Francisca Arán-Aís, Ana M. Torró-Palau and Miguel Angel Martínez Sánchez:

The manufacturing of footwear entails the transformation and assembly of several components made of diverse materials, and this is where various adhesives play a crucial role. As a result, the footwear industry and adhesives are closely associated. The right adhesive must be used in order to achieve the necessary binding strength. Additionally, the wide range of materials used in the footwear business call for adhesives that have been particularly developed. The current analysis addresses the adhesives most frequently used in the production of footwear and provides an overview of the substrates utilised as footwear materials.

### 3. Evaluation of Sustainability and Materials among footwear brand, Nancy Yanet HernandezPerez:

Because outsoles and upper sections are attached to shoes using polyurethane cement, it is practically impossible to disassemble a pair of shoes and reuse the individual parts. Large amounts of water and energy are used in the production of shoes, and a significant amount of post-industrial and post-consumer waste is also produced. Making more sustainable selections will enable footwear designers, shoe developers, product managers, and manufacturers to decrease the negative effects of shoe production on the environment and society. They must take into account important decisions including material selection, environmentally friendly footwear manufacturing techniques, and waste reduction. It contains hazardous chemical additions that might eventually vaporize or leach into the air and are poisonous to humans, such as phthalates, lead, cadmium, and/or organotin.

## OBJECTIVES

1. To understand techniques used by sustainable footwear manufacturing industries.
2. To differentiate between effects of footwear and sustainable footwear on the environment
3. To create awareness among the people regarding environmental friendly footwear industries.

## RESEARCH METHODOLOGY

Research methodology is the method through which data is collected. There are two types primary and secondary through which the data is collected for this research.

**Primary Data:** Primary Data was collected from the respondents of third year under- graduate students. The number of responses received were 74. The data collected was in the form of questionnaire through google forms.

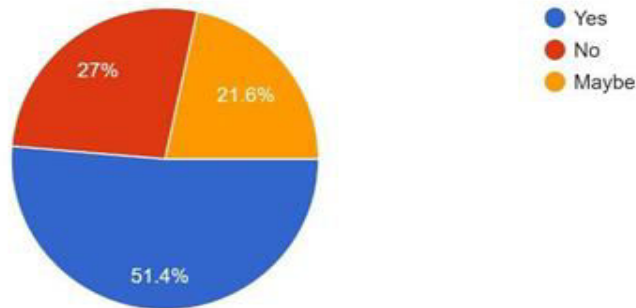
**Secondary Data:** The secondary data was collected from various books, articles, websites, and research papers of various other researchers.

**DATA ANALYSIS:** A survey using questionnaire was conducted for the research. According to the objectives of the study the data was analyzed.



Have you ever heard about eco friendly/sustainable footwears?

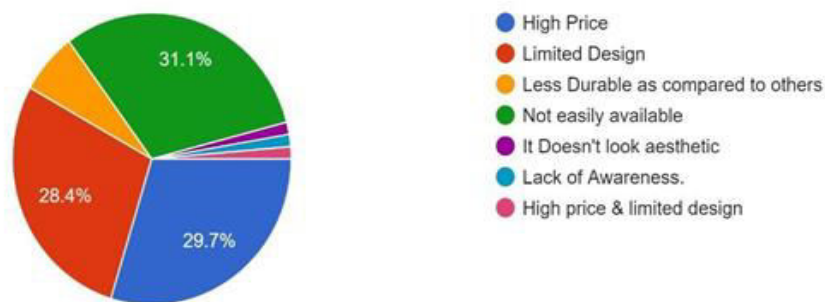
74 responses



In fig 1: It shows that out of 74 respondents, 51.4% of the people have heard about the concept of sustainable footwear, 27% people have are not known to the concept of eco-friendly shoes and 21.6% might have heard about the concept of sustainable footwear.

Why do you think most people are hesitant for buying eco friendly / sustainable footwear?

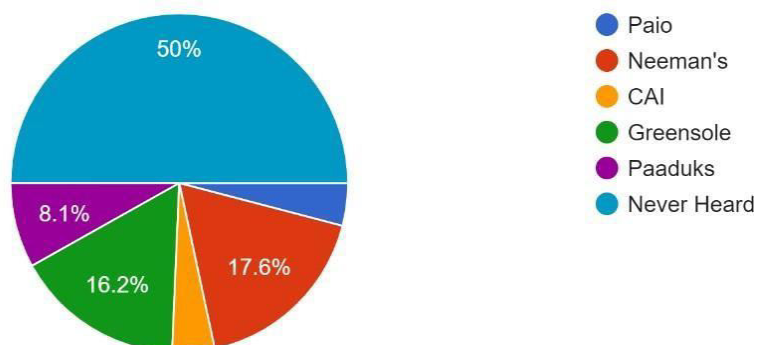
74 responses



In fig 2: It shows that out of 74 respondents, 31.1% people think sustainable footwear are not easily available, 29.7% think they are of high price, 28.4% think that sustainable footwear are of limited design, 6.8% think they are less durable, 1% think there is lack of awareness, 1% of the respondent think they are not aesthetic in looks, , and 1% think they are of high price and limited design.

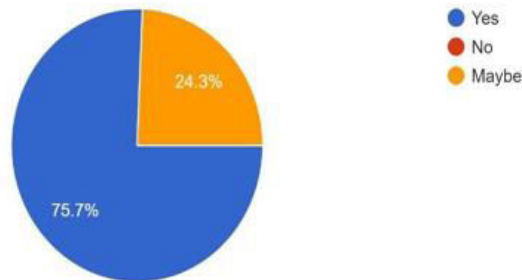
Have you ever heard about any of these sustainable footwear company?

74 responses



In fig 3: The question was asked about whether the respondents have heard or are known to any of the sustainable footwear brand to which their response was : Out of 74 respondents 8.1% have heard about Paaduks, 16.2% have heard about the Greensole brand, 17.6% have heard the name of Neeman's, 4.1% have heard about CAI, and 4.1% have heard about the brand Paio, whereas 50% of the respondents have never heard about any of these sustainable footwear company.

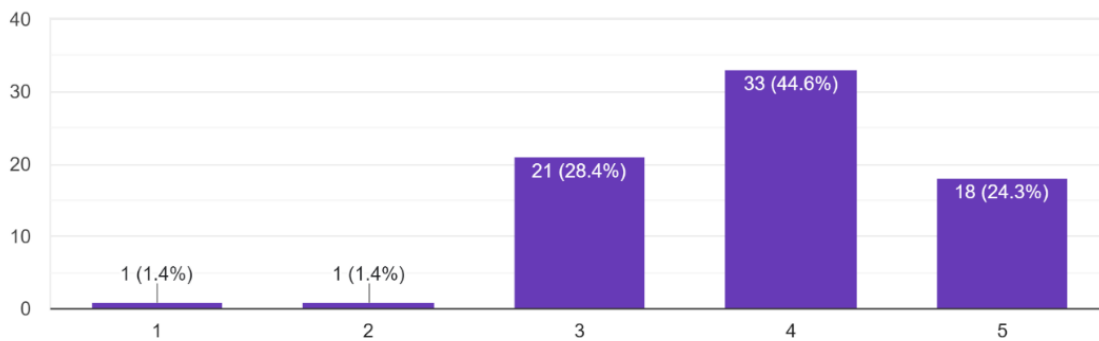
Do you think using recycled pet bottles and renewable fabric on footwear will help in sustainable development?  
74 responses



In fig 4: it shows that out of 74 respondents 75.7% think using pet bottles and renewable fabric is footwear is sustainable whereas 4.3% respondents are have neutral opinion regardsustainability.

How much do you like the idea of sustainable footwear?

74 responses



In fig 5 : it shows that on the scale of 1-5, 24.3%% of the people like the idea of sustainable footwear which is the most, 44.6% chose 4 as they think the idea is good, 28.4% have neutral opinion which means not good or bad, 1% chose 2 which means they disagree with the idea ofsustainable footwear and 1% gave 1 which means they like the idea of sustainable footwear the least.

Through this survey, we understand that people have heard about brands but they are not aware that the companies are known for the sustainable development practices and these industries create innovative and environment friendly products.

**FINDINGS**

In this study it has been observed that some respondents are aware about the concept of sustainable footwears. Majority of them have an opinion that people are hesitant to buy sustainable footwear because they are not easily accessible .When asked about sustainable footwear company 50% of them are not aware of any of India based footwear companies while the other 50% have heard about some or the other company. 75.7% of the respondents think that using recycled pet bottles and renewable fabric can help in sustainable development while others do not agree to this, lack of sufficient awareness can be a reason to this.

**RECOMMENDATIONS**

- It is found that some people are not aware about the concept of sustainable footwear so it is important to interact with more number of people and create awareness programs.
- Creating trends of sustainable footwear on E-commerce platforms.
- Increasing engagement on social media platforms can help influence more people.
- Increase in the competition with normal footwear industries can help increase thesales.
- Focus on durability and quality can attract more people.
- Coming up with more sustainable components which helps in the overall reduction ofprice of the product.

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**CONCLUSION**

Through this research it is concluded that awareness is required among the people regarding the concept of sustainable footwear. The perception of people may differ regarding their purchase decision. The impact on the environment can be controlled by switching to sustainable footwear. It is also found that sustainability should be accompanied by comfort and durability than it creates the value for the product.

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**CRED: A CUTTING-EDGE TECHNOLOGY FOR GENE-Z****Divya Thakur and Sakshi Turakhia**

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**ABSTRACT**

Digital solutions have caused a change that is nothing short of astonishing in the payment industry. A fundamental change in the financial services sector has been brought about by the necessity that financial institutions carry out financial transactions. By leveraging the trinity of cutting-edge technology, enabling policies, and customer demand, fintech is driving the digital revolution of the payment ecosystem. As technology has developed, payments and money have undergone tremendous changes. Compared to earlier payment methods, modern payment systems must pay more attention to security, dependability, and availability. Trust and security levels (strong safeguards should be in place). When integrating payment mechanisms, issues including availability, trust level, and security should be considered. It aims to streamline the process using automation and advanced technology. It aims to automate and streamline the digital payment flows that are involved in payment reception, processing, and distribution. 100 sample respondents are chosen for the study based on their age, the reason they use it, how often they use it, the challenges they encounter when using it, and whether Cred has an impact on gene Z. Following a thorough discussion of the key findings' principal components and their interpretation, this study draws its conclusion.

*Keywords: Technology, Digital payments, Digital payment infrastructure, Sustainable Development Goals, Credit Card.*

**INTRODUCTION**

A digital payment, also known as an electronic payment, is the transfer of money from one payment account to another using a computer, Point of Sale, mobile phone, or another digital device. The main principle of sustainable development is the integration of both immediate and long-term economic, social, and environmental concerns. One economic tool for inclusive growth and sustainable development is financial inclusion. Worldwide studies have shown that digitizing payments may increase efficiency by speeding up payments and decreasing the cost of disbursement. Additionally, formal savings increased significantly as a result. However, the successful implementation of digitization also largely depends on the required technological infrastructure, such as reliable electricity, mobile networks, and financial infrastructure, which consists of a workable payment structure and a physical network to deliver payments. Consumers who use digital payments must feel confident that they can deposit and withdraw money safely, credibly, and comfortably at cash-in. The seamless experience customers receive via digital payment is one of its most important benefits. Online payments are a popular option because they rely on currency, quick transfer times, and simplicity of transactions. Common payment methods like cash and cheques affect additional factors including risk, steps, and physical presence. With the use of digital payments, money can be sent and received. The objectives of Cashless and Digital India are continued by CRED, the nation's first full-stack provider of financial solutions. We wish to make it feasible for all businesses, contractors, and freelancers to accept electronic payments and hasten the growth of their operations. A 3X increase in payment volume was observed by CRED through SMBs that went online for the first time during COVID in 2020.

**LITERATURE REVIEW**

- 1) According to Ashish Baghla (2018), the adoption of digital payments in India was the focus of his research paper, "A Study on the Future of Digital Payments in India." This essay identifies the issues or difficulties Indians have had in adopting digital payment methods. Finding out how individuals feel about the adoption of digital payments in India was one of the goals of this study. The report concluded that although the government's attempts to make India cashless are succeeding, it will still take some time for India to achieve complete cashlessness because other issues need to be resolved.
- 2) Prof. Hariom Tyagi and Dr. Abhishek Shukla's study from 2016 titled "The Study of Electronic Payment Systems" is cited by Mamta. This study tries to pinpoint the problems and difficulties with the electronic payment system and provides some ideas to raise the caliber of e-payments. The management of the security and privacy aspects as viewed by buyers and sellers will determine how successfully an electronic payment system is implemented. This management will also increase market trust in the system.
- 3) Sujith T S and Julie C D's work, "Opportunities and Challenges of E-Payment System in India," published in 2017. This study aimed to identify the problems and difficulties with electronic payment systems and suggest some improvements. The study revealed that the expansion of digital payments into rural areas is also being

facilitated by the reach of mobile networks, the Internet, and electricity. There will be more digital payments as a result.

- 4) The study "Determinants of Customer's Acceptance of Electronic Payment System in the Indian Banking Sector" by Sanghita Roy and Dr. Indrajit Sinha (2014) states this. The study's goal was to identify the most widely used electronic payment method out of all the available possibilities. The degree of awareness and use of e-payment technologies was also examined in this study. The study's major goal was to identify all the variables affecting how customers adopted the technology acceptance model. Primary data were used to inform the study. The information was gathered using a structured survey questionnaire and was specifically targeted at a set of 30 respondents. The study's findings identified four factors—innovation, incentives, customer convenience, and legal framework—as helping to develop India's e-payment infrastructure.
- 5) In their research paper titled "A Study on Digital Payments in India with Perspective of Consumer Adoption," K. Suma Valley and Dr. K. Hema Divya (2018), focus on the analysis of the extent to which customers have adopted these digital payments. A structured questionnaire was employed as the study approach, and 183 respondents provided the primary data that was used to compile the findings. The chi-square approach is the research tool used to analyze the data. The major goal of this study was to confirm how clients in our country felt about digital payments about the idea of digital banking. The report also recommended that suitable steps be made to increase knowledge of various technologies and the security of digital payment usage in India.
- 6) The research paper "An Empirical Study of the Awareness of Paperless E-Currency Transactions like E-Wallet using ICT in the Youth of India" by Pawan Kalyani (2016) emphasizes the paperless transactions that are becoming more and more popular around the world in the form of digital wallets. In this study, the researcher also examined several Indian e-wallet services as well as numerous e-wallet types around the world. Data were gathered for this study using a structured questionnaire, and after analyzing the findings, it was determined that while digital wallets linked to online retailers are popular, those linked to banks are operating successfully. The report concluded by recommending that, for greater effectiveness, more value-added services be introduced to these digital wallets to boost their practical usage and public awareness.

### **OBJECTIVE**

The study's objectives provide a quick overview of the topics of the research that is investigated. Research objectives aid in the creation of the study's hypotheses, as well as in the condensing and focussing of the research.

#### **Here are a few of the study's goals:-**

- To study the impact of online payment applications on consumers.
- To study how gene-z has become a spendthrift due to Cred.
- To study how safe Cred payment methods are.
- To analyze how helpful Cred can be.

### **RESEARCH METHODOLOGY**

This is descriptive research, and the major data was gathered by sending surveys to a variety of CRED users to understand their acceptability, usage patterns, issues, and effects on organizations. No secondary data was used, such as those found in research papers, white papers, and other web sources.

The study makes use of a research analysis technique to ascertain the current state of research on CRED being a financial source for the gene-z and their future directions. An extensive collection of results from several research studies that have been statistically analyzed to integrate such findings is referred to as an analysis in statistics (Class, 2023). The meta-analysis, then, is just the analysis of analyses. As a result, this study offers a thorough analysis of the CRED Payment Method experiments that were completed in December 2022. The use of Google Forms is justified by its precision, accuracy, and thoroughness in providing a measure of journal impact (As a result, the search returned a total of 100 reviews from Google Forms. The majority of these reviews were good. These 100 reviewers were specifically asked to focus on the elements that affect CRED's usefulness and their opinions of CRED for the study's objectives. The review's initial goal was to determine pertinent

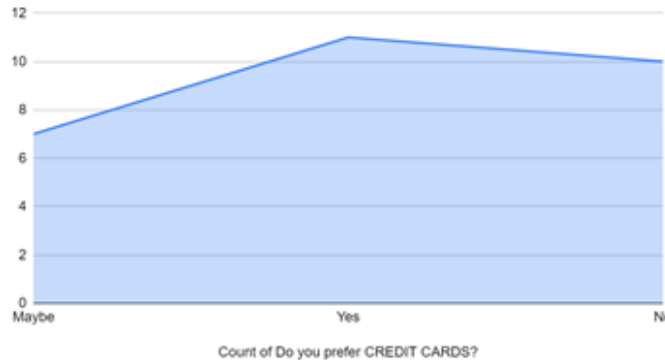
CRED information: how is it useful? Is that platform secure? and secondly, to evaluate and talk about reviews of CRED's progress. This is done to analyze and incorporate the idea that Cred is a sustainable start-up and to determine the company's future.

**DATA ANALYSIS**

CRED, being a payment source for gene-z used for analyzing the use of e-wallets, was the main topic of the questionnaire. To determine the rise in usage and legitimacy of the CRED payment method, 100 gene-z responses were examined and analyzed. The following analysis of some of the main responses:

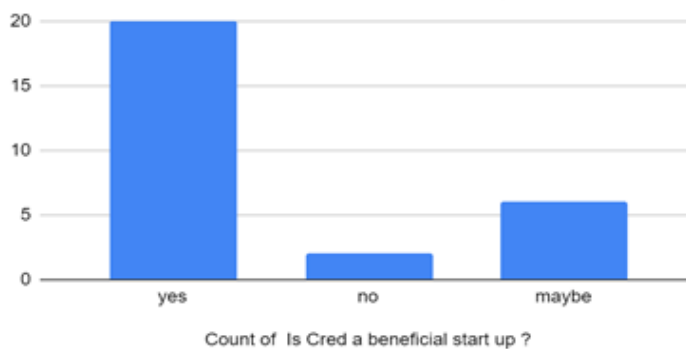
**1) Do you prefer CREDIT CARDS?**

42% do not prefer credit cards, 33% prefer using them and 25% are unsure.

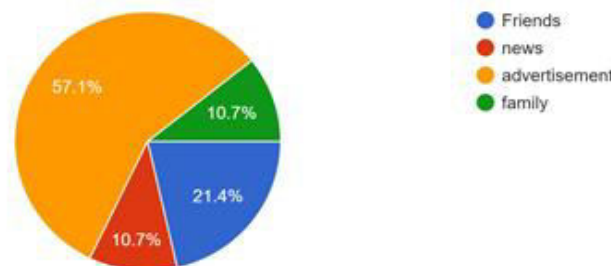


**2) Is Cred a Beneficial Start-Up?**

Out of the 23 students surveyed, it is found that 74% think that CRED is a beneficial start-up, showing an increase in the usage of the Cred payment method in India. Students prefer Cred as a mode of digital payment, as it is user-friendly and easy to use.

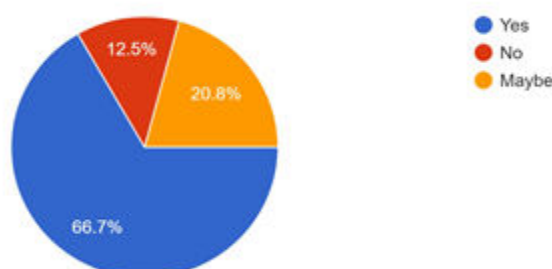


**3) How did you know about CRED? There are various Replies About This.**



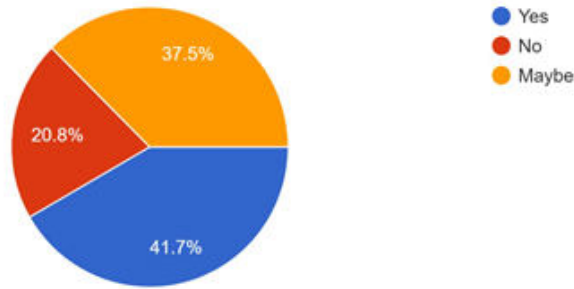
**4) Do you think CRED is a Safe Platform?**

Out of 24 students surveyed, 67% of students think CRED is a safe payment method, 12% Think it's not at all safe, and another 20% may or may not think it's safe.



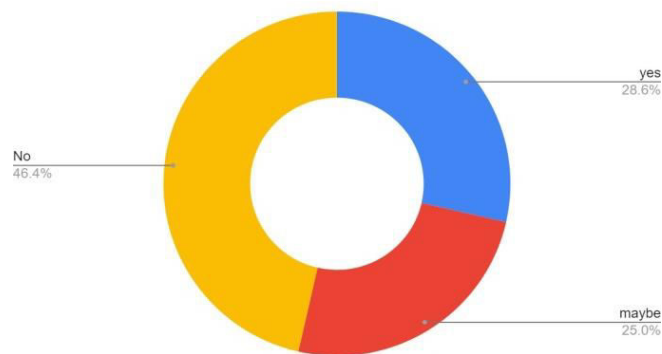
**5) Would you prefer to pay through CRED over any other Payment Method?**

Only 41% prefer CRED over other payment methods, 20% do prefer CRED at all, and 38% maybe or maybe not prefer CRED.



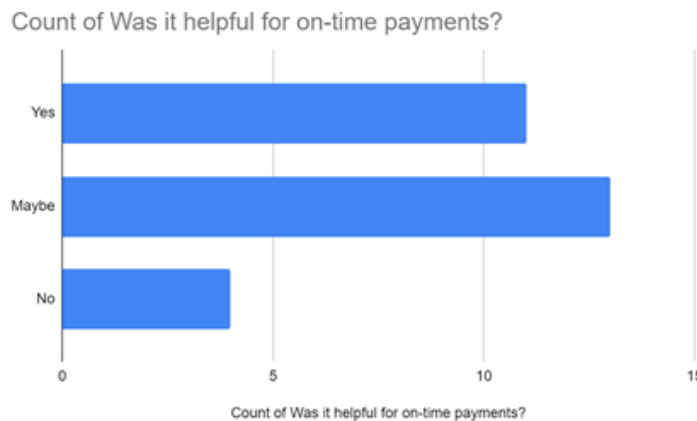
**6) Do you use CRED to pay your Credit Card Bills?**

45.8% do not use CRED at all as their method to pay bills, 29.2% prefer Cred as their billing method and 25% may or may not use it.



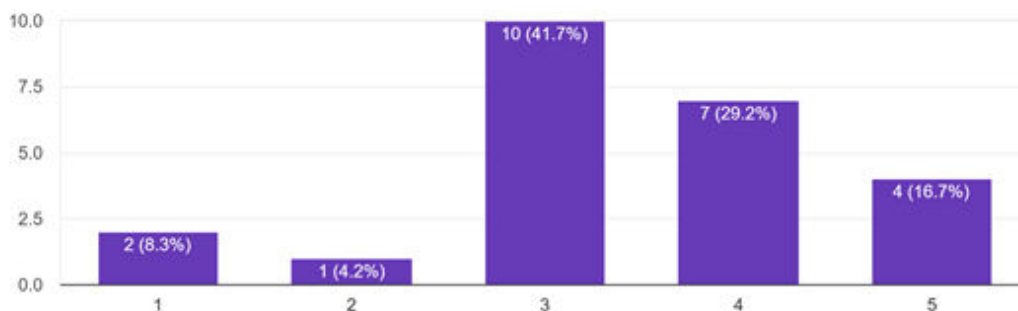
**7) Was it helpful for on-Time Payments?**

Out of 24 students, 41% will use it, also 41% may or may not use it and 17% won't use it at all.



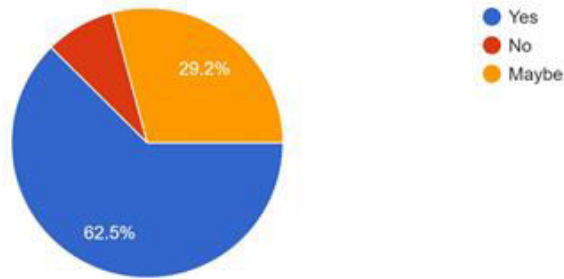
**8) Rate your Experience with CRED**

We all have received a positive response over the experience of students using Cred.



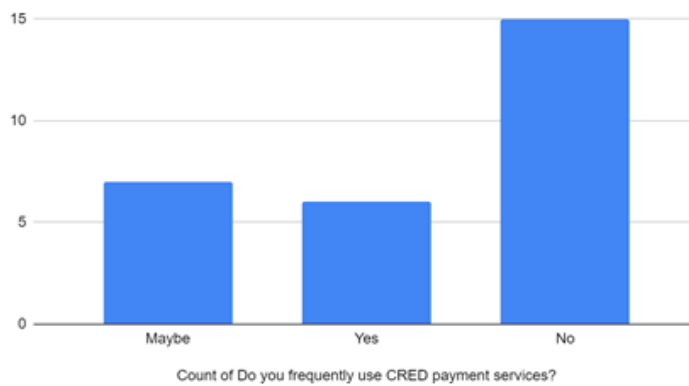
**9) Do you like the Rewards which CRED offers?**

8% do not like CRED rewards at all, 62% prefer Cred as their billing method and 29% may not like it.



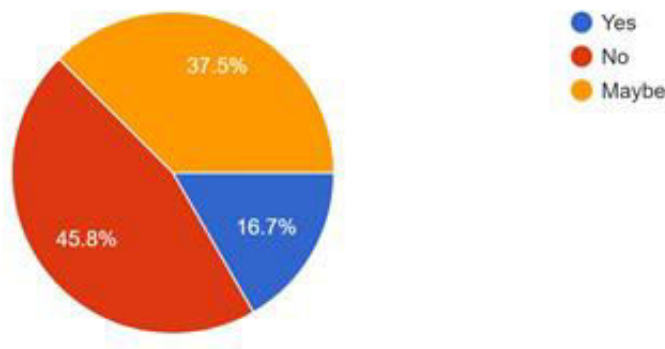
**10) Do you frequently use CRED payment services?**

Above 50% don't use Cred that frequently, 20.8% prefer it consistently, and 25% are not sure.



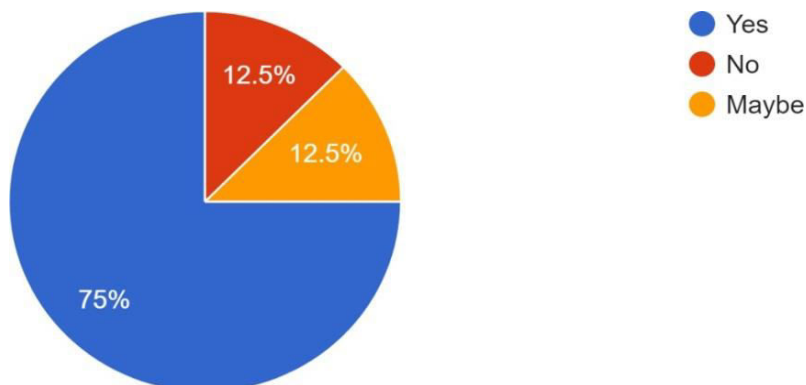
**11) Because of CRED'S points/offers have you started using money recklessly?**

45.8% do not use money recklessly due to Cred, 17% do not spend so much money, and 37.5% are not sure.



**12) Do you think CRED is a Developing Electronic Payment Service?**

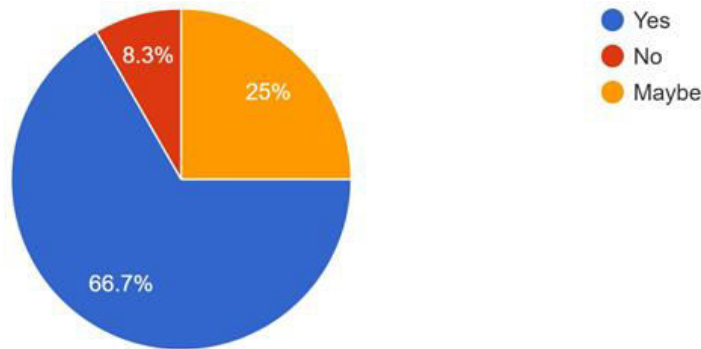
75% of students have a positive response, 12.5% prefer and the other 12.5% are unsure.





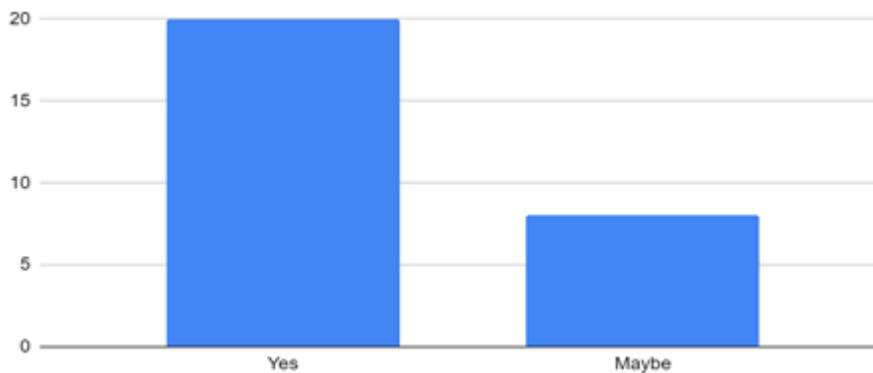
**13) Are you impressed by the feature of CRED REMINDERS?**

67% are impressed by Cred reminders, 25% are not sure and 8.3% are not impressed.



**14) There are millions of people who use CRED and earn rewards and cashback. would you like to be one of them?**

70.8% would like to be one of them, and 29.2% may or may not be sure about it.



**FINDINGS**

According to research, the widespread use of smartphones has led to an increase in the popularity of Cred payments. The Cred bill payment mechanism has gained the trust of the users over time. Most users, it has been seen, make payments using Cred to maximize their cash back and benefits. It has been observed that the benefits of using Cred payment methods are frequently linked to those offered by smartphones, including independent payments, the ability to access services from anywhere at any time, door-to-door delivery, easy tracking, and the ability to avoid lines and cash payments. Additionally, gen-z thinks Cred Payments is a secure platform with a reliable on-time payment system. The organization should think about how to further establish more trust concerning security and privacy concerns rather than focusing on discounts or cashback offers to achieve sustainable growth.

**RECOMMENDATION**

This report makes it obvious that the Cred-based payment platform is essential to mobile payments. And numerous private corporate behemoths are using their marketing gimmicks, like Google, Phone Pay, Pay TM, Amazon, and others. To safeguard customer rights and establish appropriate procedures for resolving Cred-related complaints, particularly those involving money deducted from accounts but not paid out in benefits, the government must firmly ignore them. It's a frequent mistake that occasionally happens for several reasons.

Although it took 3 to 7 working days, the money wasn't lost. Due to the intense competition, the business must have more advantages in the Cred App. It must also have offered more discounts and cashback to draw more users to its Cred platform.

**FUTURE DISCUSSION**

As may be gathered from the preceding, the organization should consider further increasing confidence concerning security and privacy concerns, on discounts or cash-back incentives. The millennial generation will benefit more from personal loans and other possibilities in the future, according to the gen-z repute. Around the world, innovative financial solutions like Billdesk, Razorpay, etc. have emerged. For greater development and sustainable infrastructure, the organization must evaluate and outperform its rivals. Already around 9 million users use CRED as their source of paying bills.

Nowadays, this generation likes the concept of credit cards, it's not like the older generation where the younger ones inherit a lot or they have sources of doing a full payments rather they would do EMI or just take a loan which is due to the growing inflation. Well, this will always be a beneficial impact on the company as later the millennials will always choose credit even though they are in India and it's still a growing part for everyone to use and trust online platforms.

However, I would like to conclude by saying that seeing the growth in credit users Cred has the potential to reach greater heights.

### CONCLUSION

From the survey conducted it can be seen that many people are adopting the cashless mode of payment as it has its pros like it:- it reduces time and is convenient to use as well as various online payment apps offer various cashback offers and discounts as well to encourage people to use digital mode of payment like Cred. A consumer can track all their expenses with online payment. The concern that consumers have is their security, their privacy being hacked or leaked, high transaction charges, etc. With the increase in the usage of smartphones, the world has come closer and with a single touch, any payment can be done. In our study, it can be seen that the consumers or the respondents are satisfied with the use of Cred for making various payments and that online modes of payments are increasing day-by-day with the increase in various technologies which facilitate the entire process of a transaction.

The results of the poll show that many individuals are using cashless payment methods since they are convenient and save time. In addition, several online payment applications provide discounts and reward deals to entice users to utilize digital payment methods like Cred. With online payment, a consumer can keep track of all their spending. Consumers are worried about hefty transaction fees, their privacy being compromised or disclosed, as well as their security. The world has become more accessible thanks to the rise in smartphone use, and any payment can now be completed with a single tap. According to our study, customers or respondents are happy using Cred to make a variety of prices, and the use of online payment methods is growing daily due to the development of new technologies that streamline the transaction process.

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**SUSTAINABILITY IN SKINCARE INDUSTRY- A STUDY ON WOW SKINCARE SCIENCE****Fleur Fernandes and Kunjal Gangar**

SIES College of Commerce and Economics (Autonomous)

**ABSTRACT**

Skincare Industry is expected to an exceptional growth in the next 5 years due to increasing popularity of healthier lifestyle. This study attempts to solve the problem of people facing various skin issues even after using skincare products which use harmful chemicals in their products. To solve this problem Wow skincare science comes into existence. Wow is a skincare company which uses vegan ingredients free from damaging or harmful chemicals. The brand focuses on launching innovative, research-backed products, with a recent entry into sustainability. This company is the 1<sup>st</sup> company to go sustainable with paper tube packaging. The current study explores consumer behavior towards green skincare products. Also, the study aims to reveal consumer's attitude towards natural skincare products and the benefits of natural ingredients. Primary Data was collected by conducting a survey via questionnaire method, sent across different geographical locations, the size of the audience was 100 people of different ages. Results of people using wow products showed great satisfaction whereas people using other brand products are ready to shift to wow products after getting informed about the benefits of wow brand.

*Keywords: Sustainability, Skincare, Natural Ingredients, Toxin-Free, Eco-Friendly Packaging.*

**INTRODUCTION**

Skincare is one of the most important and personal aspects of our lives. It's not just about having clean skin tone but also about having self-confidence, mental health, productivity, etc. The skin care industry has evolved over many centuries to address these issues. Nowadays we have hundreds of different products with a number of benefits. This is the first time in many years that the skincare industry is growing faster than the makeup industry. At an estimated value of over USD 141.53 Bn billion in 2019, the Global Skin Care Product Market is predicted to thrive at a CAGR of 3.7% and valued at over USD 211.06 billion over the forecast year 2020-2030. Growing customer demand for self-care as well as desire for natural and healthy ingredients is creating opportunity in the skincare sector. Many companies in the skincare industry such as L'Oréal, Dove, Head and Shoulders, etc. are using harmful toxins and chemicals in their products which is not good for customer's skin. They prefer products which are made of natural ingredients. Now after consumers gain more knowledge about the ingredients, they have started to shift to products with natural ingredients. That's where Wow Skin Science comes. Wow Skin Science is a company of health, wellness, and fitness. The company headquarter is in Bengaluru, Karnataka, India. This company's products are free from harmful Sulphates, Silicones & Parabens and artificial colors. The Products are safe, nature inspired & dermatologically tested for your safety. This company was established in 2016 by Manish Chowdhary and Shraddha Sharma. Wow is a nature inspired beauty brand managing safe skin and hair care products for everyone to use. Products ingredients used are inspired by nature & dermatologically tested for your safety.

Wow Skin Science has raised a total of \$124.9M in funding over 2 rounds. Their latest funding was raised on May 18, 2022, from a Private Equity round. WOW is funded by 2 investors. GIC and Chrys Capital are the most recent investors.

Wow Skin Science has commenced its bestselling Vitamin C Face Wash in its first-ever paper tube packaging. It is its first initiative in India which aims at reducing usage of plastic. A step towards a greener future. #EkChotiSiShuruwaat.

The paper that is being used in the packaging is Forest Stewardship Council Certified and has a high burst strength and low COBB value, which translates to being strong and stable even in humid conditions. With 45 percent reduced plastic usage at source, this is Wow Skin Science's small beginning for a greener tomorrow.

The brand will be sending a seed pouch to all their customers who order from the website after the launch so that they can be a part of this sustainable initiative.

It brings a way to greener future and plastic positive society by creating less carbon footprints.

**LITERATURE REVIEW**

Skincare is an essential part of a person's personal care regime. Natural skincare can be referred to as the skincare regime that extensively involves the utilization of natural products.

**Ritu Narang and Radhika Sharma: Impact of Demographic Factors on Purchase Intention of Organic Skin Care Products: A Study in Select Cities of India. Vol.42 (2021)**

This study provides a brief overview of pioneer work on organic skin care products. This study has important insights for marketers of organic skin care products in India. An important finding of this study is that demographic factors do not significantly influence the intention to purchase organic skin care products. For this research they used a non-probability, purposive sampling. The questionnaire was prepared on Google Docs and data was collected online from March to June 2020 through virtual snowball sampling technique. The size of the audience was 25 people. Their study has two goals. The first goal is Demographics factors that affect intent to purchase organic beauty/ skincare products and the second goal is to investigate any difference in demographic profile of users/ buyers and non-users/ non-buyers of organic skin care products.

**Eftimiya Salo: Consumer Behavior Towards Green Skincare Cosmetic Products. (2016)**

His study explores consumer behavior towards green cosmetic products in Finland. The study's objective is to investigate the many elements that affect people's decisions to buy facial cosmetics. The survey also attempts to show how customers feel about natural cosmetics and the worth of natural components. A combination of research methods was used to carry out the survey. In order to accomplish the goals of the study, an online questionnaire was created. There were 177 responses and submissions in all. The findings showed 85 that women between the ages of 31 and 40 are more likely to purchase a cosmetic item as a consequence of a friend's recommendation. Married women are more impacted by their friends' recommendations regarding particular products, which is another distinction based on respondents' life circumstances.

**Chen Feng: Sustainable Innovation in the Cosmetic Industry—Obstacles, Contributing Factors, And Strategies. (2016)**

Since it was initially proposed in 1987, firms have given "sustainability" an increasing amount of weight when developing their long-term business strategy with the goal of not compromising the environment or endangering human health. Companies have the chance to reconsider their management procedures, product developments, and marketing plans thanks to sustainability. Current study focuses on the benefits that sustainable innovations can have for businesses, but it does not address how businesses may support their own sustainable innovations. This study provided a thorough analysis of the cosmetic business to close this gap. Given the state of the cosmetics business today, the U.S.'s lack of an established regulatory framework for natural and organic cosmetic goods poses both a difficulty and an opportunity for sustainable cosmetic companies. "Customer training,"

The inquiry was based on the cosmetic sector, which is one of the study's limitations. Future research into other industries is a possibility to learn more about the effective spread of sustainable technology. The sustainable supply chain element was also not included in the analysis because it is a vast subject in and of itself. The survey undertaken for this study only acts as a pilot study, and both the questionnaire's format and sample size should be improved.

**OBJECTIVE**

1. To study how consumers behave towards natural skincare products.
2. To study Harmful effects of toxic chemicals in overall skincare industry
3. To study Wow's key role in introducing natural skincare products in India
4. To study innovative sustainable packaging

**RESEARCH METHODOLOGY**

Primary Data was collected by conducting a survey via questionnaire method,

Sent across different geographical locations, the size of the audience was 100 people of different ages ranging from 16 years to 70 years old.

The data collected was further analyzed and interpreted below.

DATA ANALYSIS

On what basis do you purchase skincare product

100 responses



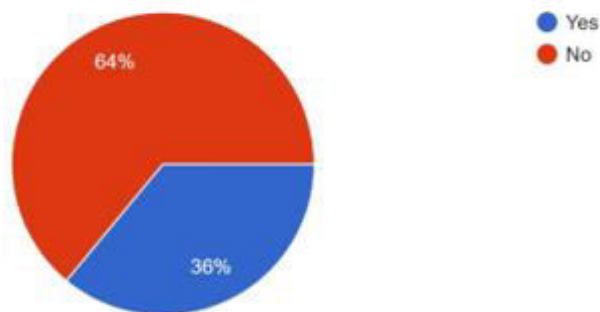
Would you prefer buying products having natural ingredients considering they are on a little premium price

100 responses



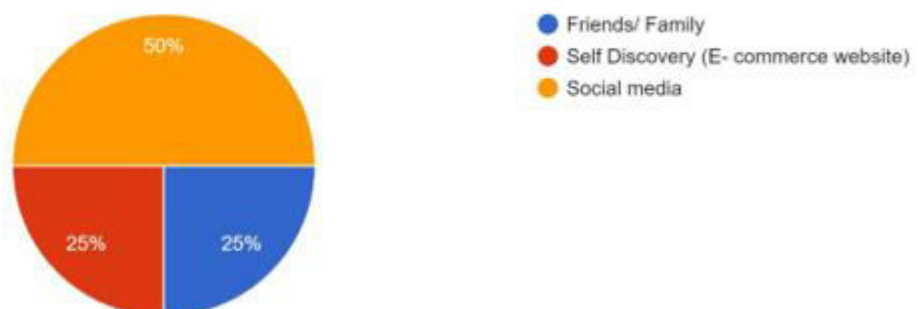
Have you used Wow products

100 responses



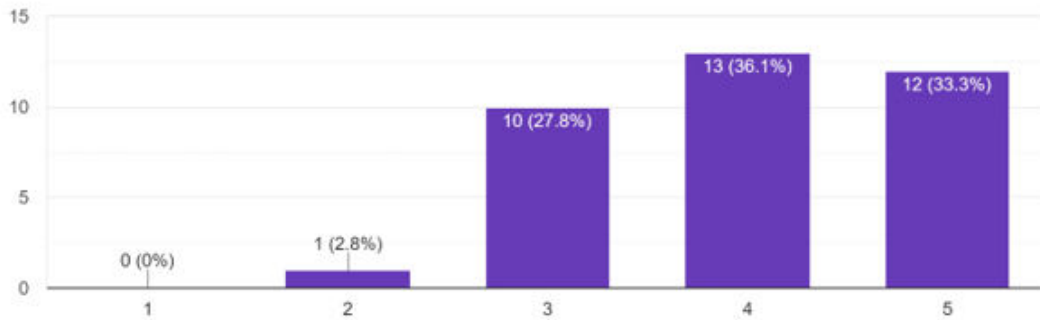
If yes how did you discover wow brand

36 responses



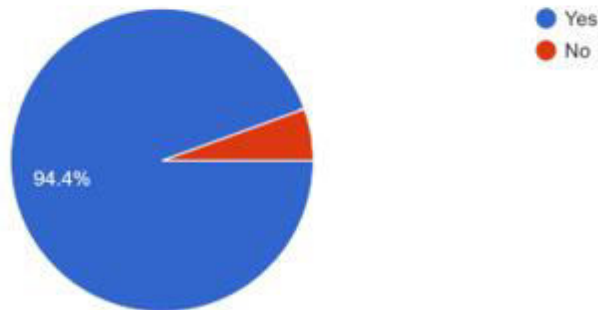
On a scale of 1 (poor) to 5 (best) how would you rate wow products?

36 responses



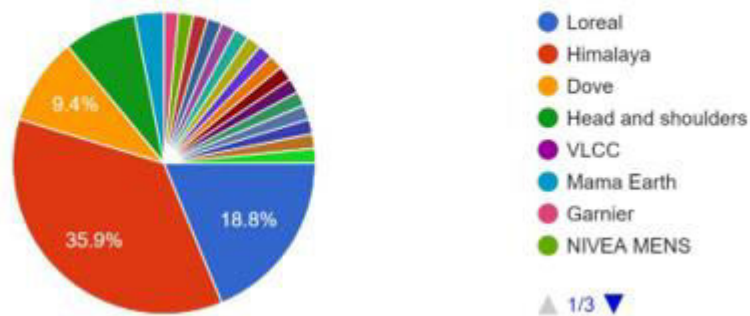
Would you recommend wow products to your Friend, family or colleague

36 responses



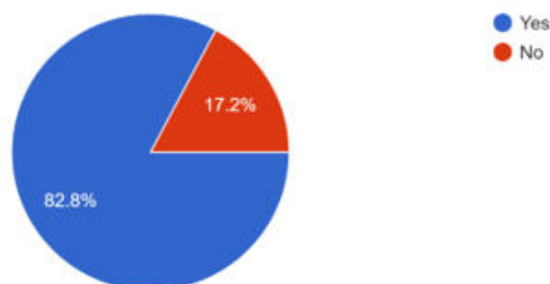
If no which brand products do you use

64 responses



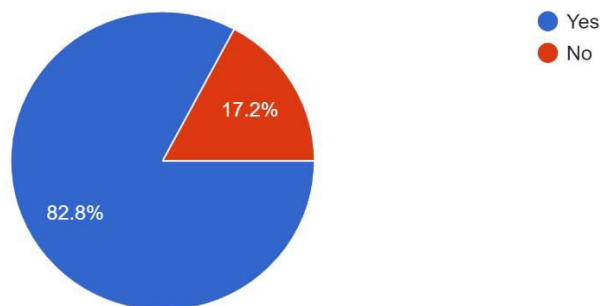
Now that you know wow uses natural ingredients and sustainable packaging would you like to switch to wow products

64 responses



Would you recommend wow products to your Friend, family or colleague

64 responses



**FINDINGS**

1. It was found that 61% people purchase skincare product based on ingredients used in that product, 28% people purchase skincare product based on brand and 11% people purchase skincare product based on Price
2. It was found that 98% of people would prefer buying products having natural ingredients considering they are at a little premium price.
3. It was found that 64% of people have not used wow products and 36% of people have used wow products.
4. It was found that 50% of people found wow brand through social media, 25% through Friends and Family and 25% of people through self-discovery from the people who are using wow products.
5. It was found that majority of the respondents rated wow products as 4 which makes it evident that wow is a satisfactory brand.
6. 94.4 % of people using wow products would recommend wow products to their friends, family, and colleagues.
7. It was found that 64 people are using various other brands.
8. When they came to know facts about wow products, 82.8% of people would like to switch to wow products.
9. Also, these people are ready to recommend wow products to others.

**RECOMMENDATIONS**

1. Since most of the people purchase products that use natural ingredients, companies should substitute harmful chemicals with natural ingredients.
2. Companies should use sustainable packaging that is eco-friendly in nature which also reduces their packaging cost.
3. To educate people about sustainable ingredients through social media so that more people know about this because 82.2% of people are switching after knowing it.

**CONCLUSION**

The aim of the research was to discover consumer behavior towards natural skin care products. The survey was conducted in google forms. In total 100 people answered the questionnaire. The results were that the people prefer natural ingredients and sustainable skincare products. After knowing about the wow skincare science company that is using products made of natural ingredients and sustainable packaging, most of the people have agreed to buy wow products. Since this study reveals purchase intention of natural skincare products, other factors which may impact intention like psychotropic factors, values personality, attitude may be explored.

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- <https://deshicompanies.com/company-profile/wow-skin-science-company-profile-wiki-owner-products-and-more/>



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**SUSTAINABILITY TRADING – A STUDY OF FINTECH COMPANIES**

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**Aniket Swaraj, Aarya Iyer, Joyce Thomas, Kinjal Ramani, Nivitha Devendra, Pritika Varma and Vidhi Savla**

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**ABSTRACT**

*In this study, we propose the captivating ability of digital technology inspiring an array of finance. Accordingly, we define that the Indian market has begun to diverge from developed nations and become more instructional. This analysis would encourage the viewer to understand the historical, present, and prospective aspects of Indian stock trading. Moreover, we have presented extensive study on few Fintech companies to discover how they survive and advance against competition. We have introduced you to a remarkable world of Fintech and trading through an appropriate survey and an engaging interview of a renowned retail investor, Mr. Shivkumar. According to our gathered data, most respondents are happy with the organization's online trade services. With certainty, our work would aid in anticipating the demands of the client and assisting with the appropriate actions. This research guides our readers to stay ahead of inflation and helps them to be a financial prognosticator. For a mastery in stock market always remember these 3 mantras: Patience, Faith and never stop Analyzing!*

*Keywords: Fintech, Stock Trading, Smart Money, Trading Activism, Startups, Market Sustainability.*

**INTRODUCTION**

In recent years, the number of digital payment apps in India has dramatically increased. Additionally, at around 30%, India's household savings rate ranks among the highest in the world. But none of these factors affect Indian stock market investing. India is one of the top countries in the globe for sourcing IT administrations, accounting for 55% of the \$200–250 billion global market for services evaluation. The new global epidemic has severely hurt India's IT sector, but it has managed to survive. The industry is expected to continue to be adaptable in the face of increasing demand for automated processes and cloud services, which is predicted to reach US\$350 billion by 2025. Stock research is offered by several other online trading platforms, which helps consumers decide the state of the stock market. Shape their decision as well. Users are drawn to online platforms because of their ease of use and low commission fees. India is still in the early stages of stock market investment, with only 2% penetration. The pandemic outbreak has

Encouraged more Indians to invest in trading instruments than ever before. During the lockdown, mobile investment platform apps expanded their customer base to new heights. To understand further about our project, we conducted an interview with a trading professional and we got to know various insights on how trading companies entered into Fintech industry. To better understand the advantages and potential for growth of fintech organizations, we performed a SWOT analysis. and the way that fintech is developing. Five leading fintech companies—Zerodha, Groww, AngelOne, ETmoney, and Upstoxx—were the sources of the information we gathered. They are quite alluring, and their strategic business plan has made it easy to compete. We shall understand how they maintain and outgrow competition in the research report that follows. An Indian brokerage firm called Zerodha is situated in Bangalore. With more than 2.5 million customers, this business has a huge consumer base. One of the top brokerage businesses in the nation has developed a plan for selling Treasury bills, government bonds, and sovereign gold bonds. With regards to Upstox investment, equity delivery is free. Their call and transaction fees are cheaper than those of other brokers. The Basic Plan has higher Demat Transaction Charges. Because the advanced trading platform is supplied for free, it is more popular among traders. ET Money is an Indian fintech and wealth management platform owned by Times Internet, a wholly owned subsidiary of Bennett Coleman & Co. Ltd. It was founded in 2015. It offers a variety of financial products and services, including mutual funds, insurance, fixed deposits, NPS and SIPs. Groww provides free mutual fund services, with no fees for investing or redeeming mutual funds. Groww is a unicorn platform, Groww (web and mobile trading app), which provides its investors with a flawless trading experience. With 128-bit encryption, it is a safe and secure app. AngelOne began the journey in 1996. Gradually evolved into a digital-first company, offering clients personalized financial journeys through a single app. In 2019, they began a "Digital Journey," successfully tapping new geographies and onboarding millions of new customers, including tier-2 and tier-3 cities. The company is now the largest publicly traded retail brokerage firm.



**METHODOLOGY**

The information has been collected from both primary and secondary sources. Primary sources - the main sources of data collection are primary method. in which a questionnaire was sent to university students. The survey consisted of information like name age. The questions were answered by pre-determined responses. The questions were related to their views and attitude of students on fintech industry and their companies. Data questions will reveal the percentages of the respondents that participated Secondary sources - the other data has been collected from websites and articles.

**LITERATURE REVIEW**

Sr. No.	Author	Year	County	Title	Sample	Key Findings	Methodology	Source
1.	Arjun SachadE	2022	Ahmedabad, India	To study the similarities of rise and fall of Sensex and Dow Jones Industrial Average During the stock market crisis		The novel coronavirus known as COVID-19, which is still spreading around the globe, was found in Wuhan, China, in December 2019. The biggest wealth destruction occurred when the Sensex fell 617 points in April 2007 and 1408 points in January 2008. The Internet bubble and the tech bubble were other names for the tech bubble.	Primary sources like charts, surveys, and interviews provided the majority of the data for this study, which also included data from secondary sources. Study articles and trading fees are examples of secondary sources, but the majority of the data was acquired directly rather than relying on earlier research publications	
2.	Mrs. Manjari Sharma	2020	Sikkim, india	unethical practices in Indian stock markets		Due to improper regulation of the capital markets, such bad minds were able to keep up a facade that misled the entire nation. The current research focuses on the immoral activities taking place in stock markets. Due to unethical actions by some persons and their	This report is based on the two biggest stock market frauds in India. The author of this article has described the manner in which moral principles were flouted for personal gain. According to the report, the most unethical practices include bribery, greed, falsified documents, insider trading, etc.	

						accomplices, SEBI has evolved into what it is today.		
3.	Umakanth Varottil	2012		The advent of shareholder activism in India		The appointment of independent directors, a prohibition on controllers, and a shareholder vote in circumstances of transactions involving interested parties are all necessary to provide activist shareholders with the overall incentives they demand. More needs to be done in India to strengthen minority influence, including measures like cumulative voting.	A collection of "proactive measures to influence business conduct or governance norms" is what is referred to as shareholder activism. It demonstrates that investors are attempting to influence how management manages the business.	
4.	Shubham Rajpal	2022	India	Fintech in India – scope and trends		FinTech is the name given to the quickly evolving technological advancements in the financial sector. The adoption of financial technology services in the Indian market is investigated in this study. It examines the FinTech services provided in India as well as the country's financial technology trends.	Department of Commerce, Guru Ghasidas Vishwavidyalaya, Bilaspur	

**OBJECTIVES**

- 1) To acknowledge how traditional trading firms are entering the fintech sector.
- 2) To witness the fierce competition among fintech brokers.
- 3) To comprehend how investors and non-investors perceive traditional trading investment firms' entry into the financial services sector.

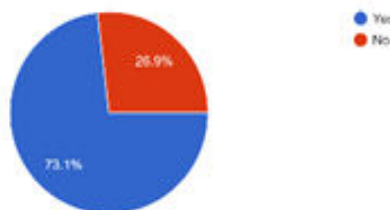
**RECOMMENDATION**

- 1. Financial education has grown in importance as an adjunct to market conduct and prudential regulation, and many governments have made changing individual financial behaviors a long-term policy objective in many countries.
- 2. With the worldwide demand for fintech, there should be Fintech courses in the curriculum.
- 3. Make money on your money to leave a legacy for your heirs.
- 4. 3 Mantras for enduring stock market- Patience, Faith and never stop Believing!

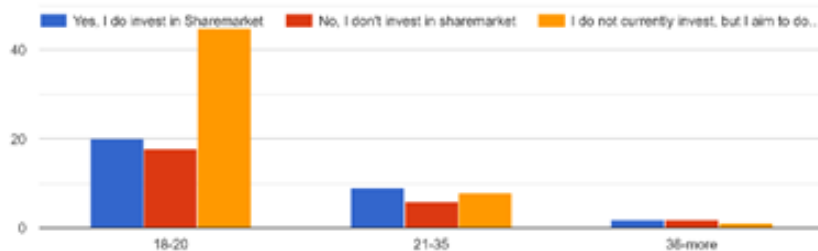
**DATA INTERPRETATION**

**1) Primary Data**

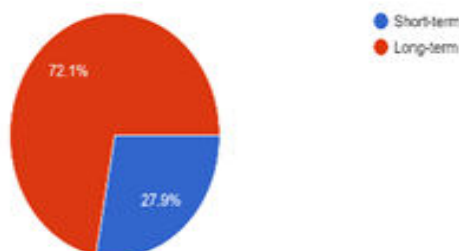
Are you aware that stock market trading apps fall into the fintech category?  
108 responses



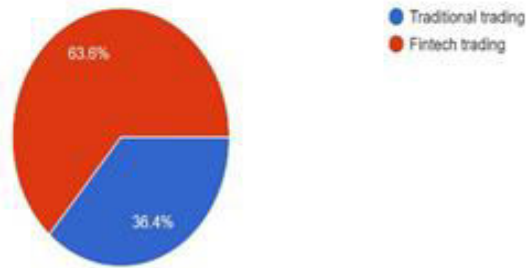
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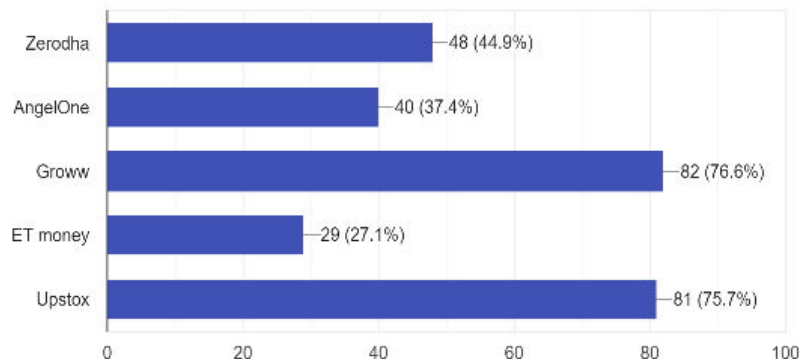
Do you consider stock trading to be a long-term or short-term source of income?  
104 responses



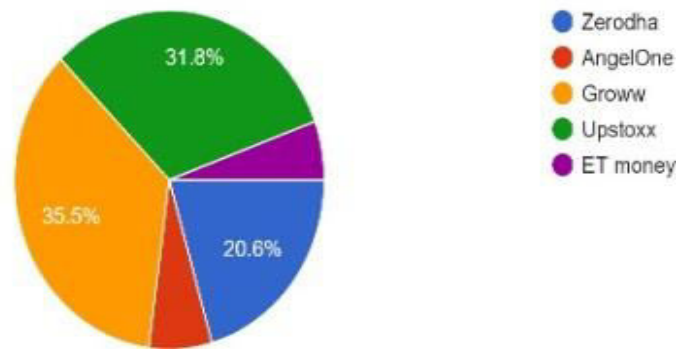
Which of the following trading method you'd prefer  
107 responses



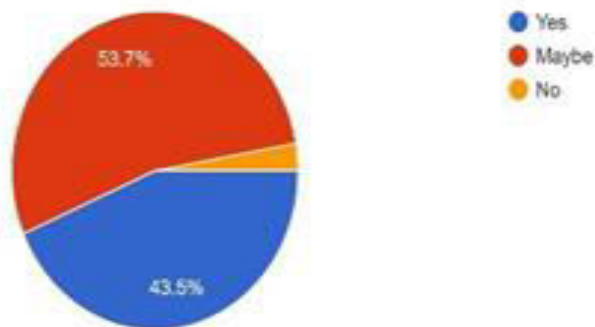
Which of the following apps have you heard of  
107 responses

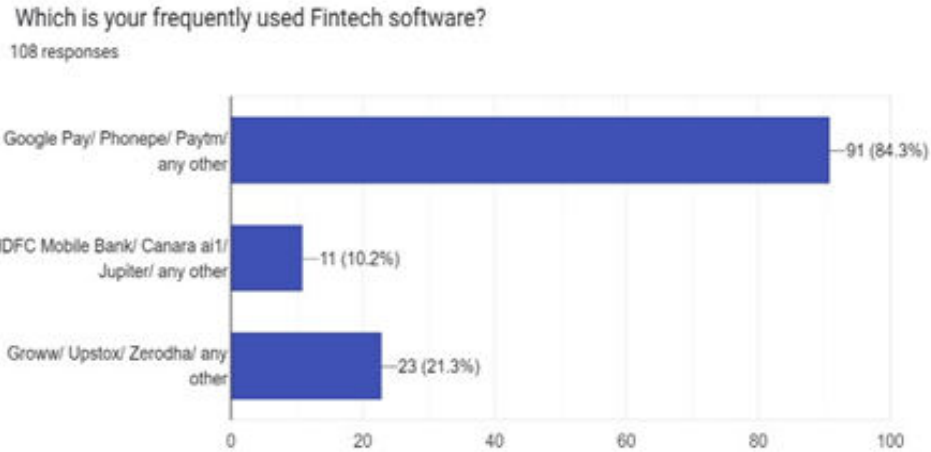


Which of the following app would you prefer  
107 responses



Do you think trading is a good job profile?  
108 responses





2) Secondary Data

Authors adopted swot analysis to identify the unique aspects of each company and where they fall short. Also, how do they maintain market competition and excel in business.

Et Money		Groww	
<b>Strengths</b> <ul style="list-style-type: none"> <li>Personalized investing plans</li> </ul>	<b>Weakness</b> <ul style="list-style-type: none"> <li>High expenseratio</li> </ul>	<b>Strengths</b> <ul style="list-style-type: none"> <li>Marketingstrategy</li> <li>Big fundingand support</li> </ul>	<b>Weakness</b> <ul style="list-style-type: none"> <li>Research and development</li> <li>Limitedservices</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>Working on their expenseratio</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>Rising investors complains</li> </ul>	<b>Opportunities</b> <ul style="list-style-type: none"> <li>Bullish market</li> <li>Digital gold</li> </ul>	<b>Threat</b> <ul style="list-style-type: none"> <li>Competition</li> </ul>
Upstoxx		Angelone	

<b>Strengths</b> <ul style="list-style-type: none"> <li>Low costtrading Funding</li> <li>Marketingstrategies</li> </ul>	<b>Weakness</b> <ul style="list-style-type: none"> <li>Limited offerings</li> <li>Lack of knowledge</li> <li>Customerservices</li> </ul>	<b>Strengths</b> <ul style="list-style-type: none"> <li>Transparency</li> <li>Innovative financial strategies</li> </ul>	<b>Weakness</b> <ul style="list-style-type: none"> <li>Less penetration inrural markets</li> <li>India investingmentality</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>Market analysis</li> <li>Knowledge</li> <li>Increased customer base</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>Governmentpolicies</li> <li>Marketbearish</li> <li>Frauds</li> </ul>	<b>Opportunities</b> <ul style="list-style-type: none"> <li>Growing ruralmarket</li> <li>Earning urbanyouth</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>Entry of foreign finance firmsin Indian market</li> <li>Government policies</li> </ul>
ZERODHA			
<b>Strengths</b> <ul style="list-style-type: none"> <li>Easy to use</li> <li>Quick trade execution</li> </ul>		<b>Weakness</b> <ul style="list-style-type: none"> <li>Marketing</li> <li>Only Indian market</li> </ul>	
<b>Opportunities</b> <ul style="list-style-type: none"> <li>Investor protection</li> <li>Global reach</li> </ul>		<b>Threat</b> <ul style="list-style-type: none"> <li>Competition</li> </ul>	

CONCLUSION

Thousands of Indians daily use stock trading applications, most of whom are millennials between the ages of 20 and 35. People used to place orders to sell or buy shares of a company through their stockbrokers prior to the mid-2010s rise of these apps. Television and newspapers were the only sources of information, and most people used to follow stockbrokers' or trusted acquaintances' advice. Now, things are completely different: people who trade stocks are constantly updated through their "Trading apps."

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This report gave a general overview of the Indian FinTech industry that includes trading applications as a part of fintech and the actions taken by the government to support it. Based on the current situation, their output is Customers can get financial products and services faster thanks to FinTech. As a result, the expansion of the fintech industry is crucial to the Indian as well as international financial sectors. Future developments in the application of fintech technologies in the financial sector. We took various examples of fintech companies like Zerodha, Groww, Upstoxx, AngelOne and ETmoney to help us understand how the companies use strategies or the business plans to sustain in the market.

Slowly and steadily both the market and the regulators are understanding the need for a financial technology driven segment

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**SUSTAINABLE TRANSPORTATION IS THE NEXT STEP FOR A HASSLE-FREE LIFE**

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**ABSTRACT**

*Transportation plays a vital role in boosting the economic growth of any country by initiating various modes. Rise in the population has created a problem for environment sustainability. But favouring the tech savvy in every individual has given Chalo App an existence in the market for sustaining in near future. The app was created with an aim to make travel convenient for commuters where they can track their buses and pay ticket online as well as get a bus pass via electronic wallet Chalo has come up with wide range of offers and services to its users for better travel experience. The research aims to understand whether the company can sustain in near future with its innovative practices or not. For sustainability, proper transportation solutions have to be considered to pace with the developmental process. This paper strives to provide suggestions that can ensure better human health and protection of the environment. The findings provide behavioural insights that may be useful for the company to sustain in the market.*

*Keywords: public transportation, transportation analytics, sustainable mobility, electric-bus, intelligent transportation system*

**INTRODUCTION**

"India" a well known developing and a highly populated country holding 1.417 billion according to the census of 2022. It holds the 7th largest position in terms of geographical boundaries but it is estimated to rise up to 1.515 billion in the year 2030. Now the population is high and the country's economy is developing. The major population of India belongs to the working sector and many people from this sector do not and cannot afford private vehicles to fulfil their travelling needs about 37.6% of the urban sector and 47% of the rural sector according to the census of 2011.

Other public transportation alternatives can be taxis which is about 60,000 and about 4.6 lakhs auto rickshaws run in huge numbers (March 2021) and used by many common people in India but as compared to Public transportation modes offered by Government is expensive let's see an overview, for auto rickshaws the minimum fare was raised from rs. 21 to Rs 23 and for taxis the minimum fare was raised from Rs. 22 to Rs. 25, so if an average wage rate person or a person with low wage rate wants to travel daily for about 5-6 km daily then it's expensive for such person.

To solve this problem the government offers various public transportation like BRIHANMUMBAI Electricity Supply and Transport (Best) and Indian Railways. the rates are fixed for each section of population unless you are availing certain benefiting concessions. These public transportation run on a fixed route and it can't be changed according to the requirements of every single passenger.

Majority of the chunk depends upon public transportation who don't own private vehicles.

Public transportation also contributes largely in economic growth with offering and initiating various modes. But to make the experience better for travellers and people, the government has collaborated with various private sector businesses. For this reason "Chalo" a private intelligent transportation system came into existence in 2014. "Chalo", is a commonly used phrase in Hindi to move or to start a trip. In English it simply means 'let's go'; but in 2014 a convenient application was named after this phrase.

The application was founded by Mohit Dubey, Priya Singh, Dhruv Chopra, Vinayak Bhavnani, and Nikhil Aggarwal and was developed by Zophop Technologies Private Limited with the main purpose of this system is to make travelling easy for everyone. Currently it is in partnership with the government (B2G). Business to Government (B2G) refers to marketing and selling goods and services to state, federal and local agencies. Operating in 37 cities that's why you can call it BEST'S chalo app and it has surpassed over 3 lakh users now coming to its net worth, its approximately 24.98%. The valuation of this business is 365\$+ minimum as per July 2022, it was featured among India's top50 startups by Nasscom in 2017. During the very 1st month after the launch of this application 25% of the population who travels from bus in bhopal were using it to live track their respective bus but currently in majority of the cities bus travellers prefer using this application as per their convenience. The best thing about this application is that it is free to use for all the people in general. It is used more than 10 million times every month. The funding of Chalo is about 60.9\$ million according to 11 July 2022. Chalo acquired few companies in recent years, Shuttl was acquired on 26 October 2021, the very 1st acquisition done by chalo, then the 2nd company Vogo it was acquired on 28 March 2022. It also does business

to business (B2B) by partnering with other bus operators with the motive to increase the ridership numbers and giving them a share of the increased ridership. The entire bus experience is in the ownership of Chalo from cleaning the buses to ensuring adherence to schedule and even to train the crew and much more.

Chalo also took the initiative to study the coronavirus transmission risk which is most likely to happen in buses and it was found that 95% of the major life threatening risk comes from cash exchanges rest 5% of the risk comes from passenger to passenger and surface transmission. Most of its activities are based digitally like promoting cashless transactions, digital passes, providing chalo wallet, etc.

Chalo also took the initiative to study the coronavirus transmission risk which is most likely to happen in buses.

**CHALLENGES**

1. Providing real time information which includes the live location as well as approximate arrival timings of the specific bus.
2. Providing the latest technology facilitated services to their users and also to their crew.
3. Taking the initiative to improve bus routes and also the bus schedules according to the changing structure of the city.
4. Appeasing passengers to not opt for 2-wheelers due to lack of passenger satisfaction.

**LITERATURE REVIEW**

The literature review below showcases the aspects considered for the better understanding of this paper. The review is as follows:

Sr.no	Author	Title	Year	Country	Sample	Methodology	Key finding	source
1	B.R. Naveen PhD, Anjula Gurtoo PhD	Public Transport strategy and epidemic prevention framework in the context of covid-19	2022	Bangalore, India	18	literature review of transport service quality, safety, cleanliness, and service provision attributes for COVID19. Sample case study is conducted to understand the categories of passengers and their service level perceptions, and c) content analysis to identify the practices and methods adopted to address covid19 in passenger transportation.	To understand passenger behaviour and framework to keep transport services live during and post covid-19	Transport Policy Volume 116
2	Isaac Oyeyemi Olayode 1,* , Alessandro Gaetano Severino 2 , Tiziana Campisi 3 and Lagouge Kwanda Tartibu	Comprehensive Literature Review on the Impacts of COVID-19 Pandemic on Public Road Transportation System: Challenges and Solutions	2022	South Africa	3	It uses a systematic style of review to achieve its primary aim	To understand an overview of how the COVID-19 pandemic has adversely affected public transportation systems and to focus on challenges and solutions	Sustainability 2022, 14(15)
3	B. Pradeep Kumar, S. Saleena Beevi	Sustainable Solutions for Better Public Road Transportation	2020	Kerala, India	1	Literature review	To understand Sustainable transportation includes the most efficient and convenient movement of people and vehicles with the least amount of energy, congestion, and environmental impacts	Shanlax International Journal of Economics



4	M. Mathirajan, Rajesh Devadas & Ramakrishnan Ramanathan	Transport analytics in action: A cloud- based decision support system for efficient city bus transportation	2020	Karnataka	6	Interfacemodules	To understand architecture of a Cloud- based DSS (C-DSS) that integrates the strategic problem on location of depots (for adding new locations and removing existing ones) and allocation of buses to depots (LD-ABD), as observed in an Indian Urban Road Transport System for optimising the cost of bus operations.	Transport analytics in action: A cloud-based decision support system for efficient city bus transportation: Journal of Information and Optimization Sciences: Vol 42, No 2
5	Marcin Wołek, Michał Wolański, Mikołaj Bartłomiejczyk, Olgierd Wyszomirski, Krzysztof Grzelec, Katarzyna Hebel	Ensuring sustainable development of urban public transport : A case study of the trolleybus system in Gdynia and Sopot	2021	Poland	54	case study analysis, marketing research, economic modelling based on LifeCycle Cost (LCC) and the simulation results on thecatenary independent trolleybuses.	To understand the effectiveness of trolleybus over e-buses	Journal of Cleaner Production

**OBJECTIVES**

The objectives of this literature review is broken down into many sub-objectives to gain a qualitative and quantitative perspective on the research. The main objective is to understand the working of the mobile based app- Chalo for the derivation of the effects on the passengers. Further objective is to understand the sustainability of this app in near future. It also took in consideration to establishing the role of a geospatial- ause of modern technology in the lives of commuters. To explain the use of modern technology and sustaining the business in near future is also a major point considered in the making of this thesis.

**HYPOTHESIS**

- ❖ It’s the weekend and you have planned to go out and chill with your friends. You have booked the bus tickets online through the chalo app. When you board the bus you don’t have access to the Internet and you are unable to show the tickets which you have already booked. So in this situation what would you preferably do?
  - No, I won’t get off the bus and waste my time, rather I will pay cash and buy a new ticket.
  - Yes, I will get off the bus and wait for a proper Internet connection rather than again purchasing a new ticket and wasting my money.
- ❖ Suppose that you are going to attend an event and you are planning to travel by public bus. You board the bus and the conductor approaches you and tells you to buy a ticket and you realise that you don’t have the change to purchase the ticket. So as most people are unable to offer the exact change on a daily basis the conductor suggests you to create a CHALO CARD of your own so that next time you don’t have to worry about carrying change and you can travel hassle free. So in this situation what would you preferably do?
  - Yes, I will take his suggestion and create my chalo card so that I am no more worried about the change.
  - No, I won't take his suggestion on creating a chalo card of my own as I don’t travel frequently.

**RESEARCH METHODOLOGY**

The research held a systematic approach of review to gain its primary data. The methodology used in this paper is through thorough viewing of literature review with the use of various academic purpose sites and apps. It includes reviewing papers from Google Scholar, Researcher App, Academia, etc. To understand more about the sustainability of the start-up ‘Chalo’ which is a free app that allows you to live track your bus and tells you at what time your bus will reach your stop; and also about the people’s take on the services offered by the company, a survey was also taken. The data gathered was primarily very insightful for understanding the future sustainability of Chalo App.

**DATA ANALYSIS AND FINDINGS**

Chalo is a technology driven transport solution company that operates in over 20 cities including Agra, Bhopal, Kochi, Mathura, Guwahati, and Vijaywada. According to the survey initiated by our group we have come to know that majority of the people who have responded are aware of the chalo app. The people using the chalo app on a daily basis majorly are students and they say that they are **FOR** the services provided by the chalo app. In people’s view the chalo app is very convenient to use as it facilitates digital and

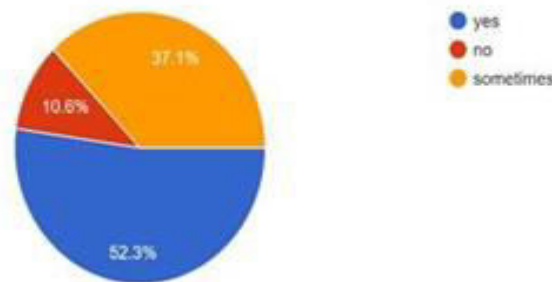
advance purchase of BEST bus tickets and the application also provides live bus tracking and also information on how crowded the vehicle is, along with the arrival time of the bus. But the one drawback faced by the passengers is about the accuracy of the tracking the time as well the location of the buses is also understood. The Chalo app provides the users with a Super Saver offer which helps you to save money.

These plans entitle you to a specified number of trips within its validity period for a fixed price. Super saver plans are flexible to suit your needs and range from 1 to 30 days validity. They can be bought on the chalo card or via the chalo app but most of the users have still not availed the offer. However, the survey showcased that the majority of the people were either not aware about the offer or they simply didn’t want to avail the offer and feign ignorance towards it.

A majority of people think that the chalo app will be a success in the near future. The benefits of providing a great mobility solution goes beyond time and money. A bus can take 30 cars off the road, reduce tonnes of emissions, improve safety, increase household savings and lead to a significant improvement in quality of

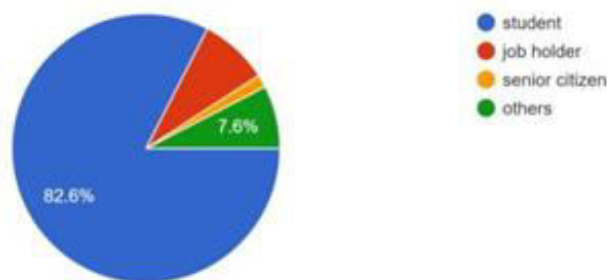
Is it convenient to use?

132 responses



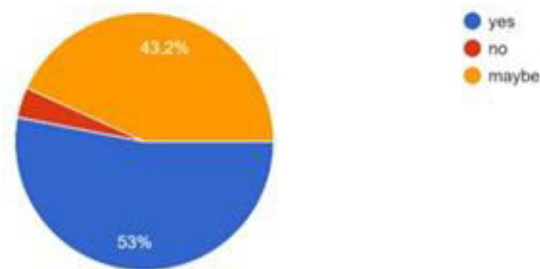
Where do you lie?

132 responses



Do you think Chalo App will be a success in the near future?

132 responses



life. Chalo aims to make travel better for everyone. Today they do so by improving the experience of taking city buses - 30 minutes less waiting, 50% lower ticket transaction cost. Chalo uses Google Maps Platform to enhance its mobility solutions with geospatial intelligence, providing bus users and operators with detailed travel information and visibility.

People are also willing to suggest the Chalo app to their friends and family. When it comes to public transport, buses are the most preferred means of travelling for many people across rural and urban India. While factors like the easy availability of buses and affordable fares are the reasons why most people choose to travel by bus, there is still much scope for improvement in the bus transportation segment in India. From waiting for buses to standing in queues to buy bus tickets, there are many hassles associated with bus travel. Mumbai-based startup 'Chalo' was founded in 2014, to do away with these very hassles. With the help of technology, Chalo is making travelling in city buses a smooth experience for travellers across 22 Indian cities.

### RECOMMENDATIONS

- Try to promote more electric buses so that emissions will be reduced. Since in some parts the buses are not updated to meet modern standards.
- Chalo App should provide app-built alarm service for its commuters destination stop. If a commuter slept in the bus then he/she may not realise his/her stop has passed or not but using these services they can get an alert which may make their travel convenient.
- Chalo App should try to keep up with the geospatial and update its tracking time and location accordingly. This may result in the accuracy of the app.
- It should promote more paperless tickets and the benefits of Chalo card among commuters with different mediums.

### CONCLUSION

The study was focused to understand the overview of Chalo App, whether it can sustain in the long run with its innovative practices. The results derived from the research data can be considered as a part of proof that it can sustain in the future. But the suggestions extracted on the basis of survey can be beneficial for the company if considered. Since there is always scope for innovation, it will be interesting to find more innovative practices undertaken by the company in the future.

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**NEXUS POWER'S BIODEGRADABLE BATTERIES: A FUTURE TOWARDS A CLEAN ENVIRONMENT**

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**ABSTRACT**

*Sustainable development in startups is the need of the hour because, as technology advances at a rapidly increasing pace its harmful effects on our planet can also be seen in more evident terms. In order for our future generations to grow and sustain we need to make sure to use sustainable and non destructive development.*

*There are plenty of startups in the market using sustainable development which only 4 out of 10 people are aware about yet. These odds only change if the masses are educated about sustainable startups and medium, small enterprises. If sustainable development is practised in a proper manner it will not only create a sustainable environment for the future generation but will also repair and rid the planet from toxic waste created by past malpractices.*

*Keywords: Sustainable development, Nexus power, EV batteries, biodegradable batteries, startups and MSME*

**INTRODUCTION**

Sustainable development includes factors like overcoming poverty, gender equality, decent work and economic growth and overcoming global warming. Sustainable practices are pretty common in big companies, start-ups and msme. This helps in creating a sustainable ecosystem for upcoming entrepreneurs and their enterprise.

Global warming is one big rising concern for our environment. The rise in technological advances has always been appreciated but one major flaw of technology would be its use of non-biodegradable products.

Nexus power is one such company that uses sustainable practices. Nexus power was founded by 2 twin sisters in Bhubaneswar, Orissa. JITO Angel Network funded Nexxus power in 2020. Nexus power makes lithium ion based mobile batteries and electric vehicle batteries from crop residue. The brand works towards fully biodegradable materials. This in return is highly sustainable as these batteries are biodegradable and cause less harm to the environment. Its biodegraded by products can be used as manure and the EV batteries can be used in electric vehicles which cause zero emissions.

**OBJECTIVES**

- a) To secure a sustainable ecosystem for generations to come by checking our actions and the consequences they leave behind
- b) To reduce the use of bio hazardous products and bring in alternative ecofriendly products.

**HYPOTHESIS**

Does Nexus power's biodegradable batteries help in sustaining the ecosystem for future generations?

H1: Nexus power's biodegradable batteries reduces the risk of global warming to a certain extent, which will create a clean environment in the near future.

H0: Nexus power would have the impact of reducing global warming only if its products get widely accepted in the market.

Can Nexus power reduce the use of bio hazardous products?

H1: Nexus power uses materials which are fully biodegradable, the biodegraded by product can be turned into manure. This eliminates toxic waste generation ultimately causing the reduction in the use of bio hazardous products.

H0: It is a lengthy process as the consumers take time in accepting and adopting a new product. Also, considering eco friendly options are usually a bit pricey.

**NEED OF THE STUDY**

This study can provide a summarised report on the emerging sector of biodegradable batteries and their significance in our near future. As a newer concept, biodegradable products are often not noticed by lay people. They are not aware of the impact switching to sustainable practices has on the environment. With the emphasis laid on those points in this paper, the aim is to create a general awareness and better understanding of the same.

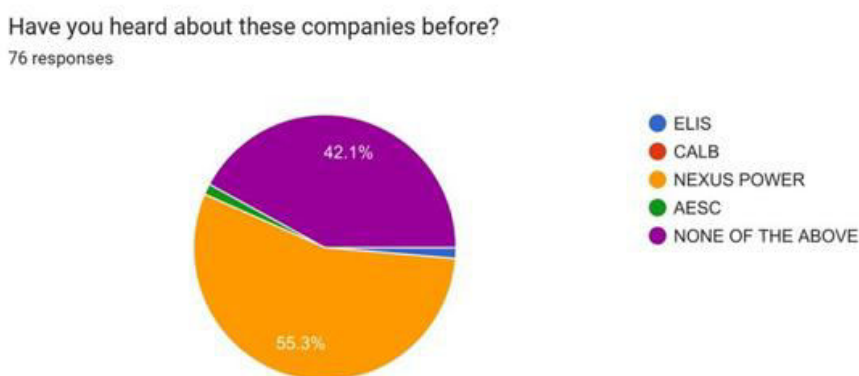
Moreover, it focuses on Nexus Power as an upcoming brand and their contribution to this energy source revolution. A quick rundown on their current and future endeavours is listed. Thus, the innovation of biodegradable batteries is discussed along with a real time example of a foundation built on the same beliefs and philosophy.

**LIMITATIONS**

- **Time Constraint** - It limits the research paper in two ways. One with respect to meeting deadlines and the other with respect to available resources.
- **Scope of Discussion** - This helps us to explain to people what the study is going to cover and to what extent we need to do research. The basic parameters of discussion are to be decided tactfully, thus proving to be a challenge. Also, scope was negatively impacted by the limited brainpower.
- **Sample size** - This is defined by the number of observations during an experiment or a research. In order to have a specific count we work for the same. Due to inaccessibility, samples were strictly limited to online presence.
- **Self Reported Data**- It helps us to collect relevant data. A type of survey questionnaire works as an example here.
- **Issues with Research Samples and Selection**- Errors and bias are the base field. If the sample is not representative of the larger population then the survey results are based on the potential level.
- **Lack of Previous Research**- This is a very common mistake made by the one working on the topic. In some of the topics you might realise that there is very little or no similar research which makes it more challenging to work on it. The point of writing the paper is misguided which hinders the credibility and scope of our research.
- **Studies on the topic**- Study on the topic is very important with respect to writing a research paper. It helps you to know how to divide the part and how one can understand the topic by reading it.
- **Formulation of Your Objectives and Aims**- This is a very important aspect of the research. The aim, objectives determine the scope, depth of your entire research and you understand the direction to work on. They serve several parts individually as well as when put together.

**RESEARCH METHODOLOGY**

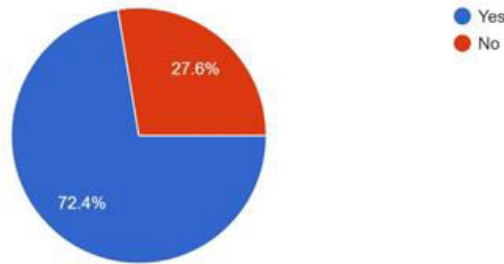
The survey was conducted from 21-12-22 to 22-12-22 , leading to the collection of 75 responses. Through it, we gathered information regarding biodegradable batteries and the opinions of the masses in general. Here research bias is mitigated as surveyees differed in age groups.



- 55.3% of the people know about Nexus power in particular. From this we can gather that in a field of emerging sustainable energy brands, Nexus power specifically has an eminent presence.

Have you ever come across the concept of bio-degradable batteries?

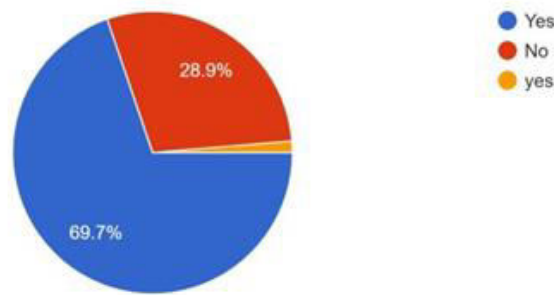
76 responses



- 72.4% of people know about biodegradable batteries. Even though it's a new source of energy, there is a general awareness, a result of the vast media coverage it has gotten.

Do you know the difference between bio-degradable batteries and normal batteries?

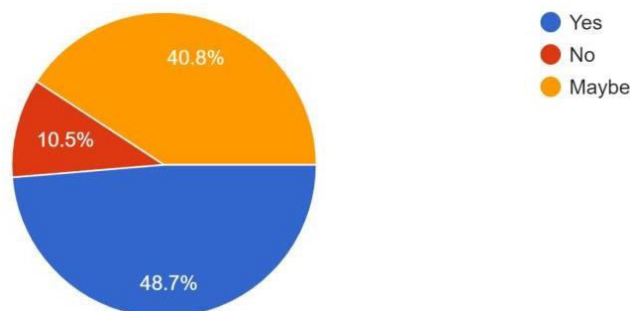
76 responses



- 69.7% of people know the difference between biodegradable batteries and normal batteries. The difference lies in factors like life cycles, degradable breakdown cycle, effect on environment, after effects duration, etc. 6 out of 10 people having this knowledge are good odds, but we can strive to make them better odds by continuing to open conversations about such topics.

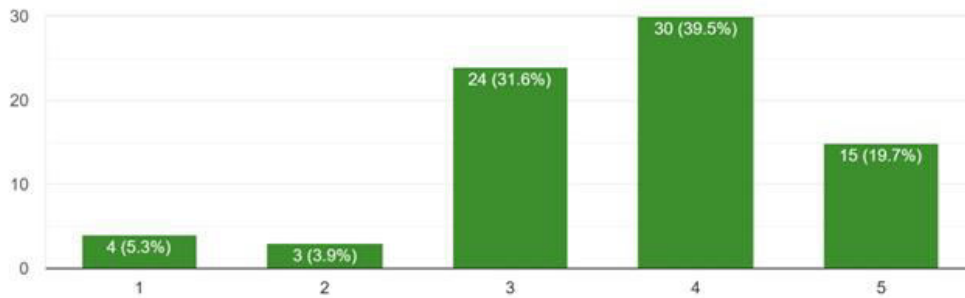
Would you mind investing more for bio-degradable batteries?

76 responses



- 48.7% of people are in favour of investing more in biodegradable batteries, 40.8% people may invest in biodegradable batteries, and 10.5% are not sure whether to invest or not.
- This is subjective to personal concerns.

How likely are you to switch to bio-degradable batteries?  
76 responses



- On a scale of 1 to 5, with 1 being the least probable and 5 being the opposite, here are the odds:
- 1- 5.3%
- 2- 3.9%
- 3- 31.6%
- 4- 39.5%
- 5- 19.7%
- As seen here, a majority of people are unsure and hover in the middle of the graph.
- Our aim should be to focus on converting these numbers, by educating them about the brighter side-effects of sustainable energy sources.

**CONCLUSION**

Nexus power as a company is using highly sustainable practices. They are invested in the process of manufacturing biodegradable factories mainly from crop residue. This residue is normally burned by farmers creating heavy air pollution. They combine it with lithium to make lithium ion based biodegradable batteries. They make biodegradable mobile and electric vehicle batteries, which if used largely would bring down the amount of toxic waste produced, eventually bettering the environment by eliminating global warming risks.

The masses should make sure that they are educated and updated about a particular eco-friendly product's existence in the market, and switch to it so they can also contribute to bettering the environment.

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**UPI, A PARADIGM-SHIFT IN DIGITAL PAYMENT TRANSACTIONS**

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**Dr. Mrityunjay Kumar, Utkarsh Lokhande, Dnyandeep Gawande, Rajashree Mukherjee and Rushikesh Kathe**

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**ABSTRACT**

*This research focuses on evaluation of the utility of UPI for start-ups, MSMEs and other businesses in India by its convenience in payments, analysing UPI peer to merchant (P2M) transactions and studying the classification of the same on monthly basis. The Digital India project has helped to increase mobile and internet usage, which has helped to expand digital payments. The adoption of digital payments has led to increased financial transaction transparency, which has helped to boost India's economy. Positive developments in digital payments have been made over the past few years, thanks to the UPI created by the National Payments Corporation of India (NPCI). UPI is an instant real-time payment system that enables interbank P2P and P2M transactions. It has been very successful in helping to replace the cash economy, and its power to help the nation become one of the digital economies with the fastest growth rates in the world is commendable.*

*Keywords: Digital payments, UPI, P2M (Peer to Merchant)*

**INTRODUCTION**

Digital payments are transactions where both parties, the payer and the payee, use electronic mediums to exchange money. Cashless India which is flagship program of the Government of India includes following ten types of digital payment methods such as Banking Cards, Unified Payments Interface (UPI), Internet Banking, Mobile Banking, Mobile Wallets, PoS (Point of Sale), Unstructured Supplementary Service Data (USSD), Micro ATMs, Prepaid Card, Aadhaar Enabled Payment System (AEPS).

The Reserve Bank of India (RBI) and the Indian Banks Association (IBA) established the National Payments Corporation of India (NPCI) in accordance with the guidelines of "The Payments and Settlements System Act, 2007" to oversee the retail payment and settlements systems in India's payment ecosystem.

Assistant Professor, Indira School of Business Studies, Pune Students of MBA (First Year), Indira School of Business Studies, Pune NPCI conducted a pilot launch of UPI with 21 member banks on 11<sup>th</sup> April, 2016 by Dr. Raghuram G Rajan, Governor, RBI and made to public from 25<sup>th</sup> August, 2016. UPI is a real time payment system, facilitating immediate money transfer via your smartphone, from one bank account to another and has round the clock availability to transfer money 24/7, 365 days.

UPI facilitates interbank transaction using UPI ID or Account Number and IFSC code or by scanning QR or collect request. UPI ecosystem consist of payer PSP (Payment Service Provider), payee PSP, remitter bank, beneficiary bank, NPCI (National Payments Corporation of India), bank account holders, merchants. UPI's biggest feature is interoperability. Basically, if sender uses Paytm and shopkeeper uses Google Pay, it is possible to scan his QR code & transfer money to his bank A/c by using Paytm. UPI has turned out to be the best financial innovation in India and has begun the process of replacing the cash economy altogether.

**LITERATURE REVIEW**

**Mahesh A. et.al** [1] In this article, the study was carried out by examining secondary data sources and using SWOT analysis on UPI to identify its strengths, weaknesses, opportunities, and threats. This study analyses UPI's place in the digital payment ecosystem with a focus on identifying UPI's key strengths and growth possibilities as well as topics for additional research to fully understand India's e-payment ecosystem.

**Jayaram Narayanan** [2] To study the growth of UPIs due to covid pandemic is the objective of this paper. This study is based on different books, journals, newspapers, and relevant websites. The growth of UPI apps contributes to digitalisation, development of many fintech companies, and start-ups.

**Dinesh M. Kolte et.al** [3] In this research paper study on 200 students studying in Aurangabad city of Maharashtra state, is carried out, to know which UPI / BHIM apps is commonly used by students and for which purposes. The researchers observed that students are commonly used third party apps like PhonePe for ₹1-₹10,000 payments.

**Madhulika P. Sarkar et.al** [4] Existing literature on digital payment system is reviewed in this paper. The study also discusses the attitude of consumers for the adoption of the digital payment system.



**Douglas Arner et.al** [5] This report was commissioned by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) under MSME financing series no.7. This paper aims to examine how digitalisation, particularly digital payments innovations and innovative payment initiatives can play a pivotal role in fostering micro, small and medium enterprise (MSME) access to finance.

**OBJECTIVES**

This research includes following objectives,

- To evaluate the utility of UPI for start-ups, MSME and other businesses in India by its convenience in payments.
- To analyse quarterly UPI Peer to Merchant (P2M) transactions.
- To study classification of UPI P2M transactions on monthly basis.

**RESEARCH METHODOLOGY**

Research procedure involves collection of data from secondary resources such as published research papers, product statistics from NPCI website, RBI reports, etc. Based on collected data, analysis has been done to study trends in Peer to Merchant (P2M) transactions through UPI.

**DATA ANALYSIS AND FINDINGS**

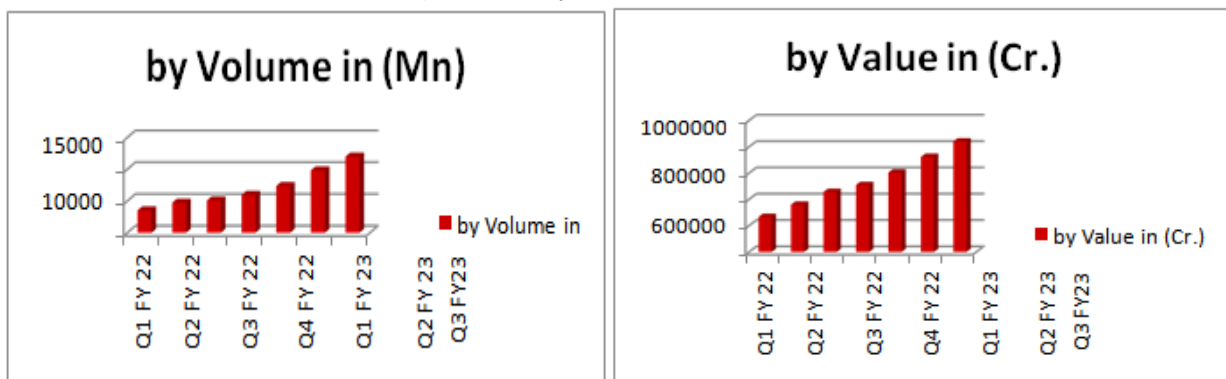
From statistics available on NPCI website about UPI ecosystem, quarterly P2M transactions via UPI are analysed and shown in Table 1, P2M transactions are payments done by person to a merchant i.e., Peer to Merchant.

**Table.1** Quarterly UPI P2M Transactions

QuarterDetails	by Volume in(Mn)	by Value in(Cr.)
Q1 FY 22	3542.59	268188.1
Q2 FY 22	4749.03	360905
Q3 FY 22	5104.37	458099.5
Q4 FY 22	5959.88	510481.9
Q1 FY 23	7369.93	605714.6
Q2 FY 23	9836.81	724536.6
Q3 FY23	12004.02	842008.75

*Source:* <https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics>

**Fig.1** Quarterly UPI P2M Transactions



**Table.2** shows quarterly % increase and its average of UPI P2M transactions during Q1 FY 22 to Q3 FY 23.

**Table.2.** Quarterly % increase in UPI P2M Transactions

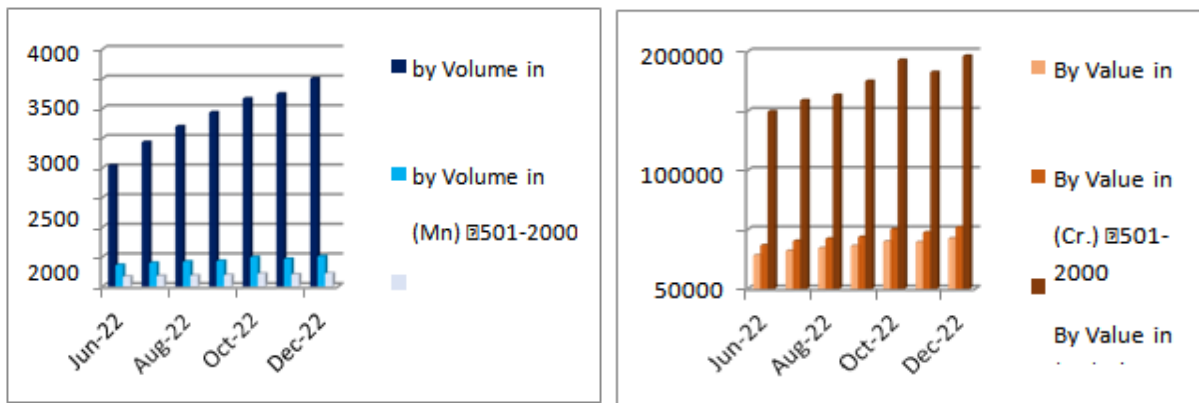
Quarter Details	% Increase in Volume in (Mn)	% Increase in Value in (Cr.)
Q1 FY 22	--	---
Q2 FY 22	34.06	34.57
Q3 FY 22	7.48	26.93
Q4 FY 22	16.76	11.43
Q1 FY 23	23.66	18.66
Q2 FY 23	33.47	19.62
Q3 FY23	22.03	16.21
Average	22.91	21.24

**Table.3.** Classification of UPI P2M Transactions

Month	by Volume in (Mn)			By Value in (Cr.)		
	₹0-500	₹501-2000	Above ₹2000	₹0-500	₹501-2000	Above ₹2000
Jun 2022	2037.94	358.08	164.06	28012.58	36474.45	149484.77
July 2022	2430.61	393.57	175.07	31807.54	40063.88	158855.00
Aug 2022	2695.27	414.15	180.95	34124.57	42050.38	163246.86
Sep 2022	2931.53	426.17	189.49	35921.62	43410.04	175057.16
Oct 2022	3165.72	490.91	212.13	39639.94	50173.43	192897.09
Nov 2022	3245.61	461.49	200.86	39075.51	47269.76	182646.35
Dec 2022	3504.93	505.43	216.94	42282.26	51735.00	196289.42

*Source:* <https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics>

**Fig.2.** Classification of UPI P2M Transactions



For, UPI P2M transactions, volume in (Mn) is increase by 135.17 % and its value in (Cr.) is increase by 83.80 % on Year-on Year (YoY) during Q3 FY22 to Q3 FY23. Quarterly average % increase is 22.91 % for volume in (Mn) and 21.24 % for value in (Cr.) during Q1 FY22 and Q3 FY 23.

Analysis of UPI P2M transactions during June 2022 to Dec 2022, shows that average transactions by volume in (Mn) for ₹0-500, ₹501-2000, above ₹2000 are 2858.80, 435.69, 191.36 respectively. Likewise, average transactions by value in (Cr.) for ₹0-500, ₹501-2000, above ₹2000 are 35837.72, 44453.85, 174068 respectively.

**RECOMMENDATIONS**

Consumers prefer UPI for low value real time payments i.e., ₹0-500. Also, average % increase for above ₹2000 is 4.77% during June - Dec 2022, Hence, merchants can prefer UPI platforms for high value transactions also.

**CONCLUSION**

- The Unified Payments Interface (UPI) is a real time payment solution that facilitates interbank transaction using UPI ID or Account Number and IFSC code or by scanning QR or collect request. UPI has become revolutionary product for both consumers and merchants.
- Statistics shows that there is 135.17 % increase in volume in (Mn) and 83.80 % increase in value in (Cr.) on Year-on Year (YoY) during Q3 FY22 to Q3 FY23 in usage of UPI by consumers for real time payments to merchants.
- Consumers prefer UPI for low value real time payments i.e., ₹0-500. But also, average % increase for above ₹2000 is 4.77% during June - Dec 2022 which signifies that consumer has started using UPI for high value transactions too.

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**TO STUDY IF SUSTAINABLE BRANDS REALLY PROMISE QUALITY WITH REFERENCE TO MAMAEARTH**

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**Shamim Shaikh and Thea Fonseca**

Don Bosco College

**ABSTRACT**

*The main aim of this research is to study sustainable brands and to know if they really promise the quality, they claim they have and to conclude how they affect the environment. Sustainable brands are those brands who practice sustainable practices like zero waste policies and sustainable brands help their consumers to make conscious decisions when it comes to buying products. Sustainable brands put their meaning and purpose way beyond monetary motive on to engaging the human lifecycle along with the economic, social and environmental components our mother nature has to offer. After the pandemic consumers have become more conscious about the products they buy and use, hence green beauty has gained a lot of popularity and is trending because of its environment friendliness. Concerns regarding green – washing has risen due it being overrated. The researcher has chosen the 1<sup>st</sup> Asian SELF-MADE certified brand that is Mamaearth for this research. Safe by international standards and loaded with goodness of nature Mamaearth provides her masses with natural and toxins free skin care products. Mamaearth claims to be an organic product manufacturer for all her consumers. It's one of India's fastest growing brands who crossed a turnover mark in four years. This study will help us come to a conclusion that if the Brand Mamaearth is really a sustainable brand or not.*

*Keywords: Mamaearth, Green beauty, skin care beauty industry, sustainable development, sustainable brands.*

**INTRODUCTION**

The brand Mamaearth was launched in 2016 when parents Ghazal and Varun Alagh incorporated Honasa Consumer Private Limited in 2016. The Indian Unicorn brand is based in Gurugram, Haryana. When the founders Ghazal and Varun Alagh first became parents they came across all sorts of baby care brands but they concluded that all these brands contained toxins which can be harmful for the child as well as the mother and that safer alternatives from abroad are too heavy for the pocket. Soon they came to a realization that they weren't the only couple that came across this issue. They then began to research ways to make baby products free from toxins and affordable which are safer for the baby as well as the mother. After spending sleepless nights and creating a dedicated R&D team for the research a new brand was founded "Mamaearth". This brand soon became Asia's 1st brand to be certified as SELF-MADE. Mamaearth considers itself to be more than just a commercial brand, their products are made with care and love which is free from all toxins that are banned in most countries and is also chemical free and cruelty free for her consumers. The organic product manufacturer caters to children, their parents, grandparents and everyone else. The Mamaearth umbrella has over 80 natural products for baby care, skin care, hair care, etc. They also use natural ingredients like onion, tea tree, ubtan, vitamin C, charcoal, etc. which attract consumers who want to inculcate such ingredients in their skin care regime. They say that they are a 'Mum- powered' company and they work along with many mothers who are involved in the process right from idea generation to the product launching. They have 500 mom bloggers who help the consumers know regarding the problems that Mamaearth's products solve and this also helps them to connect and attract their audience.

**STATEMENT OF PROBLEM**

The purpose of this research is to help us understand if sustainable brands like Mamaearth actually stand by the words they claim about being sustainable for the environment.

**LITERATURE REVIEW**

N. Tayal (August, 2022). This study talks about cause marketing, storytelling, emotional marketing and empowerment marketing used by the brands Mamaearth and WOW skin science to attract consumers to their products. The paper compares both the marketing Strategies of the brands with reference to emotional marketing.

P. Agrawal (April, 2021). This paper talks about how Mamaearth through their excessive social media marketing have made a name for their brand. It also talks about how social media marketing effects the brand image of Mamaearth. One of the major finding in this paper is how Mamaearth is remembered because of its strong visibility on social media sites.

Basumatari, Mainaosri; Girigoswami, Aveek (2020) This paper talks about how Generation Y chooses green beauty brands like Mamaearth. WOW, etc. over traditional beauty brands. It also talks about how millennials prefer organic brands which holds social media presents. The findings of this paper indicate some important

managerial implications about traditional brands as to why they should hold social media presences and must clarify their stand about their sustainable positioning to tackle their competitors in a fair way.

N. S (2021). This paper talks about how sustainable brands are the need of the hour. And further talks about three green brands that is phool, Mamaearth and iD fresh. It tells us how sustainable practices are not just caring for the environment but rather it's a holistic approach that includes sustainability in every aspect of the business may it be marketing, packaging etc.

### OBJECTIVES

- To study whether consumers prefer green beauty brands over traditional beauty brands.
- To critically examine the Indian consumers view with reference to the products of Mamaearth being sustainable.
- To analyze if Mamaearth's excessive marketing over the social media has led the brand to make a name in the industry.

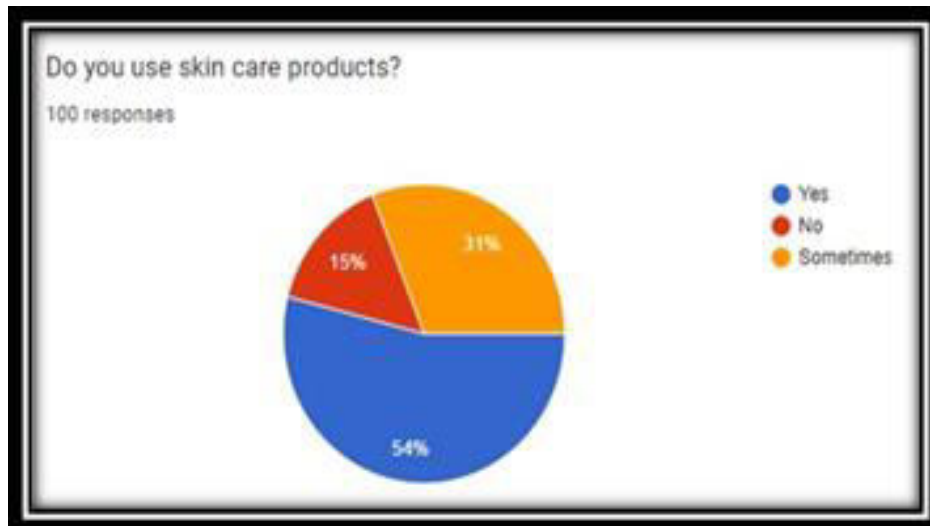
### RESEARCH METHODOLOGY

The data collected for this research consists of both primary data and secondary data. This research utilizes google forms to collect primary data, the google form was circulated to get responses and then an analysis was made while secondary data has been collected through journals, articles, web pages and blogs. The sample size for this research is 100 respondents.

### LIMITATION

- The research was conducted in the metropolitan city, Mumbai.
- The sample size may not be a true representation of the population.
- The findings of this study were based on the assumptions that the respondents have given correct information.

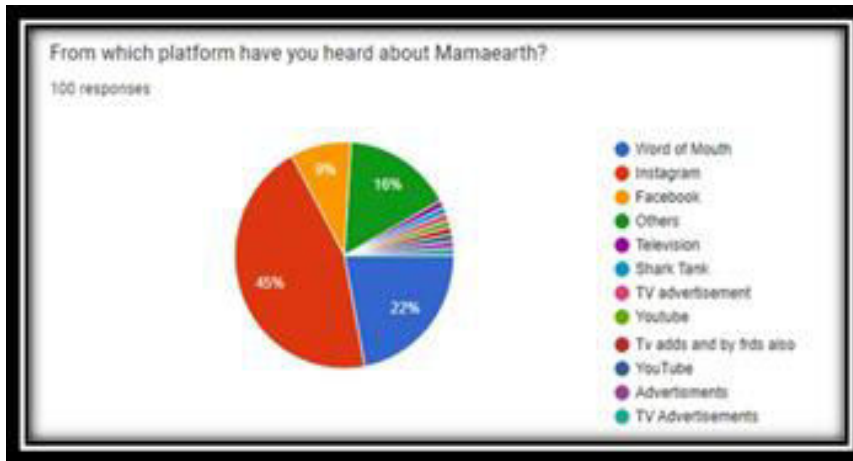
### DATA ANALYSIS AND FINDINGS



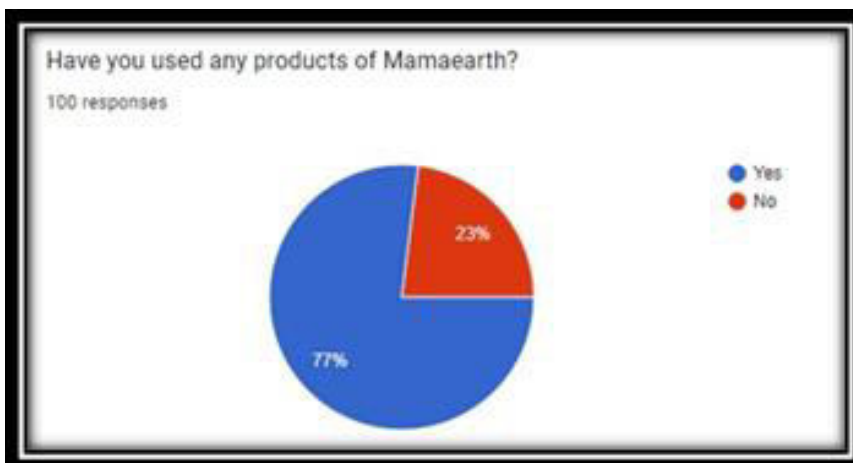
The given question aims to know whether the respondents use skin care products. The blue portion represents the respondents using skin care products i.e. 52%. The yellow portion represents respondents who sometimes use skin care products i.e. 31%. The red portion refers to respondents who don't use skin care products at all i.e. 15%. This shows that majority of the respondents use skin care products.



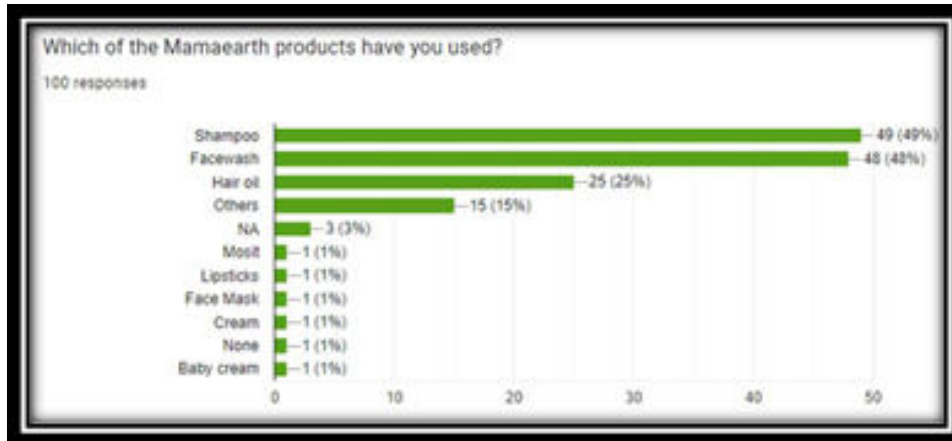
The given question aims to know whether the respondents prefer green beauty brands or traditional beauty brands. 64% prefer green beauty brands and 36% prefer traditional beauty brands. Hence it can be said that the majority of respondents prefer green beauty brands.



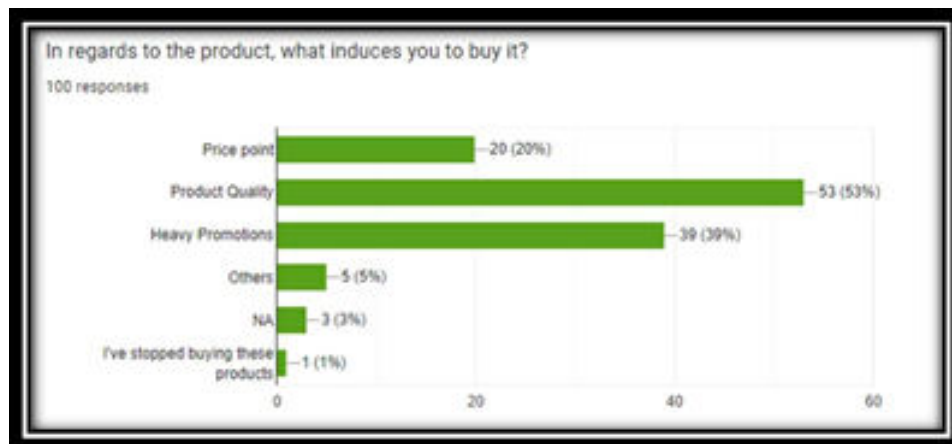
The given question aims to understand from which various platforms have the respondents heard about the brand Mamaearth. 45% have heard about Mamaearth from Instagram. 22% have heard about Mamaearth from the word of mouth and 16% heard about Mamaearth from other platforms. Furthermore, 9% have heard about Mamaearth from Facebook.



The given question aims to know that if the respondents have used any products of The brand Mamaearth. The blue represents the respondents who have used products of the brand Mamaearth i.e. 77% whereas 23% respondents in the red claim to have never used any products of the brand Mamaearth. Hence we can conclude that majority of the people have used products of the brand Mamaearth



The given question aims to understand which of the products of the brand Mamaearth the respondents have used. 49% of the respondents claim to have used Mamaearth shampoo. 48% of the respondents claim to have used Mamaearth facewash. 25% of the respondents claim to have used the Mamaearth Hair oil. Furthermore, the rest 15% claim to have used other products.



The given question aims to understand in regards of the Mamaearth products what induces the respondents to buy it. 53% of the respondents claim to have bought the product because of the products quality. 39% of the respondents claim to have bought the product because of the heavy promotions done by the marketing team of Mamaearth. 20% of the respondents claim to have bought the product because of the price point of the Mamaearth products. The rest claim to have not bought or have stopped using Mamaearth products. Hence majority of the respondents claim to have used the product due to the product quality and heavy promotions.

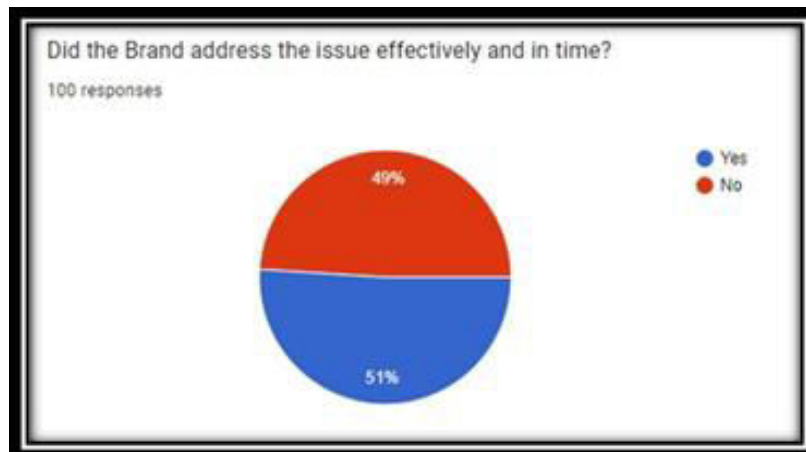


The given question aims to understand how would the respondents rate Mamaearth products on scale of 1 to 5. 27% respondents rated Mamaearth products 3 out of 5. 26% respondents rated 1 out of 5. 23% respondents rated 4 out of 5. 15% respondents rated 2 out of 5. Whereas only 9% respondents rated Mamaearth products 5 out of 5. We can conclude that the majority of the respondents believe Mamaearth products to be average

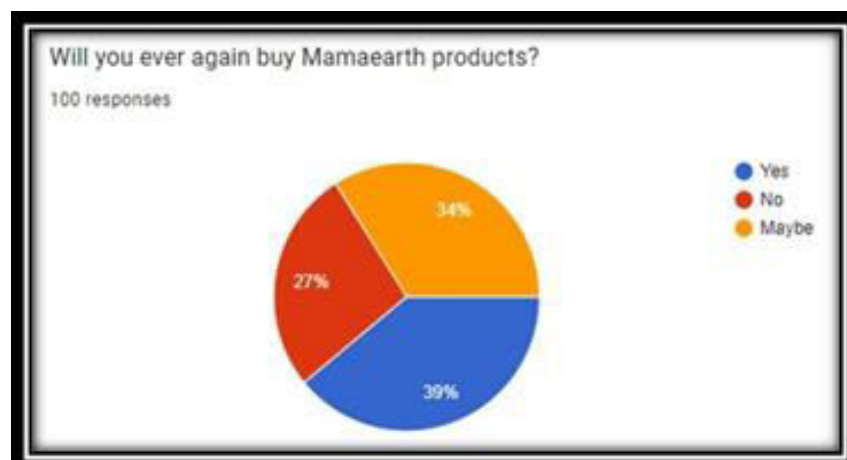




The given question aims to understand the respondents experience after using Mamaearth products. The red portion represents the respondents who have not faced issues after using the Mamaearth product i.e. 49% whereas the blue portion represents the respondents who have faced issues after using the Mamaearth product i.e. 31% and the yellow portion refers to respondents who might have faced issues i.e. 20%.

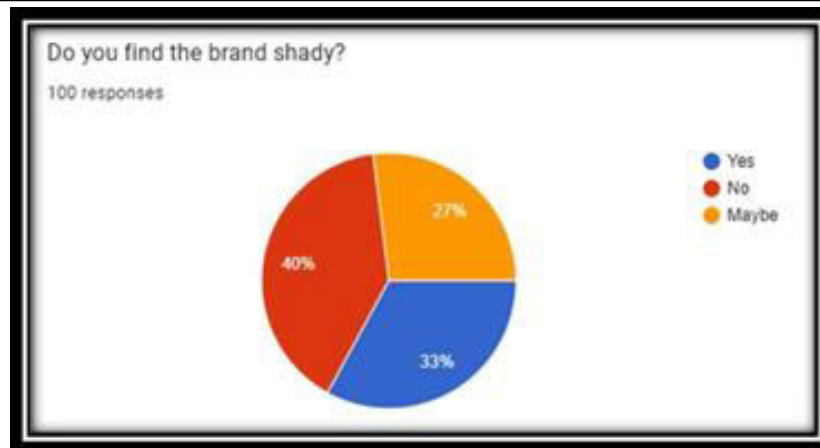


The given question aims to know that if the brand Mamaearth addressed these issues effectively and in time for the respondents. 51% represents the respondents whose issues were not addressed effectively and in time. 49% represents the respondents whose issues were not addressed effectively and in time. We can conclude that majority of the respondents have had their issues addressed and have not had them addressed as there not much difference.



The given question aims to understand if the respondents will ever again buy Mamaearth products or not. The blue portion i.e. 39% represents the respondents who will buy Mamaearth products again. The yellow portion i.e. 34% refers to respondents who might buy Mamaearth products again. The red portion i.e. 27% represents the respondents who will not buy Mamaearth products again. We can conclude that the response is strong for all the three options nevertheless majority say they will buy the products again.





The given question aims to understand if the respondents find the brand Mamaearth shady. The red portion of the diagram i.e. 40% represents the respondents who don't find the brand Mamaearth shady. The blue portion of the diagram i.e. 33% represents the respondents who find the brand Mamaearth shady. The yellow portion of the diagram i.e. 27% refers to respondents who might find the brand shady. We can conclude that the response is strong for all the three options nevertheless 40 respondents say they don't find the brand Mamaearth shady.

### RECOMMENDATIONS

- The brand Mamaearth needs to work and focus more on quality rather than on excessive marketing.
- The brand Mamaearth must address the issues of their customers in time and effectively.
- Majority of the respondents believe the brand to be shady, Mamaearth needs to take lucrative measures to reassure the credibility of their brand.

### CONCLUSION

From this research, we could conclude that consumers in today's times are more aware about sustainability and have become environment conscience and prefer organic products. Brands like Mamaearth need to be more consumer-centric and address what it is doing for the planet and consumers at large.

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**A STUDY ON INNOVATIVE PRACTICES OF HRM IN TRAINING TO EMPLOYEES OF MEDIUM SCALE INDUSTRY FOR SUSTAINABLE DEVELOPMENT**

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**Tapasya S. Patil**

Research Scholar, Madhyanchal Professional University, Bhopal

**ABSTRACT**

*Innovation is the fizz in today's organizational context. If the employee's thoughts and actions are creative and innovative towards their work then there comes innovation. Training & development is important among the various HRM practices which helps employees to keep them update with the necessary knowledge, skills and attitudes which essential for innovation. It is necessary for the organizations to focus on innovative HRM practices among its employees to make innovation possible. Non-routine intelligible jobs help employees to be innovative and to understand the importance of being innovative and to learn the skills that are essential for innovative behaviour. The present study is a conceptual paper aims to investigate the impact of HRM Practices on the Training & Development on the employees.*

*Keywords: Human Resource Management practices, Innovation, Training & Development*

**INTRODUCTION**

The survival of any organization in the competitive world lies in its ability to train their employees to be creative, innovative, inventive, who will invariably boost the performance and increase competitive advantage. Training and development are an aspect of human resource practices that help in increasing employees' skills, knowledge and competence capable of improving employees' ability to perform more efficiently & effectively.

Training and Development practices undertaken for the employees is one of the key functions of HRM. In the contemporary scenario organizations would like to showcase themselves in the market, they like to be different and unique from its competitors and to attract the customers with new products and services as a result the organization will have an advantage over its competitors. Innovation is the concept which makes any organisation to stand apart from the group. Innovation helps employees to increase their productivity through creating and implementing innovative processes and differentiates the organization through innovative product and services. It is one of the significant elements which help in making innovation and to create innovative behaviour in the workplace. However, the study results will help the management to identify the challenges effects of employees' training on organizational performance, hence determine the areas where improvements through training can be done. It will also help the management in planning for the development and implementation of effective and efficient training needs that will lead to increased performance.

**LITERATURE REVIEW**

- **Dr. Vanathi Vembar (2011)** – The finding of the study clearly indicates that training is an essential management tool, it has many benefits, such as shortens the study time, increases work effectiveness, helps employees and the company itself to compete in the fast changing environment, reduces damages and wastage. Staff training is a way of motivating employees, upgrading their skills, expanding their knowledge, preparing employees for self-development.
- **Qasim Saleem & etal. (2011)** – The finding of the study clearly indicates that training and development of an employee play an important role that has shown in analysis above in different sectors if many employees are given training and development opportunities then organization is go in high position as before trainings.
- **Loo-See Beha and Leap-Han Looa (2013)** - The study found that performance appraisal, internal communication, SHRM alignment in the organization, and career planning were the human resource management best practices. The implications of this study indicate that insurance firm must strategically manage its human resource practices to achieve maximum performance.
- **Srinivas K.S (2014)** - This paper attempts to bring out the key trends in this industry which impacted the way traditional training & development was done and tries to identify the emerging innovative practices. Research outcomes also suggests that those organisations which continues to execute conventional training & development practices, might do a self-audit and explore opportunity to see how they can improvise & contribute more to respective organisation.
- **H. O. FALOLA & etal. (2014)** - The results show that strong relationship exists between training and development, employees' performance and competitive advantage. The overall result showed that proposed hypotheses tested were accepted. It is therefore recommended that Individual should be more proactive and seek to be more creative and innovative to contribute their quota through their profession and skill.

- **Tareq Faye Obaid, Dr. Rosima Bte. Alias (2015)** - The present study is a conceptual paper aims to investigate the impact of human resource management factors like green recruitment, green training and development and green learning on the performance of the firm. Training and development, recruitment, and learning play key role in improving environmental performance of the organization.
- **Roma Tripathi & Pooja Kushwaha (2017)** - This study contributes to the existing literature by elaborating the role of innovative practices and technology in the context of HRM Practices as Training and Development. Further, several implications were discussed for the purpose of promoting sustainable development of digital era.
- **Amir Aris & etal. (2019)** - The impetus of this article is to examine the position of training and development on employees' innovative work behaviour, with intrapreneurial competencies mediating function. TD and IWB with the objective of enhancing organisational efficiency is therefore important. Moreover, what human resource development is required to attain creative work behaviour that effect innovation (Scott & Bruce, 1994).
- **M. Jyothi Sheeba & Prabu B Christopher (2020)** - It is evident that Training & Development plays a vital role in improving the performance of the employees through inculcating the innovative work behaviours which helps in accomplishing non-routine cognitive jobs effectively and innovatively.

**OBJECTIVES**

- 1) To study the impact of recent trends and future outlook in rubber & plastic seals manufacturing company on Training & Development practices.
- 2) To understand the initiatives taken by Training & Development fraternity to support organisations.
- 3) To identify the major purposes of Training & Development as well as the key impacts on employee’s performance.
- 4) The Training & Development practices and processes scheme have positive effect on the performance of workers & Productivity.
- 5) To identify whether the present Training & Development practices are adequate for the organisations.

**RESEARCH METHODOLOGY**

The research study is empirical as it studies the opinions and perceptions of the employees of an organization. For the confidential reasons the name of the organisation has not been disclosed. The above secondary research through literature review gives the researcher a scope to find out factors that build the perception of employees after providing training to them.

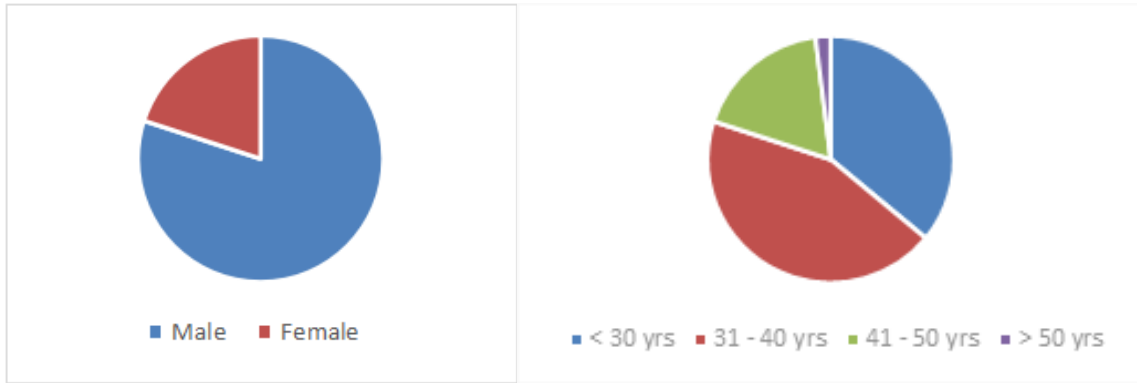
Survey research methodology was adopted and the data was collected by both primary and secondary method. The questionnaire was prepared by exploring secondary data. The population of the study consists of employees at the middle level of hierarchical structure of the firm. The total sample size consists of 50 respondents. The sample selection technique adopted for getting the 50 questionnaires filled in Simple Probability Sampling.

**DATA ANALYSIS & FINDINGS –**

**Q.1) Gender wise & Age wise distribution of sample – (50 respondents)**

Male	40
Female	10

< 30 yrs	18
31 – 40 yrs	22
41 – 50 yrs	9
>50 yrs	1



**Q.2) Number of Training sessions attended & duration of Training? (50 respondents)**

1 - 4	20
5 - 8	18
9 - 12	12

Number of Training sessions attended	Duration of Training
1 month	12
2 months	28
3 months	10



**Questionnaires on Training & Employees competitive advantages –**

Particulars	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
1) Training enhances employee’s capacity	31	18	01	00	50
2) Training enriches employee’s efficiency	26	21	03	00	50
3) Training promotes Innovation & Creativity for competitive advantage	22	24	04	00	50
4) Training develops employees’ skills & knowledge	20	28	02	00	50
5) Training improves organisations performance	25	22	03	00	50

**FINDINGS OF THE STUDY**

- 98% of respondents agreed that training Enhances employee capacity.
- 94% of respondents agreed that training enrich employee’s efficiency
- 92% of respondents agreed that training promotes Innovation and creativity for competitive advantage.
- 96% of respondents agreed that training Develops employee skills and knowledge.
- 94 % of respondents agreed that training improves organisation performance

**RECOMMENDATIONS**

Based upon the findings of the study, the following recommendations are made by the researcher in order to make the employee training to be more effective -

We should hire already trained employees or give training and development to existing employees according to organization's requirements. So high authorities of these different sectors give feedback that all employees should be given opportunities of training and development that lead to organizational efficiency and growth. Training may be on job or off job. Organizations should spend some amount of money for their employees not only for betterment of employees but also for the efficiency and betterment of organizations.

### CONCLUSION

It is evident that Training & Development plays an important role in improving the performance of the employees through inculcating the innovative work behaviours which helps in accomplishing non-routine cognitive jobs effectively and innovatively. Training is important for the survival of any organisation. It is also essential for effective performance of employees, enhancement of employees' ability to adapt to the changing and challenging business environment and technology for better performance, increase employees' knowledge to develop creative and problem-solving skills.

So, it is concluded that innovative practices such as training and development of an employee play an important role that has shown in analysis above in different sectors if many employees are given training and development opportunities then organization is go in high position as before trainings.

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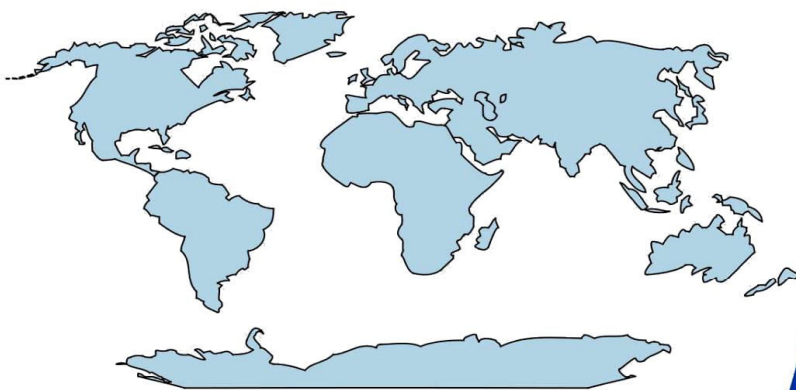
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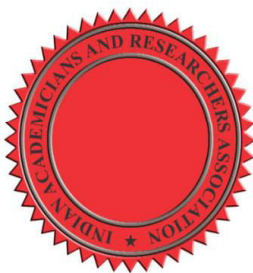
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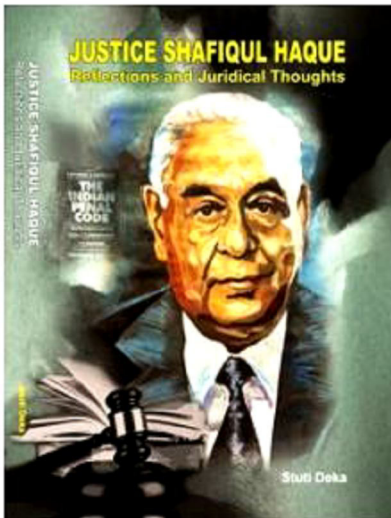


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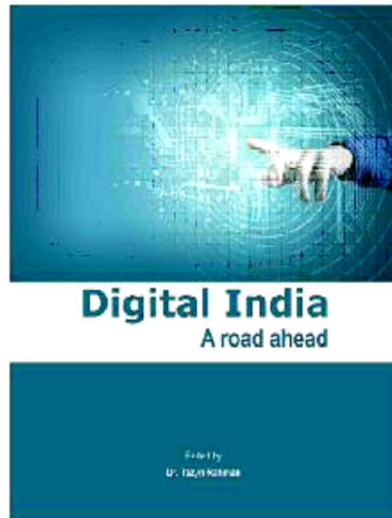
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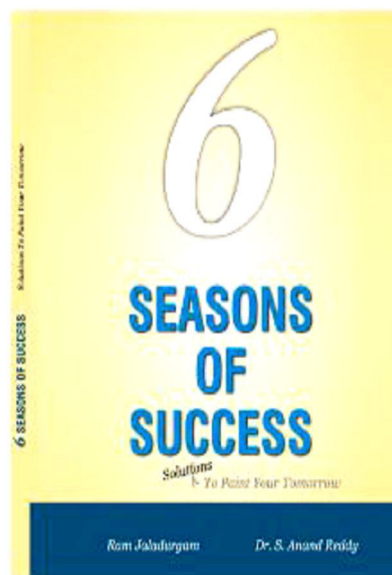
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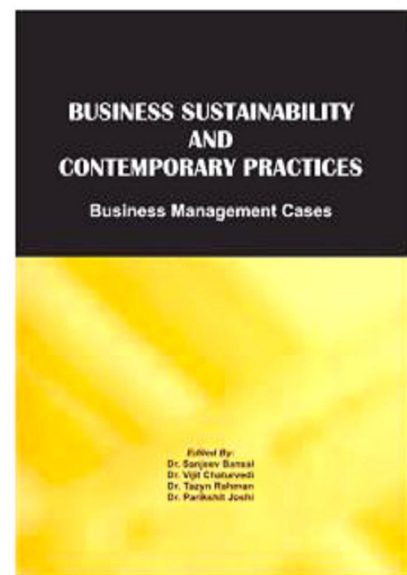
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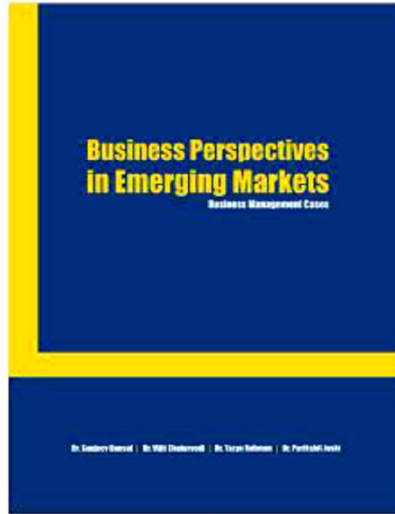




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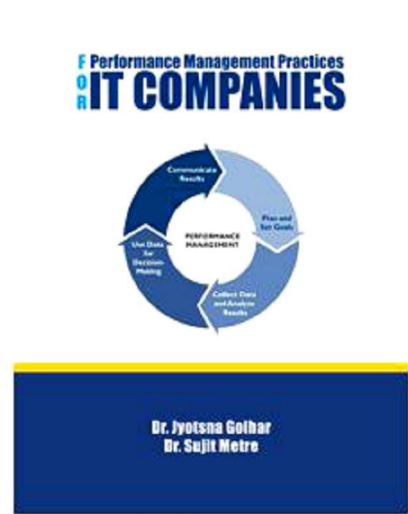
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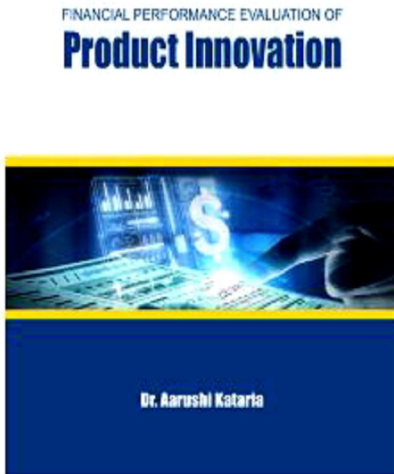


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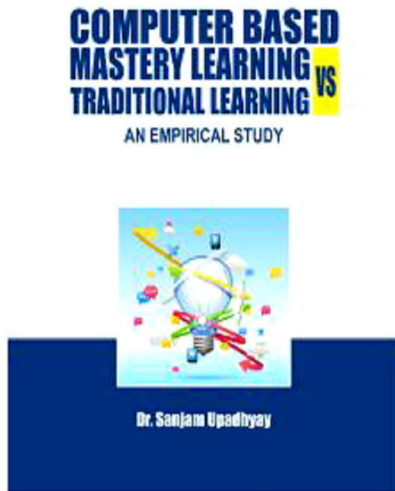
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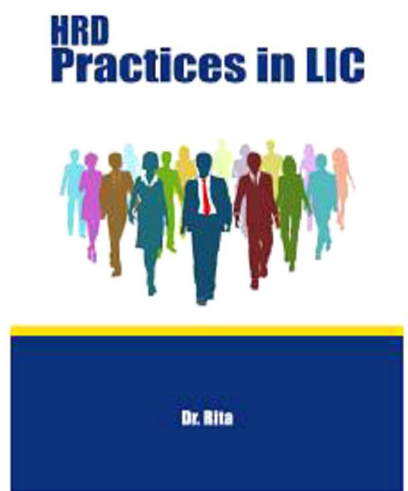
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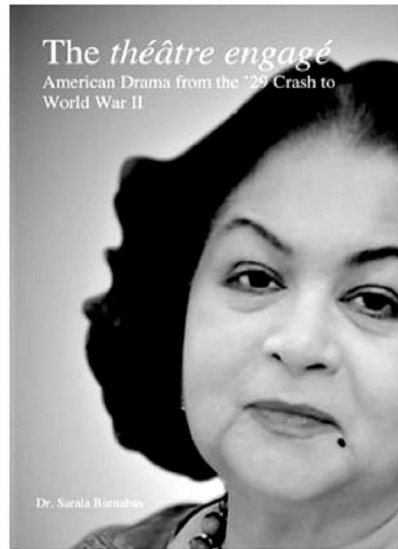
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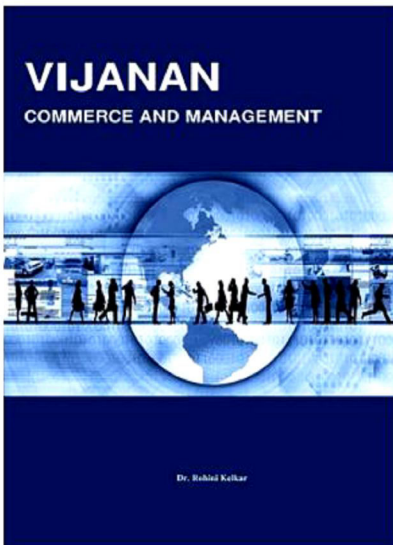
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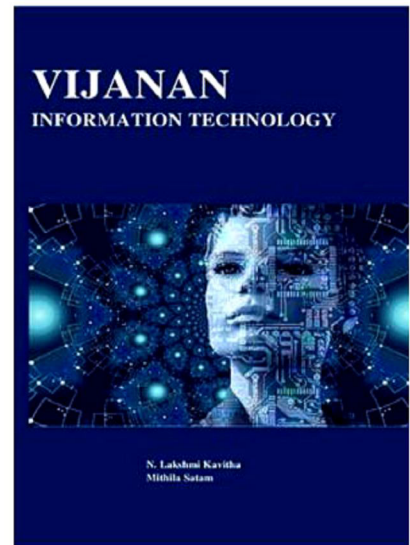
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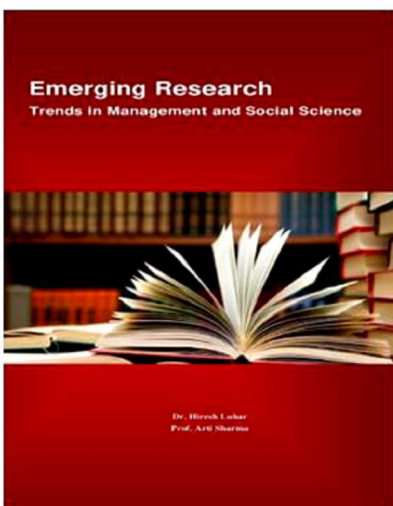
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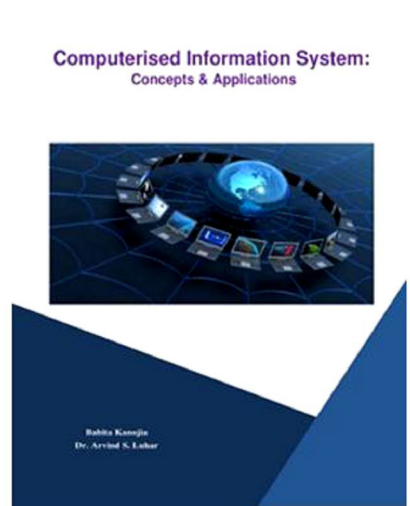
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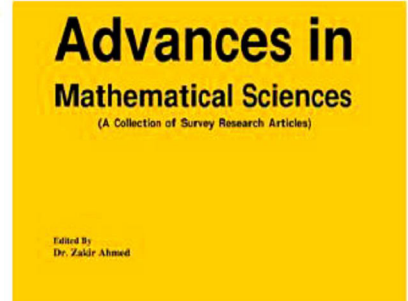
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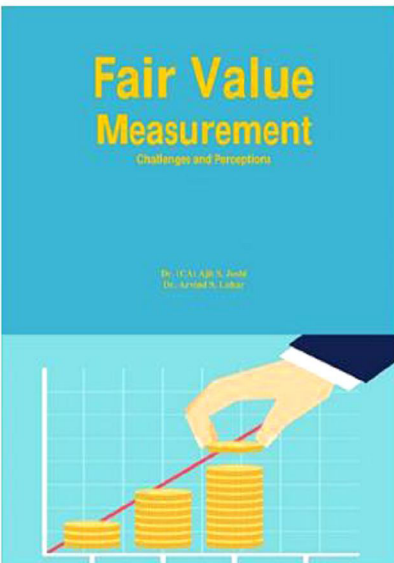
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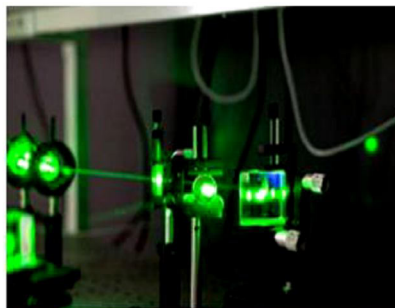


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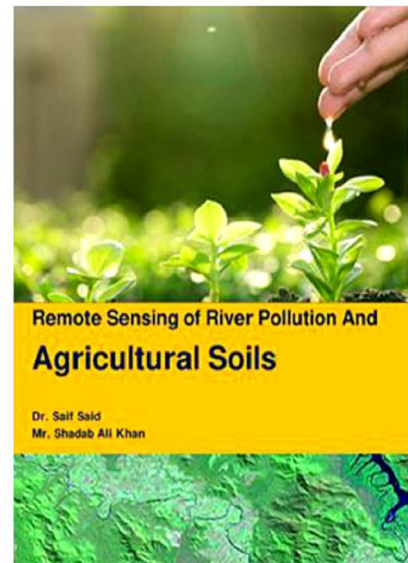
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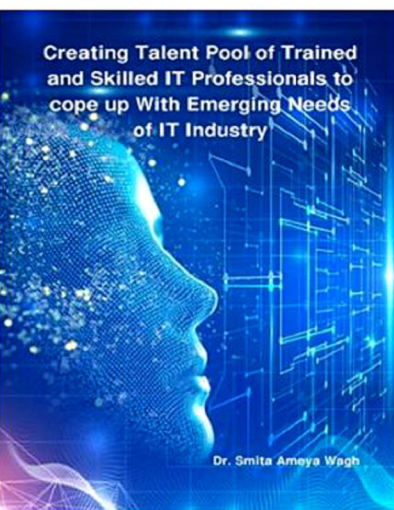
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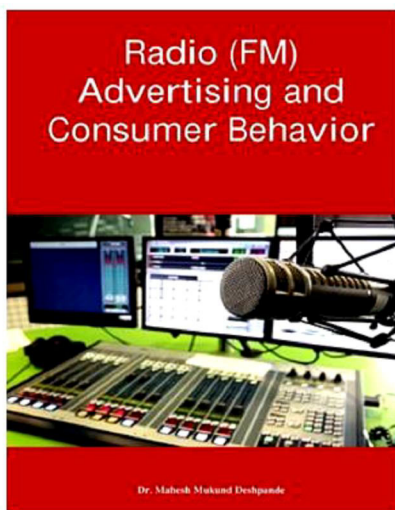
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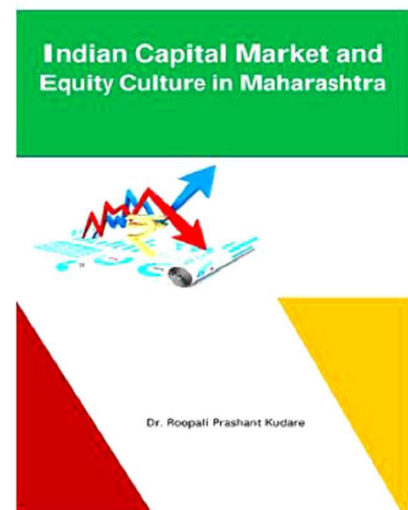
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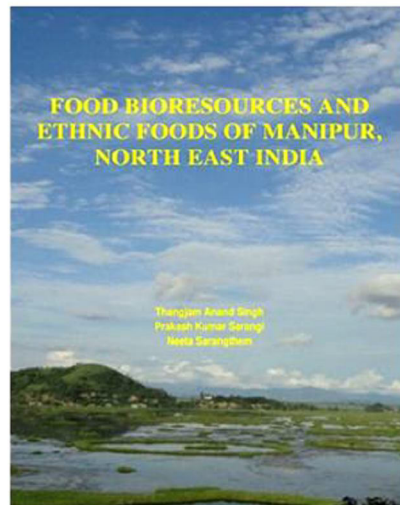
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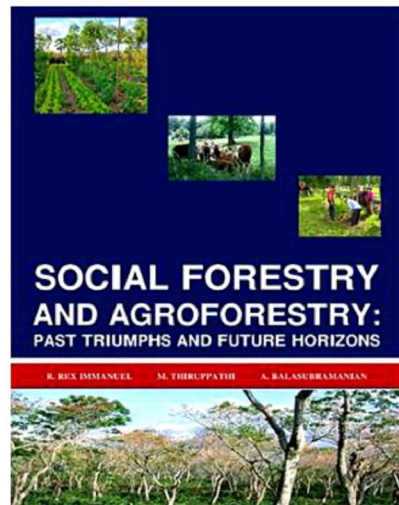




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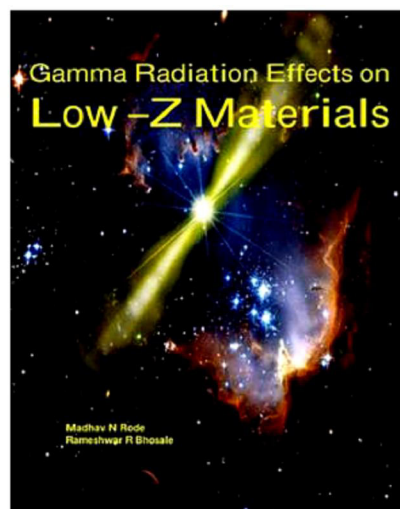
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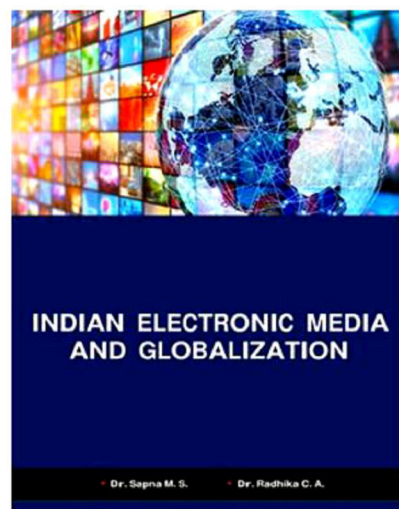
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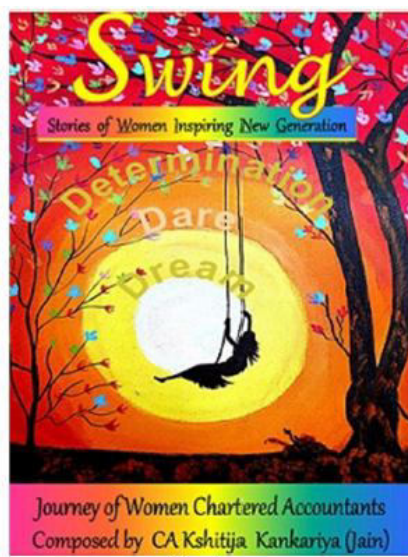
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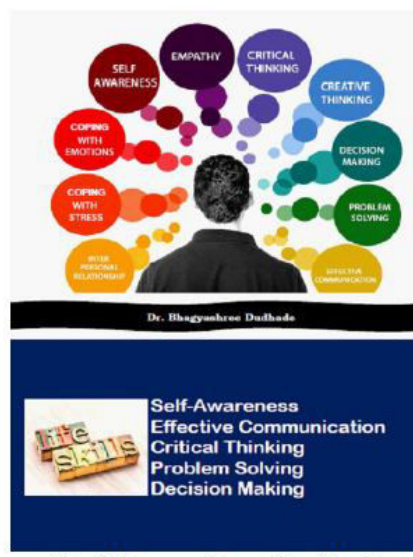
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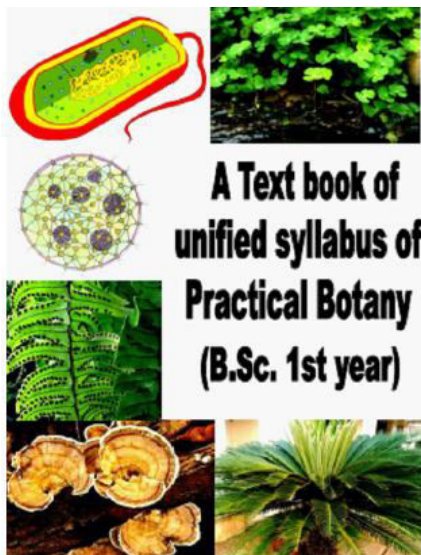


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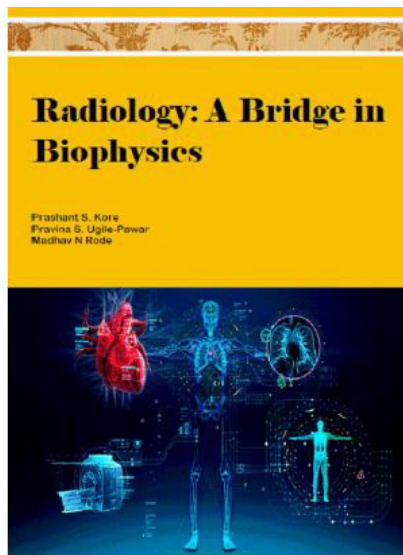
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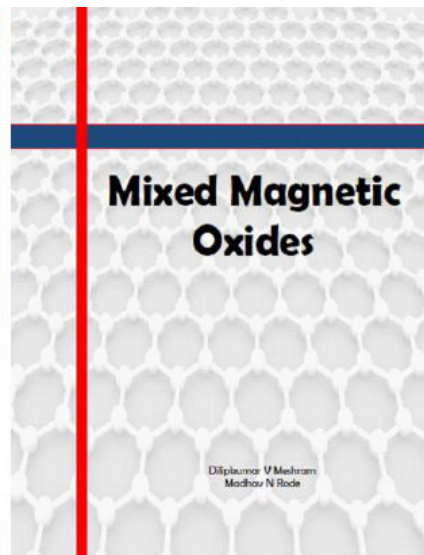
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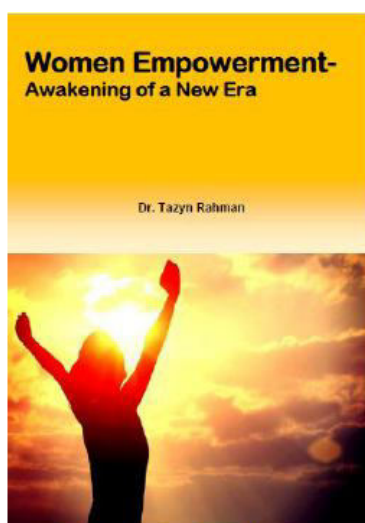


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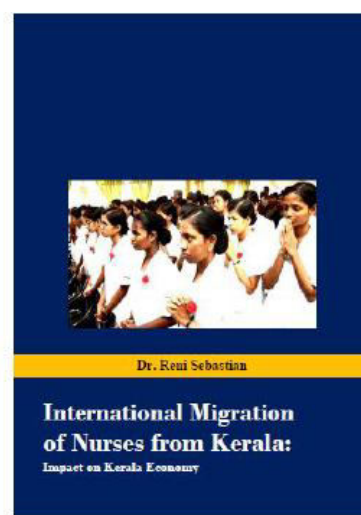
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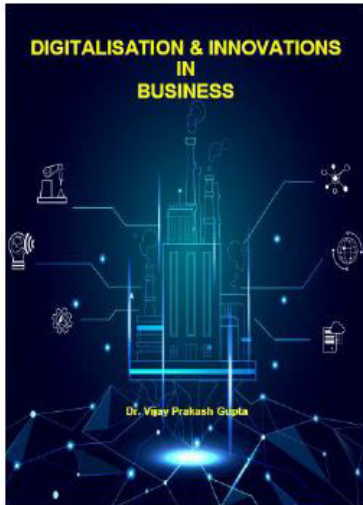
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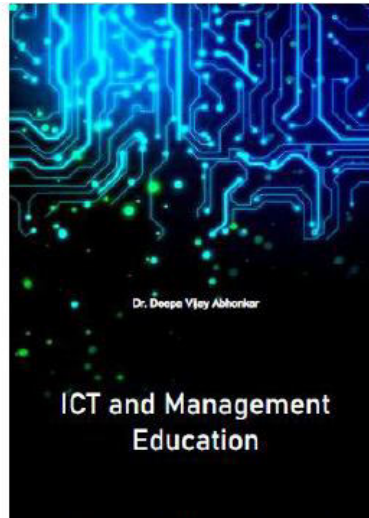
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