"Inclusion in the Information Society"
IDRC funded research, 2012-14

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Colombo, Sri Lanka

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IDRC ✳ CRDI

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Background

HOW DID WE GET HERE

Findings from latest representative sample survey of those at the "bottom of the pyramid - Teleuse@BOP4 , mid 2011

Sample sizes and margins of error @95% confidence level

	Bangladesh	Pakistan	India	Sri Lanka [1]	Java[2]	Thailand	**Total**
BOP teleusers	2,050	1,835	3,181	1,200	1,088	800	**10,154**
Margin of error @ 95% CL (%)	+ 2.%	+ 2%	+ 2%	+ 3%	+ 2%	+ 4%	

Actual population proportion of BOP

	Bangladesh	Pakistan	India	Sri Lanka	Thailand
SEC D+E (% of population)	73	59	69	44	33
Less than USD2 per day (% of population) Year	84 2000	80 2004	74 2002	43 2003	25 2002

Source: World Resources Institute

[1] Sri Lanka: Includes North and East

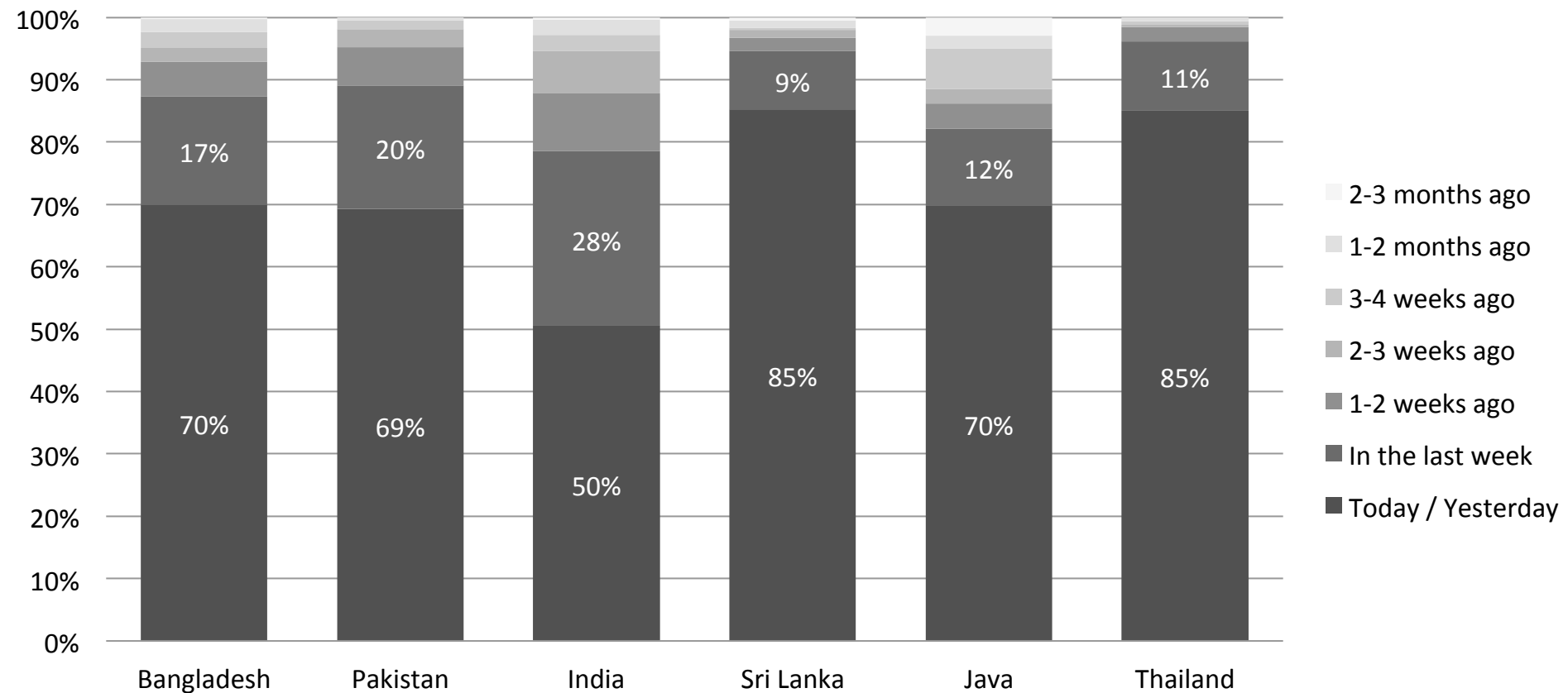[2] Java region only: separate sampling procedures and BOP definition used

89-99% of BOP have used a phone in previous 3 months

Used a phone in the last 3 months (% of BOP)

	Bangladesh	Pakistan	India	Sri Lanka	Java	Thailand
2008	95%	96%	86%	88%	-	77 %
2011	99%	96%	89%	90%	90%	91%

Among BOP (OUTER SAMPLE)

Over 70% of BOP has made a call during the last week

Last time respondent used a phone (% of BOP teleusers)

Legend:
- 2-3 months ago
- 1-2 months ago
- 3-4 weeks ago
- 2-3 weeks ago
- 1-2 weeks ago
- In the last week
- Today / Yesterday

Bangladesh: 70%, 17%
Pakistan: 69%, 20%
India: 50%, 28%
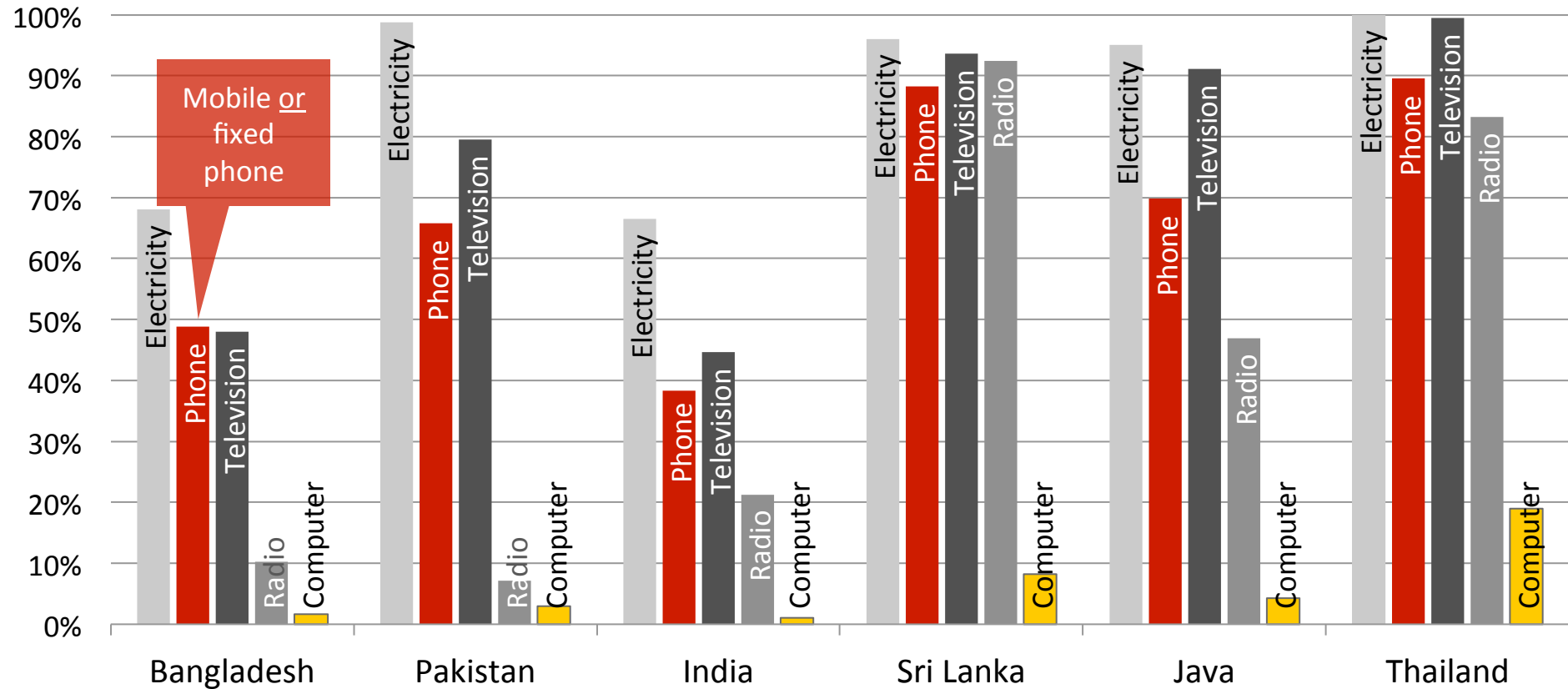Sri Lanka: 85%, 9%
Java: 70%, 12%
Thailand: 85%, 11%

Among BOP teleusers

Over 75 % of BOP have access to a phone within the household

Most frequently used phone (% of BOP teleusers)

Legend:
- Public access phones (grey)
- A friends or relatives phone (light blue)
- A neighbours phone (teal)
- Other household members personal phone (pink)
- I use the household (common) phone (red)
- I use my own phone (dark red)

Countries: Bangladesh, Pakistan, India, Sri Lanka, Java, Thailand

Among BOP teleusers
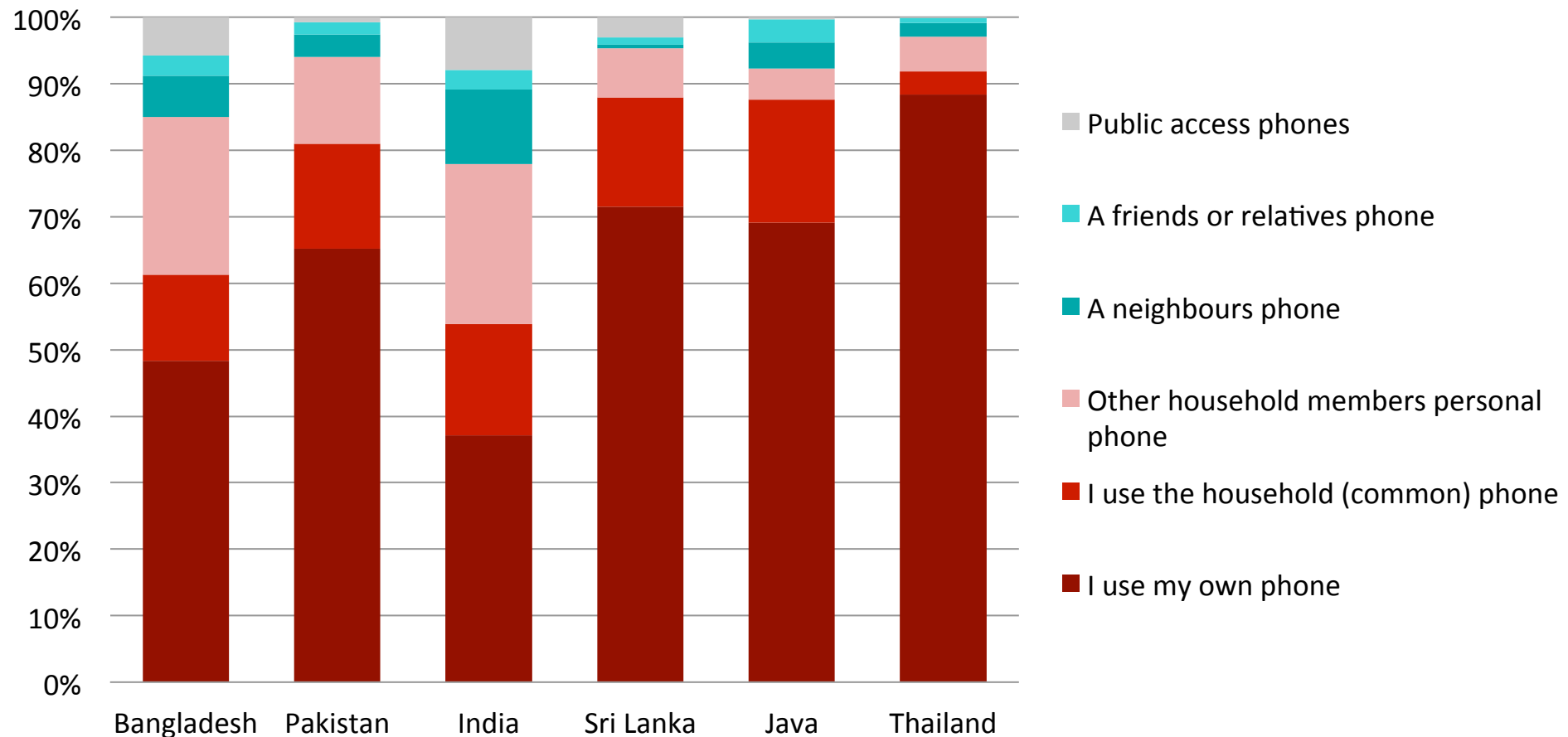
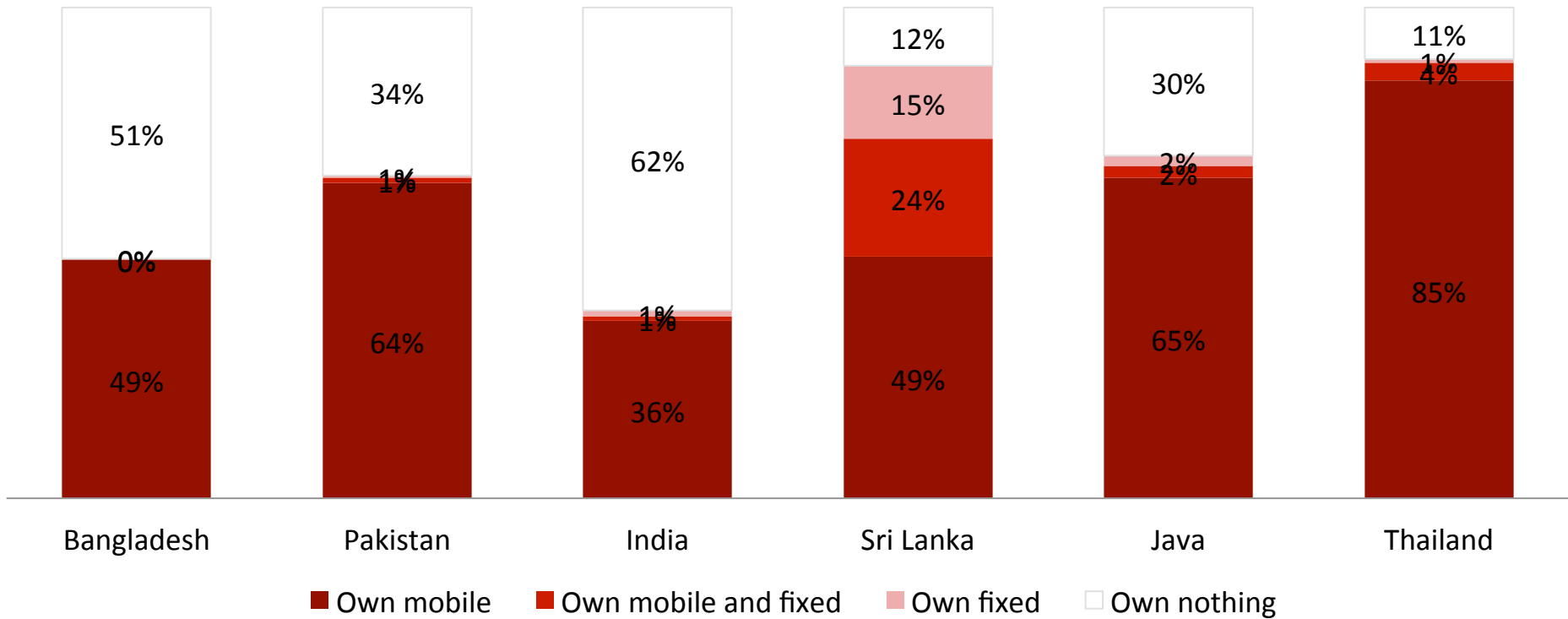# Phones have overtaken radio at BOP everywhere except Sri Lanka (but some mobiles are used as radios)

Household access (% of BOP teleusers)

Among BOP teleusers

Ownership: Mobile dominates

Household phone ownership (%of BOP teleusers' households)

Legend: ■ Own mobile ■ Own mobile and fixed ■ Own fixed □ Own nothing

Bangladesh: 51% Own nothing, 0% Own mobile and fixed, 49% Own mobile
Pakistan: 34% Own nothing, 1% Own mobile and fixed, 64% Own mobile
India: 62% Own nothing, 1% Own mobile and fixed, 36% Own mobile
Sri Lanka: 12% Own nothing, 15% Own fixed, 24% Own mobile and fixed, 49% Own mobile
Java: 30% Own nothing, 2%, 2%, 65% Own mobile
Thailand: 11% Own nothing, 1%, 4%, 85% Own mobile

Urban vs. rural BOP: No major difference between rural & urban mobile ownership by BOP, except in PK

Mobile ownership - individual (% BOP teleusers)

Among BOP teleusers
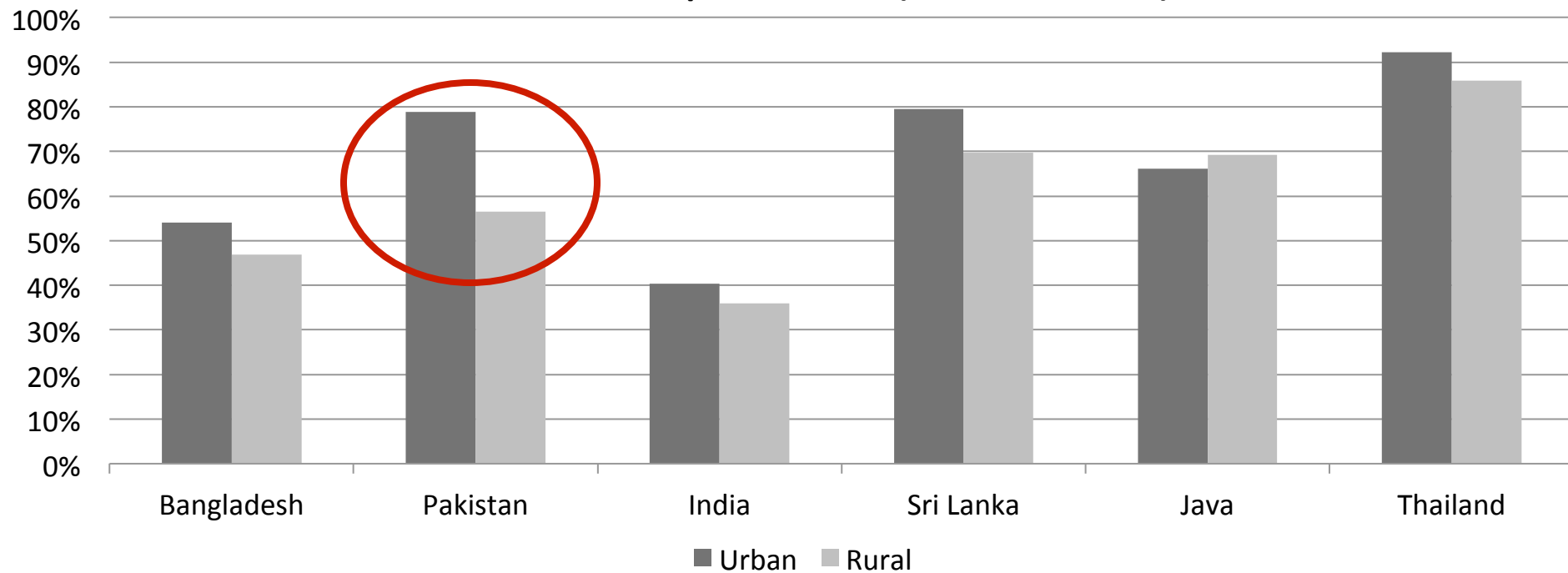
Male vs. female: Gender gap continues in BOP mobile ownership in South Asia and Indonesia (Java).

Mobile ownership - individual (% of BOP teleusers)
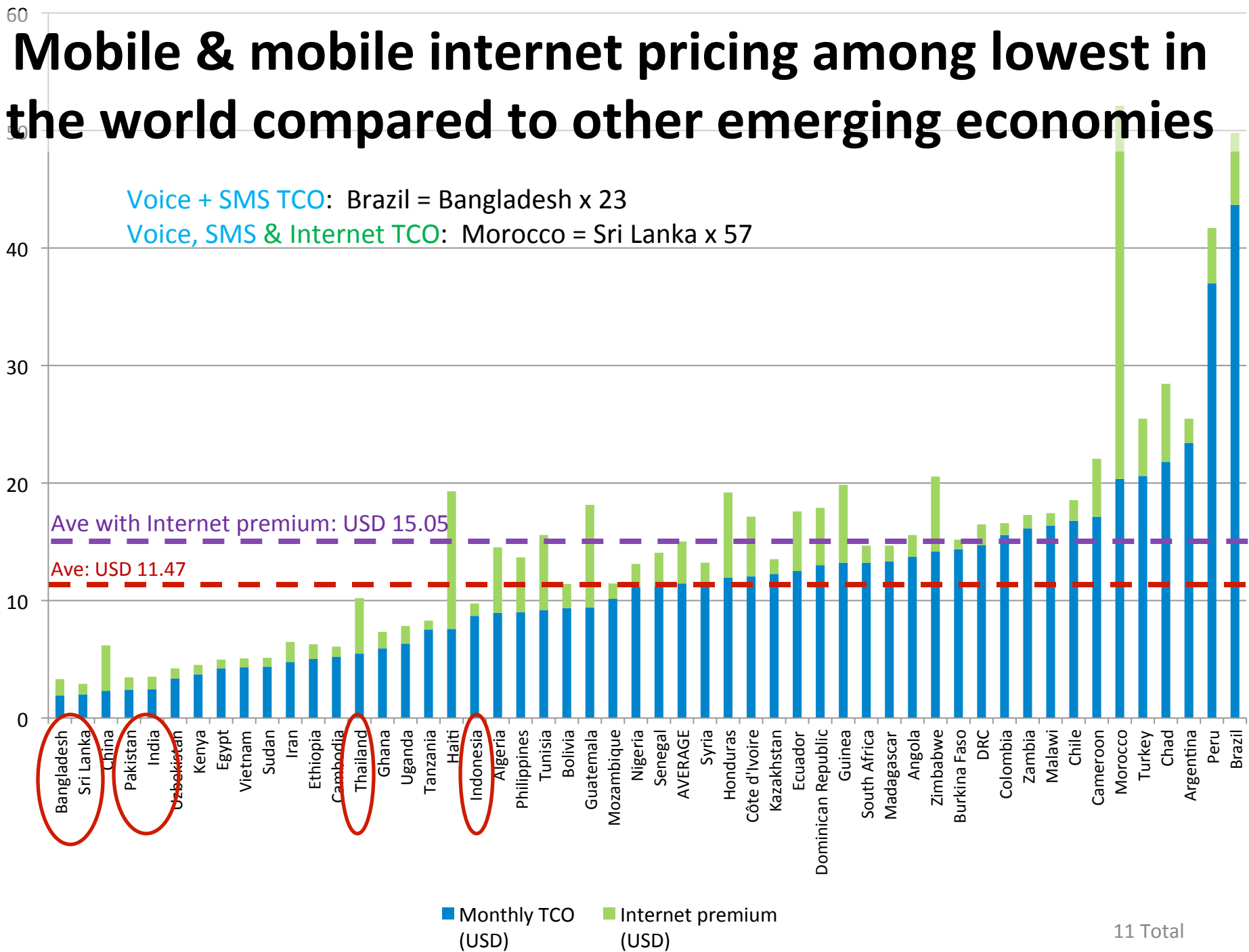
■ Male ■ Female

Among BOP teleusers
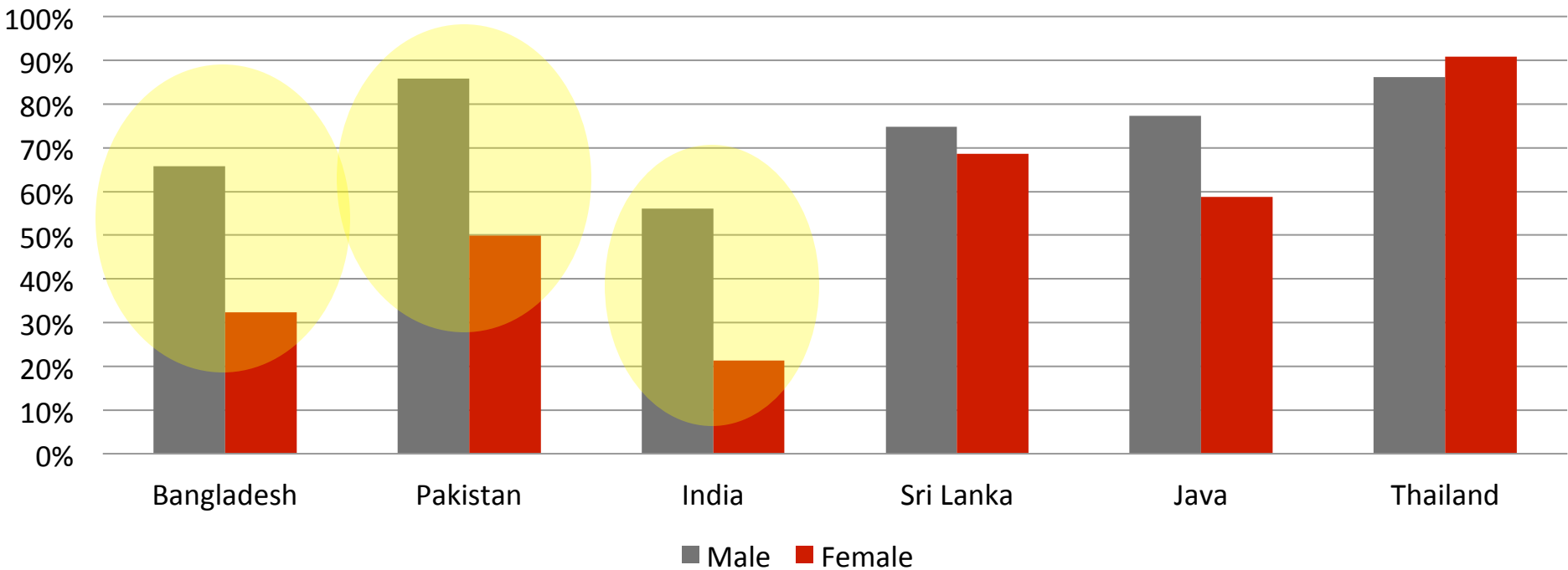
Mobile & mobile internet pricing among lowest in the world compared to other emerging economies

Voice + SMS TCO: Brazil = Bangladesh x 23
Voice, SMS & Internet TCO: Morocco = Sri Lanka x 57
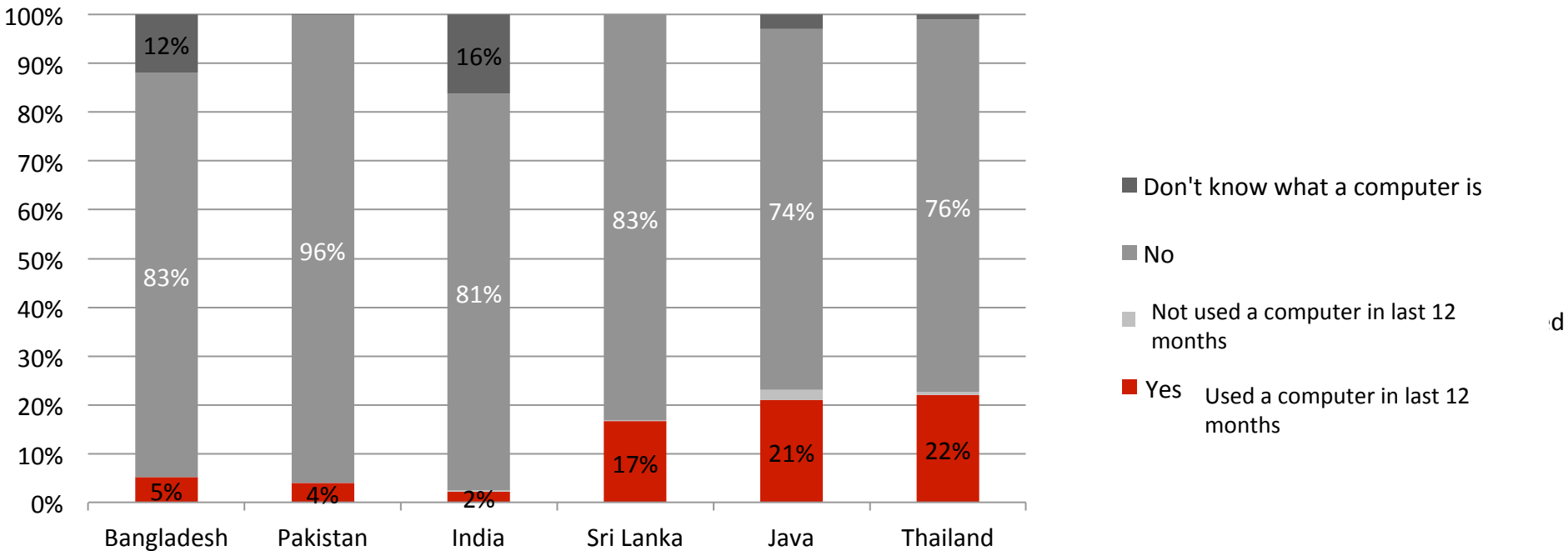
USD per month

Ave with Internet premium: USD 15.05

Ave: USD 11.47
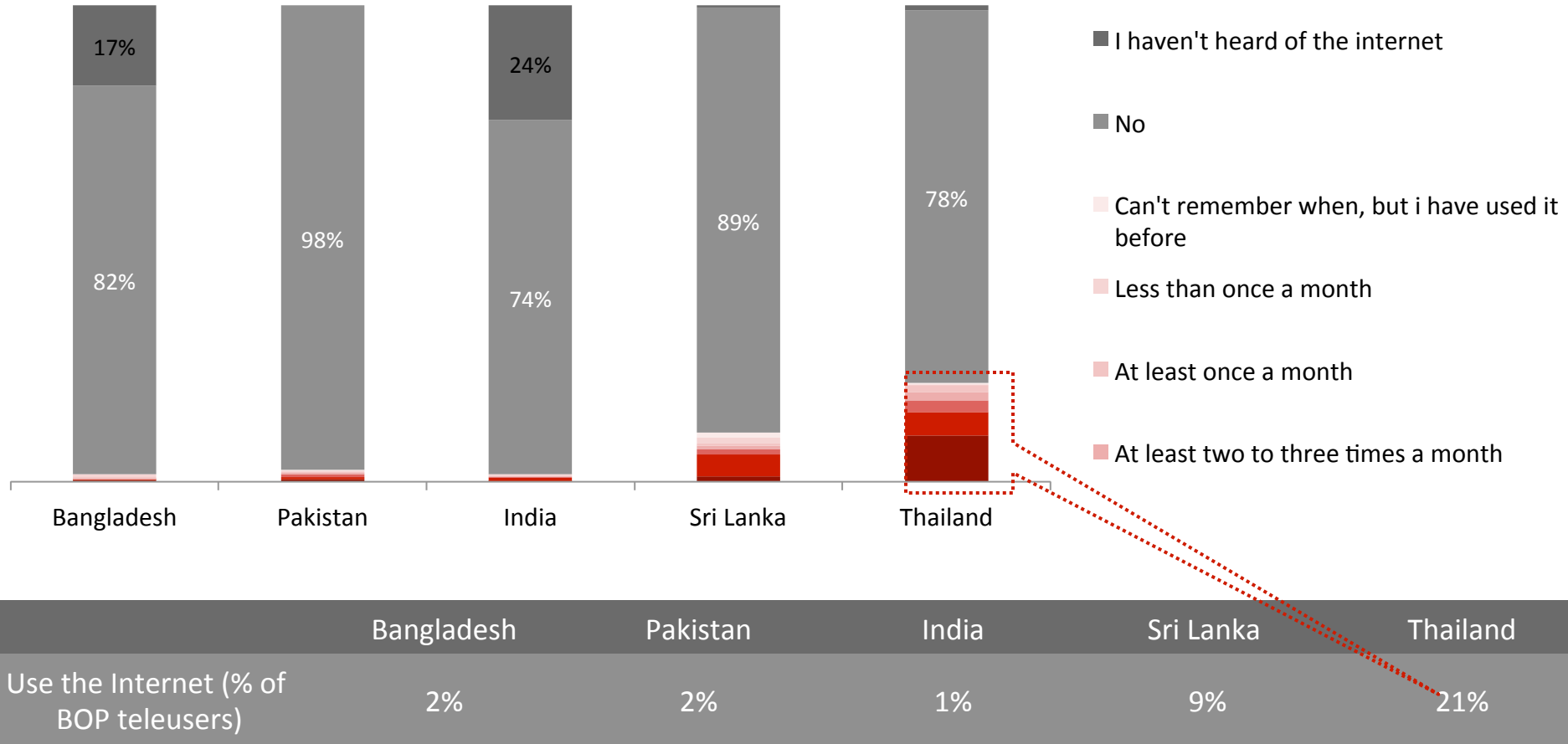
Legend:
- ■ Monthly TCO (USD)
- ■ Internet premium (USD)

11 Total

Source: Nokia Total Cost of Ownership Study 2011

Computer use at BOP low, at best

Use of computers (% of BOP teleusers)

Among BOP teleusers

Internet use at BOP even lower

Internet use (% of BOP teleusers)

Legend:
- I haven't heard of the internet
- No
- Can't remember when, but i have used it before
- Less than once a month
- At least once a month
- At least two to three times a month

Bar values:
- Bangladesh: 82% (No), 17% (I haven't heard of the internet)
- Pakistan: 98% (No)
- India: 74% (No), 24% (I haven't heard of the internet)
- Sri Lanka: 89% (No)
- Thailand: 78% (No)

	Bangladesh	Pakistan	India	Sri Lanka	Thailand
Use the Internet (% of BOP teleusers)	2%	2%	1%	9%	21%

Among BOP teleusers

Mobile voice is ubiquitous. SMS increasingly popular. But other more-than voice (MTV) use negligible

% of BOP mobile owners

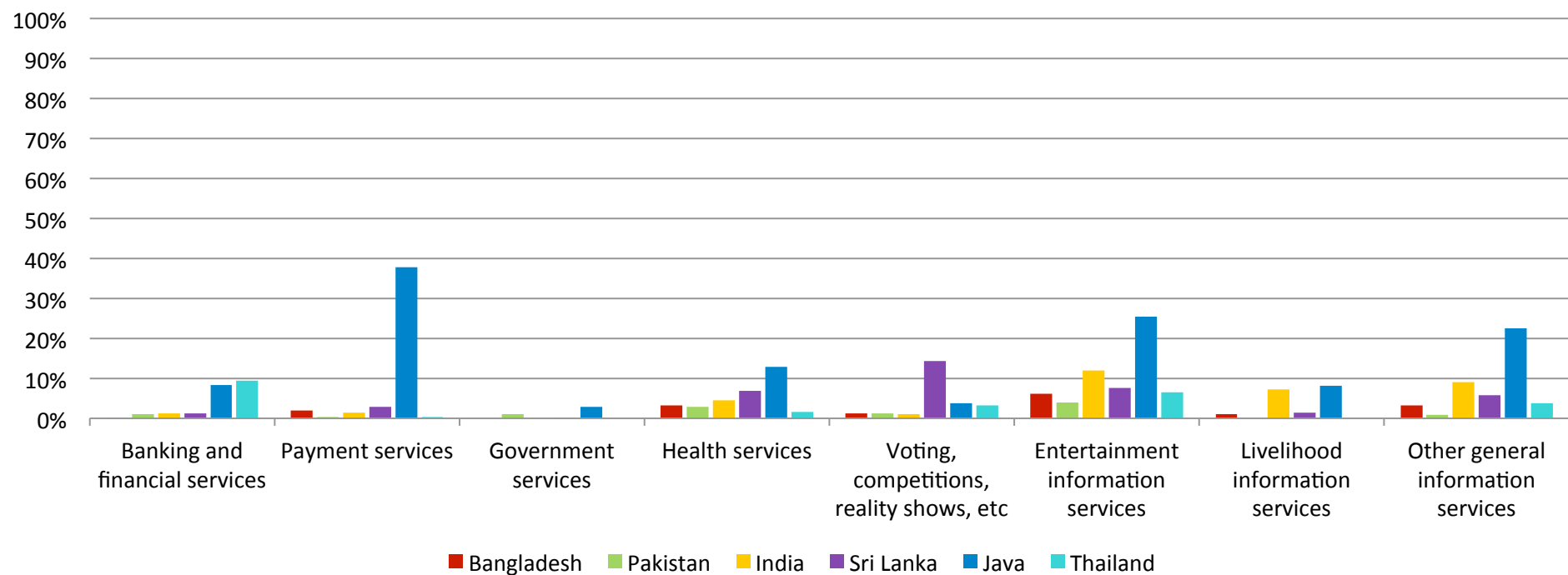|	B'desh	Pakistan	India	S'Lanka	Java	Thailand
Make phone calls	100	99	100	99	96	100
Receive phone calls	100	95	99	100	94	99
Send/receive missed calls	86	71	78	65	54	24
Send/receive SMS	19	38	23	55	89	37
Send/receive MMS	1	2	3	5	14	8
Send/receive e-mail				1	3	2
Browse the Internet	3		1	1	10	5
Take photos/video	19	7	8	14	26	19
Play games	27	21	18	11	31	16
Listen to radio	13	15	12	17	26	18
Listen to music	25	5	15	8	26	30
Share that you have content created	1	1	3	2	8	3
Send/receive or download/upload other content	1	1	2	2	6	3
Use as an organizer	7	5	8	2	15	8
Check my bill/credit	13	20	11	18	16	3
Send/receive talk time/load	10	5	2	2	35	0
Access facebook	1			1	7	2
Access other social networking or blog applications					2	1

Current awareness of More than Voice (MTV) services is very limited

Awareness of MTV services that can be accessed through phone or computers (% of BOP teleusers)

Legend: Bangladesh, Pakistan, India, Sri Lanka, Java, Thailand

Among BOP teleusers
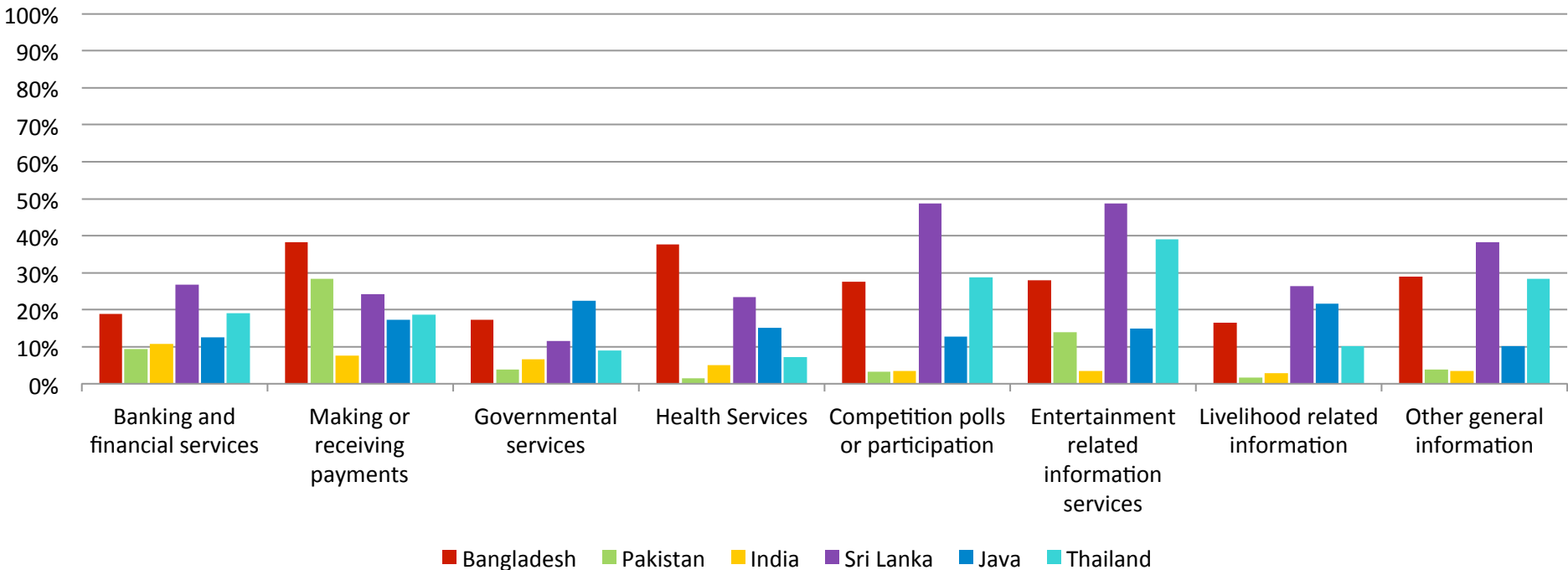
Usage is even lower: do the services really exist? Are they relevant? accurate? affordable?

MTV service usage through phone or computer (% BOP aware of services)

Legend: ■ Bangladesh ■ Pakistan ■ India ■ Sri Lanka ■ Java ■ Thailand

Categories: Banking and financial services, Payment services, Government services, Health services, Voting, competitions, reality shows, etc, Entertainment information services, Livelihood information services, Other general information services

HOW DO WE ADDRESS THE PROBLEM OF EXCLUSION? (A.K.A. MODULE 1)

"Anchor apps" → motivate more general use of internet

- Hypothesis: greater availability of useful/good services through ubiquitous ICT platforms (i.e. mobile phones) will contribute to greater participation of the BOP in the Internet and MTV services (on mobile phones)
  - ~ Shopping mall – anchor stores attracting foot traffic to mall and other stores
- "Good customer service" delivered via ICT platform(s)/mobile phones
  - By private sector
  - By governments

Study customer relationship management (CRM) or customer lifecycle management in 3 sectors

Telecom
- Increasing efficiently provided (more customers, less cost service)
- Private provision
- High competition
- High ICT use

Electricity
- Mix of public & private provision
- Less or no competition

Government services
- Government as monopoly supplier
- Interest in increasing ICT use

Identify good/best-fit practices across sectors, hopefully

Telecom

- How is CRM done?
- What works?
- What doesn't?
- What levels of ICT use? Can it be improved?

Electricity

- How is CRM done?
- What works?
- What doesn't?
- What levels of ICT use? Can it be improved?
- Lessons from telecom applicable?

Government services

- How is "C"RM done?
- What works?
- What doesn't?
- What levels of ICT use? Can it be improved?
- Lessons from telecom and electricity?

Identify good/best-fit practices across sectors, hopefully

Telecom

- How is CR...
- ...
- ...
- What levels of ICT use? Can it be improved?

- Does "exit" guarantee high quality?
- Can exit substitute for "voice"?
- "Voice" important for suppler?

Electricity

- How is CRM done?
- What...
- ...ICT use. Can it be improved?
- Lessons from telecom applicable?

- Is allowing "voice" in - the interest of the monopoly provider?
- How much voice?
- Voice — so what?

Government services

- ...s "C"RM
- ...works?
- What doesn't?
- What levels of ICT use? Can it be improved?
- Lessons from telecom and electricity?

HOW DO WE STUDY THIS? (A.K.A. RESEARCH METHODS FOR MODULE 1)

a) CRM, as seen from the suppliers' POV (A.K.A supply-side study)

- Desk research
- Interviews with stakeholders
- Is CRM "good"?
  - How? Why?
  - How do we know it's "good"?
- What do we NOT know and how can we change that?
  - And what do we need to make that change (e.g. regulation? Better understanding of the user?
- Team:
  - Telecom: Payal (IN); Roshanthi (LK); Shazna (LK);
  - Electricity: Pial (BD); Usha & Raj Kiran (IN); Nilusha (LK)
  - (Other) Govt. Services: Subhash (IN, BD); Helani & Nirmani (LK)
    - Specific services might be selected for study (e.g. municipality delivered govt. services)

Challenges:
1. to ID best-fit practices across sectors
2. to synthesize, draw out general principles, not be purely descriptive

b) CRM, as seen from the users' POV: Quantitatively (A.K.A. Demand-side study, part 1)

- Sample survey in BD, IN, LK
- Target: Urban BOP + Urban BOP ME (micro entrepreneur survey
  - Why urban?: Because "urban" is the new black
  - Why BOP?   : Duh!. (we've always been about BOP)
  - Why MEs?   : Because ME's are possibly the next group that's waiting for service provider attention
  - Why <u>BOP</u> MEs? Because they are likely to employ other BOPs
  - Why not SMEs? : because that's how much money we have
- Identify how ICTs, electricity, govt services are consumed, what problems are faced
- Vignesh, Ranjula

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  - Why not SMEs? : because that's how much money we have
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Challenges:
1. Who is a ME? How do we know?
2. Can we have representative samples of MEs?
3. Are there enough BOP MEs (as opposed to just MEs?)
.....

c) CRM, as seen from the users' POV, and how it could be done (designed) better: (A.K.A. Demand-side study, part 2)

- Qualitative Field research protocols
  - FGDs, ethnographic studies, other protocols
- To answer "Why" questions arising from quant survey.
- To understand "pain points", "failure cases", scenarios of use for services
  - In-depth study of the user experience, preferences
- Followed by process to re-design services/service elements
  - User-centric design: series of workshops
  - Users represented through research done
  - Experts on design; experts on the 3 sectors
- Namrata & CKS Research

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Challenge:
1. Capturing the country-specificities in (expressed) user preferences
2. Other?

d) CRM best practices, as revealed through user behavior (RCTs)

- "Nudges"
  - small changes in service design, based on previous steps
  - Randomized Control Trials
  - Track changes in behavior, as revealed through data on the supplier's systems
- Expressed preferences (quant, qualit research) vs. revealed preferences
- In telecom only
  - 2 operators given on principle agreement
  - Next research cycle: electricity sector and govt service "nudges"? We live in hope
- Sriganesh (with team)

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Challenges:
1. Real time vs. project time - need to pick re-designed service elements that are most likely to give observable changes in behavior, within life-time of project
2. Operators might get cold feet?

AFTER WE STUDY ALL OF THIS

Research → Policy: Dissemination to stakeholders in the 3 sectors

- Directly, through stakeholder workshops
  - By sector (most likely)
  - By country? (let's see)
- As opportunities present themselves
- Other ways
- Rohan (with team)

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- Rohan (with team)

Challenges (minor ones):
1. "Ha ha ha. LIRNEasia's ICT junkies trying to teach me about electricity? Puhleaze!" – Mr. X, CEO, Power DistCo., 2014
2. Convincing audience of making incremental changes to CRM practices, without addressing real structural issues in sector (electricity, specially)

MODULE 2: BIG DATA TO ANSWER SOCIAL SCIENCE RESEARCH QUESTIONS (A.K.A. "THE COOL STUFF")

An attempt to demonstrate how development questions could be answered using transaction generated (and other) information

- Demonstrating how development questions could be answered through analysis of big data
  - How integrated are the different parts of cities?
  - Is the integration between parts of cities and suburbs greater than between parts of cities?
  - How far do those who work in cities commute?
  - What are the optimal locations for delivering government services?
  - Etc.

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Challenges:
1. Data (will "they" give it to us?)
2. Data (will we get it before we die? Ideally before the project ends?)
3. Technology (access high end software)
4. Expertise (we are new to this)

..and creating conditions for wider use of big data for development research

- Study the process of accessing and using big data as case study
- Develop draft guidelines/codes of practice for a possible self-regulatory regime on how user data should be used
  - By development researchers
  - By operators
- Can we think of it before it is imposed?

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  - By operators
- Can we think of it before it is imposed?

Challenges:
1. Ideological divide: us vs. rights-based privacy advocates

OTHER RESEARCH WE WON'T DISCUSS AT THIS MEETING

Several other small modules

- Responding to policy windows in Myanmar
  - Where even basic voice connectivity is NOT available
  - Remember the TRE/SPR studies?
  - Capacity building
  - Rohan
- Broadband quality of service for the BOP
  - Testing quality as experienced by users
  - Policy interventions
  - Shazna
- Rapid response: opportunistic engagement when policy window opens
  - Rohan + all of us

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THANK YOU