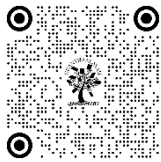


AN EVALUATIVE STUDY ON CONSUMER ATTITUDE TOWARDS THE SUSTAINABLE SANITARY NAPKINS IN KANNIYAKUMARI DISTRICT

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ABSTRACT

Sanitary napkins have been a crucial innovation in women's health, providing a hygienic solution for menstrual management. Designed to absorb menstrual blood effectively, these products have significantly improved the quality of life for women worldwide. Traditionally made with a combination of cotton, synthetic fibers, and absorbent materials, sanitary napkins have evolved to offer enhanced comfort, convenience, and protection. Their widespread availability and ease of use have made them one of the most commonly used menstrual products, addressing both functional and emotional aspects of menstruation. Despite their benefits, conventional sanitary napkins have raised concerns regarding their environmental and health impact. Many of these products are made using non-biodegradable materials, which contribute to significant plastic waste. Additionally, some napkins contain chemicals or synthetic components that may cause skin irritation or other health concerns for users. These challenges have sparked conversations around sustainable alternatives that aim to minimize environmental impact while ensuring safety and comfort for women. The important objectives of the study are to analyze the consumer attitude towards the sustainable sanitary napkins and to identify the factors influencing the consumers in purchasing sustainable sanitary napkins in the study area. The study is confined with both primary and secondary data. In order to study the consumer attitude towards the use of sustainable sanitary napkins in Kanniyakumari district 120 consumers were randomly selected as samples using convenient sampling method. The collected data were analyzed with the help of various statistical measures such as Percentage, weighted average technique and factor analysis.

Keywords: Sanitary Napkins, Sustainable, Consumers, Attitude and Awareness

1. INTRODUCTION

Sanitary napkins have been a crucial innovation in women's health, providing a hygienic solution for menstrual management. Designed to absorb menstrual blood effectively, these products have significantly improved the quality of life for women worldwide. Traditionally made with a combination of cotton, synthetic fibers, and absorbent materials, sanitary napkins have evolved to offer enhanced comfort, convenience, and protection. Their widespread availability and ease of use have made them one of the most commonly used menstrual products, addressing both functional and emotional aspects of menstruation.

Despite their benefits, conventional sanitary napkins have raised concerns regarding their environmental and health impact. Many of these products are made using non-biodegradable materials, which contribute to significant plastic waste. Improper disposal practices exacerbate environmental pollution, particularly in developing regions. Additionally, some napkins contain chemicals or synthetic components that may cause skin irritation or other health

concerns for users. These challenges have sparked conversations around sustainable alternatives that aim to minimize environmental impact while ensuring safety and comfort for women.

The demand for innovation in menstrual products has led to the development of sustainable sanitary napkins, which use biodegradable, compostable, or reusable materials. These eco-friendly alternatives address both environmental and health concerns, offering a sustainable choice for women. As awareness grows about the need for sustainable menstruation, understanding consumer preferences, barriers to adoption, and the factors influencing the shift toward sustainable products becomes essential. This exploration not only highlights the importance of eco-conscious menstrual practices but also underscores the need for accessible, affordable, and effective solutions for all women.

Sustainable consumption has emerged as a key focus in recent years as environmental and health awareness grow across societies. One significant aspect of this shift is the adoption of eco-friendly and sustainable sanitary products, which aim to reduce environmental pollution and improve health outcomes for users. Among these products, sustainable sanitary napkins, typically made from biodegradable or reusable materials, are gaining attention as a viable alternative to traditional synthetic and non-biodegradable options. These products not only address environmental concerns but also prioritize the health and comfort of women. Kanniyakumari District, known for its rich cultural heritage and progressive outlook, provides an interesting context to explore consumer attitudes toward these eco-conscious choices.

The adoption of sustainable sanitary napkins in Kanniyakumari District is influenced by several factors, including awareness of environmental impact, affordability, accessibility, and social norms. While global campaigns and governmental initiatives promote sustainable menstruation practices, the local community's receptiveness often hinges on cultural attitudes, economic considerations, and education. Understanding these factors in the Kanniyakumari context is critical to gauging the potential for widespread acceptance and adoption. Moreover, as women increasingly advocate for eco-friendly menstrual products, studying consumer behavior can provide insights into the challenges and opportunities for expanding sustainable practices in the region.

2. OBJECTIVES

The important objectives of the study are:

- 1) To study the awareness of consumers towards the sustainable sanitary napkins.
- 2) To identify the reasons for purchasing sustainable sanitary napkins.
- 3) To analyze the factors influencing the consumers towards purchasing sustainable sanitary napkins.

3. METHODOLOGY

3.1. SOURCES OF DATA

The study is confined with both primary and secondary data. The primary data is collected through a well-structured interview schedule and the secondary data have been mainly collected from the books, journals, magazines, and also from the internet.

3.2. SAMPLING DESIGN

In order to study the consumer attitude towards the use of sustainable sanitary napkins in Kanniyakumari district 120 consumers were randomly selected as samples using convenient sampling method.

3.3. STATISTICAL TOOLS USED

The collected data were analyzed with the help of various statistical measures such as *Percentage, weighted average technique and factor analysis*.

4. ANALYSIS AND INTERPRETATION

4.1. PROFILE OF THE RESPONDENTS

The parameters such as age, educational qualification, area, type of family, marital status and family income are considered in the present study to understand the socio-economic and demographic profile of the respondents and are exhibited in Table 1.

Table 1 Profile of the Respondents

Profile Variables	Particulars	No. of Respondents	Percentage
Age (in years)	15-25	54	45
	26-35	51	43
	36-45	13	11
	Above 45	2	1
	Total	120	100
Educational Status	School level	10	8.33
	Graduate	36	30
	Post Graduate	26	21.67
	Professional	30	25
	Others	18	15
	Total	120	100
Area	Rural	22	18.3
	Urban	40	33.3
	Semi Urban	58	48.4
	Total	120	100
Type of Family	Nuclear	28	23.3
	Joint	92	76.7
	Total	120	100
Marital Status	Married	65	54.17
	Unmarried	55	45.83
	Total	120	100
Monthly Income	Rs.10,000 - 20,000	12	10
	Rs.20,001 - 30,000	38	31.67
	Rs.30,001 - 40,000	60	50
	Above Rs.40,000	10	8.33
	Total	120	100

Source: Primary Data

It is found out from Table 1 that 45 percent of the respondents belongs to the age group of 15 to 25 years. 30 percent of the respondents are graduated. Most of the respondents (48.4 percent) are from semi urban area. The type of the family of the respondents revealed that 76.7 percent of the respondents are living in joint family. 65 percent of the respondents are married. 50 percent of the respondents had a monthly income of Rs.30001 to Rs.40000. Thus, it is inferred that educated and married young women are interested to use sustainable sanitary pads in Kanniyakumari district.

4.2. AWARENESS ABOUT SUSTAINABLE SANITARY NAPKINS

The researcher further analyzed the awareness of the consumers and the results are presented in the following table.

Table 2 Awareness about Sustainable Sanitary Napkins

S. No	Opinion	No of Respondents	Percentage
1.	Yes	52	44
2.	No	68	56
	Total	120	100

Source: Primary data

From the above table it is inferred that, 56 percent of the respondents are unaware of about sustainable sanitary napkins and the remaining 44 percent of them are aware about sustainable sanitary napkins in the study area.

4.3. MATERIALS USED IN SUSTAINABLE SANITARY NAPKINS

The sustainable sanitary napkins are made by many materials and the classification on the above basis is illustrated in the following table.

Table 3 Materials used in Sustainable Sanitary Napkins

S. No	Material	No of Respondents	Percentage
1.	Organic cotton	66	55
2.	Silicon	14	11.67
3.	Cloth	40	33.33
	Total	120	100

Source: Primary data

From the above table it is clear that, 55 percent of the respondents said that the napkins used by them are made by organic cotton, 33.33 percent of them said that cloth and the remaining 11.67 percent of them said that the material used in the napkins used by them is silicon.

4.4. REASON FOR USING SUSTAINABLE SANITARY NAPKINS

There are many reasons for using Sustainable Sanitary Napkins by the consumers. The ranks assigned by the consumers are converted into weighted average scores and presented in the following table.

Table 4 Reason for using Sustainable Sanitary Napkins

Sl. No	Reasons	Weighted average score	Rank
1.	Low cost	31.9	VII
2.	Extra long	60.3	II
3.	More absorbance	53.7	IV
4.	Quality	61.2	I
5.	Familiarity	50.2	V
6.	Popularity	46.0	VI
7.	Hygiene management	57.7	III

Source: Computed data

It is revealed from the above table that the reason quality score (61.2) high and hold rank first, the reason extra-long (60.3) and hygiene management (57.7) holds second and third rank respectively in the reasons for using sustainable sanitary napkins.

4.5. FACTORS INFLUENCING THE PURCHASE OF SUSTAINABLE SANITARY NAPKINS – FACTOR ANALYSIS

There are many factors which influence the choice of buying the sustainable sanitary pads. The factors influencing the choice of sustainable sanitary pads typically include environmental impact such as biodegradability, eco-friendly materials, health consideration and ethical factors such as fair labor practices and social responsibility of the brand.

Factor analysis was applied to find out the dominant factors influencing for the purchase of sustainable sanitary napkins. The inter-correlations between the ten variables were analyzed using principal component analysis (PCA) and Varimax Rotation of factor analysis. The results of Rotated Component Matrix of ten variables of factors along with the communalities are exhibited in the following table.

Table 5 Rotated component matrix

Factors	Components		
	1	2	3
Health benefits	.808		
Quality	.726		
Reusability	.706		
Comfort	.678		
Longevity			.546
Brand name		.759	
Availability		.742	
Customized size		.673	
Performance properties		.634	
Affordability			.880

Source: Computed data

4.6. EXTRACTION METHOD: PRINCIPAL COMPONENT

Analysis Rotation Method: Varimax with Kaiser Normalization

The above table exhibits the rotated factor loading for ten variables. It is observed that all the ten variables have been extracted and were considered to be influential in the chance of sustainable sanitary napkins. The ten variables were reduced to three factors.

4.7. THE THREE FACTORS WERE PRESENTED ALONG WITH THEIR VARIABLES.

1) Functional Benefits

The personal attributes which induce the purchase of sustainable sanitary napkins are presented in the following table.

Table 6 Functional Benefits

S. No	Variables	Factor Loading
1.	Health benefits	.808

2.	Quality	.726
3.	Reusability	.706
4.	Comfort	.678

Source: Computed data

The factor includes the variables such as health benefits, quality, reusability and comfort were comes under the personal factors and the health benefits is identified as the most influencing functional benefits towards the purchase of sustainable sanitary napkins.

2) Marketing Attributes

The marketing of a product is vital to stimulate demand and influenced by it. The variables defining component – two with their factor loading are presented in table 7.

Table 7 Marketing Attributes

S. No	Variables	Factor Loading
1.	Brand name	.759
2.	Availability	.742
3.	Customized size	.673

Source: Computed data

The variables such as brand name, availability and customized size were included in the second component and it is inferred that the marketing attribute brand name highly influence the consumers to purchase the sustainable sanitary napkins.

3) Product Attributes

The product attribute was the most influencing factor of the choice of buying sustainable sanitary Napkins. The significant variables are longevity, performance properties and affordability.

Table 8 Product Attributes

S. No	Variables	Factor Loading
1.	Longevity	.546
2.	Performance properties	.634
3.	Affordability	.880

Source: Computed data

The variables such as longevity, performance properties and affordability were included in the third component and the product attribute variable performance properties highly influence the purchase of sustainable sanitary napkins.

5. FINDINGS

The major findings of the study are:

- The researcher found out that 45 percent of the respondents belongs to the age group of 15 to 25 years and all of them are educated.
- Most 48 percent of the sample consumers are from semi urban area.
- Majority 76.7 percent of the respondents are living in joint family.
- From the total 120 respondent's 54.17 percent of the respondents are married.
- It is found out that 50 percent of the respondents are earning Rs.30001 to Rs.40000 as monthly income.

- Most 56 percent of the respondents are unaware of sustainable sanitary napkins.
- The researcher revealed that 55 percent of the respondents said that the napkins used by them are made by organic cotton,
- The reason quality score high and hold rank first, the reason extra-long and hygiene management holds second and third rank respectively in the reasons for using sustainable sanitary napkins.
- The ten variable comes under the factors influencing the purchase of sustainable sanitary napkins are extracted into three factors namely functional benefits, marketing attributes and products attributes. It is also found out that the health benefit is identified as the most influencing functional benefits and the marketing attribute brand name highly influence the consumers to purchase the sustainable sanitary napkins. It is also found out that the product attribute variable performance properties highly influence the purchase of sustainable sanitary napkins.

6. CONCLUSION

The study on consumer attitude towards the use of sustainable sanitary napkins in Kanniyakumari District provides valuable insights into the demographic, economic, and behavioral factors influencing the adoption of sustainable sanitary napkins. The findings reveal that a significant portion of respondents are young, educated, and primarily residing in semi-urban areas, with a majority living in joint families. These demographics indicate a potential for targeted awareness programs and interventions that consider the cultural and social dynamics of the region. It is concluded that while sustainable sanitary napkins are gaining traction in Kanniyakumari District, the findings indicate a need for enhanced awareness campaigns and education on the environmental and health benefits of these products. Efforts should also focus on making these products more accessible and affordable to a broader population. By addressing these gaps and leveraging the identified influential factors, policymakers, businesses, and non-governmental organizations can promote the adoption of sustainable menstrual products, contributing to improved health, environmental sustainability, and consumer satisfaction in the region.

CONFLICT OF INTERESTS

None.

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REFERENCES

- Boopathy, S., & Suresh, M. (2021). Factors influencing the adoption of sustainable menstrual products in India: A consumer perspective. *International Journal of Consumer Studies*, 45(4), 763–775.
- Devi, R., & Singh, M. (2020). Awareness and attitude towards sustainable menstrual practices: A study among women in rural India. *Asian Journal of Social Science*, 48(3), 245–259.
- Goyal, S., & Chopra, R. (2022). Sustainable sanitary napkins: Awareness and adoption among Indian women. *Journal of Sustainable Development Studies*, 15(2), 91–105.
- Kumar, A., & Gupta, S. (2020). Environmental impact of menstrual waste: A study on the adoption of biodegradable sanitary products in India. *Waste Management Journal*, 38(2), 15–25.
- Patel, R., & Thomas, M. (2019). Marketing strategies for eco-friendly sanitary products: Insights from Indian consumer behavior. *Journal of Marketing Research and Practices*, 13(1), 45–58.
- Sharma, P., & Verma, A. (2021). Health and hygiene concerns among Indian women: A study on sustainable menstruation practices. *Journal of Health and Environmental Research*, 10(3), 123–136.
- Verghese, T., & Joseph, A. (2020). Consumer attitudes toward sustainable hygiene products: An exploratory study. *Sustainability in Action*, 8(5), 67–79.