Jugaad Innovation:
A Frugal, Flexible, and Inclusive Way to Grow

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Winton Teatime Talk, December 2, 2013
Unique Features of Indian Innovators

Frugal

Flexible

Inclusive
Thinking Outside the (Ice) Box

Source: http://www.mittcool.in/
Thinking Outside the (Hot) Box
Envirofit’s Compact Stoves
Jugaad Innovation

The art of overcoming harsh constraints by improvising an effective solution using limited resources

Gambiarra or jeitinho in Brazil

Jua Kali in Kenya

zhizhu changxin in China

DIY in the US

Systeme D in France
Why Does India Need Jugaad?

Upwards of 40% of Indians:

- Are unbanked
- Are off the electricity grid
- Have limited access to healthcare and education
The Indian Socio-Economic Landscape

The Indian consumer base isn’t homogenous but is divided into five distinct classes:

- "The very rich" (6,000,000)
- "The consuming class" (150,000,000)
- "The climbers" (275,000,000)
- "The aspirants" (275,000,000)
- "The destitute" (210,000,000)

Only consumers in these two top tiers want offerings with the same attributes and quality as in developed countries.

Why Does the World Need Jugaad?

The World Economic Pyramid

- **Individual daily income (in Purchasing Power Parity)**
  - > USD 55
  - USD 9 - 55
  - < USD 9

- **Population**
  - 4 billion
  - 2 billion
  - 0.5 billion

Source: World Resources Institute
Why Does the World Need Jugaad?

BOP market—$5 trillion
TOTAL BY INCOME SEGMENT

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Why Does the West Need Jugaad?

Figure 10. Industrially funded research and development in Western Europe and the United States

Millions of constant 1987 dollars


United States

Western Europe
Persistently high unemployment causes family incomes to fall, poverty to rise.

The labor market is the foundation of income for nearly all American families, so when the labor market deteriorates, family incomes suffer. Family incomes are affected through both job loss and through hours and wage cuts for those who have work. As Figure P shows, the median working-age household saw an income decline of $2,700 from 2007 to 2009. Furthermore, this recession came on the heels of one of the worst business cycles (2000-07) on record in terms of job creation, one in which the income of the median working-age household fell $2,250 – the first business cycle on record in which incomes did not end higher at the end of the recovery than at the peak of the last one. Consequently, the typical working-age household brought in roughly $5,000 less in 2009 than it did in 2000.

Incomes will stay reduced until the unemployment rate drops toward full employment, a prospect that is years away.

The weak labor market of the Great Recession and its aftermath has produced a substantial rise in poverty. In 2009, one in seven people, and one in five under the age of 18, was living in poverty. For children under age 6, one in four live in poverty. Racial and ethnic minority families are more likely to live in poverty.

**NOTE:** Shaded areas denote recessions.

**SOURCE:** EPI analysis of U.S. Census Bureau data.
Social Entrepreneurs
Mansukh Bhai and the MittiCool Fridge

It is a fridge made from special clay. It has three chambers, one just for cooling water. It requires no electricity and is a perfect solution for rural areas.
Dr Mohan’s Mobile Diabetes Clinic

Source: http://www.drvmohan.com/

Source: http://www.worlddiabetesfoundation.org/composite-2731.htm
SELCO SOLAR

SELCO Solar Pvt. Ltd, a social enterprise established in 1995, provides sustainable energy solutions and services to under-served households and businesses. It was conceived in an effort to dispel three myths associated with sustainable technology and the rural sector as a target customer base:

1) Poor people cannot afford sustainable technologies;
2) Poor people cannot maintain sustainable technologies;
3) Social ventures cannot be run as commercial entities.

SELCO aims to empower its customer by providing a complete package of product, service and consumer financing through grameena banks, cooperative societies, commercial banks and micro-finance institutions.
Green Light Planet: Solar Lighting Kit
Large Indian Organisations
Tata and the Nano

Tata “Swach” Water Filter
Aakash Tablet

$35 TABLET FROM INDIA
Multinationals Doing Jugaad
GE and Affordable Innovation

ECG machine designed specifically for India’s rural markets

Portable, light, battery operated, reliable, cheap

Launched in China, and now in the US after having got FDA approval
Siemens: Foetal Heart Monitor
The Nokia 1100

Specifically for emerging markets:

Dustproof keypad and front face

Built-in flashlight

Over 200 million sold since late 2003

World's best selling handset and consumer electronics device
The Proposition Is Simple

Cash In Cash Out
Person 2 Person Transfer
Airtime Top-Up
Merchant Payment
Bill Payment
ATM Withdrawals
Social Payments
International Transfer
Over 5 million customers registered
Average of 10,000 new registrations per day
M Kopa Solar Lighting Solution
(Uses M Pesa as a Payment Tool)
Jugaad in the West?
Design for America and Swipe Sense

To solve problems in health care, education, and energy in the US

Hospital acquired infections: 2 million people

100,000 deaths each year

$2-4 billion dollars in costs to the healthcare industry
Ebon Upton and the Raspberry Pi

“Design intended to inspire schoolchildren and adults to program sees overwhelming demand as first versions go on sale”

“Demand for Raspberry Pi, the British £22 computer, crashes website”

Source: The Guardian
Eight19: Off-Grid Energy Solutions
Barclay’s PingIt

Barclays’ P2P money transfer app

Passes 500,000 downloads in 3 months after launch
Mr. Immelt said he expected healthcare products developed in India to be exported to the rest of the world. "Some of these models and products have applicability in Europe and the U.S.," he said.
Conclusion

India and the world need frugal, flexible, and inclusive innovation

The UK and the West can gain by engaging with their counterparts in India

Together we can improve lives everywhere
Thank you!