

A Study of Satisfaction of Consumer Towards Use of Khadi Fabric in Thane District

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Abstract— The Study aims to evaluate the satisfaction levels of consumers with respect to khadi fabric and to explore the impact of demographic factors such as age, gender, income, and occupation on their satisfaction. Using a descriptive research design, primary data was collected from 160 respondents through a structured questionnaire. The data was analyzed using statistical tools including One-Sample t-test, Friedman test, and ANOVA. The results reveal that consumers generally express a significant level of satisfaction towards khadi, particularly appreciating its eco-friendly and comfortable attributes. However, perceptions related to modern fashion appeal remain low. The analysis also shows that satisfaction varies significantly across different age groups, gender, and income levels, while occupation does not influence satisfaction notably. The findings suggest that while khadi is valued for its sustainability, there is a need to reposition it as a fashionable and contemporary choice to enhance consumer appeal and satisfaction.

Index Terms— Khadi fabric, Consumer satisfaction, Thane district.

I. INTRODUCTION

The history of khadi dates back to ancient India, but it gained national prominence during the Indian freedom struggle when Mahatma Gandhi transformed it into a powerful symbol of self-reliance and resistance against British colonial rule. As part of the Swadeshi Movement, Gandhi urged Indians to spin their own cloth using the charkha (spinning wheel) and boycott imported textiles, especially British-manufactured goods. This gave rise to khadi as not just a fabric, but a movement representing independence, dignity of labor, and rural empowerment. Over time, khadi became synonymous with the Indian identity,

encouraging local industries and reviving handloom traditions. Post-independence, the Khadi and Village Industries Commission (KVIC) was established in 1957 to promote and support khadi production across India. While initially associated with simplicity and austerity, khadi has evolved into a fashionable, eco-friendly textile, merging traditional craftsmanship with contemporary designs and finding renewed interest among both rural and urban consumers.

Khadi, the hand-spun and handwoven fabric, holds a deep-rooted significance in India's historical, cultural, and socio-economic landscape. Originally symbolizing self-reliance and national pride during India's freedom struggle, Khadi today is more than just a fabric—it represents sustainable living and ethical consumerism. Despite the fast-changing dynamics of the textile and fashion industry, Khadi continues to maintain its relevance due to its natural appeal, comfort, and eco-friendly production process. However, consumer perception and satisfaction levels play a crucial role in sustaining its market in a competitive environment filled with modern synthetic and branded alternatives.

In recent years, Khadi has experienced a resurgence, fueled by government initiatives, promotional campaigns by the Khadi and Village Industries Commission (KVIC), and a growing awareness of sustainable fashion. Especially in urban and semi-urban regions like Thane District, where consumer preferences are evolving rapidly, it becomes important to assess whether Khadi is seen merely as a traditional fabric or as a viable everyday fashion choice. The introduction of designer Khadi, branded Khadi outlets,

and e-commerce platforms has also influenced how consumers engage with Khadi products.

Understanding consumer satisfaction involves exploring multiple dimensions such as fabric quality, comfort, price, availability, brand perception, and emotional connection to Khadi. Satisfaction is a key determinant in encouraging repeat purchases, positive word-of-mouth, and long-term loyalty. In the context of Thane District, where there is a mix of rural roots and urban growth, consumer expectations from Khadi may vary significantly across demographics like age, income, and occupation. Therefore, a detailed analysis of these factors will help in identifying what drives or limits the use of Khadi cloth among local consumers. This study aims to evaluate the level of satisfaction of consumers towards Khadi cloth in Thane District, identifying the factors that contribute to their choices and preferences. By collecting and analyzing primary data from consumers across various segments, the study will offer insights into how Khadi can better align with modern consumer expectations. The findings will be beneficial for Khadi producers, marketers, and policymakers seeking to enhance the appeal and marketability of Khadi in urban districts while staying true to its core values of simplicity, sustainability, and self-reliance.

II. LITERATURE REVIEW

1. Yadav, D., & Modi, S. K. (2023), In the research titled "Impact of Advertising on Khadi Consumer Awareness in Delhi/NCR Region" The paper concluded that advertising has a powerful impact on consumer awareness and perception of khadi in the Delhi/NCR region. Consumers who were exposed to various forms of media—including TV, print, digital, and outdoor ads—demonstrated a better understanding of khadi's cultural heritage, eco-friendly benefits, and modern relevance. The study emphasized that effective communication strategies can significantly influence consumer decisions and recommended increased marketing efforts to reposition khadi as both traditional and trendy.
2. Yadav, D., & Modi, S. K. (2022), In the research titled "Khadi Consumer Awareness in Delhi/NCR Region: Exploring Influencing Factors" The author found that consumer awareness of khadi is influenced by six main factors: advertising, price, quality, purchase intention, consumer knowledge, and information sources. The conclusion emphasized the interdependence of these variables and their role in shaping consumer attitudes toward khadi. The study suggested that to enhance consumer adoption, there needs to be a comprehensive approach combining product education, value-driven pricing, and targeted promotional campaigns.
3. Raghani, P., & Trivedi, J. (2020), In the research titled "A Study on Youth's Preference for Khadi Apparels" It concludes that although youth exhibit positive attitudes towards khadi due to its eco-friendly and indigenous appeal, actual usage is limited by a lack of contemporary designs and awareness. Young consumers are more likely to embrace khadi if it is marketed as stylish and sustainable. The authors recommended incorporating modern fashion trends, using celebrity endorsements, and expanding khadi's online presence to connect with this demographic effectively
4. Vats, N., & Sharma, K. (2020), In the research titled "Preferences of the Respondents for Hand Printed Khadi Kurtis" observed that while hand-printed khadi kurtis hold potential appeal, consumer preferences are highly specific in terms of design, color, and pattern. The study concluded that khadi's acceptance could increase if fashion designers incorporate Computer-Aided Design (CAD) and align styles with current trends. Meeting modern aesthetic expectations while retaining khadi's core identity can drive greater market penetration, particularly among fashion-conscious buyers.
5. Venkatesh, J. (2004), In the research titled "Pathways to make 'Khadi' sustainable" concluded that khadi can become a sustainable fabric of the future if efforts are made in design innovation, zero-waste production, and targeted marketing. The study emphasized that a lack of modernization in design and consumer outreach has restricted khadi's appeal, especially among younger generations. By integrating contemporary aesthetics with sustainable production methods, khadi can evolve into a mainstream fabric without losing its traditional values.

6. Trivedi, A. H. (2022), In the research titled “Khadi: The Fabric of Sustainability and Beyond” The author concluded that khadi’s sustainability credentials low water usage, minimal energy consumption, and carbon neutrality make it a highly relevant textile in the global sustainability movement. The research advocated for incr
7. Dalal, N. (2025), In the research titled “The Rise of Khadi in Gen Z Fashion Culture” concluded that khadi is gaining traction among Gen Z consumers due to its alignment with values such as sustainability, local pride, and ethical fashion. Social media, influencers, and designer collaborations have played key roles in rebranding khadi as “cool” and fashionable. However, the study warned that without adequate infrastructure for mass production and supply chain scalability, this renewed interest could plateau.
8. Dhanuka, S. (2023), In the research titled “Why Sustainable Khadi is the Ethical Choice for Today’s Conscious Consumers” concluded that khadi stands out as one of the most ethical fashion choices available, owing to its eco-friendly, chemical-free, and manually driven production process. The study highlighted khadi's potential to promote artisan livelihoods and reduce environmental damage. It recommended that fashion brands integrate khadi into their product lines and emphasize its ethical dimensions to attract conscious consumers

Research Gap

Despite the growing body of literature highlighting various aspects of khadi such as consumer awareness, youth preferences, advertising impact, sustainability, and ethical appeal there remains a significant research gap in understanding the actual consumer buying behavior and post-purchase satisfaction in specific urban districts like Thane. Most existing studies are

concentrated in regions like Delhi/NCR or remain conceptual, focusing broadly on promotional strategies and sustainability. There is limited empirical research exploring how consumers in Tier-II urban areas perceive, evaluate, and remain loyal to khadi products in the context of modern retail and fashion competition. Additionally, there is a lack of focused studies that investigate how demographic variables (such as income, education, and age) influence khadi consumption patterns at the district level. Addressing these gaps can help bridge the disconnect between khadi production and consumer adoption, offering valuable insights for policy-makers, marketers, and khadi institutions.

III. RESEARCH METHODOLOGY

The research methodology adopted for this study is descriptive in nature and is based on a structured primary data collection approach to assess consumer satisfaction towards khadi fabric. A well-designed questionnaire was used as the primary tool to gather responses from a sample of 160 respondents selected using a purposive sampling method to ensure relevant consumer representation. Statistical tools such as One-Sample t-test, Friedman test, and ANOVA were employed to analyze the data and test the hypotheses. The one-sample t-test evaluated the overall satisfaction level of consumers, the Friedman test assessed differences in satisfaction parameters, and the ANOVA test examined the impact of demographic variables such as age, gender, income, and occupation on consumer satisfaction. The data analysis was conducted using SPSS software, ensuring accuracy and reliability in interpretation, and the methodology provides a comprehensive framework to evaluate consumer perspectives on khadi fabric effectively.

IV. DATA ANALYSIS

The data analysis consists of classification of demographic factors and testing of Hypothesis

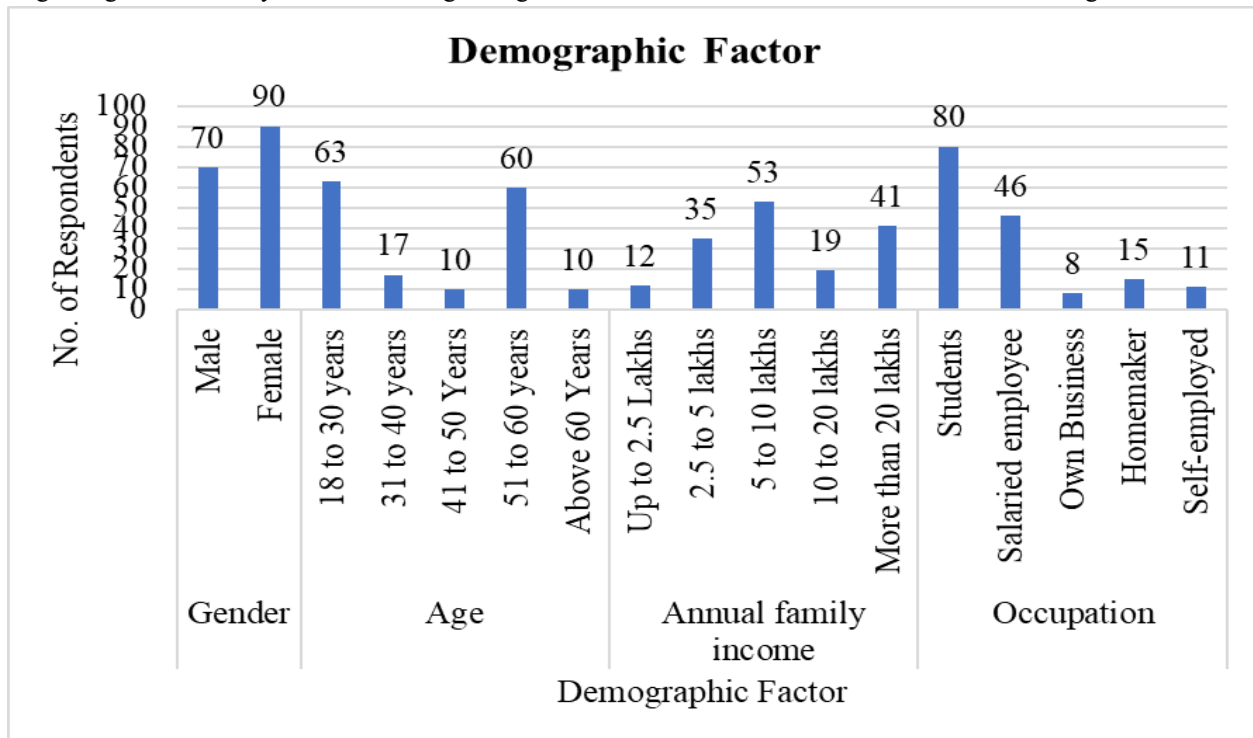
Demographic Factor

Sr No.	Particular	Category	Frequency	Percent
1	Gender	Male	70	43.8
		Female	90	56.3
2	Age	18 to 30 years	63	39.4

		31 to 40 years	17	10.6
		41 to 50 Years	10	6.3
		51 to 60 years	60	37.5
		Above 60 Years	10	6.3
3	Annual family income	Up to 2.5 Lakhs	12	7.5
		2.5 to 5 lakhs	35	21.9
		5 to 10 lakhs	53	33.1
		10 to 20 lakhs	19	11.9
		More than 20 lakhs	41	25.6
4	Occupation	Students	80	50.0
		Salaried employee	46	28.7
		Own Business	8	5.0
		Homemaker	15	9.4
		Self-employed	11	6.9

The frequency numbers presented in the table indicate the distribution of respondents across various demographic categories. Out of the total sample, 70 respondents (43.8%) were male and 90 (56.3%) were female, showing a higher participation from females. In terms of age, the majority fell in the 18 to 30 years category with 63 respondents (39.4%), followed closely by the 51 to 60 years group with 60 respondents (37.5%). The other age groups—31 to 40 years and 41 to 50 years—had relatively fewer respondents, 17 (10.6%) and 10 (6.3%) respectively, with another 10 respondents (6.3%) above 60 years. Regarding annual family income, the largest segment

earned between ₹5 to ₹10 lakhs (53 respondents or 33.1%), followed by those earning more than ₹20 lakhs (41 respondents or 25.6%). A smaller number earned up to ₹2.5 lakhs (12 or 7.5%), ₹2.5 to ₹5 lakhs (35 or 21.9%), and ₹10 to ₹20 lakhs (19 or 11.9%). In the occupation category, half of the respondents (80 or 50%) were students, while 46 (28.7%) were salaried employees. The remaining respondents included 8 from own businesses (5.0%), 15 homemakers (9.4%), and an additional 11 classified as Self-employed (6.9%), suggesting a possible overlap or a sub-classification within the student group. The following information is shown below in bar diagram.



V. OBJECTIVE AND HYPOTHESIS

Objective 1 To Study the satisfaction of consumers towards khadi fabric.

Null Hypothesis H_{01A} : There is no significant difference in satisfaction of consumers towards khadi fabric.

Alternate Hypothesis H_{11A} : There is a significant difference in satisfaction of consumers towards khadi fabric.

To Test the above null hypothesis One sample test is applied is obtained results are as follows.

One-Sample Test				
	Test Value = 60			
	t	df	P-value	Mean Difference
Opinion about satisfaction	2.594	159	.010	2.450

Interpretation: Above results indicate that p-value is 0.010. It is less than standard value of 0.05. Therefore, the one sample test is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

Conclusion: There is a significant difference in satisfaction of consumers towards khadi fabric.

Findings: To understand the findings of hypothesis, mean rank of satisfaction of consumers towards khadi fabric are obtained and presented in the following table.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Opinion about satisfaction	160	62.45	11.945	.944

The one-sample statistics table provides a summary of the respondents' opinions regarding satisfaction with khadi cloth. The sample size (N) consists of 160 respondents. The mean score of 62.45 indicates the average level of satisfaction among the participants. The standard deviation of 11.945 shows the extent of variation or dispersion from the mean, suggesting that while most respondents are clustered around the average satisfaction level, there is some degree of difference in individual opinions. The standard error of the mean is 0.944, which reflects the accuracy of the sample mean as an estimate of the population mean. A lower standard error indicates that the sample mean is a reliable estimate of the actual average satisfaction level in the population.

Null Hypothesis H_{01B} : There is no difference in parameters of satisfaction of consumers towards khadi fabric.

Alternate Hypothesis H_{11B} : There is a difference in parameters of satisfaction of consumers towards khadi fabric.

To Test the above null hypothesis Friedman test is applied and Chi-square test is obtained results are as follows.

Test Statistics ^a	
N	160
Chi-Square	156.015
df	4
P-value	.000
a. Friedman Test	

Interpretation: Above results indicate that p-value is 0.000. It is less than standard value of 0.05. Therefore, the Chi-square test is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

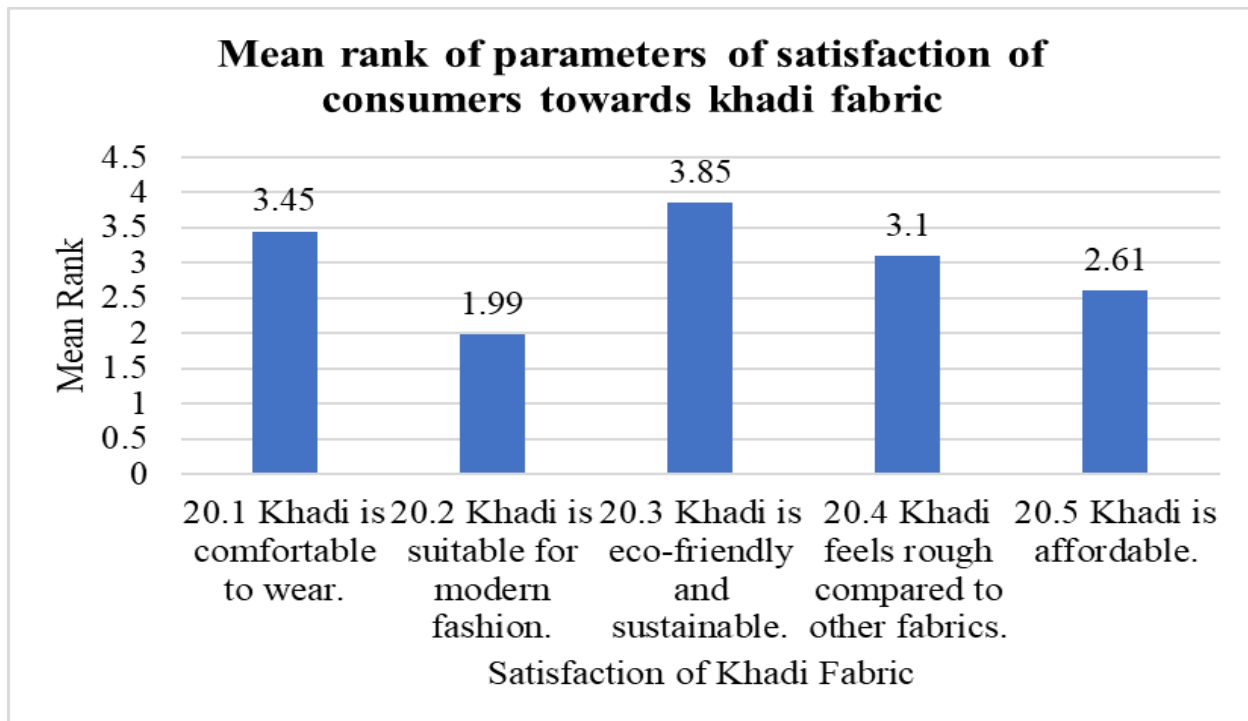
Conclusion: There is a difference in parameters of satisfaction of consumers towards khadi fabric.

Findings: To understand the findings of hypothesis, mean rank of parameters of satisfaction of consumers towards khadi fabric are obtained and presented in the following table.

Ranks	
	Mean Rank
20.1 Khadi is comfortable to wear.	3.45
20.2 Khadi is suitable for modern fashion.	1.99
20.3 Khadi is eco-friendly and sustainable.	3.85
20.4 Khadi feels rough compared to other fabrics.	3.10
20.5 Khadi is affordable.	2.61

The mean rank values provided reflect respondents' opinions on various aspects of satisfaction with khadi cloth, where a higher mean rank indicates greater importance or agreement with the statement. Among the factors, the highest mean rank of 3.85 is assigned to "Khadi is eco-friendly and sustainable," showing that respondents highly value its environmental benefits. This is followed by "Khadi is comfortable to wear" with a mean rank of 3.45, indicating that comfort is also a key factor influencing satisfaction. The statement "Khadi feels rough compared to other

fabrics" has a moderate rank of 3.10, suggesting that while roughness is noticed, it is not a major deterrent. Affordability comes next with a mean rank of 2.61, indicating that cost plays a role but is not the most critical factor. The lowest rank of 1.99 is for "Khadi is suitable for modern fashion," implying that many respondents do not associate khadi with contemporary fashion trends. Overall, the data suggests that sustainability and comfort are the most valued qualities of khadi, while fashion appeal remains a challenge.



Objective 2 To Study the satisfaction of consumers towards khadi fabric according to demographic factors.

Null Hypothesis H_{02} : There is no significant difference in satisfaction of consumers towards khadi fabric according to demographic factors.

Alternate Hypothesis H_{12} : There is a significant difference in satisfaction of consumers towards khadi fabric according to demographic factors.

To Test the above null hypothesis ANOVA test is applied and F-test is obtained results are as follows.

Variables	P-value	Accepted/Rejected
Age	0.000	Rejected
Gender	0.000	Rejected
Annual Income	0.000	Rejected
Occupation	0.442	Accepted

Interpretation: Above results indicate that p-value is 0.000 for age, gender, Annual Income. It is less than standard value of 0.05. Therefore, the F-test is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

Above results indicate that p-value is 0.000 for Occupation. It is more than standard value of 0.05. Therefore, the F-test is accepted. Hence null hypothesis is accepted and alternate hypothesis is rejected.

Conclusion: For age, gender, Annual Income, there is a significant difference in satisfaction of consumers towards khadi fabric according to demographic factors.

For Occupation, there is no significant difference in satisfaction of consumers towards khadi fabric according to demographic factors.

Findings: Age: The ANOVA analysis reveals a statistically significant difference in the level of satisfaction with khadi cloth among different age groups, as indicated by the F-value of 16.434 and a significance level of 0.000.

The mean satisfaction scores show a clear upward trend with age: younger respondents aged 18 to 30 years and 31 to 40 years reported lower satisfaction levels (57.52 and 52.00 respectively), while older respondents, particularly those above 50 years, reported much higher satisfaction (68.13 for 51 to 60 years and 74.00 for above 60 years). This suggests that satisfaction with khadi increases with age, possibly due to older individuals' greater familiarity with or appreciation for the fabric's traditional, sustainable, and cultural value.

Gender: The ANOVA results indicate a statistically significant difference in satisfaction with khadi cloth based on gender, as shown by an F-value of 14.324 and a significance level of 0.000. This p-value is well below the conventional threshold of 0.05, confirming that the observed difference is unlikely to be due to chance.

The mean satisfaction score for male respondents is 66.34, while for female respondents it is notably lower at 59.42. This suggests that male respondents are significantly more satisfied with khadi cloth than female respondents. The difference may be attributed to variations in preferences, usage patterns, or perceptions of comfort and fashion suitability between genders.

Annual Income: The ANOVA results show a statistically significant difference in satisfaction with khadi cloth based on annual family income, with an F-value of 9.530 and a significance level of 0.000, indicating that income levels significantly influence satisfaction.

The mean satisfaction scores reveal a clear upward trend: respondents with lower incomes (up to ₹2.5 lakhs) reported the lowest satisfaction at 46.67, while satisfaction increases consistently with income, reaching a high of 67.80 among those earning more than ₹20 lakhs annually. This suggests that higher-income groups are generally more satisfied with khadi, possibly due to better access to higher-quality khadi products, greater awareness of its eco-friendly value,

or a stronger alignment of their lifestyle with sustainable and traditional clothing choices.

Occupation: The ANOVA results for occupation and satisfaction with khadi cloth indicate that there is no statistically significant difference in satisfaction levels across occupational groups, as reflected by the F-value of 0.942 and a significance level of 0.442, which is well above the 0.05 threshold.

Although the mean satisfaction scores varied slightly among groups highest among self-employed individuals (65.82) and lowest among homemakers (58.13) these differences were not meaningful enough to be considered significant. Therefore, it can be concluded that occupation does not have a significant impact on consumer satisfaction with Khadi cloth in the study area.

VI. CONCLUSION

The study concludes that there is a significant difference in consumer satisfaction towards khadi fabric overall, as well as across specific demographic factors such as age, gender, and annual income, while no significant difference is observed based on occupation. One-sample and Friedman tests confirm that consumers are generally satisfied with khadi fabric, especially valuing its eco-friendliness and comfort, though concerns remain about its modern fashion appeal. Further, the satisfaction level increases with age and income, with older and higher-income respondents showing greater satisfaction, and male consumers expressing higher satisfaction than females. However, occupation does not significantly influence satisfaction, indicating uniform perceptions of khadi across different professional groups. These insights highlight the importance of demographic profiling in understanding and enhancing khadi fabric's appeal and can guide targeted promotional strategies to improve consumer engagement.

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