



Sustainability Assessment of Ban on Single-Use Plastic

A Step Towards Clean and Green Kolkata



India Clean Air Network (India CAN) is a collaborative platform focused on improving air quality, promoting **sustainable waste management**, and advancing climate education in India. By uniting stakeholders across sectors, India CAN drive collective action and policy advocacy for a cleaner, healthier environment. Mission: To unite stakeholders in advancing climate education, promoting sustainable waste management, and improving air quality to address climate change through collective action and driving impactful policy change for a cleaner, healthier India. Vision: A future where every community in India breathes clean air, adopts sustainable waste practices, and is empowered to tackle climate change.



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March 2025

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Executive Summary

Introduction: The global plastic waste crisis, largely driven by single-use plastics (SUPs), persists despite regulations aimed at reducing it. India, under the **Plastic Waste Management Rules**, banned certain SUPs in July 2022. Though plastic bags thinner than 40 microns and SUPs are banned in eco-sensitive zones, violations are rampant. Many small vendors struggle with compliance, while larger corporations more easily adapt. This report explores the perspectives of vendors and consumers in Kolkata's markets, seeking to understand ongoing SUP use and to propose solutions for reducing plastic pollution in the city.

Aims and Objectives: The report aims to thoroughly **explore public opinions on the effectiveness of the SUP ban**. Its objectives include evaluating awareness and initiatives related to SUP reduction, understanding both vendor and customer perspectives, analyzing the adoption of eco-friendly alternatives, and outlining a strategic path forward to further reduce plastic pollution.

Methodology: The study collected insights from consumers and vendors across key marketplaces in Kolkata, including Hatibagan, Burrabazar, New Market, Jadu Babu Bazar, Gariahat, and Dakshinapan. Surveys were conducted with grocery stores, confectioneries, fast food stalls, garment shops, and fish and vegetable vendors. **A total of 299 vendors and 493 consumers participated.** A **mixed-method approach** was employed, combining structured surveys and market observations. The questionnaire data were analyzed quantitatively, while observations provided qualitative insights to support the report's findings.

Findings: The survey revealed that **73%** of respondents are familiar with the term **"Single-use Plastic."** While **44%** of consumers occasionally attempt to **reduce their use of SUPs**, **92.9%** find it convenient to bring **eco-friendly bags to the market**. However, **72%** of vendors expressed concerns that **alternatives to plastic bags are more expensive**, impacting their business operations. Despite the widespread reliance on SUPs due to their convenience, ease of access, and practicality, there is strong support for a complete ban among the public. Notably, 51% of vendors believe that promoting the reuse and recycling of plastics would be the most effective approach to enforcing the ban.

Recommendations: Despite the continued availability of SUPs in the city, a gradual reduction leading to a complete ban is essential for safeguarding the city's infrastructure and environment. Addressing this complex issue requires a coordinated effort, with all stakeholders playing their part. Thematic recommendations include increasing the **availability and affordability of eco-friendly alternatives**, **strengthening enforcement and monitoring**, **launching public awareness campaigns**, **providing incentives for both consumers and vendors**, **improving recycling infrastructure**, and **expanding government initiatives**. Implementing these measures collectively is crucial to effectively tackling plastic pollution in the city.

1. Introduction

Our planet is choking on plastic, with the world producing about **400 million tonnes of plastic waste each year (UNEP, 2022)**. A significant portion of this waste comes from single-use plastics (SUPs), which are one of the main causes of plastic pollution globally **(Plastic Soup Foundation, 2022)**. Despite being used for just a few moments, these plastics remain in the environment for hundreds of years, contributing to long-term pollution **(Plastic Oceans International, 2021)**. **Globally, 50% of all plastic produced is for single-use purposes**, including plastic bags, straws, bottles, and food containers, among others **(Plastic Oceans International, 2021)**. The convenience, lightweight nature, and affordability of plastics have made them an integral part of modern life, but their contribution to municipal solid waste is alarming **(Vimal et al., 2020)**.

In response, many countries are implementing regulations to reduce the use of SUPs. 175 nations agreed to develop a legally binding agreement on plastic pollution by 2024, prompting a major step toward reducing greenhouse gas emissions from plastic production, use, and disposal **(United Nations, 2024)**. At least **127 nations have introduced legislation to regulate single-use plastic bags**, though the scope of these bans varies. Many nations favour partial restrictions, such as banning bags below a certain thickness or enforcing taxes on thinner plastics **(Excell, 2019)**. For instance, countries like India and Australia have implemented **Extended Producer Responsibility (EPR)** laws, which hold producers accountable for the cleanup or recycling of their products throughout their lifecycle **(Excell, 2019)**.

India has taken steps to reduce plastic waste through the **Plastic Waste Management Rules, 2016 (amended in 2021)**, which banned certain low-utility, high-littering SUP items such as plastic earbuds, plates, cups, and straws in July 2022 **(Ministry of Environment, Forest and Climate Change, 2022)**. Despite these efforts, the country struggles with effective enforcement. Reports show that SUP products remain widely available, with minimal penalties imposed for violations **(Danda, 2022)**. Implementation of the ban falls largely on state governments, many of which lack the necessary infrastructure and political will to enforce it consistently **(Krishnan, 2022)**.

In Kolkata the use of SUPs is evident. Although the use of plastic bags thinner than 40 microns and SUPs in eco-sensitive zones and government offices has been banned in the city. Plastic bags are still commonly used, and even in sectors where compliance is higher, such as organized markets, SUPs continue to circulate **(Jena, Dutta & Agarwal, 2021)**. A study found that about **47% of restaurants in south Kolkata and 53% in the north continue to use banned plastic straws** and thin plastic bags are still used across various market sectors **(Ray, 2024)**.

The Kolkata Municipal Corporation (KMC) has consistently enforced the SUP ban, and while some efforts have been made, such as special enforcement drives and fines **(refer to section 5)(Roy, 2023)**, many vendors, particularly **street vendors, find the ban challenging. They maintain that it disproportionately impacts small businesses** while benefiting larger corporations that can more easily comply with the regulations **(Joshi, 2024)**.

This report aims to delve deeper into this issue by exploring the perspectives of both vendors and consumers on SUP use in Kolkata. With marketplaces identified as the primary source of SUPs for the general public, this study will provide insights into the continued circulation of SUPs despite the ban, and explore potential solutions to effectively reduce plastic pollution in the city.

2. Aims and Objectives

Despite the government's ban on SUPs and several invites to regulate the ban on the public, while the citizens of Kolkata are reluctant to eliminate plastic from their daily lifestyle, the **report aims to delve deep into the people's opinion on the effective ban on SUPs**. In this regard, the objectives of the report have been set as follows:

a) Evaluate Awareness and Initiatives:

To assess the awareness among vendors regarding the SUP ban and evaluate their initiatives to minimize plastic usage, considering their significant role in plastic distribution.

b) Understand Consumer Perspectives:

To comprehend consumers' viewpoints on the SUP ban by examining their demand for plastic products and their usage patterns in the market.

c) Analyze Adoption of Eco-Friendly Alternatives:

To determine the extent to which vendors and consumers adhere to eco-friendly alternatives, identifying the most common substitutes available in the market and evaluating their effectiveness.

d) Chart a Path Forward:

To explore strategies for the effective implementation of the SUP ban initiative, providing actionable recommendations based on the insights gathered from vendors and consumers.



3. Methodology

3.1 Research Setting: The study aims to gather insights from both consumers and vendors in the markets of Kolkata regarding the relevance of single-use plastic and their awareness of alternatives. Major **marketplaces** around the city have been chosen for the survey as these places are considered among the major places for open circulation of SUPs. These include:

 Hatibagan	 Burrabazar	 New Market	 Jadu Babu Bazar	 Gariahat	 Dakshinapan
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SURVEYED SHOPS

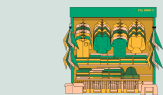


Figure 1: Study Locations

Source: Google Earth (Retrieved on 18th September 2024)

3.2 Research Design: The study employs a mixed-methods design. It integrates both quantitative and qualitative approaches to comprehensively assess the awareness and practices regarding single-use plastic among vendors and consumers in Kolkata. **The quantitative component involves structured surveys, while the qualitative component includes observational studies within market environments.**

- **Quantitative Methods:** A questionnaire-based survey was conducted to gather data from both vendors and consumers. This data has been analyzed using quantitative methods to measure awareness levels and the usage of single-use plastics and their alternatives.
- **Qualitative Methods:** Observations of the markets were done to assess the use of single-use plastics and eco-friendly alternatives. Parameters for observation include the presence of plastic waste in nearby dumping areas or shop dustbins, the use of plastic straws, and the disposal of cigarette packet wrappers.

3.3 Research Approach: The study followed an inductive approach, whereby observations and survey responses help frame a comprehensive understanding of the awareness and practices regarding single-use plastic in Kolkata.

3.4 Sampling Methods and Sample Size:

- **Sample Size of Vendors: 299 vendors** were surveyed, with 50 vendors from each of the six selected market locations (10 vendors from each type of shop per location).
- **Sample Size of Consumer: 493 consumers** were surveyed.
- **Sampling Method: Purposive sampling** was employed to ensure that the sample is representative of the broader population in the market areas.

3.5 Data Collection Methods:

- **Surveys: A questionnaire-based survey** was administered to both vendors and consumers using the Kobo Toolbox platform. This was done to capture quantitative data on their awareness and practices concerning single-use plastics and alternatives.
- **Observations:** Qualitative data was collected through direct observations in the markets, focusing on parameters such as plastic waste in dumping areas, use of plastic straws, and disposal practices of plastic wrappers.

3.6 Data Analysis Techniques:

- **Quantitative Analysis:** Survey data was analyzed using descriptive statistics to measure and compare awareness levels and practices related to single-use plastic.
- **Qualitative Analysis:** Observational data was analyzed to identify common themes and patterns regarding the use and disposal of single-use plastics and the adoption of eco-friendly alternatives.

3.7 Ethical Considerations:

- **Privacy and Confidentiality:** This research relies on publicly available data, and individual respondents' personal information has not been collected, ensuring privacy and confidentiality.
- **Avoiding Misinterpretation:** The study avoids inferring causation from correlations to ensure accurate and responsible reporting of findings.
- **Plagiarism and Originality:** Proper referencing and citation practices have been adhered to, ensuring that all sources of information are correctly credited and the research maintains originality.

3.8 Limitations of the Methodology:

- **Representativeness:** While random sampling is used, the study is limited to specific market areas in Kolkata, which may not fully represent the entire city's practices and awareness levels.
- **Observation Bias:** Observations are subject to the researcher's interpretation, which may introduce bias.
- **Survey Limitations:** The accuracy of survey responses depends on the honesty and recall ability of the respondents, which can affect the reliability of the data.
- **Temporal Limitation:** As a cross-sectional study, it captures data at a single point in time, which may not reflect changes or trends over a longer period.

4. Findings

4.1. Awareness about Single-use Plastic and its Ban:

4.1.1. Familiarity with the term "Single-use Plastic"

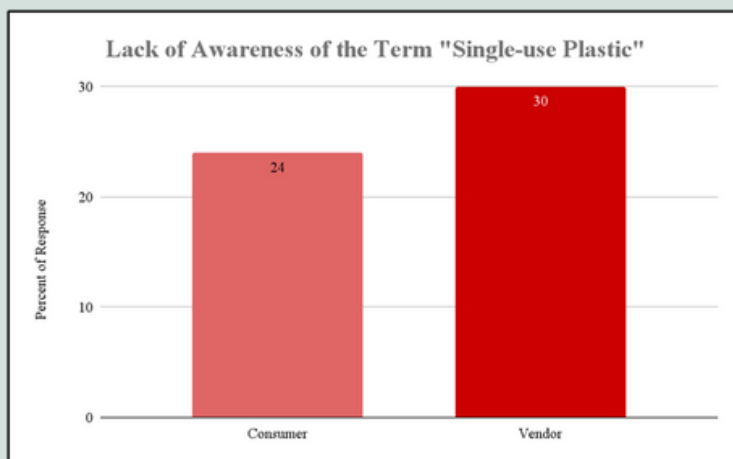
- Among the 792 surveyed respondents, **73% are familiar with the term** "Single-use Plastic," indicating city-wide outreach on the issue.

Out of 493 consumers:

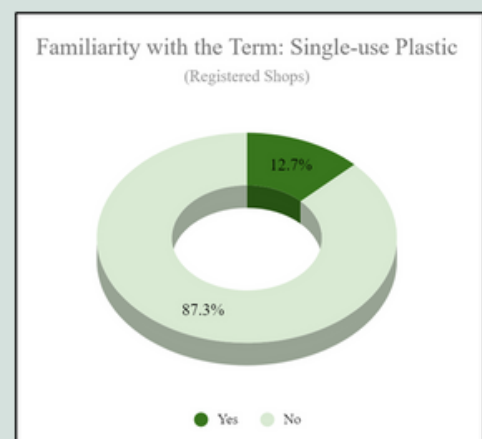
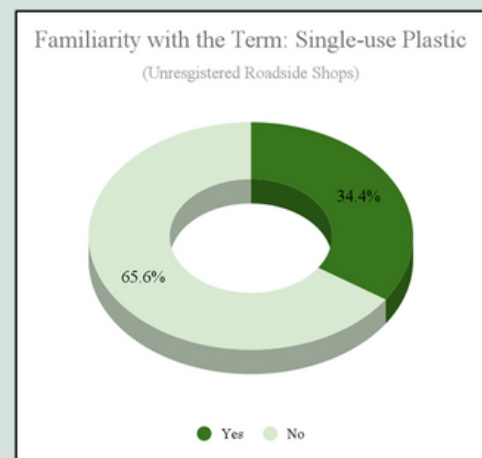
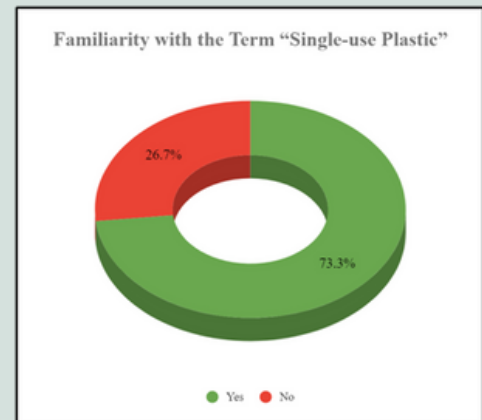
- 24% have never heard of "Single-use Plastic," neither in English nor in the local language.
- Consumers seem to have slightly more awareness compared to vendors.

Among 299 vendors:

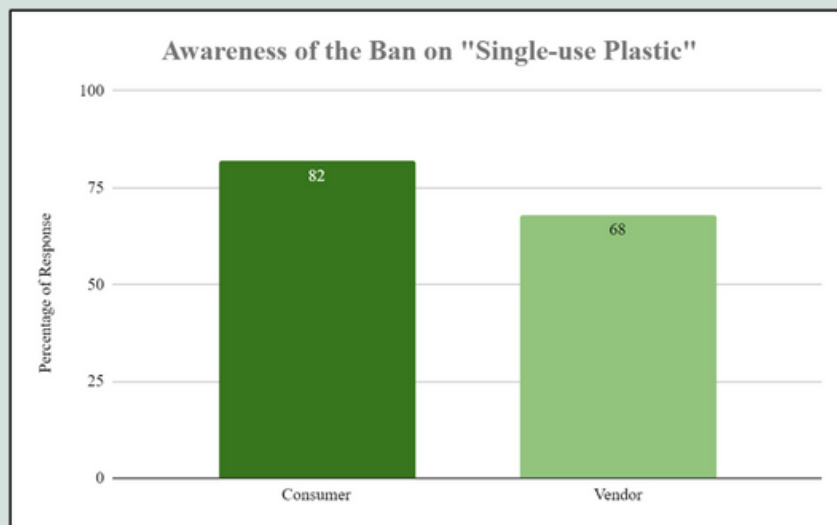
- 30% were unfamiliar with the term "Single-use Plastic."



- Only 13% of respondents from registered shops knew about single-use plastics.
- Roadside stalls (unregistered), such as thelas, vegetable, and fish shops, showed higher awareness:
- 34% of these temporary shops were familiar with the term.

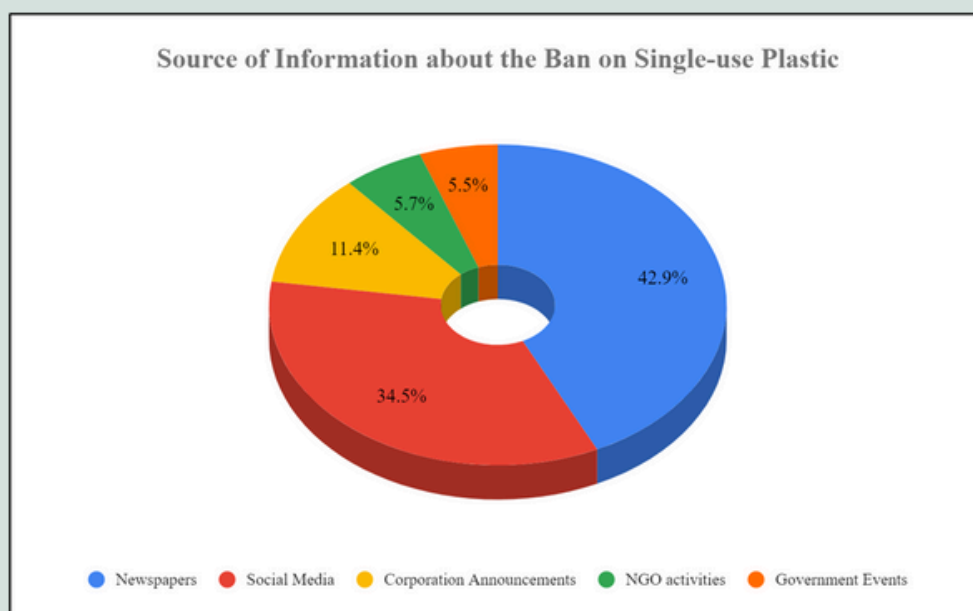


4.1.2. Awareness of the Ban on Single-use Plastic



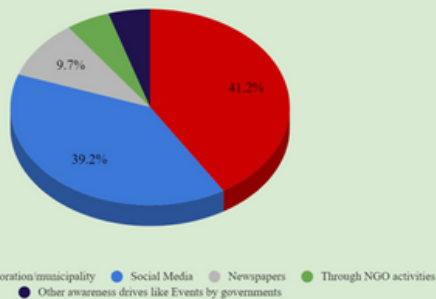
- 82% of consumers are aware of the ban on single-use plastic, whereas vendors lag behind at 68%.

4.1.3. Source of Information

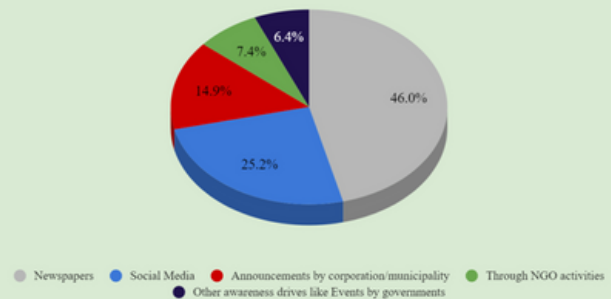


- The data shows that the most significant source of information for people is traditional media, with **43%** relying on **newspapers**. This suggests that print media still holds substantial credibility and reach, even in an age dominated by digital platforms.
- **Social media** follows closely, with **34%** of people using it as a source of information. This indicates the growing influence of online platforms for news and awareness, especially among younger or more tech-savvy populations.
- Interestingly, **announcements by corporations or municipalities** account for only **11%**, which may suggest that people are less likely to rely on official sources for information or that these announcements are not reaching a broader audience effectively.

Source of Information of the Ban on Single-use Plastic for Consumers



Source of Information of the Ban on Single-use Plastic for Vendors



- **NGO activities** and **government events** (both **6%**) represent niche sources of information, likely due to limited scope, resources, or engagement in comparison to the more pervasive reach of newspapers and social media.
- Overall, this data underscores the dominance of traditional and digital media as the primary channels of information while highlighting the relatively low influence of direct official announcements and NGO-driven initiatives.
- Social Media is a major source of information about the ban, with 39% of consumers and 25% of vendors getting updates from it.
- Additionally, 41% of consumers reported receiving updates from announcements by city corporations/municipalities, while 46% of vendors cited newspapers as their primary source of information about the ban.

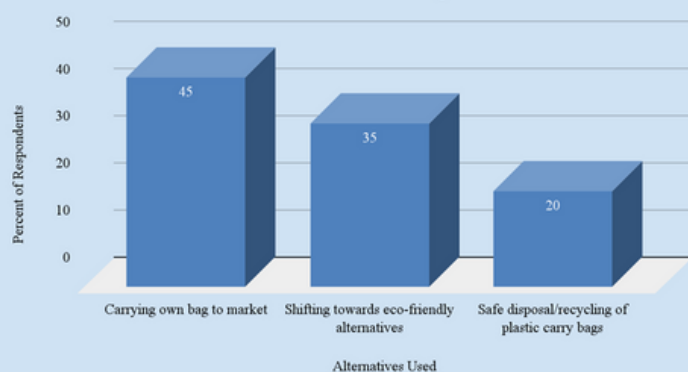
4.2. Peoples' Initiatives :

4.2.1. People's Alternative Choice :

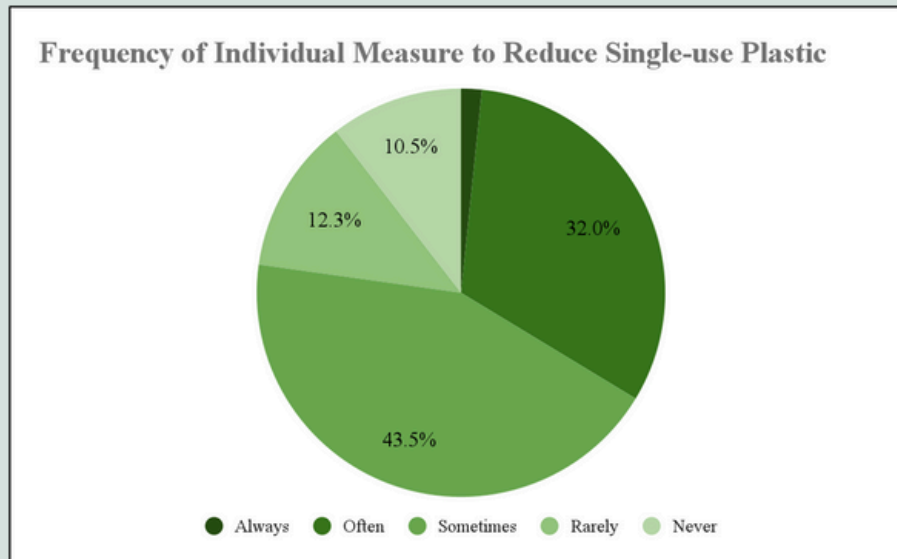
When people were asked about their initiatives to reduce the use of SUPs, they followed the following options.

- **45% of surveyed consumers go to market with their own carry bags**
- 35% of the respondents have shifted towards eco-friendly alternatives like jute bags, cloth bags, permissible plastic bags and so on.
- 20% of the respondents have been recycling or safely disposing of the market-provided single-use carry bags

Public Alternative Choice of Single-use Plastic

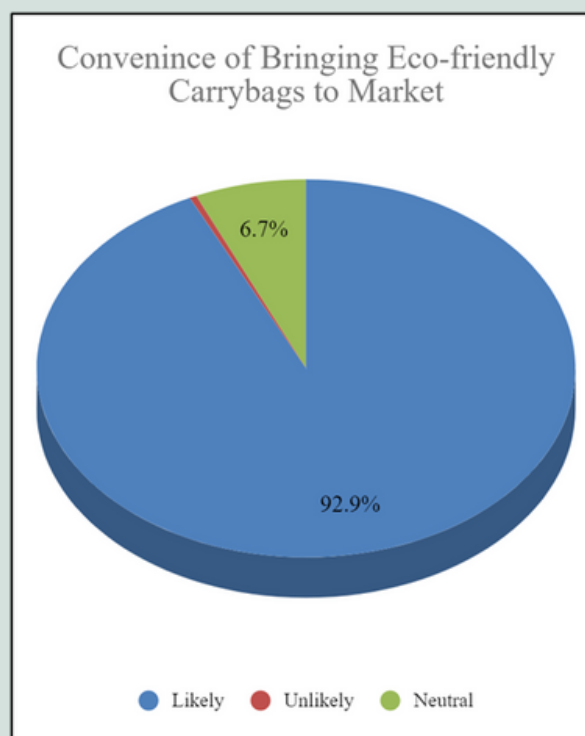


4.2.2. Frequency of Individual Measures :



- Overall observation from this dataset highlights both the prevalence of efforts to reduce single-use plastic use among respondents and the potential for further encouragement and support to promote more widespread adoption of sustainable practices. **Most of the respondents (44%) sometimes try to reduce the use of single-use plastic from their own** and only 10% of respondents have never opted for any alternatives of SUPs.

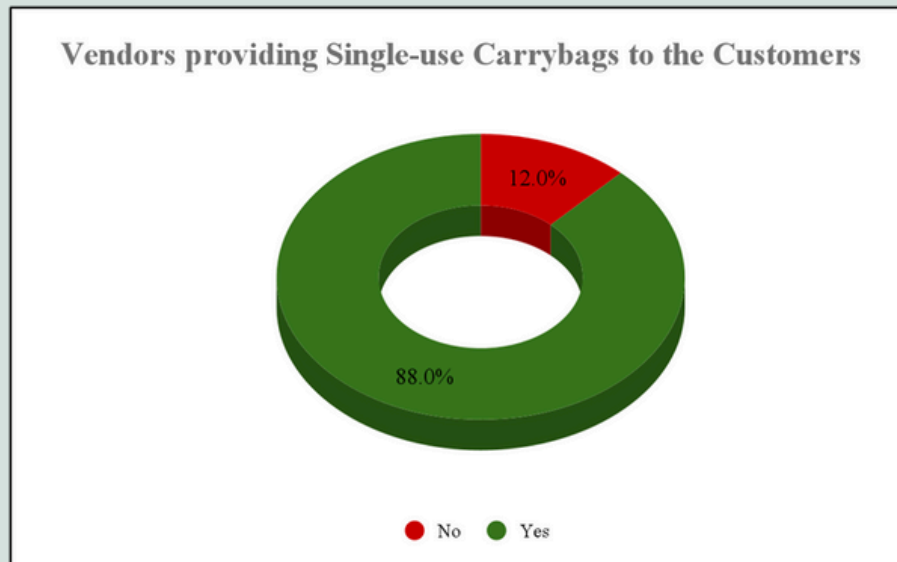
4.2.3. How convenient is it for consumers to bring their own carry bags to the market?:



- 92.9% of people find it convenient to bring their eco-friendly carry bags to the market**

4.3. Vendors' Initiatives :

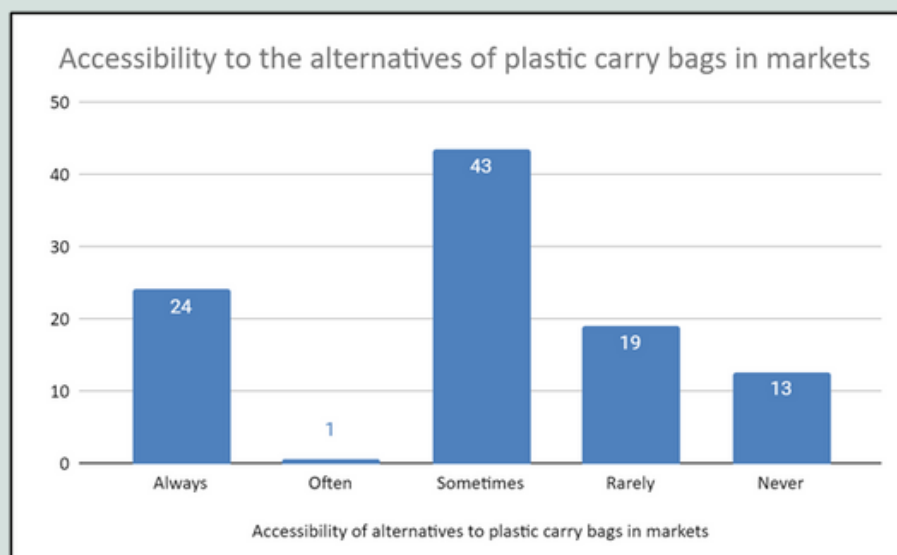
4.3.1. Vendors Providing Single-use Carry Bags to Customers



- A significant **majority (88%) of vendors provide single-use plastic carry bags to customers**, while only 12% refrain from doing so.
- Despite awareness of plastic-related issues, the practice of providing single-use plastic bags remains widespread among vendors.

4.3.2. Vendors Providing Single-use Carry Bags to Customers

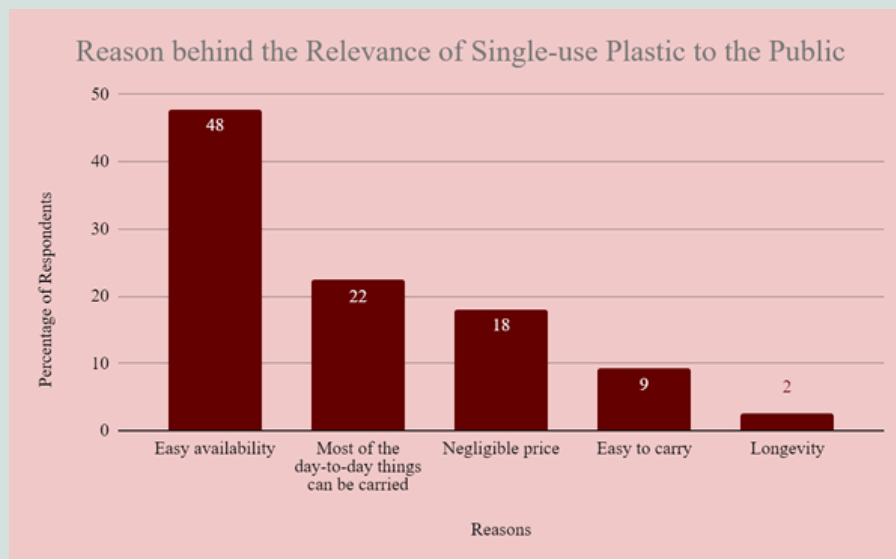
- **72% of vendors feel that alternative options to plastic bags are costlier** for their business operations, while 28% do not share this view.
- The perceived higher cost of alternatives is a barrier for most vendors, making it challenging for them to transition away from single-use plastic bags.



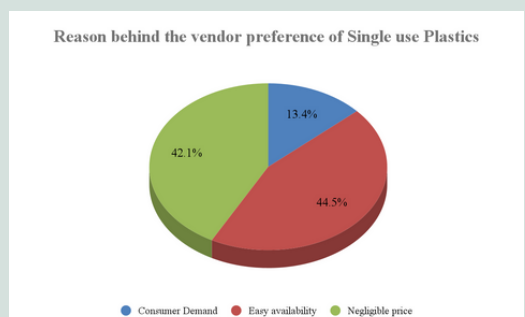
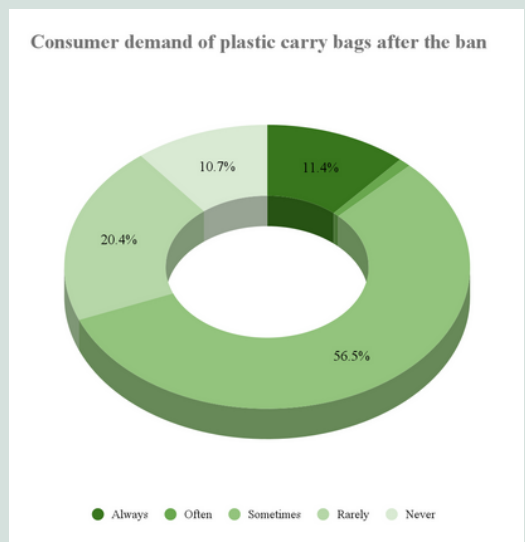
4.3.2. Vendors Providing Single-use Carry Bags to Customers

- Alternatives to plastic carry bags are only readily available 24% of the time, while 43% of vendors report occasional availability. 19% find them rarely accessible, and 13% never encounter them in the market.
- Limited accessibility of plastic alternatives in the market further hinders vendors' ability to adopt eco-friendly options consistently.

4.4. Respondents' Observation :



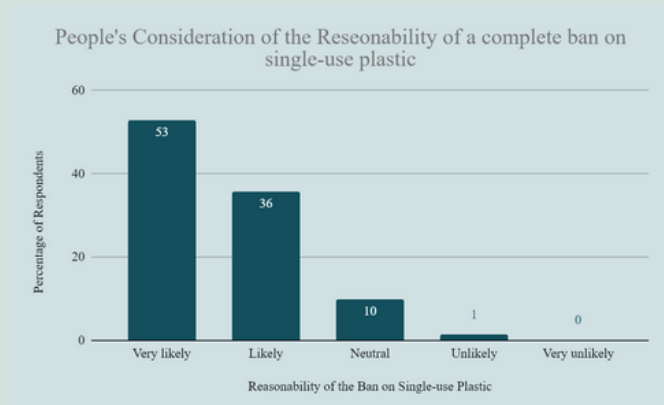
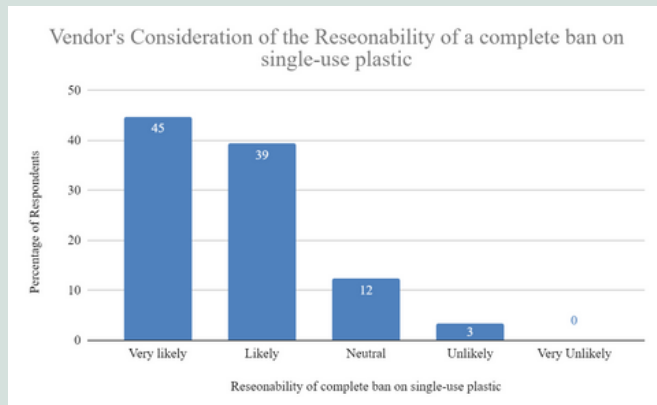
- The main observation is that the **public's reliance on single-use plastic is primarily due to its convenience and accessibility**, as highlighted by factors such as easy availability, practicality for carrying items, and portability. This underscores the significance of convenience in driving consumer behaviour and suggests that any efforts to reduce single-use plastic usage must address convenience factors to be effective.
- **89% of vendors report that consumers still demand plastic carry bags**, either sometimes (57%), rarely (20%), always (11%), or often (1%). indicating that the ban or initiatives have not entirely eliminated demand.
- Only 11% of vendors state that consumers never ask for plastic carry bags.
- The majority of vendors (86%) continue to prefer single-use plastic bags mainly due to practical reasons like **affordability and accessibility**, with only a small percentage prioritizing consumer demand. This highlights that cost and convenience are the key barriers to reducing plastic usage among vendors.



4.5. Suggestions

4.5.1. Reasonability of the complete ban on Single-use Plastic

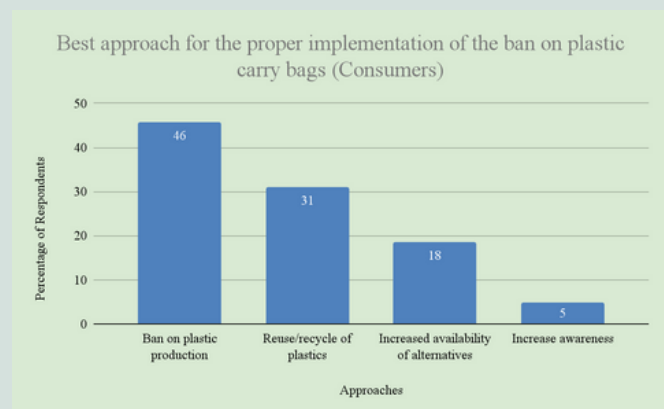
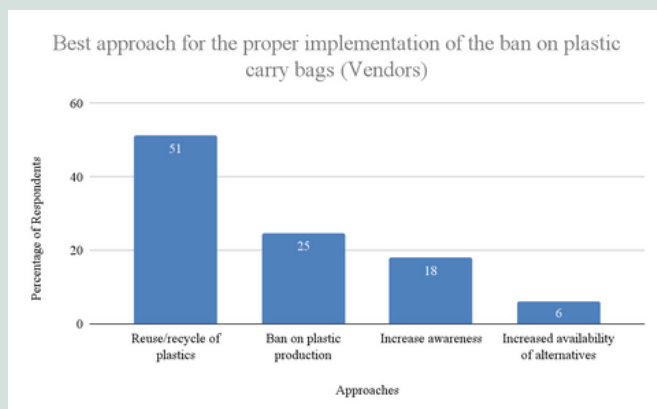
- Overall, the dataset reveals **broad support among vendors for a complete ban** on single-use plastic, with very few opposed.



- Widespread inclination towards supporting a complete ban on single-use plastic among the respondents, suggesting a favourable attitude towards initiatives aimed at reducing plastic waste.

4.5. Suggestions

4.5.2. Required Approach



- The most favoured approach for the proper implementation of the ban on plastic carry bags is the **reuse/recycling of plastics**, supported by 51% of the respondents. This indicates that the majority of respondents believe that focusing on reuse and recycling is the most effective strategy for implementing the ban on plastic carry bags.
- Most of the people (46%) denote ban on single use plastic as the best approach to ban the SUPs. However, the observation from the dataset underscores the complexity of addressing the issue of plastic carry bags and the need for comprehensive strategies that tackle various aspects of production, usage, and disposal.

5. KMC Initiatives

KMC has used a variety of approaches to implement a plastic ban, including:

- a) Awareness campaigns:** KMC has launched campaigns to raise awareness about the environmental impact of plastic bags and to encourage the use of alternatives. For example, KMC has urged customers to bring their own bags to markets and to use bamboo straw baskets to carry fish and eggs. The KMC has also partnered with the West Bengal Pollution Control Board (WBPCB) to implement the plastic ban. KMC in association with **WBPCB has launched a massive campaign against the use of plastic bags of thicknesses below 40 microns** (Kolkata Municipal Corporation, n.d.).
- b) Financial Penalties:** KMC has imposed fines on traders and buyers who violate the plastic ban. For example, **KMC can impose a fine of Rs 500 on traders and Rs 50 on buyers who use single-use plastic** (Roy, 2023).
- c) Gradual increase in thickness:** KMC has gradually increased the thickness of plastic products that are banned, giving manufacturers and suppliers time to dispose of existing products (Roy, 2023).
- d) Working with businesses:** KMC has encouraged urban businesses to eco-design their products and packaging to reduce waste (Urban Development & Municipal Affairs Department, n.d.).



6. Recommendations

Despite the widespread availability of SUPs in the city, a gradual reduction, ultimately leading to a complete ban, must be enforced for the benefit of the city's infrastructure and climate. No single measure will be sufficient to tackle this complex issue. All potential solutions must be implemented in coordination, with each stakeholder fulfilling their respective responsibilities.

a) Increased Availability and Affordability of Alternatives :

The **market primarily operates on profit maximization**. Since the production and supply of alternative carry bags are currently limited and more complex, these alternatives must be actively promoted within the city. Increasing their availability and affordability will help drive down costs, enabling vendors to transition more easily to these options. At the same time, a consistent supply needs to be ensured to establish a sustainable business chain for these alternatives. In this concern, daily usable, cheap jute/cloth/paper bags needs to be promoted wherever possible. Simultaneously, promoting the use of reusable water bottles instead of disposable water bottles will be a commendable effort.

b) Enhanced Enforcement and Monitoring :

Regulatory authorities can strengthen the enforcement of the ban by conducting **regular inspections** in key market areas and imposing **stricter penalties for violations**. Monitoring can cover both large corporations and street vendors to ensure fair enforcement that does not disproportionately affect smaller businesses.

c) Public Awareness Campaigns :

The survey revealed that many consumers lack sufficient awareness about the impact of single-use plastics (SUPs), leading them to accept these products from vendors without hesitation in city markets. This underscores the urgent need for widespread educational campaigns to address this issue. Utilizing social media and **community outreach programs** can effectively raise awareness among both consumers and vendors about the environmental hazards posed by SUPs. Educating people on the dangers of plastic pollution and actionable steps to prevent or mitigate it is a critical step toward sustainable behavior.

Encouraging a culture of responsibility is essential for reducing pollution's impact. **Campaigns should also highlight the practicality and benefits of using reusable bags**, making it easier for individuals to adopt eco-friendly habits. **Promoting the 5R principle**—Refuse, Reduce, Reuse, Repurpose, Recycle—can engage the public in adopting sustainable practices. Additionally, emphasizing proper waste disposal practices is crucial to addressing issues such as drainage blockages and air pollution. Recycling plastics is one of the most effective ways to reduce unnecessary waste and minimize the environmental burden.

d) Incentives for Consumers and Vendors :

The technique of rewards has proven to be an effective method for driving behavioural change. **Offering direct financial rewards to consumers for not using or demanding plastic** can be a valuable step in this mission. Encouraging customers to bring their own bags by providing discounts or loyalty rewards at stores participating in SUP-free initiatives can further promote this shift. Additionally, providing **financial incentives or awards to vendors** who adopt eco-friendly alternatives—such as tax reductions or certifications as environmentally responsible businesses—can support the wider adoption of sustainable practices.

e) Improvement of Recycling Infrastructure :

In addition to reducing the availability of SUPs in the city, improving the recycling infrastructure and offering financial or other reward incentives will encourage consumers to dispose of plastic waste responsibly. Making recycling bins widely available and maintaining a centrally controlled dataset of their locations can further facilitate proper waste management and promote active participation in recycling efforts.

f) Government Initiatives :

The government's role in addressing single-use plastics (SUPs) has been commendable so far. This can be further strengthened by focusing on three areas: **policy reinforcement, awareness-raising, and business support.**

First, **policies need to be strengthened**, with particular attention given to closing loopholes that currently allow the SUP market to persist. The Plastic Waste Management Amendment Rules, 2021, should be strictly enforced, with more stringent regulations introduced to oversee the production, storage, sale, and use of SUPs. Extended Producer Responsibility (EPR) policies are required to be enforced to ensure that manufacturers are held accountable for the entire lifecycle of their plastic products. The manufacturing of eco-friendly alternatives could be incentivized, with tax relief offered to vendors and businesses dealing in sustainable materials. Additionally, public-private partnerships (PPP) could be implemented to establish large-scale manufacturing and distribution networks for sustainable packaging.

Second, **regular awareness drives** can be made mandatory, with workshops, street events, and online campaigns organized to educate consumers and vendors, especially in the informal sector. Periodic awareness efforts by the responsible government departments are required to be maximized for the reduction of SUPs. Local communities, NGOs, and businesses can be mandatorily involved in discussions on plastic waste management, fostering collaborative efforts that lead to innovative, locally tailored solutions.

The disproportionate impact of plastic ban initiatives on small and medium enterprises (SMEs), such as street vendors, must be recognized. To address this, **support mechanisms** should include the establishment of a Plastic Transition Fund. This fund could subsidize the cost of eco-friendly alternatives and offer financial assistance for purchasing reusable items, easing the transition for affected businesses.

By focusing on these areas, the transition away from SUPs can be facilitated while supporting sustainable growth.



7. Conclusion

The report highlights the persistent issue of single-use plastic (SUP) pollution, particularly in Kolkata, despite government regulations. The main problem, as introduced, revolves around the rampant use of SUPs due to convenience, affordability, and limited enforcement of the existing bans. Despite awareness campaigns, compliance remains low among both vendors and consumers.

Key findings indicate that while 73% of respondents are familiar with the term SUP, vendors are less aware of the ban compared to consumers. A major barrier is the perceived higher cost and limited availability of eco-friendly alternatives, with 88% of vendors still providing plastic bags to customers.

Recommendations from the report emphasize the need for stronger enforcement, increasing the availability and affordability of alternatives, and conducting widespread public awareness campaigns. Additionally, the government can provide incentives for vendors to transition to sustainable practices, including financial rewards and improved recycling infrastructure. By addressing these areas, Kolkata can make significant strides towards reducing SUP pollution.

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9. Appendixs

9.1 Respondent Overview :



Figure:
Number of Shops Surveyed in the Locations

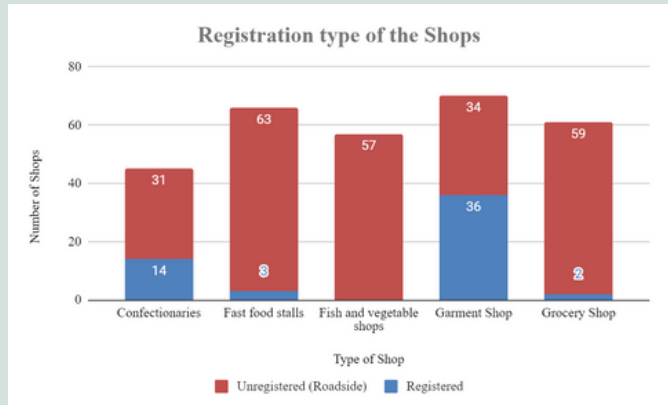


Figure:
Types of Shops surveyed with and without registration

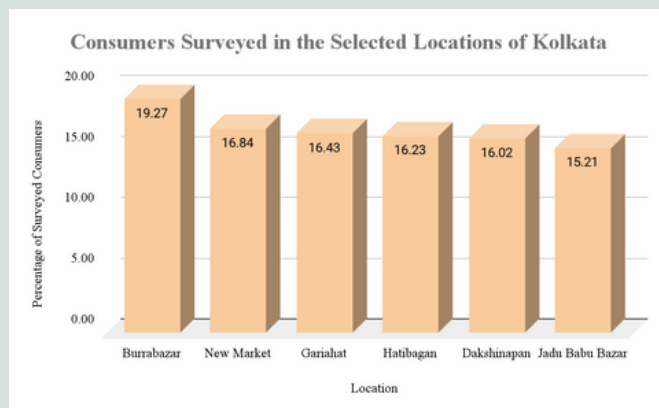


Figure:
Percentage of Surveyed Consumers in the Locations of Kolkata

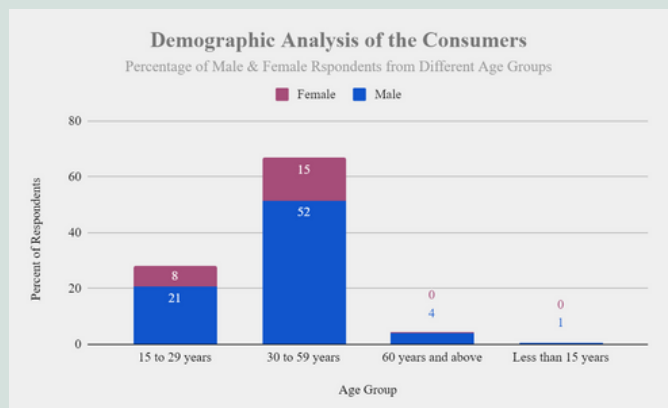
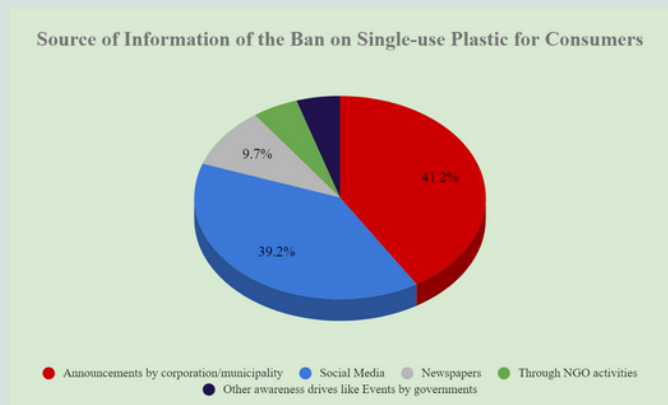
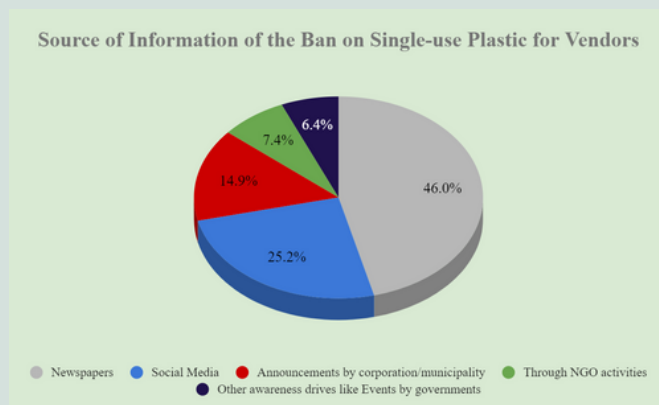


Figure:
Age Sex Representation of the Surveyed Consumers



9.2. Questionnaire :

9.2.1. Vendor Survey Questionnaire :

1.1. Name of the Location
1.1.1. For Kolkata (Specify the Location)-
1.3. Type of Shop
1.4. Registration type of shop
1.4.1. If registered, the Name of the Shop
1.4.2. If registered, photo of the shop clicked and shared
1.5. Age of the respondent
1.6. Gender of the respondent
2.1. Have you heard about the term "Single-use Plastic"?
2.2. Do you know that the use of these plastic bags are banned?
2.2.1. If yes, how were you informed about the ban on single-use plastic like plastic carry bags? (Single-choice based question)
2.2.2. If yes, do you know how long has single-use plastic been banned in India?
2.3. Do you provide plastic carry bags to your customers?
2.3.1. If "No", what do you provide?
2.3.1.1. Other, please specify
2.4. Are the alternative measures of plastic carry bags costlier for business operations?
2.5. Is it easy to find alternatives to plastic carry bags in markets?
2.6. After the ban/your initiatives do you find consumers demanding plastic carry bags carry bags?
2.7. Why do the vendors still prefer plastic?
3.1. Do you consider that there should be a complete ban on single-use plastic?
3.2. What is the best approach for the proper implementation of the ban on plastic carry bags?
3.2.1. "Others", Specify
4.1. Surveyor Name

9.2.2.Consumer Survey Questionnaire :

1.1.1. For Kolkata

1.3. The gender of the respondent

1.4. Age of the respondent

2.1. Have you heard about the term "Single-use Plastic"?

2.1.1. If "yes" which of the commonly used single-use plastics you have noticed in the markets?

2.1.1.1. Other, please specify

2.2. Do you know that the use of these plastic bags is banned?

2.2.1. If yes, how were you informed about the ban on single-use plastic like plastic carry bags? (Single-choice based question)

2.2.2. If yes, do you know how long has single-use plastic been banned in India?

2.3. What is the major problem you face from plastics?

2.3.1. Air Pollution due to burning of plastic

2.3.2. Water logging due to plastic jam

2.3.3. Consumption of plastic by animals

2.3.4. Human consumption of microplastic

2.4. How frequently do you take any measures to reduce the use of plastic?

2.5. Which of the alternatives do you generally opt for?

2.5.1. If "others" please specify

2.6. Do/will you feel convenient to bring your own eco-friendly carry bag to market?

2.6.1. If "Unlikely" specify the reason

2.7. Why do you think people are still using single-use plastic?

2.8. Are you satisfied with the initiative of the ban on single-use plastic?

3.1. Do you consider that there should be a complete ban on single-use plastic?

3.2. What is the best approach for the proper implementation of the ban on plastic carry bags?

3.2.1. "Others", Specify

4.1. Surveyor Name



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