**A comprehensive study on**

**Consumer’s perception towards Eco friendly bags.**

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**ABSTRACT**

*Green marketing is becoming more popular as businesses alter their product offers in response to rising customer knowledge of environmental challenges. Unsurprisingly, consumer consumption habits typically have an impact on this because they are evolving in response to the direct influence of wider social groups. Due to the numerous waste issues that the use of plastic bags causes, the emergence of eco-friendly bags is having a comparable impact on the plastic bag sector. By examining whether social effects impact and serve as a mediator between customers' views and purchasing intentions toward eco-friendly bags, this study seeks to understand consumers' intentions toward the purchase of eco-friendly bags. The survey was conducted in Siliguri City of West Bengal. Both the exploratory research design and the quantitative research approach were used. 218 respondents responded to the given survey questionnaires. The sample was collected using the convenience sampling method, and the results were statistically analyzed using SPSS. The findings show that environmental awareness, environmental concerns, are widely spread and which results in considering the purchase of eco-friendly bags to be a worthy investment in terms of time and money and recommending others also to buy the same still if eco-friendly bags are available at a higher cost than plastic bags that don’t turn into a real investment. Also, it has been revealed that gender has an impact on considering the investment to be worthy whereas it doesn’t have any impact on influencing the society.*

*Keywords: Consumers’ Purchasing Behavior, Consumers’ Purchasing Intentions, Eco-Friendly Bags, Social Influence, and Plastic Bags.*

**INTRODUCTION**

Every day more than 15,000 tonnes of plastic waste are produced in India.A growing portion of this plastic waste is discovered in rural areas as the reach of retail businesses and commercial organizations, as well as the number of SMEs for plastic manufacture are expanding. Despite the lack of accurate information on the amount and composition of plastic garbage in rural areas, it is becoming evident that plastics pose serious environmental and health risks in rural places.

On a worldwide and international level, plastic pollution poses major hazards to human health, the environment, and eco-friendly development. ([Lau et al., 2020](https://www.sciencedirect.com/science/article/pii/S1462901122003458%22%20%5Cl%20%22bib48)). The uncontrolled usage of plastics that don't break down for a long time has caused many ecological disturbances. In fact, ecological problems were marked as early as 1980 which include: global warming, the greenhouse effect, pollution, and climate change and these are present in the industrial environment. (Sandu 2014).

Unavoidable environmental consequences are linked with the rapid economic growth that shopping malls bring to cities and towns. For instance, the usage of plastic bags by supermarkets or hypermarkets that are dispersed along riversides, in schools, parks, restaurants, parking lots, and on public roads may cause pollution, contamination, and sickness in the general public.

Plastic waste disposal methods in rural India are often basic and uninformed and further intensify the challenge. Toxic pollutants from the open burning of plastics include carbon monoxide, dioxins, and nitrides. In India's rural areas, low-quality plastics are widespread and often leak harmful chemicals. Although some States and local authorities have created regulations that are in compliance with these laws, their recognition and application face difficulties.

The environment is being endangered by plastic bags. When dangerous chemicals are used to make plastic, it can lead to many environmental issues like clogged drains and contaminated groundwater. But this risk might not endanger the environment or public health if plastic is recycled in accordance with established protocols and standards.

Approximately 100 million tonnes of plastic are produced globally each year, and that number is increasing at a rate of 4% annually. Plastic manufacture and use are both expanding quickly in India as well. Every Indian produces almost half a kilo of plastic waste annually on average. A large portion of it is dispersed on and around the trash pile, which spreads pollution.The past few decades had seen an increase in environmental awareness(Thi& Giang 2014).

The contribution of the present paper is to determine whether environmental awareness has increased have created an impact on the real replacement of plastic bags. There is an urgent need of replacing plastic bags with eco-friendly bags to save our environment. The present paper will determine if the consumers though being aware are acting on the replacement and switching to the use of eco-friendly bags in real terms.

**REVIEW OF LITERATURE**

According to Rashid's definition from 2009, "green purchase intention" is the likelihood and readiness of a person to favour a green product over a conventional one when making a purchase decision. Comparatively, in the decision-making process, it is the willingness of an individual to take into account and prefer a green product over a conventional or traditional product (Aman et al., 2012). But in other relevant studies, researchers put out classifications that were different from the ones described above.

According to Park and Ha (2012), the desire to buy environmentally friendly products can anticipate how people would behave in the future. Purchase intention was also defined by Wu et al. (2011) as the likelihood that a consumer will be prepared to make a purchase in the near future. Furthermore, Follows and Jobbers (2000) proposed that, from a green perspective, consumers' purchase intentions can be transformed into actual green product purchases when they perceive that their efforts to consume green products have a positive impact.

The aforementioned definitions indicate that a person's decision to engage in product purchases is frequently greatly influenced by a range of circumstances. These may result from a person's psychological, social, environmental, and even personality traits. For instance, Aman et al. (2012) found in their study that the desire to buy a green product is significantly influenced by both environmental knowledge and environmental concern. Additionally, it was found in their research that attitude partially mediates the association between environmental concern and the desire to make green purchases. Similarly to this, social influence is one of the crucial elements taken into account when figuring out consumers' purchase intentions in earlier studies. According to Klobas and Clyde (2001); Maram and Kongsompong, (2007), social influencers include friends, relatives, instructors, employers, professional colleagues, experts, the media, associates, salespeople, and even complete strangers.

In their studies, Lee (2009) and Wahid et al. (2011) discovered that social impact was the most significant stimulant and the best predictor of consumers' propensity to make green purchases. It has been noted in numerous studies to be a significant component in the formation of buying intentions and purchasing behaviour in general. A study conducted by Baker et al. (2008), finds that since social influence has a significant impact on consumer behaviour, it is substantially correlated with the purchase of environmentally friendly products. Furthermore, Ohman (2011) contends that societal pressure affects customers who want to make green purchases in terms of their actual purchasing behaviour.

Customers' intimate relationships with their partners typically have a significant influence on their purchasing decisions, and the information they supply can occasionally have a significant impact on the purchase action and final consumption. This is true because the individual and their spouse share traits including comparable ideas, values, and lifestyles. As a result, social influence can be crucial in establishing connections between customers' views towards the environment, their environmental worries, and their intentions to buy eco-friendly bags.

**STATEMENT OF THE PROBLEM:**

Plastic is an organic substance created from petroleum byproducts. It contains one or more organic materials. It is malleable and can take on any form or shape. Dioxin is a dangerous carcinogen that is released when polymers are burned or manufactured. The reproductive and immunological systems are both impacted by dioxin. It causes growth issues as well as a hormonal disturbance. It has the capacity to assemble in the food chain and endure for extended durations in the environment. Even in little amounts, it is extremely dangerous. When plastic bags are discarded in rivers, streams, and the ocean, they contaminate the water, soil, marine life, and air. When plastic bags are burned, a variety of toxic compounds, including dioxin, are released into the atmosphere. Plastic recycling is also wasteful and uneconomical. Due to exposure to and inhalation of harmful gases, particularly hydrocarbons, and residues generated during the process, it is linked to skin and respiratory issues. Siliguri has been struggling with a number of environmental issues brought on by many things. People use plastic and polythene bags when buying and selling goods as well as for a number of other daily tasks. These have caused the unplanned disposal of these plastic bags, which has led to issues with sewage, flash floods, pollution, and many diseases. The current investigation was undertaken with these negative impacts of plastic bags in mind.

**RESEARCH GAP**

The impact of social factors on consumers' intentions to purchase eco-friendly bags has not been discussed in any of the several research in the field of green marketing that have examined consumers' attitudes and purchasing behaviour. As a result, this study analyses social effects to find out how they can affect customers' purchasing intentions for eco-friendly bags based on the background of this research gap. This study sets itself apart from similar studies by predicting consumer attitudes using consumers' knowledge of environmental issues and concerns. Next, social influences would be tested to see if their impact could affect other consumers' susceptibility by mediating between the independent variables and consumers' purchasing intentions for eco-friendly bags (the dependent variable). The current study's recommendations would be helpful in filling in the gaps in the literature.

**OBJECTIVES OF THE RESEARCH:**

* To determine consumers buying preference for costly eco-friendly bags over the protection of nature.
* To study the association between gender and investment in eco-friendly bags considering it to be worthy in terms of time and money.
* To study the association between gender and the preference for paying more for eco-friendly bags.
* To study the association between gender and recommendation to others for purchasing eco-friendly bags.
* To suggest that social entrepreneurs on the fixation of price and the right customer for eco-friendly bags.

**RESEARCH METHODOLOGY:**

The objective of the study is to determine the association between gender and their preferences for investment in eco-friendly bags. The population of this study was adults who use bags for various purposes. Primary data was collected using a structured questionnaire. A Google form was distributed among the audience using WhatsApp and email where 109 respondents filled the form. The sampling technique adopted was Random Sampling Method. Secondary data was collected using available published research papers in journals, books, and articles. The geographical area considered for the study was Siliguri, a Tier II city in North Bengal.

The questionnaire was designed based on a three-point Likert Scale “Yes”, “No” and “Maybe”. The researchers administered the survey instrument in the month of April 2023. To statistically test the significance of the data, the chi-square test was used to report the results using SPSS. The strength of the association between the variables was measured using Cramer’s V rule.

**Hypothesis of the Study**

The hypothesis of the study are as follows:

* There is no association between gender and the preference for paying more for eco-friendly bags.
* There is no association between gender and the investment done by them in eco-friendly bags considering it to be worthy of time and money.
* There is no association between gender and on the recommendation to others for purchasing eco-friendly bags.

**Data Analysis and Interpretation**

**Table 1: Gender**

|  |  |  |
| --- | --- | --- |
| **Gender** | **Frequency** | **Percent (%)** |
| Male | 72 | 33 |
| Female | 146 | 67 |
| Transgender | 0 | 0 |
| **Total** | 218 | 100 |

*Source: Primary data*



**Analysis 1**

H0: There is no association between the gender and the preference for paying more for eco-friendly bags.

H1: There is an association between gender and the preference for paying more for eco-friendly bags.

**Table 2: Cross-tabulation of preference of paying more for eco-friendly bags**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GENDER** | **NO** | **YES**  | **MAY BE** | **Total** |
| Male | 8 | 20 | 44 | 72 |
| % Within male | 11.1 % | 27.8 % | 61.1 % | 100% |
| Female | 24 | 48 | 74 | 146 |
| % Within female | 16.4% | 32.9% | 50.7% | 100% |
| Total | **32** | **68** | **118** | **218** |

*Source: Primary data*

Table 2 shows that the majority of male and female responses have selected ‘may be’ which means they are not sure if they are ready to pay more for buying eco-friendly bags. It is revealed that hardly 31.19% of the respondents are actually preferring to choose eco-friendly bags even if it is costly. This gives an implication that eco-friendly bags though protecting nature and being consumer aware of nature are not preferred by the majority if it is comparatively more costly than non-eco-friendly bags.

**Table 3: Chi-square test**

|  |  |
| --- | --- |
| **Pearson chi-square** | **2.303** |
| **Degree of freedom** | **2** |
| **Significance** | **0.316** |
| **Cramer’s V value** | **0.103** |

*Source: Primary data*

Table 3 shows that Pearson’s chi-square is 2.303, which appears to be not statistically significant at the 5% level and 2 df. Given that the P value is more than 0.05 which is 0.316, there is substantial support for accepting the null hypothesis and rejecting the alternative hypothesis. Thus, it can be said that there is no association between gender and preferences for paying more for eco-friendly bags. Cramer’s V value is 0.103, which also infers the weak association between gender and preference for paying more for eco-friendly bags. Therefore, it can be concluded that gender differences have no impact on the preference for paying more for eco-friendly bags.

**Analysis 2**

H0: There is no association between gender and the investment done by them in eco-friendly bags considering it to be worthy of time and money.

H1: There is an association between gender and the investment done by them in eco-friendly bags considering it to be worthy of time and money.

**Table 4: Cross-tabulation of worthy investment in terms of time and money**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GENDER** | **NO** | **YES** | **MAY BE** | **Total** |
| Male | 8 | 32 | 32 | 72 |
| % Within male | 11.1 % | 44.4 % | 44.4 % | 100% |
| Female | 10 | 98 | 38 | 146 |
| % Within female | 6.8 % | 67.1 % | 26 % | 100% |
| Total | **18** | **130** | **70** | **218** |

*Source: Primary data*

Table 4 shows that the majority of male and female responses have selected ‘Yes’ which means that they agree that investment in buying eco-friendly bags is worthy of time and money. It is revealed that 67.1% of females have responded ‘Yes’ which means that they are surer than males about their investment is worthy of time and money. To test the above results statistically, a chi-square test is conducted.

**Table 5: Chi-square test**

|  |  |
| --- | --- |
| **Pearson chi-square** | **10.313** |
| **Degree of freedom** | **2** |
| **Significance** | **0.006** |
| **Cramer’s V value** | **0.218** |

*Source: Primary data*

Table 5 shows that Pearson’s chi-square is 10.313, which appears to be statistically significant at the 5% level and 2 df. Given that the P value is less than 0.05 which is 0.006, there is substantial support for rejecting the null hypothesis and accepting the alternative hypothesis. Thus, it can be said that there is an association between gender and the investment done by them in eco-friendly bags considering it to be worthy of time and money. Cramer’s V value is 0.218, which infers the moderate association between gender and investment done in eco-friendly bags being worthy in terms of time and money. Therefore, it can be concluded that gender differences have an impact on the attitude in considering the purchase of eco-friendly bags being worthy.

**Analysis 3**

* H0: There is no association between gender and on the recommendation to others for purchasing eco-friendly bags.
* H1: There is an association between gender and on the recommendation to others for purchasing eco-friendly bags.

**Table 6: Cross-tabulation of recommendations to others for purchasing eco-friendly bags**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GENDER** | **NO** | **YES**  | **MAY BE** | **Total** |
| Male | 3 | 54 | 15 | 72 |
| % Within male | 4.2 % | 75% | 20.8% | 100% |
| Female | 6 | 112 | 28 | 146 |
| % Within female | 4.1 % | 76.7 % | 19.2 % | 100% |
| Total | **9** | **166** | **43** | **218** |

*Source: Primary data*

Table 6 shows that the majority of male and female responses have selected ‘Yes’ which means that they are so sure to recommend others to purchase eco-friendly bags. It is revealed from the above table that females are sure to recommend others. To test the above results statistically, a chi-square test is conducted.

**Table 7: Chi-square test**

|  |  |
| --- | --- |
| **Pearson chi-square** | **0.086** |
| **Degree of freedom** | **2** |
| **Significance** | **0.958** |
| **Cramer’s V value** | **0.020** |

*Source: Primary data*

Table 7 shows that Pearson’s chi-square is 0.086, which appears to be statistically insignificant at the 5% level and 2 df. Given that the P value is more than 0.05 which is 0.958, there is substantial support for accepting the null hypothesis and rejecting the alternative hypothesis. Thus, it can be said that there is no association between gender and on the recommendations to others for buying eco-friendly bags. Cramer’s V value is 0.020, which also infers a weak association between gender and the recommendations to others for buying eco-friendly bags. Therefore, it can be concluded that gender differences have no impact on influencing society to buy eco-friendly bags.

**CONCLUSION:**

The study has concluded that the majority of the respondents are aware of the environment and hazards that are made to the environment through plastic bags. Though the consumers have purchase intention to buy consumer bags but the purchase action is impacted by the higher price of the eco-friendly bags. The consumers are skeptical to purchase them if they are available at a higher cost than plastic bags. This is also evident that they are sure that the investment made to buy this is not waste rather its worthy of value both in terms of time and money. The consumers influence society to buy eco-friendly bags. The major contribution of the paper has revealed that gender differences have an impact only on the attitude in considering the investment in eco-friendly bags to be worthy of time and money. In the contrary, gender differences have no impact on the purchase action of eco-friendly bags and influence the society to do the same.

**RECOMMENDATIONS:**

This study will benefit the social entrepreneurs, social marketers, researchers and the government to know about the purchase intention and purchase action of the consumers. Society is influenced by each other and the environment is impacted by the society. At this hazardous situation, when the consumers are already aware of the environment and also ready to influence society is stopped by the higher price of eco-friendly bags. It is suggested to social entrepreneurs find out ways to reduce the price of eco-friendly bags in comparison to plastic bags. Government intervention is also suggested to support the social entrepreneurs by easy investment and funding the research and technology to find ways of reduction in prices.

**Limitations of study:**

The study is limited to residents in Siliguri. It could be studied among more cities and States widely. The only demographic factor i.e., gender has been considered for this study whereas the other demographic factors could also be studied. The correlation between purchase action and social influence could be studied for further research.

**REFERENCES**

1. Agyeman, C. M. (2014). Consumers’ buying behavior towards green products: An exploratory study. *International journal of management research and business strategy*, *3*(1), 188-197.
2. Ali, A., & Ahmad, I. (2016). Environment-friendly products: factors that influence the green purchase intentions of Pakistani consumers. *Pakistan Journal of Engineering, Technology & Science*, *2*(1).
3. Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: a test of a consumer model. *European Journal of Marketing*, *34*(5/6), 723-746.
4. Klobas, J. E., & Clyde, L. A. (2001). Social Influence and internet use. *Library Management*, *22*(1/2), 61-68.
5. Lee, K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of consumer marketing*, *26*(2), 87-96.
6. Maram, H. K., & Kongsompong, K. (2007). The power of social influence: East-West comparison on purchasing behavior.
7. Öhman, N. (2011). Buying or lying—the role of social pressure and temporal disjunction of intention assessment and behavior on the predictive ability of good intentions. *Journal of Retailing and consumer services*, *18*(3), 194-199.
8. Park, J., & Ha, S. (2012). Understanding pro‐environmental behavior: A comparison of eco-friendly consumers and apathetic consumers. *International Journal of Retail & Distribution Management*.
9. Pickett‐Baker, J., & Ozaki, R. (2008). Pro‐environmental products: marketing influence on consumer purchase decision. *Journal of consumer marketing*, *25*(5), 281-293.
10. Rashid, N. R. N. A. (2009). Awareness of eco-label in Malaysia’s green marketing initiative. *International journal of business and management*, *4*(8), 132-141.
11. Ryan, P. G., Moore, C. J., Van Franeker, J. A., & Moloney, C. L. (2009). Monitoring the abundance of plastic debris in the marine environment. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *364*(1526), 1999-2012.
12. Ten Brink, P., Lutchman, I., Bassi, S., Speck, S., Sheavly, S., Register, K., & Woolaway, C. (2009). Guidelines on the use of market-based instruments to address the problem of marine litter: Institute for European Environmental Policy (IEEP). *Sheavly Consultants*.
13. Teuten, E. L., Rowland, S. J., Galloway, T. S., & Thompson, R. C. (2007). Potential for plastics to transport hydrophobic contaminants. *Environmental science & technology*, *41*(22), 7759-7764.
14. Wahid, N. A., Rahbar, E., & Shyan, T. S. (2011). Factors influencing the green purchase behavior of Penang environmental volunteers. *International Business Management*, *5*(1), 38-49.
15. Wu, P. C., Yeh, G. Y. Y., & Hsiao, C. R. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Marketing Journal*, *19*(1), 30-39.