

## CONSUMER PERCEPTION FOR INVOLVEMENT OF SUSTAINABILITY IN FASHION PRODUCTS

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### ABSTRACT

**Purpose:** The purpose of the study is to explore the perception of the consumers towards the sustainability involvement in fashion products. The study also aims to find out the factors affecting the consumer perception for involvement of sustainability in fashion products.

**Design/methodology/approach:** A questionnaire was developed to conduct the study and the data was collected from the 120 respondents from the Jind City of Haryana to understand the consumer's perception for the sustainable Products. Factor Analysis was conducted to find out the factor affecting the consumer perception of the sustainable marketing practices implemented by the fashion industry.

**Findings:** On the basis of the given statements, statistical analysis revealed the four factors that were affecting the perception of consumers towards the sustainability in fashion products.

**Research limitations/Implications of the study:** In this study, the data was collected from the 120 respondents and all the respondents were restricted to the Jind city of Haryana. Hence, the study trusts that there is a more scope for the data collection to generalize the data. But the study provides the various implications for the researchers, managers and the producers also.

**Originality/value-** The proposed study represents the consumer's perception towards sustainable marketing practices adopted by the fashion industry. The findings of the study contribute to the understand the perception of consumers towards sustainability in fashion industry.

**Keywords-** Sustainability, Marketing Practices, Exploratory Factor Analysis, Fashion Industry, Consumer Perception.

### 1. INTRODUCTION

Sustainability has been defined as “the consumption of goods and services that meet quality of life and the basic needs of humans without jeopardizing the needs of the future generations” (OECD, 2002). Sustainable living is the requirement of the current world to preserve its scarce resources for the forthcoming generation by encouraging the sustainable consumption behavior that emphasize the reuse, reduction and recycling of natural resources. Human production and consumption are the basic part of the marketing and it is the today’s world requirement to combine these two aspects with the sustainability. The application of sustainability in the production and consumption will lead it to the principle of sustainable development, whose foundation was placed by United Nations in 2015 with its fellow countries that established Sustainable Development Goals (SDGs) 2030 for the world (K. Gupta & Singh, 2020).

The fashion industry puts the most negative impact on the environment through the stages of its product life cycle, from fiber manufacturing and growth, printing and dyeing, transportation and selling, to its final stage as the garment disposal. Due to quick filling of landfills and depletion of natural resources, it is becoming impossible for the earth to support the current level of the production and clearance of apparels (Hill & Lee, 2012). The fashion industry produces the billion dollars of share in the market from the initial to the end stage of the products, but at the same time it proves unhealthy to the environmental pollutions due to its essential characteristics (Shen et al., 2014). Sustainability illness in the fashion industry not only impacts the environment but it also involves the exploitation of the labors and the wastage of the resources and money. Because of its negative effect on the environment, people and the economy, it becomes necessary to adopt the sustainable marketing practices in the fashion industry to protect the environment, people and the economy. Sustainable living becomes essential in the present world to reserve the scarce resources for the upcoming generation by endorsing the sustainable consumption behavior on emphasizing the reuse, recycling and reduction of the available natural resources (Gupta & Singh, 2020).

## 2. REVIEW OF RELATED LITERATURE

In a research article (Friedrich, 2021) made a comparative analysis of 500 German consumers for their preference order and willingness to pay for apparel products using three different categories, that are recyclability of petrochemical clothing, slowing in consumption and production from bio plastics. It was concluded from the study that 53% of respondents favored recycling of Petro plastics, 26% favored bio plastics and only 20% favored slowing in consumption. (Bheda, Narag, & Singla, 2003) investigated the productivity levels of the Indian apparel manufacturing companies and compared them with international companies and investigated a strategy for the improvement of the productivity levels of the apparel manufacturing companies. (Sivagnanasundaram, 2018) explored the comparison between global retailers and Indian retail industry and it was found out that Indian retailers are just following the statutory norms in the name of the sustainability practices implementation. (Gupta, 2019) studied the business practices of two European and one Asian brand in fashion industry and compare them in terms of sustainability and it was found out that the European brands had more collaborations towards sustainability and on the other side Asian brand was

more fundamental and focused towards work conditions, labor rights. (Solér et al., 2015) studied the sustainability engagement of three Swedish fashion brands and their performance of 'muted sustainable' and it was found out that the customers are able to understand the silence on the issues of sustainability. (Grolleau et al., 2019) investigated that it is beneficial that firstly the conventional goals of a product should be introduced before advertising the green benefits. (Sahin et al., 2020) found out that using of green texts, logos, graphics and combo in advertising differently affected each type of hotel whether budget or luxury in a positive aspect as compared to the non-green advertising. (Guedes et al., 2020) explored the various ideas which can be used in better understanding the consumer buying behavior of sustainable fashion products and improving the advertising tools to enhance the awareness of consumers towards sustainable fashion. (Roozen et al., 2021) explored the impact of audio or visual nudge on the consumer's choice towards sustainable fashion and it was found out that nudging positively influenced the consumers towards sustainable fashion choice and verbal nudge had more influencing power than visual nudging. (Kong et al., 2021) explored the link between sustainability, the media communication network, and its impact on e-WOM and the purchase intentions of customers in non-luxury and luxury fashion brands and it was found out that sustainable communications in non-luxury brands is more powerful in cultural settings.

(Khairul Akter et al., 2022) identified the various ways to determine the value addition of materials waste generated in the different stages of the production process to attain the 12th sustainable development goal for the Bangladesh. (Jamshaid et al., 2021) investigated that the yarn waste had better uniformity, fiber length and floating fiber percentages as compare to the rag waste and it is more economical to make yarn from fiber extracted from rag than yarn waste. (Moazzem, Wang, et al., 2021) investigated the environmental impact of the apparel landfill and recycling in the terms of agricultural land occupation, acidification, climate and water depletion and it was found out that the ratio of synthetic fiber and natural fiber in discarded apparel is the basis of the environmental benefits of landfill process of discarded apparels. (Moazzem, Crossin, et al., 2021) examined the environmental impact of two imported apparel products to Australia in the categories of agricultural land occupation (ALO), climate change potential (CCP), water depletion (WD) and acidification potential (AP) and it was found out that the use of recycled cotton, polyester, organic cotton and flax fiber could be the reason for reducing all categories of AP, WD and ALO. (Hansen & Schaltegger, 2013) analyzed the entrepreneur's point of view about the sustainability-oriented transformation of industries and it was found out that the organic cotton practices and sustainability standards in clothing industry were just a phenomenon in niche markets, but nowadays these practices have entered into the mainstream retailers. (Chang & Jai, 2015) explored the various strategies adopted by fast fashion retailers to position sustainability and how these sustainability positioning influenced the customers and it was found out that sustainable positioning strategies have positive effect on CSR efforts, brand equity and price value which influence the purchase intentions of customers. (Pal & Gander, 2018) explored the benefits of using environmental values in the fashion industry like narrowing, slowing, and closing loops in their business models and examined a sustainable business model in the fashion industry. (Puspita & Chae, 2021) focused on the sustainable marketing, sustainable consumption, and the gap between the service quality perception gap between customers and

companies and it was found that there is a gap of attitude towards pricing and marketing strategy of sustainable fashion products.

(Seock, Yoo-Kyoung, Norton, 2007) explored the sustainable initiatives adopted by retailers who were selling sustainable apparel goods on internet and it was found that most of the companies were adopting the mainly two aspects (environmental and social) of Global Reporting Initiative (GRI). (Zheng & Chen, 2020) analyzed the impact of using sustainable fashion product features, sustainable fashion environment and sustainable consumption awareness on consumer's purchase intentions and it was found out that these entire factors positively affect the young people and purchase intention of the consumers.

### 3. Objectives of the Study

The proposed research paper is revolved around its main objective and the following are the main objectives of the study.

- i. To study the perception of the consumer towards sustainable marketing practices implemented by the fashion companies.
- ii. To evaluate the factors affecting the consumer's perception of sustainable marketing practices implemented by the fashion companies.

### 4. Research Methodology

#### 4.1 Sampling

The study was conducted in the Jind city of Haryana and to collect the data from the respondents a structured questionnaire was formed to assess the consumer's perception of the sustainable marketing practices implemented by fashion industry. Mostly the students of the university in the Jind city were targeted to collect the sample of the young generation and the responses were collected from the respondents with the help of snowball sampling and the questionnaire were physically distributed to the respondents to better understanding their perception towards the sustainable products.

#### 4.2 Sampling Profile

As shown in the **Table I**, indication of the sample profile presented that gender-wise sample was inclined towards female with 73.3 per cent share. If we focused on the age profile of the sample collected then we found out that be the young people of aging from 20 to 30 years old were having the large share of the sample with 67.5 per cent share. Marital status of the respondents showed that 85.8 per cent respondents were unmarried and 13.3 per cent respondents were married. More than half of the respondents were living in rural areas with the share of 57.5 per cent and 38.3 per cent respondents were from urban areas. Stated by education qualification, it was found out that most of the respondents were graduated or post-graduated or having diploma. If we focus on the occupation, then mostly the students of the university in the Jind city were targeted for the purpose of the study to study the perception of the young generation. It is found out that 83.3 per cent respondents were students. Monthly

income of the family was contrasted in the all section of having 35 per cent respondents whose family income was under 20,000, 32.5 per cent respondents whose family income was ranging from 20,000 to 40,000, 19.2 per cent respondents whose family income were ranging from 40,000 to 60,000 and 13.3 per respondents whose family income was above 60,000 per month.

**4.3 Questionnaire and pre-testing**

To measure the consumer perception towards the sustainable marketing practices implemented by fashion companies, a synthesis of 13 items from the literature were used and modified according to the requirement of the study.

A draft questionnaire was pretested with the selected consumers to check the out the relevance of the questionnaire. On the basis of the observation made by the pre-test, some modifications were made and the questionnaire was revised and then further responses were also collected from the 125 respondents. The data collected from the 5 respondents were find out to be invalid, so the 5 invalid responses were rejected due to the incompleteness of the questionnaire or the identical responses ticked by the respondents.

**4.4 Coding and Reliability**

A five-point Likert scale ranging from 1 as strongly disagree to 5 as strongly agree was used in the questionnaire for collecting the responses. To confirm the reliability, the 13 items resulted in a coefficient alpha of 0.719 which was more than 0.70 as recommended by **Leary (2004) and Ganguly et al. (2009)**. The data collected from the study was analyzed with the help of SPSS.

**4.5 Data Analysis Tools**

A descriptive statistical analysis such as frequencies and percentages were used to analyze the demographic and academic traits of the sample. To check the reliability of the data, *Cronbach's alpha* was used and to explore the factors affecting the consumer's perception towards the sustainable marketing practices implemented by the fashion companies. For the purpose of exploring the factors affecting, the factor with the loading of more the .50 was considered to extract the factors.

**Table I**  
**Demographic and Academic Traits (n=120)**

Traits	n	(%)
<i>Gender</i>		
Male	32	26.7
Female	88	73.3
<i>Age</i>		
Up to 20 years	28	23.3
Up to 20 to 30 years	81	67.5
Up to 30 to 40 years	09	7.5
Up to 40 to 50 years	01	0.8
Above 50 years	01	0.8

<b><i>Marital Status</i></b>		
Married	16	13.3
Unmarried	103	85.8
Widow/widower	01	0.8
Divorced	00	00
<b><i>Residential Status</i></b>		
Urban	46	38.3
Semi-Urban	05	4.2
Rural	69	57.5
<b><i>Educational Qualification</i></b>		
High School	03	2.5
Senior Secondary	07	5.8
Diploma/Graduate	46	38.3
Post Graduate	57	47.5
Ph.D.	07	5.8
<b><i>Occupation</i></b>		
Student	100	83.3
Businessman	01	.8
Government Employee	02	1.7
Private Employee	07	5.8
Homemaker	07	5.8
Any Other	03	2.5
<b><i>Family Income (monthly)</i></b>		
Up to 20,000	42	35
Above 20,000 to 40,000	16	13.3
Above 40,000 to 60,000	23	19.2
Above 60,000	39	32.5

## 5. DATA ANALYSIS AND INTERPRETATION

At the beginning, for working on ***Objective 1***, a questionnaire was formed using *five-point Likert* scale to understand the perception of the consumers towards sustainable marketing practices of fashion companies. Principal component analysis is applied on the 13 statements, which have been termed as variables of the study. **Table II** describes the responses of the respondents towards the 13 statements of the study in the range of strongly disagree to strongly agree. After analyzing the consumer's response, it was found out that about 60 per cent respondents are familiar with sustainable fashion companies and 53.3 per cent respondents think their self as "Sustainable Consumer". If we overall interpret the responses of the respondents, it is to be found out that 45 per cent consumers think that there is the limited range of design, color and style in the sustainable products and about 67.5 per cent consumers believe that sustainable fashion products are more expensive as compare to the normal ones

and about 40 per cent respondents have doubts about the sustainability of the products whereas 27.5 per cent respondents are neutral towards this variable.

**TABLE II**  
**CONSUMERS RESPONSE**

Statements	SD (%)	D (%)	NAND (%)	A (%)	SA (%)
Familiar with sustainable companies	1.7	18.3	20	53.3	6.7
Easy to access	6.7	19.2	22.5	45	6.7
Easy to use	5.8	17.5	19.2	44.2	13.3
Good Quality	5.8	9.2	26.7	36.7	21.7
Trust	4.2	18.3	22.5	36.7	18.3
Not Readily available	7.5	27.5	24.2	34.2	6.7
Limited range of design, color and style	5	30	20	34.2	10.8
Difficult to get information	8.3	36.7	24.2	25	5.8
Expensive	3.3	11.7	17.5	35.8	31.7
Doubt about sustainability of product	10.8	21.7	27.5	30	10
Worthless decision to adopt sustainable product	9.2	40	20	27.5	3.3
Individual's habit can't change anything	11.7	30.8	29.2	25.8	2.5
Think myself as "Sustainable Consumer"	4.2	16.7	25.8	43.3	10

To fulfill the *Objective 2* of the study, *factor analysis* is used to extract the factors affecting the consumer's perception towards sustainability of the fashion product. *Principal Component Analysis* is used to explain the total variance explained as shown in the **Table III**. The variables used in the study are extracted in the four factors that explains the total of 62.842 variance.

**Table III**  
**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
dimension	1	3.096	25.800	25.800	3.096	25.800	25.800	2.414	20.116	20.116
	2	2.066	17.213	43.013	2.066	17.213	43.013	1.828	15.233	35.349
	3	1.301	10.838	53.851	1.301	10.838	53.851	1.718	14.318	49.667
	4	1.079	8.990	62.842	1.079	8.990	62.842	1.581	13.175	62.842
	5	.823	6.857	69.698						
	6	.784	6.532	76.230						
	7	.683	5.695	81.925						
	8	.547	4.558	86.484						
	9	.532	4.435	90.919						
	10	.438	3.646	94.565						
	11	.392	3.266	97.831						
	12	.260	2.169	100.000						

Extraction Method: Principal Component Analysis.

All the statement used in the study were rotated by using *varimax with kaiser normalization* method and the rotation was converged in the 8 iterations. **Table IV** shows the *rotated component matrix* which shows the loadings of the statements extracted in the four factors. The statements showing the factor loading of more than .5 are included in the one factor and the statements having the factor loading of more than .5 were considered for the extraction of the factors.

*Rotation Component Matrix* shows that the statements such as “Familiar with sustainable companies”, “Good Quality”, “Expensiveness”, “Limited Range of Design, color, and style” and “Think myself as Sustainable Consumer” creates the **Factor 1**, “Not readily available” and “Worthless Decision to adopt sustainable products” creates the **Factor 2**, “Easy to Use”, “Easy to Access” and “Trust” creates the **Factor 3** and the statement of “Individual habit can’t change anything” and “Doubt about sustainability of products” creates **Factor 4**.



**Table IV**  
**Rotated Component Matrix**

	Component			
	1	2	3	4
Good Quality	<b>.783</b>			
Expensive	<b>.728</b>			
Think myself as "Sustainable Consumer"	<b>.704</b>			
Familiar with sustainable companies	<b>.616</b>			
Limited Range of design, colour, style	<b>.503</b>			
Not Readily available		<b>.788</b>		
Worthless decision to adopt sustainable products		<b>.688</b>		
Easy to use			<b>.830</b>	
Easy to access		<b>.547</b>	<b>.642</b>	
Trust			<b>.641</b>	
Individual's habit can't change anything				<b>.820</b>
Doubt about sustainability of products				<b>.679</b>

**Extraction Method: Principal Component Analysis.**

**Rotation Method: Varimax with Kaiser Normalization.**

**Rotation converged in 8 iterations.**

**6. Conclusion and Discussions**

The analysis yields the understanding of the consumer perception regarding sustainability of the fashion products. The proposed study is based upon the 13 statements or variables used in the questionnaire and if we concluded the objective 1 of the study, it can be noticed that most of the respondents are familiar with the sustainable products and the companies and they also think that it is easy to use, access and trust the sustainable fashion products. The main problem arises in the purchasing of the sustainable fashion products is that most of the respondents believes that the price of the sustainable fashion products is high and there are limited range of design, colour and style in the sustainable fashion products.

If we focus on the objective 2 of the study then we can find out the factors that are affecting the consumer perception towards sustainability of the fashion products. There are four factors extracted based on the 13 variable or statements of the study.

**Future Recommendations**

The proposed study is mainly based on the consumer perception and a specific city of Haryana. The researcher can also increase the large area in their study and there are also some other aspects rather than the consumer perception which can also be focused like attitude, purchase intention and satisfaction of consumers etc. Moreover, the study includes the 13 variables to understand the consumer perception regarding sustainability of the fashion products, the researchers may also focus on the other variables also. The researchers may also focus on the other industries also as the study only focuses on the fashion industry.

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