Emerging Consumer and The New Age of Innovation

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Paul and Ruth McCracken Distinguished University Professor
The Ross School of Business,
The University of Michigan
Building Blocks of Strategy: Financial Services Firms

Number of Consumers (Scale of Operations)

Innovations in Access to Consumers (Source of Value)

Life Stage Management of Financial Services (Scope of Services: Banking + Insurance)
Agenda for the Session:

Scale

Emerging Consumers, Reforms, Growth,

Convergence of Technologies and Industry Boundaries, Connectivity

Access to Consumers

Emerging Opportunity

Demographic Dividend, Efficiency Dividend, Innovation Dividend

Creating New Capabilities: Capturing Mexican Opportunity
Development of Strategy Concepts: Focus on *Next Practices*

1994
Competing for The Future

2004
*The Future of Competition*
*Fortune at the Bottom of the Pyramid*

2008
The New Age of Innovation
The Changing Roles of the Poor and the Rich: Emerging Markets as a Source of Innovations?
Conception of Emerging Markets: India

<table>
<thead>
<tr>
<th>Per Capita Income</th>
<th>2006</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 45,000 PPP +</td>
<td>1%</td>
<td>~ 4%</td>
</tr>
<tr>
<td>$ 10-45,000</td>
<td>8%</td>
<td>~ 20%</td>
</tr>
<tr>
<td>4.5-10,000</td>
<td>26%</td>
<td>~ 40%</td>
</tr>
<tr>
<td>&lt;4,500</td>
<td>65%</td>
<td>~ 36%</td>
</tr>
</tbody>
</table>

Which is the Target Market?
Approach to Understanding Market Opportunity

Per capita Income

Per family Income

Size of the Segment

Rate of Upward Mobility

Possible Revenue Pool

Possible Profit Pool
Conception of Emerging Markets: Mexico

<table>
<thead>
<tr>
<th>Per capita Income (US$)</th>
<th>Range</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ $12,000</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>$4,650</td>
<td>$4,000-5,300</td>
<td>20%</td>
</tr>
<tr>
<td>$2,600</td>
<td>$2,150-3,200</td>
<td>30%</td>
</tr>
<tr>
<td>$1,320</td>
<td>$775-1,830</td>
<td>40%</td>
</tr>
</tbody>
</table>

Which is the Target Market?

Source: INEGI
Conception of the Emerging Markets

Potential Market For Fin. Services?
First Level Conclusions…

1. The Market is Significant
2. This Market will Demand New Business Models
3. The Market is Country/Sector specific
4. Consumer Behavior/Expectations are varied
5. We Need to Focus on Awareness, Access, Affordability, Availability

We Need:
Global Standards and
Locally Responsive Solutions
The Core Strategy Challenge

Number of Consumers

Access to Consumer

New Channels and Business Models

BOP

TOP

Integrated

Traditional Segments

Life Stage Wellness Management
The Core Strategy Challenge

- Number of Consumers
- Access to Consumer
- New Channels and Business Models
- Traditional Segments
- Life Stage Wellness Management
- Integrated
- BOP
The Core Strategy Challenge

Number of Consumers

Access to Consumer

New Channels and Business Models

Traditional Segments

Integrated Life Stage Wellness Management

BOP
Accessing Emerging Markets: Challenge # 1:
Creating the Capacity to Consume

1. Easy Payments: Access to Credit
2. Lower Costs: 20-50X improvement
3. Single Serve
4. Pay/use; Focus on Access
5. “Last Mile” Distribution
Access to Emerging Consumers

They Live in:
Unorganized, Inefficient Systems,
Local Monopolies,
Information Asymmetry,
Poverty Penalty,
Poor Quality, Low Tech.

We Must Create:
Organized Sector,
National / Global Competition,
World Class Quality,
Affordable Prices,
Access to info.
Advanced Tech.
New Models
The Core “Mother Industries” for Economic Development

Connectivity (Private Sector)  
Energy  

Productivity = Poverty Alleviation

Micro Finance (NGOs, Private Sector)

Education, Health Care
Is there Evidence that Emerging Consumer can be Source of Wealth Creation?
The Cell Phone Industry:

1. Great growth Story in BOP markets around the world
   Sub Saharan Africa, S. Africa
   China, India
   Thailand, Philippines, Indonesia
   Mexico, Latin America
   3.0 billion connected around the world
2. The industry has *Cracked the BOP Code*

3. India is one of the fastest growing Markets: 6 million/month
4. Cost of service: Lowest in the world
5. Market Cap of 4 firms in India: $ 75 billion

6. Cell phone is becoming the device of Choice not the PC
Participation In Emerging Markets

1. Converting consumers from Unorganized, inefficient markets to Organized and Efficient Private sector

2. It is a Market Development Task

3. BOP Markets will Force Breakthrough Innovations

4. We have to think differently;
   Price - Profit = Cost
   Cost + Profit = Price
Desire for Eyesight

Target Price

Target Profit

Target Cost
Desire for Connectivity

Target Price

Target Profit

Target Cost
Desire for a Car?

Target Price

Target Profit

Target Cost
The Desire for Connectivity

Target Price

Target Profit

Target Cost
Focus on Emerging Consumers Lead to Breakthrough Innovations

It can Create Global Opportunities
Making Products/Services Affordable
e.g. Prosthetics for the Poor

<table>
<thead>
<tr>
<th>Evidence:</th>
<th>Jaipur Foot, India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach:</td>
<td>Barefoot Walking,</td>
</tr>
<tr>
<td></td>
<td>Squat on the Floor</td>
</tr>
<tr>
<td></td>
<td>Sitting Cross legged</td>
</tr>
<tr>
<td></td>
<td>Walking on Uneven Ground</td>
</tr>
<tr>
<td></td>
<td>Paucity of Doctors</td>
</tr>
<tr>
<td></td>
<td>Need for Custom Fitting in a day</td>
</tr>
<tr>
<td>Defaults</td>
<td>As good as US Models</td>
</tr>
<tr>
<td>Size and Scope</td>
<td>Largest in the World</td>
</tr>
<tr>
<td>Viability</td>
<td>Profitable</td>
</tr>
</tbody>
</table>
Basic Foot Movement is Complicated
The Functionality Requirements in India are Different from the West

<table>
<thead>
<tr>
<th>Activity</th>
<th>Functionality: 1</th>
<th>Functionality: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squatting</td>
<td>Need for Dorsiflexion</td>
<td>Work Needs, Poverty, Lack of Trained manpower, Time for Fitting</td>
</tr>
<tr>
<td>Sitting Cross Legged</td>
<td>Need for transverse Rotation</td>
<td></td>
</tr>
<tr>
<td>Walking on Uneven Ground</td>
<td>Need for Inversion and Eversion</td>
<td></td>
</tr>
<tr>
<td>Barefoot Walking</td>
<td>Need for Natural Look</td>
<td></td>
</tr>
</tbody>
</table>
XMAP 2003

Jaipur Foot

MICHIGAN
ROSS SCHOOL OF BUSINESS
Comparison of Scale and Quality

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
<th>Quality: Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaipur Foot</td>
<td>16,000/year</td>
<td>As good as US</td>
</tr>
<tr>
<td>Aravind Eye care</td>
<td>280,000/year</td>
<td>As good as UK</td>
</tr>
<tr>
<td>NH</td>
<td>7,500/year</td>
<td>Better than NY State</td>
</tr>
<tr>
<td>Group</td>
<td>Specialization</td>
<td>Cost Adv. Over USA</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Jaipur Foot</td>
<td>Prosthetics</td>
<td>200 x</td>
</tr>
<tr>
<td>Aravind Eye</td>
<td>Eye care</td>
<td>100 x</td>
</tr>
<tr>
<td>Escorts</td>
<td>Cardiac care</td>
<td>15 x</td>
</tr>
<tr>
<td>Narayana</td>
<td>Pediatric</td>
<td>30 x</td>
</tr>
<tr>
<td>Hridayalaya</td>
<td>cardiac care</td>
<td></td>
</tr>
</tbody>
</table>
## Cost Comparisons

### Typical Costs in US $

<table>
<thead>
<tr>
<th>Procedure</th>
<th>USA</th>
<th>India</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary Artery Bypass Surgery</td>
<td>70-133,000</td>
<td>7,000</td>
<td>22,000</td>
</tr>
<tr>
<td>Heart valve Replacement</td>
<td>75-140,000</td>
<td>9,500</td>
<td>25,000</td>
</tr>
<tr>
<td>Hip Replacement</td>
<td>33- 57,000</td>
<td>10,200</td>
<td>12,700</td>
</tr>
<tr>
<td>Prostate Surgery</td>
<td>10- 16,000</td>
<td>3,600</td>
<td>4,400</td>
</tr>
</tbody>
</table>

Superdelegate Decision Time • The Next BlackBerry

U.S. News & World Report

Medical Tourism

The high cost of U.S. hospital care is causing patients to travel to places like India and Thailand for major procedures.

PLUS:
BEST HOSPITAL CHOICES
COMPARING COSTS
WHAT TO AVOID
Do We Need a New Methodology for Innovation at Emerging Markets?

Creating *Micro Consumers*

Constrained Innovation

or *The Innovation Sandbox*
Case Study # 2
Current Practice: Typical Cooking System
The “Innovation Sandbox” for Energy in India

Scalability

Aspirational, Intelligent

New Price-Perf. Levels

Safety Standards, Eco. sensible
What is the Opportunity in India for BP?

1. Rural Poor is a Target Market
2. Extreme Variety in Cooking Habits
3. Choice of Fuels based on Cooking Habits, Availability of Funds, and access to Biomass
4. We need a very Flexible, Personalizable Solution
5. There is a great Opportunity for Improving Energy Efficiency and Health of Women and Children
6. It must be affordable
The Combination Chula

Biomass Pellets, Efficient, No Smoke

LPG,
Combination Stove used in Market Research

Front View
The Combination Chula

Creation of Village level Entrepreneurs: Jyoti Ammas Partnership with NGOs and IISc. as Co Creators

New Pelletizers, 1 KG bags, Supply Chain

Biomass Pellets, Efficient, No Smoke

Manufacturing and Logistics of the Chula

LPG Supply Chain Decentralized Storage

LPG,
First Stoves

Stabilized Version

Current Version

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Next Version
(India & Vietnam)

Chinese Stove
Where is the Experiment?

1. Successful Piloting in India during 2006
2. Scaling in India during 2007-2010
3. Experiments in SA and piloting
4. Opening up 8 New Geographies in next 3 years
5. A New Category for BP - Emerging Consumer
6. New Approach to participation in Non OECD markets
Emerging Consumers Creating a New Global Competitiveness Agenda for MNCs?

Creating the Capacity to Consume

- Hybrid technology
- Lean management
- Market Development
- Price-Performance
- Deskilling Work, Remote Delivery
- New Forms of Governance
- Distribution/Logistics, Scale
- Global Competitiveness
Key Takeaways......

1. Emerging Markets a New Source of Efficiency and Breakthrough Innovations,

2. Awareness, Access, Affordability, Availability as Key building Blocks

3. The Innovation Sandbox – Embrace constraints

4. Collaboration with Civil Society, Public Sector and Private Sector
Critical Innovations

1. Last Mile: Innovations in Distribution
   Micro Finance Firms
   NGOs
   Telecom Firms
   Retailers (Casas Bahia, Elecktra)

2. Innovations in Payment Methods
   Cell Phones (Globe telecom)

3. Who is the Competition?
   Coke?
Rethinking Innovation and Value Creation
The New Age of Innovation: The Basic Thesis

Globalization + Connectivity, Digitization, Convergence, Social Networks = A New Approach To Innovation & Value Creation
Price-Performance Envelopes are Changing Faster than anyone Expected

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Transistors/chip</td>
<td>10³</td>
<td>10⁶</td>
<td>10⁹</td>
<td></td>
</tr>
<tr>
<td>Decrease in size of micro-devices</td>
<td>10⁻¹</td>
<td>10⁻⁶</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computing power</td>
<td>10¹¹</td>
<td>10¹⁵</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per MIPs($1000)</td>
<td>1</td>
<td>1M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNA sequencing cost ($/BASE PAIR)</td>
<td>10</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetic data storage (bits/dollar)</td>
<td>10⁴</td>
<td></td>
<td>10¹¹</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ray Kurzwell
The New Age of Innovation:

Core Drivers:
Connectivity, Convergence, Digitization, Social Networks

Shifting Balance of Power:
$C < F \text{ to } C \geq F$

New Firms
$N=1; R=G$

Traditional Firms
Migrate to
$N=1; R=G$

Build New Capabilities:
Social and Technical Architecture

Talent Matters

IT Matters

Loose Competitive Advantage
Value Creation Process in:

1. Google
2. Tutor Vista
3. Li & Fung
4. Netflix
5. Starbucks
6. Amazon
7. Aviva
8. Nike
9. ICICI- Prudential
10. Automotive -OnStar
11. Bridgestone
12. Madras Cements
13. Medtronics
14. UPS

One Consumer at A time (N=1);
Multiple Vendors (R=G)
What Are the Building Blocks of a New Managerial Framework for Innovation and Value Creation?
The New Game:

\[ N = 1 \]

(Co creation of Personalized Experiences)

\[ R = G \]

(Multi-Institutional and Multi –Geographic Access to Resources)
The Transformation from a Product/Firm Centric View to N=1: R=G

1910
The Transformation from a Product/Firm Centric View to N=1: R=G

1910

2010
The Centrality of Personalized Experience

Undifferentiated Customers (Model T)

Customer Segments (e.g. Adolescents)

Mass Customization (e.g. Dell)

Personalized Co Creation (e.g. Diabetes, EMRI)

N=1
The Need for Accessing Distributed Resources

Vertical Integration (e.g. River Rouge)

Creation of A Supply base

Global Supply Chains

Emergence of Nodal Firms and Supply Webs

R = G
Rethinking Innovation

Custom made Products

Mass Production Of Products

Services

Solutions

Unique, Personalized Co created Experiences

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Case Study # 3

Consider Type II Diabetes

Next Practice Solutions?
The Spread of Diabetes

Type II Diabetes

Diagnosis

Medication

Compliance, Life Style

Affordable Insurance

Delivery Infrastructure

Kidney

Cardio-Vascular

Eye

Amputations

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New Principles:

1. Life Style Diseases Need Effective Management by Individuals. Compliance to a *Prescribed Personalized* Routine is Key

*Focus on N=1 (Individual’s Behavior)*
New Principles:

1. Life Style Diseases Need Effective Management by Individuals. Compliance to a *Prescribed Personalized* Routine is Key

   *Focus on N=1 (Individual’s Behavior)*

2. Economic Incentives are a Source of Feedback to Individuals

   *Pricing Based on Behavior* can Improve Compliance

   *Focus on Variable Pricing Based on Compliance*
Variable Pricing Strategy

- **Poor Compliance**
  - Increased Risk
  - Increase Premiums

- **Base Premium**

- **Strong Compliance**
  - Reduced Risk
  - Reduced Premiums

Range = 100%
New Principles:

1. Life Style Diseases Need Effective Management by Individuals. Compliance to a *Prescribed Personalized* Routine is Key
   *Focus on N=1 (Individual’s Behavior)*

2. Economic Incentives are a Source of Feedback to Individuals
   *Pricing Based on Behavior* can Improve Compliance
   *Focus on Variable Pricing Based on Compliance*

3. No Single Firm can Create the Eco System for Compliance
   Need to Build a *Multi-Vendor Ecosystem with a Nodal Firm*
   *Focus on R=Global for Serving N=1*
The Diabetics Management Ecosystem

ICICI-Prudential

Monitoring
Nicholas J&J

Diagnostics
Metropolis, Well Spring

Health Mgt.
Gyms & Health Clubs

Hospital Networks?

Pharma
Wockhart Biocon

Channels

Rural Access?

Consumers

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## What are the New Principles

<table>
<thead>
<tr>
<th>Insurance Perspective</th>
<th>Health Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Class of customers and Actuarial data</td>
<td>One customer at a time; N=1 Real time Behavioral data</td>
</tr>
<tr>
<td>Pricing based on segment</td>
<td>Pricing based on compliance of an individual Economic Incentive to stay Healthy</td>
</tr>
<tr>
<td>Protect from Catastrophic Illness, death</td>
<td>Help customers improve their Life Style, contain disease, Protect from Catastrophic illness and death</td>
</tr>
<tr>
<td>Customers are on their own</td>
<td>Customers get help; Feedback and Certified Periodic Testing</td>
</tr>
</tbody>
</table>
The Basic Transformation

Suppliers → The Firm → Channel

SCM  ERP  CRM

Nodal Firm

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N=1, R=G Changes the Innovation Dynamic

The Sources of Competence is Changing

Business Units → Corp. as a Portfolio Of Competencies → Extended Supply Network → Enhanced Network of suppliers, Partners, Consumers

Pre 1990 → 1990- → 1995- → 2001-
The Meaning of Innovation is Changing

- **Product Innovations**: Pre 1995
- **Customer Specific Solutions**: 1995 -
- **Customer Experiences: Co Creation**: 2001-
We can Identify an Innovation Continuum

Locus of Competence

Enhanced Network: Customers
Extended Supplier Network
Corp. As a Source

Locus of Innovation
Build & Sell Products
Build Solutions
Co Create Experiences
The New Age of Innovation

New Business Models

Global Talent Leverage

Collaborative Capacity

Common, Shared Standards, Platforms

Investment Capacity
What are the Enablers?

N=1, R=G

Increase in the Number of Activities, and Players: Orchestrating an eco system

Understanding and Managing Tensions and Frictions

Managerial Mindset, Systems, Measurements, and Talent

Value Creation

Innovation in an N=1, R=G Environment
What are the Impediments to Building New Capabilities?

Social Infrastructure Of the Firm: Legacy Mindsets, Dominant Logic, Skills, Attitudes and Behaviors, Decision Processes, Incentives

Business Processes, Analytics

Access to Talent

Tech. Infrastructure Of the Firm: Legacy Systems, Databases, ICT Architecture, Applications
The New House of Innovation

The Social Architecture of the Firm:
(Values, Skills, Attitudes, Decision Processes, Performance Metrics in the firm)

Flexible and Resilient Business Processes and Focused Analytics

The Technical Architecture of the Firm:
(Information and Communication Technology –ICT- Backbone of the Firm)

Personalized Co Created Experiences: N=1

Global Access to Resources and Talent: R=G

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Strategy for Financial Services

- Number of Consumers (Scale of Operations)
- Innovations in Access to Consumers (Source of Value)
- Life Stage Management of Financial Services (Scope of Services)
Transformation Requires:

Imagination
Passion
Courage
Humanity
Humility
Intellect
Luck!