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**A RESEARCH ON WOMEN'S PREFERENCES, EXPERIENCES, DEMANDS FOR QUALITY AND INNOVATION IN SANITARY NAPKINS**

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*The survey aims to understand women's preferences and expectations for sanitary napkins, including quality, innovation, and sustainability. It seeks insights into absorbency, leak-proof design, odor control, skin-friendliness, sustainability, customization, and affordability. The goal is to inform manufacturers, healthcare professionals, and women's health organizations to improve product development and promote better menstrual health practices. Capturing diverse perspectives from women of different ages, backgrounds, and cultures is essential to address varying needs comprehensively. Insights will guide manufacturers, healthcare professionals, and women's health organizations to enhance products and menstrual health practices.*

*Diverse perspectives from women of all ages, backgrounds, and cultures are crucial for comprehensive understanding and inclusivity. This report emphasizes understanding women's preferences and demands for innovation in sanitary napkins. Insights from women of all ages drive advancements in menstrual hygiene. They seek new technologies like sensor-based detection and customization for comfort and confidence. Affordability and eco-friendly options are crucial, reflecting environmental concerns and diverse socioeconomic backgrounds.*

**Keywords:** *Sanitary Napkins, Sustainability, Healthcare professionals, Socioeconomic, Eco-Friendly*

**INTRODUCTION**

The purpose of the survey is to gather comprehensive insights into women's preferences, experiences, expectations, and demands regarding the quality and innovation in sanitary napkins. The survey aims to understand what women look for in sanitary napkins, their experiences with existing products, and their expectations for improvements and innovations in the industry.

By conducting this survey, the goal is to gain a deeper understanding of women's experiences and challenges when it comes to menstrual hygiene products. Furthermore, the survey seeks to explore women's expectations for quality and innovation in sanitary napkins. This includes their demand for advancements in absorbency, leak-proof design, odor control, and skin-friendliness. The survey also aims to uncover women's desires for more sustainable options, such as organic and biodegradable materials, as well as their preferences for customization and affordability.

By gathering these insights, the survey aims to provide valuable information to manufacturers, healthcare professionals, and women's health organizations. This data can guide product development efforts, encourage innovation, and ensure that sanitary napkins meet the evolving needs and expectations of women. Ultimately, the survey contributes to promoting better menstrual health and hygiene practices.

Capturing diverse perspectives from women across different age groups and backgrounds is of utmost importance in understanding their needs comprehensively. Women's experiences, preferences, and demands for sanitary napkins can vary significantly based on factors such as age, cultural background, geographical location, and socioeconomic status.

By including women from various age groups, ranging from young adults to older women, the survey can capture the evolving needs and preferences that arise at different stages of life. For instance, younger women might prioritize convenience and discretion, while older women might prioritize comfort and absorbency.

Considering women from diverse backgrounds is crucial because cultural and societal factors can influence preferences and expectations regarding menstrual hygiene products. Different cultural practices, taboos, and access to resources can impact women's experiences and demands.

**LITERATURE REVIEW**

**Ajmeri, J. R., & Ajmeri, C. J. (2016).**

Disposable hygiene products have greatly impacted millions of lives, with ongoing efforts to enhance their environmental sustainability. This chapter explores nonwoven applications in personal hygiene, addressing material issues, types, properties, and uses in diapers, feminine hygiene, and adult incontinence products.

**Das, D. (2014)**

The chapter examines the use of composite nonwoven materials in absorbent hygiene products, covering baby diapers, feminine sanitary pads, and adult incontinence pads. It outlines considerations, recent developments, and highlights challenges and potential advancements in these products.

**Mishra, S., Pandey, R., & Singh, M. K. (2016)**

In developing countries like India, where many women suffer from reproductive tract infections due to unhygienic menstrual practices, it's essential for sanitary napkins to be affordable. To address this, flax and carding waste fiber were used as absorbent cores, treated with Aloe vera gel extract to enhance antimicrobial properties against *S. aureus*.

**Yadav, S., Illa, M. P., Rastogi, T., & Sharma, C. S. (2016).**

Feminine sanitary napkins often use superabsorbent polymers (SAPs) to enhance absorption, but these can have negative health and environmental effects. We propose using electro spun cellulose acetate (CA) nanofibers as an alternative absorbent core material. Our analysis shows that these nanofibers offer superior absorbency, surface area, and porosity compared to commercial options, without the need for SAPs. Sanitary napkins without SAPs could provide a safer disposal solution and have a significant global impact in the future.

**Chanana, B. H. A. W. A. N. A. (2016)**

Sanitary protection is vital for women's hygiene and dignity during menstruation. However, high-cost sanitary napkins are often unaffordable for lower-income women, leading to the use of cloth rags. To address this, a low-cost technology using textile waste and agro-residues has been developed. This enables the production of affordable, high-quality sanitary napkins accessible to lower-income women, benefiting semi-urban and rural populations while providing income opportunities through social marketing and door-to-door selling.

**RESEARCH METHODOLOGY**

**Target Population:** Female with Mensural Cycle

**Sampling Method:** Simple Random Sampling

**Sample Size:** 250

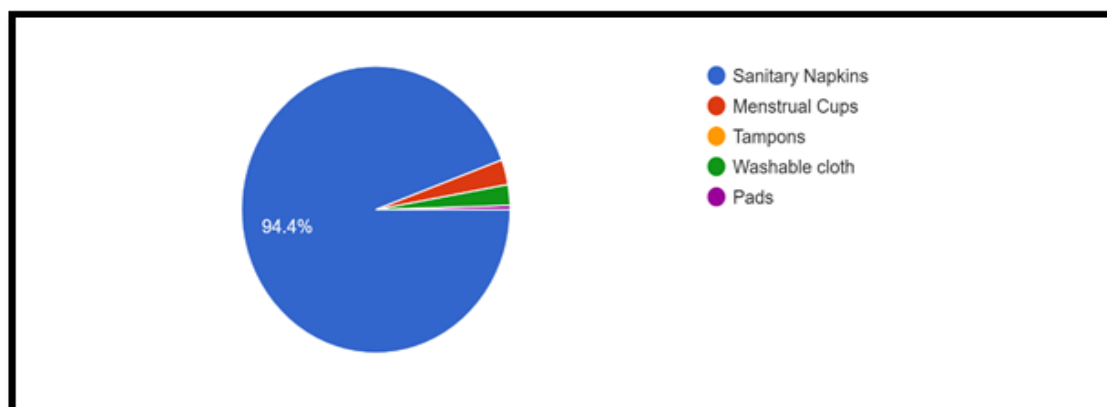
**Type of data:** Primary data

**Mode of data collection:** Google form.

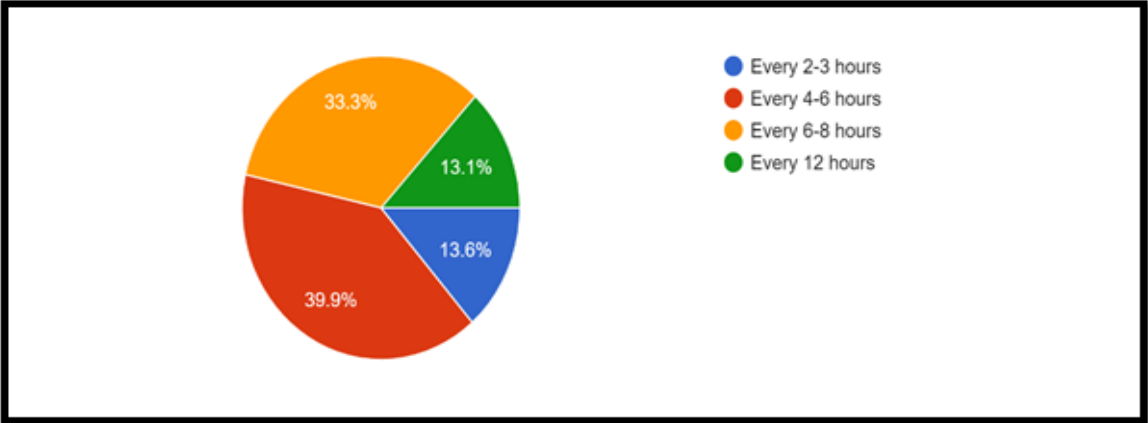
**Data Analysis tools:** Pie Charts and Graphs

**RESULTS AND FINDINGS**

**Q. What type of menstrual product do you personally use during your periods?**



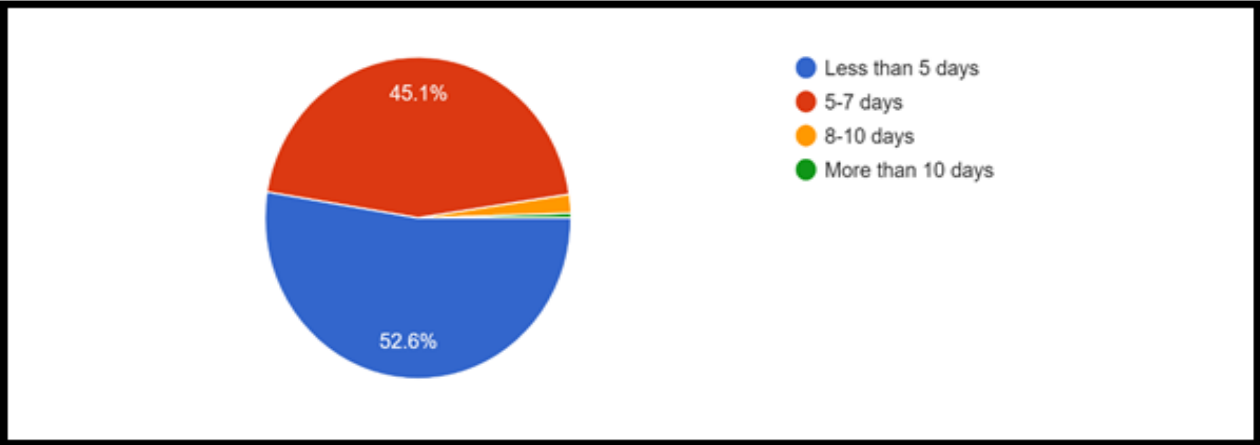
**Menstrual Hygiene Practices:** Menstrual hygiene practices involve maintaining cleanliness during menstruation. This includes regularly changing menstrual products to prevent leakage and odors, washing the genital area, and using appropriate hygiene products such as intimate washes or wipes.



**Q. How often do you change your sanitary napkins during the day?**

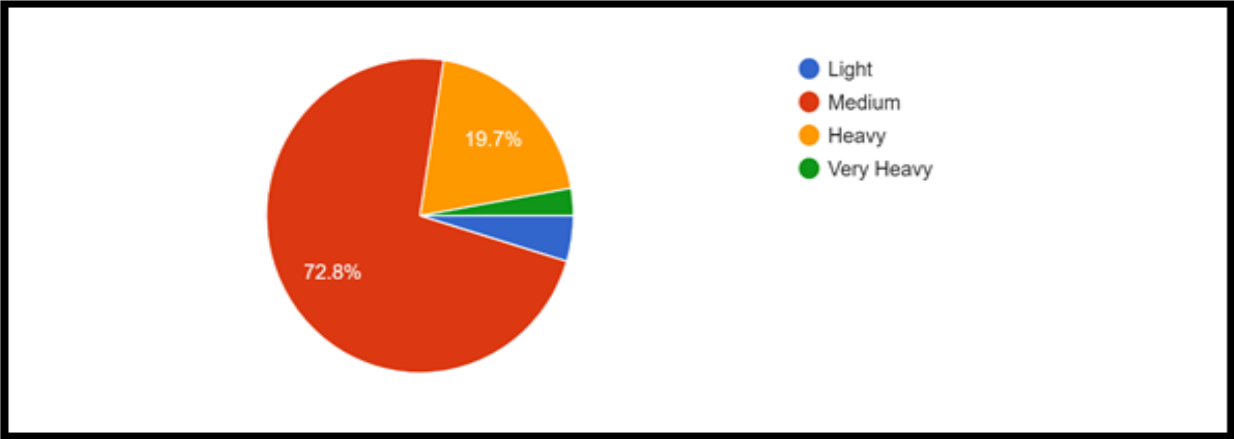
Tracking Menstrual Cycles: Many women track their menstrual cycles to better understand their pattern and predict when their next period will occur. This can be done using various methods such as calendar tracking, mobile apps, or specialized devices. Tracking menstrual cycles helps women prepare for their periods, anticipate any changes or irregularities, and manage their menstrual hygiene effectively.

**Q.How many days does your menstrual cycle usually last?**

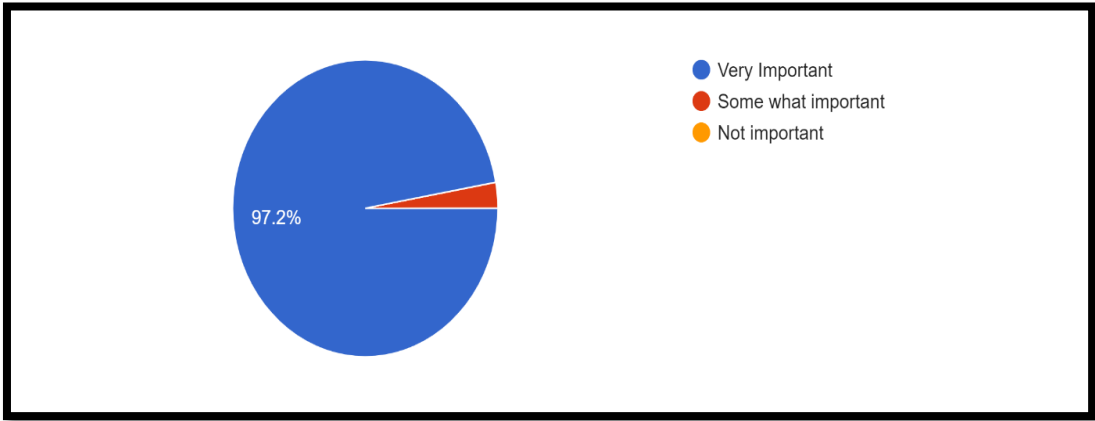


It is important to note that menstrual habits are personal and can differ based on individual preferences, cultural background, and available resources. Women may develop their own unique habits and routines to manage their menstrual cycles effectively and maintain their overall well-being during this time.

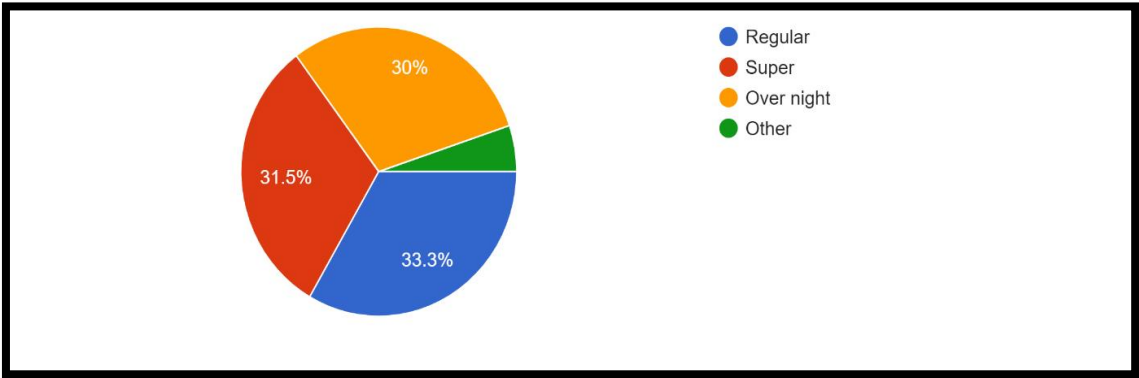
**Q. How heavy is your menstrual flow?**



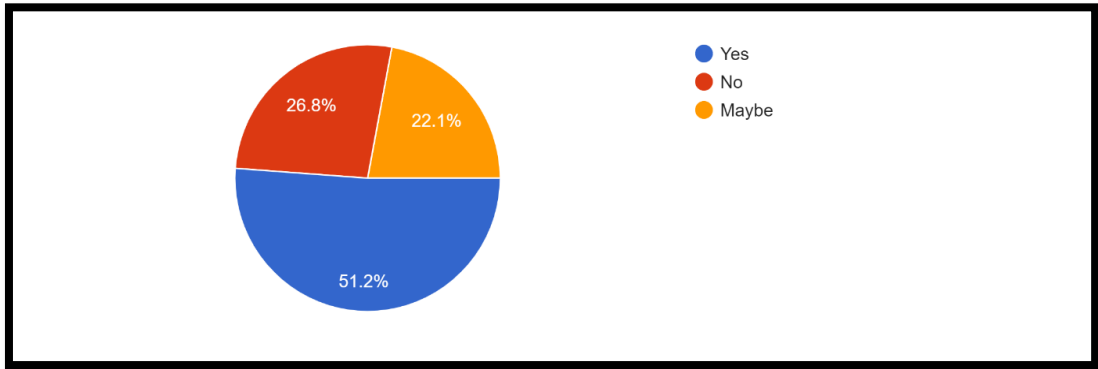
Q. How important is it for you to have a sanitary napkin that is soft and comfortable to wear?



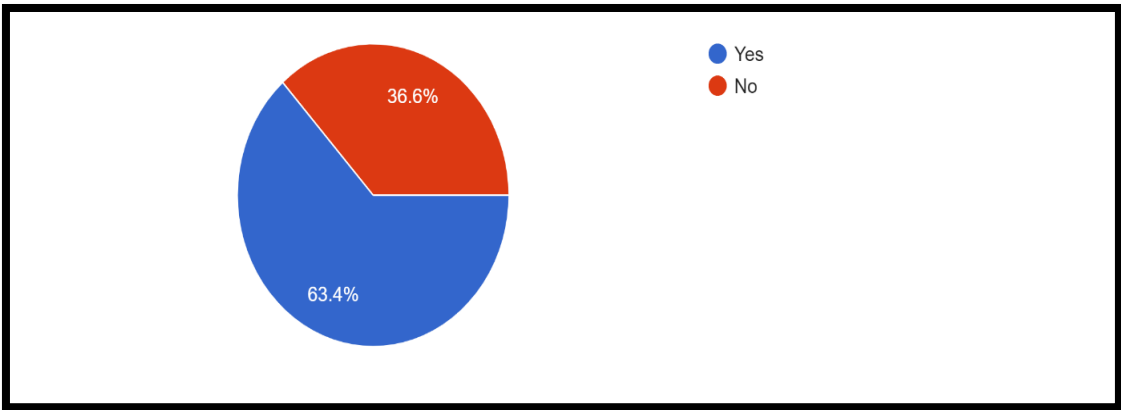
Q. What size of sanitary napkin do you prefer?



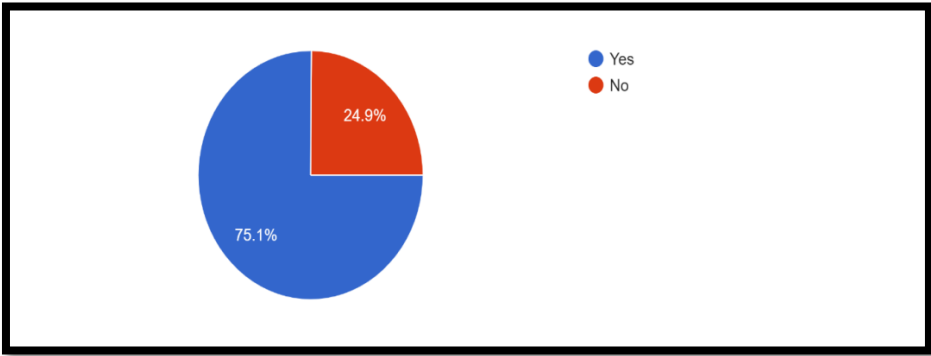
Q. Do you prefer scented sanitary napkins?



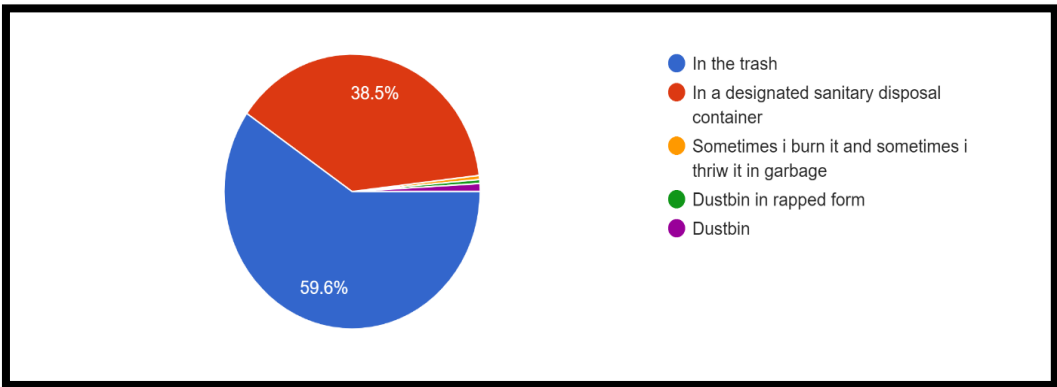
Q. Do you have any special requirement such as sensitivity to certain materials for your menstrual products?



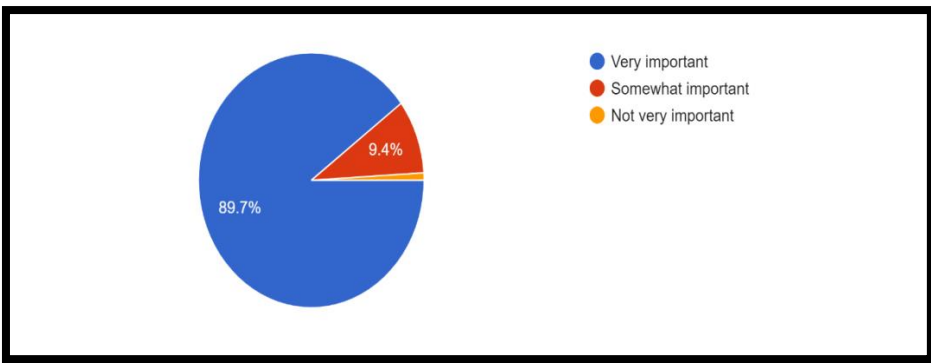
Q. Are you willing to pay more for sanitary napkins made from natural or organic materials?



Q. How do you dispose of used sanitary napkins?

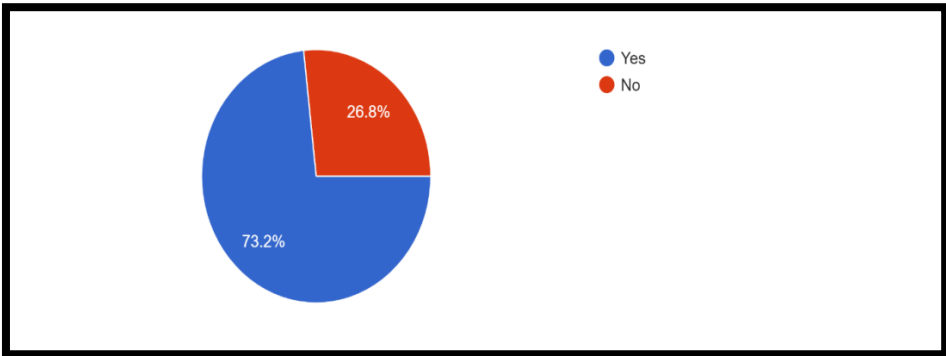


Q. How important is it for you to have a sanitary napkin that is easy to dispose of and environmental friendly?

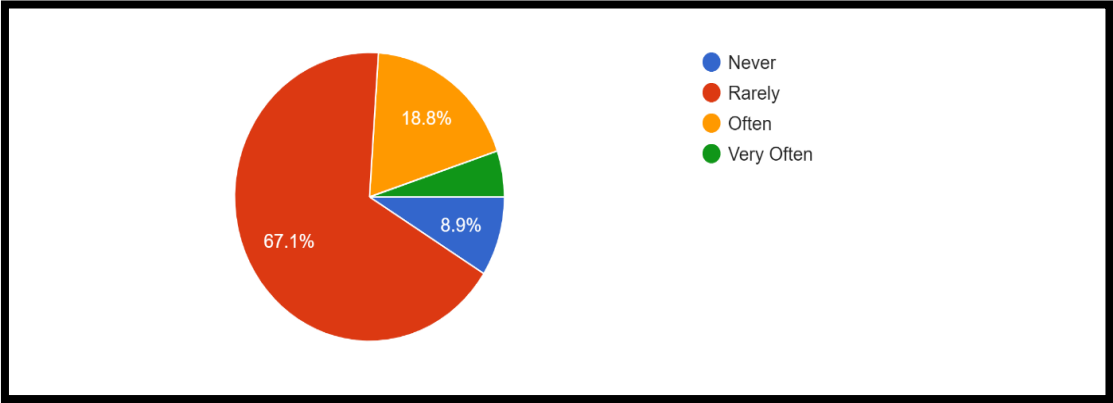


It's important to note that individual preferences may vary, and what works best for one woman may not be the same for another. Women may also try different brands and types of sanitary napkins to find the ones that meet their specific needs and preferences.

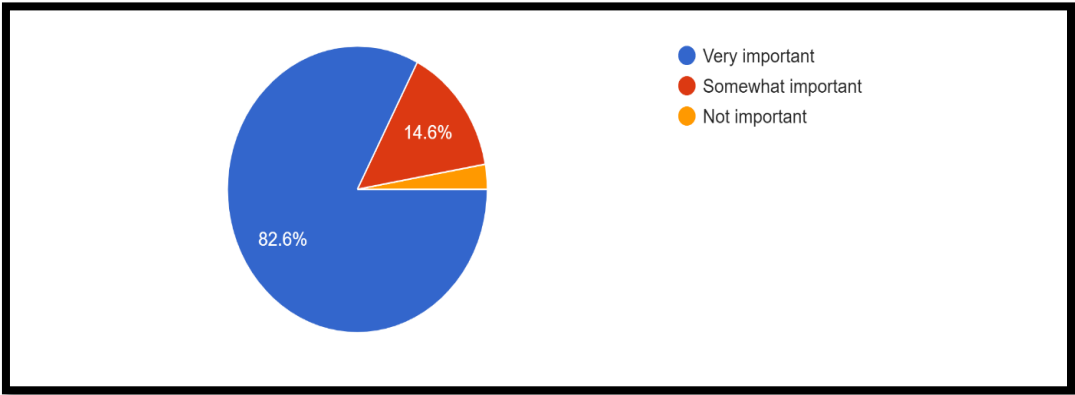
Q. Do you experienced any discomfort or irritation while using sanitary napkins?



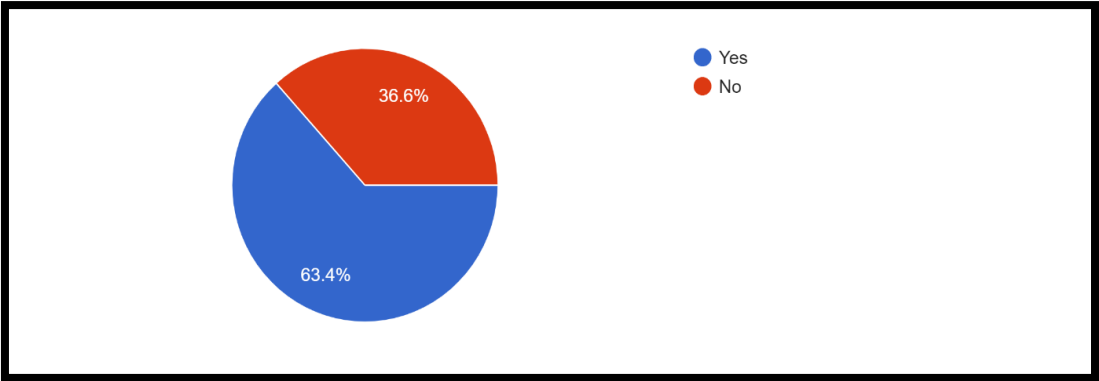
Q. Have you ever experienced leakage or staining while using a sanitary napkin? If so, how often?



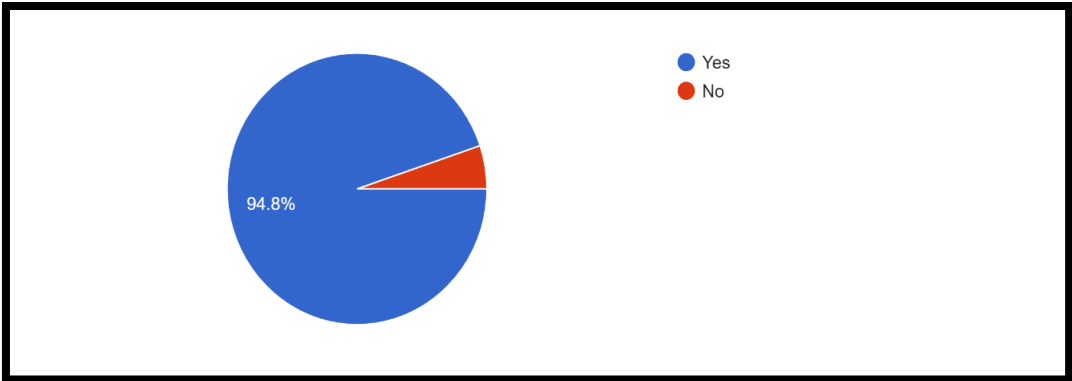
Q. How important is it for you to have a sanitary napkin that is discreet and not visible through clothing?



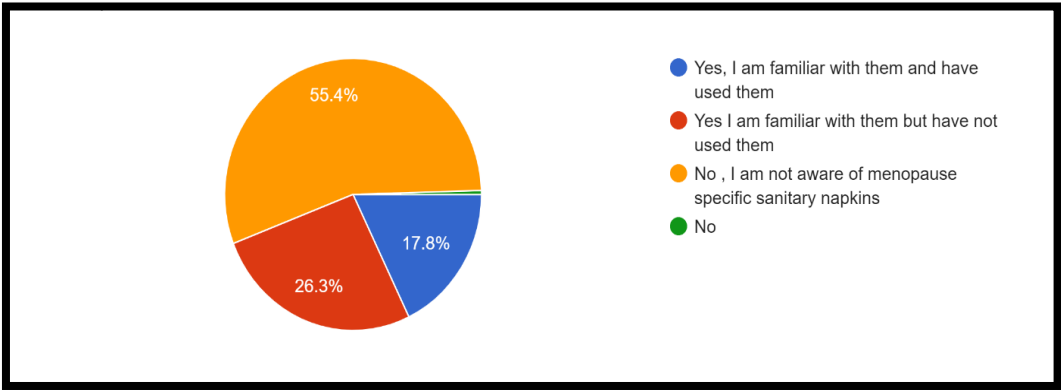
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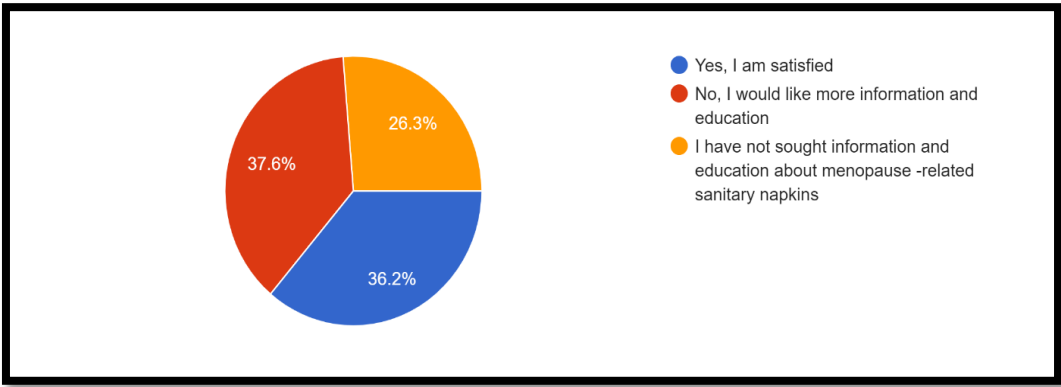
Q. Should sanitary napkins be more affordable? As they are basic necessity.



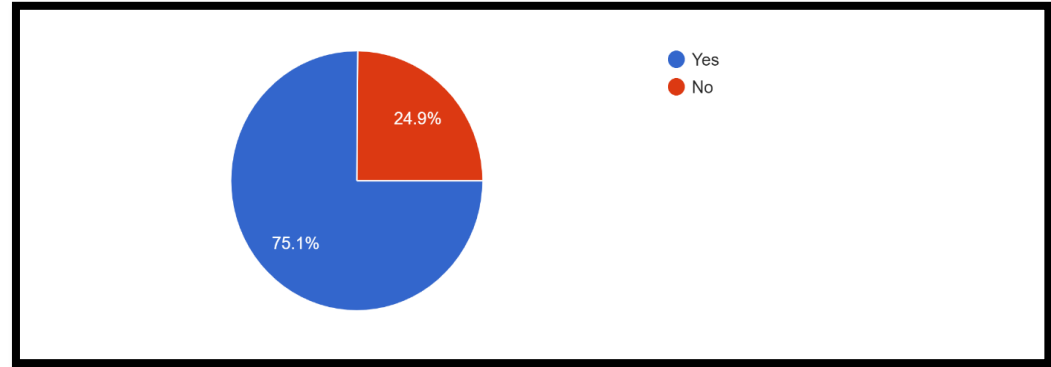
Q. Are you aware of menopause - specific sanitary napkins available in the market?



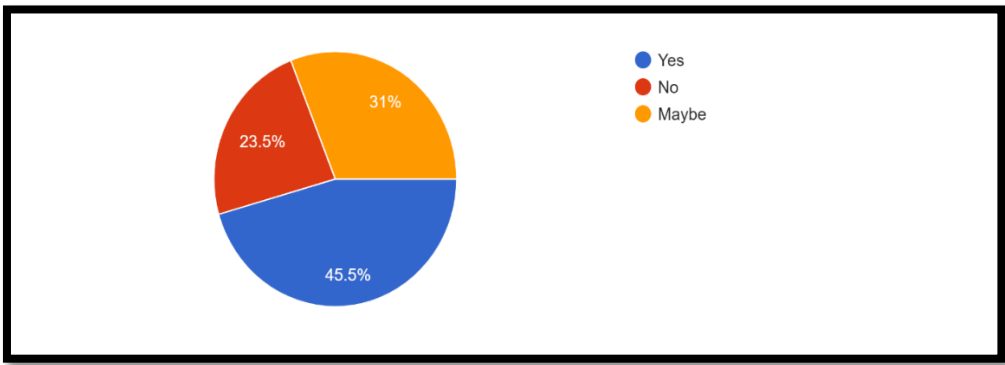
Q. Are you satisfied with the information and education available regarding menopause related sanitary napkins?



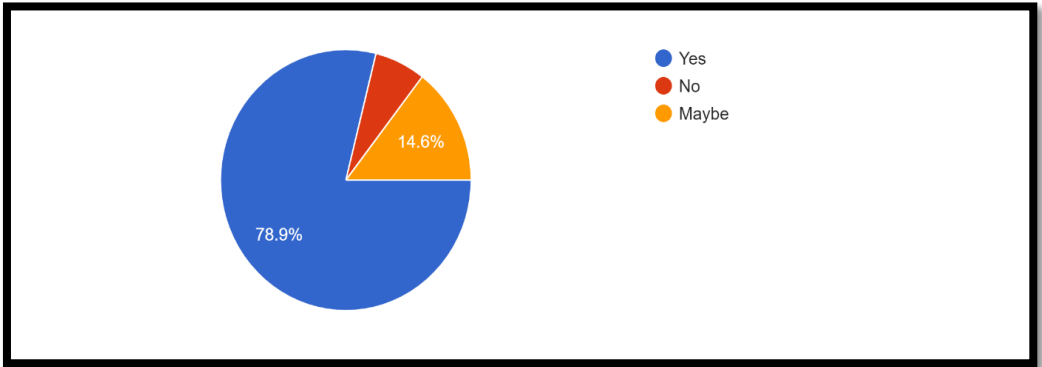
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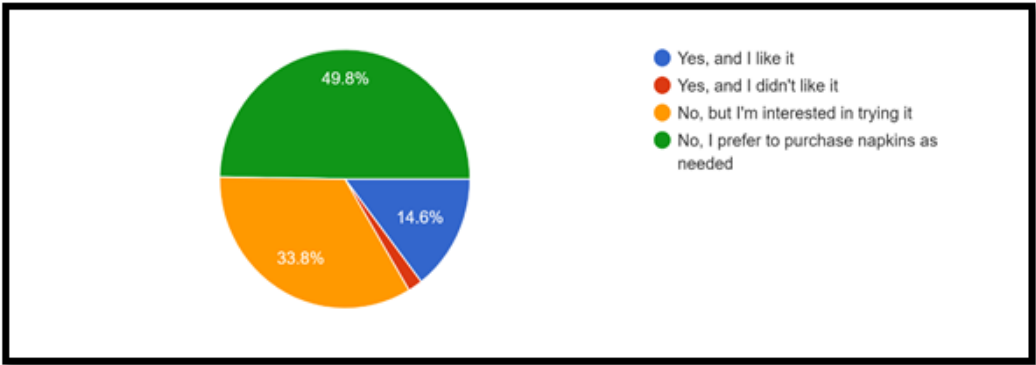
Q. Would you prefer the incorporation of sensor technology in your sanitary napkins to detect leakage during your period?



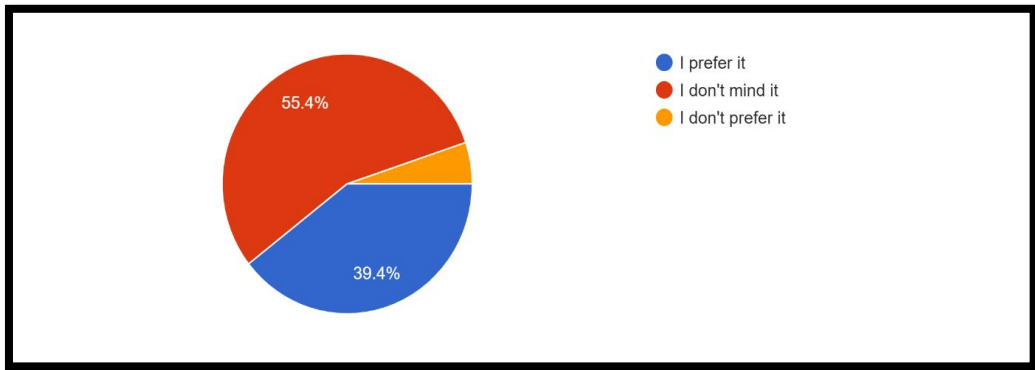
Q. Do you want sanitary napkins with properties like Antirash , Antimicrobial, Antiwetness?



Q. Have you ever tried a subscription service for sanitary napkins?



Q. How do you feel about purchasing sanitary napkins that are marketed specifically towards different age groups or demographics?



CONCLUSION AND DISCUSSION

In conclusion, this report highlights the importance of understanding women's preferences, experiences, expectations, and demand for innovation in sanitary napkins. The responses gathered from women across different age groups have provided valuable insights that can drive advancements in the menstrual hygiene industry. The findings reveal a strong desire among women to incorporate new technologies such as sensor-based detection and customization features in sanitary napkins. This reflects their willingness to embrace innovative solutions that enhance comfort, leakage detection, and overall confidence during menstruation. The survey respondents have expressed a need for improved affordability and accessibility of sanitary napkins, with a particular emphasis on eco-friendly and sustainable options. These insights underscore the significance of developing products that align with environmental concerns and cater to a diverse range of socioeconomic backgrounds.

Furthermore, the report highlights the importance of education and awareness programs to ensure women are informed about the availability and benefits of innovative sanitary napkin options. It emphasizes the need for collaboration between manufacturers, researchers, and stakeholders to drive research, innovation, and knowledge sharing in the field of menstrual hygiene. The findings reveal a strong desire among women to incorporate new technologies such as sensor-based detection and customization features in sanitary napkins.



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Furthermore, the report highlights the importance of education and awareness programs to ensure women are informed about the availability and benefits of innovative sanitary napkin options. It emphasizes the need for collaboration between manufacturers, researchers, and stakeholders to drive research, innovation, and knowledge sharing in the field of menstrual hygiene. The price-benefit ratio should be carefully adjusted to account for the sanitary napkin's duration of use.

The survey also revealed that respondents don't have enough faith in their sanitary products. They believe that sanitary napkins may contain dangerous substances that could harm their skin. As a result, they favour the usage of sanitary napkins made from natural materials. This outcome is assumed to be related to the rise in organic sanitary napkin advertisements on television. There are several research that claim that sanitary napkins contain dangerous dioxins in the literature, but these studies are small. To determine whether these elements are present in dangerous amounts, more research should be conducted.

The frequency of sanitary napkin changes is correlated with the menstrual cycle, according to survey results. The frequency of sanitary napkin changes can be assessed from several angles. The first viewpoint focuses on waste load. The findings show that after being wrapped in plastic bags or other non-biodegradable cover material, sanitary napkins are typically tossed in the trash. Therefore, even though sanitary napkins are made of biodegradable materials, frequent changes increase the waste load. Because of this, it is advised that manufacturers of biodegradable sanitary napkins use biodegradable materials to create the cover sheath while taking into account the usage patterns of women. On the other hand, it was hypothesised that prolonged usage of the sanitary napkins (for example, more than 12 hours) was hypothesized to harm the author's skin in order to create leaking, deformation, rashes, allergies, etc. However, the statistical analysis revealed that most of the existing issues did not alter significantly based on the sanitary napkin changing period.

Insufficient sanitary napkin adhesion on the pants, as is common knowledge, can lead to shifting, whereas excessive adhesion can cause sanitary napkin layers to separate after removal. Women with both issues took part in the survey as well. To solve these issues, the adhesive quantity on the back sheet layer should be maximised. Women's preferences for sanitary napkin purchases were gathered in the survey's last section to assist the market in guiding advertising and marketing efforts. It is anticipated that this information will help to effectively promote more ecologically friendly and consumer-friendly products.

In conclusion, the survey responses have provided valuable guidance for manufacturers and researchers to develop sanitary napkins that meet the evolving needs of women. Incorporating new technologies, customization features, and addressing affordability and sustainability concerns are critical steps in improving the overall menstrual hygiene experience. By embracing these insights, the industry can empower women, enhance their well-being, and contribute to a more sustainable and inclusive future.

## REFERENCES

- Ajmeri, J. R., & Ajmeri, C. J. (2016). Developments in the use of nonwovens for disposable hygiene products. In *Advances in technical nonwovens* (pp. 473-496). Woodhead Publishing.
- Das, D. (2014). Composite nonwovens in absorbent hygiene products. In *Composite Non-Woven Materials* (pp. 74-88). Woodhead Publishing.
- Mishra, S., Pandey, R., & Singh, M. K. (2016). Development of sanitary napkin by flax carding waste as absorbent core with herbal and antimicrobial efficiency. *International Journal of Science, Environment and Technology*, 5(2), 404-411.
- Yadav, S., Illa, M. P., Rastogi, T., & Sharma, C. S. (2016). High absorbency cellulose acetate electro spun nanofibers for feminine hygiene application. *Applied Materials Today*, 4, 62-70.
- Chanana, B. H. A. W. A. N. A. (2016). Development of low cost Sanitary Napkins: Breaking MHM taboos of women in India. *International Journal Of Applied Home Science*, 3(9), 362-371.

Kaur chitranjanjit, kapoor pooja, kaur Gurjeet(2023), "image recognition(soil feature extraction)using Metaheuristic technique and artificial neural network to find optimal output.Eur. Chem. Bull.2023(special issue 6).

Maheshwari Chanana shalu, Kapoor pooja,kaur chitranjanjit(2023),"Data mining techniques adopted by google: A study.: Empirical Economics Letters,22(special issue 2).

## **APPENDIX.SURVEY FORM**

### **"THE PERFECT FIT"**

**A research on women's preferences, experience, demands for quality and innovation in sanitary napkins.**

A. Demographic information

A.1 Name.....

A.2 Age.....

**1. What type of menstrual product do you personally use during your periods?**

- a) Sanitary Napkins
- b) Menstrual Cups
- c) Tampons
- d) Washable cloth
- e) Other

**2. How many days does your menstrual cycle usually last?**

- a) Less than 5 days
- b) 5-7 days
- c) 8-10 days
- d) More than 10 days

**3. How heavy is your menstrual flow?**

- a) Light
- b) Medium
- c) Heavy
- d) Very Heavy

**4. Have you ever experienced leakage or staining while using a sanitary napkin? If so, how often?**

- a) Never
- b) Rarely
- c) Often
- d) Very Often

**5. How often do you change your sanitary napkins during the day?**

- a) Every 2-3 hours
- b) Every 4-6 hours
- c) Every 6-8 hours
- d) Every 12 hours

**6. What size of sanitary napkin do you prefer ?**

- a) Regular
- b) Super
- c) Over night
- d) Other

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- 7. Do you prefer individually wrapped sanitary napkins or ones that come in a larger package?**
    - a) Individually Packed
    - b) Larger Package
    - c) No Preference
  - 8. How important is it for you to have a sanitary napkin that is discreet and not visible through clothing?**
    - a) Very important
    - b) Somewhat important
    - c) Not important
  - 9. How important is it for you to have a sanitary napkin that is soft and comfortable to wear?**
    - a) Very Important
    - b) Some what important
    - c) Not important
  - 10. What brand of sanitary napkins do you currently use?**
    - a) Sofy
    - b) Whisper
    - c) Stayfree
    - d) Other
  - 11. What factors influence your decision to purchase a particular brand of sanitary napkin?**
    - a) Price
    - b) Brand Reputation
    - c) Product Features (like absorbency ,thickness )
    - d) Availability
    - e) All
  - 12. How do you dispose of used sanitary napkins?**
    - a) In the trash
    - b) In the designated sanitary disposal container
    - c) Others
  - 13. How important is it for you to have a sanitary napkin that is easy to dispose of and environmental friendly?**
    - a) Very important
    - b) Somewhat important
    - c) Not very important
  - 14. So how do you feel about purchasing sanitary napkins that are marketed specifically towards different age groups or demographics?**
    - a) I prefer it
    - b) I don't mind it
    - c) I don't prefer it
  - 15. How often do you purchase new packs of sanitary napkins?**
    - a) Once a month
    - b) Once every few months
    - c) Once a year
  - 16. Have you ever tried a subscription service for sanitary napkins?**
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- a) Yes, and I like it
  - b) Yes, and I didn't like it
  - c) No, but I'm interested in trying it
  - d) No, I prefer to purchase napkins as needed
- 17. Are you aware of menopause - specific sanitary napkins available in the market ?**
- a) Yes, I am familiar with them and have used them
  - b) Yes I am familiar with them but have not used them
  - c) No , I am not aware of menopause specific sanitary napkins
  - d) Other
- 18. Have you ever experienced any specific challenges or discomfort related to using regular sanitary napkins during menopause ?**
- a) Yes, I have experienced challenges and discomfort
  - b) No, I have not experienced any challenges or discomfort
  - c) N/A - I have not reached menopause yet
  - d) Other
- 19. Are you satisfied with the in formation and education available regarding menopause related sanitary napkins?**
- a) Yes, I am satisfied
  - b) No, I would like more information and education
  - c) I have not sought information and education about menopause -related sanitary napkins
  - d) Other
- 20. Do you prefer to use a specific brand of sanitary napkin during certain times of the day (i.e. day vs. night)?**
- a) Yes
  - b) No
  - c) I'm not sure
- 21. Do you prefer "wings" in sanitary napkins?**
- a) Yes
  - b) No
- 22. Do you have any special requirement such as sensitivity to certain materials for your menstrual products?**
- a) Yes
  - b) No
- 23. Have you ever tried reusable or washable sanitary napkins?**
- a) Yes
  - b) No
- 24. Do you experienced any discomfort or irritation while using sanitary napkins?**
- a) Yes
  - b) No
- 25. Do you want customized sanitary napkin system?**
- a) Yes
  - b) No
  - c) Maybe
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**26. Would you prefer the incorporation of sensor technology in your sanitary napkins to detect leakage during your period?**

- a) Yes
- b) No
- c) Maybe

**27. Do you prefer scented sanitary napkins?**

- a) Yes
- b) No
- c) Maybe

**28. Do you want sanitary napkins with properties like Antirash , Antimicrobial, Antiwetness ?**

- a) Yes
- b) No
- c) Maybe

**29. Should sanitary napkins be more affordable? As they are basic necessity.**

- a) Yes
- b) No

**30. Are you willing to pay more for sanitary napkins made from natural or organic materials?**

- a) Yes
- b) No

**Q. Is there anything else you would like to share about your experiences or preferences related to sanitary napkins?**

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**Q. Are there any other features you would like to see in a sanitary napkins ? If so, please specify.**

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