

# CONSUMER AWARENESS ON ENVIRONMENTALLY SUSTAINABLE REGENERATED BAMBOO HOME FURNISHINGS

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## INTRODUCTION

In today's world of intense competition, environmental concerns have entered the mainstream. Recognizing the causes of environmental issues such as deforestation, pollution, global warming and ozone depletion, green marketing is an essential trend observed today. The terms environmental, ecological and nature-friendly pertain to products and services, regulations and procedures that have a negligible or nonexistent negative impact on ecosystems or the environment. Due to the increasing significance attributed to environmental protection, consumers worldwide have begun to demonstrate concern and abstain from purchasing products that have detrimental effects on the environment. The emergence of green consumerism can be ascribed to increased awareness regarding the depletion of natural resources, thereby elevating the significance of environmental protection (Geeta Rani and Sharma, 2019). Thus, green interiors are presently a prevailing trend in the field of interior designing.

Milcah Paul and Radha Rani (2018), opined that environmentally conscious consumers opt for eco-friendly building material and décor items. Decorative material

is an integral part of interior design and selection of appropriate decorative material is crucial to improve the overall aesthetics of the space. The interior design integrates furnishings from many periods of design history and holds a significant role in beautifying the interiors (Anita *et al.*, 2017). The increasing customer demand for protective, comfortable and eco-friendly products has prompted extensive research and development of renewable and biodegradable materials especially in the textile sector, as well as the implementation of environmentally conscious production procedures.

Regenerated bamboo is a type of cellulose fiber that is commonly utilized in the production of clothing and household textiles. Rathod and Kolhatkar (2014) found that regenerated bamboo fibers possess notable characteristics such as elevated tensile strength, UV protection, antibacterial and biodegradable properties, high moisture absorption and softness, and brightness, flexibility, breathability and rapid drying. These qualities contribute to the exceptional comfort provided by this fabric. Regenerated bamboo fiber is employed in the production of undergarments, personal care products.

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Bamboo textiles, which possess antibacterial, biodegradable, moisture-absorbing, soft and UV-protective properties, are much sought after. The fabric, composed of regenerated bamboo blend, enhances the natural and comfortable ambiance of homes.

The purpose of the study was to determine the awareness and perspective of consumers on environmentally sustainable regenerated bamboo home furnishings. This study undertaken in 2023 employed techniques of convenience sampling for its methodology. The samples were chosen from Saibaba colony and R.S Puram in the Coimbatore district of Tamil Nadu. A total of two hundred samples were chosen in equal proportions from both locations. The survey approach was used to obtain the primary data, utilizing a structured interview schedule. The interview schedule was developed to ascertain consumers' awareness on sustainable regenerated bamboo fabrics for home furnishings.

The participants chosen were middle and higher-income group consumers. The sample

size was evenly drawn from both the middle and higher-income groups of customers. The interview schedule was divided into three sections. The first section focused on the demographic characteristics of the participants, whereas Section 2 examined their level of awareness regarding environmentally friendly materials for interior décor. The final portion focused on customer awareness and perception of regenerated bamboo home furnishings. The scoring for the sample was done on the basis of Yes/No response with a score of 2/1 respectively. The secondary data were sourced from a variety of books published journals, and other pertinent academic resources. The gathered data was scrutinized and deciphered using percentage and Chi-square analysis.

## RESULTS AND DISCUSSION

Socio - demographic variables, including age, employment status, educational attainment, economic status, were gathered by the investigator. Age has been classified into four distinct categories. As per the

**Table 1. Socio-demographic profile of the selected respondents**

n=200			
Variables	Categories	Frequency	Percentage
Age	Up to 30 years	36	18.00
	31 - 40 years	77	38.50
	41 – 50 years	65	32.50
	Above 50 years	22	11.00
Employment status	Full time Homemakers	95	47.50
	Employed	105	52.50
Educational Status	Higher Secondary	22	11.00
	Under Graduation	91	45.50
	Post – Graduation	72	36.00
	Professional course	15	7.50
Economic Status	Higher Income	100	50.00
	Middle Income	100	50.00

**Table 2. Consumer awareness on eco - friendly materials for home furnishings**

Eco-friendly materials	Consumer awareness on selected eco-friendly materials			
	Aware	Percentage	Not Aware	Percentage
Cotton	200	100	-	-
Jute	92	46.00	108	54.00
Coir	60	30.00	140	70.00
Bamboo	22	11.00	178	89.00

demographic profile, it was found that 18 per cent of the respondents belonged to less than 30 years, 38.5 per cent were between the ages of 31 and 40 years, and 32.5 per cent were between the ages of 41 and 50 years. Eleven percent of the participants surpassed the age of fifty. The study enrolled a majority of respondents (38.5%) within the age range of 31 to 40 years. Eleven per cent of the total respondents were above 50 years of age.

In this study, most of the respondents (52.50%) stated they were working in various sectors and 47.5 percent of respondents were homemakers. The levels of education of the majority of the respondents were undergraduates (45.5%) and 36 percent of respondents were qualified with post-graduation. Regarding consumer income, an equal sample size was selected from both middle-income and higher-income respondents.

Sustainable practices for interior decoration continue to restrict the use of eco-friendly products. Additionally, consumer awareness of eco-friendly products is limited. Consumer awareness of specific eco-friendly materials for interior decoration, including cotton, jute, coir and linen, was assessed in the study.

The consumer awareness pertaining to a range of eco-friendly materials suitable for interior design is depicted in Table 2. Cent percent of the respondents were aware of

cotton-based materials utilized in interior design while awareness on utilizing jute-based materials for interior decorating was reported by 46 percent of the respondents. The results revealed that over 60 percent of the respondents lacked awareness regarding alternative eco-friendly materials like linen, besides cotton, jute and coir that could be utilized for interior design and decoration. However, least percent (11%) were aware of Bamboo as an eco-friendly material for home furnishing.

**Association between Consumer awareness on regenerated bamboo home furnishings and socio-demographic factors**

The chi-square test was utilized to investigate the relationships between personal variables and consumer awareness and results are presented in Table 3. Out of 200 respondents, 22 of respondents had awareness on regenerated bamboo home furnishings while 178 of respondents are not aware of the products for interiors. 14.3 percent of employed participants had awareness regarding regenerated bamboo home furnishings, whereas the remaining 85.7 percent were not aware (Semana *et al.*, 2025). And 7.4 percent of fulltime homemakers are aware of the products, while 92.6 percent of participants are not aware of home furnishings which are made by using regenerated bamboo fabrics.

**Table 3. Association between Consumer awareness on use of regenerated bamboo home furnishings and socio-demographic factors** n=200

Variables	Categories	Consumer awareness				X2 value	Df	P value
		Yes		No				
		f (n=22)	%	f (n =178)	%			
Occupational status	Homemakers	7	7.4	88	92.6	2.669	2	<b>.263 (Ns)</b>
	Working women	15	14.3	90	85.7			
Educational status	Up to Schooling	-	-	22	100.0	10.271	4	<b>.036(*)</b>
	Under Graduation	8	8.8	83	91.2			
	Post – Graduation	14	19.4	58	80.6			
	Professional course	-	-	15	100.0			
Economic status	Middle- Income group	5	5.0	95	95.0	7.354	1	<b>.007(**)</b>
	High-Income group	17	17.0	83	83.0			

**Ns- Not significant, \*-Significant at 5 % level, \*\*-Significant at 1 % level, df – Degrees of freedom**

Additionally, the statistical results indicate that there is an association between educational status and awareness on regenerated bamboo home furnishings. Specifically, 19.4 percent of postgraduate participants and 8.8 percent of Undergraduates had awareness, whereas. The analysis demonstrates statistical significance at the 1% level, and the obtained value is 10.271(p=0.036), representing a difference of 4. With regard to the respondents' economic status and awareness, the findings indicated that while 17 percent of high income respondents and 5 percent of middle income respondents were cognizant of regenerated bamboo home furnishings, at minimum of 5 per cent significance. The Chi-Square test yielded a significant value of 7.354 (p=0.007) at the 5% level. Consumer awareness on regenerated bamboo home furnishings is insufficient, according to the findings of the study.

#### **Consumer opinion on the market availability of regenerated bamboo home furnishings**

A total of 2.5 per cent of the respondents indicated that the products were widely available in other Indian states, while 5 per cent of the respondents mentioned that the home furnishings are available in online platforms. Regarding the availability throughout all sources 51.5 per cent of the participants were unaware. 2 per cent of the respondents indicated the availability of few items of the home furnishings which were made by using regenerated bamboo fabrics available in local market. According to the findings of the study, the majority of respondents reported being unaware of the product availability in the market places. Amanda and Xiao (2016) reported that in the United States alone, more than two hundred retailers carry bamboo textile products, including Bed Bath & Beyond,

Table 4. Consumer opinion on the market availability of regenerated bamboo home furnishings

n=200

Variables	Opinion on the market availability of regenerated bamboo home furnishings in percentage							P value
	Available	Not Available	Available in other States in india	Available in online platform	No idea on availability	X2 value	Df	
<b>Based on Educational status</b>								
Up to schooling	-	22.7	-	9.1	68.2			
Under Graduation	1.1	37.4	9.9	4.4	61.5	27.800	16	.033(**)
Post-graduation	4.2	40.3	9.7	5.6	37.5			
Professional course	-	66.7	-	-	33.3			
<b>Based on Economic Status</b>								
Middle Income	-	34.0	1.0	3.0	46.0	19.776	4	.001(*)
Higher Income	4.0	44.0	4.0	7.0	57.0			

Ns- Not significant, \*-Significant at 5 % level, \*\*-Significant at 1 % level, df – Degrees of freedom

Walmart and Macy's. These items are particularly well-liked by youthful, environmentally conscious "green" consumers who lead an eco-friendly way of life. However the bamboo home furnishings are not still popular in Coimbatore.

The findings of this investigation are presented in Table 4 indicate that 40.3 percent of postgraduates reported that the products were not widely accessible on the market in their region. Additionally, 46 per cent of middle-income category opined the lack of availability of products. However, 4 per cent of higher income who mentioned the availability in other states in India. The statistical analysis revealed the Chi – Square value of 27.800( $p=.033$ ) with significance at 5% level. Regarding, economic status of the consumers and market availability also achieved chi – square value is 19.776( $p=.001$ ), significant level at 1%.

## CONCLUSION

Regenerated bamboo fabric is a new and innovative décor that is also sustainable, environmentally friendly and offers both aesthetic appeal and a healthy, low-carbon indoor environment, where art and material considerations work together to create a safer and more pleasant area. The findings clearly reveal a significant lack of awareness among consumers with only 11 percent aware of bamboo products for home furnishings. The chi-square analysis indicated that consumer awareness is significantly influenced by personal variables such as employment status, educational status and income level. The chi-Square test yielded a significant value of 7.354 at the 1% level regarding association between economic status and awareness and a significance of 10.271 at the 5% level regarding education and awareness. In terms of consumer opinion on market availability of bamboo products, the results showed

significant variation in both educational status and income status of the respondents. This gap underscores the need for greater awareness campaigns and accessibility of bamboo-based products. Overall, the research highlights findings brought out a critical need for targeted educational and marketing efforts to bridge the awareness gap and promote sustainable alternatives like regenerated bamboo in the home furnishings sector. With growing interest in eco-friendly lifestyles, there is potential for increased consumer engagement if these products are made more visible and accessible. Consequently, regenerated bamboo blend fabrics have the potential to serve as a valuable option for home furnishing on both a national and international scale in the future.

Bamboo fabric is growing in popularity, it isn't always readily available in local stores. This means that deciding where to purchase the material can sometimes be difficult. However, there is online availability of the at (<https://www.goingzerowaste.com/blog/bamboo-fabric-sustainable-or-hype/#/>). Based on the conclusions of the study, the vast majority of the individuals are not aware of the availability of the regenerated bamboo home furnishings from any source and the awareness is significantly related to the employment status, educational status and income level of the respondents. Bamboo fabric is a material that is frequently lauded for its environmentally friendly nature.

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