

SHORT COMMUNICATION

WILEY

Saathi Sanitary Pads: Eco-friendly pads which will make you go bananas!

Preshita Neha Tudu 

Assistant Professor (HR), IBS Hyderabad, The ICFAI Foundation for Higher Education (IFHE), Dontanapally Campus, Shankerapally Road, Hyderabad, Telangana State, India

Correspondence

Dr. Preshita Neha Tudu, Assistant Professor (HR), IBS Hyderabad, The ICFAI Foundation for Higher Education (IFHE), Dontanapally Campus, Shankerapally Road, Hyderabad, Telangana State, India, Pin: 501203, Mobile: +91 8084398381.
Email: preshita@gmail.com

Undoubtedly, menstrual pads have made menstruation hygienic and comfortable. However, these commercial disposable sanitary pads have a devastating effect on the environment and are eco disaster. This case discusses about an initiative taken by an Ahmedabad-based social enterprise and manufacturing company Saathi and founded by three Massachusetts Institute of Technology graduates -- Amrita Saigal, Grace Kane and Kristin Kageetsu. Their eco-friendly, biodegradable sanitary pad is an alternative to non-biodegradable commercial pads which when discarded ends up in sewage, landfills, fields and water bodies posing threat to environment. Moreover, this pad is also an alternative to commercial pads which are made of plastic, cellulose gel, laded with chemical, bleach and fragrance which leads to serious health issues including cervical cancer, urinary tract infection, infertility and birth defect. The present case of Saathi tries to surface out the relationship between sustainability and marketing by focusing on the concept of sustainability marketing. The case discusses the marketing mix strategy used by Saathi. In a country where menstruation is still a social taboo, the case also talks about the challenges faced by Saathi related to price, the environmental awareness and lack of knowledge about menstruation and ill effects of using commercial pads on women health and whether it should consider expansion of its business and enter into the B2C market in India.

1 | INTRODUCTION

"O earth, whatever I dig out from you, must that have to be filled up again and restored as fast as possible. O pure one, I indeed have no intention to hit you at your heart of hearts."(Atharva-Vedasamhiti*)

Adolescence has been recognized as a crucial stage of life in females which signifies the transition from girlhood to womanhood. It involves both physical and psychological changes, Menstruation being one of them. Undoubtedly, menstrual pads have made menstruation hygienic and comfortable. However, these commercial disposable sanitary pads have a devastating effect on the environment and are eco disaster (The Guardian, 2017). Authors, Stein and Kim (2009), in their book *Flow: The Cultural Story of Menstruation* reveals that an average woman discards 250 to 300 pounds of used "pads, plugs, and applicators" in her lifetime which end up in sewage, landfills, fields and water bodies

posing threat to environment (Hindustan Times, 2017). These non-biodegradable pads contain chemicals, toxins, and plastic (Economic Times, 2017; Hindustan Times, 2017; Syren, 2018). In fact, sanitary pads contain more than 90% plastic (Hindustan Times, 2017) and some pads are made up of four plastic bags worth of plastic (The Guardian, 2017). The plastics decompose very slowly and can remain in soil up to 1000 years, thereby, inhibiting the breakdown of biodegradable materials in or around it (Stevens, 2001). Menstrual waste has created a serious dent on the environment across the globe, India notwithstanding. According to a survey, approximately 121 million of women are using disposable sanitary napkins in India (Hindustan Times, 2017) and rising incomes and changing demographics and preferences has resulted in an increase in the number of, non-biodegradable sanitary pads used by them. While Indian government is struggling to ensure that all women get sanitary pads to manage menstruation, managing menstrual waste is also a major concern

(Hindustan Times, 2017). Appropriate investment to ensure safe and proper disposal of sanitary pads is the need of the hour to avoid environmental degradation (India, 2015). Against this background, it is prudent to understand that waste management of sanitary pads and tampons is the key to a healthier environment.

The present case is on an environment friendly organization named *Saathi*. *Saathi* is providing an alternative to commercial, non biodegradable sanitary pads which is 100% organic and biodegradable (Economic Times, 2017; *Saathipads* website). *Saathi*'s mission is to replace the non-compostable, chemical laden sanitary pads used during menstruation with sustainable environmentally friendly initiative. The case is an example of how a company links the concept of sustainability and marketing together. According to some management practitioners, sustainability and marketing cannot be linked together as sustainability aims at reduction in consumption and marketing aims at increase in consumption (Jones, Clarke-Hill, Comfort, & Hillier, 2008). However, of late, sustainability has emerged as a new marketing paradigm (Kumar, Rahman, Kazmi, & Goyal, 2012) which reveals that relationship between marketing and sustainability is much closer than it appears (Baldassarre & Campo, 2016). The present case of *Saathi* tries to surface out the relationship between sustainability and marketing by focusing on the concept of sustainability marketing.

1.1 | About Saathi

Saathi is an Ahmedabad-based social enterprise and manufacturing company founded by three Massachusetts Institute of Technology graduates -- Amrita Saigal, Grace Kane and Kristin Kagetsu (Economic Times, 2017; *Saathipads* website). *Saathi* started in 2015 with a mission to develop an eco-friendly, biodegradable sanitary pads in India that are "good for your body, environment, and community." The journey towards *Saathi* pads began with a win at Harvard Business School's New Venture Competition in the Social Enterprise Track in 2014 (Forbes, 2016).



FIGURE 1 *Saathi* pads (Source-<https://Saathipads.com>)

Inspired by the idea of improving women's access to sanitary pads in India, Amrita Saigal, then working in US as a production engineer, along with Grace Kane and Kristin Kagetsu worked towards developing a biodegradable sanitary pad made from banana fiber for the Indian market (*Saathi* website). Kristin Kagetsu who had previously developed all-natural crayons made by local artisans of Uttarakhand (India), was passionate about sourcing through grassroots supply chains (Forbes, 2016). Grace Kane handled product development and operations in the team. Later, they were joined by Tarun Bothram, who helped *Saathi* team to develop the product and set up manufacturing. The team, after much research, developed a biodegradable sanitary pad using banana fiber (*Saathi* website). The concept behind *Saathi* was to make a pad which would be beneficial to a menstruating woman, the environment and the community (*Saathi* website).

1.2 | Saathi Pads: Marketing Mix Strategy

Saathi, meaning 'companion' in Hindi, signifies that these pads are a companion to women during periods and also to the earth as it is biodegradable (Forbes, 2016). *Saathi* Pads are made entirely of banana fiber which is a good absorbent, 50% more absorbent than chemical products used in regular sanitary pads (Economic Times, 2017; Engadget, 2017; Forbes, 2016; *Saathi* website). Moreover, banana fiber is extracted from banana stem pulp that comes from stem of the banana tree, which is normally discarded after harvesting and is an abundant waste-material (Economic Times, 2017; Engadget, 2017; Forbes, 2016; *Saathi* website). The pads are modern, comfortable design with wings to prevent leakage (Engadget, 2017; Forbes, 2016; *Saathi* website). No plastic or other non-organic materials is used for the manufacturing of pads, hence, *Saathi* pads are 100% biodegradable (Economic Times, 2017; Engadget, 2017; Forbes, 2016; *Saathi* website). The average conventional sanitary pad contains 3.4 g of plastic which means an average woman generate 23 kg of plastic from sanitary pads in her lifetime (*Saathi* website). These used pads take ages to decompose and results in landfills. However, *Saathi* pads biodegrade into compost within six months, 1200 times faster than plastic pads (Economic Times, 2017; Engadget, 2017; Forbes, 2016; *Saathi* website). Moreover, commercial pads are made up of plastic and cellulose gel and chemicals are added to it for absorption of menstrual blood. Fragrance are added to curb the menstruation smell and bleach is used to make the pad look pure and clean which can lead to issues as serious as cervical cancer, urinary tract infection, infertility and birth defect. (Economic Times, 2017; Engadget, 2017; NDTV, 2018; *Saathi* website). *Saathi* pads are neither bleached nor sodium acrylate or any other chemical is used to absorb menstrual blood and no fragrance is added to it. It provides a rash and irritation free experience to the end-users.

The organization uses two-pronged pricing strategy – it sell pads at a competitive price in urban market to subsidize price for rural market (Climate Co Lab, MIT, 2018). The price of one packet (8 pads) of *Saathi* pads is INR. 224 (*Saathi* website). The cost of one *Saathi* pad is Rs. 28 whereas major commercial pad players like Whisper and Stayfree

FIGURE 2 The fibers extracted from banana stem to make biodegradable *Saathi* pads (Source- Facebook/*Saathipads*)

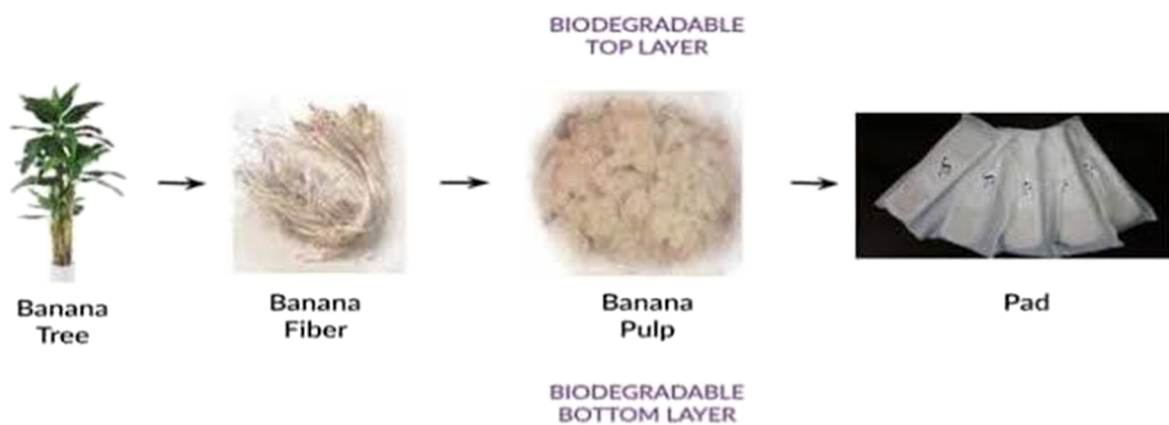


FIGURE 3 Manufacturing Process (Source - <https://www.fibre2fashion.com/news/textile-news/sanitary-pads-that-are-biodegradable-and-compostable-204482-newsdetails.htm>)

which is widely used by Indian women costs Rs.10–12 per pad. Indian consumers are price sensitive and it will be interesting to find out whether they are ready to shell out this amount to buy environment-friendly, biodegradable *Saathi* pads.

Saathi applies CSR approach to promote its biodegradable pads. Before releasing its pads in the urban market, *Saathi* distributed free samples to women in rural areas to create awareness about the product and build a potential market (Economic Times, 2017a). The organization along with local NGOs Ekal Vidyalaya and Arogya Foundation regularly organize educative sessions and workshops in villages in Jharkhand to educate women on hygienic menstruation and how using commercial pads may lead to problems as serious as cervical cancer, urinary tract infection, infertility and birth defect (Climate Co Lab, MIT, 2018; NDTV, 2018; *Saathi* website). They are also training local women to be expert advisors to rural women on menstruation. The tagline of *Saathi* pads, *Care for two-you and earth*, distinctly shows that the company is not only concerned for women but also for the environment. *Saathi*, instead of talking about the qualities of its pads, chose to inform women about hygiene and environmental benefits associated with it.

Saathi does not use conventional channels of distributing and selling the product as it will involve distributors and retailer margin

which will further add to total price. It sells its pad across the country through its website on online orders. However, as rural women do not have access to internet, it distributes its pads through local NGOs. Of late, it is also considering distribution in select stores in Karnataka, Maharashtra, Tamil Nadu, Delhi-NCR and Telangana (Economic Times, 2017a).

1.3 | Manufacturing Process

The manufacturing of *Saathi* pads starts by putting in of the absorbent banana fiber pulp and biodegradable outer layers. After processing, a sterilized, folded sanitary pad with wings and adhesives for undergarment attachments (*Saathi* website) is surfaced. Their patent-pending fiber processing technology converts banana fiber pulp into a soft absorbent whose absorbency matches with that of the conventionally used bleached wood pulp and cotton. Then this soft absorbent is processed to produce soft bio-degradable pad. *Saathi* does sourcing and manufacturing locally and is the only sanitary pad company to consider entire product lifecycle from sourcing to disposal. *Saathi* uses banana fiber, an agro-waste, which uses significantly less land, water and fertilizer than cotton (*Saathi* website). It has been estimated that Banana fiber is grown using 6 times less water and 10 times less

fertilizer than cotton (Economic Times, 2017a; Engadget, 2017). *Saathi* pads are more sustainable than plastic or cotton pads. In India, around 150,000 tons of sanitary pad waste is generated each year. *Saathi* pads not only eliminate this menstrual waste, but also reduce agro-waste. The organization uses *cradle to cradle manufacturing* approach where waste is reused as a sustainable business strategy (Climate Co Lab, MIT, 2018; *Saathi* website).

1.4 | CSR and *Saathi*

Myths about menstruation have always been the part of the society, India notwithstanding. Pliny the Elder, a Roman author, wrote in *Natural History* that dogs which tasted menstrual blood turns rabid, mares miscarry and corn field withers when menstruating females are around (Khanna, 2015). B. Schick, a Viennese professor, in his article "Das Menstruations gift" in the *Viennese Weekly Clinical Writings* (1919) wrote that menstrual blood has menotoxin, *The Menstrual Poison*, which is responsible for flowers wilting to bread not rising (Khanna, 2015). Menstruation is still considered dirty and impure in many parts of India. Menstruating women are supposed to eat and sleep separately; not allowed to enter prayer room or touch holy books or sour food like pickles. The myths and secrecy about menses in Indian societies is beautifully depicted in a popular Bollywood blockbuster of the year 2018, *Padman*. Upon realizing the extent to which his wife is affected during menstruation, Lakshmikanth Chauhan, the protagonist played by famous Bollywood star Akshay Kumar, sets out to create and to provide inexpensive sanitary pads to the women of rural India, who otherwise use dirty linen.

The world celebrates World Menstrual Hygiene Day on May 28, but Indian women have little to celebrate. Even after decades of the introduction of sanitary napkins, the escalating prices, high tax and the hushed voices of women at the medical stores, collectively paint the picture of Indian sanitation industry. According to a report, 60% of adolescent girls missed school on account of menstruation in India (The Hindu, 2018). The idea of *Saathi* was just not to develop a product which would be useful to women during menstruation but also be responsible to the environment. Every year over 9000 tonnes of menstrual wastes collect in landfills, fields and water bodies in India resulting into a toxic, non-biodegradable mass of bacteria such as *Escherichia coli* (Clean India Journal, 2016). The raw materials used in making most sanitary pads are more than 90% plastic with super absorbent polymers and non-woven plastic components which make it difficult to degrade. Moreover, apart from plastics, these pads also contain chemicals, bleach and added fragrance (*Saathi* website; NDTV, 2018) and incineration done to dispose of these pads release toxic fumes in the air which is harmful to the environment (Clean India Journal, 2016; Hindustan Times, 2017).

Saathi started its venture to solve the unavailability of sanitary pads to women, especially in rural India. However, it soon realized the three barriers to rural women using pads (D-Lab, MIT):

- **Affordability:** Current sanitary pads in the market are not affordable as they are expensive.

- **Availability:** The sanitary pad companies do not have proper distribution channels in rural parts.
- **Awareness:** The rural women have low knowledge levels and understandings about puberty, menstruation, reproductive health and feminine hygiene practices.

In order to solve the above mentioned problems, *Saathi* has developed a small scale modular manufacturing process to produce affordable sanitary pads from waste banana tree fiber (D-Lab, MIT). Currently, *Saathi* pads are sold through *Saathi* website on orders and soon it will be sold via other ecommerce sites and retailers. The scale up in manufacturing will not only reduce raw material and but also manufacturing cost thereby making pads more affordable. To create awareness among rural women about the personal hygiene during menstruation *Saathi* regularly hold workshops and educative sessions in villages in Jharkhand with the help of local NGOs such as Ekal Vidyalaya and Arogya Foundation (Climate Co Lab, MIT, 2018). The workshops revealed that women were not aware of the options they had and used cloths, mud, leaves, etc. during their periods or other makeshift pads, which was uncomfortable and unhygienic. *Saathi* pads and Arogya Foundation, under its One Million Pads programme, is working together to distribute 10,000 units of pads among women in rural Jharkhand (Economic Times, 2017). As a part of this program, NGOs buy pads from *Saathi* and distribute them in rural Jharkhand. They are also training healthcare workers, to advice women on menstrual hygiene (Climate Co Lab, MIT, 2018).

The pad is made up of banana fiber pulp extracted from banana stem which is an agro-waste and normally discarded after cultivation. *Saathi* buy these stems from the local farmers and extract the raw material. The residue then can again be fermented and used as fertilizer (*Saathi* website). By procuring raw material from farmer community, *Saathi* has not only helped farmers earn extra income but has also empowered them by making them the suppliers of raw materials for *Saathi*.

1.5 | Success till Date and Future Ahead

Saathi pads have got a good response from its customers who consider the pads soft and comfortable and are happy contributing to the environment by purchasing these biodegradable pads (*Saathi* website). This environment friendly initiative has bagged a number of laurels such as Global Cleantech Innovation Award 2108, National Bio Entrepreneurship Competition 2017, Hello Tomorrow Global Challenge 2017, the Asia Social Innovation Award 2017, the 3 M Young Innovators Challenge 2016 and the Harvard Business School New Venture Competition, 2014 (*Saathi* website). The all-natural pads of *Saathi* have managed to reach 2,605 women and plans to reach 1.5 million women by 2023 (Climate Co Lab, MIT, 2018). By buying raw material from banana farmers, it has increased their income by 3.24million INR and by 2023 their income will increase by 127,037 million INR (Climate Co Lab, MIT, 2018). It also aims to employ 73,517 low-income women in their manufacturing unit by 2023. *Saathi* is already producing 0.1 million pads per month. By automating the process, it

plans to scale up its production from 0.1 million pads per month to 4 million pads per month (Economic Times, 2017a). *Saathi*, in collaboration with its impact study partner 4th Wheel, conduct regular surveys to study the impact of distributing biodegradable pads on rural women.

However, *Saathi* has to face a long list of challenges if it wants to expand its business, especially in India. In a country where menstruation is still a social taboo, convincing women to talk about it is a challenge. Health of Indian women is often affected as they remain unaware of scientific facts about menstruation and the hygienic practices to manage menstruation. Further, Indian consumers are price sensitive; it will be a challenge for *Saathi* to attract them to buy their product. Moreover, people are not aware about environment and how their day-to-day actions are creating a dent to it. If steps not taken to control the menstruation waste, damage done to the environment may become irreparable. The sustainable business model of *Saathi* tries to provide soft and comfortable pads to women, additional income to farmer community and biodegradable product to the environment.

Notes

¹Ahmedabad - Ahmedabad is the capital of the Indian state of Gujarat.

² Massachusetts Institute of Technology (MIT)- It is a private research university located in Cambridge, Massachusetts, United States.

³ Harvard Business School's - It is the graduate business school of Harvard University in Boston, Massachusetts.

⁴ Uttarakhand- Uttarakhand is a state in northern India crossed by the Himalayas and its a Hindu pilgrimage sites.

⁵ INR-The Indian Rupee is the currency of India. 1 INR = 0.014 USD.

⁶ Jharkhand- Jharkhand is a state in eastern India.

⁷ Karnataka, Maharashtra, Tamil Nadu, Delhi-NCR and Telangana - States in India.

⁸ Bollywood- Bollywood, is the Indian Hindi-language film industry, based in the city of Mumbai, Maharashtra, India.

ORCID

Preshita Neha Tudu  <https://orcid.org/0000-0001-7750-9989>

REFERENCES

- Baldassarre, F., & Campo, R. (2016). Sustainability as a marketing tool: To be or to appear to be? *Business Horizons*, 59, 421–429. <https://doi.org/10.1016/j.bushor.2016.03.005>
- Clean India Journal (2016). Sanitary Solutions and Waste Disposal. Retrieved (10-03-2018) from: <https://www.cleanindiajournal.com/sanitary-solutions-waste-disposal/>.
- Climate Co Lab, MIT (2018). *Saathi's* 100% compostable and biodegradable sanitary pad. Retrieved (12-02-2018) from: <https://www.climatecolab.org/contests/2018/circular-economy-economie-circulaire/c/proposal/1334437>.
- Economic Times (2017). *Saathi*: Healthcare startup makes biodegradable pads from banana fibre. Retrieved (12-10-2018) from: <https://economictimes.indiatimes.com/small-biz/startups/saathi-healthcare-startup-makes-biodegradable-pads-from-banana-fibre/articleshow/56363299.cms>.
- Economic Times (2017a). There is a safer alternative to regular sanitary pads - and it'll make you go bananas! Retrieved (16-10-2018) from: <https://economictimes.indiatimes.com/small-biz/startups/features/there-is-a-safer-alternative-to-regular-sanitary-pads-and-itll-make-you-go-bananas/articleshow/61874902.cms>.
- Engadget (2017). Banana fiber sanitary pads can solve big problems in India. Retrieved (22-02-2018) from: <https://www.engadget.com/2017/10/29/saathi-banana-sanitary-pads-hello-tomorrow/>.
- Forbes (2016). The MIT Startup Giving Indian Women Access to Biodegradable Sanitary Pads. Retrieved (22-02-2018) from: <https://www.forbes.com/sites/abehal/2016/08/16/the-mit-startup-giving-indian-women-access-to-biodegradable-sanitary-pads/#4fccb0927678>.
- Hindustan Times (2017). World Environment Day: Here's how disposable sanitary napkins mess up health and hygiene. Retrieved (22-02-2018) from: <https://www.hindustantimes.com/fitness/world-environment-day-here-s-how-disposable-sanitary-napkins-mess-up-health-and-hygiene/story-TfO6UvFA6iBcWgUZ0qeWVL.html>.
- India (2015). World Environment Day 2015: Menstrual waste disposal and the environment. Retrieved (22-02-2018) from: <http://www.india.com/news/india/world-environment-day-2015-menstrual-waste-disposal-and-the-environment-409523/>.
- Jones, P., Clarke-Hill, C., Comfort, D., & Hillier, D. (2008). Marketing and Sustainability. *Marketing Intelligence and Planning*, 26, 123–130. <https://doi.org/10.1108/02634500810860584>
- Khanna, T. (2015). *Mrs funny bones*. India: Penguin Books.
- Kumar, V., Rahman, Z., Kazmi, A. A., & Goyal, P. (2012). Evolution of sustainability as marketing strategy: Beginning of new era. *Procedia-Social and Behavioral Sciences*, 37, 482–489. <https://doi.org/10.1016/j.sbspro.2012.03.313>
- NDTV (2018). Health Hazards Of Using Sanitary Napkins: Are There Alternatives? Retrieved (28-06-2018) from: <https://doctor.ndtv.com/womens-health/health-hazards-of-using-sanitary-napkins-are-there-alternatives-1787681>.
- Saathi website. <https://saathipads.com/>
- Stein, E. and Kim, S. (2009). *Flow: The cultural story of menstruation*. St. Martin's Griffin.
- Stevens, E. (2001). *Green plastics: An introduction to the new science of biodegradable plastics*. Princeton, NJ: Princeton University Press.
- Syren, F. (2018). The Environmental Impact of Menstrual Pads and Tampons. Retrieved (05-02-2018) from: <https://green-mom.com/environmental-impact-menstrual-pads-tampons/#.WniK8byWaT9>.
- The Guardian (2017). The eco guide to sanitary products. Retrieved (05-02-2018) from: <https://www.theguardian.com/environment/2017/oct/29/the-eco-guide-to-period-dramas>
- The Hindu (2018). Is India suffering from 'period poverty'? Retrived (16-10-2018) from: <https://www.thehindu.com/sci-tech/health/is-india-suffering-from-periodpoverty/article24011206.ece>

How to cite this article: Tudu PN. *Saathi* Sanitary Pads: Eco-friendly pads which will make you go bananas!. *Int J Nonprofit Volunt Sect Mark*. 2019;e1667. <https://doi.org/10.1002/nvsm.1667>