



Designing A Social Marketing Strategy For “Say No To Plastic Bags” Campaign

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ABSTRACT

The promotion campaigns and laws have proved in-effective in curbing the menace of plastic bags. This has brought to limelight the need for an effective social marketing campaign to change the attitudes and behaviour of a target audience. The purpose of the present study is to explore how to make the “say no to plastic bags” campaign a success in Delhi. A case study of Pushkar (Rajasthan) revealed that until there is an attitudinal and behavioural change among the stakeholders, a ban on plastic bags alone cannot bring a permanent solution to the problem of plastic bags. An analysis of data collected from 250 respondents from Delhi and NCR revealed that people are reluctant to switch to eco-friendly bags because of the different psychological cost associated with the decision, like, the unsuitability of such bags for wet products, fear of breakage, and inconvenience of carrying them. Moreover, a significant difference was observed in the opinions of users and non-users of eco-friendly carry bags regarding the factors preventing the use of such bags. Designing a social marketing strategy with a balanced emphasis on each of the elements of marketing mix, i.e., product, price, promotion and place and the four additional Ps, i.e., public, partnership, policy, and purse-strings will ensure success of such a campaign in Delhi.

Key Words: Attitudinal and Behavioural Change, Marketing Mix, Psychological Cost, Social Marketing, Stakeholders.

INTRODUCTION

Plastic bags have an adverse effect on environment and worldwide community is banning and discouraging its use. Plastic bags are non-biodegradable; they choke waterways, spoil the landscape, and end up in landfills where they may take thousands of years to degrade. Plastic bags also pose a serious danger to animals, birds and marine life when they mistake them for food. Since, plastic bags are light, strong and inexpensive, people continue to use it.

Different agencies are striving to make the “Say No to Plastic Bags” campaigns successful by educating public about their harmful effect on the environment and promoting alternatives like jute, cloth and recycled paper bags. A ban on plastic bags (below 20 microns) has already been imposed by various States in India. The Delhi government has notified a blanket ban on plastic bags in 2009, and again reiterated the same in 2012 with penal provision for violators. The promotion campaigns and laws have proved in-effective in curbing the menace of plastic bags. Despite the ban, traders across the national capital continue to flout it.

Though the stakeholders are now aware of the problem and are taking concrete steps to do away with this menace, an understanding of the target audience in terms of their socio-economic, political and cultural background and their thought process is essential. Long term behavioural change is a difficult task, especially when people are habituated to a particular practice. Social marketing has been proved as a time tested approach to change the behavior of the target audience towards a social good.

Kotler defined the term 'social marketing' as, 'the design, implementation, and control of programs seeking to increase the acceptability of a social idea or practice in a target group' (1). Kotler and Zaltman defined 'social marketing' as, 'the design, implementation, and control of programmes calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution and marketing research' (2). In addition to the four Ps that form the core of marketing, four additional Ps are used extensively in social marketing. They are public, partnership, policy, and purse-strings (3). 'Cause-related marketing supports a cause. Social marketing by nonprofit or government organizations furthers a cause, such as "say no to drugs" or "exercise more and eat better" and the like' (4). Bloom and Novelli identified problems in 'eight basic decision-making areas of social marketing - market analysis, market segmentation, product strategy development, pricing strategy development, channel strategy development, communications strategy development, organizational design and planning, and evaluation' (5).

'In many situations people need to be informed of an opportunity or practice that will improve their lives. In developing nations, social marketers have to tackle such challenges as convincing people to boil their water or showing parents a simple way to treat infant diarrhea at home. In industrialized nations the social marketer has to disseminate information resulting from scientific research, like, changes in high blood pressure treatment or in cancer detection and treatment' (6).

Lane reviewed the context and content of televised health messages in Egypt during the 1980s, and assessed the evaluation of mass media in health education, and suggested strategies for more effective evaluation (7). Burnett's study identified variables (behavioral and demographic), 'that distinguish donors from non-donors, and to determine the degrees of importance of these variables. The results indicate that donors tend to be male, married with children, have rare blood types and low self-esteem, low risk takers, very concerned with health, better educated, religious, and quite conservative. And the non-donors tend to be the opposite on all these dimensions' (8).

In a study on the family planning campaign in Bihar, Narayan found that a number of factors have influenced the non adoption of family planning methods. They are education, religion, income, faith in having a son for salvation, and social backwardness. The family planning campaign did not take into account these factors and hence the programme has not been successful in Bihar (9). A study was conducted by Hanspal and Sen Gupta in order to find out how social marketing can be used in promoting the idea of donating blood among the general public. The conclusions of the study suggested that a balanced marketing-mix should be derived for such a campaign with adequate emphasis on each of the elements, i.e., product, price, promotion, and distribution, rather than putting emphasis only on the promotional tools (10). Mann explored the effectiveness of social advertising as a tool of social marketing and the perception of people towards it. He found that people were not only aware of this important medium of social change but also have positive attitude towards this technique of social improvement. Hence, he suggested that the Government and the NGOs should exploit this medium for different social campaigns (11).

Bush and Boller studied the appropriate role of advertising in addressing the AIDS crisis – 'The study focused on three different roles played by advertising over the period 1987-1989. In 1987, AIDS campaign sought to build awareness and knowledge of the disease through television advertising and news media. The 1988 AIDS campaign assumed the role of fear-inducer. Viewing audiences were urged to worry about potentially dangerous behaviors in which they or their loved ones may engage. Essentially, the ads comprising this campaign "serve notice" to viewers that

behaviors such as extramarital affairs and IV drug use can lead to AIDS. Presumably, the worry and fear evoked by this campaign would motivate viewers to protect themselves from the AIDS virus. However, fear as a strategy was unwarranted and ineffective if viewers do not have a coping response. This was remedied in the subsequent campaign in 1989 by providing a coping response, when viewers were implicitly urged to "Just say no" to social and genderual behaviors that might put them at risk of contracting AIDS. Unfortunately, viewers were never informed about how to behave so that "saying no" becomes a viable option' (12).

Peracchio and Luna examined 'how advertising can be used to discourage the initiation of tobacco consumption. The advertisement focused on communicating the long-term health effects of smoking in a concrete way by drawing analogies between the effects of smoking and things with which children are familiar, such as insecticide and vehicle exhaust. The objective of the campaign was to provide both potential smokers and non-smokers with relevant and meaningful images and messages about the long-term effects of smoking' (13). Teel et al. found that anti-smoking advertising has reduced the incidence of cigarette smoking and therefore, they opined that instead of seeking regulatory actions anti-smoking crusaders must hone their marketing skills rather than attempting to limit their opposition's marketing strategies through legislation (14).

Farley and Leavitt found that in most population programs the basic outlet for goods and services is the clinic, with employees being medical and paramedical personnel. This distribution strategy has a societal acceptance. However, reliance upon clinics creates problems due to high rates per visit and poor revisit rates. By contrast if retail structure could be utilized as distribution outlets for contraceptive material the problem can be resolved (15).

Sheth and Frazier opined that to bring about a change in social behaviour we must understand the attitudes of the people in the society. For this purpose various strategies has been introduced like, informing, educating, persuasion and propaganda. They suggested that the change agent must not think in terms of a universal strategy approach but seriously consider segmenting the total population and utilize a mix of influence strategies on a selective basis from among those that facilitate reinforcement and inducement processes (16). Brooker found that personality study has significance in marketing research. His paper highlighted that self-actualizing individual take action, which satisfy the needs of others as well as that of the individual. Such a person would be thought to be likely to purchase products which will benefit society as a whole as well as the user. There may even be costs involved which are willingly borne by these individuals despite the availability of cheaper alternatives. Such people may be a prime market segment for other products designed to alleviate societal problems of various types (17).

'Social marketing faces distinctive ethical challenges, which are not faced by commercial marketing, with regard to the ends it seeks, the rationale it offers for achieving those ends, and the effects it may have on its targets' (18). 'Unfortunately, many social change campaigns accomplish little, and this fact can breed widespread cynicism among social reformers and citizens. The campaigns may not have targeted the appropriate audience, the reform message may not have been sufficiently motivating, the individuals, and groups, or populations that were targeted (the target adopters) were not given a way to respond constructively, or a campaign may have been underfunded' (19).

The purpose of the study was to explore how social marketing approach can be used to make the "say no to plastic bags" campaign a success in Delhi. The specific objectives of the research were as follows:

- To study a city in India, where the "say no to plastic bags" campaign has been successful.
- To critically evaluate the measures undertaken by different stake-holders in this direction.
- To analyze the applicability of social marketing strategies, and design an effective campaign for acceptance of environmental-friendly carry bags in Delhi.

On the basis of the review of the existing literature and general observation, the following two hypotheses were formulated:

H₁: There is no significant difference in the opinions of people from different socio-economic backgrounds regarding factors motivating use of eco-friendly carry bags.

H₂: There is no significant difference in the opinions of users and non-users regarding factors preventing the use of eco-friendly carry bags.

METHODOLOGY

The study was based on both primary and secondary data. Primary survey was based on direct observation and a structured personal interview carried out at the field study area, i.e., Pushkar with four groups of respondents – the authorities, the traders, the residents, and the tourists. Beside that a survey was carried out in Delhi and NCR (National Capital Region) with the help of a self-administered questionnaire. Secondary data sources included the laws and orders of the government, newspapers, magazines, and relevant websites.

For collecting information in Pushkar, all the traders, customers, tourists, and households were selected through non-probability convenience sampling method. Each entity formed a sampling unit within that group. For the purposes of data collection and their analyses, qualitative research methods of inquiry were employed in the field study area for an in-depth understanding of behavior exhibited by people in dealing with the issue.

Beside the field study, a survey of 250 respondents was conducted in Delhi and NCR. A non-probability convenience sampling method was adopted to select the respondent. It was ensured that the respondents represent different socio-economic groups. A non-disguised, pre-structured questionnaire was designed to collect data. The data gathered were analysed using quantitative methods like, mean, standard deviation (S.D.), *t*-test, and ANOVA.

RESULTS

The results are discussed under two sections – case study of Pushkar; and analysis of results of a questionnaire based survey conducted in Delhi and NCR.

A. Case Study of the Holy City of Pushkar (Rajasthan)

Pushkar is a sacred town for the Hindus, situated eleven kilometers to the North-West of Ajmer. The famous Brahma Temple is said to be the only temple in the world dedicated to this deity. The serene Brahmasarovar, commonly known as the Pushkar lake has fifty-two ghats and draws close to five-thousand pilgrims every-day, who take a holy dip in the sacred waters to wash off their sins and also, immerse the ashes of their dead. In the month of November every year the famous Pushkar Camel Fair is held.

A few years back, the lake was dying out fast, with immersion of all sorts being done in it, since it is considered holy. The water level went down, with silt, filth, and plastic poly-bags all around. In a major step for environment protection, the Rajasthan Government announced a complete ban on use of plastic carry-bags all over the State from August 1, 2010. The prohibition applies to manufacture, storage, import, sale and transport of plastic carry-bags. Shopkeepers, retailers, or vendors were not allowed to supply goods to consumers in such carry-bags. The Government has authorised District Collectors and officers of the Rajasthan Pollution Control Board to file complaints under Section 19 of the Environment Protection Act, 1986, to the competent court on

violation of the guidelines prescribed in the notification. Any infringement of the notification would attract prosecution under Section 15 of the Environment Protection Act, which prescribes imprisonment for five years or a fine up to Rupees one lakh or both. Recurrence of the offence may lead to penalty of Rupees five thousand a day.

The Pushkar Lake was revived. Plastic bags, in the vicinity of the lake, are totally banned. Any immersion of flower and other material in the lake is not allowed and in plastic bag attracts a penalty. The guides, pundits, sadhus and pandas in the area monitor that and strictly prohibit people from immersing the material especially in plastic bags. Initially the ban was successful and plastic bags vanished altogether from the town. Traders of all types either gave the goods in small cloth bags or in paper bags. But the present situation is that plastic bag is slowly re-entering the town. A little outside the town, a desert full of plastic bags, trash and garbage could be seen.

Extensive and in-depth interviews were conducted with the traders, Municipal Authorities, local residents, and customers including, tourists. The outcomes of the interview and observations are as follows:

Views of Traders: The traders are well aware of the menace of plastic bags and quite convinced about the harmful effect of plastic bags on environment. Since the implementation of the ban, they switched over to cloth bags made out of left out cloth pieces. Women make these beautiful bags, generally of artificial silk, at their houses and sell them door to door in bulk to the shopkeepers. The price of these bags ranges from rupees two to five, depending upon their size. The trader bears the cost of these bags. No government support or subsidy is provided to the shop owner, to promote the cloth or alternative bags. The tourists as well as the local residents do not carry their own bags most of the time. Hence, it is difficult for the small shop owners to bear the additional cost and a few succumb to cost pressure and are switching back to plastic bags.

Views of Officials of Municipal Corporation or Nagar Palika: The authorities conduct regular inspection and impose penalties on the defaulters. They have also conducted rallies with the involvement of locals and tourist, both Indian and foreigners, to spread awareness about the harmful effects of plastics. Around five lakh rupees have been spent on general awareness (street plays, announcements etc.) till date.

Plastic bags are strictly prohibited in the lake area. All the priests, *pandas* have been made aware of the ban. The authorities are promoting reuse of plastic bags, like, for making ropes and construction of charcoal roads. The plastic bag manufacturing factory was shut-down in Ajmer after the ban. However, there is no clarity regarding which types of bag have been banned making the implementation all the more difficult.

Tourism makes the implementation of the ban on plastic bags all the more difficult as tourists bring plastic bags along with them. Beside this, there is a lack of support of police in implementing the ban. Though the penalty charge is only Rupees five hundred, problem arises when the defaulters refuse to pay it directly and goes to court as the court proceeding amounts to a burden of three thousand rupees on the municipality. Unlike in other States, rag pickers are not there in Pushkar to pick up the plastics dumped on the streets. Garbage collection system is not in place due to lack of manpower.

The nearest plastic recycling plant is in Tilonia, Rajasthan (100km from Pushkar) and hence, the confiscated plastics are lying in go-downs. Moreover, destroying plastic bags is very difficult and also harmful for the environment. There is only one pollution control board for Rajasthan, Madhya Pradesh, and Chhattisgarh which is located in Bhopal. Therefore, a need for a board in Rajasthan itself is necessary.

Views of Local Residents, Customer, and Tourists: Most of the residents, customers and tourists were not aware about the ban on plastic bags as no announcements were made by the government officials regarding ban on plastic bags. They got to know about it only when the traders refused to give away plastic bags. Initially the ban was successful. Within two years of the ban, they became accustomed to carry their own bags. But now plastic bags have re-entered the city. They are aware of hazards of plastic bags and reuse them as many times as possible.

For wet or moist products like, paneer they find plastic bags convenient and are accustomed to it. The traders generally do not give away cloth bags for low value products to the local residents. Generally, the traders charge them for big cloth carry-bags.

B. Analysis of Data

Data was collected from 250 respondents from Delhi and NCR. The results of the analysis are presented in the following paragraphs. The respondents were asked whether they are currently using any form of eco-friendly carry bags. The results are summarized in Table I. As depicted in the table, 96 respondents (38.4 percent) were currently using some form of eco-friendly carry bags while 154 respondents (61.6 percent) were not using any form of such bags.

Table I Number of Users and Non-Users

Respondents	Number	Percentage (%)
Users	96	38.4
Non-users	154	61.6
Total	250	100

Most of the respondents got the bag from the store on purchase of some product. The next rank went to the source 'free sample from educational institution', followed by the source 'purchased voluntarily' (Table II). Those who have purchased the eco-friendly carry bags voluntarily were asked to state the reasons for doing so. Interesting reasons were enumerated by such respondents, such as, environment friendliness, for gifting purposes, for personal use, use it as accessory, gift wrapping, attractive, stylish, long life, to avoid polythene, and for social causes such as, buying from NGOs.

Table II Ranking of Sources of Obtaining an Eco-friendly Carry Bag

Sources	Mean	S.D.	Ranks
From a Store on a purchase	0.67	0.60	1
As a free sample from Educational Institution	0.53	0.60	2
As a free sample from Government Organisation	0.12	0.62	5
As a free sample from Awareness Programme	0.27	0.66	4
Voluntarily purchased	0.41	0.61	3

Table III depicts that most of the respondents became aware about the concept of eco-friendly carry bags only when they were given products in such bags in any store. Very few respondents came across government orders regarding ban on plastic bags.

Table III Ranking of Sources of Information

Sources of Information	Mean	S.D.	Rank
Advertisements	0.38	0.61	2
Stores or Brand Outlets giving their products in Eco-Friendly Carry Bags	0.58	0.67	1
Friends or Acquaintance	0.25	0.68	3
Government Orders	0.18	0.65	4

As shown in Table IV, maximum number of respondents opined that they switched to eco-friendly carry bags since they are concerned about nature or environment. Hence, this factor received the first rank.

Table IV Ranking of Motivating Factors

Factors	Mean	S.D.	Rank
Advertisements	0.22	0.66	2
Motivated by Peers	0.12	0.65	4
Concern for Environment or Nature	0.69	0.71	1
Freely provided by the Store or Brand Outlet	0.17	0.62	3
Government Orders and Notices	0.11	0.69	5

Advertisements about eco-friendly bags also motivated a sizeable number of respondents. This factor got the second rank. Third rank went to the factor, 'freely provided by the store or brand outlet'. Again, government orders and notices has done very little to motivate people to switch to such bags. Hence, it was ranked last.

The respondents were inquired about the factors that prevented them from using or switching to eco-friendly bags. As depicted in Table V, the most important deterrent is the feeling among the respondents that the eco-friendly bags are unsuitable for wet and moist products. Hence, this factor was ranked first. Second rank went to the factor 'you have to bear additional price' since plastic bags are still available free of cost. Fear or breakage/spoilage also prevents people from using eco-friendly bags. Beside that the convenience of using plastic bags and people are habituated to use

them also deter people from leaving them altogether. Lack of awareness and concern for harmfulness of plastic bags to the environment are other hindrances. Interestingly, people are less concerned about government orders and notices, and hence, it again received the last rank.

Table V Ranking of Factors Preventing Use of Eco-Friendly Bags

Factors	Me an	S.D.	Ran ks
You have to bear additional price	3.52	1.15	2
Unsuitable for wet and moist products	3.90	1.00	1
Fear of breakage/spoilage	3.50	1.15	3
Habituated to plastic bags	2.90	1.31	5
Find plastic bags convenient	3.05	1.32	4
Lack of awareness about its harmful effects	2.63	1.50	6
Lack of concern for its harmfulness to the environment	2.57	1.49	8
Believe that alternatives are not eco-friendly	2.62	1.12	7
Not aware of government orders and notices	2.45	1.20	9

The respondents' opinions about the ways to make eco-friendly bags popular are summarized in Table VI. Most of them agreed that such bags or concept can be made popular by generating more awareness and hence, this mode has got the first rank.

Table VI Ranking of Ways to Make Eco-friendly Carry Bags Popular

Ways	Me an	S.D.	Ra nk s
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By generating more awareness	4.54	0.67	1
By reducing the burden on customer for additional charges	4.28	0.77	4
By making available durable alternatives	4.20	0.86	6
By making available suitable eco friendly carry bag for wet and moist products	4.39	0.69	2
By strictly enforcing the legal orders	4.12	0.93	7
Through celebrity endorsement	3.34	1.11	9
By Educating people about the benefits of eco friendly carry bags	4.34	0.71	3
By distributing eco friendly bags as free samples	4.06	0.86	8
By banning production of plastic bags	4.27	1.08	5

Making available suitable eco-friendly bags for wet and moist product will definitely improve its popularity, and hence it is ranked second. Educating people about its benefits, reducing the price burden of such bags on them, and making them durable will also help in improving its popularity. The respondents opined that rather than only enforcing legal orders against use of plastic bags, their production should be banned.

An attempt has been made to ascertain whether demographic factors affect people's opinion about the eco-friendly carry bags. The socio-economic variables of gender, marital status, age, education, occupation, income and area of residence, were examined for the factors motivating people to abandon plastic bags.

In order to find out the influence of gender on motivating factors, the following hypothesis was tested on the sample of 106 males and 144 females:

H₀: There is no significant difference between the perception of males and females towards the factors motivating the usage of eco-friendly bags.

The means, standard deviations (S.D.), and t-values of the five factors were computed in order to test the hypothesis. The results are presented in Table VII. No significant differences were found on account of gender for any of the factors. Hence, the null hypothesis that there is no significant difference between the perception of males and females towards the factors motivating the usage of eco-friendly bags is accepted.

Table VII Influence of Gender on Motivating Factors

Factors	Male (N= 106)		Female (N=144)		t-value
	Mean	S.D.	Mean	S.D.	

Advertisements	0.	0	0.	0	0
Motivated by Peers	21	.	23	.	.
Concern for Environment or Nature	0.	6	0.	6	2
Freely provided by the Store or Brand Outlet	10	3	14	6	4
Government Orders and Notices	0.	0	0.	0	0
	66	.	71	.	.
	0.	6	0.	6	4
	14	2	19	7	8
		0		0	0
	0.	.	0.	.	.
	10	7	13	7	5
		0		3	5
		0		0	0
		.		.	.
		6		6	6
		0		4	3
		0		0	0
		.		.	.
		6		7	3
		6		1	4

The following hypothesis was tested on the sample of 134 married and 116 single respondents to determine the influence of marital Status:

H₀: There is no significant difference between the perception of married and single respondents towards the factors motivating the usage of eco-friendly bags.

The t-values of the five factors were computed in order to test the hypothesis. The results are presented in Table VIII.

Table VIII Influence of Marital Status on Motivating Factors

Factors	Married (N= 134)		Single (N=116)		t-value
	Mean	SD	Mean	SD	
Advertisements	0.	0	0.	0	0.12
Motivated by Peers	23	.	22	.	0.12
Concern for Environment or Nature	0.	6	0.	6	0.23
Freely provided by the Store or Brand Outlet	13	4	12	5	
Government Orders and Notices	0.	0	0.	0	0.13
	67	.	69	.	0.12
		6		6	
	0.	3	0.	6	
	17	0	16	0	
	0.	.	0.	.	
	13	6	12	7	
		9		0	

		0		0	
		.6		.6	
		1		2	
		0		0	
		.6		.6	
		7		9	

No significant differences were found on account of marital status of respondents for any of the factors. Hence, the null hypothesis that there is no significant difference between the perception of married and single respondents towards the factors motivating the usage of eco-friendly bags is accepted.

The respondents were categorized under three age-groups: A - Below 25 years; B - 25-45 years; and C - 45 years and above. One-way Analysis of Variance (ANOVA) was conducted to test the following hypothesis:

H₀: There is no significant difference between the perceptions of respondents belonging to different age-group towards the factors motivating the usage of eco-friendly bags.

Except for the factor ‘concern for environment or nature’ significant differences were not found on account of age for any other factor (Table IX). The null hypothesis is accepted.

Table IX Influence of Age on Motivating Factors

Factors	Group A (N= 104)	Group B (N=95)	Group C (N=51)	F-Ratio
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Advertisements	0.23(0.74)	0.32 (0.42)	0.15	1.42
Motivated by Peers	0.17(0.62)	0.08(0.56)	(0.56)	0.73
Concern for Environment or Nature	0.74(0.72)	0.67(0.32)	0.06(0.78)	3.44*
Freely provided by the Store or Brand Outlet	0.18(0.56)	0.13(0.62)	0.51(0.20)	0.17
Government Orders and Notices	0.12(0.68)	0.11(0.52)	0.16(0.63)	0.02
			0.10(0.66)	

*Significant at 0.05 level of significance

In order to study the influence of education on motivating factors, three education levels were formed: A - Non-matriculate and Matriculate/Higher Secondary; B - Graduate; C - Post Graduate/Professional (Table X). The following hypothesis was tested:

H₀: There is no significant difference between the perceptions of respondents belonging to different education levels towards the factors motivating the usage of eco-friendly bags.

F-ratios were found to be significant only for the factors ‘concern for environment or nature’ and ‘Government orders and notices’. H_0 is partially accepted.

Table X Influence of Education on Motivating Factors

Factors	Level A (N=60)	Level B (N=103)	Level C (N=87)	F-Ratio
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Advertisements Motivated by Peers	0.20(0.75)	0.27(0.35)	0.13(0.45)	1.81
Concern for Environment or Nature	0.11(0.62)	0.12(0.63)	0.12(0.66)	5.36**
Freely provided by the Store or Brand Outlet	0.49(0.77)	0.82(0.64)	0.78(0.56)	0.04
Government Orders and Notices	0.18(0.87)	0.20(0.56)	0.21(0.47)	4.67**
	0.02(0.58)	0.08(0.36)	0.22(0.34)	

**Significant at 0.01 level of significance.

According to occupation, the respondents were classified into three groups: Group A: Non-workers (Student, housewife and retired); Group B: Service; and Group C: Business and professional. The following hypothesis was tested on the respondents belonging to these three occupation groups -

H_0 : There is no significant difference between the perceptions of respondents belonging to different occupation groups towards the factors motivating the usage of eco-friendly bags.

The results of the one-way ANOVA which was conducted for the five factors and three occupation groups in order to test the hypothesis are presented in Table XI. The F-ratio was found to be significant only for the factor ‘concern for environment or nature’. Hence, the null hypothesis is accepted.

Table XI Influence of Occupation on Motivating Factors

Factors	Group A (N=128)	Group B (N=70)	Group C (N=52)	F-Ratio
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Advertisements Motivated by Peers	0.25(0.87)	0.18(0.45)	0.21(0.36)	0.25
Concern for Environment or Nature	0.16(0.71)	0.10(0.68)	0.10(0.46)	4.56*
Freely provided by the Store or Brand Outlet	0.56(0.73)	0.80(0.34)	0.73(0.24)	1.16
Government Orders and Notices	0.26(0.58)	0.15(0.36)	0.12(0.34)	0.14

	0.72) 0.09(0.76)	44) 0.14(0. 35)	68) 0.12(0. 65)	
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*Significant at 0.05 level of significance.

According to income, the respondents were classified into four groups: Group A: Upto Rs.2,00,000; Group B: Rs.2,00,001-Rs.5,00,000; Group C: Rs.5,00,001-Rs.10,00,000 and Group D: Above Rs.10,00,000. The following hypothesis was tested -

H₀: There is no significant difference between the perceptions of respondents belonging to different income groups towards the factors motivating the usage of eco-friendly bags.

Table XII shows a significant difference between income groups were found for the factors 'concern for environment or nature' and the factor 'freely provided by the store or brand outlet'. The people belonging to higher income levels were found to be more concerned about environment in comparison to that of those belonging to lower income groups. Significant differences were not found on account of income for any other factor. Hence, the null hypothesis is partially accepted.

Table XII Influence of Income on Motivating Factors

Factors	Group A (N=29)	Group B (N=73)	Group C (N=85)	Group D (N=63)	F-Ratio
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Advertisements	0.32 (0.45)	0.25 (0.58)	0.15 (0.57)	0.10 (0.77)	1.22
Motivated by Peers	0.19 (0.45)	0.12 (0.56)	0.10 (0.62)	0.08 (0.70)	0.23
Concern for Environment or Nature	0.43 (0.71)	0.53 (0.68)	0.82 (0.44)	0.78 (0.56)	5.67**
Freely provided by the Store or Brand Outlet	0.32 (0.46)	0.31 (0.58)	0.08 (0.66)	0.06 (0.77)	2.77*
Government Orders and Notices	0.08 (0.77)	0.09 (0.68)	0.17 (0.43)	0.16 (0.42)	0.45

*Significant at 0.05 level of significance. **Significant at 0.01 level of significance.

According to location, the respondents were classified into six zones: Zone A: North Delhi; Zone B: South Delhi; Zone C: East Delhi; Zone D: West Delhi; Zone E: Central Delhi; and Zone F: NCR. The following hypothesis was tested.

H₀: There is no significant difference between the perceptions of respondents residing in different areas towards the factors motivating the usage of eco-friendly bags.

F-ratio for the factors 'concern for environment or nature' and 'freely provided by the store or brand outlet', were found to be significant. Significant differences were not found on account of income for any other factor. Hence, the null hypothesis is partially accepted.

On the basis of the results of the data analysis, it can be concluded that the influence of socio-economic variables on the respondents' opinion about the factors motivating them to switch to eco-friendly bags is very weak and sporadic. Hence, the first hypothesis, H₁ stating that there is no significant difference in the opinions of people from different socio-economic backgrounds regarding acceptance of eco-friendly carry bags is accepted.

In order to test the second hypothesis, H₂ stating that there is no significant difference in the opinions of users and non-users regarding factors preventing the use of eco-friendly carry bags, t-test was conducted. The t-values were found to be significant for the factors, 'customer has to bear additional price', 'unsuitable for wet and moist products', 'fear of breakage', 'habituated to plastic bags', and 'find plastic bags convenient'

The second hypothesis H₂ stating that there is no significant difference in the opinions of users and non-users regarding factors preventing the use of eco-friendly carry bags is rejected. The non-users indeed suffer from psychological fears associated with giving up plastic bags.

DISCUSSION

Many people are still not aware about the menace caused by plastic bags and also about the legal notifications prohibiting the sale and use of plastic bags in different States. In fact, there is a lack luster attitude of the stakeholders towards this issue. The case study of Pushkar clearly indicates that though a strict ban on plastic bags can do away with the plastic bag menace in short run, a laxity on the part of authorities in monitoring the ban will bring back the menace in the society.

The socio-economic variables of income, education, occupation and location were found to have a little influence on the opinions of the respondents regarding the factors motivating them to switch to eco-friendly carry bags. Otherwise, no major influences of socio-economic variables were found on the respondents' opinions regarding such factors.

Government is trying hard to deal with the menace of plastic bags by passing legal notifications, imposing fines, and running campaigns. The campaigns are concentrating on just promotion of the idea and not paying attention to the psychological costs and fears associated with the adoption of eco-friendly bags. The convenience of using such bags and their cheap availability makes them an easy option for the traders as well as for the customers, making their exit from the society next to impossible. An attitudinal and behavioural change among all the stakeholders through a social marketing strategy will ensure a successful 'say no to plastic bags' campaign.

CONCLUSIONS

A balanced emphasis on each of the elements of marketing mix, i.e., product, price, promotion and distribution will ensure success of such a campaign. The idea of saying no to plastic bags should be given shape by identifying the need of such an idea, generating a concern among the target audience towards the harmful impact of plastic bags on the environment, and designing the alternatives or eco-friendly bags. Different eco-friendly bags should be designed keeping in view factors like, suitability, durable, convenient to carry, stylish, and suit the pockets of the target audience. Emphasis should be placed on psychological or non-monetary price, such as unsuitability for wet and moist products; fear of breakage/spoilage, etc. The promotional campaigns should aim at reducing these psychological fears; and also educating public about the harmful impact on environment of using them. An integrated promotion mix along with celebrity advertising will definitely improve the acceptability of the idea.

Eco-friendly bags are at times given free or are charged for by the traders or stores. Stores should have a buy and return policy, i.e., if the customer brings back the bag on their next visit, money will be returned to them by the store. The government can also distribute the same free of cost or at a subsidized price through NGOs, educational institutions, and volunteers going door-to-door distributing them. The public should be made part of the campaign and their opinions should be included in designing a campaign. A partnership should be built between the stakeholders while

designing and implementing the campaign. Clear-cut policies should be designed with this regard and donations/ grants from the government and Non-Governmental Organisations should be mopped up for making the campaign a success.

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