

SDO toolkit - environmental sustainability.

Criteria	Sub-criteria	Priority	Analysis	Orient Concept	Check Concept
System life optimisation	Are infrastructure with short life-span used in the system?	High	Use period of the feminine hygiene products is 7 to 8 hours	Schedule waste pickup everyday	Radical Improvement
	Are disposable products, packaging or support products used?		Sanitary products and its packaging are disposable but not biodegradable	Sanitary products and its packaging are disposable but not biodegradable	
	Do parts of the system tend to be technologically obsolete? Or to be culturally/ aesthetically obsolete?		Due to taboo, many female still prefer to adopt unhygienic products (like uncleaned cloth) during menstruation.	Women who can not afford or are not aware of sanitary napkin often lie in BPL category. We plan on making them dealers so that they get pads at subsidized prices and there is increased awareness	
	Is the system individually used, when it could be shared in some of its parts?		Usage and disposal of female sanitary products are done individually and privately	By introducing disguised disposal bins and making the waste get picked up by women employees	
	Does the system lack of maintaining and up-grading services?		Disposal of pads requires constant cleaning of equipments and infrastructure	We will employ cleaners, waste segregators and maintenance workers	
Transportation/distribution reduction	Is there any excessive transportation of goods?	High	With less manufacturing units and ample demand, the transportation is excessive for the FMCG product	By popularizing the brand and increasing the number of customers in a particular locality, we can reduce the per house cost of transportation	Incremental Improvement
	Are the transportation means in service fully used?		Companies like Whisper and Stayfree have a compact logistics chain. So, the transportation is planned and fully used. There are no concerned waste pick up facility for now.	For distribution, we will procure pads and stock in our warehouse. Then the bifurcation - delivery via dealers and app. For app deliveries, we can compact the logistics via AI. For dealers, initially, until there are enough dealers in an area, we need to make the sales apparatus available to them at their place. As the business grows and there are many dealers, they can collect their sales orders from our hubs. For collection of waste, we will assign pick up employees for all kinds of order sources (dealers or app). All the transportation will be used in full capacity once we grow and stabilize.	
	Is there any excessive use of package?		Packaging is excess as it has no value after the main product is unpacked	Encourage women to use the sanitary napkin packaging to dispose off the waste whenever possible, instead of using newspapers	
Resource reduction	Is the system consuming high quantities of energy?	Medium	No		Radical Improvement
	Is the system consuming high quantities of natural resources? Is the system absorbing high quantities of consumable?		Currently almost all of sanitary product in the market consists of plastic and cellulose	We are trying to get back the plastic and cellulose into our manufacturing cycle. Plastic - manufacturing plastic disposal bins. Cellulose - making period tracker calendars	
	Are products, packaging or support products highly material intensive?		Yes, every pad uses pad materials and packaging materials	Yes, but we will recycle the materials from the used product	
	Other?				
Waste minimisation/valorisation priority	Do all waste end up in landfill?	High	Almost all of the Sanitary wastes end up in the landfill	We are picking up the sanitary waste and disposing off responsibly	No Improvement
	Does the system produce high quantities of landfill waste at the end of service-life?		Yes	We are picking up the sanitary waste and disposing off responsibly	
	Do the production, packaging and support products produce big quantities of landfill waste? Others?		Yes, mostly the packaging goes to the landfill	We are trying recycle as many plastic packaging waste as possible	
Conservation/biocompatibility	Is all the energy produced from fossil fuels?	No	Only at the production and transportation level fossil fuel is used		No Improvement
	Is all the energy produced from exhausting resources?		Yes	We will outsource pads. Their resources are out of our system boundary.	
	Does the system use mainly depleting and/ or non-renewable materials for the production processes?		Yes	We will outsource pads. Their resources are out of our system boundary.	
	Does the system use mainly depleting and/ or non-renewable materials for products, support products, packaging, and infrastructure?		Yes	We can encourage women to use the sanitary napkin packaging to dispose off the waste whenever possible, instead of using newspapers	
Toxicity Reduction	Are the processed resources toxic or potentially toxic for the workers?	High	Anyone handling the collected sanitary napkins may come in contact with toxic gases and material	With proper safety gear and awareness about waste handling, we can overcome it	Radical Improvement
	Are the processed resources toxic or potentially toxic in during distribution?		No		

	Are the processed resources toxic or potentially toxic for the user?	If used for a lot of time, it can cause infections	We can spread awareness through instructions on the package
	Are the products, support products, packaging or infrastructure toxic or potentially toxic during/after service time treatments?	There is no treatment of waste	The effluents on treatment are - Plastic, cellulose, sludge. The effluent sludge can be sent to a biomedical treatment plant to bring down the toxicity levels in prescribed limits
	Are there any problems with forced or child work?	No	

SDO toolkit - socio-ethical sustainability.

Criteria	Sub-criteria	Priority	Analysis	Orient Concept	Check Concept
Improve employment and working conditions	Are there any problems with the health and safety?	High	Yes. The waste collector and who are related to incineration could face health issues	With proper safety gear and awareness about waste handling, we can overcome it	Radical Improvement
	Are there any problems of discrimination in the workplace?				
	Are there any problems with work overload and for inadequate wages?		There is tension between the lower income (cleaning employees) and higher income group (office employees)	We are promoting dealership and extra income among women belonging from poor backgrounds	
Improve equity and justice in relation to stakeholders	Is the client/ final user criticising the supply system?	Medium			No Improvement
	Are there any unjust relations between the partnerships?				
	Are there any unjust relations with suppliers, subcontractors and sub-suppliers?				
Enable a responsible and sustainable consumption	Is the client/ final user able to acknowledge clearly and easily the social (un)sustainability along the whole value production chain?	High	Only educated and well-off users may understand	Only educated and well-off users may understand	No Improvement
	Is the client/ final user able to understand the responsible/ sustainable behaviour by the supply system?		Only educated and well-off users may understand	Only educated and well-off users may understand	
Favour/ integrate weaker and marginalised strata	Does the supply system create obstacles or limit access to people with weaker social status (e.g. kids, elderly, differently able, etc.)?	High	Lower income groups cannot afford branded feminine hygiene products due to high price.	We are promoting dealership and extra income among women belonging from poor backgrounds	Radical Improvement
	Is the offering system accessible to people with lower income?		It is accessible but there are limitations due to taboo and lack of communication	Promoting dealership among women belonging from poor backgrounds can raise awareness about associated taboos	
Improve social cohesion	Is the offering system creating or favouring any form of intra-gender, intra-cultural, intra-generational exclusion?	High	Depending on the beliefs on menstruation, the offering system may favour the well-off and educated, city dwellers	The current system only serves in urban and metropolitan areas	No Improvement
	Is the system creating/ favouring any forms of discrimination (sexual, religious, cultural, gender)?		Religious discrimination for menstruating women. They are bounded by several beliefs and rituals	-	
Empower/ valorise local resources	Does the current reference system impoverish local cultural values and identities?	High	The current system is driven by local beliefs/taboo	Employing women for jobs in this area helps in gradual wearing off of taboos	Radical Improvement
	Does the current system offer only one solution/ few variations for all regions and cultures?		There are a lot of variations wrt regions and cultures, both in using and disposing the pads, and practices during menstruation	The current system only serves in urban and metropolitan areas	
	Is the current system impoverishing local economies?		Current market dominated MNCs leaving very little scope for local entrepreneurs	We are partnering with local entrepreneurs to manufacture bins, calendars, incineration agencies and employing workforce for operations	
	Is the system absorbing local non-renewable resources?		Tissue papers and newspapers are used by women which may absorb non-renewable resources	-	
Conservation/ biocompatibility	Is all the energy produced from fossil fuels?	No	Only at the production and transportation level fossil fuel is used		No Improvement
	Is all the energy produced from exhausting resources?		Yes	We will outsource pads. Their resources are out of our system boundary.	
	Does the system use mainly depleting and/ or non-renewable materials for the production processes?		Yes	We will outsource pads. Their resources are out of our system boundary.	
	Does the system use mainly depleting and/ or non-renewable materials for products, support products, packaging, and infrastructure?		Yes	We can encourage women to use the sanitary napkin packaging to dispose off the waste whenever possible, instead of using newspapers	
Toxicity Reduction	Are the processed resources toxic or potentially toxic for the workers?	High	Anyone handling the collected sanitary napkins may come in contact with toxic gases and material	With proper safety gear and awareness about waste handling, we can overcome it	Radical Improvement
	Are the processed resources toxic or potentially toxic in during distribution?		No		
	Are the processed resources toxic or potentially toxic for the user?		If used for a lot of time, it can cause infections	We can spread awareness through instructions on the package	
	Are the products, support products, packaging or infrastructure toxic or potentially toxic during/after service time treatments?		There is no treatment of waste	The effluents on treatment are - Plastic, cellulose, sludge. The effluent sludge can be sent to a biomedical treatment plant to bring down the toxicity levels in prescribed limits	
	Are there any problems with forced or child work?		No		

SDO toolkit - economic sustainability.

Criteria	Sub-criteria	Priority	Analysis	Orient Concept	Check Concept
Market position and competitiveness	Do you have a weak market position in the current system?	Medium			No Improvement
	Are there possibilities to improve your market position that you do not use at the moment?				
	Do you see current and future threats for your market position?		No		
Profitability/ added value for companies	Is the profitability of the current system low for your company and other external partners?	Low	Yes	-	No Improvement
	Is there anybody producing better offers than you in a cheaper way?		No		
	Are there missed opportunities to create more value in the whole value chain/ system?		Not at present		
	Is somebody else using this opportunity (e.g. selling your products second hand)?		No		
Added value for customers	Is the profitability/ value low for customers/ consumers?	High	No		No Improvement
	Do you fail to offer concrete, tangible savings in time, material use etc. for the customer?		There might be issues in waste pickup and product delivery timings until we scale up	We can boost brand visibility through promotional campaigns	
	Do you fail to offer 'priceless', intangible added value like esteem, experiences, etc. for which the customer is willing to pay?		No		
	Are competitors creating more value for money for the customers?		We have almost no competitors		
Long term business development/ risk	Are there any threats in the current system for your business in the longer term?	Low	Mostly no	We need to build and maintain a strong customer-centric PSS	No Improvement
	Do you foresee that the customer's needs for your offer will disappear?		Never		
	Are there any major risks from external sources (clients, government, legislation, NGOs) for your offer?		No		
	Is your offer more a short term business, will it disappear soon?		No		
	Is your offer threatened by technological or fashion changes?		No		
	Is your financial background sound?		-		
Partnership/ cooperation	Is your market position in danger?	Medium	No	We need to build and maintain a strong customer-centric PSS	Incremental Improvement
	Do you have a weak market position that you want to improve?		No		
	Can you use strategic partnership and co-operation?		Yes, we need partnership as we will outsource supplies and infrastructure units	Yes, we need partnership as we will outsource supplies and infrastructure units. We are partnering with local entrepreneurs to manufacture bins, calendars, incineration agencies and employing workforce for operations	
	Are your competitors co-operating and therefore have a better market position?		No		
	Are you missing competencies internally that you need today and in the future?		No		
Macro-economic effect	Are there problems on a macro economic level, e.g. disclosure of participants in economy, monopolistic structures, rebound effects?	Low	No		No Improvement