URINARY INCONTINENCE // IN ELDERLY PEOPLE

SANKET KAMBLE

RAHUL DHADKE

SUDEV G.S



TEAM DETAILS

Name	E-mail	Mobile Qualification		Experience	
Rahul Dhadke	rahuldhadke@iisc.ac.in	9004535820	B.E.(Mech)	Internship (2 months)	
Sudev GS	sudevs@iisc.ac.in	9481035394	B.E.(Mech)	Internship (2 months)	
Sanket Kamble	sanketkamble@iisc.ac.in	8454056039	B.E.(CS)	Accenture (1 year)	

PROBLEMS OBSERVED (IMMERSION/INTERVIEWS/PERSONAL EXPERIENCE):

Problems Received/Perceived/Observed	Solution Neutral Problem	Identified Need		
Expensive	Cost effective	Low cost		
Not easy to wear and remove	Easy usability	Easy to use, access		
Changing of the diaper is difficult	Easy usability	Easy to use, access		
Need to change very often because it get filled very fast	Frequent discharge	Capacity/durability		
Getting infection in the penal area	Urine deposition in the penal area	Inflectionless contact		
Discomfort	Incontinence causes discomfort to user	Comfortable		
Psychological issue	Incontinence solution causes social exclusion	Less noticeable/fashionable		
After the diaper is full, very difficult to carry (it acts as an extra luggage to carry)	Frequent urination	Better storage/collection		
Disposing diaper after use	Disposal in current solution is a problem	Easy dispose		
Pain due to catheter	Direct contact with the penal/urethra causes pain	Painless		
Addition of collector limiting the motion	Difficult to carry the collector	Should not limit daily activities		

MARKET/USER STUDY DETAILS

Regionally, the global adult diapers market can be segmented into North America, Asia Pacific, Europe, Latin America, MENA, and Rest of the World. As China, trailed by India, has the largest population of aged people, these countries are also expected to demonstrate the fastest growth in terms of the demand for adult diapers through the course of the forecast period. Market trends suggest, a majority of new entrants will focus on expanding their business in emerging economies to capitalize on the opportunities prevalent therein. Due continuous innovation and development in areas like material science, now absorbent pads are only three millimeters thin and have an enormous absorption level. Perfume, perfect shape, a high absorption level; today's sanitary pads have many comfort improving qualities. It all started, however, with a sheet of cotton. the consciousness that sanitary pads aren't sustainable is growing. Normal sanitary pads contain plastic and cause a big amount of waste. Alternatives like washable pads and reusable/recyclable products are slowly gaining popularity

1. The adult diaper market segmented into three main product categories

Booster Pads

1. TrimShield Pads – Light protection with a moisture-proof backing and adhesive strip

2. Adjustable Belted Undergarments – Can be worn inside of underwear or in place of them

3. Adult Liners – To be worn in regular underwear

4. Personal Care Pads – Gentle elastics form a cup shape that enables a secure fit

5. Super-Plus Liner – A comfortable solution for larger sizes; worn with snug fitting briefstyle underwear



Disposable Underwear Diapers

Kaycee Adult Diapers

Features

- Neutralizes Odor Acts as a natural deodorizer
- Body Shaped for better fit
- Wetness Indicator
- Easy- Lock Fasterner
- Low Rewet Value, Good Absorbency
- Price 30 to 80 Rupees per piece



2.External Catheters & Collectors

Features

- Need to empty it every 8 hours
- Required to clean urine bag with soap and water at least once a week if you reuse it

• Price

- 1. Catheter Rs. 200 to 800
- 2. Collector Rs. 500 to 1000



3. Urinals Features

- Portable
- No leakage
- Easy storing
- Price: Around 2000 Rs.

4. Penile Clamp

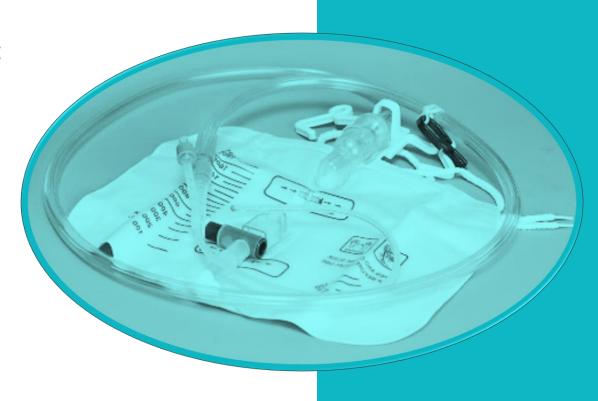
Features

- Gently applies pressure to stop urine flow through the urethra
- Price: Rs 5000 to 7000



5. Indwelling Catheter Features

- Drain urine Directly from bladder
- Price Rs 600 to 800 for catheter



SOCIAL IMPACT

Today's incontinence sufferer isn't just the elderly person in an adult care facility. Diabetes, pregnancy, childbirth, menopause and prostate conditions are among just some of the factors that contribute to incontinence problems among millions of women and men across the globe. Those who suffer from incontinence because of these causes, along with rapid aging populations in developed countries across the globe, have been driving growth in the market for adult incontinence products such as adult diapers, under pads, light incontinence pads, absorbent underwear and other products. According to recent data from market research company Euromonitor International, adult incontinence is the fastest growing category in retail tissue and hygiene globally, with \$7.2 billion in sales in 2015. Statistics show that 12.8 billion units of adult incontinence products were sold globally in 2010, which grew to 18.5 billion units sold in 2015. Retail volume for these products is expected to grow at a CAGR (compound annual growth rate) of 7% through 2020, with the number of units sold projected to hit 25.8 billion in 2020

TARGET MARKET

⊠30% of the WOMEN suffer from incontinence for all age group
 ⊠1.5-5% (3.5% avg) of the MEN suffer from incontinence for all 24-64 years age group
 ⊠15% of the men suffer from incontinence for all 64+ years age group

Market Segmentations

Age group	Male (million)	Female (million)	Male suffering from UI(million)	Female suffering from UI (million)	
24-54 yrs	267	251	80	9	89
54-64 yrs	46	46	14	2	16
64+ yrs	36	40	5.5	12	17.5
			69.5	23	122.5

TOTAL ADDRESSABLE MARKET

- All over India 122.5 million people are suffering from UI in the age group of 24+ years
- Filtered Need: (by relative importance matrix method)

	Low cost	Easy to use, access	Capacity/ durability	Inflectionless contact	Comfortable	Less noticeable/fa shionable	Better storage/co llection	Easy dispos e	Painless	Should not limit daily activities	Weigh tage	% Weig htage
Low cost		1	0.5	0	0.5	1	0.5	1	0	1	5.5	12.2
Easy to use, access	0		0.5	0.5	0.5	1	0.5	0.5	0	0.5	4	9
Capacity/ durability	0.5	0.5		0.5	1	1	0.5	1	0.5	0.5	6	13.3
Inflection less contact	1	0.5	0.5		0.5	1	1	1	0.5	1	7	15.5
Comforta ble	0.5	0.5	0	0.5		1	0.5	0.5	0.5	0.5	4.5	10
Less noticeabl e/fashion able	0	0	0	0	0		0.5	1	0	0.5	2	4.5
Better storage/c ollection	0.5	0.5	0.5	0	0.5	0.5		1	0.5	0.5	4.5	10
Easy dispose	0	0.5	0	0	0.5	0	0		0	0.5	1.5	3.3
Painless	1	1	0.5	0.5	0.5	1	0.5	1		1	7	15.5
Should not limit daily activities	0	0.5	0.5	0	0.5	0.5	0.5	0.5	0		3	6.4
											45	100

NEEDS ACCORDING TO THE PRIORITY:

Needs according to the priority:

Inflectionless contact
Painless
Capacity/durability
Low cost
Better storage/collection
Comfortable
Easy to use, access
Should not limit daily activities
Less noticeable/fashionable
Easy dispose

User Need:

- ☑ Inflectionless
- Easy to remove and even to wear
- Least bulky/ noticeable
- ☑ Cost effective
- Should not make rashes
- ☑ Cost Effective

Biomedical Device as a solution for Urinary Incontinence in young adults irrespective of the gender that gives inflectionless contacts, is cost effective, has spacious collection, gives ease in usability, and least noticeable.

"

