BREAKING BARRIERS: EXPLORING SHOPPER ATTITUDES AND RESPONSIBILITY TOWARDS SUSTAINABLE BAGS

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ABSTRACT

Single-use plastic (SUP) bags dominate the market with their convenience and affordability, resulting in a staggering five trillion SUPs used annually worldwide. However, the environmental impact of their excessive production and improper disposal calls for an investigation into the factors hindering shoppers from adopting sustainable alternatives. Through qualitative exploratory interviews with 31 shoppers, we discovered that environmental concern and convenience significantly influence attitudes towards sustainable bags. Furthermore, ascribed responsibility lies with both the government and retailers. Social norms, including peer and media influences, play a vital role in overcoming barriers to adoption. Individuals are more likely to embrace sustainable bag choices by aligning personal values and environmental responsibility. This study concludes with implications and future directions for promoting sustainable practices.

Keywords: Environment, Norms, Plastic Pollution, Thematic Analysis, Theory of Planned Behavior, Theory of Reasoned Action, Single Use Plastic (SUP) Bag.

INTRODUCTION

The growing menace of plastic waste, especially Single Use Plastic bags, is polluting the land and water, killing animals and birds, and adversely impacting humans and the environment. When Sten Gustaf Thulin invented the polythene bag, he intended to save the trees from chopping to make paper bags. After six decades this saviour has become the destroyer of the environment. These SUP bags are widely used due to their convenience and affordability. Globally, around five trillion SUPs are used every year (UNEP, 2023). This demand leads to excessive production and its improper disposal affects the environment. As a polybag takes hundreds of years to decompose because of its non-biodegradable nature, so these bags keep releasing harmful chemicals and microplastics during the slow breakdown process. Only 10% of the polybags are recycled and the rest contribute to pollution. According to UNEP, 75 to 199 million tonnes of plastic is currently found in our oceans and polybags are the major contributor to this ocean plastic pollution. Shopping bags are made of LLDPE (Linear low-density polyethylene); recycling them is more complex and expensive. That is why they follow a very short cradle-to-grave cycle (Rhodes, 2019)., occupy landfills, and emit toxic gases and leachates. Almost a year back the Indian government banned SUP but its effectiveness is still to be seen.

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LITERATURE REVIEW

The potential environmental hazards of plastic bags have been reported (Ocean Conservancy, 2017; Charles and Kimman, 2023; Eriksen et al. 2023; OECD, 2022; UNEP, 2023) and discussed (Alarm, 2018; Jambeck, 2018; Béraud 2022). The issue of single-use plastics and their impact on the environment has gained significant attention worldwide, and India is no exception. With its rapidly growing population and expanding consumer market, the country faces numerous challenges in curbing the consumption and disposal of single-use plastics. 3.4 million tonnes of plastic waste is generated in India out of which only 30% is recycled. Plastic consumption in India is increasing at CAGR of 9.7% (Economic Times, 2023). India with the largest population in the world is struggling to manage plastic pollution (Singh and Mathur, 2019; Rafey and Siddiqui, 2021; Nagarajan, 2021; Hossain, 2022; Pathak, 2023) and the regulatory actions to manage this menace are effective when the public is aware of its harmful effects and risks associated. Plastic is widely used because it is cheap, lightweight, hygienic and resistant, and has many applications (American Chemistry Council 2021) but it becomes a menace because of its non-biodegradable nature. Similarly, SUP bags are not the real problem, but the concern is how they are used and managed irresponsibly. Wagner (2017) presented economic concern because of SUP bags' ubiquitousness, limited recyclability and cost of clean-up.

In their primary study, Singh and Mathur (2019) observed the low level of plastic pollution awareness in the case of Indians. Also, they expect more from the regulatory bodies to manage the problem. It is observed that shoppers and retailers are reluctant to follow the plastic ban (Death, 2015) which is a barrier to adopting sustainable shopping ways. Coulter (2009) and Wagner (2017) discussed the perception of shoppers with the plastic ban as inconvenient in their studies. The shoppers' unplanned buying behaviour and non-availability of cheaper, lighter and more convenient options to SUP bags are also observed as barriers to adopting reusable shopping bags. Hossain et al. (2022) emphasized consumer awareness and a shift in consumer mindset as one of important ways to seek comprehensive solutions for managing plastic usage and disposal. Plastic bag bans or restrictions can indeed have unintended consequences (Kish, 2019) and create new problems. Nagarajan (2021) found that SUP bans can unfairly impact unorganised sector recycling units and their workers. The assessment of this survey highlights the disproportionate penalties faced by these groups due to the implementation of SUP bans. In a survey by Sujitha et al. (2019), people displayed a good understanding of the negative consequences of plastic use and its ban but the actual incorporation of eco-friendly alternatives into their daily lives was inadequate.

The application of Ajzen and Fishbein's (1977) Theory of Planned Behavior (TPB) and Ajzen's (1991) Theory of Reasoned Action (TRA) can help in understanding the barriers to adopting sustainable shopping bags. According to TPB, individuals' behavioural intentions are influenced by their attitudes, subjective norms, and perceived behavioural control. In the context of sustainable shopping bags, attitudes towards using them, subjective norms regarding their adoption, and perceived control over using them can be explored. TRA emphasizes the role of individual beliefs and expectations in determining behavioural intentions. Identifying beliefs about the advantages and disadvantages of using sustainable bags, as well as social and personal factors affecting intentions, can provide insights into the barriers hindering their adoption. Analyzing these theories can inform strategies to promote sustainable shopping bag usage by addressing perceived barriers.

Need of the Study

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The research gap lies in the limited understanding (Nath and Agrawal, 2023) of the barriers hindering the adoption of sustainable shopping bags by Indians. Cultural and socioeconomic factors, awareness and education, perceived convenience and practicality, as well as policy and infrastructure (Carrete, 2012) play crucial roles in shaping consumer behaviour. Addressing these barriers is essential to promote the widespread adoption of sustainable alternatives and reduce reliance on single-use plastic bags. A comprehensive study is needed to explore these factors and develop effective strategies to overcome the challenges faced by Indian consumers in adopting sustainable shopping bags.

The rationale behind this study is to understand the factors deterring the adoption and usage of sustainable shopping bags. India, with its large population and significant consumption of plastic bags, presents a unique context to investigate the adoption and usage of sustainable bags. This study may contribute to knowledge about consumer behaviour, environmental sustainability, and strategies for promoting sustainable practices in a country with a significant population and environmental challenges related to plastic waste.The widespread use of plastic bags continues to persist, with this backdrop the present qualitative survey was planned to determine the barriers to adopting sustainable bags instead of plastic or SUP bags.

RESEARCH METHODOLOGY

The present study aimed to delve deeper into understanding the underlying factors that hinder the adoption of sustainable alternatives to SUP bags. Qualitative methods can be applied in research surveys by incorporating open-ended questions that allow participants to provide detailed responses, capturing their perspectives, experiences, and opinions (Kumar et al., 2019; Sandhya and Mahapatra, 2018; Taggar, 2014). This qualitative approach enhances the richness and depth of data collected, providing valuable insights for analysis and interpretation. Collecting primary data via interviews is essential for understanding the barriers to adopting sustainable shopping bags. The individual perspectives and contextual factors influencing shopper choices may be determined with qualitative exploration. Interviews provided an opportunity to engage in a dialogue with shoppers, allowing for a deeper exploration of their thoughts, attitudes, and habits. To probe further and gain richer insights follow-up questions were asked. A holistic view of these 31 shoppers was generated. For a more personalized and nuanced exploration of shoppers' viewpoints, the interview question and follow-up discussion were conducted in the local language also. To know the barriers to sustainable shopping bag adoption, the barrier of language was removed. Potential misinterpretations are also avoided in the interview technique.

Findings and Discussion

To conduct the interviews and collect the primary data, the shoppers carrying the grocery bags and coming out of the grocery shops were approached. Their consent was sought before conducting the interview. Although 49 shoppers consented, only 31 participated (Table 1) in the interview. The average duration of each interview was approximately 20-25 minutes. They were asked the questions like "Are you aware of the SUP ban?", "Do you know the plastic/SUP bags are harmful to the environment?", "Why do/don't you bring your own bag for shopping?"

Table 1
DEMOGRAPHIC DETAILS OF RESPONDENTS

Gender	Numbers
Male	20

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Female	11
Total	31
Age	
18-25	5
26-35	13
36-45	7
45-55	5
Above 55	1
Total	31
Occupation	
Student	2
Homemaker	11
Business	10
Employed	8
Total	31
Education level	
Secondary	6
Senior Secondary	11
Graduate	11
Post graduate	3
Total	31
Awareness of SUP Ban	
Yes	5
No	26
Total	31
Awareness of SUP harm to the environment	
Yes	18
No	5
May be	8
Total	31
Carrying	
Sustainable Bag	2
Plastic Bag (brought from home)	1
Plastic/SUP bag (from the shop)	28
Total	31

Source: Authors Own Calculation.

From the collected data, verbatim notes were prepared. Thematic analysis (Flick, 2013) has been used as it offers flexibility in exploring diverse research questions and data types, providing an in-depth understanding of the research topic. It systematically organises qualitative data, identifies patterns and themes, and integrates participant perspectives. The iterative nature of thematic analysis allows for refinement and development of themes, enhancing the rigor of findings. Braun and Clarke's (2006) thematic analysis method has been used to analyse and present the data (Table 2). This iterative process has six steps: (1) becoming familiar with the data, (2) generating codes, (3) generating themes, (4) reviewing themes, (5) defining and naming themes, and (6) locating exemplars. Open coding and axial coding were used to prepare themes and subthemes.

Table 2
RESULTS OF THEMATIC ANALYSIS

Theme	Sub-Theme	Description	Example
Attitude	Environmental Concern	Positive attitude towards	"I know polybags are harmful to the environment and I don't want to harm my environment."

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		environmental issues	
	Convenience	Attitude influenced by convenience and ease	"I forget to carry the cloth bag." "The fabric bag is not strong enough." "How many bags I will carry from home? I may shop for more things so I take the polybag from the shopkeeper."
Ascribed Responsibility	Corporate Responsibility	Belief in businesses' role in sustainability	"I may shop any time and I may not carry my bag all the time, the shopkeeper should provide the green bag."
	Government Responsibility	Belief in the government's role in promoting sustainability	"No such strict law is there so no one bothers who is carrying which bag."
Social Norm	Peer Influence	Influence of friends and family on shopping habits	"My daughter insists on not using and throwing polybags so I ask for paper/cloth bags only."
	Media Influence	Influence of Media and advertisements on choices	"I keep reading about how these polybags are poisoning our soil and water. I have seen its bad impact in a documentary also. So I always carry my jute bag and have also kept one in my car."
Personal Norm	Personal Values	Alignment of shopping choices with personal values	"For me, it is very important that I am giving back to mother earth. …… shopping for grocery items almost every day I feel good when I say no to polybags and put the fruits, and veggies in my *jhola*."
	Sense of Responsibility	Feeling responsible for environmental impact	"Everyone should adopt cloth bags…… see how this climate is changing, this air is polluted, always need RO water……saying no to polythene bags will help to save environment……..my shopkeeper or *rheri wala* is happy when I don't take polybag from him."

Source: Authors Own Presentation.

The findings regarding attitudes and barriers towards adopting sustainable shopping bags align with the application of the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA). According to TPB, individuals' behavioral intentions are influenced by their attitudes, subjective norms, and perceived behavioral control. The positive attitudes towards environmental concerns reflected in the findings indicate that individuals recognize the harmful impact of polybags on the environment and possess a favorable attitude towards adopting sustainable alternatives like cloth bags. Convenience emerged as a significant barrier, which is consistent with TPB's concept of perceived behavioral control. The participants' forgetfulness to carry cloth bags, concerns about their strength, and the convenience of using polybags provided by shopkeepers indicate a perceived lack of control over using sustainable bags. This highlights the importance of addressing convenience-related factors to promote behavioral change. The findings related to ascribed responsibility and social norms are in line with the influence of subjective norms in TPB. Participants expressed their belief in retailers and the government's roles in sustainability, indicating the influence of perceived norms in their decision-making process. Additionally, the influence of peers, family, and media aligns with the concept of subjective norms and demonstrates the impact of social influences on adopting sustainable shopping bags. Furthermore, the personal norms reflected in the findings, such as aligning shopping choices with personal values and feeling a sense of responsibility, resonate with the TPB's concept of perceived behavioral control and attitude formation. Participants' personal values and their awareness of the environmental impact of polybags influence their intention to use sustainable bags.

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Overall, the findings support the application of TPB and TRA in understanding the barriers to adopting sustainable shopping bags. These theories provide a theoretical framework to comprehend the role of attitudes, subjective norms, and perceived behavioral control in shaping individuals' intentions and behaviors, thus informing interventions and strategies to promote the adoption of sustainable alternatives.

Shoppers display awareness of the detrimental effects of plastic but often prioritize convenience by opting for plastic bags. They expect regulatory bodies to enforce plastic bans, as they believe that if retailers continue offering plastic bags, they will continue to use them. Therefore, sellers and government entities should ensure the unavailability of plastic bags in the market. Generating more awareness is necessary to help shoppers understand the harmful nature of single-use plastics (SUP). Social and personal norms significantly influence the adoption of sustainable practices. It is our moral responsibility to protect the environment, and promoting the adoption of sustainable practices should be encouraged across all social settings. Shoppers' attitudes are shaped by their concern for the environment and convenience. Retailers and the government share the responsibility if they struggle to follow sustainable practices.

Marketing Implications

Sustainable management of plastic waste requires an integrated model that focuses on minimizing plastic waste generation, improving collection services, a recycling industry, and safe disposal of waste to controlled landfills (Niti Aayog and UNDP 2021). Every individual has to become a driver to reduce the barriers to adopting sustainable shopping bags. Engaging the youth to innovate and contribute to clean-up efforts like ‘Plogging’. It motivated fitness enthusiasts to clean the roads when the prime minister of India practised this Swedish phenomenon (India Today, 2019). Organizations must push eco-friendly alternatives to SUP bags. ‘Flipkart Green’ is an initiative by Flipkart to encourage a sustainable lifestyle. Bring Your Own Bag (BYOB) initiative in Singapore and Malaysia is influencing the masses. This campaign in India also persuades shoppers to bring their own bags for shopping. Rewarding shoppers and retailers for reusing and recycling their shopping bags will motivate the adoption of sustainable ways. Also taking action against violators will help in curbing the use of SUP bags. The Central Pollution Control Board (CPCB) has launched an app (SUP-CPCB) to report the defaulters. Creating value from the used polythene like the plastic roads (Hindustan Times, 2023) and the Indian government’s ‘Waste to Wealth’ mission to create a clean and green environment by treating waste may help in paving the way for a better future!

Limitations and Future Scope

This study has identified the qualitative themes and sub-themes to investigate the barriers to sustainable shopping bag adoption. Although valuable insights have been reported there is a lack of precise quantitative generalization. Further studies may utilize qualitative and quantitative methods of collecting the data and examining the relationship among variables. The resistance to adopting sustainable ways of shopping may be compared among different age groups, genders, occupations and regions. The impact of motivational advertisements on sustainable shopping ways adoption may also be observed in a longitudinal study. The experiments may be conducted to observe any shift in adopting sustainable ways.

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