Consumers' Opinions and Constraints towards Buying Jute Products in Jalpaiguri and Ludhiana District- A Comparative Study

ABSTRACT

The study was undertaken in Jalpaiguri of West Bengal and Ludhiana districts of Punjab, India. The paper analyses the consumers' opinions and constraints faced by them towards buying Jute products. A total of 100 consumers respondents were selected randomly comprising 50 from each district. Multistage sampling was used to select respondents. A paired t-test and factor analysis were used to statistically analyse the collected data. The findings of the study show that there are statistical significant differences in awareness and opinions of the rural and urban consumers towards buying of Jute products. Two important factors safety of the environment and Jute products are fashionable and quality products were found. The Garret ranking technique was employed to analyse the constraints faced by consumers. The results shows that lack of information, followed by poor after-sale service, and unavailability of jute products are important constraints faced by consumers when buying jute products.

Keywords: Buying Jute products, opinions, consumers, constraints

1. INTRODUCTION

India is the largest producer of Jute followed by Bangladesh (The Hindu, 2020). Jute is grown in West Bengal, Assam, Odisha, Tripura, Meghalaya, and Andhra Pradesh. Jute is a low-cost, environmentally friendly fibre that has traditionally been used for sacking and

hessian. India produces 80 per cent of the world's Jute needs. Jute has been employed as a safe material for packing and transportation due to its environmentally favourable characteristics. Jute products like shopping bags, wall hangings, floor covering, geo-textiles, composites etc. has opened up a new avenue for Jute (Ray & Ghosh, 2018). Jute is one of the most important fibre crops. Jute is recognised as one of the most important cash crops in these countries, and as a result, it has a significant impact on their economic progress (Gupta, Shahu & Banerjee, 2009). The mandatory packaging norms approved by government of India for all food grains and 20 per cent sugar to be compulsory packed in Jute bags (Business Standard, 2023). The Jute textile industry is one of the major industries in eastern India, particularly in West Bengal and theses industry occupies an important place in the nation economy. Jute supports around 4000 farm families and provides direct employment to 260,000 industrial workers and 140 thousand in the tertiary sector (Anonymous, 2007–08).

Bangladesh is the leading exporter of Jute items (Al-Chemi & Shuvo, 2021) followed by India. Jute products from India are primarily exported as cloth and bags (Bag, Kumar, & Pal, 2016). The industry makes a significant contribution to the country's economy and has the potential to reach new heights in the coming years (Kumar, 2017). Thus to make the business more profitable for the entrepreneurs, proper and suitable efforts to develop this sector are essential. There is a lot of potential for expanding Jute marketing across the country (Islam & Moniruzzaman, 2017). The West Bengal state is largest producer of Jute and demand of the Jute products overall of India. The present study was undertaken in order to investigate rural and urban consumers' opinions and preferences towards Jute products and the constraints faced by consumers when buying Jute products. The study provides important information and findings to understand consumers' opinion and constraints towards buying Jute products.

2. REVIEW OF LITERATURE

Roy et al. (2000) found price instability while marketing and a low support price to be two marketing constraints. Dey (2005) revealed that Jute is bio-degradable and green products provided a remedy to the world packaging business. Rajendra, 2009, Islam et al, 2015) found more than 80 per cent of farmers are unaware of enhanced production technologies. The lack of an acceptable regularised market and grading system, large amount of labour necessary for manual Jute retting and expensive labour wages during peak season were the important constraints. Islam & Ahmed (2012) observed that Jute potential is a result of global environmental realization and environmentally favourable properties. Gon et al. (2012) found

that jute fibre is a promising reinforcement for use in composites because of its low cost, low density, high specific strength and modulus, lack of health risks, ease of supply, renewable nature, and low processing energy demand. Kumar, Shamna, & Pandey (2014) revealed that jute is used as a vegetable, geotextile, biogas, and biodegradable product with an environmental impact. Sadat & Chakraborty (2015) affirmed that jute has been used for many years. Quality of products, environmental and health concern are the most commonly specified motives for purchasing organic foods (Basha et al, 2015). Kalita & Bhuyan (2018) found that the distance to the nearest market, the time of sale, and the growers' land holding status all have a significant impact on marketing strategies and channel choices. Rathore & Mathur (2018) revealed that improved marketing channel, supply chain and consultancy services are important in entrepreneurship development. Kumar et al. (2020) revealed that lack of an organised market is the most significant constraint, followed by high labour costs, which discourage farmers from entering the jute farming business. Ngo et al (2021) found consumer faith motivated a favourable attitude to increase purchase intention age and education found to affect intent indirectly through attitude.

3. RESEARCH METHODOLOGY

The study was undertaken in the Jalpaiguri district of West Bengal and the Ludhiana district of Punjab in India during year 2021–22. Multistage sampling was used to select the respondents. From each district Jalpaiguri and Ludhiana 50 consumers were selected comprising 25 rural and urban consumers from each district. A total 100 consumers were selected randomly. Primary data were collected with the help of a pre-structured and pre-tested questionnaire. Statistical tools like mean, frequency, t-test, paired t-test, and factor analysis were used to analyse the collected data with help of SPSS software package. The Garrett ranking method technique (Henry Garrett, 1969) was employed to analysed the constraints and data were analysed with the help of excels.

Per cent position = $\frac{100(Rij-0.5)}{Nj}$

Where Rij = Rank given for the ith variable by jth respondents, Nj = Number of variable ranked by jth respondents.

4. RESULTS AND DISCUSSION

4.1 Demographic profile of the consumers

The profile of the consumers takes into account six factors, including age, gender, education, occupation, types of family, and annual family income of Jalpaiguri and Ludhiana district presented in the table 1 below.

Table 4.1: Demographic profile of the consumers of Jalpaiguri and Ludhiana district

Particular	Frequency (Jalpaiguri)	Frequency (Ludhiana)
1. Age of the consumers (year)		
Below 20	09 (18)	9 (18)
21 – 25	28 (56)	32 (64)
26 – 30	10 (20)	7 (14)
31 - 35	03 (06)	2 (4)
2. Gender of the consumers		
Male	38 (76)	28 (56)
Female	12 (24)	22 (44)
3. Education of the consumers		
Illiterate	04 (8)	4 (8)
Primary	02 (4)	1 (2)
Middle	04 (8)	4 (8)
High school	05 (10)	11 (22)
Graduate	35 (70)	30 (60)
4. Occupation of the consumers		
Service holder	02 (4)	2 (4)
Business	10 (20)	10 (20)
House-wife	05 (10)	5 (10)
Student	33 (66)	33 (66)
5. Types of family		
Nuclear	37 (74)	27 (54)
Joint	13 (26)	23 (46)
6. Annual family income (Rs.)		
Below 50000	05 (10)	4 (8)
50000 – 200000	27 (54)	3 (6)
200000 – 400000	05 (10)	3 (6)
400000 – 500000	05 (10)	6 (12)
Above 500000	08 (16)	34 (68)
Total	**50 (50)**	**50 (50)**

(Source: Primary data, figure in parenthesis are shows per cent)

In the above Table 4.1, we can find that, the majority (56 per cent and 32 per cent) are in the age group of 21 to 25 years old in Jalpaiguri and Ludhiana district respectively. The majority of the consumers (70 per cent and 60 per cent) were graduated in Jalpaiguri and Ludhiana district respectively.

Majority of the consumers' annual family income (54 per cent) was 5 thousand to 2 lakh in Jalpaiguri district and 68 per cent consumers' income was above 5 lakh in Ludhiana.

4.1.1 Awareness of the Consumers

The considerable number of respondents was aware in Jalpaiguri and Ludhiana district about Jute products. Table 4.2 revealed that (86 per cent) of the respondents agreed that they preferred jute products, while the remaining (14 per cent) said they were not interested in Jute products in Jalpaiguri district.

Table 4.2: Awareness towards jute products among consumers

S. No.	Particulars	Frequency (%)
1. Awareness of consumers of Jalpaiguri (n=50)		
1	Do you prefer jute products	43 (86.00)
2	Less harmful for environment	48 (96.00)
3	Does jute industry contribute in employment generation	43 (86.00)
4	Do you think it is an alternative product of plastic	45 (90.00)
2. Awareness of consumers of Ludhiana (n=50)		
1	Do you prefer jute products	40 (80.00)
2	Less harmful for environment	49 (98.00)
3	Does jute industry contribute in employment generation	38 (76.00)
4	Do you think it is an alternative product of plastic	33 (66.00)

(Source: Primary data, figure in parenthesis shows per cent)

Table 4.2 shows the majority of the consumers (66 per cent) said that jute products are alternatives to plastic products and only (34 per cent) of them believed that jute products are not alternatives to plastic in Ludhiana district.

Table 4.3: Comparison of awareness of rural and urban consumers (n=100)

1. Awareness of rural and urban consumers of Jalpaiguri district (n=50)					
	Variables	**Mean**	**Std. Deviation**	**t- value**	**p-value**
Awareness	Rural	1.14	.18	.849	.400
	Urban	1.10	.14	.849	
2. Awareness between rural and urban consumers of Ludhiana district (n=50)					
Awareness	Rural	1.32	0.22	3.476	0.00
	Urban	1.12	0.16	3.476	

The rural and urban consumers' awareness was compare. The SPSS software package used for statistically analysis of the data. Table 4.3 reveals that the means of the rural and urban consumers of Jalpaiguri district have been compared, and it is found that there are no statistically significant differences ($p = 0.400$) in the means of rural and urban buyers. The means of rural and urban consumers in Ludhiana district have been compared in Table 4.3, and it is found that there are statistically significant differences ($p < 0.001$) between the means of rural and urban consumers.

4.1.2 Opinion of the consumers

The mean of the consumers' opinions has been compared in the Table 4.4 with test value 3 (Mid-value of scale) and the entire variable has been found to be statistically significant. The

respondents were asked to rank their opinions in Jalpaiguri district on likert scale (1=strongly agree, 2= agree, 3= neutral, 4= disagree, 5=strongly disagree). The SPSS software package used for statistical analysis of the data. The results are presented in the table 4.4 below

Table 4.4: Consumers' opinions towards jute products (n=100)

S. No.	Particular	Mean	SD	t-value (p-value)
1. Consumers' opinions of Jalpaiguri district (n=50)				
1	Safety of the environment	1.72	0.53	22.689 (<0.001)
2	Jute products are reusable	3.98	1.07	6.426 (<0.001)
3	Attractive design	3.76	1.20	4.461 (<0.001)
4	Price reasonable	3.64	1.19	3.799 (<0.001)
5	Jute products are fashionable	3.66	1.22	3.818 (<0.001)
6	Jute products are satisfying in terms of quality	3.94	1.01	6.527 (<0.001)
7	It is easy to identify jute products	4.16	1.11	7.368 (<0.001)
8	Jute products are inferior in performance to other products	3.56	1.31	3.019 (<.004)
9	Availability of diversified jute products	3.58	1.19	3.427 (<.001)
10	Government support	3.40	1.35	2.087 (<.042)
2. Consumers' opinions of Ludhiana district (n=50)				
1	Safety of the environment	1.54	0.99	-10.38(<0.001)
2	Jute products are reusable	2.22	1.03	-5.324 (<0.001)
3	Attractive design	2.34	1.11	-4.175 (<0.001)
4	Price reasonable	2.32	1.13	-4.245 (<0.001)
5	Jute products are fashionable	2.28	1.05	-4.846 (<0.001)
6	Jute products are satisfying in terms of quality	2.30	1.01	-4.876 (<0.001)
7	It is easy to identify jute products	2.10	1.12	-5.635 (<0.001)
8	Jute products are inferior in performance to other products	3.14	1.01	-6.019 (<0.001)
9	Availability of diversified jute products	3.34	1.06	-4.396 (<0.001)
10	Government support	2.22	1.03	-3.834 (<0.001)

(Significant at 0.05% level)

Above table 4.4 revealed the highest mean score for the statement it is easy to identify jute products (4.16) followed by Jute products are reusable (3.98) and least mean score (1.72) was observed to statement safety of the environment in Jalpaiguri district.

The highest mean score (3.34) was observed to the statement availability of diversified jute products and least mean score (1.54) was observed to safety to the environment in Ludhiana. The entire variable found to be statistically significant. Findings in support of findings of Lakshme *et al* (2019, Sadat & Chakraborty, 2015)

Table 4.5: Comparison of opinions of rural and urban consumers of Jalpaiguri and Ludhiana district (n=100)

	Variables	Mean	Std. Deviation	t- value	p-value
Opinions (Jalpaiguri)	Rural	1.85	0.60	-0.627	0.53
	Urban	1.96	0.61	-0.627	
Opinions (Ludhiana)	Rural	2.44	0.68	2.396	0.021
	Urban	1.95	0.76	2.396	

The means of rural and urban consumers in Jalpaiguri and Ludhiana district have been compared. It is presented in the table 4.5, and it is found that there are no statistically significant differences (p=0.53) between the means of rural and urban consumers of Jalpaiguri. It is found to be there is statistically significant difference (p=0.021) in means of rural and urban consumers of the Ludhiana district.

4.2 Factor Analysis

Factor analysis was used to find out the principal dimensions on which the respondents had given their opinions about the jute products. The value of Kaiser-Meyer-Olkin (KMO) came out to be 0.875. It indicated the adequacy of the sample size. The value of the chi-square for Bartlett's test of sphericity came out to be 421.13, and it was found to be significant (p <0.001). The factor analysis was run using SPSS software package. Results of the factor analysis have been presented in the table 6 below.

Table 4.6: Factor extracted and factors loading

Factor name	Per cent of variance	Item	Item loading
Safety of the environment	33.89	Safety, environment friendly	0.66
Jute products are fashionable and quality products	26.39	Attractive design	0.77
		Reasonable	0.80
		Fashionable	0.72
		Quality	0.72
		Performance	0.60
		Availability	0.74
		Government support	0.70

4.2.1 Factor definition: Two factors were obtained from principal component analysis. These factors were able to explain 60.28 per cent of the variation in the original data set. Factor loading and per cent of variance have been presented in the table below. Factor definitions of the extracted factors have been provided as follows:

4.2.2 Safety of the environment: This factor deals with the safety and environment friendly. These factors explain 33.89 per cent of the variance in the data.

4.2.3 Jute products are fashionable and quality products: This factor deals with the attractive design, reasonable, fashionable, quality, performance, availability and government support. These factors explain 26.39 per cent of the variance in the data.

4.3 Constraint faced by consumers

The table 4.7 depicts that the major constraint faced by the consumers of Jalpaiguri and Ludhiana district. It is found that lack of information about the jute products with the highest Garret score. Results in support of finding of Kumar *et al.* (2020).

Table 4.7: Constraints faced by consumers in buying jute products in Jalpaiguri and Ludhiana districts

S. No	Constraint	Garrett score (Jalpaiguri)	Rank	Garrett score (Ludhiana)	Rank
1	Lack of information	63.2	I	67.5	I
2	Poor after sale-service	61.6	II	60.4	II
3	Unavailability of jute products	57.7	III	58	III
4	Higher price of jute products	57.2	IV	57.6	IV
5	Poor quality of jute products	53.3	V	55.3	V

A second important problem faced by the consumers was the poor after-sales service with rank second followed by unavailability of the Jute products was rank third position. The higher price of Jute products found to be rank fourth followed by poor quality of the Jute products was least important problem in Jalpaiguri and Ludhiana districts.

5. CONCLUSION

This study found two important factors that safety of the environment and Jute products are fashionable and quality products. Finally, the study highlighted the comparative awareness and opinions of the consumers. The finding of the study provides valuable new insights into the expansion of the future research on consumers' attitudes and opinion towards buying Jute products. Moreover, the paper discusses the constraints of the consumers toward buying Jute products. Lack of information, poor after sale service is the important constraints faced by consumers in buying Jute products.

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