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TITLE: Measuring Progress: Towards Information Societies in Emerging Asia

Measuring Progress: Towards Information Societies in Emerging Asia

Findings from a six-country study of Teleuse at the Bottom of the Pyramid

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Teleuse@BOP background

- **Objective: To understand how BOP interacts with ICTs (mostly phones) to better inform policy**
 - Large surveys of 'BOP' conducted in 2005, 2006, 2008
 - Almost 20,000 face to face interviews in 6 countries since 2005
 - Bangladesh (2008)
 - Pakistan
 - India
 - Sri Lanka
 - Philippines
 - Thailand
- Funded by the International Development Research Center (IDRC) of Canada with contributions from Telenor Research and Innovation

Why worry the BOP?

- Because if the access and usage problems for BOP can be solved, it can be solved for the TOP
- Because TOP is less of a challenge
 - closer to gaining Universal Access already
 - through market forces
 - less likely to need public sector subsidies/funding
- BOP is where policy challenges are

Samples

	Bangladesh	Pakistan ^[1]	India	Sri Lanka ^[2]	Philippines ^[3]	Thailand ^[4]	Total
BOP teleusers	2,050	1,814	3,152	924	800	800	9,540
Margin of error @ 95% CL (%)	± 3%	± 2%	± 2%	± 3%	± 4%	± 4%	
Diary Sample	1,025	900	1,600	450	400	400	4,775
Migrant workers	350	300	400	200	200	100	1,550

[1] Pakistan: Excludes tribal regions

[2] Sri Lanka: Excludes North and East

[3] Philippines: Survey was undertaken only among SEC E

[4] Thailand: Excludes Bangkok as the SEC DE population in Bangkok is very small

Methods

Quantitative

- 9,950 face-to-face interviews
- 1 week usage patterns via diary method (50% of sample)
- Sep-Oct 2008

Qualitative

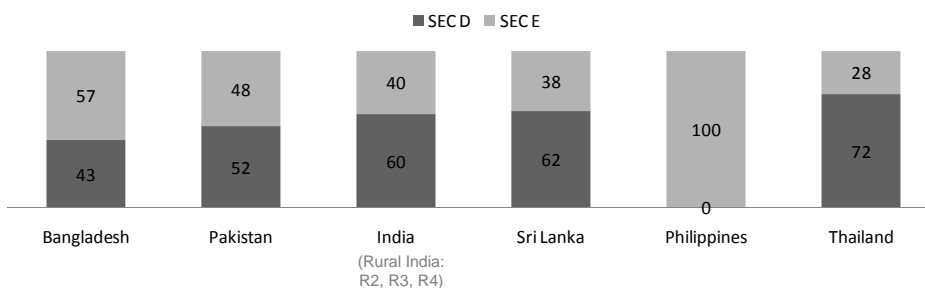
- Focused group discussions
- Mini-ethnographies
- Depth interviews with migrant teleusers
- Feb-Mar 2009

- Multi-stage stratified sampling, random selection of households and individuals
- Migrant worker teleusers at “bottom of the pyramid”
 - SEC groups C** + D + E*
 - “internal” and “external” migrants that send money home
 - Findings available in March 2009

Representing around 518 million BOP citizens aged 15-60 in the 6 countries surveyed

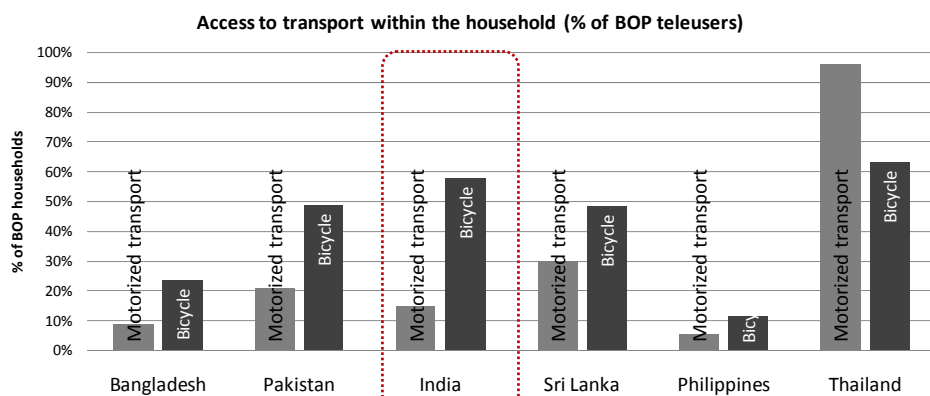
- **Teleusers** at “bottom of the pyramid”
 - SEC groups D + E
 - Aged 15-60

Socioeconomic group classification (% of sample)



WHO IS THE BOP?

Access to transport



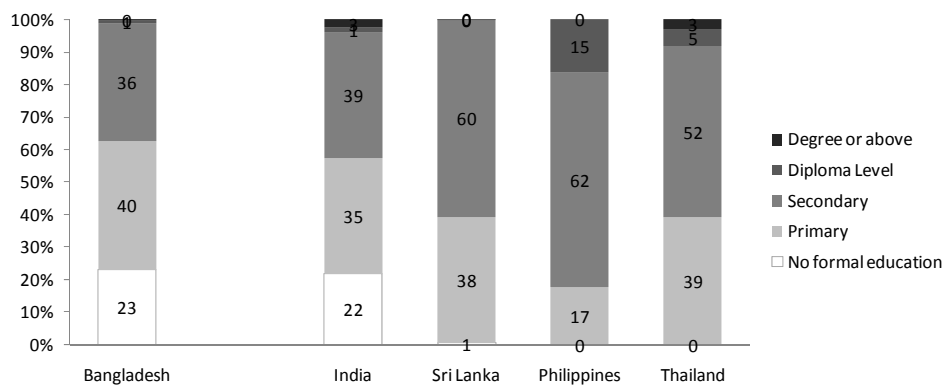
41% of Indian BOP teleusers' households have access to a "bank account" (broadly defined)

Access (either own or within household) to a bank account or credit card (% of BOP teleusers)

	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
Bank account	31%	11%	41%	93%	13%	84%
Credit card	3%	2%	3%	10%	1%	11%

Educational attainment does not exceed primary or secondary education

Educational attainment (% of BOP teleusers)

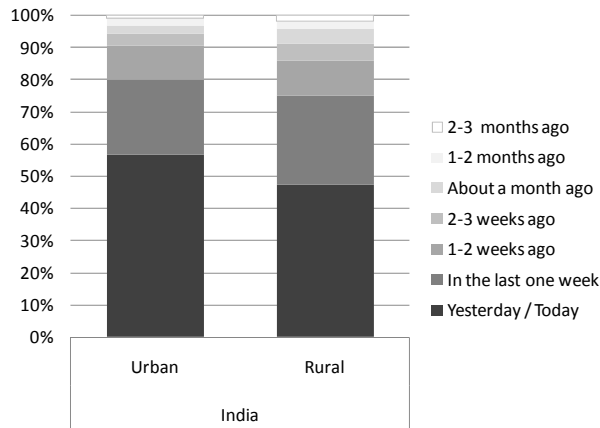


BOP = HIGH ACCESS + HIGH USE OF PHONES

Recent use of the phone to make/receive calls						
Used a phone in the last 3 months						
	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
% of BOP (outer sample)	95%	96%	86%	88%	79%	77 %
Used a phone in the last week						
	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
% of BOP (outer sample)	82%	66%	65%	77%	38%	72%
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="font-size: 0.8em;"> 12 LIRNEasia <small>www.lirneasia.net</small> </div> <div style="text-align: right; font-size: 0.8em;"> Among BOP (OUTER SAMPLE) </div> </div>						

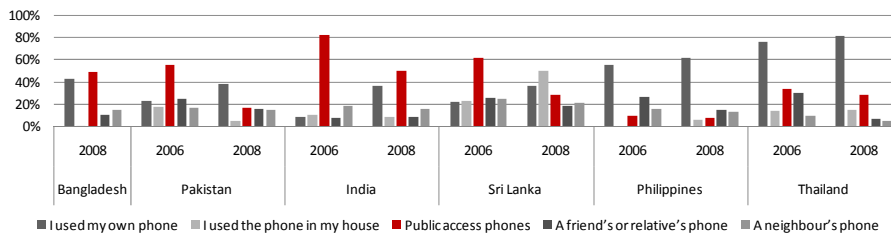
More than **two thirds of rural BOP teleusers** used a phone in the last week

Last time respondent made/received a call (% of BOP teleusers)

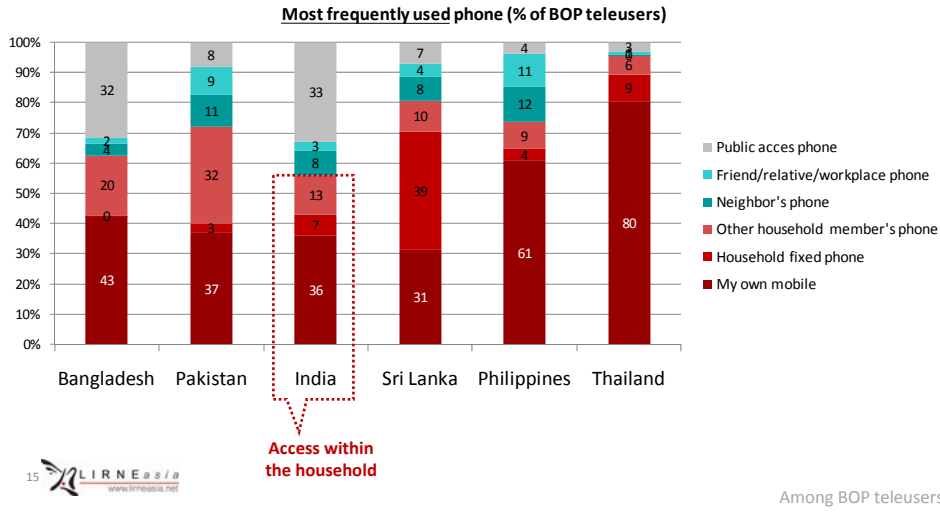


All modes: Public access has fallen since 2006

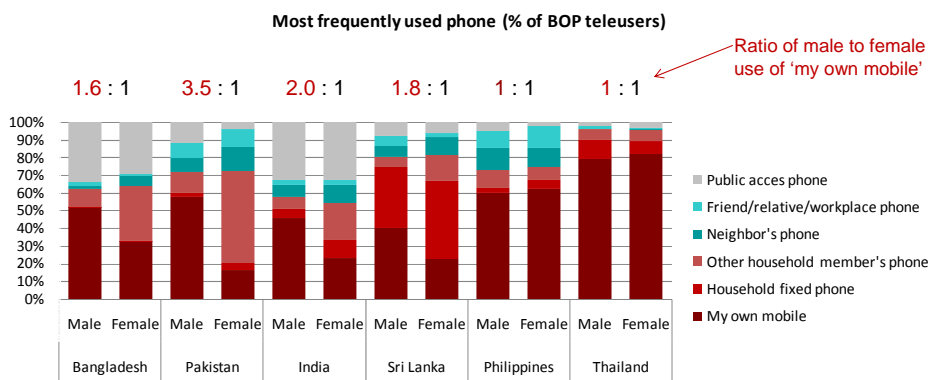
Modes of telecom used (% of BOP teleusers)



Mobiles are used most as the primary phone; public phones in second place



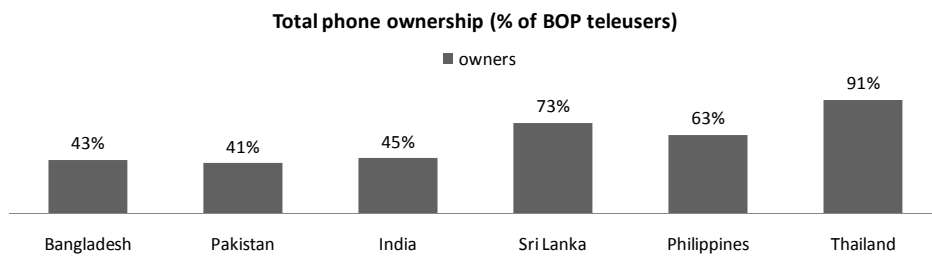
Fewer women in South Asia use public phones. No gender difference in S E Asia



- Women less likely to use their own mobile or public phones; more likely to use other peoples' phones

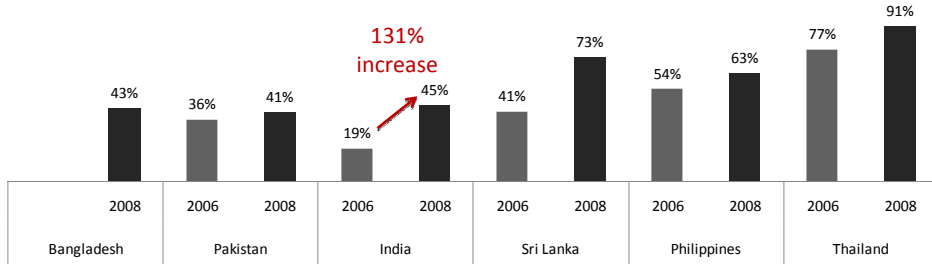
BOP = MODERATELY HIGH OWNERHIP

Ownership is high, but has room for growth



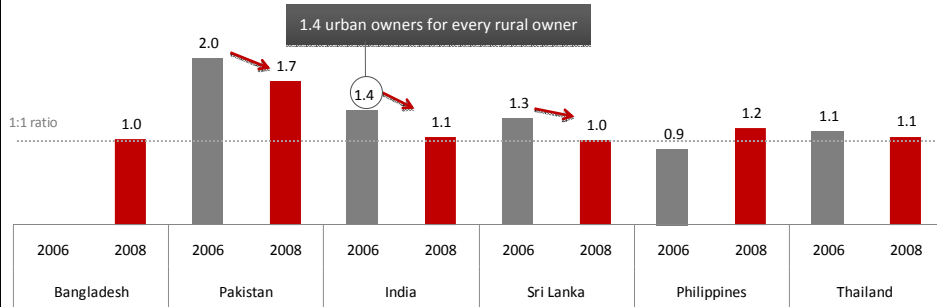
Largest % growth in Indian total BOP phone ownership

Total BOP phone ownership: 2006 vs 2008 (% of BOP teleusers)

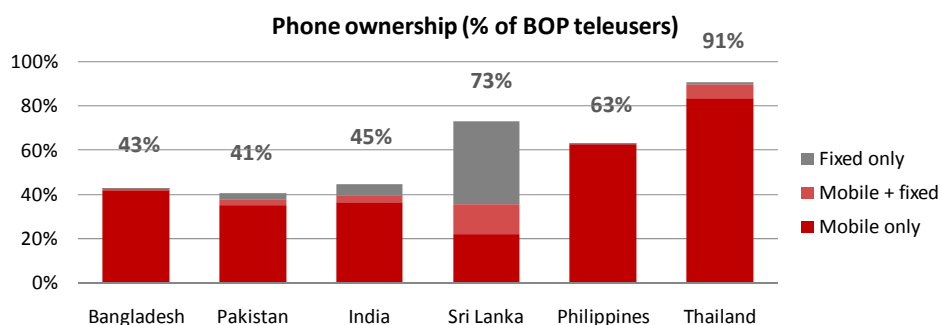


Urban-rural divide in total BOP phone ownership declining

Urban-rural divide in phone ownership (urban:rural)



Mostly **mobile** phones: 90% BOP phone owners own a mobile



Mobile adoption determined by: **demographics**, **household amenities** and **network effects**

LOGIT model for mobile adoption:

1

$$1 + e^{-3.98 + 0.50A - 0.60B + 0.36C + 0.79D + 1.30E - 0.01F - 0.01G + 1.70H - 0.20I - 0.79J - 0.87K - 0.31L + 1.13M + 0.38N + 2.76O - 0.62P + 0.81Q}$$

Where

- A = ln (personal income)
- B = female (1 if true)
- C = primary education (1 if true)
- D = secondary education (1 if true)
- E = tertiary education (1 if true)
- F = walking time to nearest town
- G = age * age
- H = percentage of top five contacts with mobiles
- I = Bangladesh
- J = Pakistan
- K = Sri Lanka
- L = Philippines
- M = Thailand
- N = Electricity in the house (1 if true)
- O = percentage of household members with mobiles
- P = Fixed phone in the house (1 if true)
- Q = TV in the house (1 if true)

R² = 0.23

Mobile adoption determined by **demographics**, **household amenities** and **network effects**

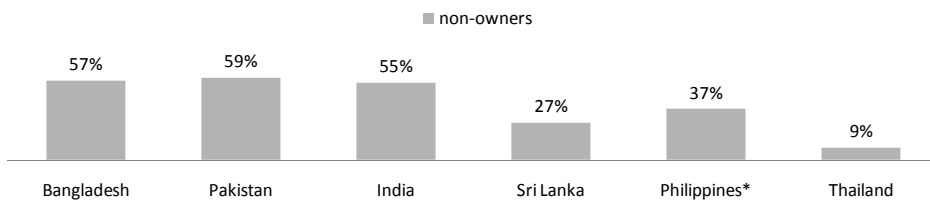
- Significant variables :
 - Demographics: Personal income, gender, education, age, proximity to nearest town
 - Household amenities: electricity, fixed phone ,TV
 - Network effects: % of contacts who already have mobiles, no. of household members who already have mobiles
- Insignificant variables:
 - Urban/Rural, perceptions of benefits from phone access occupation

9% own more than one (active) SIM

	Bangladesh		Pakistan		India		Sri Lanka		Philippines		Thailand	
	2008	2006	2008	2006	2006	2008	2006	2008	2006	2008	2006	2008
More than 1 SIM	10%	12%	23%	5%	9%	9%	16%	9%	19%	1%	13%	

55% of Indian BOP teleusers don't own a phone

Non-ownership (% of BOP teleusers)



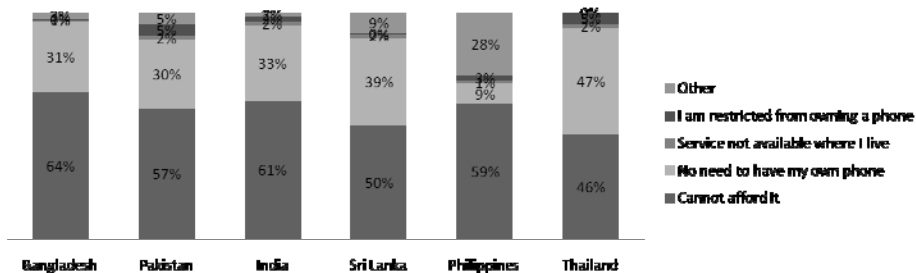
- 76% of these non-owners can reach a phone in under 5 minutes



Among all BOP teleusers

Main reasons for not owning are affordability and the lack of a need

Primary reason for not owning a phone (% of BOP non-owner teleusers)

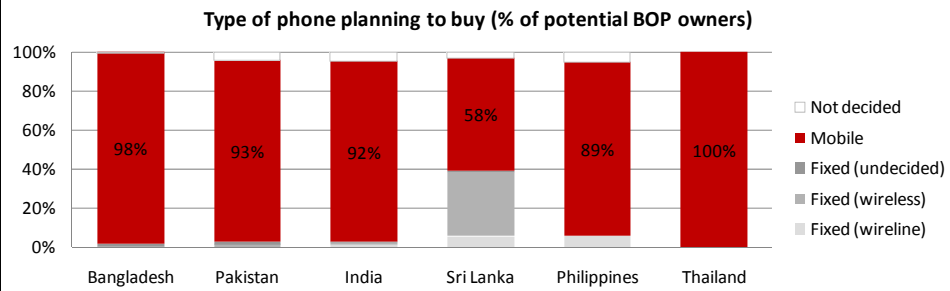


- Just 2% say that service is not available where they live



Among BOP non-owner teleusers

92% plan to get mobiles



- Same picture in rural India



Among BOP non-owner teleusers planning to get connected

USE OF ICTS IS STILL BASIC – VOICE, SMS

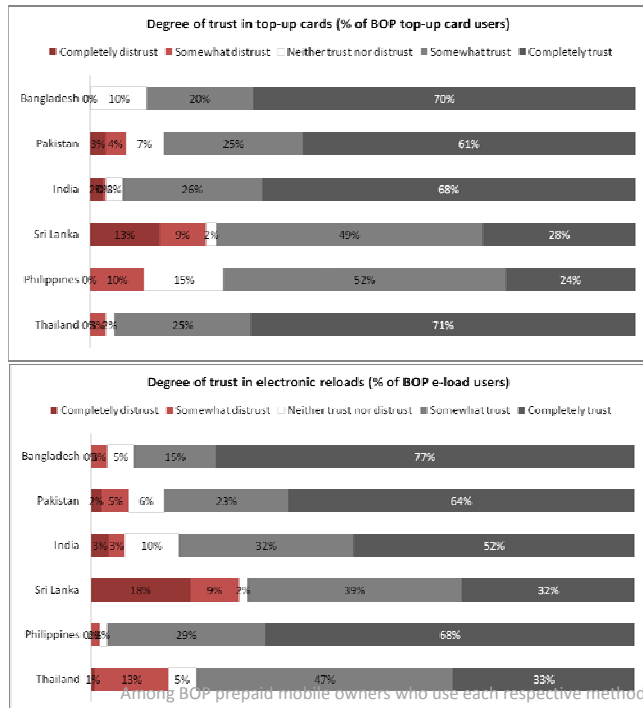
Mostly calls, SMS, missed calls, balance checking

Among BOP mobile owners

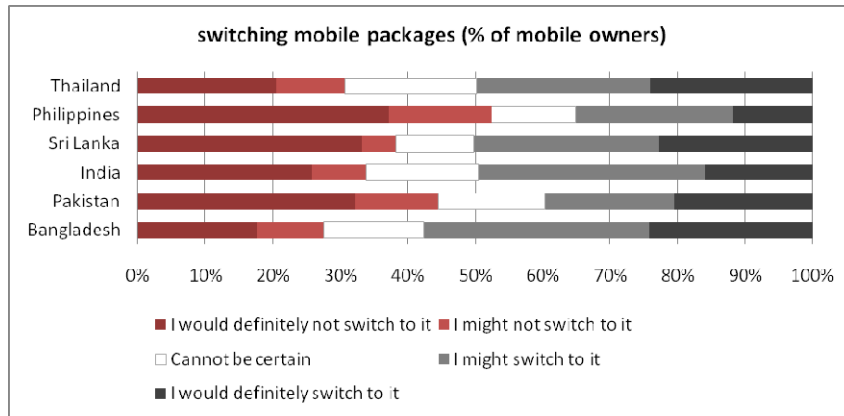
	B'desh	Pakistan	India	S' Lanka	Ph'pines	T'lnd
% of BOP mobile owners						
Taking phone calls	100%	100%	99%	100%	89%	100%
Receiving phone calls	100%	100%	98%	100%	99%	100%
Sending/receiving 'missed calls'	94%	84%	84%	73%	86%	39%
Sending/receiving SMS (text messages)	32%	47%	33%	52%	100%	53%
Sending/receiving MMS (picture messages)	1%	4%	4%	6%	13%	4%
Sending/receiving emails	0%	0%	1%	0%	0%	1%
Browsing the Internet	0%	1%	1%	2%	0%	2%
Taking photos /video clips	4%	2%	1%	8%	4%	18%
To play games (individual)	13%	18%	7%	21%	14%	17%
To play games (interactive)	1%	1%	1%	1%	3%	1%
To listen to the radio	0%	7%	3%	12%	5%	22%
To listen to music (files which you have downloaded or been sent by others, not radio)	4%	5%	3%	7%	3%	22%
To share content that you have created (E.g. ringtones, wallpapers, pictures, games and video clips)	1%	2%	2%	6%	5%	3%
To send or receive or download or upload other content (E.g., ringtones, wallpapers, pictures, games and video clips)	0%	2%	3%	8%	10%	9%
As an organizer (keep appointments, reminders, alarm and clock)	1%	7%	8%	4%	9%	14%
To check my bill / credit balance	11%	40%	25%	50%	3%	39%

But high e-load use → potential for phone-based payments?

- 68% of Indian top-up card users “completely trust” their method
- 53% of Indian electronic reload users “completely trust” their method



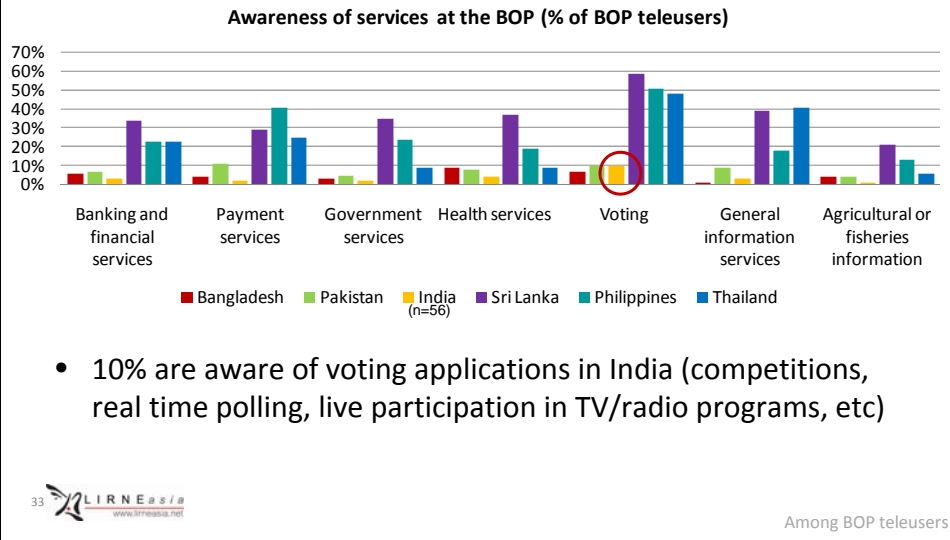
**Around 50% would not switch for cheaper package
 → phone has become a “personal” device**



- 40% of those unwilling to switch state that it is important to keep the number at present → need for **mobile number portability + ability to tie in “personalized” services to phone**

POTENTIAL FOR MORE-THAN-VOICE?

Poor awareness of More than Voice services in South Asia. Higher in SE Asia



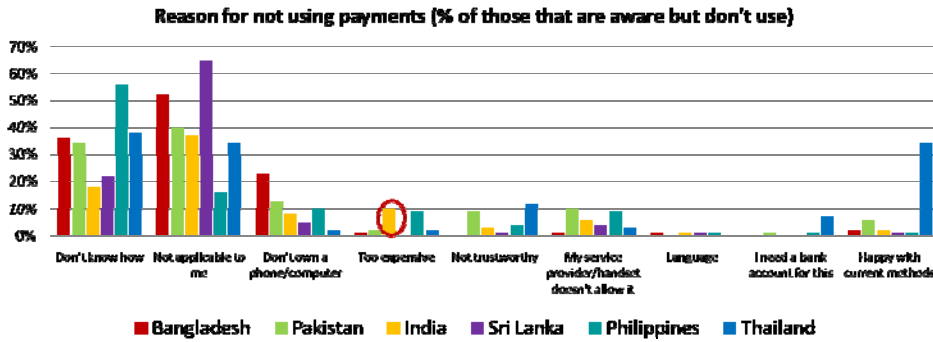
Usage is *even* poorer

	India (% of BOP teleusers who are aware of such services)	
	Use regularly	Use, but not regularly
Banking and financial services		1%
Payment services		
Government services		
Health services		1%
Voting	1%	1%
General information services		
Agricultural or fisheries information		

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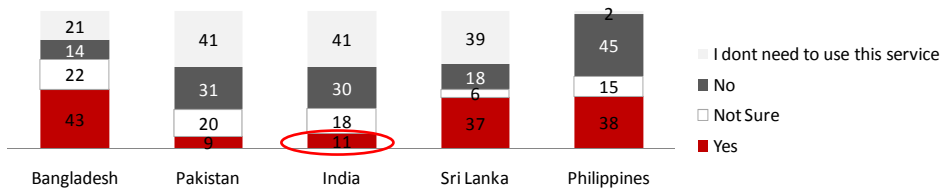
Among BOP teleusers who are aware of services

Payments: Most who are aware don't know how or don't feel the need to use it

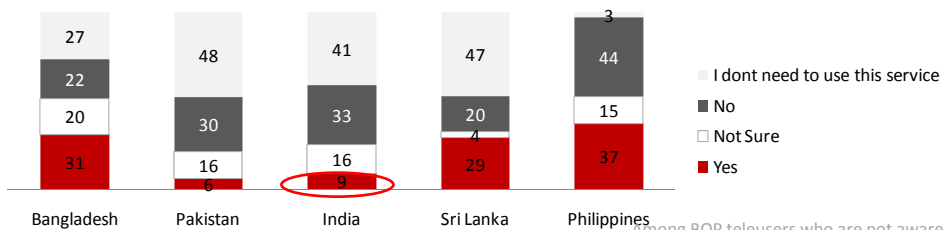


Few of those who aren't aware would be willing to use money transfer services and govt services via a mobile

Willingness to try **sending or receiving money** (% of BOP teleusers who are currently unaware of such services)



Willingness to try **accessing government services** (% of BOP teleusers who are currently unaware of such services)




Thank you

WHAT BENEFITS DO THEY GET?

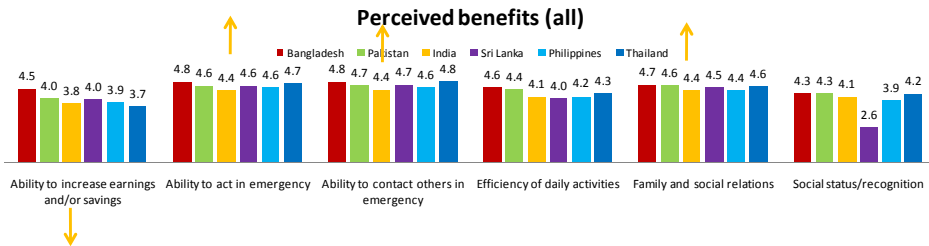
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Survey asked about perceived benefits of telecom access: *how has telecom access improved ...*

- Your ability to:
 - make more money (generally, and via sale of talk time)
 - find out about employment/work opportunities
 - access price or market information
 - save money
 - save on travel cost
 - act in an emergency
 - contact others in an emergency
 - The efficiency of your day to day work
 - Your relationships with family and friends
 - Your social status/ recognition in the community
- 

Largest benefit in emergency communication and relationship maintainance.

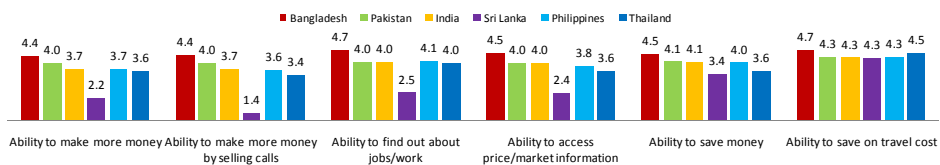
1=worsened 2 = slightly worsened 3=no change 4=slightly improved 5=improved



- Smallest benefit (though still positive) on economic factors

Lower perceived contribution to improving livelihood

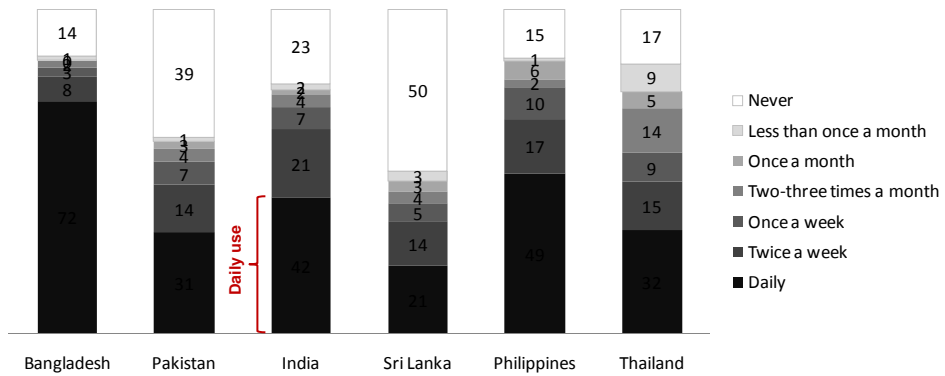
Perceived benefits (livelihood-related)



- Indian **males** see more benefit than females in:
 - finding out about employment opportunities
- Indian **females** see more benefit in:
 - saving money (in general, and in travel cost)
 - maintaining relationships

77% of Indian teleusers at BOP use their mobile for business, financial or work-related purposes

Use of the phone for financial, business or work-related purposes (% of BOP mobile owners)



To improve the lives of the people of the emerging Asia-Pacific by facilitating their use of ICTs and related infrastructures; by catalyzing the reform of laws, policies and regulations to enable those uses through the conduct of policy-relevant research, training and advocacy with emphasis on building in-situ expertise

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