Bangladesh

ICT and Social Transformation in Bangladesh
The “Bangladesh Paradox”
The “Bangladesh Paradox”

Between 2004 and 2014, Bangladesh averaged a GDP growth rate of 6%.

Population:
- Total: 156 million
- Urban: 33%
- Rural: 67%

GDP Per Capita at current prices (USD):
- 2001: 403
- 2014: 1,096
The “Bangladesh Paradox”

Remarkable performance in MDGs related to:

- Life expectancy (highest in SA)
- Fertility rate (lowest in SA)
- Mortality rate of children under five (lowest in SA)
- Gender parity in primary and secondary education
- Primary school enrolment rate
- Immunization against early childhood diseases
- Sanitation and access to drinking water
- Societal attitude towards women
Vision 2021

To become a middle-income country by 2021 through developing a knowledge economy

ICT has become one of the major thrust sectors in Bangladesh since 2009
Digital Bangladesh

**Mobile Phone Users**
- 2004: 5 mn
- 2014: 122 mn

**Internet Users**
- 2004: <1 mn
- 2014: 36 mn

**Network Coverage**
- 2014: 98%

**Graphs**
- **MOBILE**: 78% (22% 2G, 5% 3G, 73% No Mobile)
- **INTERNET**: 23% (77% Internet, 23% No Internet)
Major services contributing to social transformation:

- Connectivity
- ICT education
- Software development and outsourcing
- Information services
- e-Commerce and m-Commerce
- Financial services
- Helpline services such as healthcare, disaster management, agriculture, livestock, legal advice, etc
- Social services such as for eliminating child marriage
Financial Services

One branch in 16 km²

40% of adults have an account at a formal financial institution

Scheduled Banks

9,051* Bank branches

18,000+ MFI Branches

Fully Banked
Under-Banked
Unbanked

UNBANKED 45%

45%
39%
16%

697 MFIs
Licensed microfinance institutions (as of March 15, 2015)

24% of adults are members of microfinance institutions
Mobile Financial Service (MFS)

Elements of MFS Ecosystem:
- Regulations
- Business Model
- Distribution Network
- Consumers
Regulations

MFS was initiated by mobile phone operators

MFS Guidelines 2011 issued by central bank:

- Allow only banks to provide MFS
- Forbid any “cash-out” service by mobile operators
- Permit one account per provider per customer
- Limit cash-in/out to USD 322 daily and USD 1930 monthly for each customer
- Prohibit agent-to-agent transactions
Business Model

Mobile financial services includes both branchless banking with mobiles, and mobile banking

Branchless banking through mobile

- Basic payments and remittance services
- Drive financial inclusion of the unbanked and underbanked
  - M-wallet solutions
  - Micro-loans
  - Micro-insurance for health or crop failures

Mobile as channel

- Access portal for financial services
- Enhance convenience and richness of interactions with financial providers
  - Mobile banking
  - Internet applications on smartphones

Facilitate transactions while saving time, effort and cost for users, e.g.,
- Domestic (and international) remittances
- Utility and other bill payments
## Business Model

<table>
<thead>
<tr>
<th>Name of Financial Service</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving schemes</td>
<td>80%</td>
<td>78%</td>
</tr>
<tr>
<td>Pay utility bills (electric bills, water bills)</td>
<td>85%</td>
<td>68%</td>
</tr>
<tr>
<td>Purchasing good from markets</td>
<td>56%</td>
<td>58%</td>
</tr>
<tr>
<td>Receive salary or work payments</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>Pension fund management</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Commodity dealing</td>
<td>32%</td>
<td>24%</td>
</tr>
<tr>
<td>Investment</td>
<td>28%</td>
<td>10%</td>
</tr>
<tr>
<td>Loan repayments</td>
<td>29%</td>
<td>37%</td>
</tr>
<tr>
<td>Airtime top-up</td>
<td>75%</td>
<td>71%</td>
</tr>
<tr>
<td>Education fees</td>
<td>61%</td>
<td>57%</td>
</tr>
<tr>
<td>Mobile insurance</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>International remittance</td>
<td>21%</td>
<td>18%</td>
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Business Model

Charges

<table>
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<tr>
<th>Service</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Free</td>
</tr>
<tr>
<td>Cash-In</td>
<td>0 - 1%</td>
</tr>
<tr>
<td>Cash-Out</td>
<td>0.8 - 1.85%</td>
</tr>
<tr>
<td>P2P</td>
<td>3 – 6 cents</td>
</tr>
<tr>
<td>B2B / P2B</td>
<td>Free</td>
</tr>
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</table>

Transactions as of February 2015 (in USD millions)

- Inward Remittance: $0.36 million
- Cash-In: $595.8 million
- Cash-Out: $523.9 million
- P2P: $265.5 million
- B2P: $9.35 million
- Utility (P2B): $10.61 million
- Others: $17.6 million
Business Model

$47.44 Million
Value of Average Daily Transactions
(as of Feb 2015)

USD 18.45 per transaction
Distribution Network

Licensed MFS Provider: 28

Active MFS Provider: 10

One Agent in 0.81 km² area

Number of Agents (Million)

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Agents</th>
</tr>
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<tbody>
<tr>
<td>January 2013</td>
<td>0.060</td>
</tr>
<tr>
<td>December 2013</td>
<td>0.189</td>
</tr>
<tr>
<td>June 2014</td>
<td>0.414</td>
</tr>
<tr>
<td>December 2014</td>
<td>0.541</td>
</tr>
<tr>
<td>February 2015</td>
<td>0.543</td>
</tr>
</tbody>
</table>
Consumers of MFS

Number of Registered Clients (Million)

<table>
<thead>
<tr>
<th>Date</th>
<th>Clients (Million)</th>
</tr>
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<tbody>
<tr>
<td>January 2013</td>
<td>5.00</td>
</tr>
<tr>
<td>December 2013</td>
<td>13.18</td>
</tr>
<tr>
<td>June 2014</td>
<td>16.7</td>
</tr>
<tr>
<td>December 2014</td>
<td>25.2</td>
</tr>
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<td>February 2015</td>
<td>25.87</td>
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By 2021

MFS consumers may rise to **47%** of adult population

MFS may increase financial inclusion by **10%**

**24%** of Adult Population

Fully Banked: 16%
Under-Banked: 39%
Unbanked: 45%
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**24% of Adult Population**

**Higher number of people use Over-the-Counter (OTC) transactions through agents’ account**

- Familiarity with a human agent
- Available alternative
- Higher incentive to agent
- Fear of unknown
- Barriers to open account
- Lack of literacy
- Lack of monitoring
Impact on Society

Access to Services
Safety of Savings
Socio-Economic Mobility
Safety Net Coverage

Individuals
Society
Government
Old Pensioner
Ubiquitous **Access** to need-based financial services round the clock:

- Reduced distance (<1 km)
- Reduced travel cost
- Reduced travel time
- No loss of working hour
- 1% savings of income
Safety of Savings:
Avoiding cash reduces risk and
Allows micro-savings for own use
Mobility of Domestic Remittance
Access to fund increases Entrepreneurship
The village “Telephone Lady” with small investment makes a decent earning from within her neighbourhood.
Decent Jobs are being created in community ICT centers

Reducing Income Inequality between rural male and female
... also in ICT education

Inequality is reducing also between rural and urban areas
Helpline field workers “Info-Lady”
Now one can find and apply for a job sitting in rural area
New business activity could create 0.5M new jobs by 2020
Translates into jobs for 1 in 9 unemployed today

Financial inclusion and access to finance spurs entrepreneurship and new business...

Increased access to finance facilitates entrepreneurship, new business creation and jobs

Access to credit  Investment opportunity  New business Expansion  New jobs

Up to 5% new businesses could be created by 2020 with MFS increasing financial inclusion 10%°

- Predominantly among informal entrepreneurs, as existing business owners mostly already have access to finance
- World Bank study finds a 1% increase in financial inclusion leads to 0.51% increase in business creation

Both establishment of new businesses and expansion of current business will contribute to provide new jobs

- World Bank study finds 15% increase in financial inclusion increase employment 1%
- Value chain for serving MFS will also contribute to job creation

... and could create up to 500K new jobs by 2020°, an increase of 1%
Reduced barrier of intermediaries

One can find a suitable market for perishable products
... or can strike a deal before harvesting the perishable products
Wages can reach directly, without getting cut en route
Access to fund helps absorbing **Income Volatility**

*Crop damaged in storm*
... and also in absorbing Expense Shock

67% Expense Shocks are caused by Health Shocks
MFS also facilitates Micro-Credit
MFS facilitates disbursement of **Relief Assistance**

Major flood in every 5 years

Average damage is 30% of household income
Hazards accompanying MFS

- Unreliable authentication of SIM
- Robbing innocent customers by frauds
- Money laundering through agents
- Difficulty in tracing terrorism-financing
Thank You
Health Spending:

Over all health spending is 3.6% of GDP
Private spending is 63.5% of the total
Government spending is 9% of the budget
Mobile Healthcare Services (MHS)

Healthcare Support:

Total registered bed: 92,404

Bed density: 0.6 per 1000 people (WHO prefers 3.5)

Nurse: 33,183

Rural Medical Practitioners (RMP): 130,000

Doctors: 53,923

One doctor per 2,894 people (WHO prefers one per 600)

Shortfall of doctors: 206,000

Graduation per year: 8,026

75% Doctors practice in urban areas
The progress of eHealth in Bangladesh are being recognized as models to follow in other countries.

In 2011, the Honorable Prime Minister Sheikh Hasina received the United Nations South-South Award for Digital Health.

Healthcare spending has increased at a compound annual growth rate of nearly 10 per cent over the past decade. Greater healthcare funding cannot guarantee better access to the healthcare facilities, unless accompanied by powerful and innovative interventions.

Most of the public health IT systems at national levels are in reproductive and child health (RCH).
The “Doctor in a Tab”
The "Doctor in a Tab"

Patient comes to the RMP

The RMP quickly registers the patient
A barcode card is issued to the patient for future reference.

The RMP then obtains the vital signs of the patient.
The "Doctor in a Tab"

... and sends those to the Doctor in Dhaka

The RMP can also send images
The “Doctor in a Tab” in Dhaka analyses the information received. If needed, the doctor then talks to the patient with the help of the RMP.
The RMP performs further investigation if asked by the doctor

The doctor then sends the prescription online
The RMP gets the prescription printed

... and explains it to the patient
The “Doctor in a Tab”

The unique feature in this model – the RMP – can:

- Articulate problems better than the patient
- Collect medical information such as vitals
- Conduct further investigation
- Overcome local dialect barrier
- Penetrate easily to local community
Thank You