

designed by **curiosity**

**Godrej** | APPLIANCES

# Design & Innovation

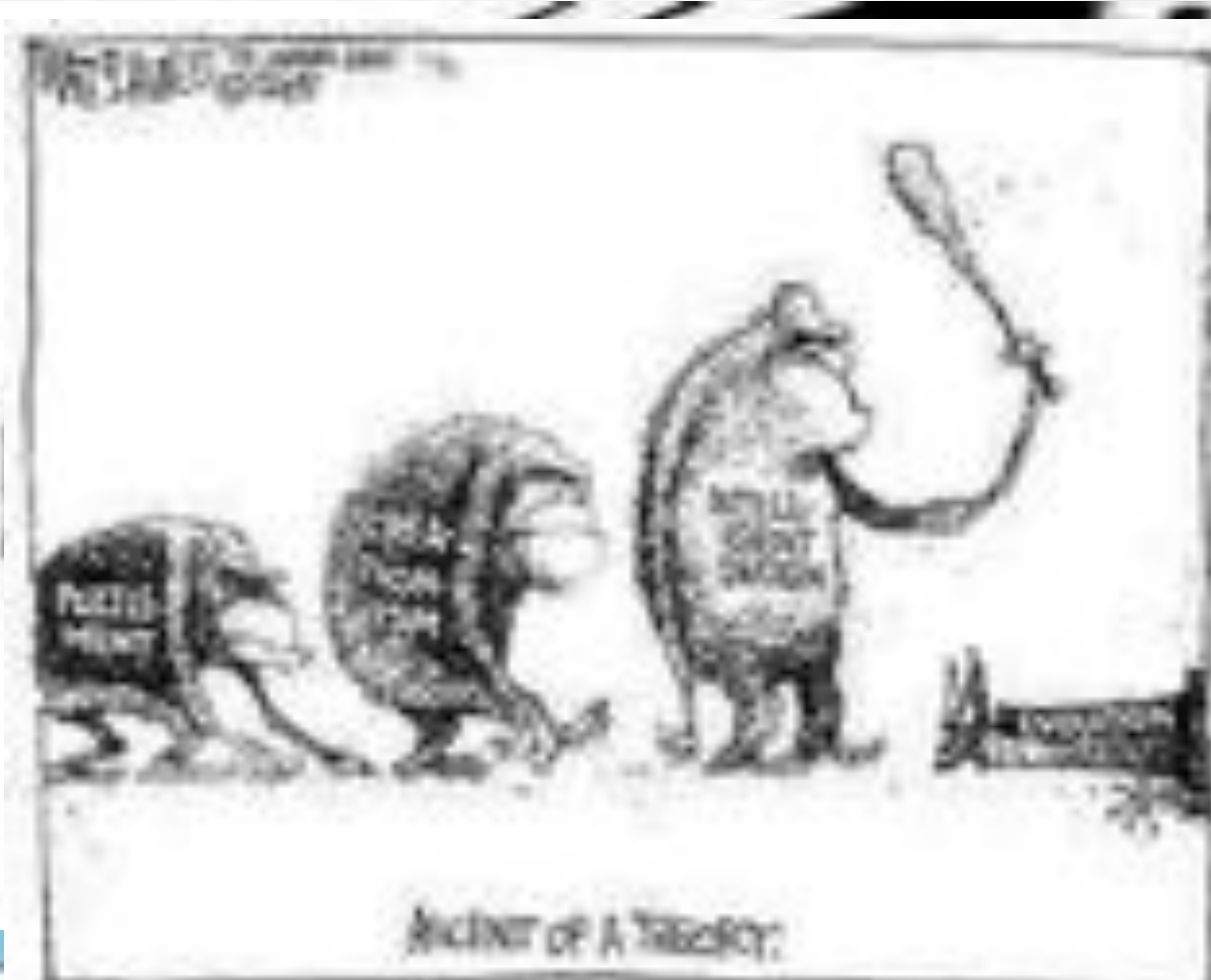


When we think Design & Innovation ....  
We think evolution of ....

**Products**

**Consumers**

**Process**



**Across decades Geopolitical events have shaped the influence on**

*Industry growth , Product Design*

thereby influencing

*life style and Consumerism*



# Roaring 20's



MARCH 26th, 1920  
**REVISED PRICES**

AUSTIN TWENTY TOURING CAR— 595 + Surcharge 100	\$695
AUSTIN TWENTY COUPE— 750 + Surcharge 100	\$850
AUSTIN TWENTY LANDAULET— 775 + Surcharge 100	\$875
CHASSIS ONLY— 475 + Surcharge 75	\$550

This announcement cancels all previous quotations.

Model T sales - 3L in 1918, 1.9 Million in 1928



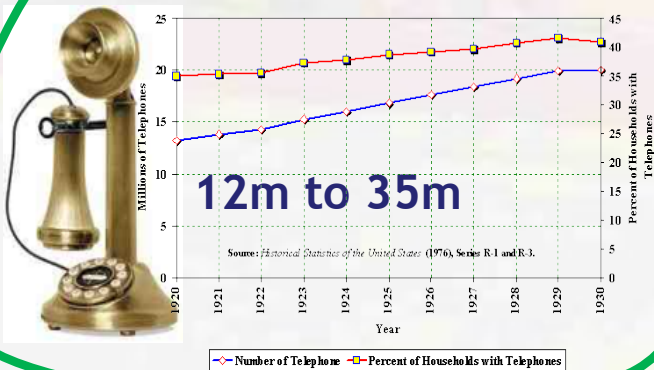
Period of sustained economic growth before the great depression.

Break from tradition – 1<sup>st</sup> feel of modernity.

## Focus on

- 1) Mass production – Making technology affordable to Mass market.
- 2) Setting up infrastructure for electricity and telephone

Figure 19: Households With Telephones, 1920 to 1930



## Product & Services Design Influences ...

# Cold War Period – Golden 50s, Swinging 60s, Hippie 70s



50's – Low Unemployment and Inflation.  
Beginning of Arm's Race.  
Advent of Television.  
High levels of investment in Space research.

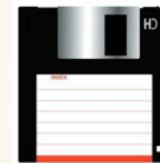
60's – The Flower Power era.  
Introduction of bright colors across product lines.  
Music industry made inroads through Rock n Roll

70's - Era of electronic goods – Tape recorders,  
Calculators, Floppy discs.  
Advent of Gaming Industry and Pay TV.  
Oil Crisis brought focus on Fuel efficient car  
design in Europe.



# Product & Services Design Influences ...

## Post Cold War Period – Turbulent 80s , Global 90s



80's – Era of personal PC's and Personal camera's. Great strides in chip manufacturing. Political turmoil across Europe and Asia with collapse of communism.

90's – World Wide Web unveiled. Mobiles, Pagers , Emails make their way. Era of Information and Inventions in digital space.

# Product & Services Design Influences ...



## 3<sup>rd</sup> Millennium ( 2000 ~ 2010)

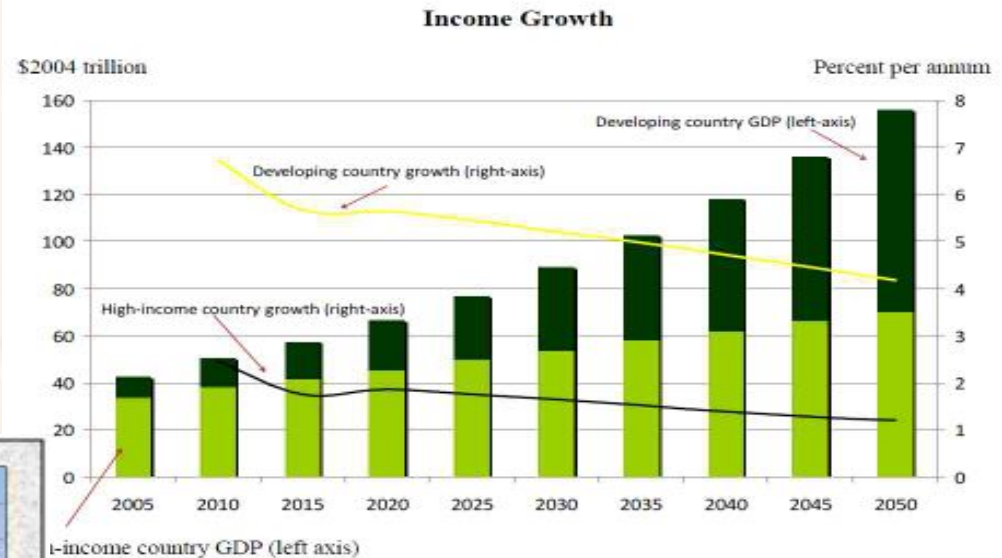


2000s - Rise of Global Terrorism.  
Digital Era.  
Social networking integrates the globe.  
Death of distance in communication.  
Collaborative product development.  
Birth of Product Ecosystems.  
Standardization of hardware.( USB)

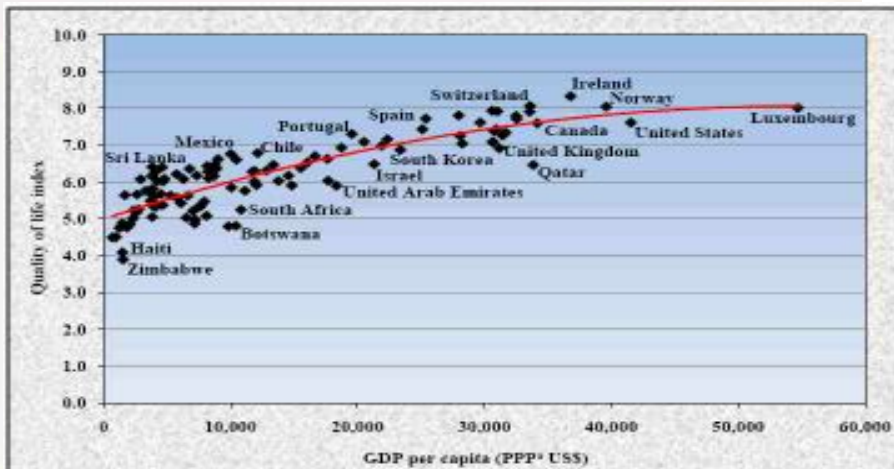
# Consumer Evolution – Last Decade

## 1.MANAGING COMPLEXITY

*Increasing Income levels & Quality of life amidst crisis.*



ce: Mensbrugge et al. (2009)



**Ambitious & Demanding.**  
**Able to deal with situations**  
**and progress**



## Consumer Evolution – Last Decade

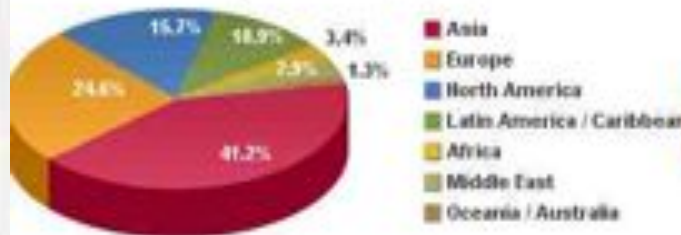
### 2.GLOBAL CONNECTIVITY

*Mobile internet , real time information ..*

### 3.MEGACITY CONSUMER

*New Global middle class is born –Tech savvy , highly mobile, transnational*

World Internet Users  
by World Regions



**Well Informed  
and Aware**

Source: Internet World Stats - [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)  
1,598,270,108 Internet users for March 31, 2009  
Copyright © 2009, Miniwatts Marketing Group

## Consumer Evolution – Last Decade

### 4.BLENDED REALITY

*Convergence – TV, internet, wireless, GPS*

1975



Landline Phone

2005

Mobile VoIP IM



A white arrow points from the mobile phone image to the VoIP and IM images.

iPod Nano

• 4GB in < 1.5 cubic inches!



The iPod Nano is shown vertically, and the iPhone is shown vertically below it. A white box highlights the iPhone and a silver oven-like appliance to its left.

2009

Denso Wave Barcode Reader in DoCoMo Phone



Samsung 7 Megapixel Phone



Google Local Mobile



**Seeks multi functional use in a product, Instant Gratification.**

## Consumer Evolution – Last Decade

### 5.GREEN & CLEAN SUSTAINIBILITY

*Environment control , Go green , clean /alternate technologies*

Similar to Toyota's top-selling Prius petrol-electric hybrid, the car has a distinctive exterior styling that will allow drivers to telegraph their green credentials to other motorists.



**Culturally rooted ,  
Committed to Green  
cause**

# Impact of this change...



***Pace of technology has quickened, with reach and access increasing***



**38 YEARS**



**13 YEARS**



**4 YEARS**

***Years it took to reach a market audience of **50 Million*****



**3 YEARS**



**1.5 YEARS**

# Impact of this change ....

***The pace of product introductions across sectors has also intensified***

## AUTOMOBILE



Avg. Launches – **50 in Last 1 Year** Variants on Aesthetics, Speed, Mileage Launch of GLOBAL Brands

## TELECOM



New Product Launch **every 3 Months** Variants on Aesthetics, Consumer Interface, 3G Enabled, GPS

## CONSUMER ELECTRONICS



New Product Launch **every Month** Variants on Aesthetics, Technology, Consumer Convenience, Response Time

# Impact of this change ....



***The pace of product introductions across sectors has also intensified***

## HOME APPLIANCES



New Product Launch **every 6 months** Variants on Aesthetics, Technology, Consumer Convenience

## FMCG (TOILETRIES)



New Product Launch **every Month** Variants / Brand Extensions / Sizes Fragrances / shape

## APPARELS/WATCHES



New Product Launch **every Month** Variants / Colors / Size / Design / Technology / Shape

Given this backdrop ....



What are the **imperatives** for businesses ?

What are the key **Challenges** &  
**Opportunities?**

## Key Challenges ...



Need for  
Greater  
Variety and  
differentiation

More frequent  
and faster  
Product  
launches

Shorter Product  
Life cycles &  
Cost recovery  
periods

Develop  
products for  
Nonusers

Communication

Business Model  
Innovation

Brands are finding it increasingly difficult to stay relevant ,  
Noticed and be recalled by Consumers



Mantra for success ....

Constantly **Innovate**

To differentiate

in

**Products**

**Processes**

**Services**

**Communication**

**Business Models**

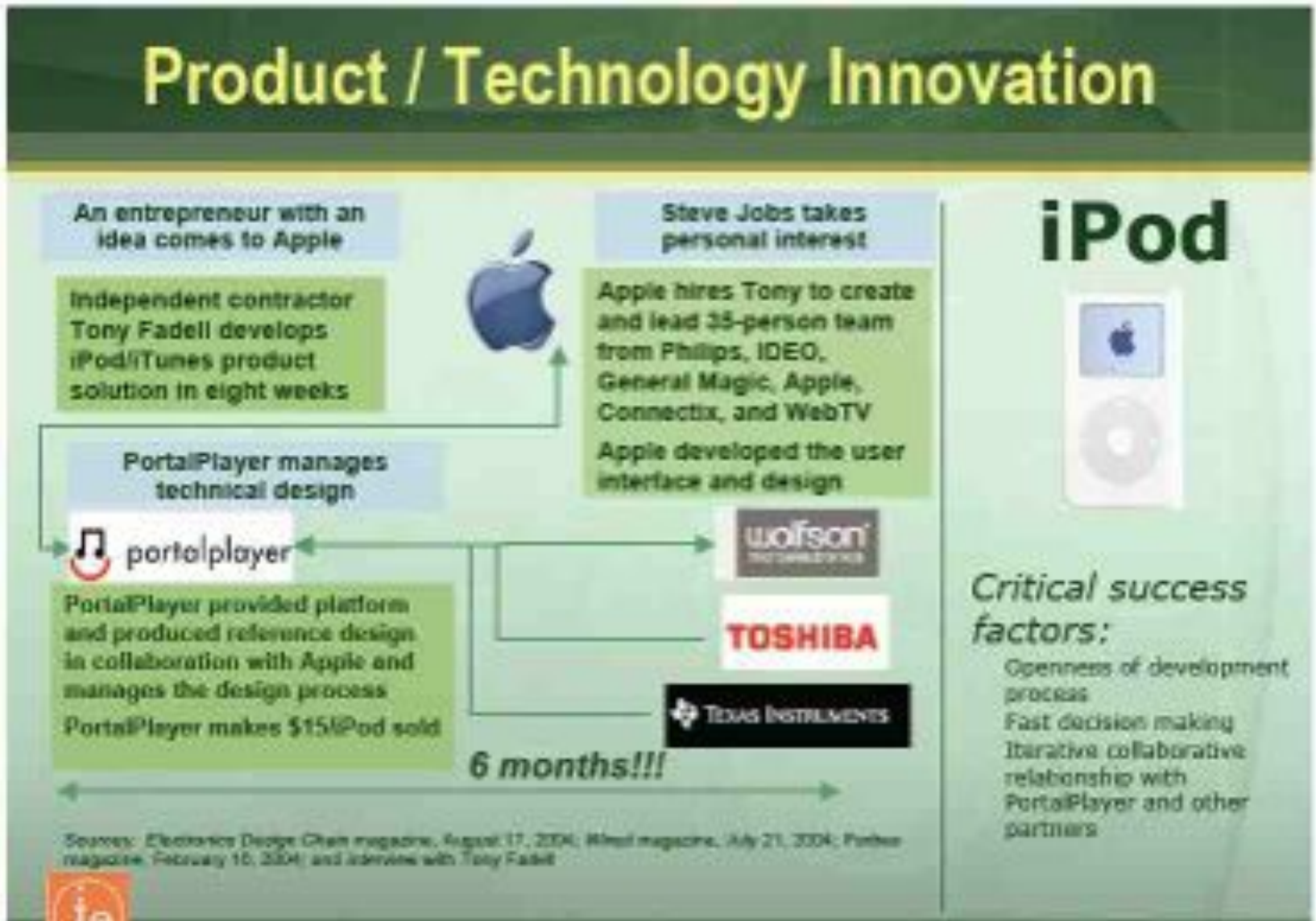
# NPD Process Innovation –



**Disruptive business models...**



# Open Innovation : Business Model innovation – Apple iPod



# Open Innovation : Business Model innovation – Apple iPod

## iPod's Open Business Models



**Step 1: iPod: Open innovation, but a traditional business model**

**Step 2: iPod + iTunes: A new business model with partners (content licensing)**



**Step 3: iPod + Nike: New products through partnership and more new business models**



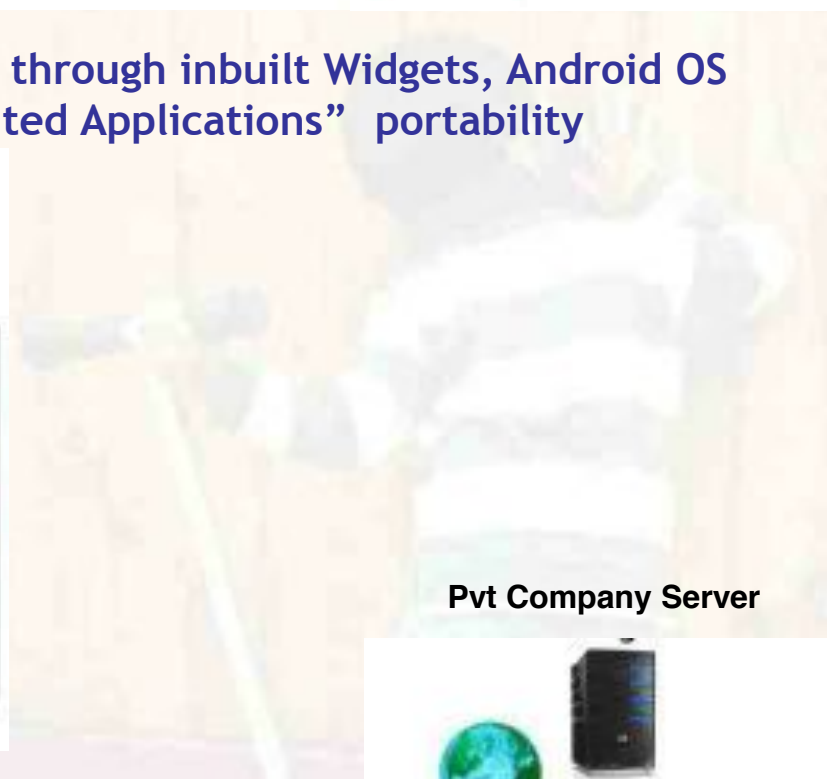
Business models to build product eco systems



# Building Ecosystem around product ideas – Case study of Internet TV Apps eco system



Unlike Connected TV which allows net connections through inbuilt Widgets, Android OS based Smart TV allows “Full browsing” and “Unlimited Applications” portability



# Building Ecosystem around product ideas – Case study of Internet TV Apps eco system



This is providing a platform for business model innovations in the TV landscape



**Build / Maintain Content**

**Download / View content**



**Upload content**

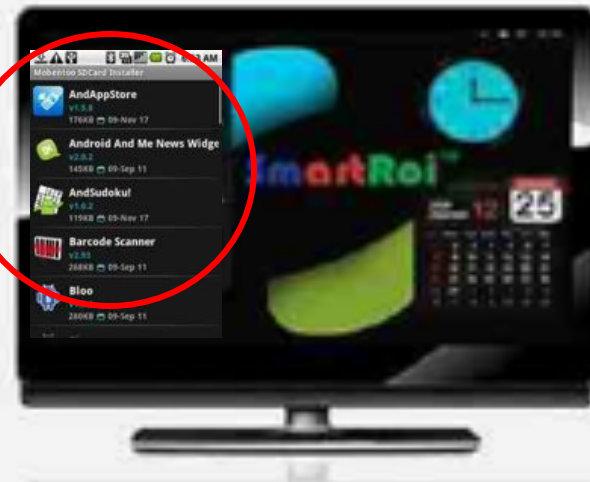


TV the "Digital hub" within a household

# Building Ecosystem around product ideas – Case study of Internet TV Apps eco system



Like Smart phones, Internet TV is providing opportunity for “ After Sale” cash flow.



Provide platform for uploading new applications —  
 Direct internet traffic to specified application development sites —

- Provide platform for developers and users
- Profit sharing model ( Mobiles) .. Click based or Usage based or on sale basis

Besides Application market, scope exists for business tie up's with

- a) Gaming sites
- b) VOD serving company
- c) Internet Service providers
- e) Banks / Financial advisory firms /Stock brokers etc..





**Business Model Innovation for the Bottom of the Pyramid –  
Godrej Chotukool**

# Innovating for the bottom of the Pyramid – Godrej Case study



HBR Article

## Godrej's Nano: Chotukool

The world's lowest-cost refrigerator will be launched in March

ABHJEET KURRAE

The bullock cart stops in one of the dusty alleys in Chotukool, a small town in the Northwade region of Maharashtra. And two village girls, dressed in traditional Marathi Kasta Saris, step out in stride with the products they have helped co-create with engineers at Godrej & Boyce.

The quality of the sales pitch of the Class 10 girls would do an MBA proud. But they know the products well, as the company industrial team right from the conception stage in developing and manufacturing its 'nano' refrigerators, named Chotukool (Little Cool).

The refrigerators, which are being sold in batches of a few towns in Maharashtra, are set for a nationwide commercial launch in March.

For Chotukool, the Godrej group has joined the track—literal model of a proprietary channel with a sales force with a distribution network—and has joined hands with micro-finance institutions.

The new distribution equipment is just one of the unique experiments that Godrej is trying out to make a splash in the bottom of the pyramid refrigerator market. There are many more.

Chotukool does not have a compressor. It looks like a 43 litre cool box, which is loaded from the top, and can run on battery. And at Rs 3,250, it costs around 35% less than the cheapest category of refrigerators available in the market.



Godrej & Boyce Chairman (Anand Godrej)



innovation. The idea floated in the workshop was to develop a lighter right from the design to selling of the product. The co-creators did that in right manner ever since it announced.

Chotukool does not have a compressor. It looks like a 43 litre cool box, which is loaded from the top, and can run on battery. And at Rs 3,250, it costs around 35% less than the cheapest category of refrigerators available in the market.



### Moving On Up in India

Manufacturers are producing cheaper versions of products that often eluded India's poor, some of whom live on less than \$2 a day. From a small car to a portable medical device, India's have-nots are finding new products designed to meet their needs. Here are some of them. (See related article.)

Print Graphic 2/8

The Godrej Little Cool, or "Chotukool," costs about \$70, compared to regular refrigerators that can start at around \$180. The fridge resembles a cooler, with only 20 parts compared with some 200 parts for large refrigerators. (Photo: Eric Bakman/The Wall Street Journal)

Move over for more data!



# Innovating for the bottom of the Pyramid – Godrej Case study



## Ethnography research to understand Non Consumers

1



Unaffordable to buy existing solution

*“I want to own a cooling device with a price band of Rs 2500-3000”*

2



Monthly running cost is higher

*“Electricity Bill should not exceed more than Rs. 50pm”*

3



Space is a constraint

*“wants product which occupies less space and is movable”*

## Product Needs Insights

①

**Projected Lifestyle**

Sleek  
Good  
Looking



③

**Better Livelihood**

Closer to community  
Livelihood by selling  
Chotukool Income generating  
asset

②

**Raising Living Standards**

Offer Convenience.  
Should ease of stress of food wastage.  
Easy to Operate.

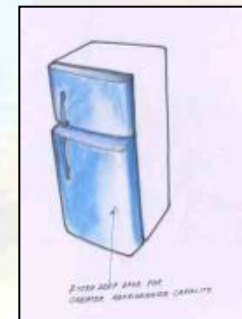
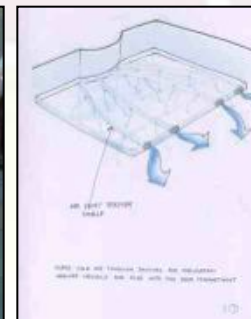
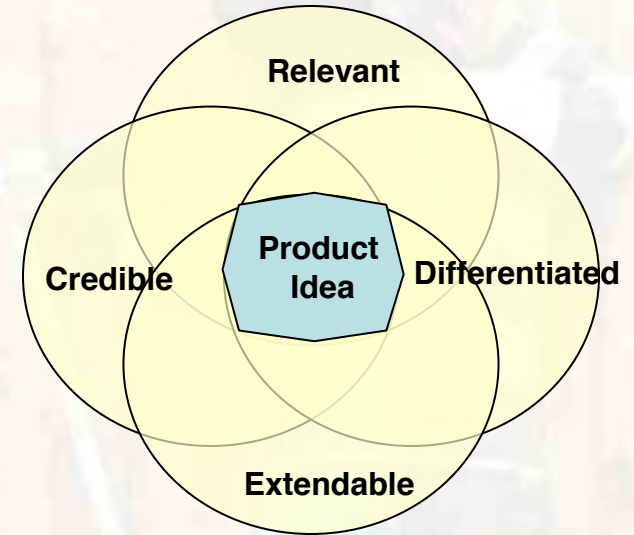


# Innovating for the bottom of the Pyramid – Godrej Case study



## Collaborate , Innovate & Develop Solutions

- Engage experts , Collaborate and seek
- Insights from different quarters.
- Bring new technologies.
- Ideate, Experiment, Adapt, Execute



# Innovating for the bottom of the Pyramid – Godrej Case study



## Create Products catering to these Non Consumers – Disruptive Innovation

① **about solid state Thermoelectric cooling** ➔ Affordable Robust Simple ➔ Easy to use Easy to service Easy to make



**Chotukool**



③ **promoting unique entrepreneurial NGO channel**

② **just right solution for BOP that meets daily needs**

➔ Closer to community  
Livelihood by selling  
Chotukool Income generating asset

➔ Prices @ Rs. 3250  
Meet the daily needs  
Works on 12V

# Innovating for the bottom of the Pyramid – Godrej Case study

## Innovate on distribution channel to widen reach

### Thanks to postmen, 'ChotuKool' households

Share 

Kamnal Saiyed

Tags : Godrej, ChotuKool, Anand, Bardoli, Bharuch, Kheda

Posted: Wed Dec 21 2011, 09:08 hrs  
Sarat:


The ubiquitous village post office has a new job. Postmen are now delivering refrigerators to rural homes. In a unique marketing proposition, Godrej has tied up with the Indian Postal department to sell small capacity refrigerators to village homes. The company signed a memorandum of understanding with director of postal service (Gujarat circle), a few months back, to sell the "ChotuKool", a small refrigerator worth Rs 3790 to capture the rural market.

In the last one month Surat region of postal department had sold around 33 refrigerators only in Janhivav village in the district.

Interestingly the ChotuKool refrigerator is of 43 litres capacity to fulfil daily necessities, with no compressor. "It runs on an electronic chip. It needs just 230 volt AC supply and can even run on an inverter. It is made from unbreakable plastic body weighing 8.9 kilogram and opens from the top," said Chirag Shah, an associate manager with Godrej.

Godrej ties up with Indian Postal Services to sell Chotukool





**Business Model Innovation having a Social Impact -  
HUL Pureit**



# Case study of HUL Pureit – Social Impact of Disruptive Innovation



"Sathyameva Jayathe"

**HINDUSTHAN UNILVER**  
**pureit**

**HOW DOES PUREIT MAKE WATER AS SAFE AS BOILED WATER™**  
Purit Germkill Battery Action

- 1. **MICROFIBRE MESH™**  
Removes visible dirt.
- 2. **COMPACT CARBON TRAP™**  
Removes remaining dirt, harmful parasites and poisonous impurities.
- 3. **GERMKILL PROCESSOR™**  
Special germ-kill power targets and kills harmful viruses and bacteria.
- 4. **POLISHER™**  
Gives clear, colourless and great tasting water.
- 5. **BATTERY LIFE INDICATOR™**  
It shows KAD safety because when the germkill power is exhausted, the indicator turns red warning you to replace the battery.

**Advanced Auto Shut-Off**  
In case, the battery is not charged when it turns fully red, an additional assistance of safety, the advanced Auto Shut-Off will automatically switch off the flow of water.

Purit Germkill gives you 1500 litres of water that is as safe as boiled water™. The Germkill Battery Kit™ costs Rs. 350/- only. Therefore, you get 4 litres for Rs. 3/- only.

Meets stringent international criteria for microbiologically safe drinking water. e.g. Environmental Protection Agency (EPA), USA.

**PIPL Premium Suit Length**  
Purit K1 contains one Purit Water Purifier + Premium Suit Length + Premium Shirt Length

## Social Context

Diarrhea is the main cause of death for children <5 in India

Awareness for diarrhea as a public health issue is very low, focus on is on "high awareness" diseases such as AIDS even though diarrhea kills more people than AIDS in India

**Effective solutions available from price points of Rs 6000 onwards.  
Designing affordable product key to addressing societal need (2003)**

**Key Alternatives**

**Remarks**

***Candle filters  
(Clay / Ceramic)***

Not effective beyond sediment filtration.

***Filtration through muslin  
cloth***

Only filters the dirt thus ineffective for purifying for other contaminants and disease causing pathogens. It requires daily cleaning

***Boiling water***

Time consuming, Requires cooling thereafter. High chances of Re infection. Not Fuel efficient.

***UV System/Reverse  
Osmosis***

Require Power. Are very expensive. Require extensive distribution network for installation and servicing

# Case study of HUL Pureit – Social Impact of Disruptive Innovation



## 3 pronged approach undertaken – Product Innovation , Brand Promotion & Channel Innovation



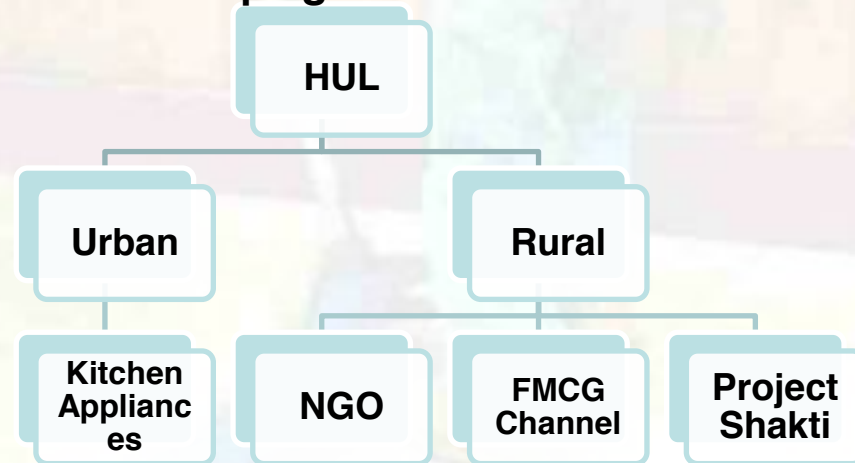
**Pureit –18 ltrs (Rs 2000)**

Chlorine tablet as cost effective filtration device. Product designed to overcome issues with Chlorine residue



**High decibel awareness campaign**

**Network Innovation - Tapping the retail network**



## Conclusions – Food for thought

### Voices across the Globe

**The Debate Zone: Will Asia become the center for innovation in the 21st century?**

#### **Mckinsey digital - Debate**

*Asia is using technology to build new models for delivering goods and services to its vast low-income populations. Many of those models will lead to powerful innovations for global markets.*

*The US relies on market forces to spur innovation, but it's starting to lag behind nations that make innovation a national priority with policies that support research and education.*

#### **Students Poll – US Colleges**

Approximately 74 percent of Chinese students and 86 percent of Indian students said their home countries' economies will grow faster in the future than they have in the past decade.

Most foreign students said innovation will occur faster over the next 25 years in India and China than in the United States.

All men dream, but not equally. Those who dream by night in the dusty recesses of their minds, wake in the day to find that it was vanity: but the dreamers of the day are dangerous men, for they may act on their dreams with open eyes, to make them possible.

**T.E. Lawrence**