

Preferences and Perception of Women towards Various Organic Menstrual Products

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Abstract

The study examines the perception and preferences of women towards organic menstrual products. The outcomes related to the preferences related to the popularity of products such as comfort, availability and price along with perception of women towards organic menstrual products are also explored in this study. A descriptive study was conducted among 357 Indian women (aged 12 to 55 years) using descriptive statistics. The analysis indicates challenges for using organic menstrual products are – disposal, longevity, comfort and availability. Awareness about organic products is a major hurdle that needs to be addressed to ensure organic menstrual products' popularity among all age groups and socio-economic strata. The awareness programs need to be designed in collaboration with Gynecologists, educational institutions and NGO along with Government Bodies.

Keywords

Women Buying Behavior, Environment Friendly, Perception towards Menstruation, Organic Menstrual Products.

JEL Classification:

Q15 (Environment), Q28 (Government Policy), Q56 (Sustainability).

1. Introduction

Women are taking keen interests in choosing menstrual products that make an impact on their personal lives. Women have a “bloody companion” for a major portion of their life and they can choose how to live with that companion; how to make the journey more comfortable. Options too are generously spread with companies making a wide variety of products to meet the needs

of each and every woman belonging to different economic strata of society.

Price, promotion, availability, ease of use, comfort, and value for money, packaging (Yulisetiari, 2013) and its overall worth could be the reasons behind choosing a particular product. The sale of product depends on customer's satisfaction. Menstrual products are promoted for safe and hygienic practices during menstruation. The Ministry of Health and Family Welfare

is working relentlessly to bring awareness about safe and hygienic menstrual practices.

Menstruation is an integral part of a woman's life. When a girl reaches puberty she goes through life altering changes in her body. These changes make or break a woman's personality. (Critchely et al, 2020). The perception once developed towards menstrual cycle remains for a lifetime. There are many myths and preconceived ideas and notions about menstruation when it comes to Indian women. This comes with many do's and don'ts for women who are menstruating. (Garg et al 2011). These "difficult days" of a woman's life are dealt with differently depending on their cultural, social, religious and economic background. (Kaur et al ,2018). Further education and awareness of safe and hygienic menstrual practices also impacts/ affects the perception and preferences of women.

Today's woman has gained independence in many ways and yet is chained in her own psyche due to her ignorance, superstitions and perception. Women have been at the forefront at every stage of life and career options have opened up for them. The financial independence of women and awareness about safe and hygienic menstrual practices have brought in perceptual changes and also in the preferences of varied menstrual products. The various menstrual products available in market today are:

- i) Sanitary Napkins (Organic/Inorganic)
- ii) Tampons(Organic/Inorganic)
- iii) Period Pants
- iv) Reusable Sanitary Napkins
- v) Menstrual Cup

The researchers' primary objective is to understand the preferences and perception of women towards various menstrual products. The researchers' latent objective

is to make women aware about organic menstrual products and also identify reasons for non-readiness of women towards biodegradable menstrual products. It is imperative that women be sensitized towards this ever growing problem of solid waste management in India.

Sanitary napkins are one of the most common menstrual hygiene products used in India after menstrual cups, tampons' and cloth pads. Sanitary napkins are disposable and they can have an adverse impact on the environment due to the huge amounts of plastics they contain. Further the manufacturers of sanitary napkins do not disclose the number of allergens or irritants one could be susceptible to. (Desmedt et al, 2015). Many women are not aware about the adverse effects of these plastic sanitary napkins on the environment. (Perberdy et al 2019). A woman produces a lot of waste during her reproductive years and this menstrual waste is a cause of concern. (I. Swenson and B. Havens, 1987). This waste though unavoidable can be managed through proper disposal methods. According to a survey conducted by Menstrual Health Alliance India we produce 12 billion pads a year, which nearly adds to 5.7 trillion plastic bags each year through the use of sanitary napkins. (Pattar S, 2020). Water research and pollution control and prevention rank first and second, respectively, in terms of research focus in sustainability during the last few years. (Goni et al, 2015) .

The Indian Government has issued guidelines for safe disposal of sanitary waste based on the Swachh Bharat Mission Gramin (SBM-G) Menstrual Hygiene management (MHM). (*Guidelines issued by the Ministry of Environment, Forest and Climate Change, Government of India*). Therefore, effective management of menstrual waste is the need of the hour.

The researchers aim to bring to fore the factors that lead to choice of using a particular menstrual product. This will also

create a platform for policy makers, NGO's, Educational institutions to educate girls and women about safe disposal of menstrual waste thereby aligning to the sustainable development goals.

Further it is imperative to understand the importance of proper menstrual hygiene as this affects the physical and mental wellbeing of women. Sustainable development Goals of SDG3 (physical health and psycho-social well-being for women and girls), SDG4 (quality education for girls), SDG5 (gender empowerment and equality), SDG6 (water and sanitation), and SDG12 (responsible consumption and production for the environment) which are linked to menstrual hygiene management in some way or the other. (Elledge et al, 2018)

1.1 Research Questions and Objectives of research

The purpose of the study is to determine what level of environmental awareness women have regarding menstrual products and whether this awareness influences their product choices. To achieve this, the study examined the following research questions:

1. What is the buying behaviour of women towards various menstrual products available in the market?
2. What are the perceptions of women towards purchase and use of organic menstrual products?
3. What are the women's preferences towards disposal of sanitary napkins?
4. Are women aware about the damage to the environment because of non-degradable waste produced due to sanitary napkins?

In order to answer above questions, following objectives are chosen

1. To identify the women's purchase behaviour towards various menstrual products.
2. To measure the level of awareness about various organic menstrual products among women.

3. To find the challenges for the purchase and use of organic menstrual products.
4. To identify whether women think about a sustainable environment before purchase and use of menstrual products.
5. To determine the reasons for buying a particular type of menstrual product

2. Literature Review

Organic products are those products which are made through a farming process which uses no artificial fertilizers. Organic food products, clothing products and personal care products can be produced using green manure, compost manure, bone meal, etc. (Pieters, Adrian, 1927). These farming practices are highly beneficial in terms of saving the environment as well as avoiding harmful effects of pesticides on our health.

Organic personal care products like cotton clothing, tampons, lotion, shampoo are gaining popularity after brands like Nike, Levis and Adidas are promoting clothing which are going in for the 2025 Sustainable Cotton Challenge. (Leighton Mara, 2019). The real challenge lies in the affordability of these organic products as they come with heavy price tags.

Stoleru V., Munteanu N and Istrate A (2019) have brought out the perception of people about organic farming and have brought forward an important finding that education level is not related to the perception and choice of organic food products. Further the researchers also concluded that organic products were found to be tastier but less appealing.

Gundala R, Singh A (2021) have discussed consumer perception on organic foods. Their study identified the factors that affect the consumer buying behavior towards organic food. People are more health conscious, are more aware about benefits of organic foods and hence prefer organic

products; though availability is one of the major hindrances.

Rohmatin F & Habsari S.K. (2021) conducted a study in Indonesia discussed the perception of women on the environmental waste created by the menstrual products. The study came out with the findings that most of the women use disposable pads which lead to pollution. These pads which are non-biodegradable pollute the soil and choke the water bodies too. Unfortunately, even though women are aware about the harmful effects to the environment, they are not ready to make a switch because of many reasons.

Alhelou N, et al (2021) discussed in detail the need of policies addressing the menstrual management in developing countries of India, Kenya, Senegal, and the United States. They focused on the menstrual products and facilities being provided to the women. It also brings out the stigma associated with menstruation in these countries and problems faced by the women due to societal perceptions.

Foster J & Montgomery P (2021) have brought forward a critical aspect related to menstruation and i.e. the affordability of reliable sanitary products. The researchers have discussed the problems associated with menstruation or unavailability of reliable menstrual products can lead to absenteeism in schools. Further the disposal of these products is a cause of concern in terms of environmental degradation and is a matter of embarrassment for girls. The research brought to the fore the fact that affordable biodegradable products made from linen, cloth and bamboo wadding can be used to solve the problem of pollution as well as lead to increased level of education among girls of low and middle income countries.

Pokhrel D, et al (2021) have brought forth the key issues related to menstrual practices among school girls. The researchers conducted a pilot study on use of menstrual cups. The study conducted a

positive relation between use of menstrual cups and reduction in absenteeism. Further the study also helped in removing the myths and queries relating to use of menstrual cups thereby adding to the sustainability of the area as well as reducing the economic burden on the families.

Kaur R, Kaur K and Kaur R (2018) explored menstrual hygiene management in developing countries. Women have to face a lot of embarrassment, infections and loss of school or work days due to poor menstrual practices, ignorance about safe hygienic practices and lack of affordable sustainable products. The study has emphasized the importance of biodegradable products made from bamboo and banana fiber, water hyacinth and cotton, along with reusable cloth pads. Also education and awareness needs to be brought in terms of proper disposal of menstrual waste.

Hennegan J, et al (2017) have emphasized the school girls plight when it comes to menstruation. Many of them miss out on school days, participate less in activities and routine work due to fear of soiling the clothes. The reusable pads too did not help much in giving them the much needed relief in menstruation.

Much has been discussed and proposed about the safe and hygienic menstrual practices, but very few have reported about the choices of women and the reasons behind using menstrual products. Menstruation is a topic which is not discussed openly and hence a research on preferences and perception of women towards organic menstrual products was not clearly studied.

Menstrual products such as sanitary napkins, cloth pads, and pads made from bamboo fiber or home cloth, tampons or menstrual cups are available in the market. But awareness of women towards their impact on the environment is minimal. Government has started the initiative in

2011 towards creating awareness about sustainable menstrual practices but its reach is still questionable. Key question remains – Why do women not prefer organic menstrual products over other products?

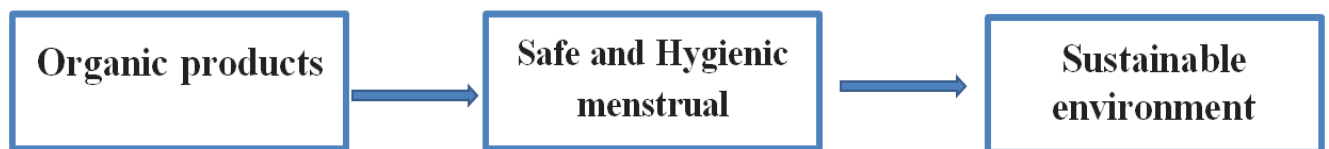
Further research is required to bring to the fore the factor that drives women to choose a particular product. Once these reasons are known, one will be able to match the available organic products to the needs of the women. This in turn will result in creation of products which are environment friendly as well as suit the needs of women. The expected outcome will be sustainable

and safe menstrual practices which are as per the preferences and perception of women. It is therefore crucial to address this important issue.

3. Conceptual Model

The research started with the conceptual model that emerged through a literature review. The model proposed environmentally sustainable usage through creation of a favorable value proposition in the minds of women. For this it is essential to understand the preferences of women and their reasons for choosing a product.

Figure 1 Conceptual Model perceived by authors



4. Methodology

4.1 Hypothesis

The existing literature reported the choice of menstrual products based on factors such as comfort, price, availability, peer opinion and awareness. The following hypotheses are hence put forward on the outcome of the pilot study conducted.

H01: Choice of brand for purchase of menstrual products is independent of demographic variables

H02: Awareness of organic menstrual products among women is independent of demographic variables

H03. There is significant correlation between awareness of organic menstrual products and purchase of menstrual products.

The primary data was collected from women users on Snowball sampling techniques by administering the structured questionnaires. The secondary data had

been collected from Ministry of Women and Child Development, Ministry of Health and Family Welfare, Swachh Bharat Mission Gramin (SBM-G), Menstrual Hygiene Management (MHM) (UNICEF guidelines 2019), Ministry of Environment, Forest and Climate Change, Government of India, and other agencies involved in production and marketing of organic menstrual products in India. Apart from this, the secondary data was also collected from published books, reports, journals, magazines, and published research.

In order to understand the demand factors in organic products and the consumer's perception of menstrual products and awareness of organic menstrual products in India the following sample size was used to collect the primary data:

The Population for the research was unknown. Target sample size was 384 but received valid responses were 357. 15 Gynaecologist were interviewed to know their opinions about the use of various menstrual products by the women and girls.

Link used for the questionnaire is: <https://forms.gle/rCXqtGy1HTBW5rSY7>

Cronbach alpha for reliability of questionnaire is: .787

Descriptive statistics was adopted to analyse the consumer's response towards organic menstrual products in India. Correlation analysis is used to identify the interrelationship between variables of study.

5. Results and Discussions

5.1. Profile of Respondents

Women from various cities of India participated in the survey. Women from Nagpur, Amravati, Gondia, Bhandara, Yavatmal, Bhandara, Hinganghat, Mumbai, Lucknow, Kolkata, Delhi, Meerut, Sonapat, Vadodara, Chandigarh, Chennai, Jamshedpur, Bhopal, Jaipur, Kanpur gave their feedback about menstrual products and suggestions in the survey.

Age of Respondents

Finding: The ages between 19-25 years are maximum aware about organic menstrual products as they are reading consistently about the environmental issues associated with disposal of menstrual products after

use through the available social media channels and also understanding them.

Occupation of Respondents

Finding: The maximum responses were from students which comprised around 41.6 % of total responses followed by Teachers (20.8%), Home makers (10.7%), Entrepreneurs (4%). The results indicate that none of the respondents are illiterate, and most consumers are students.

5.2 Hypothesis Testing and Analysis

H01 i.e. the choice of brand for purchase of menstrual products is independent of demographic variables. It is necessary to know the demographic profile of respondents and purchase behaviour towards particular brands.

H02 i.e. awareness of organic menstrual products is independent of demographic variables as it is necessary to know if, awareness about these products is dependent on demographics of respondents.

H01 and H02 is tested using Chi-Square test and it was found that choice of brand and awareness of organic Menstrual products is independent of Demographic variables.

Null Hypothesis	Statement	P- value	Accept/Reject
H01	Choice of brand for purchase of menstrual products is independent of demographic variables		
	Age	.397248	Accepted
	Occupation	0.638773	Accepted

	Qualification	0.218045	Accepted
H02	Awareness of organic menstrual products among women is independent of demographic variables		
	Age	0.379	Accepted
	Occupation	0.670162	Accepted
	Qualification	0.50315	Accepted

H03 i.e. there is significant correlation between awareness of organic menstrual products and purchase of menstrual products; so that it could be ascertained if awareness leads to purchasing of organic menstrual products. But we found no correlation by using Pearson correlation.

This shows that even though women are aware of organic menstrual products, they are not purchasing these products. This shows that there is a need for value creation in the minds of women towards organic products.

		Awareness Towards Organic Menstrual Products	Give a thought for sustainability before purchasing menstrual Products
Awareness Towards Organic Menstrual Products	Pearson Correlation	1	-.134
	Sig. (2-tailed)		.061
	N	357	357

5.3 Category of using menstrual products

Finding: From the survey it was depicted that Sanitary napkins (93.4%) were preferred the most (Aurugula et al, 2019) followed by Cloth (6.1%) and Disposable cloth made pads (5.1%), Menstrual cups (6.6%), Tampons (4.6%) and pads (0.5%).

5.4 Preference of choosing a particular menstrual product

Finding: From the survey it was found that the respondent's preference for choosing any menstrual products was Comfort (83.2%), (Aurugula et al, 2019), Availability (37.1%) (UNICEF, India, 2021), Price-Affordability (3%), Ease of disposal (28.4%), Longevity (22.8%) and Others (1.2%). Menstruation is associated with many beliefs, cultural and religious practices. (Yaliwal et al, 2020). Women skip work, young girls skip school or

colleges due to discomfort or shame. Emotional state and lifestyle of a woman is deeply affected by menstruation. (Garg and Anand, 2005). Thus comfort becomes the most preferred option while choosing any menstrual product.

5.5 Most preferred brand of Sanitary Napkins in India

Finding: From the survey it indicated that the most preferred brand was Whisper (61.9%), Stay Free (42.8%), Sofy (19.1%), Nua (3.6%), Peesafe(3.1%) and others(0.5%). Sanitary napkins which are made from plastic using chemicals absorb more and hence give more protection from soiling (Woeller and Hochwalt,2015). Thus most of the women prefer this brand which comes in many sizes and patterns. Sanitary napkins are chosen by most Indian women. (Indian T.L., 2019)

5.6 Awareness about organic menstrual products

Finding: From the survey it indicated that 66.5% respondents are aware about organic menstrual products and 33.5% are not aware. Educating girls about menstrual hygiene is important to prevent infections and cervical cancer (Sudeshna, R., & Aparajita, D., 2012, Dahiya et al,2016). Not only the girls, but their mothers and families also need to be aware of how important it is to offer support and understanding. Misconceptions and taboos surrounding insertable products, such as menstrual cups (Hennegan, 2019) and tampons, are also deeply rooted in Indian society. (Pract, J Gen., 2013)

5.7 Preference towards buying biodegradable menstrual products

Finding: Only 13% respondents are using Biodegradable products out of which 47% purchase products online and for 53.3% respondents price matters while buying biodegradable products

5.8 Thought before purchasing sanitary napkins as they are not environment friendly and create huge plastic waste

Finding: From the survey it depicts that 35.4% respondents strongly agree 66and give a thought before purchasing but others sighted cost as a major issue with organic menstrual products. Another issue that deters them from buying organic pads and other products is the availability. (Gundala, R. R., & Singh, A. ,2021). The respondents are aware and sensitive towards environmental hazards caused by non-organic products. But this does not deter them from buying products which are harmful to the environment. Many women find sanitary napkins easy to dispose of and hence continue to buy them. (Indian T.L.,2019)

5.9 Method of disposal used for menstrual products

Home: Dustbin(89.2%) College/
Institute/Workplace: Dustbin (12%),
Incinerator (43%)

Finding: From the survey it is revealed that none of the respondents at home segregates the menstrual waste; whereas some use the incinerators at the workplace. The sanitary napkins are disposed off along with other household waste which makes it very difficult for sanitation workers to segregate waste. Many women bury, flush or burn the menstrual waste. (Chandra-Mouli V, Patel SV., 2020). Safe and hygienic disposal mechanisms should be put in place to ensure that this waste is managed and disposed of properly.

5.10 Gynaecologist opinion on menstrual practices and products used

The researchers interviewed 15 gynaecologists and understood their stance on the available menstrual products and use of organic menstrual products.

The Federation of Obstetrics and Gynaecologists is promoting menstrual

health through various camps and awareness programs. They are promoting organic menstrual products through lecture series in colleges and schools. Even demonstration of usage of menstrual cups is taken by these doctors and myths and misconceptions regarding its cleaning and storage. A leading gynaecologist states that young girls are more open to using menstrual cups as they are beginning their journey. The mothers need to be more open and let the girls use cups without any fear (breaking of hymen). We advise against use of cloth as the germs can stay in the fibre if it's not washed properly and the cloth needs to be dried in sunlight.” Another doctor suggests the use of cotton based sanitary napkins which are biodegradable making it more environmentally friendly. The doctors also mentioned problems women come with after or during menstrual cycle-irritation, rash or even infection. This is due to allergens and irritants in the sanitary napkins (made of harmful chemicals which soak the blood) and women are not aware about the side effects of these napkins.

Rural areas have different issues such as superstitions, misconceptions along with lack of awareness about different products available in the market. These are the areas which need more attention from NGO's and policy makers about eco-friendly menstrual products and effective ways to dispose of these products.

It became very clear from the interviews of the gynecologists that the majority of the women use sanitary napkins even though the common complaints of irritation and infection persist. Alternative products such as tampons, menstrual cups and cotton pads are gaining popularity, there still is a huge market to capture and promote “sustainable periods”.

5.11 Respondents Views/Feedback

The survey brought out some very important views and suggestions of women towards menstrual practices, disposal methods, superstitions and misconceptions,

along with suggestions to promote organic products.

- Awareness about organic products came out to be a major hurdle in its use.
- Women were having various misconceptions, fears about menstrual cups (if the cup will get stuck, will it break hymen in unmarried girls, fear of inserting outside product, its washing methods, etc)
- Sanitary napkins are made out of non-degradable material that was not known to the majority of women.
- Menstrual hygiene (washing, cleaning to prevent infections) was important to each and every woman; though many women complained about the lack of hygienic places to change and dispose of pads in the workplace or educational institutions.
- Disposal of pads or menstrual waste is a big issue for women. Disposing with household waste (wet waste or kitchen waste or sometimes not segregated) is a common practice. For disposal of menstrual products, awareness should be created widely.
- Organic products are not easily available in the market. Cotton based pads need to be within reach of women, so that they can use it.

6. Suggestions:

Perception of women towards menstrual products was studied through this survey. Their thoughts, views and opinions made it clear that the majority of women are unaware about sustainable menstrual products. Availability of these products though is a major hurdle in their use. Hence the researchers would like to offer following suggestions:

1. Awareness programs (Eijk et al, 2016) through various media

(advertisements, social media and campaigns in educational institutions) can increase the usage of eco-friendly products. Fear of use and its practical use can be demonstrated through training by doctors. Obstetrician and Gynecological associations can hold camps in educational institutions to explain the ways to tackle pain and discomfort during menstruation.

2. Availability of organic menstrual products (menstrual cups, reusable pads, cotton pads or period pants) need to be within the reach of everyone. These products are majorly sold via online medium and are little priced more than the other products. The distribution of these products needs to be worked upon. Medical stores, supermarkets, local shops too should keep these products and promote them.
3. Disposal mechanisms like Incinerators (cement made, clay made) can be installed in big societies, schools, colleges, workplaces, slum areas where the menstrual waste can be disposed of in an easy way.
4. Government has started the initiative of distribution of sustainable menstrual products (menstrual cups and cotton made pads) but it has not reached far. This initiative needs to be brought out and promoted in a big way and NGO's can play a crucial role in creating awareness as well as educating young girls about benefits of menstrual cups and removing the misconceptions surrounding its use. (Vadera 2021)
5. Companies like Whisper and Stay free which came out to be the most preferred brands can take the fact into consideration that their

products have a negative impact on the environment. Hence they can come up with napkins that are sustainable as well as comfortable and have good absorption capacity.

7. Conclusions

Accessibility is determined by demand. Comfort, ease of disposal and availability are the factors which affect the buying behaviour of menstrual products. The researchers conclude that perception of women towards organic products is surrounded by many misconceptions and ambiguity. Further the available products are pocket friendly as well as widely available which makes it hugely popular among women. As organic and eco-friendly products become increasingly popular, the market will thrive and awareness will increase. As organic disposable sanitary products are more expensive in India, low-income households are sceptical of these products. There has been a slow transition to using organic sanitary products, hampered by a lack of information, access and stigma. In addition, the study found not a single respondent segregated menstrual waste, meaning the vast majority of it ended up in landfills which are an alarming signal for researchers to make women of all ages aware about the available organic menstrual products. The researchers would like to draw attention of policy makers and manufacturers of menstrual products towards the mandatory need of each household for disposal options along with continuous awareness and vigilance for the same.

8. Expected Outcome of the study

The study has brought forth some very important points related to menstrual practices, products used by women and its reasons and issues of disposal.

Menstrual Practices	Disposal methods (Municipal corporations)	Menstrual products (Manufacturers, Policy Makers)
<ul style="list-style-type: none"> ● Awareness about hygiene and menstrual health is the need of hour. ● Educational institutions, NGO's can come together to educate women about safe practices 	<ul style="list-style-type: none"> ● Waste management, waste segregation ● Incinerators can be installed in big societies, parks, malls, educational institutions, hospitals and hotels too. ● Campaigns on educating women on disposal methods 	<ul style="list-style-type: none"> ● Organic products to be made advertised on TV and Social Media to create awareness. ● Organic products to be easily available ● Manufacturers can use environmentally safe raw materials like cotton, bamboo fiber or other degradable materials.

9. Limitations

The study has been confined to India and organic menstrual products only. The inference drawn purely on the responses obtained from the respondent in the study area.

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