Short Research Article

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

ABSTRACT

The study was undertaken in Jalpaiguri and Ludhiana districts. To know the consumers opinions and constraints faced by consumers towards buying Jute products were the objectives of the study. Multistage sampling was used to select respondents. A total of 100 respondents were selected, 50 from each district. A paired t-test and factor analysis were used. The findings of the study revealed 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. 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: Jute products, opinion, consumers, constraints

1. INTRODUCTION

India is the world's second-largest producer of jute, followed by Bangladesh, and the world's largest producer of jute products, including bags, in 2019–20. The government approved an extension of the mandatory packaging of food grains and sugar in jute fiber 100 per cent of food grains and 20 per cent of sugar must be packed in varied jute bags. The jute textile industry is one of the major industries in eastern India, particularly in West Bengal. Jute supports around 40 lakh farm families and provides direct employment to 2.6 lakh industrial workers and 1.4 lakh in the tertiary sector (Anonymous, 2007–08).

Jute is a low-cost, environmentally friendly fibre that has traditionally been used for sacking and hessian. India generates 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). India is the world's largest producer of raw jute and jute products. India's export of goods accounts for 75 per cent of total goods production. 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). 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 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.

2. REVIEW OF LITERATURE

Roy *et al*. (2000) found price instability and a low support price to be two marketing constraints. Dey (2005) examined that jute, a bio-degradable green products, provided a remedy to the world packaging business. Rajendra (2009) found more than 80 per cent of farmers are unaware of enhanced production technologies due to a lack of an acceptable regularised market and grading system (93 per cent) and the large amount of labour necessary

for manual jute retting (81 per cent) and expensive labour wages during peak season (79 per cent). 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) revealed that jute has been used for many years. It is a more environmentally friendly and biodegradable fibre crop than cotton. Jute leaf has been used as a meal and folk medicine in several civilizations. Islam *et al.* (2015) found a lack of capital and inputs, as well as a lack of knowledge and natural resources, as well as market information. Kalita & Bhuyan (2018) stated that the primary market was found to have a significant impact on the region's jute marketing system. 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. 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. Creating awareness among the people regarding the impacts of climate change and the benefits of implementing climate-resilient agricultural practices (Patro *et al,* 2022)

3. RESEARCH METHODOLOGY

The study was undertaken in the Jalpaiguri district of West Bengal and the Ludhiana district of Punjab during 2021–22. Multistage sampling was used to select the consumers. A total of 25 rural and urban consumers from each district were selected. From each district Jalpaiguri and Ludhiana 50 consumers were selected. A total 100 consumers were selected conveniently and willingness to response. 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. The Garrett ranking method technique (Henry Garrett, 1969) was used to analyse the constraints faced by consumers.

Per cent position = 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

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

Table 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 (46)
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 (74)
Joint	13 (26)	23 (76)
6. Annual family income (Rs.)		
Below 50000	05 (10)	4 (8)
50000 – 200000	17 (34)	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 1, we can find that out of the total respondents from Jalpaiguri district, the majority (56 per cent) are in the age group of 21 to 25 years old. The majority of the consumers (70 per cent) were graduates 10 per cent had education up to high school. Majority 34 per cent respondents income was rupees 50 thousand to 2 lakh. The majority (64 per cent) are in the age group of 21 to 25 years, followed by 14 per cent of them who belong to the age group of 26 to 30 years. The majority (34 per cent) belong to 50 thousand to 2 lakh group,

followed by (10 per cent) are from below 50 thousand, (10 per cent) belong to 2 lakh to 4 lakh (10 per cent) are in the range of 4-5 lakh and remaining above 5 lakh (16 per cent) annual income of the consumers.

Table 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 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 products made of jute. 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.

Table 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	

Table 3 reveals that the means of the rural and urban consumers of Jalpaiguri district have been compared, and it is found that there are 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 3, and it is found that there are statistically significant differences (p =0.00) between the means of rural and urban consumers.

Table 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	4.72	0.53	22.689 (<0.0001)
2	Jute products are reusable	3.98	1.07	6.426 (<0.0001)
3	Attractive design	3.76	1.20	4.461 (<0.0001)
4	Price reasonable	3.64	1.19	3.799 (<0.0001)
5	Jute products are fashionable	3.66	1.22	3.818 (<0.0001)
6	Jute products are satisfying in terms of quality	3.94	1.01	6.527 (<0.0001)
7	Is it easy to identify jute products	4.16	1.11	7.368 (<0.0001)
8	Jute products are inferior in performance to other products	3.56	1.31	3.019 (<.0004)
9	Availability of diversified jute products	3.58	1.19	3.427 (<.0001)
10	Government support	3.40	1.35	2.087 (<.042)
2. Consumers' opinions of Ludhiana (n=50)				
1	Safety of the environment	1.54	.99	-10.38(<0.0001)
2	Jute products are reusable	2.22	1.03	-5.324 (<0.0001)
3	Attractive design	2.34	1.11	-4.175 (<0.0001)
4	Price reasonable	2.32	1.13	-4.245 (<0.0001)
5	Jute products are fashionable	2.28	1.05	-4.846 (<0.0001)
6	Jute products are satisfying in terms of quality	2.30	1.01	-4.876 (<0.0001)
7	It is easy to identify jute products	2.10	1.12	-5.635 (<0.0001)
8	Jute products are inferior in performance to other products	2.14	1.01	-6.019 (<0.0001)
9	Availability of diversified jute products	2.34	1.06	-4.396 (<0.0001)
10	Government support	2.22	1.03	-3.834 (<0.0001)

(Significant at 0.05% level)

The mean of the consumers' opinions has been compared in the Table 4 with test value 3, and the entire variable has been found to be statistically significant. The respondents were asked to rank their opinions on likert scale (1=Strongly agree, 2= Agree, 3= Neutral, 4= Disagree, 5=Strongly Disagree). Above table 4 revealed the highest mean score for the statement 'safety of the environment' (4.72) followed by the statement 'Government support' had minimum mean score (3.40). The above table represents the maximum mean score for the statements "attractive design" and "availability of diversified jute products" (2.34), followed by the statement "safety of the environment," which has the least mean score of 1.54."Jute products are inferior in performance to other products" (2.34), "government support"(2.22). Further, it is observed that the statement "price reasonable" had the highest standard deviation (1.13), followed by the statement "safety of the environment," findings in support of findings of Lakshme *et al* (2019, Sadat & Chakraborty, 2015) which had the least mean score (1.54).

Table 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 district have been compared. It is presented in the table 5, and it is found that there are no statistically significant differences (p=0.53) between the means of rural and urban buyers.

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). Results of the factor analysis have been presented in the table 6 below.

Table 6: Factor extracted

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

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:

Safety of the environment: This factor deals with the safety of the environment, which is the quality characteristic of the jute product that is acceptable to the customers. These factors explain 33.89 per cent of the variance in the data.

Jute products are fashionable and quality products: This factor deals with the quality characteristics and performance of the jute products. These factors explain 26.39 per cent of the variance in the data.

Table 7: Constraints faced by consumers in buying jute products in Jalpaiguri and Ludhiana district

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

The table 7 depicts that the major problem faced by the consumers of Ludhiana is a lack of information about the jute products with the highest Garrett score result in support of finding of Kumar *et al*. (2020). A second important problem faced by the consumers was the unavailability of the jute products with rank second followed by poor after-sales service was rank third position. Poor quality of the jute products available in the Ludhiana district was fourth problem faced by the consumers followed by a higher price of the Jute products.

5. CONCLUSION

The study segmented the consumer market based on consumer opinions towards Jute products. The findings of the study revealed two important factors present truly consumers who exhibit a positive attitude towards Jute 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 consumer attitudes and opinion towards Jute products. Moreover, the paper discusses the constraints of the consumers toward green products. The government should support and promote a culture of Jute products. The organization deals in manufacturing Jute products should create a good institutional image, highlighted that consumers should choose products that eco-friendly and protect the environment.

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