

# Customer Relationship Management in Electricity and Telecom Sectors

A presentation and discussion of LIRNEasia  
research from Sri Lanka, India, Bangladesh



This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada.



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International Development Research Centre  
Centre de recherches pour le développement international

Canada

# About us...

- Our mission:
  - *"Catalyzing policy change through research to improve people's lives in the emerging Asia Pacific by facilitating their use of hard and soft infrastructures through the use of knowledge, information and technology."*
- Since 2004

- Our Team (this part of the project):
  - Rohan Samarajiva, PhD
  - Helani Galpaya
  - Shazna Zuhyle
  - Nilusha Kapugama
  - Ranjula Senaratne Perera
  - CKS Consulting (India)
  - Usha Ramachandra, PhD
  - Rajkiran Bilollikar
  - Pial Islam
  - Payal Malik
  - Vignesh Ilavarasan, PhD
  - Roshanthi Lucas  
Gunaratne

# About you...

# About the group that's not here...

- Urban, low-income, micro-entrepreneurs (MEs)
- Why low-income MEs?
  - A group that is not visible to many service providers
  - 'lost' between the Bottom of the Pyramid users and large corporates
- Why urban?
  - A decade of urbanization. Continues

# Studied three services consumed by MEs

- With different levels of competitive provision
  - Telecom: high levels of competition
  - Electricity: low competition/monopoly
  - (Municipality Delivered) Government Services (e.g. business registration): monopoly provision by govt.
- Different levels of ICT use
  - Telecom: high use
  - Electricity, Govt services: lower

# How MEs be better served?

- What are current levels of customer-centricity in each sector?
- Can we identify ‘best-fit’ practices from one sector that could work in the other?
  - E.g. Telecom seems to use ICT-based communication to deal with consumers. Can electricity do the same?
- Can practices from one country be adapted to work in another
  - Three countries: Sri Lanka, India, Bangladesh

# Research methods

- First: from the supplier point of view
  - How are customers served? How is the relationship managed?
  - Interviews with the service providers + Desk research
- Then: from user point of view
  - What is used? What are problems? Satisfied?
  - Quantitative: Sample survey of 3180 MEs
  - Qualitative: in-depth ethnographic/other research of 88 MEs.



# Why do we care?

- Not all MEs remain MEs for-ever
- Some grow
  - Into SME (small/medium enterprises)
  - Even into large enterprises
- Economic growth happens when this journey takes place
- What can we do to catalyze it?

# Why should you care?

- These are valuable customers today
  - Low income MEs consume more telecom and electricity than an average bottom of the pyramid (BoP) consumer
  - They are less 'fickle': e.g. fewer dual SIM than BOP
- These are potentially even more valuable customers in the future
  - Be their partner from the beginning

# Plan for the rest of the morning

- Rohan Samarajiva
  - setting the stage
- Ranjula Senaratne Perera + Helani Galpaya
  - Learnings from quantitative and qualitative research
- Shazna Zuhyle
  - possible solutions for telecom
- Nilusha Kapugama
  - possible solutions for electricity
- Audience
  - critique of solutions

# Customers in the doldrums?

Rohan Samarajiva



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# Professor Stephen Littlechild on consumer protection

- “Competition is indisputably the most effective - perhaps the *only* effective – means of protecting consumers against monopoly power. Regulation is essentially the means of preventing the worst excesses of monopoly; it is not a substitute for competition. It is a means of ‘holding the fort until competition comes.’”

1983 Report to UK Government, Para 4.11

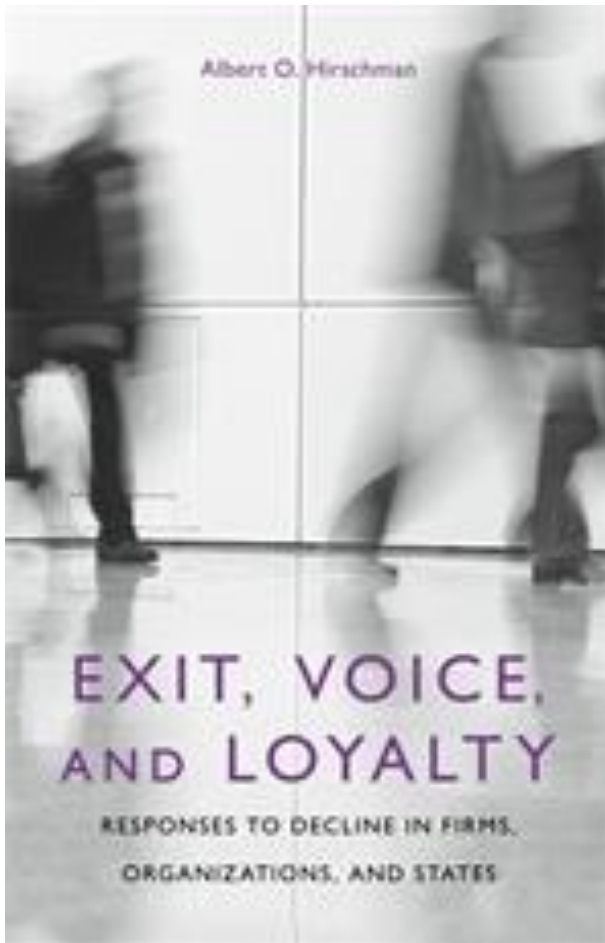
# Consumer protection in context of a single supplier (e.g., electricity)

- In a monopoly environment, government has major responsibilities with regard to consumer protection
- When there are no **exit** options (alternative suppliers), **voice** is only option (other than doing without)
  - Voice can be direct: consumer speaks/complains to supplier
  - Voice can be directed to 3<sup>rd</sup> party (consumer protection agency/utility regulator) who has power over supplier
  - Voice can lead to anti-supplier → anti-government agitation

# Load-shedding riots in Punjab, Pakistan



# Best economist not have received a Nobel: Albert Hirschman, 1915-2012



- Economics privileges exit; Politics voice
  - But increasingly cross-overs occur
- Very useful framework for thinking about quality of service and customers



# Consumer protection under competition

- *Caveat emptor* (Let the buyer beware) is the starting position
  - Assumes homogenous products and costless exit options
  - Assumes perfect knowledge of competing products
    - Obviously unrealistic; For all markets, but especially for markets in infrastructure services
- Government actions in absence of assumptions
  - Reduce information asymmetries
  - Regulate suppliers proportionate to deviation from competitive market (e.g., differential treatment of fixed v mobile telephony)

# A low-quality “equilibrium” even in presence of multiple suppliers?

- Customers unhappy with quality in Supplier 1 move to S2; S2's disaffected move to S3; and so on; but S1 gets an equal number of unhappy customers from S<sub>n</sub>
- No supplier receives the postulated feedback
  - Does the scenario change with ICTs/big data?
- Also, does the possibility of satisfaction through exit, weaken the voice option?

# “No significant difference in quality among suppliers”

- Exit may not have the desired effects, as long as above condition exists
  - Appears this is the case in India
    - Over 28 months 89.7 million MNP requests (around 1/10<sup>th</sup> of total number of active SIMs) had been received, indicating significant level of unhappiness
    - Lots of customers moving around, but no one is losing market share and quality is not improving
- Long-term solution to quality rests on ensuring high-quality suppliers exist AND exit barrier are minimized

# In both telecom & electricity markets

- Necessary to make provision for easy expression of voice
  - ICTs can assist
- Important to address information asymmetries
  - ICTs can assist
- To the extent possible, make exit feasible

# Stories from the field: studying urban, poor micro-entrepreneurs

Helani Galpaya

Ranjula Senaratna Perera

Colombo, 18 Feb 2014



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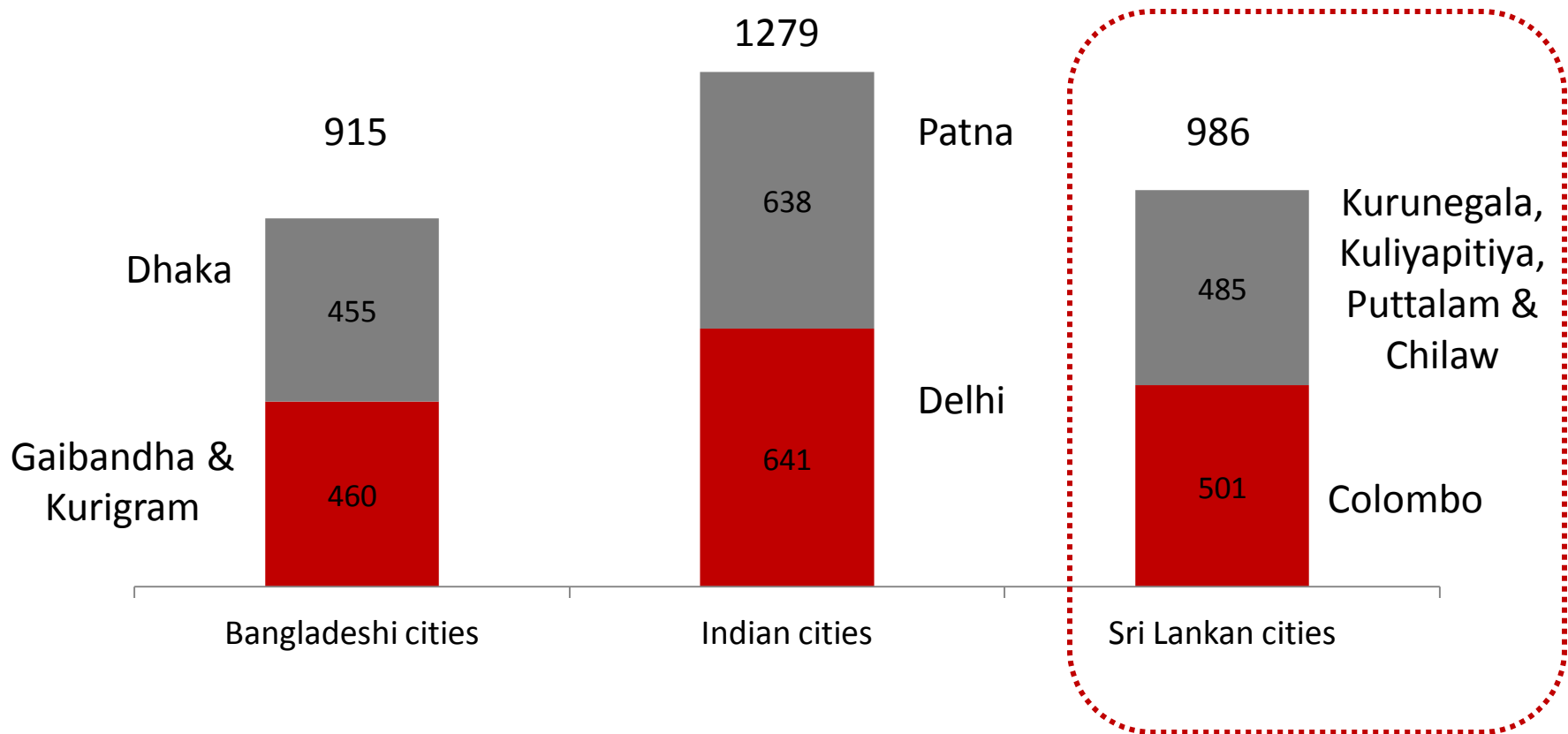
# Definitions

- Micro-entrepreneurs (MEs) = those employing 0-9 employees
  - paid part or full time workers
  - inclusive of family members)
- Low income = MEs in socio-economic classification (SEC) C, D and E and B1,B2, (for those employing 1-9 employees)
  - SEC based on education and job
  - Close correlation to income
- Urban = definition used by the National Statistics Office in each country

# A 'weak city' and 'strong city' in each country identified

- Strong/weak determined by proxy indicators
  - Sri Lanka: various poverty measures by province
  - India: City Competitiveness Ranking by state
  - Bangladesh: poverty + literacy + electrified households
- In Sri Lanka
  - Western Province: Colombo
  - North Western province: Kurunegala, Kuliyapitiya, Puttalam & Chilaw
- India: Delhi and Patna (in Bihar)
- Bangladesh: Dhaka and Ghaibanda+Kurigram

# Quantitative study: 3180 MEs surveyed





# No country had registry of MEs. Closest possible data used to determine quotas

- Sri Lanka: Census of Industry (2003/2004) by Department of Census and Statistics
  - Used to determine % male/female in sample
  - Used to determine business type (i.e. % retail, manufacturing, retail)
- India : Non-agricultural Enterprises in the Informal Sector, 2000. Survey
- Bangladesh: Economic Census
- A qualitative study with 88 participants conducted as in-depth interviews, ethnographies and focus groups

# More on sampling method

- In each country, two locations were selected. The capital city and another city which is weaker in terms of governance.
- The respondents for the study were selected through a probability sampling method. In Sri Lanka, the A-Z map book published by The Survey Department of Sri Lanka was used. The entire province is divided into square blocks.
- The blocks were given numbers and using a random number table, blocks were selected.
- In each block, respondents were found first at the northwest corner and then subsequent interviews were conducted in the same block by continuous walking.

# Qualitative research after the survey to understand why and to re-design

- The survey: answers the WHAT questions
- Qualitative research:
  - answers WHY questions
  - for envisioning (better) solutions
- 88 protocols
  - Day ethnographies at sites of service provision
  - In-depth interviews with service providers
  - In-depth interviews with MEs
  - Community group design activities







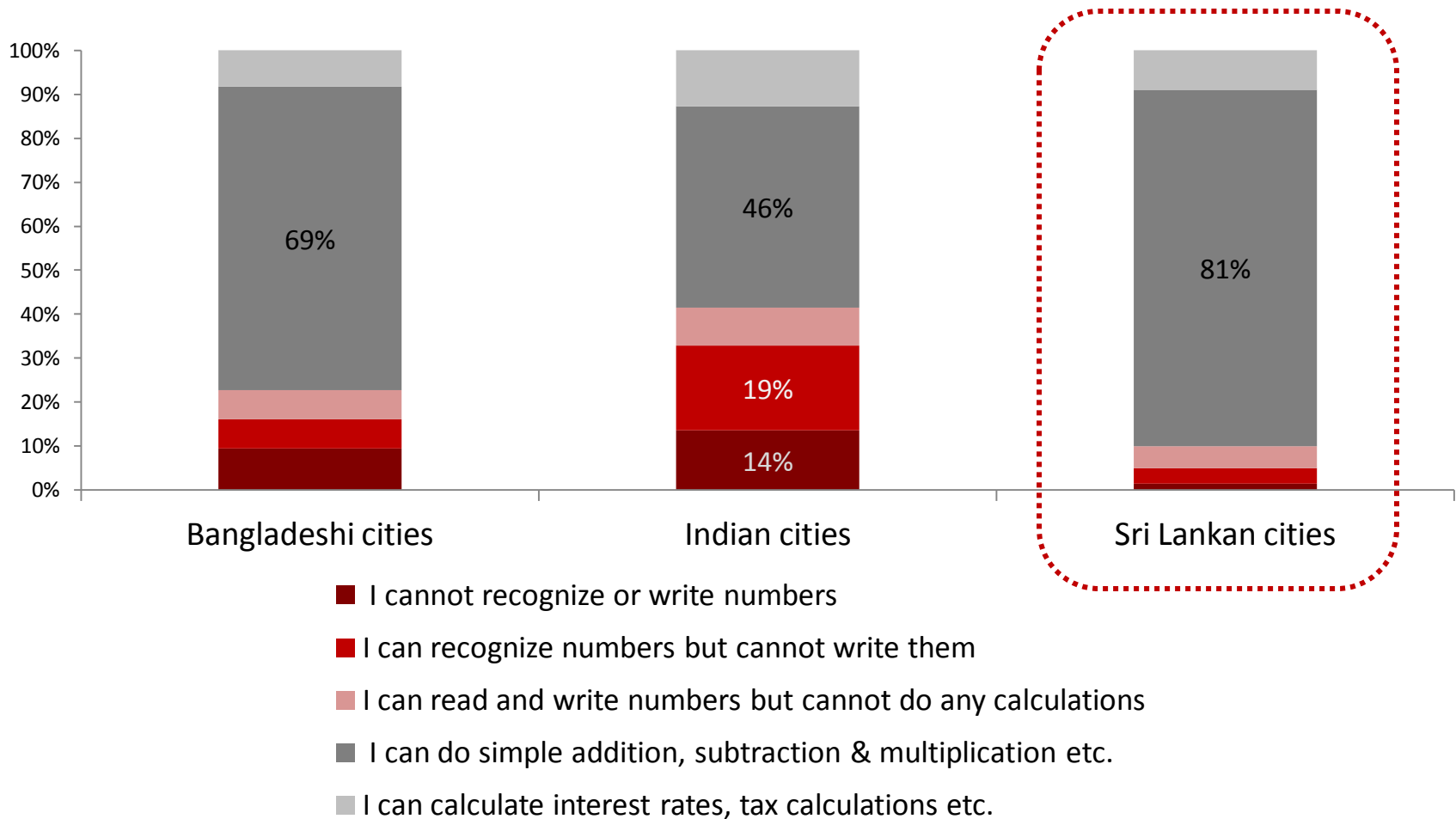


# The Sri Lanka (LK) sample older, more educated and more female compared to India (IN) and Bangladesh (BD)

	Bangladeshi cities	Indian cities	Sri Lankan cities
Average age	36	36	42
Female micro-entrepreneurs	9%	12%	26%
Illiterate or primary schooling only	39%	87%	29%



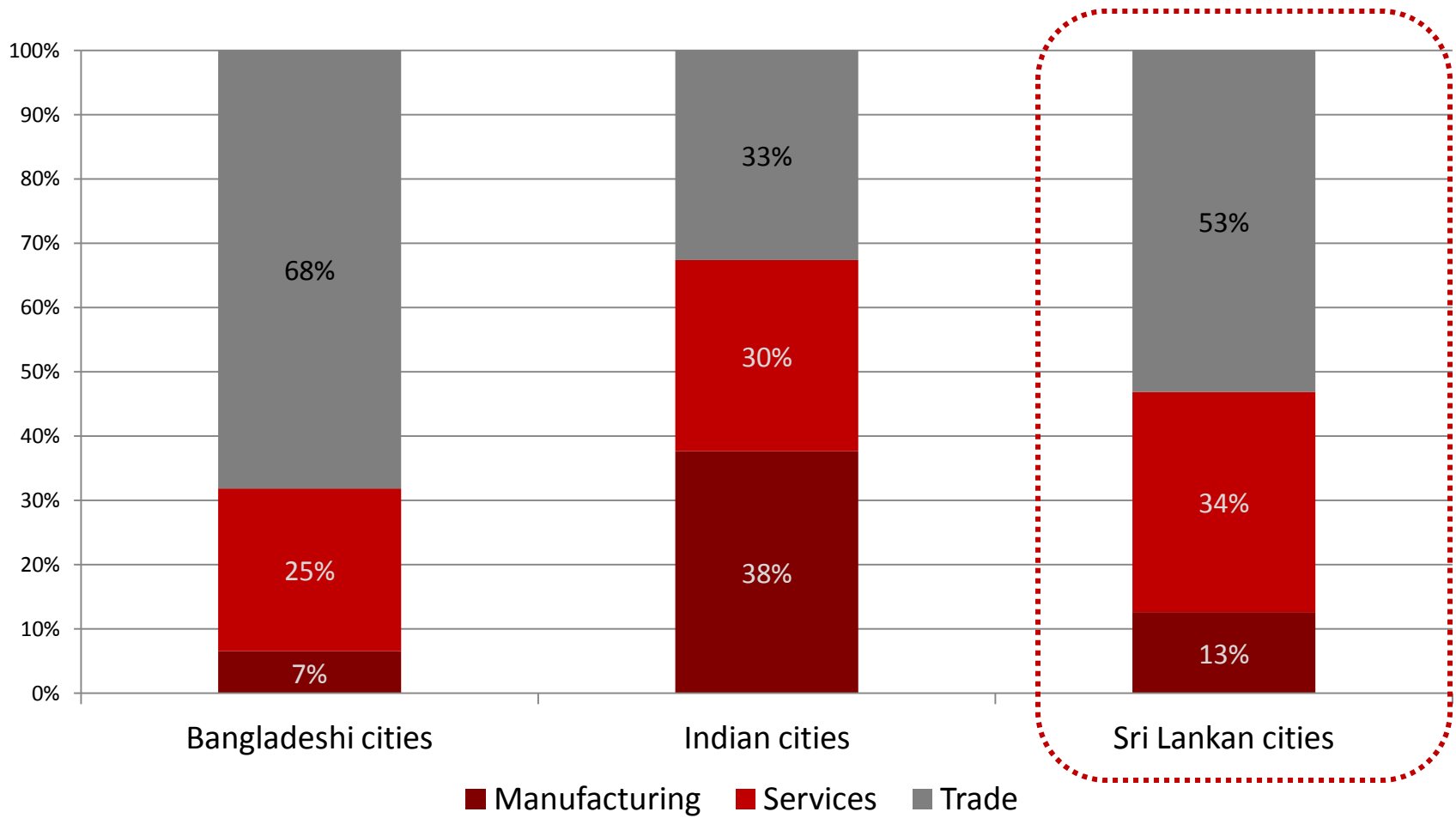
# LK had the most numerate MEs. Over 90% can do calculations



**Please tell me about your numerical abilities (as % low-income MEs)**



# More than half the MEs in LK are in trade



Type of business (as % of low-income MEs)

# 81% of MEs in LK have a fixed location

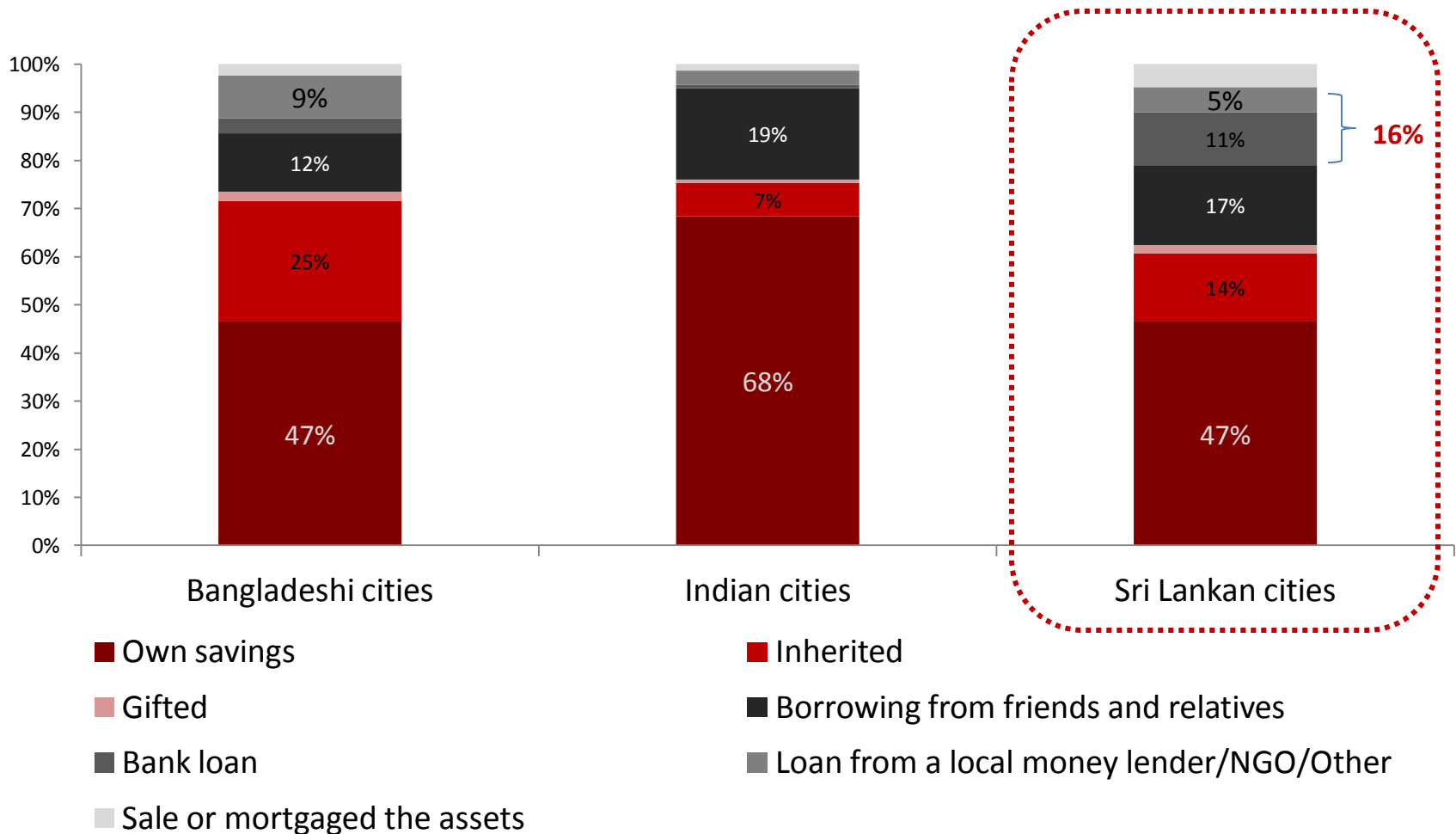


- From a part of my home that I own
- From a part of my rented home
- From an fixed location that I own, outside my home
- From a fixed location that I rent, outside my home
- Variable location for which I pay
- Variable location for which I do not pay
- Others

**Could you tell us where your business is located? (as % low-income MEs)**

# Most businesses started using savings.

## Formal loans most common in LK



How did you get the money to start your business? Tell the main source (as % of low-income MEs)

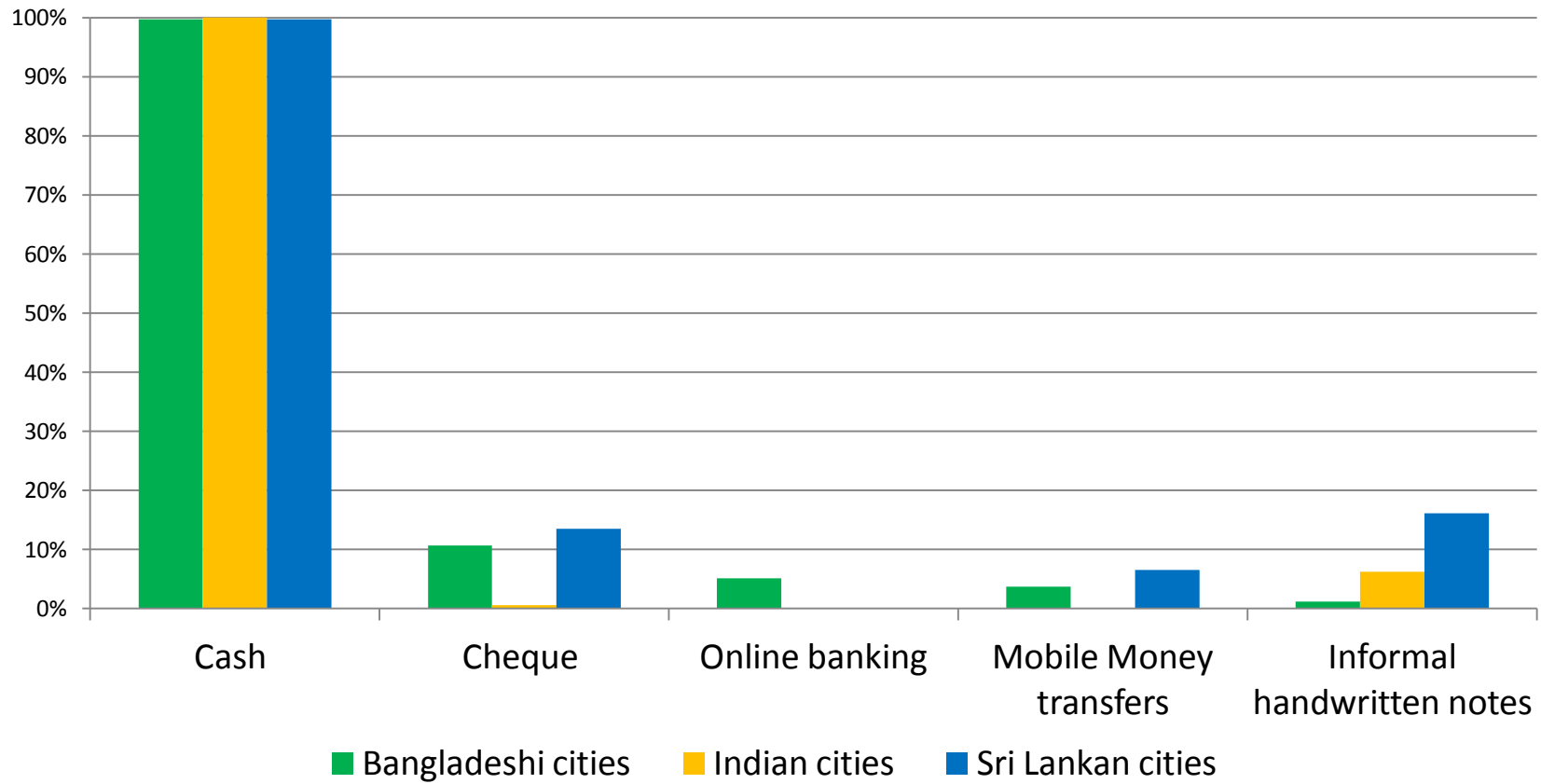
# Access to bank accounts highest in LK



**Does your business have a separate bank account to use just for business purposes?(as % of low-income MEs)**

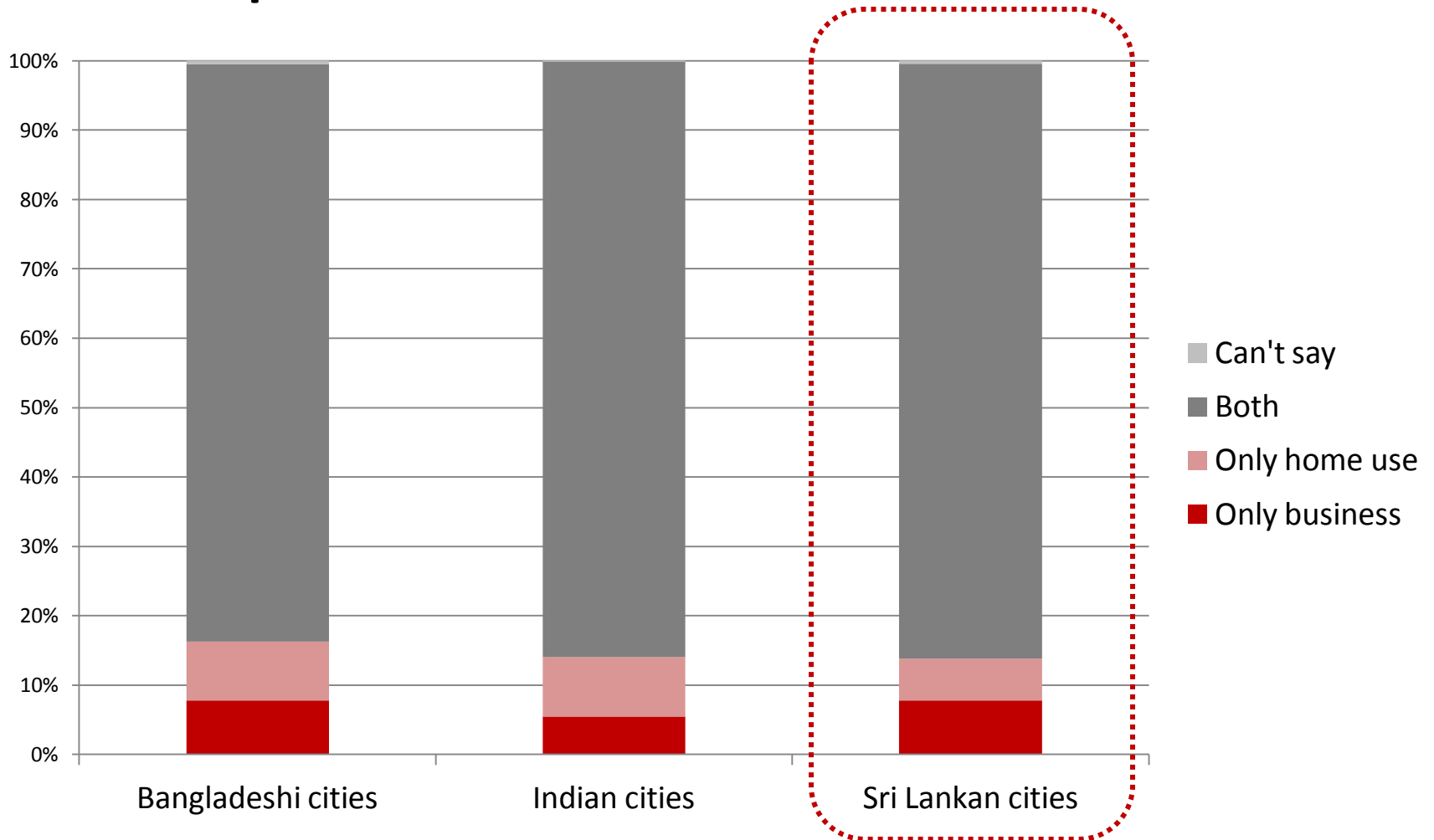
**Do you have any bank account in your name? (as % of low-income MEs)**

# All MEs normally deal with cash



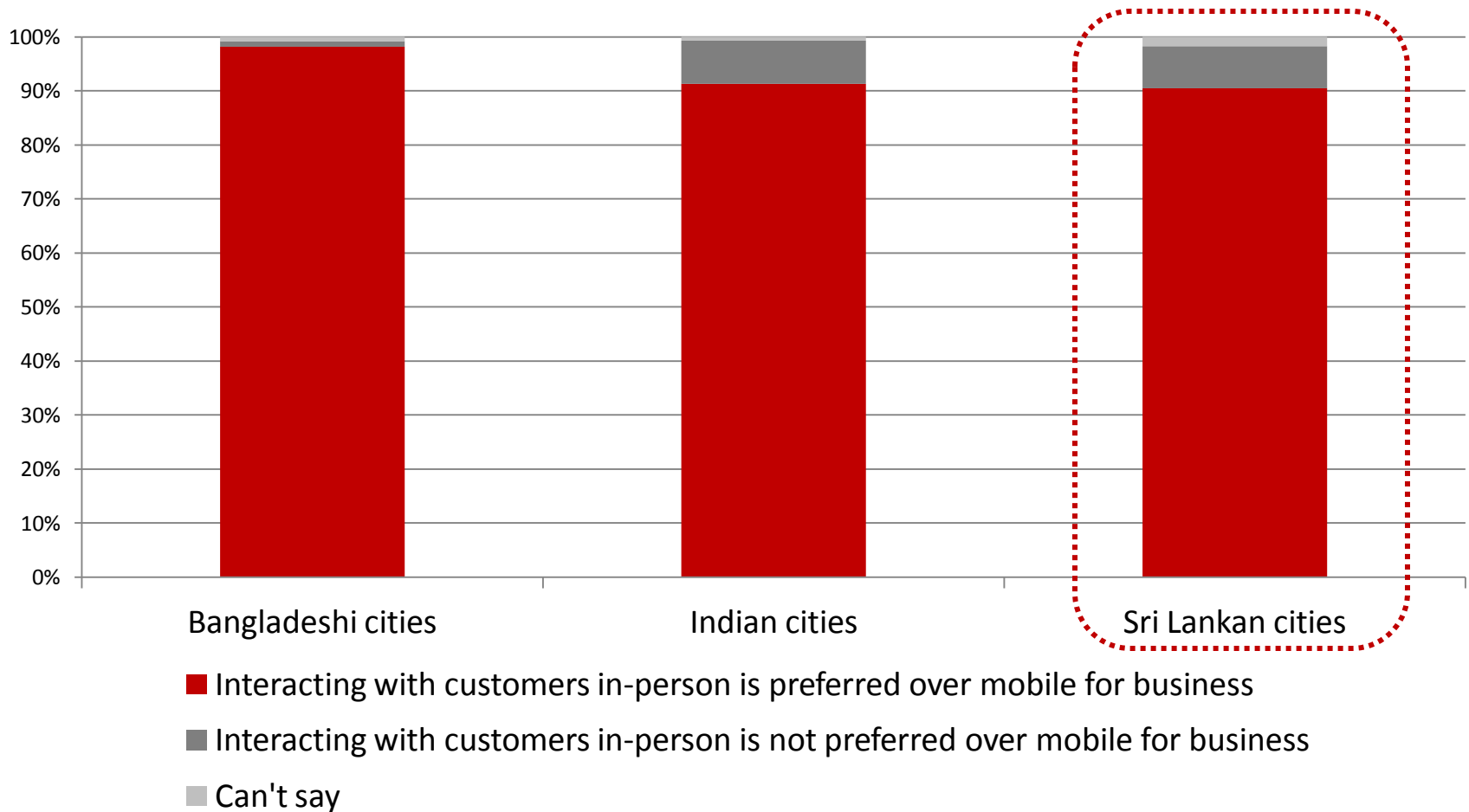
How do you normally do make or receive payments in your business? [MC] (as % low-income MEs)

# Extra income will be used for both personal and business use



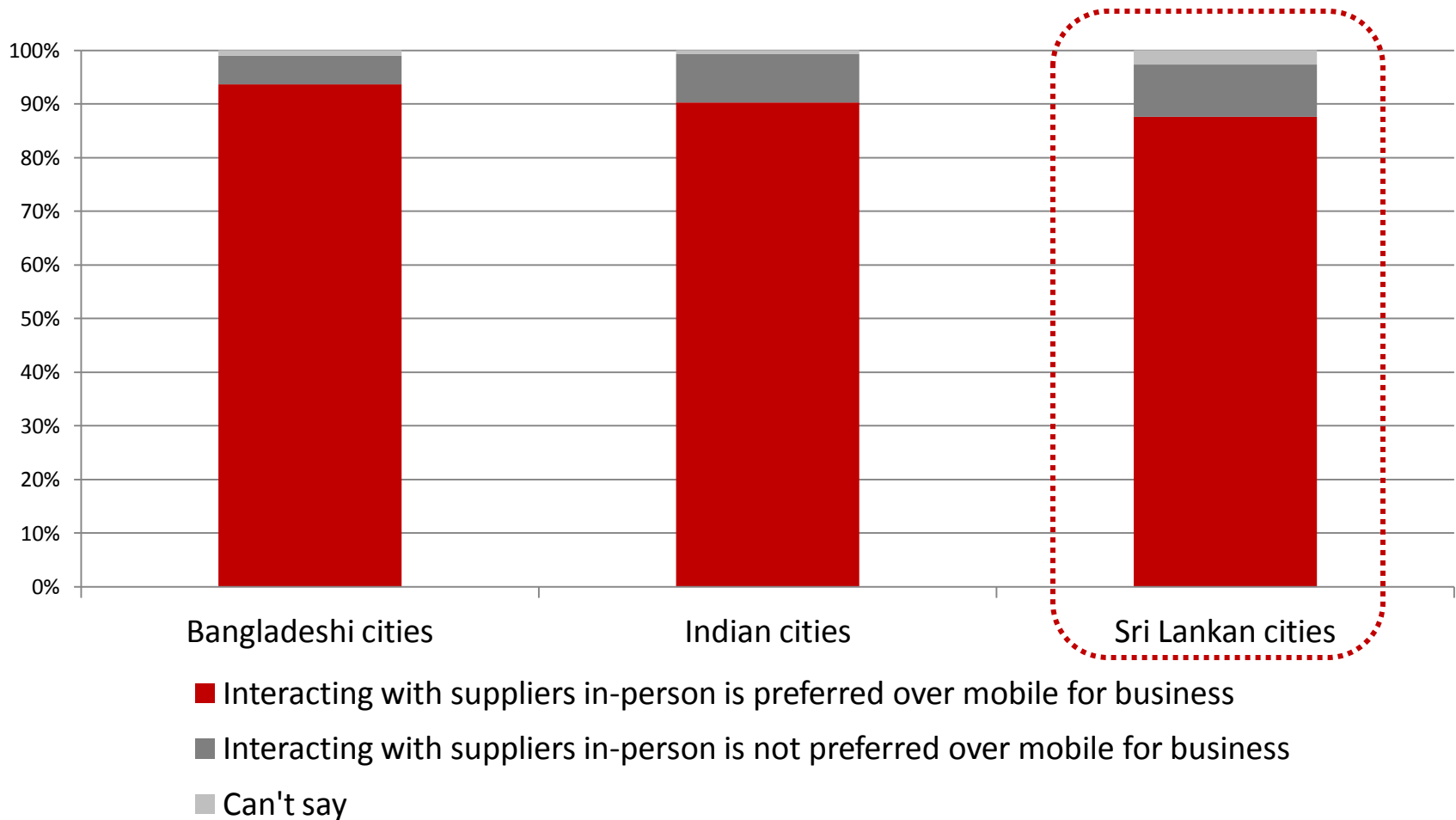
**If you have extra income / profit from business, will you utilize it for business or home use?  
(as %low-income MEs)**

# In-person preferred to mobile phones when interacting with customers



**Do you think: interacting with customers in-person is preferred than mobile phone in your business? (as % low-income MEs)**

# In-person also preferred to mobile when interacting with suppliers

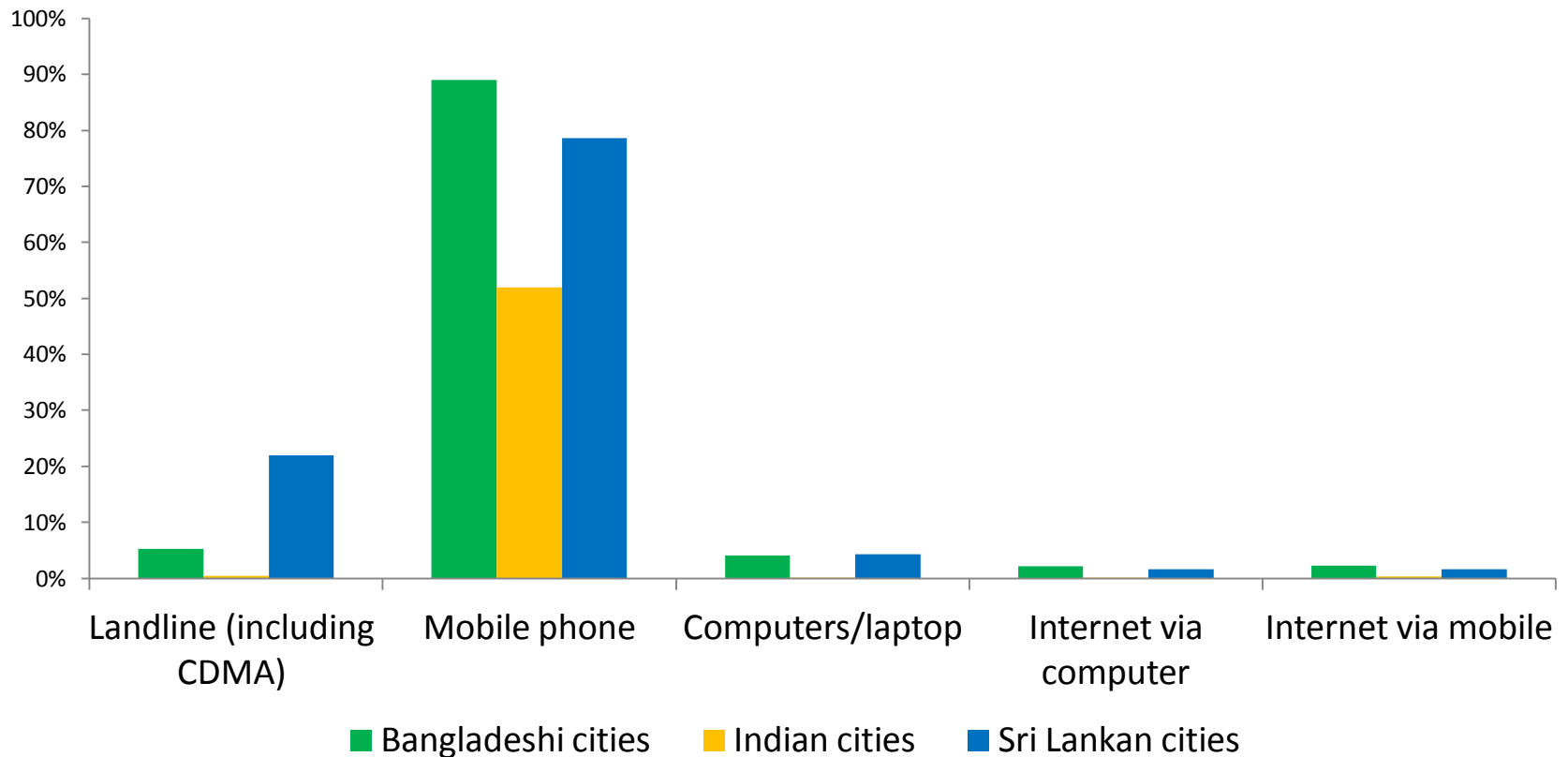


**Do you think: interacting with suppliers in-person is preferred than mobile phone in your business? (as % low-income MEs)**



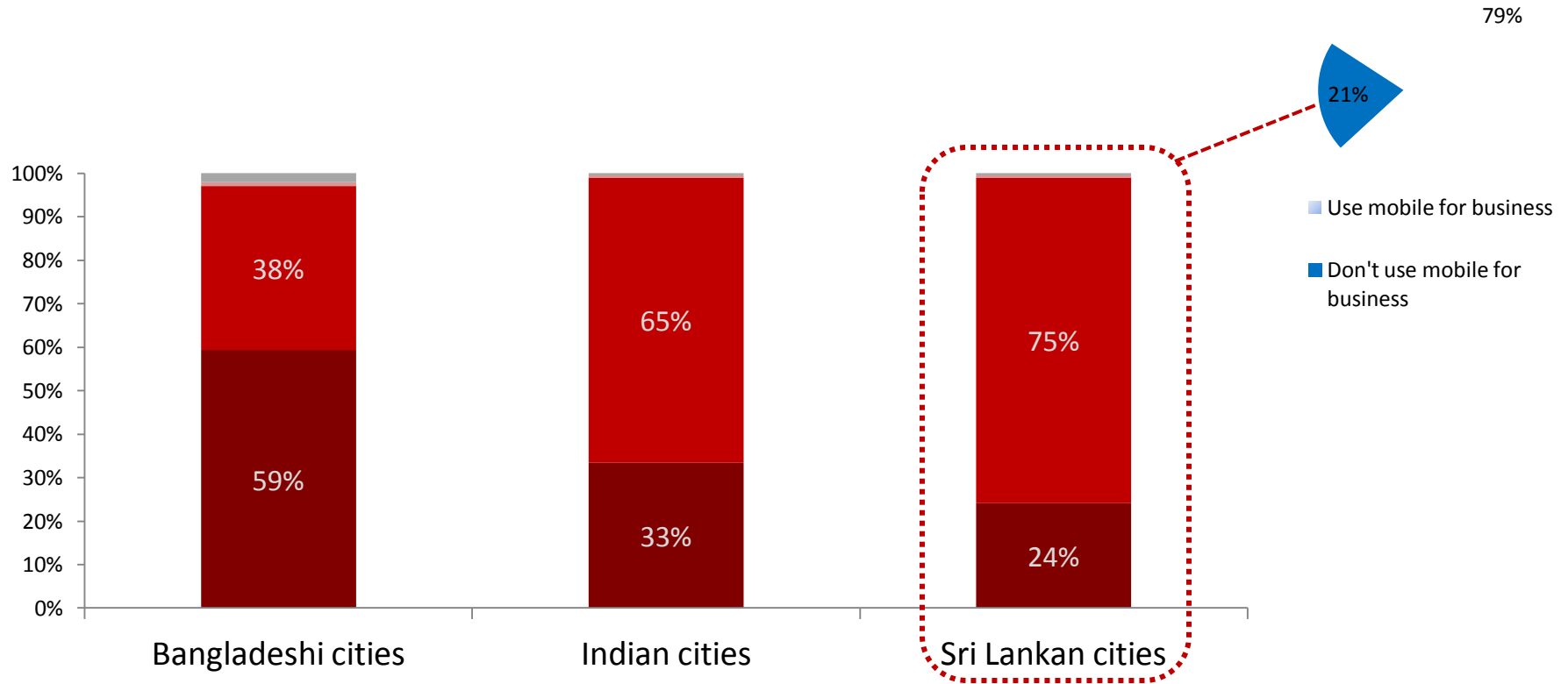
# **TELECOM USE BY MICRO-ENTREPRENEURS**

# Most MEs use mobiles for business



Do you use \_\_\_\_\_ for your business related activities? (% low income MEs)

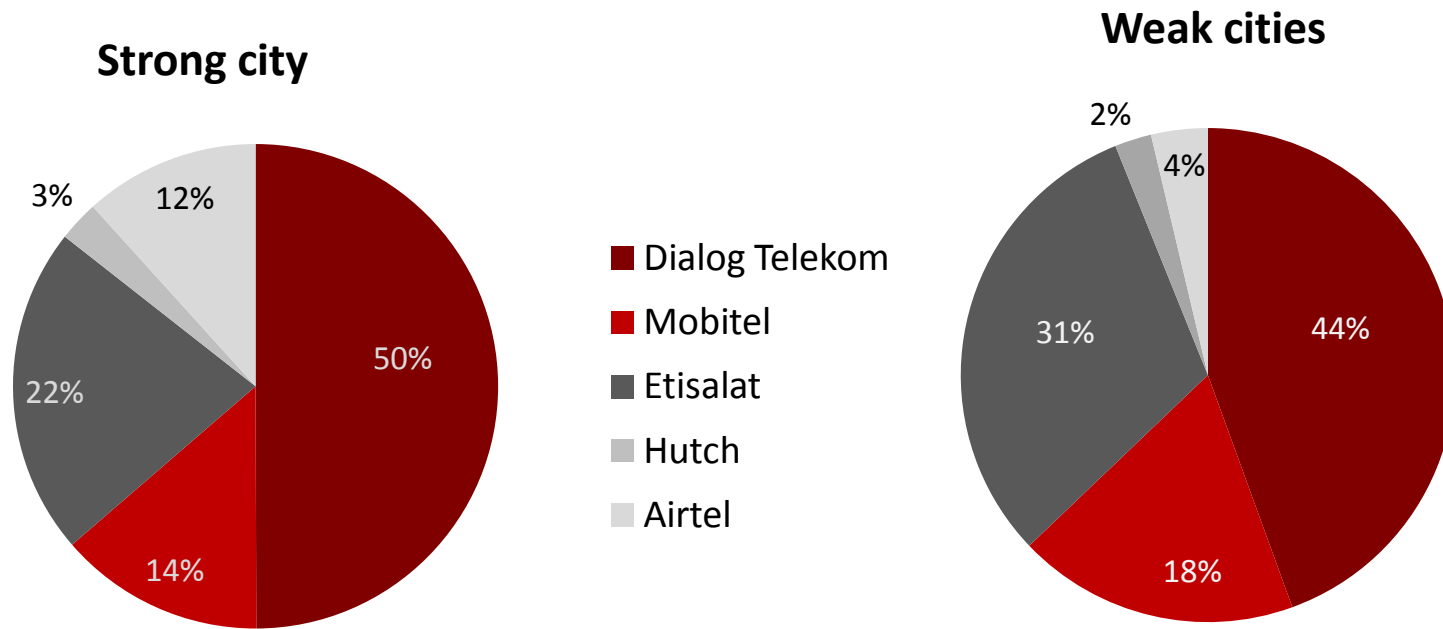
# Most MEs who don't use mobiles see no need for it for their business



- It is too expensive for me to afford
- I don't see a need to use a mobile for business
- Cannot get a connection where I live
- I am restricted from purchasing a phone by a particular person

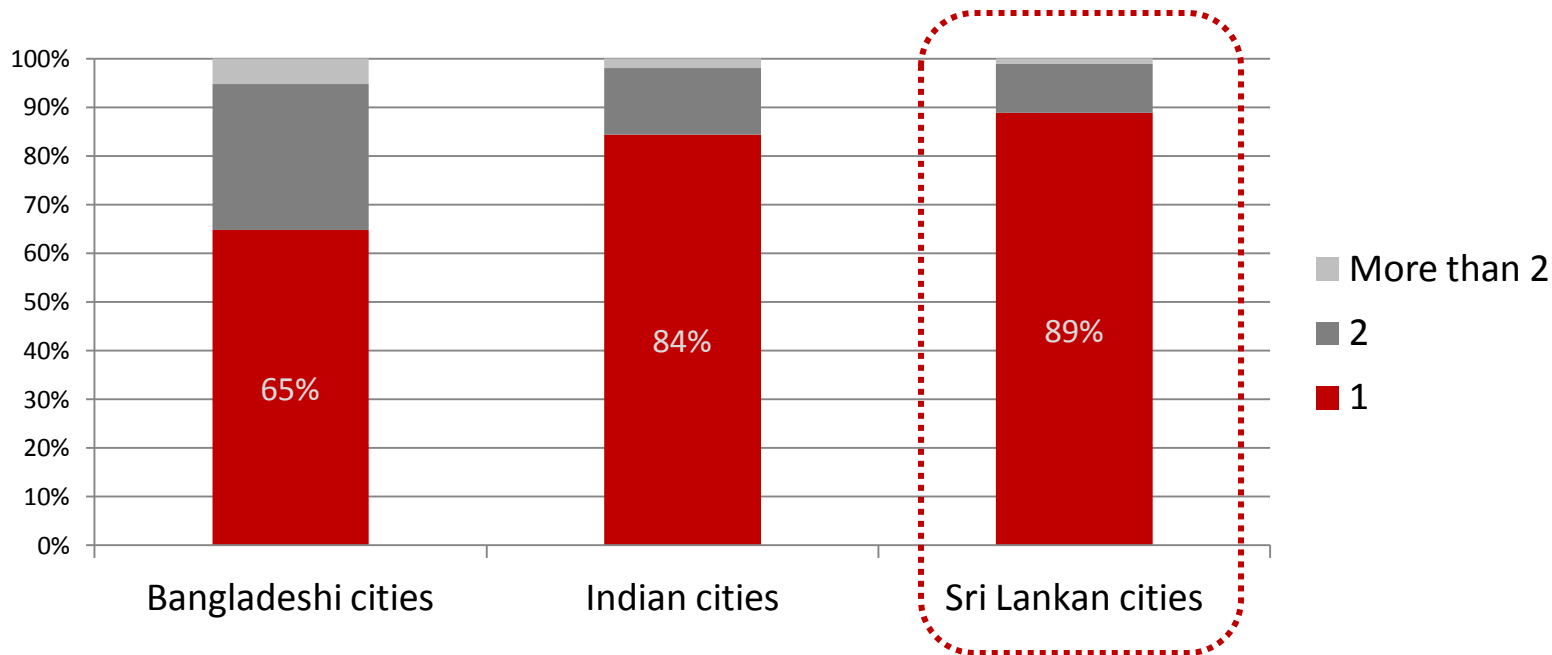
**What is the main reason you don't use a mobile phone for business?**  
**(% low income MEs who don't use a mobile for business)**

# Main telecom service provider for MEs in LK



Who is your main mobile telecom service provider?  
(% low income MEs who use mobiles for business)

# MEs tend to stay with one provider in LK

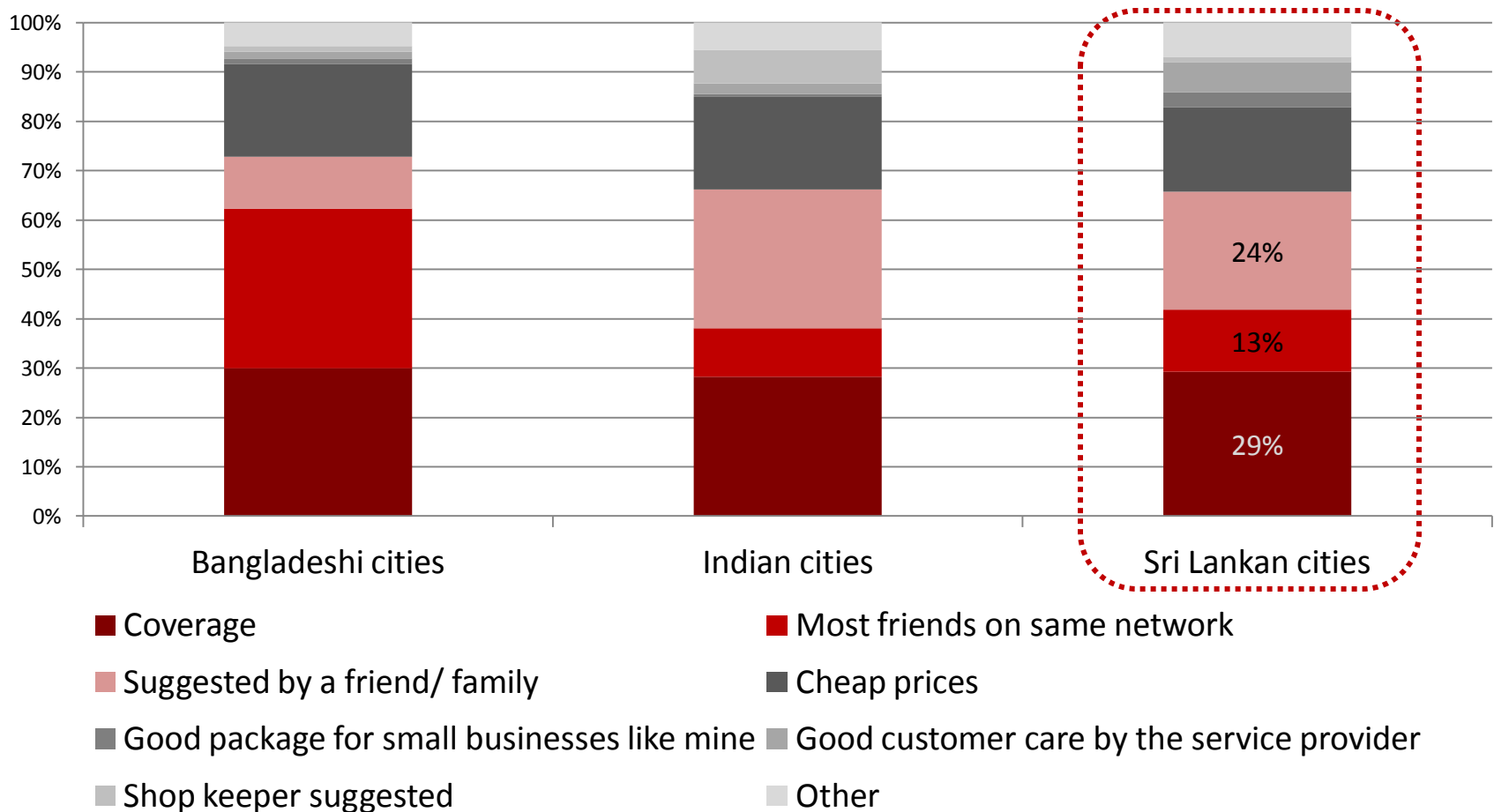


## Multiple SIM ownership

	Bangladesh	India	Sri Lanka
Low income MEs who use mobiles for business (2013)	35%	16%	11%
BOP mobile owners (Teleuse@BOP 2011)	18%	11%	17%

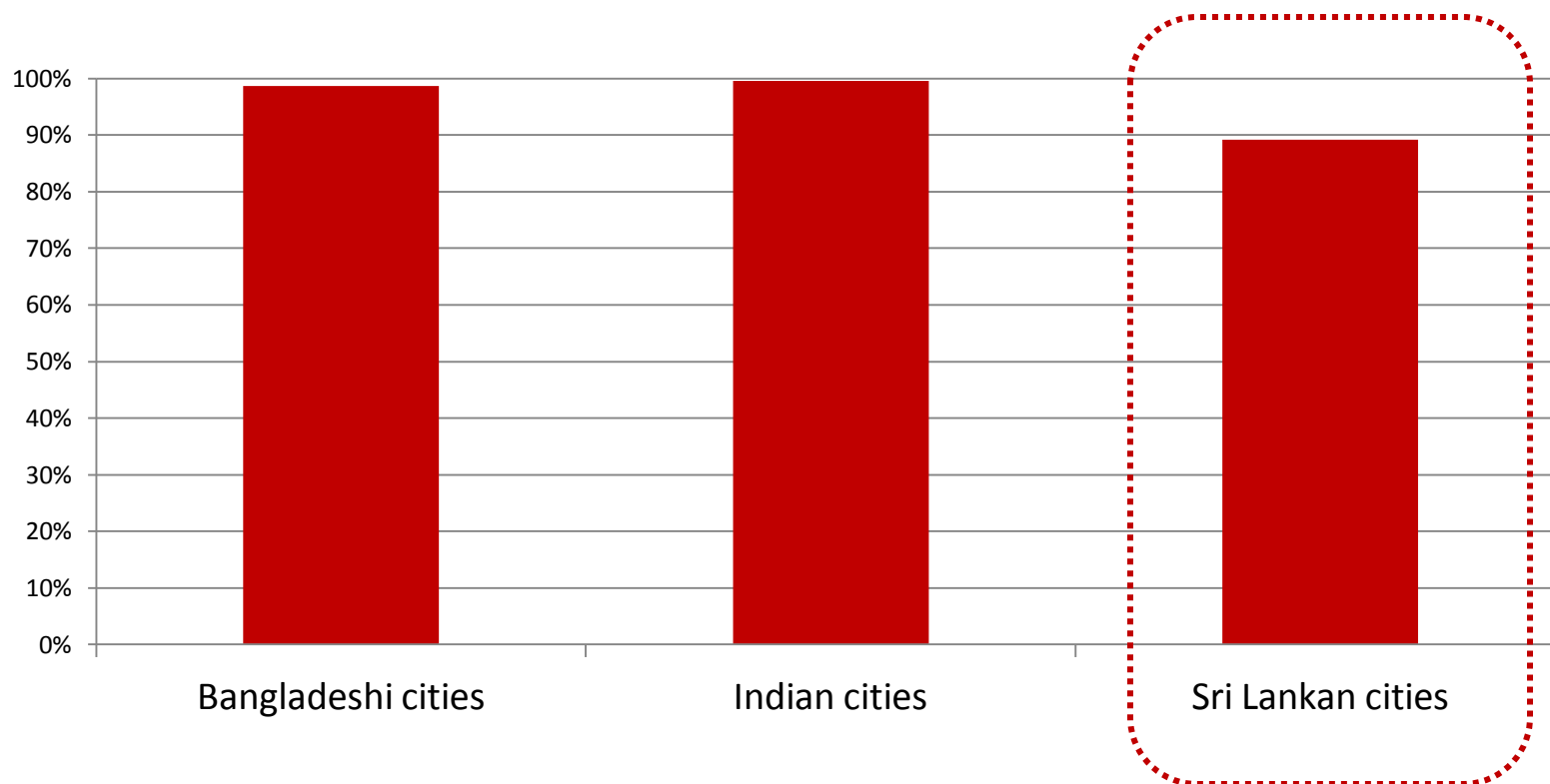
Please tell me how many active mobile SIM cards/connections you have in total that you regularly use?(% low income MEs who use mobiles for business)

# Coverage & friends factor in choosing the service provider



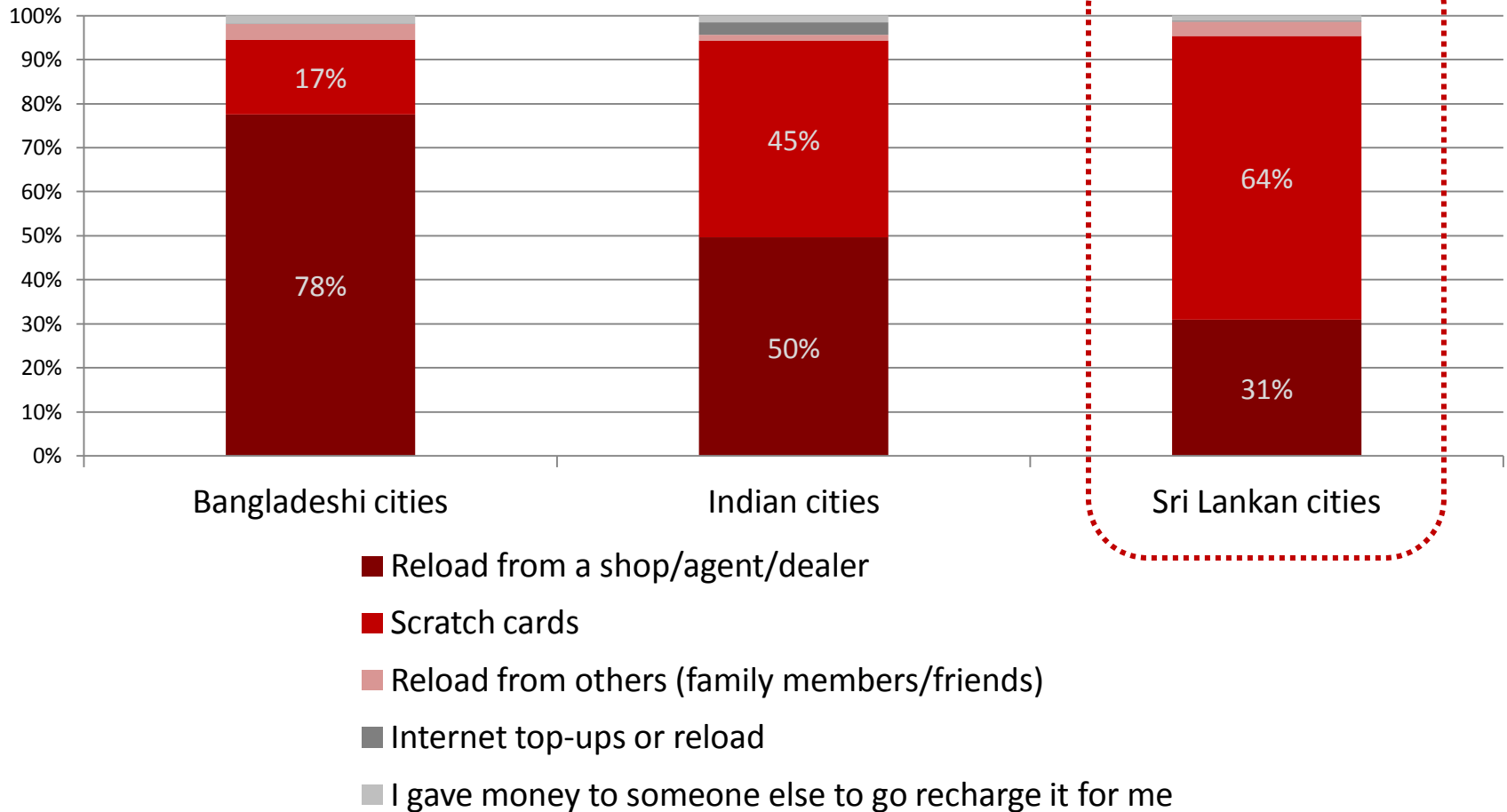
**What is the most important reason for selecting the service provider?  
(% low income MEs who use mobiles for business)**

# Majority of MEs use pre-paid mobiles



Is your mobile phone connection pre-paid? (% low income MEs who use mobiles for business)

# Scratch cards most popular in LK



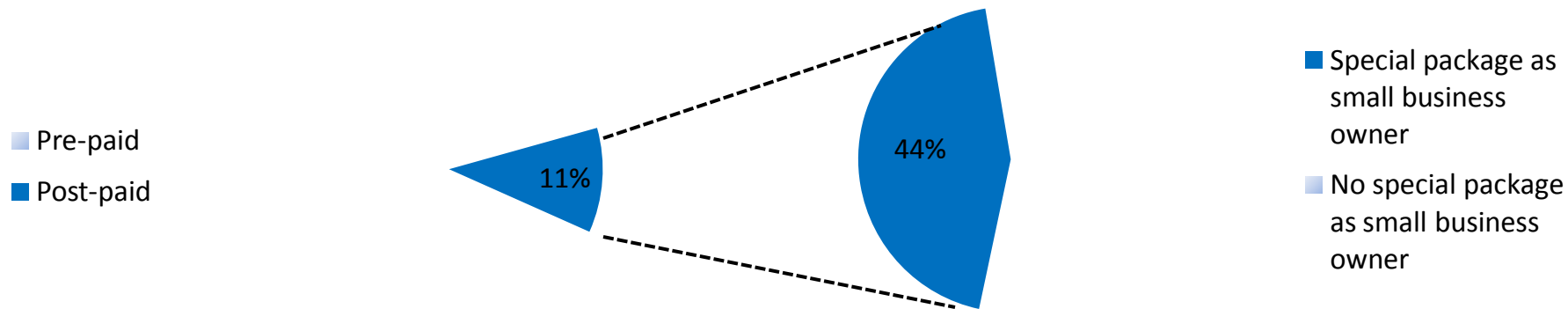
**How do you normally recharge your mobile? Give the most used option**  
**(% low income MEs who use pre-paid)**



# Low income MEs recharge more than other BOP

Average recharge per month (USD)			
	Bangladesh	India	Sri Lanka
BOP pre-paid mobile owners (2011)	1.61	1.99	3.18
Low income MEs who use pre-paid for business (2013)	8.91	6.21	10.67 (LKR 1345)

# In LK 44% of those on post-paid have a special ME package



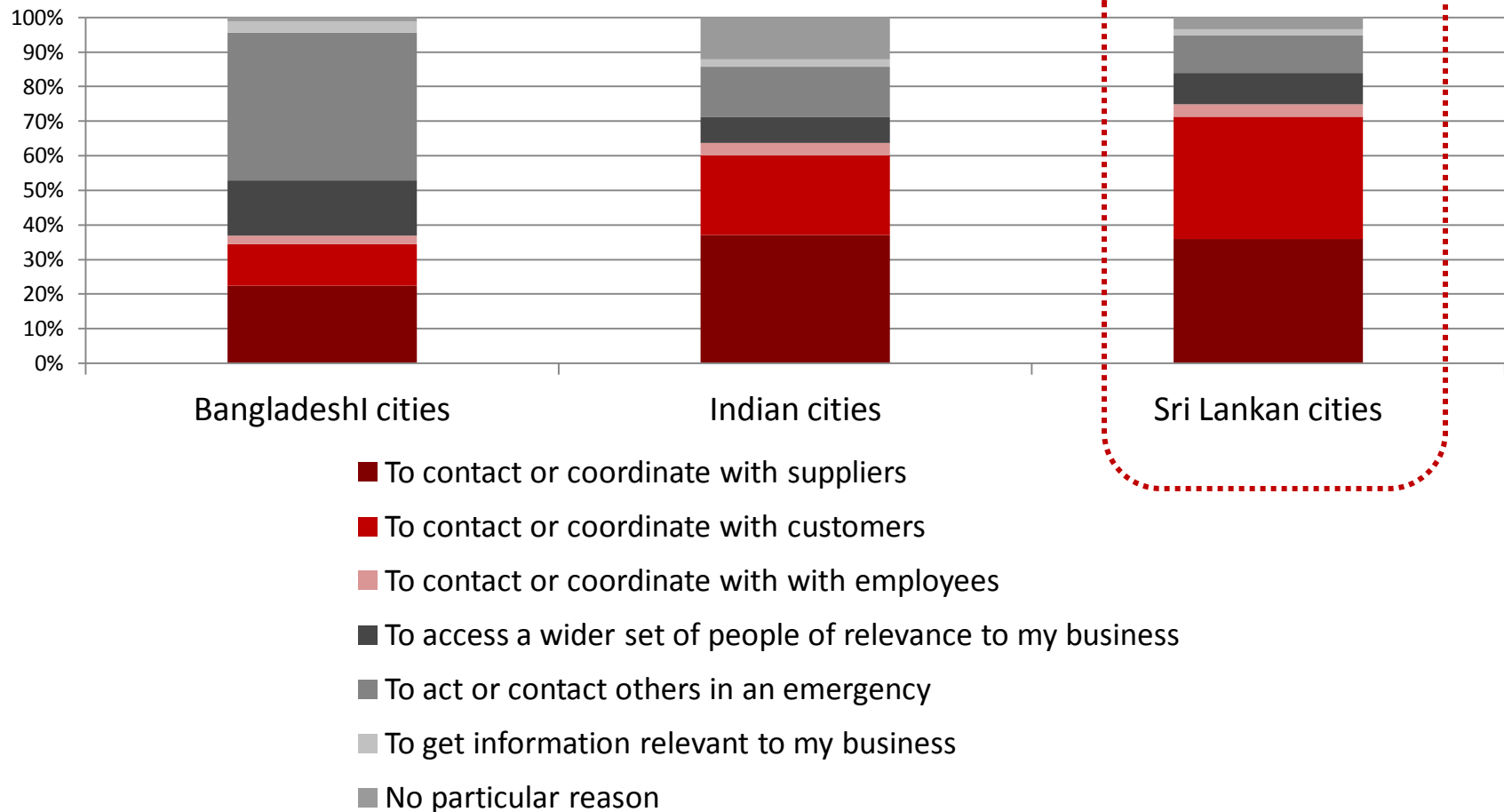
**87% of post-paid users say they understand the content in the bill**

Average total monthly expense for the mobile phone

USD 12.3  
(LKR 1551)

**As a small business owner (manager), do you get any special package from your mobile service provider?(% low income MEs with post-paid)**

# Mobiles most used for contacting suppliers & customers

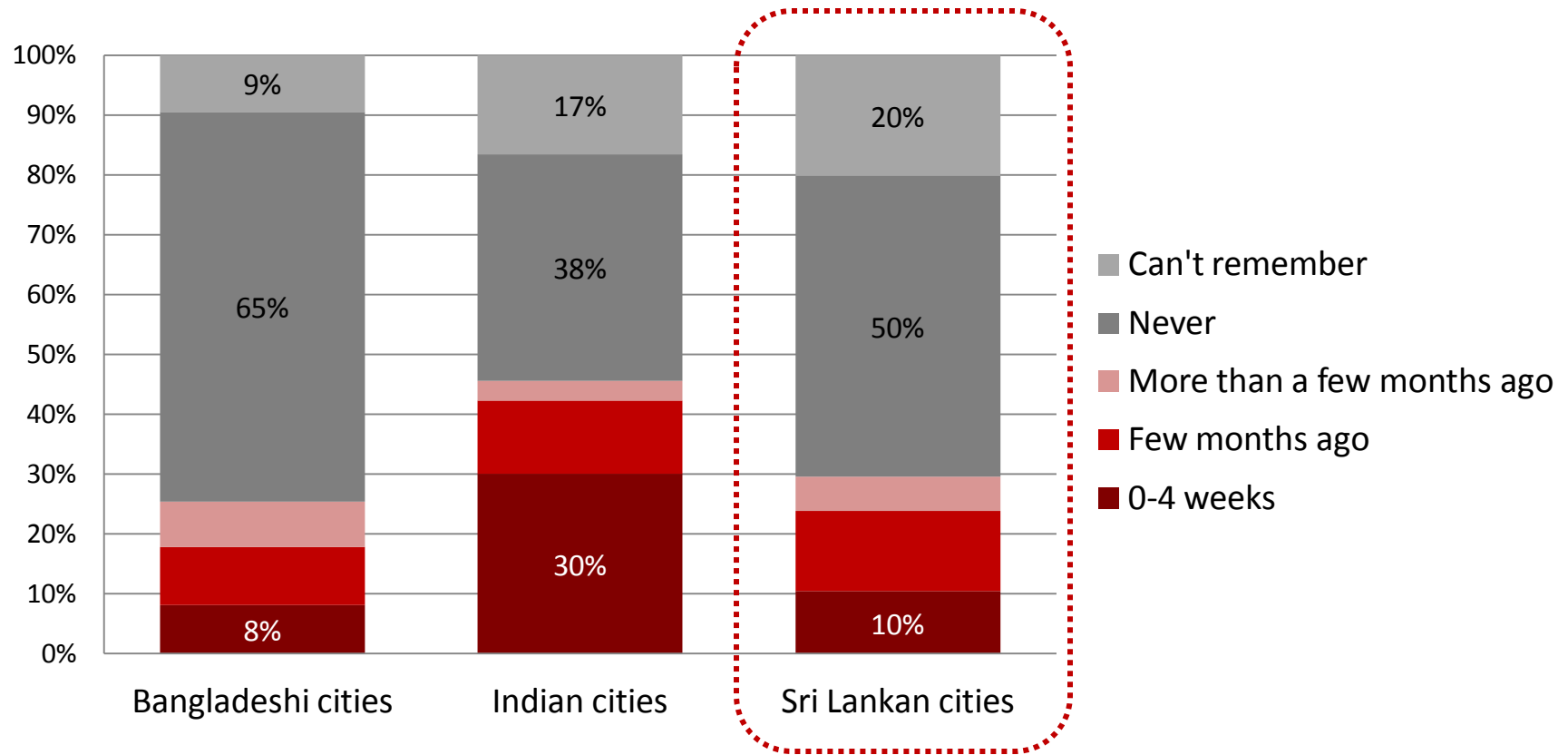


**Please tell us the most important reason to use a mobile phone for business**  
**(% low income MEs who use mobiles for business)**

# Higher use of SMS and social apps in LK

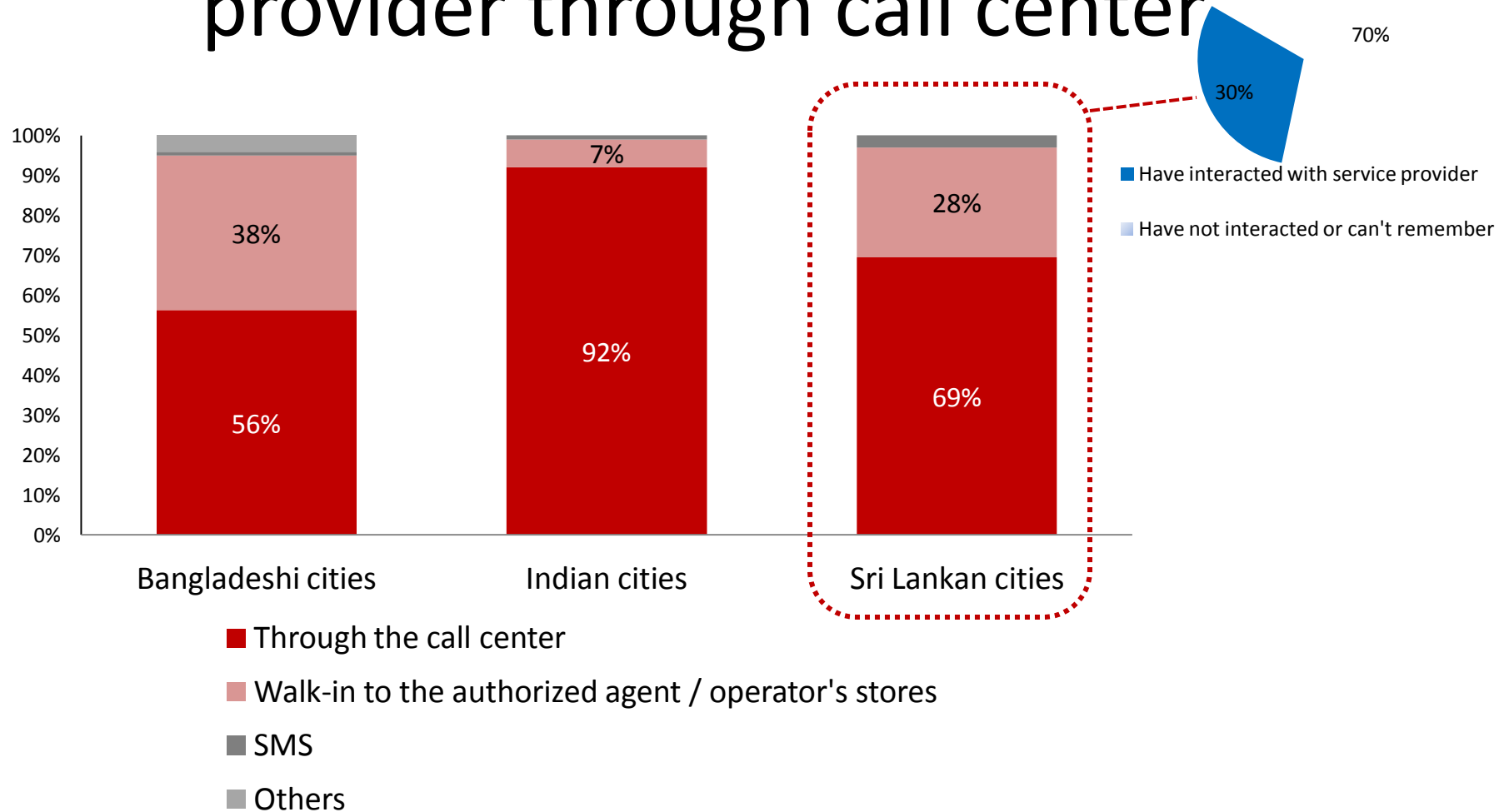
	Bangladeshi cities	Indian cities	Sri Lankan cities
SMS	43%	28%	49%
Games	38%	37%	22%
Video recorder/ camera	42%	30%	21%
Touch Screen	11%	12%	9%
Dual SIM	22%	19%	9%
Mobile Internet	7%	3%	7%
Apps for social networking	5%	1%	7%
MMS, picture messaging facility	6%	2%	5%
Email	3%	1%	4%
Google Maps	3%	1%	3%

# Most MEs do not interact with telecom service provider



**When was the last interaction with the service provider?  
(% low income MEs who use mobiles for business)**

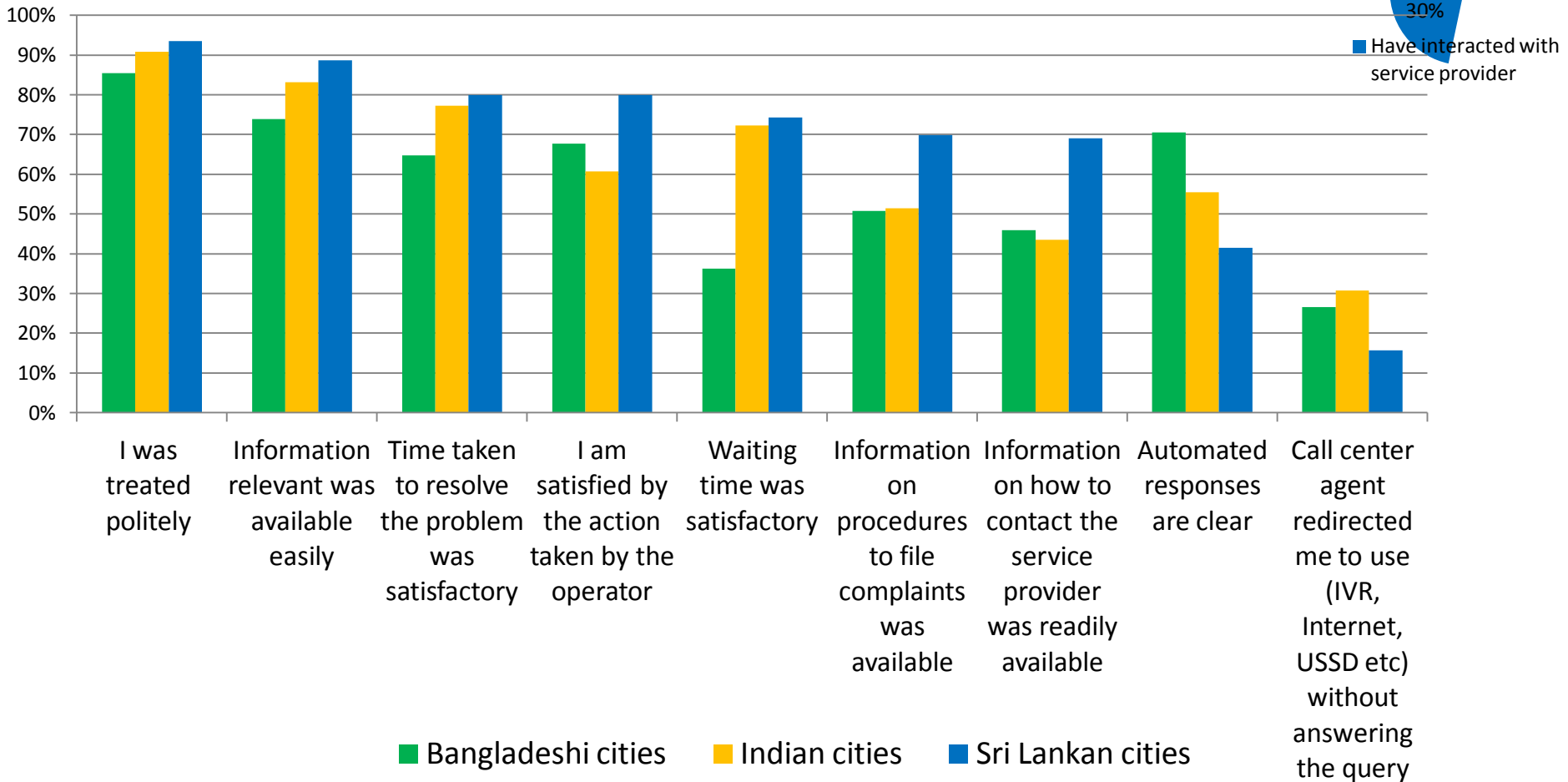
# 69% in LK interact with service provider through call center



**How do you normally contact your telecom service provider?**  
(% low income MEs who have interacted with service provider)

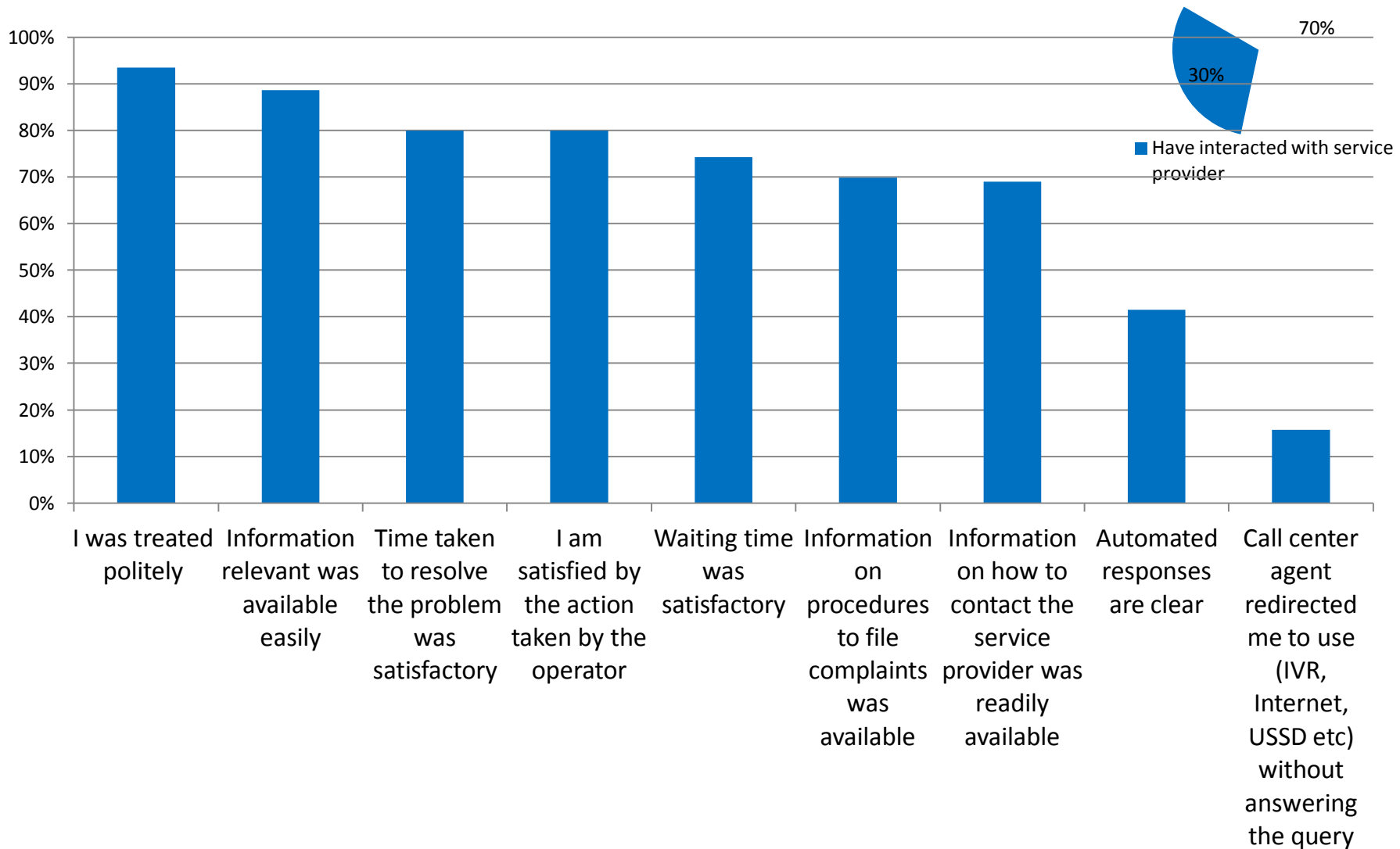
# Service provider interaction overall better in LK

70%  
30%  
Have interacted with service provider



**Experience with service provider – YES (% low income MEs who have interacted with service provider)**

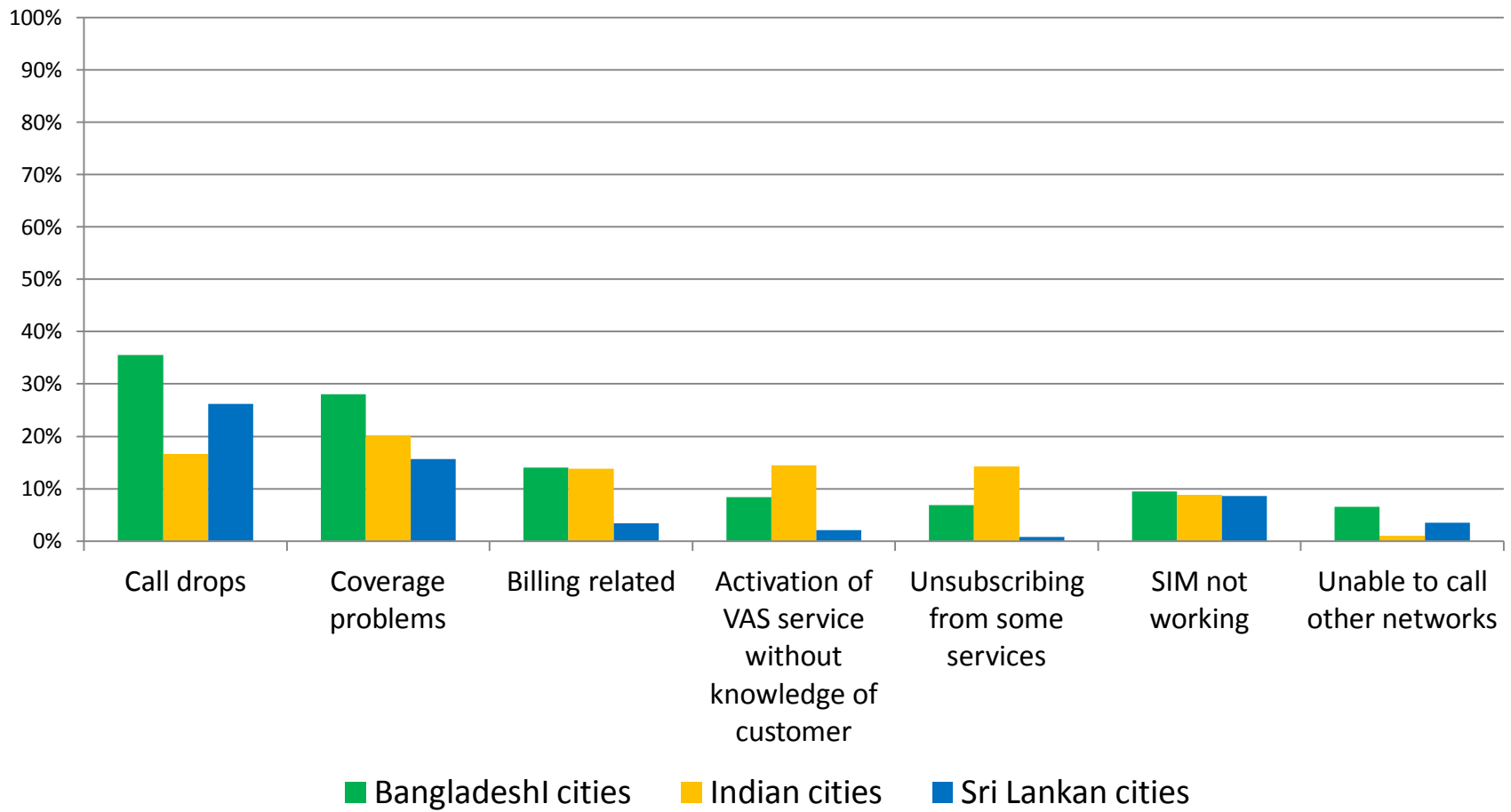
# A closer look at LK performance



**Experience with service provider – YES (% low income MEs who have interacted with service provider)**

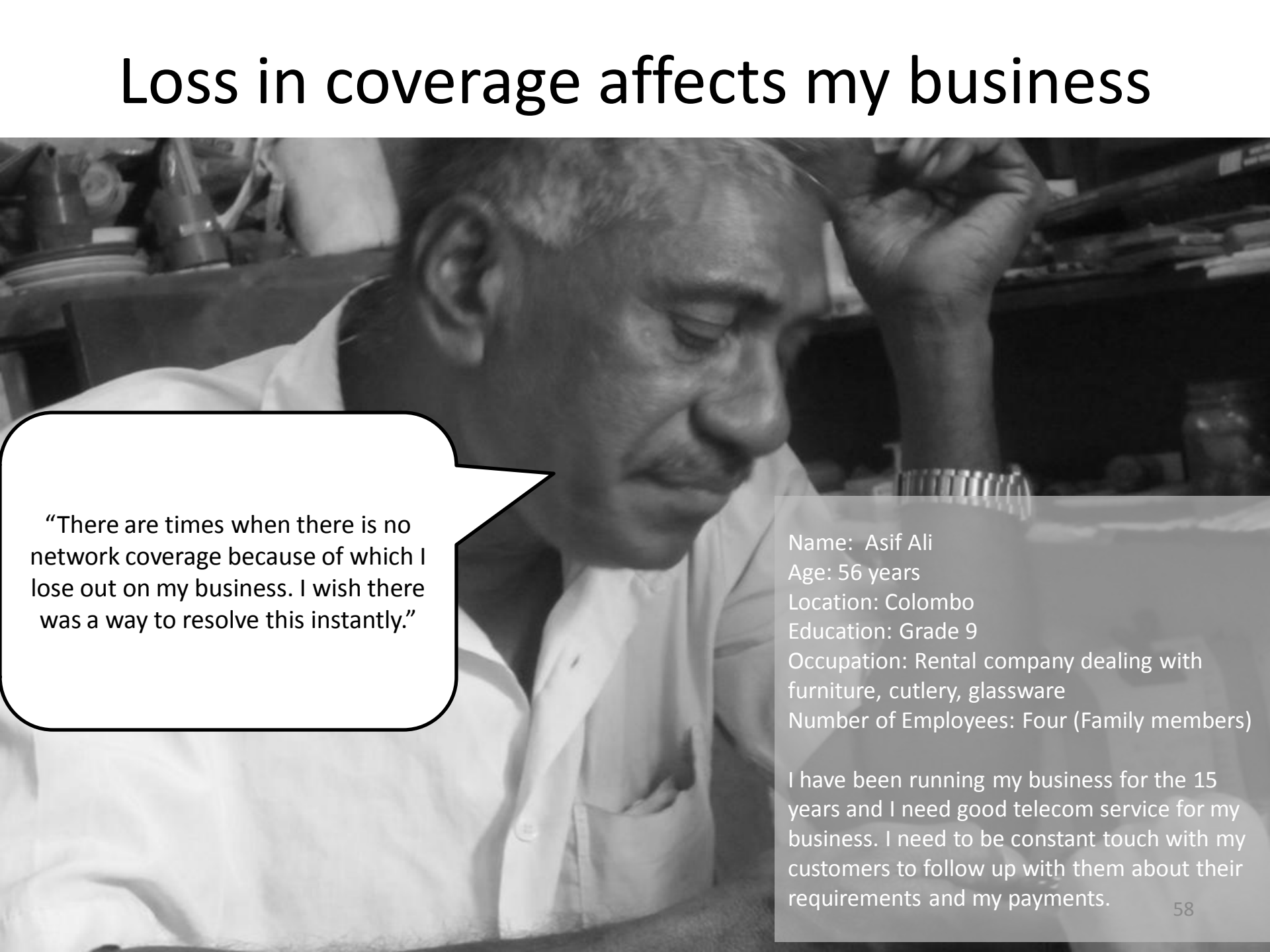


# Biggest problems in LK are call drops & coverage



**Please tell me the mobile phone related problems you have faced  
(% low income MEs who use a mobile for business) [MC]**

# Loss in coverage affects my business




“There are times when there is no network coverage because of which I lose out on my business. I wish there was a way to resolve this instantly.”

Name: Asif Ali  
Age: 56 years  
Location: Colombo  
Education: Grade 9  
Occupation: Rental company dealing with furniture, cutlery, glassware  
Number of Employees: Four (Family members)

I have been running my business for the 15 years and I need good telecom service for my business. I need to be constant touch with my customers to follow up with them about their requirements and my payments.

# Accidentally subscribing to VAS

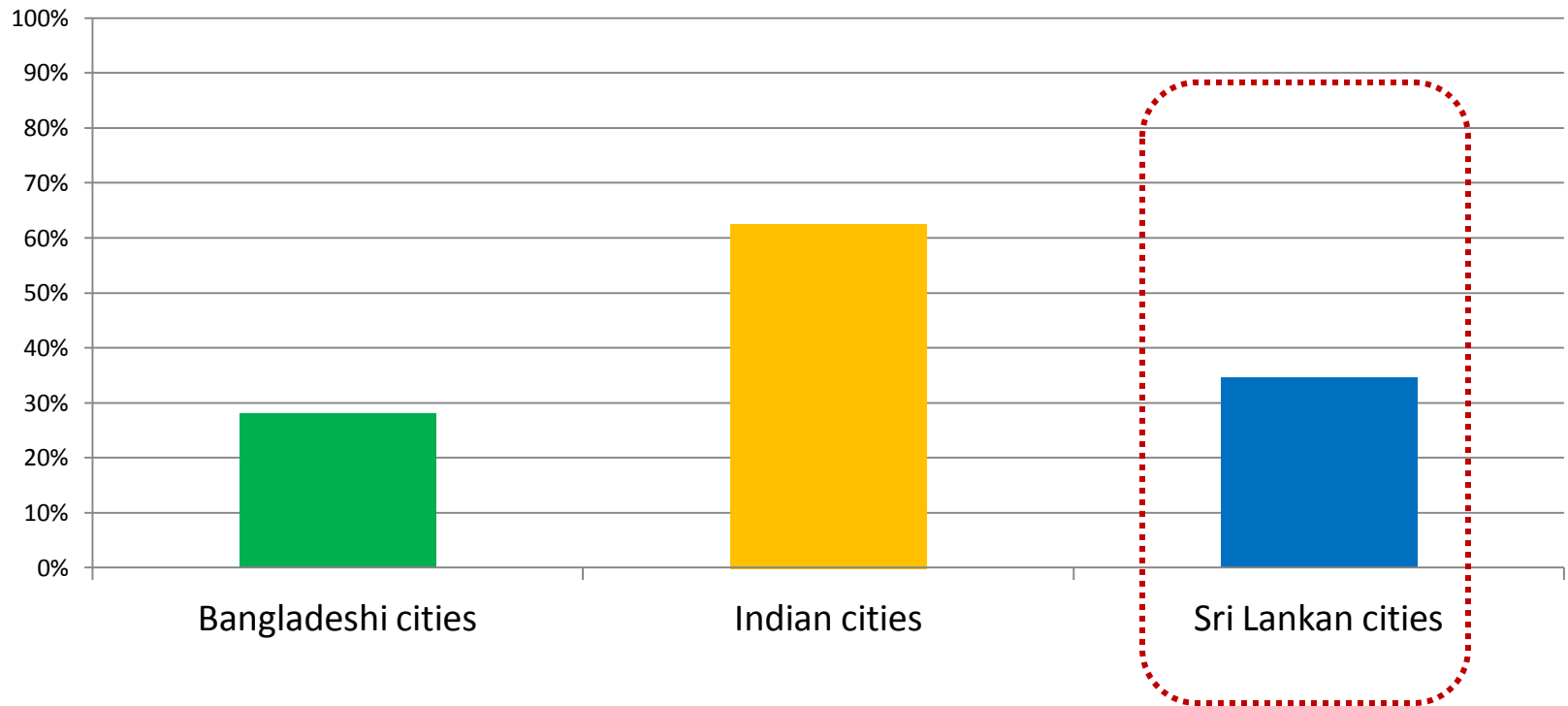


“I am not educated, so it is difficult for me to understand the messages I receive and the messages are not in Sinhala. I tend to press the wrong button which activates the VAS without my knowledge. I realised this only when my balance is cut”

Name: Supun Fernando  
Age: 38 years  
Location: Colombo  
Education: Grade 9  
Occupation: Shoe Seller  
Number of Employees: Two

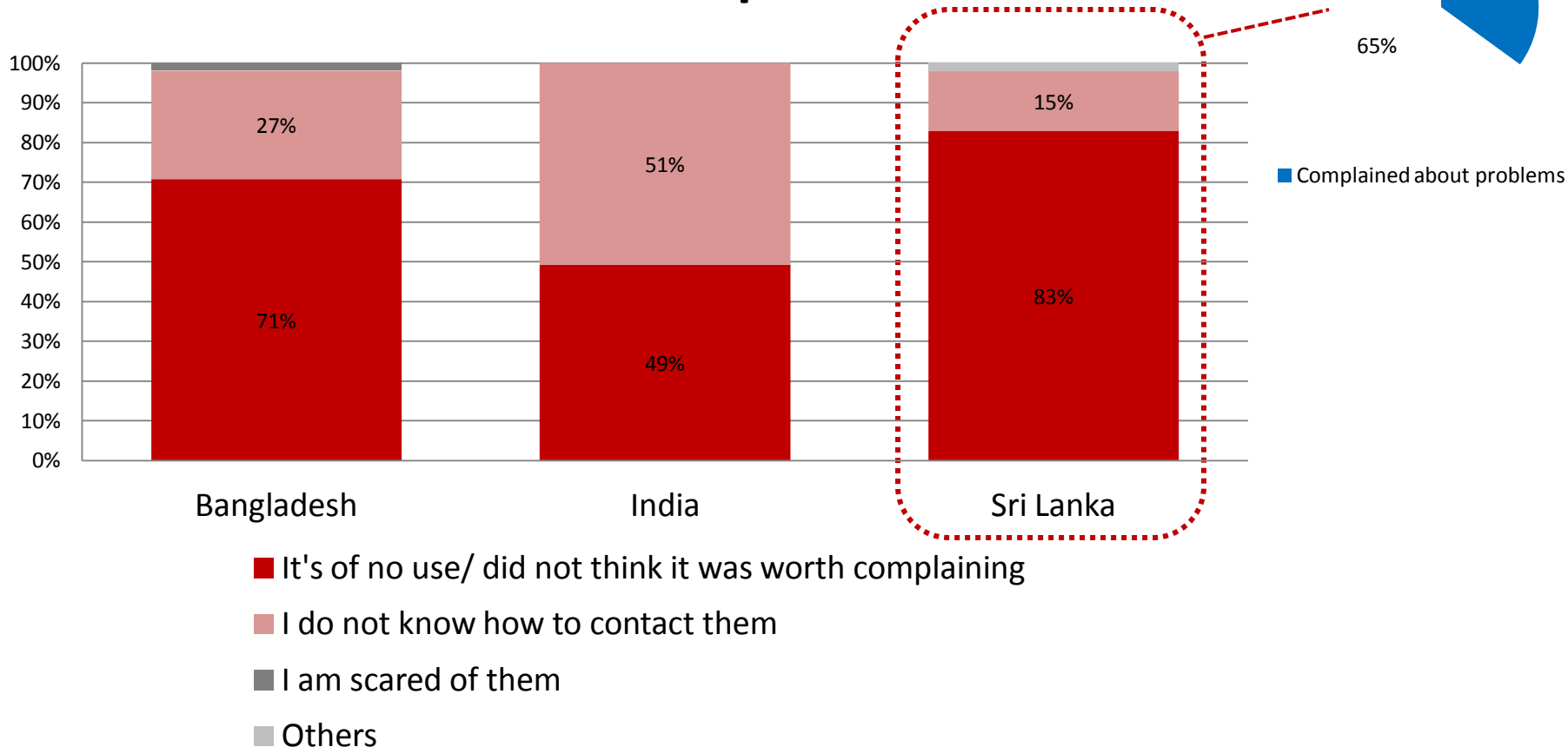
I have been running my business for the past seven years and I tend to get irritated with the messages I get from my telecom company.

# In LK only 1 out of 3 complained about any problem



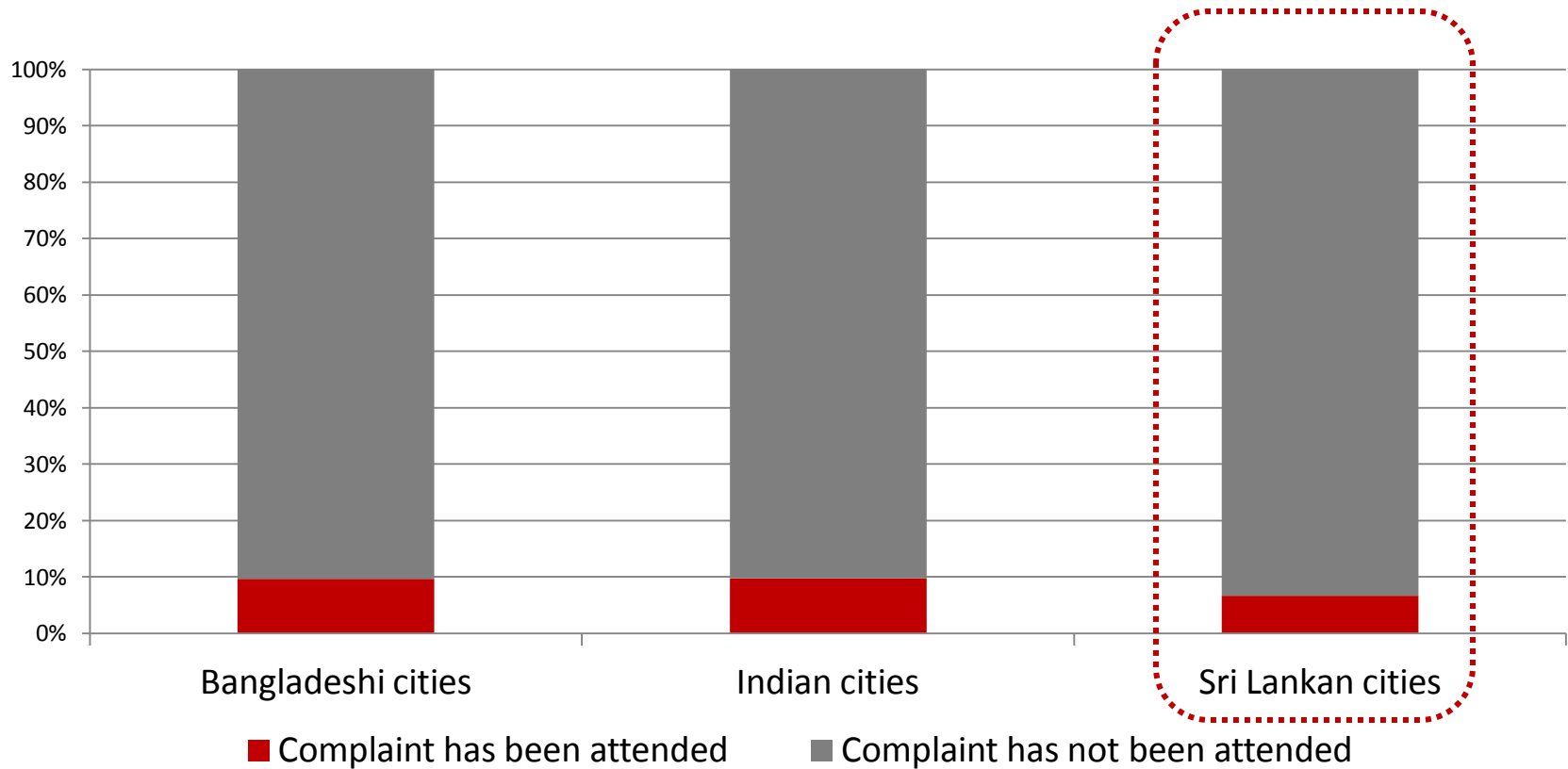
**Have you complained about these problems to the telecom service provider?**  
**(% low income MEs who have mobile related problems)**

# 83% in LK did not think it was any use complain



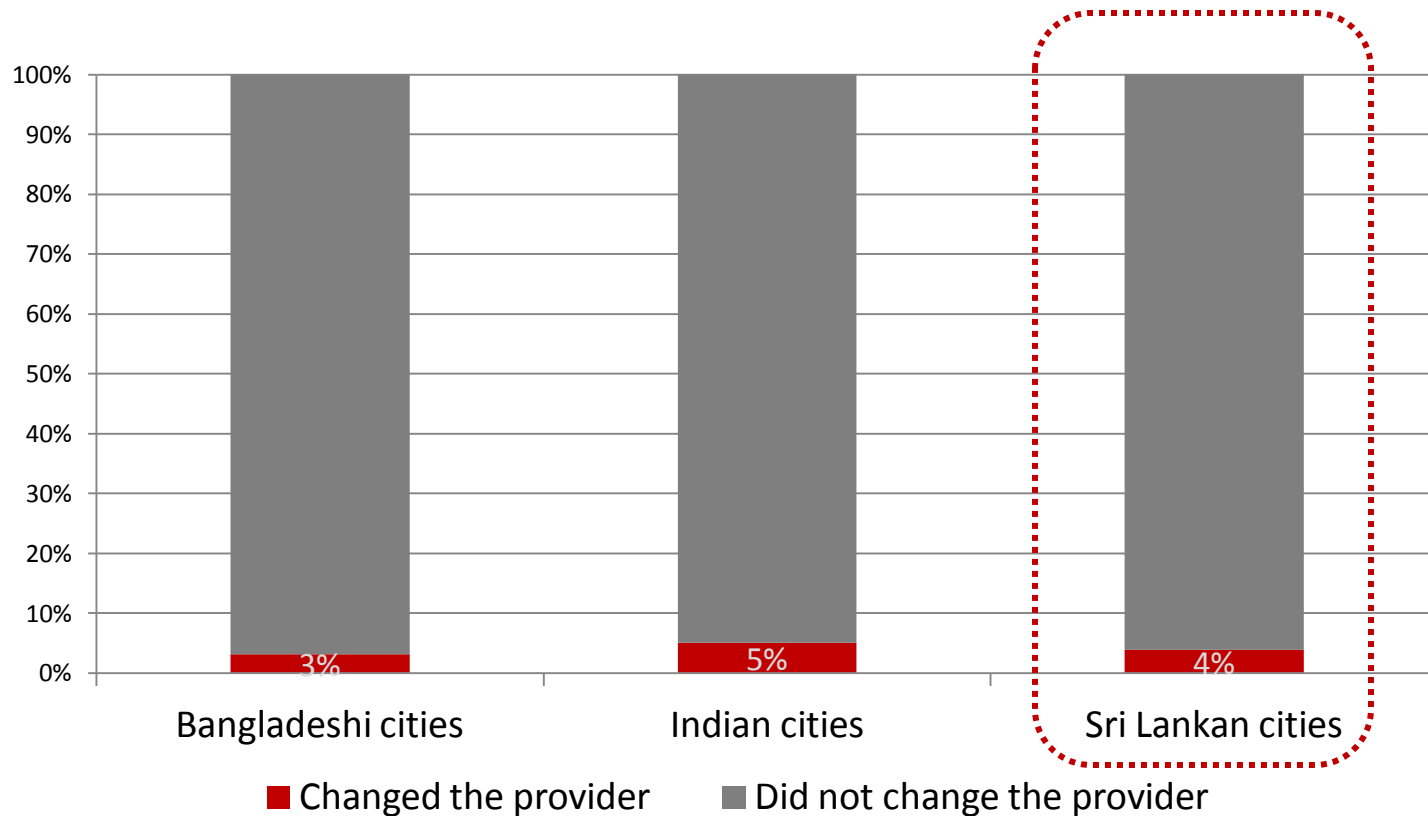
Why did you not complain to the service provider?  
(% low income MEs who faced problems but didn't complain)

# Most complaints have been attended to



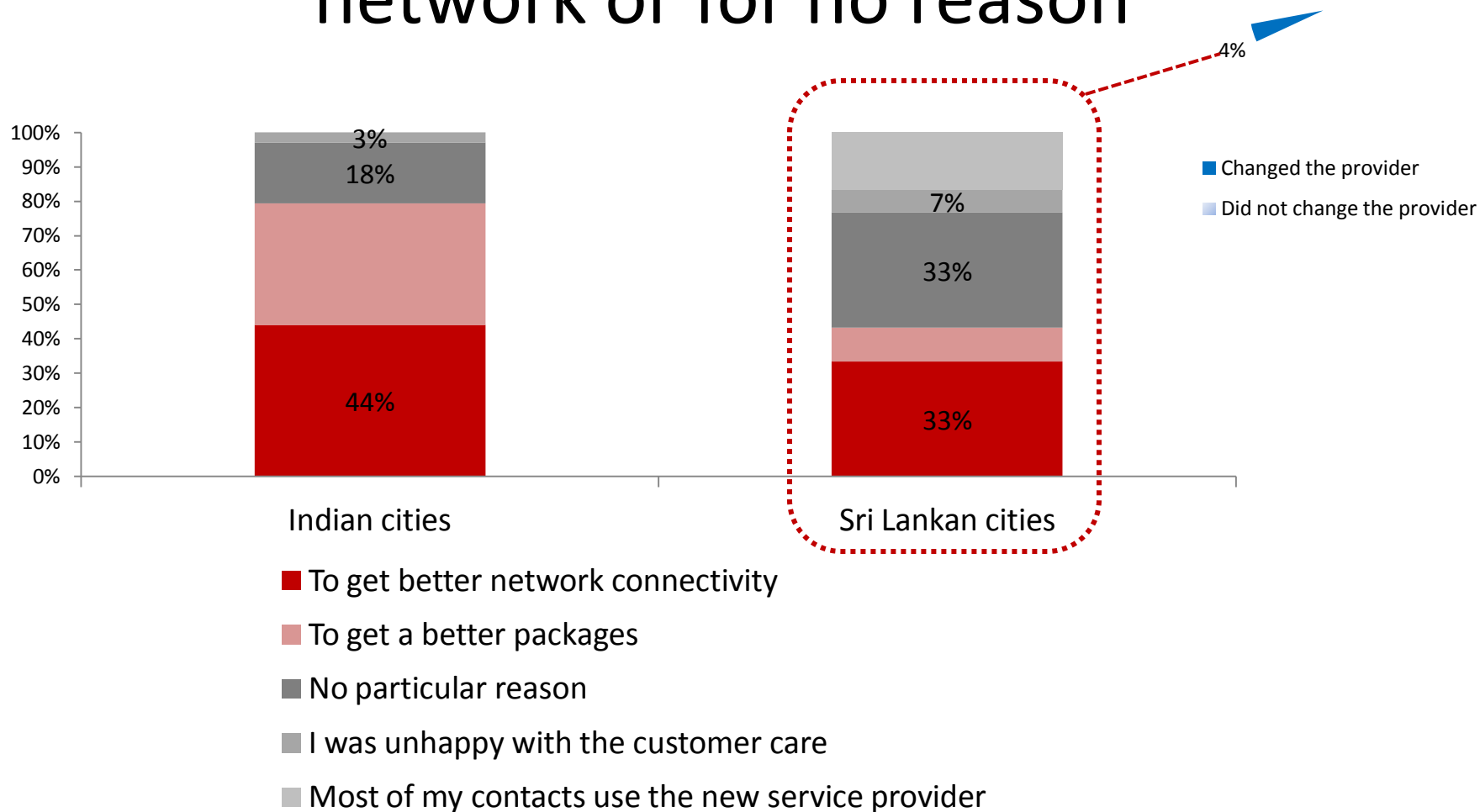
**Have any of your major complaints not been attended by the service provider?**  
**(% low income MEs who complained)**

# Only 4% of MEs changed their provider in the last year



Did you change your primary telecom service provider in the last year?  
(% low income MEs who use a mobile for business)

# MEs changed connection to get better network or for no reason

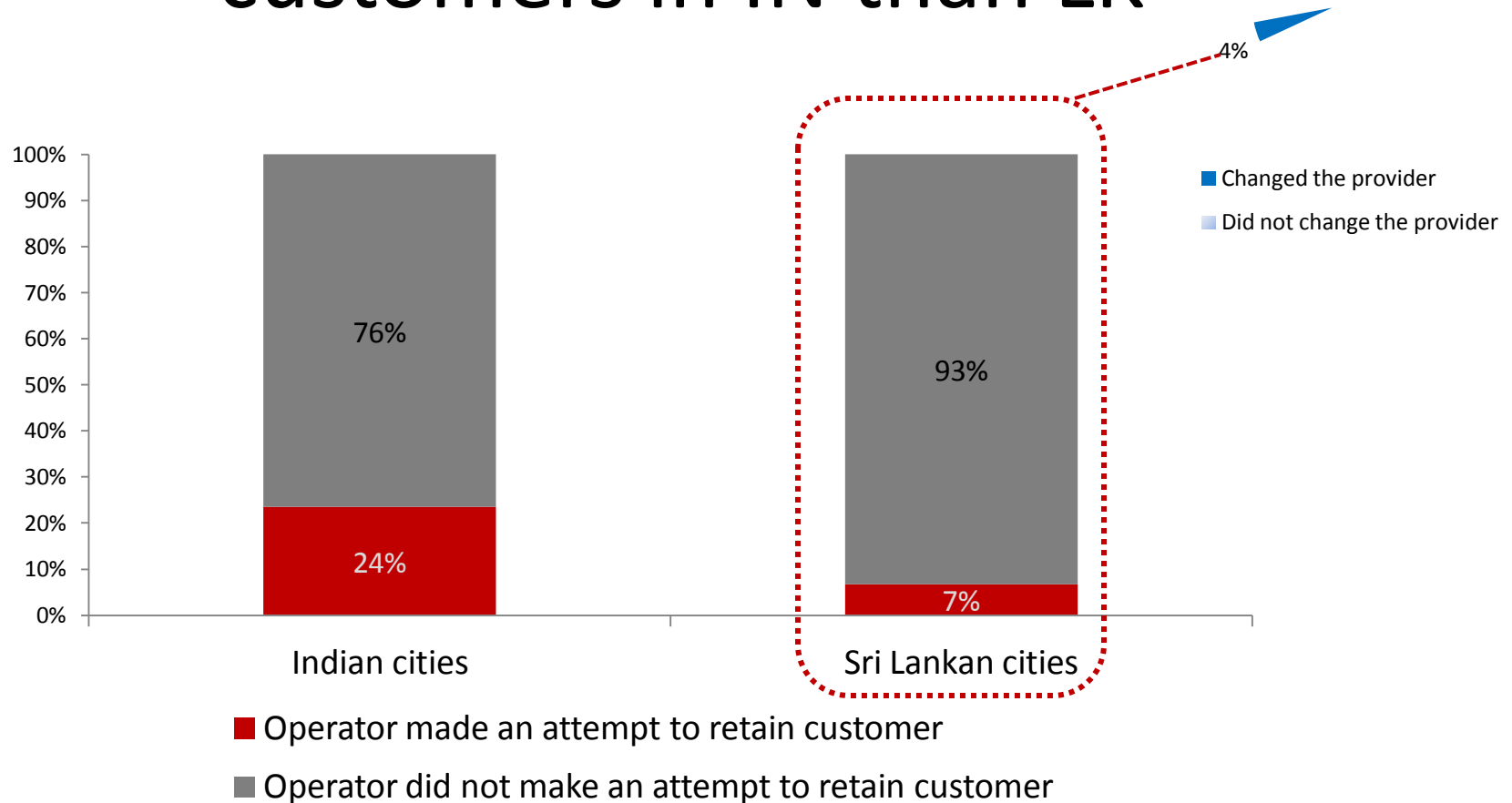


*Base is less than 30 for Bangladesh*

**What was the main reason to change the service provider?  
(% low income MEs who changed their service provider in the last year)**



# Operators more keen to retain customers in IN than LK

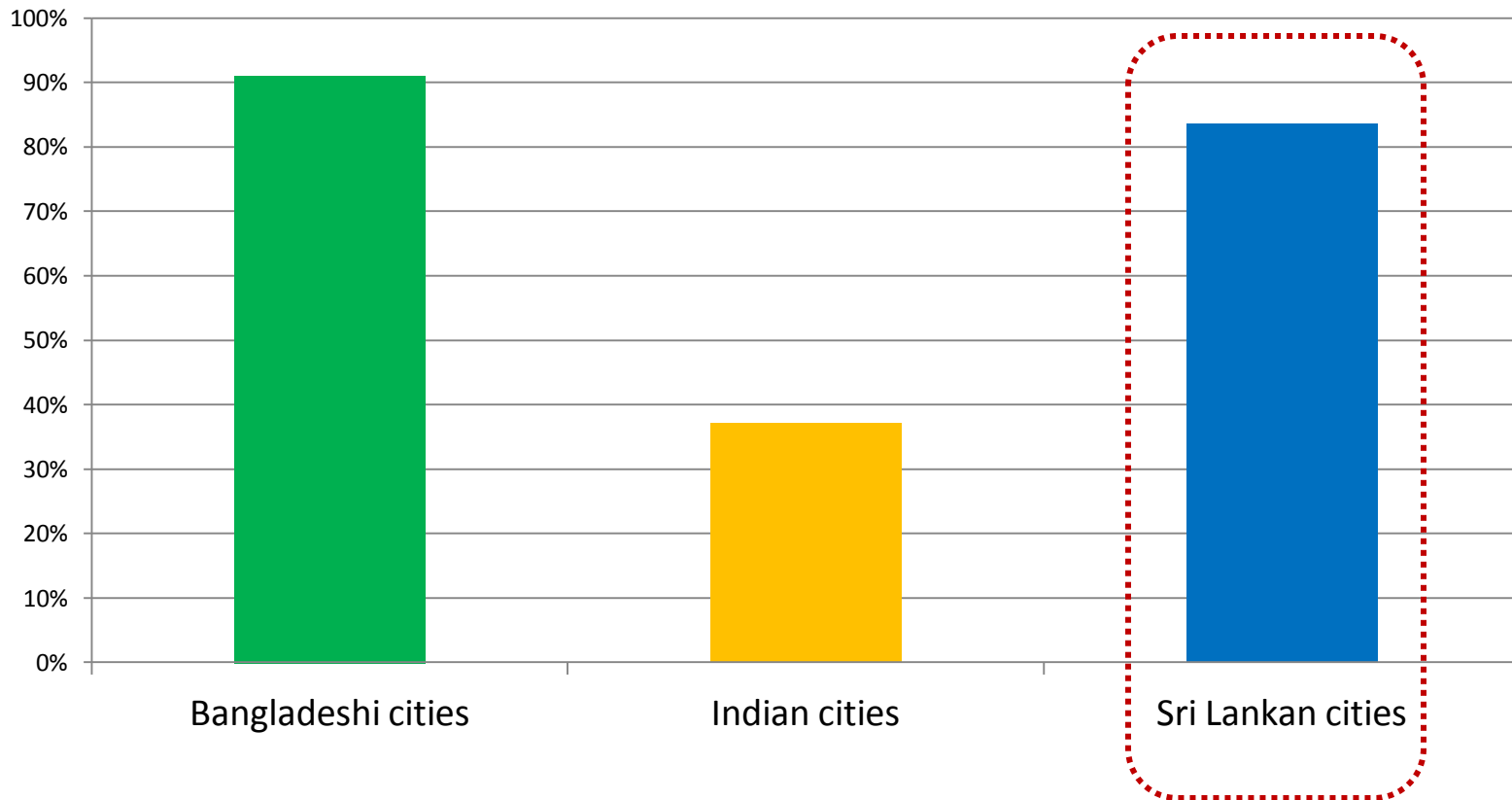


*Base is less than 30 for Bangladesh*

**Did your operator make any attempts to retain you?**  
**(% low income MEs who changed their service provider in the last year)**

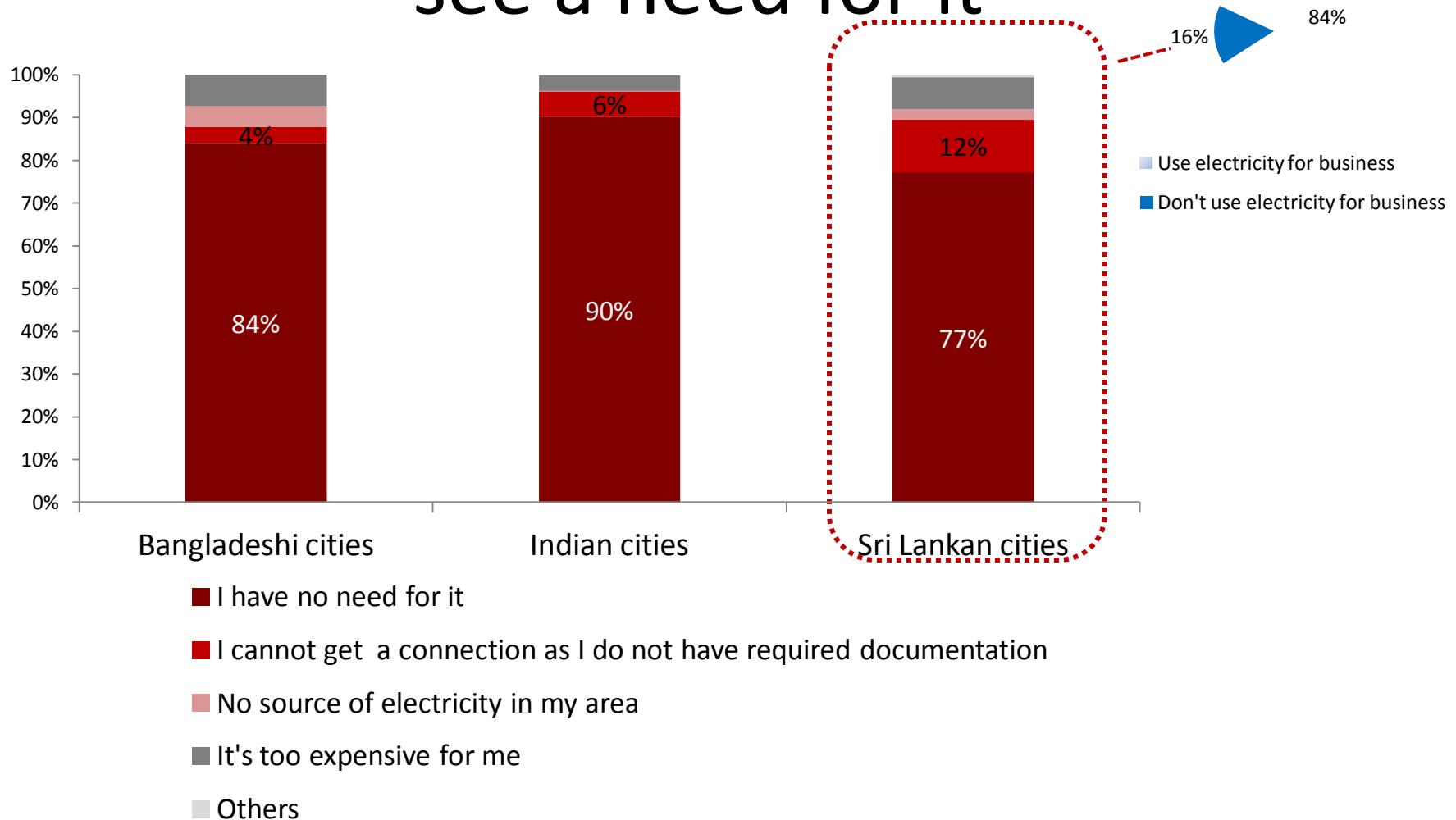
# **ELECTRICITY USE BY MICRO-ENTREPRENEURS**

# Many have an electricity connection which they use for business



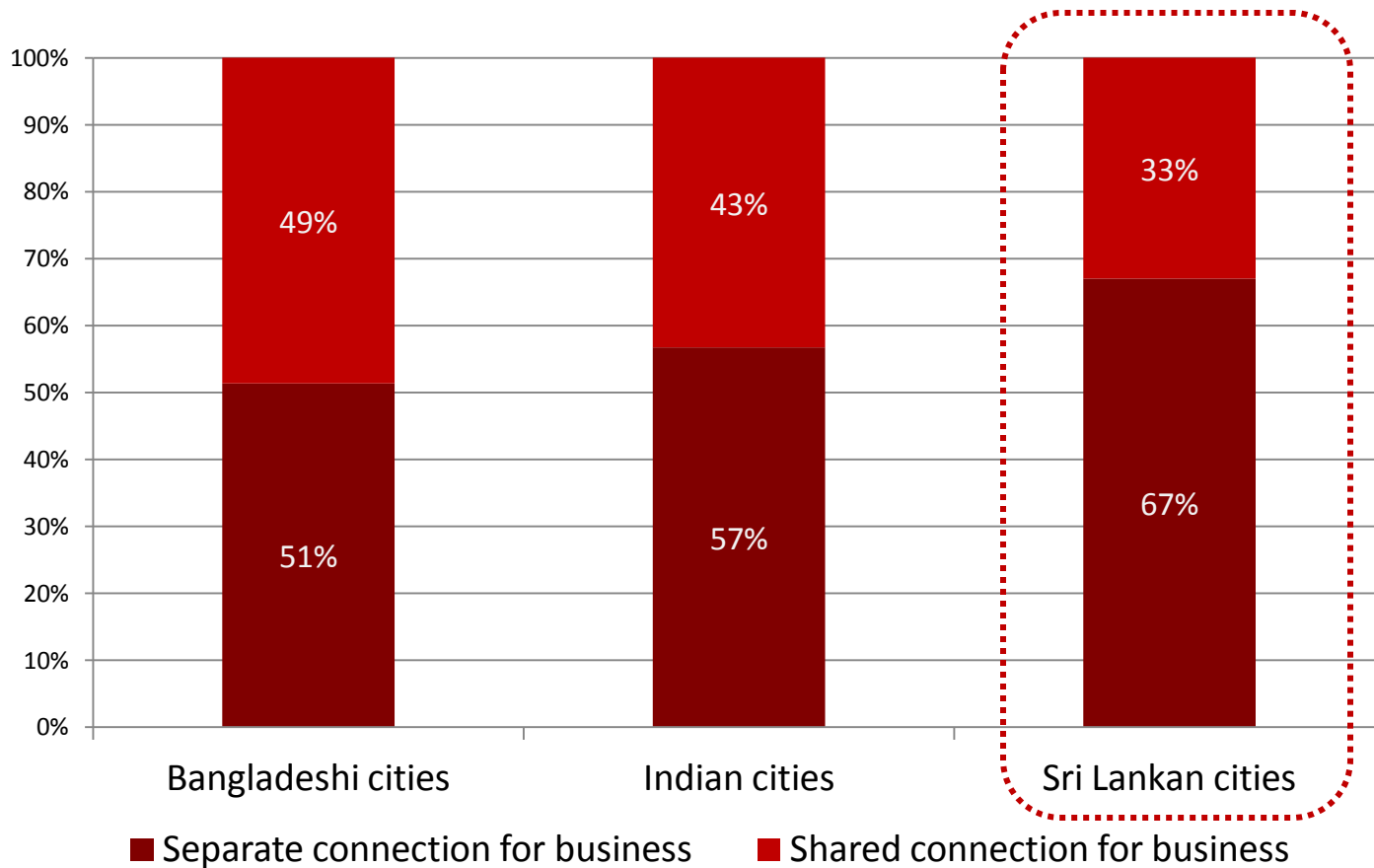
**Do you have an electricity connection which you use for business purpose? Where electricity can be from the grid, solar, generator and other sources ( % low income MEs)**

# Those who don't have electricity don't see a need for it



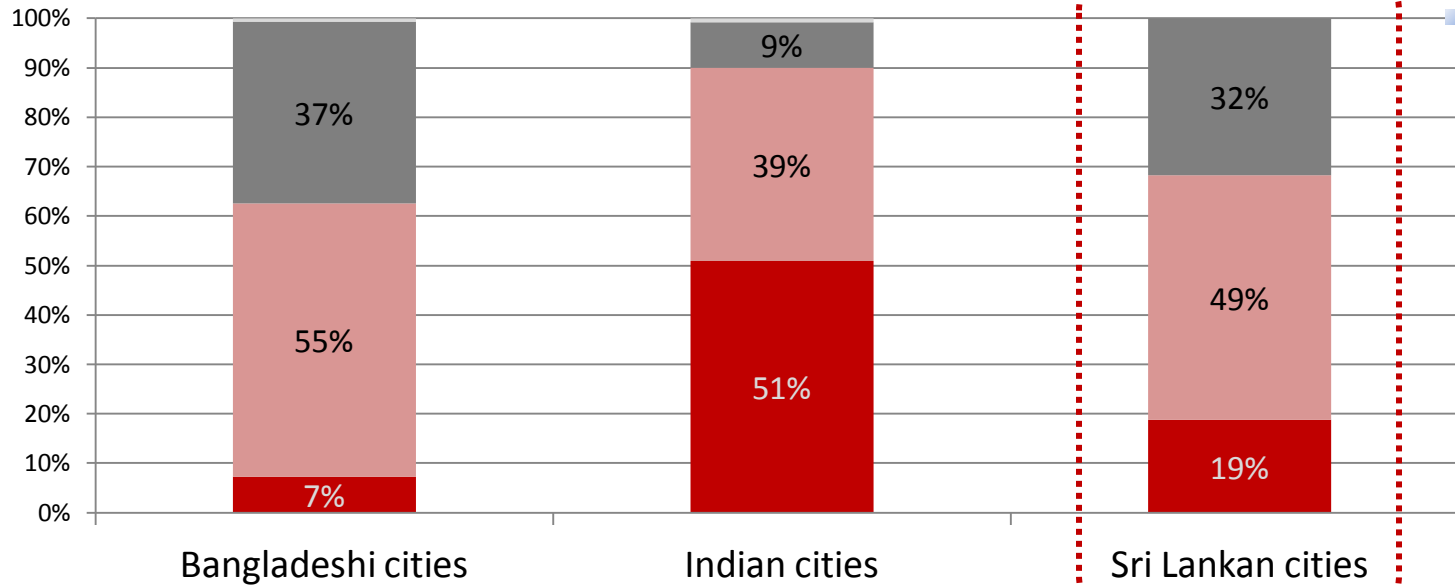
What is the main reason for not having electricity connection for business? (% low income MEs who not have electricity for business)

# 67% of those who have electricity have a separate connection in LK



**Do you have a separate electricity connection separate for your business?**  
**(% low income MEs who use electricity for business)**

# 49% in LK have a separate connection for business because it is a requirement

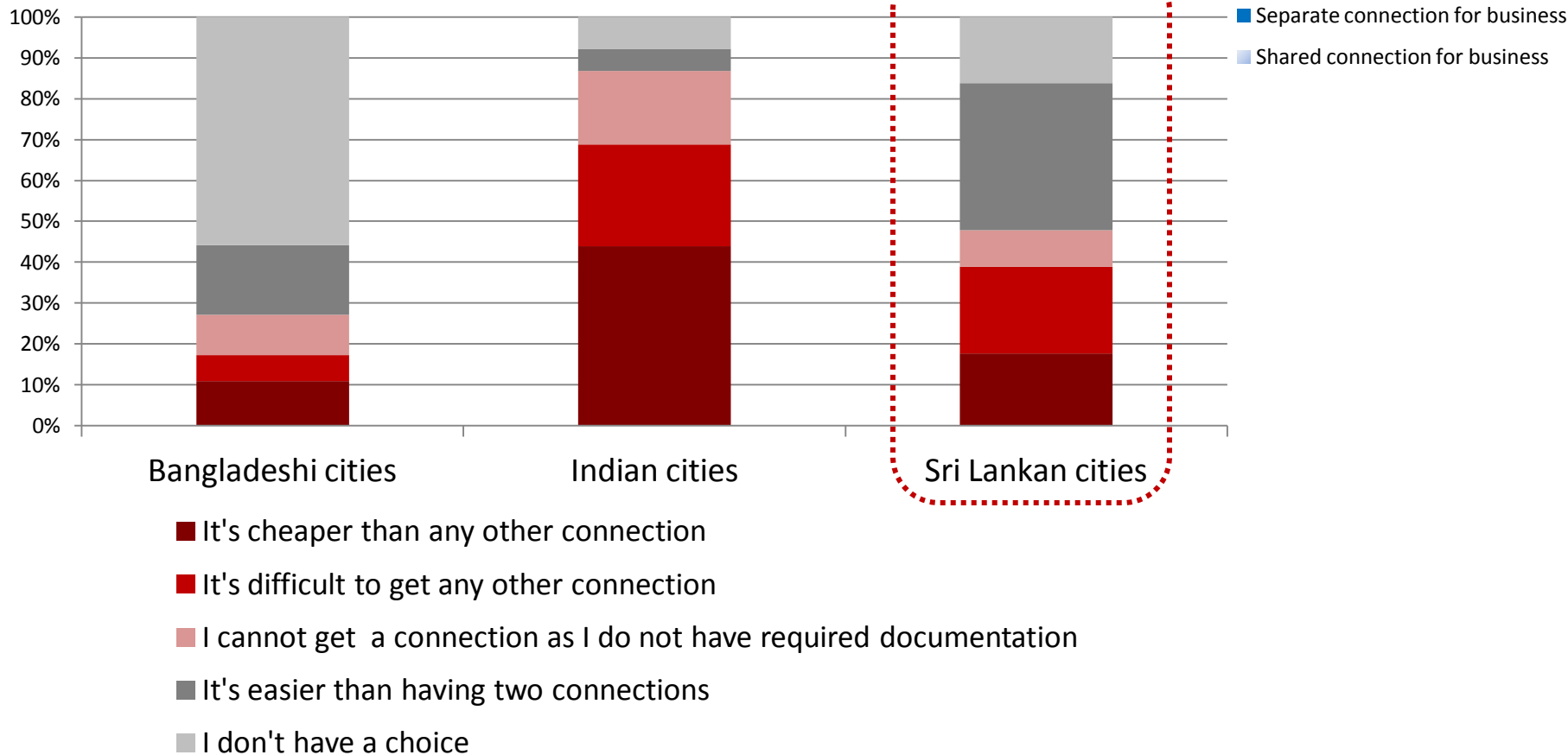
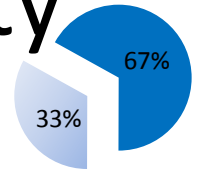


■ Separate connection for business  
■ Shared connection for business

- It's cheaper than any other connection
- I am required (by the landlord/government/third party) to get a separate connection for business
- I got it because I want to keep my business expense separate from personal expenses
- Other

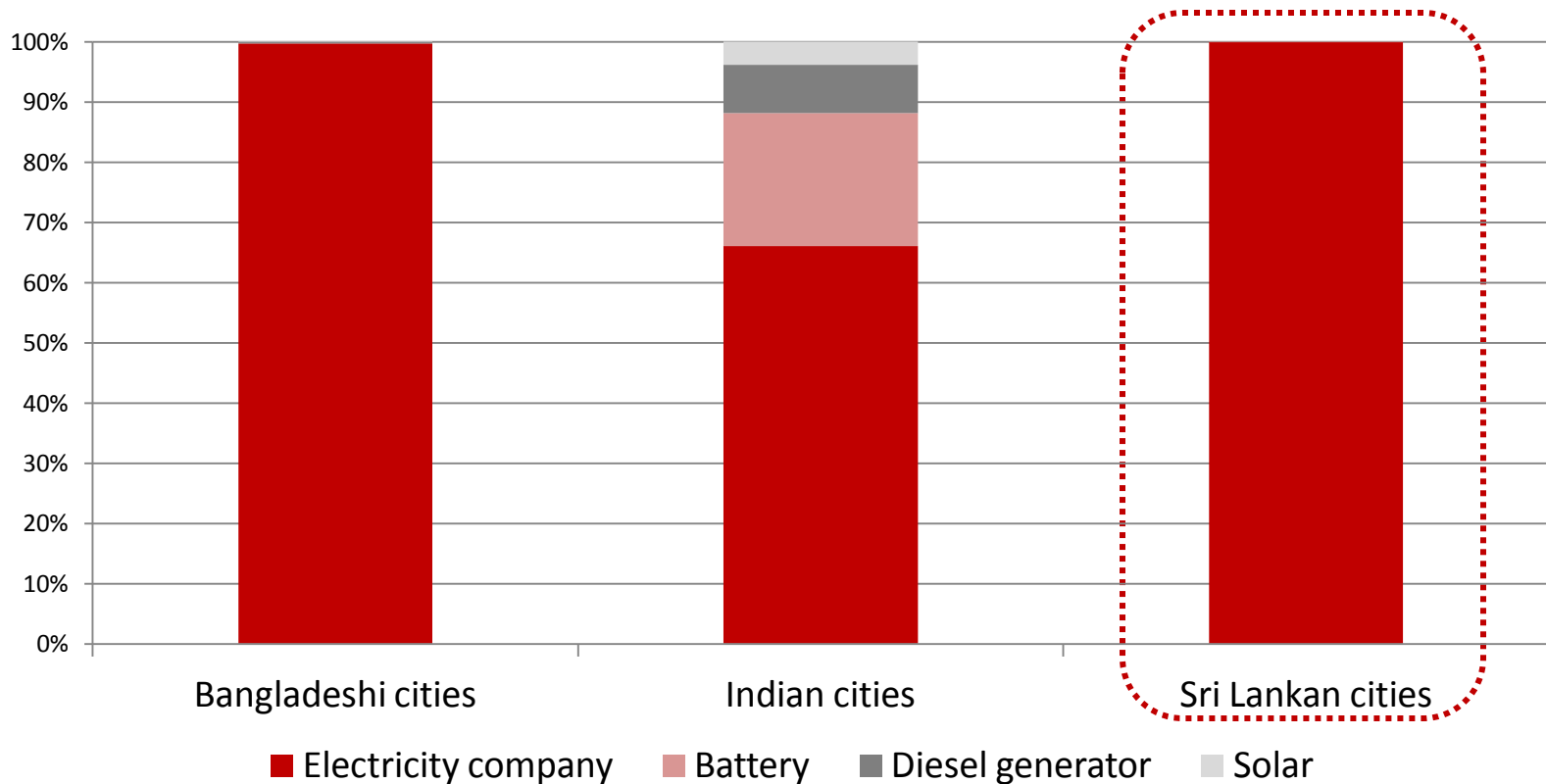
**Please tell us the most important reason for having a separate electricity supply for your business? (% low income MEs who have separate connection for business)**

# Many LK have a shared electricity connection because of ease



**Please tell us the most important reason for having a shared connection [as a part of home or somebody's home/business] for your business? (% low income MEs who have a shared connection for business)**

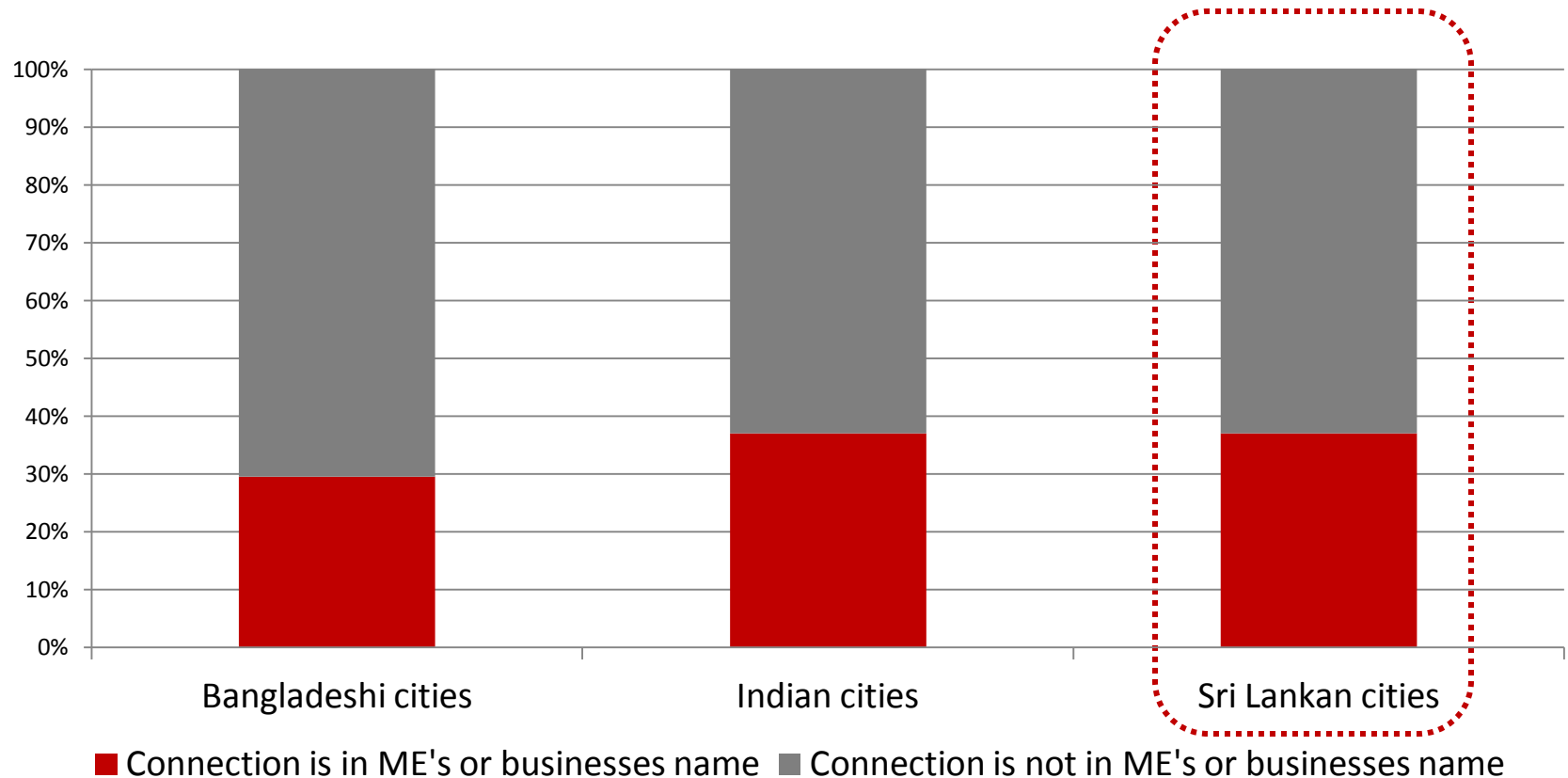
# Battery/ generators mainly used in IN



Who is the main supplier of electricity to you? (% low income MEs who use electricity for business)

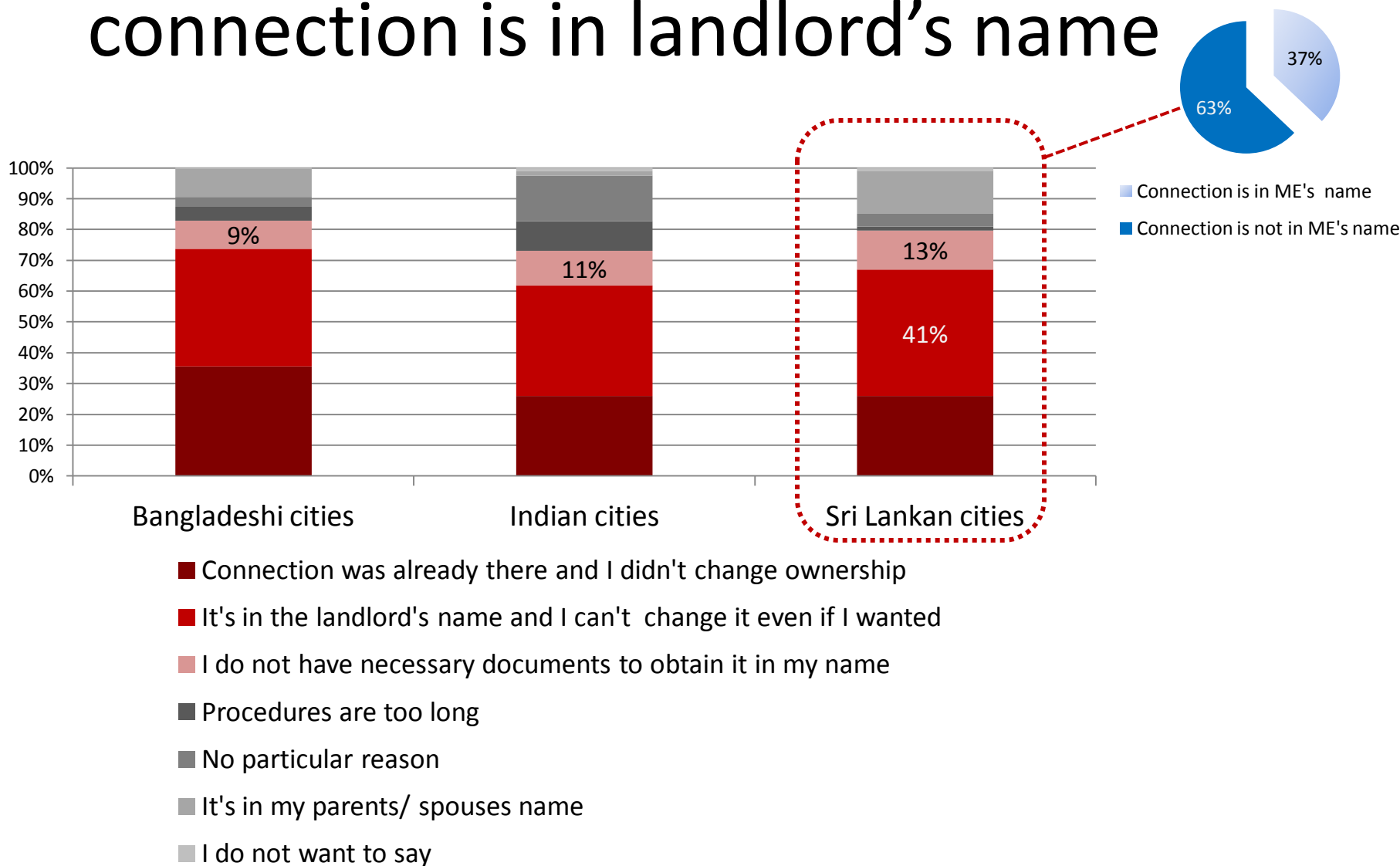


# 37% of LK MEs have the connection in their name



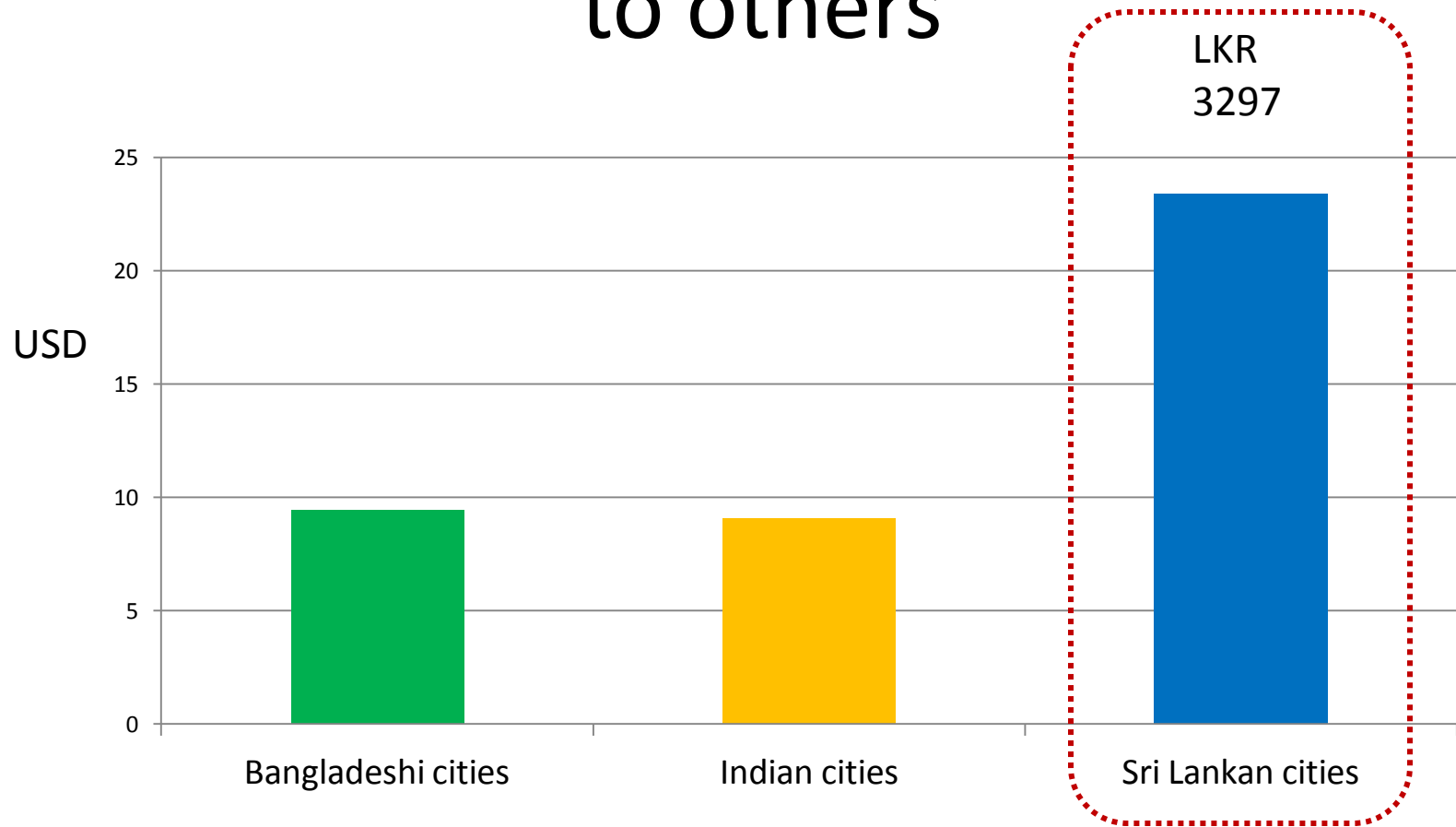
**Is the electricity connection in your/or your business's name?**  
**(% low income MEs who use electricity for business with supply from electricity co.)**

# Most can't change the name because connection is in landlord's name



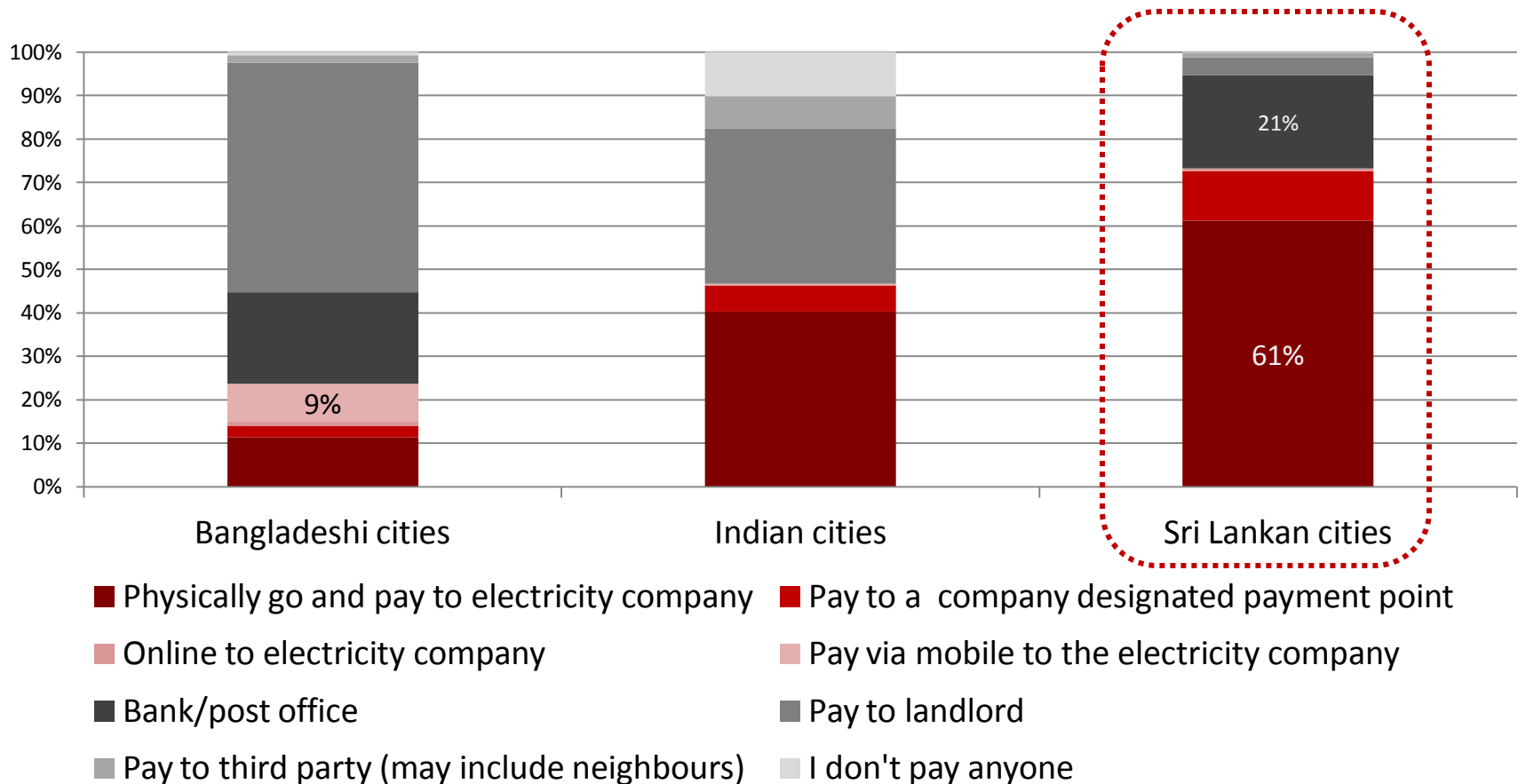
**Please tell us the most important reason for not having connection in your name**  
(% low income MEs who don't have the connection in their name)

# Amongst grid electricity customers LK MEs pay more than double compared to others



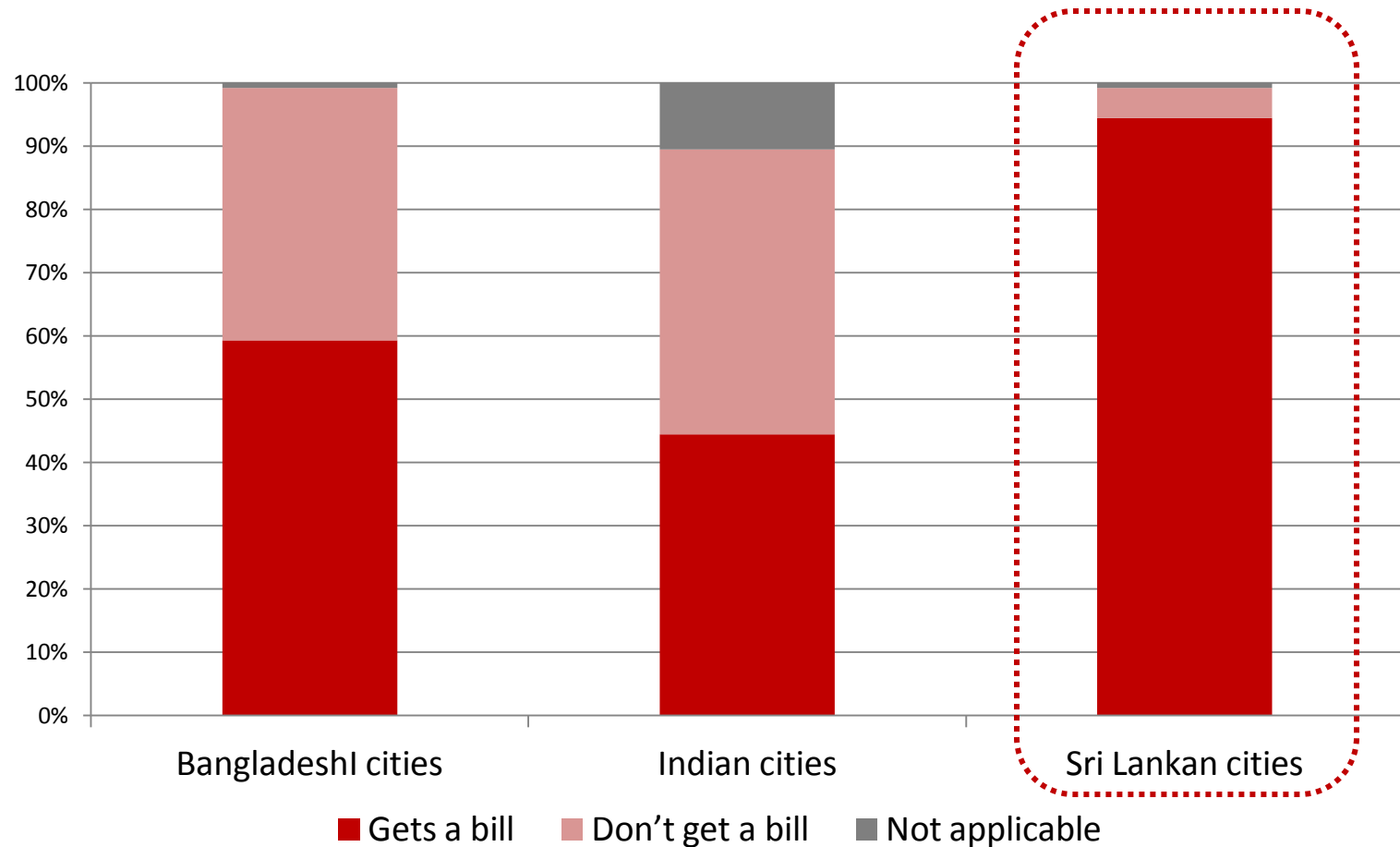
How much is your average monthly electricity bill?  
(% low income MEs who use electricity for business with supply from electricity co.)

# Most LK MEs pay to the company itself



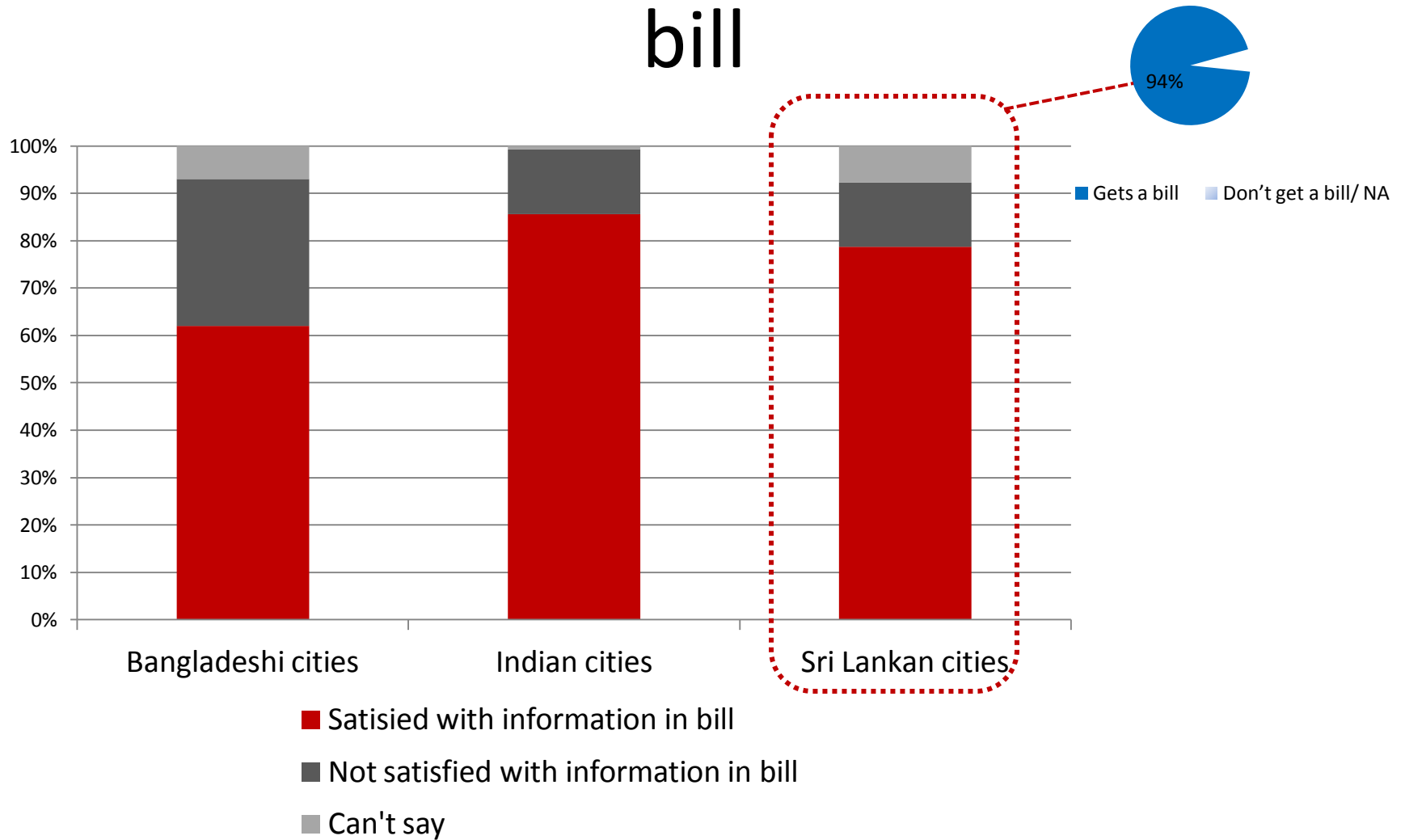
**What is the most frequent used method of payment for your electricity consumption?  
(% low income MEs who use electricity for business with supply from electricity co.)**

# 94% of MEs in LK get a bill

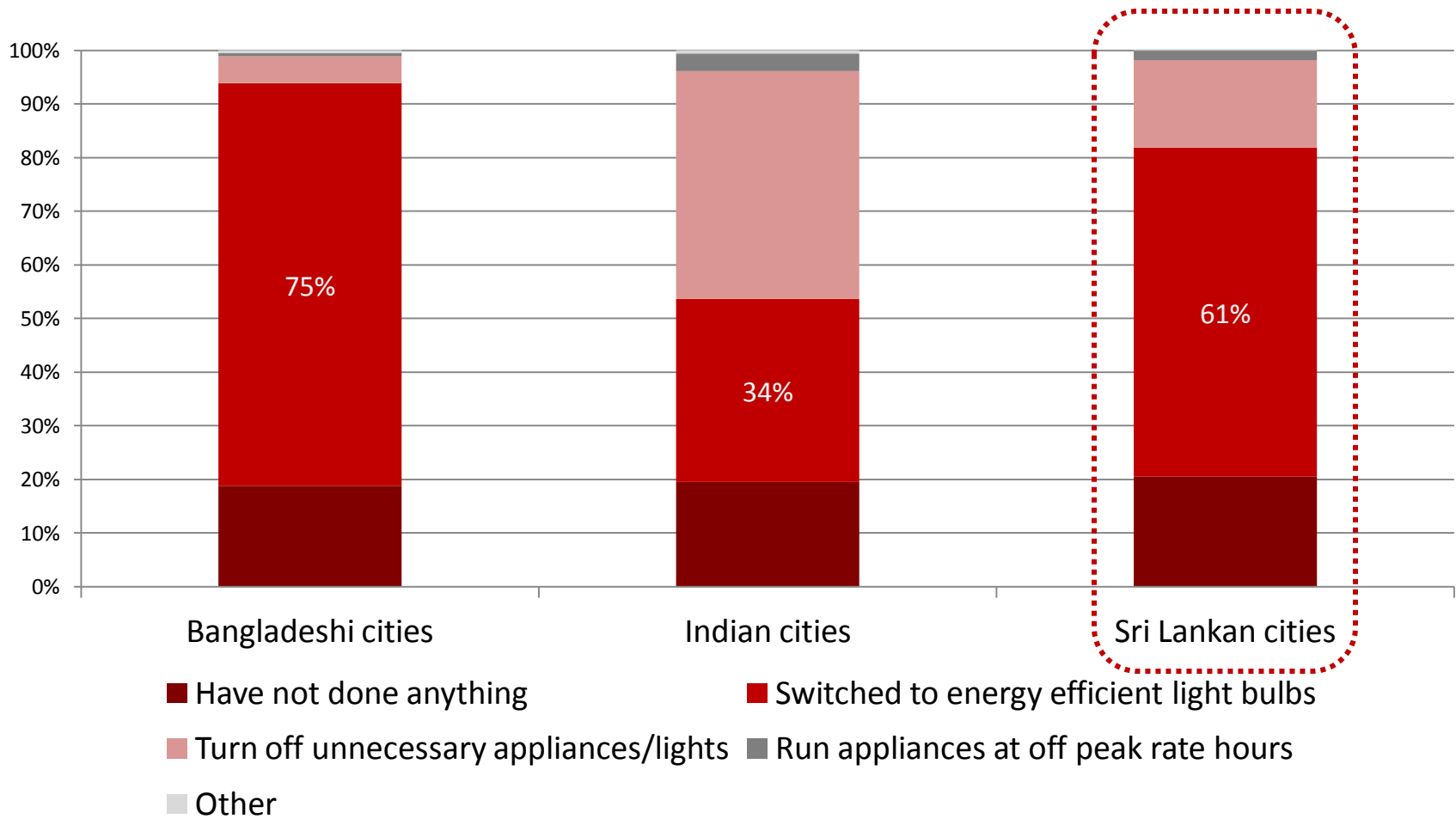


**Do you get an electricity bill?**  
(% low income MEs who use electricity for business with supply from electricity co.)

# 79% in LK satisfied with information in bill




# Energy efficient lighting: most popular money saving method



**Please tell us about your most important step in conserving energy [reducing electricity bill] you have been following?(% low income MEs who use electricity for business with supply from electricity co.)**

# More information needed on how to reduce electricity bill



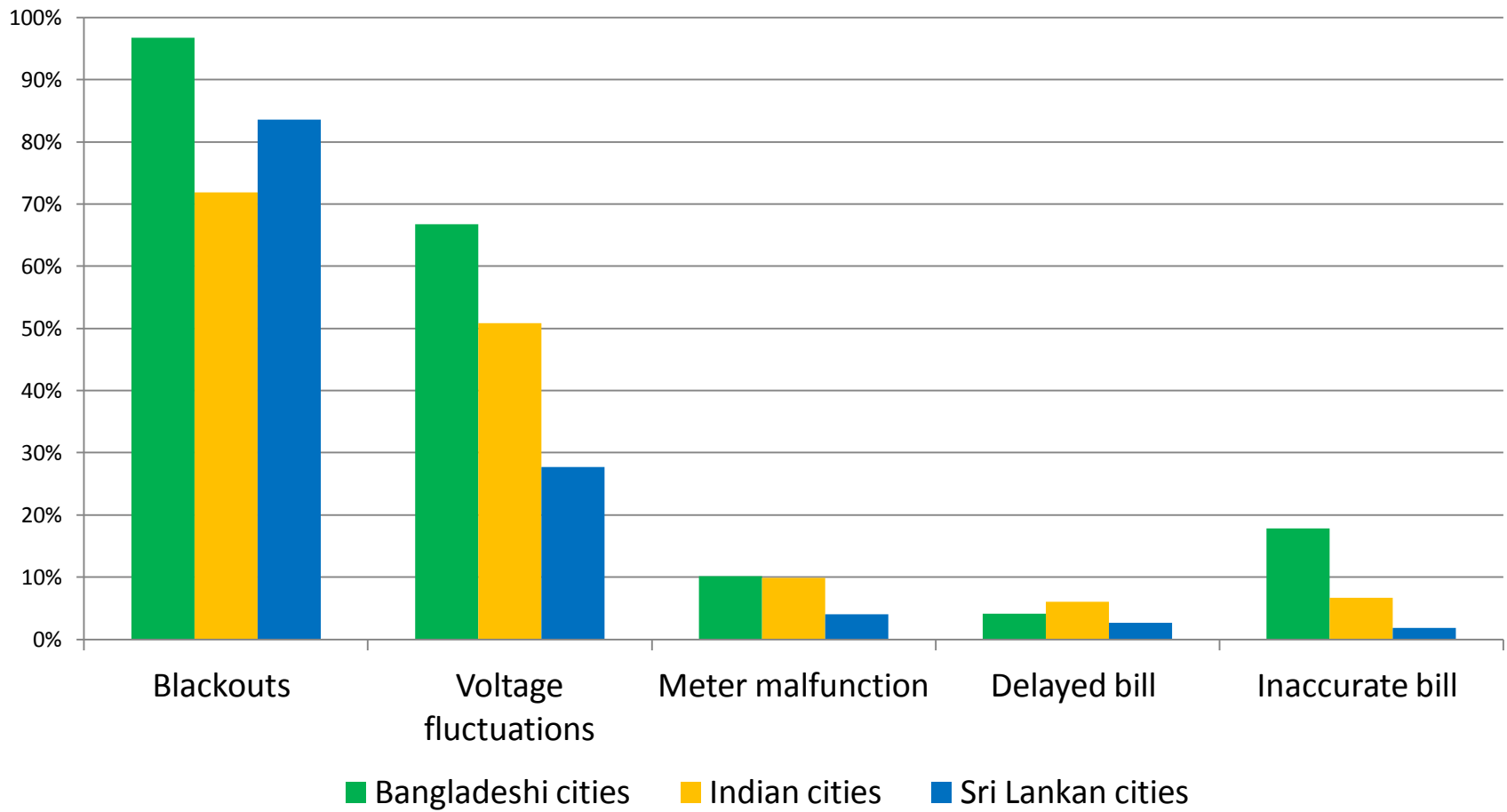
My electricity bill has risen lately. Since I am the only earning member of my family, things are difficult for me. I switch off my refrigerator when I am not using it, but I would like to know more about how else I can reduce my electricity bill.

Name: Nazreen Rilaya  
Age: 46 years  
Location: Colombo  
Education: Grade 4  
Occupation: Food business  
Number of Employees:0

I require electricity for my business since I run my business from home. Any increase in my costs will adversely affect my business.

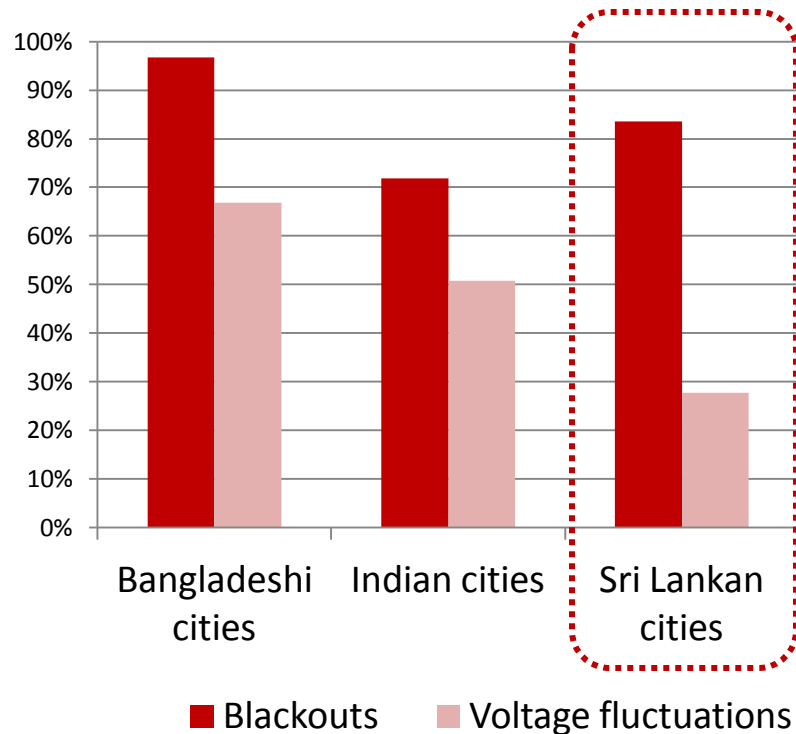


# Blackouts and voltage fluctuations most common problems in LK



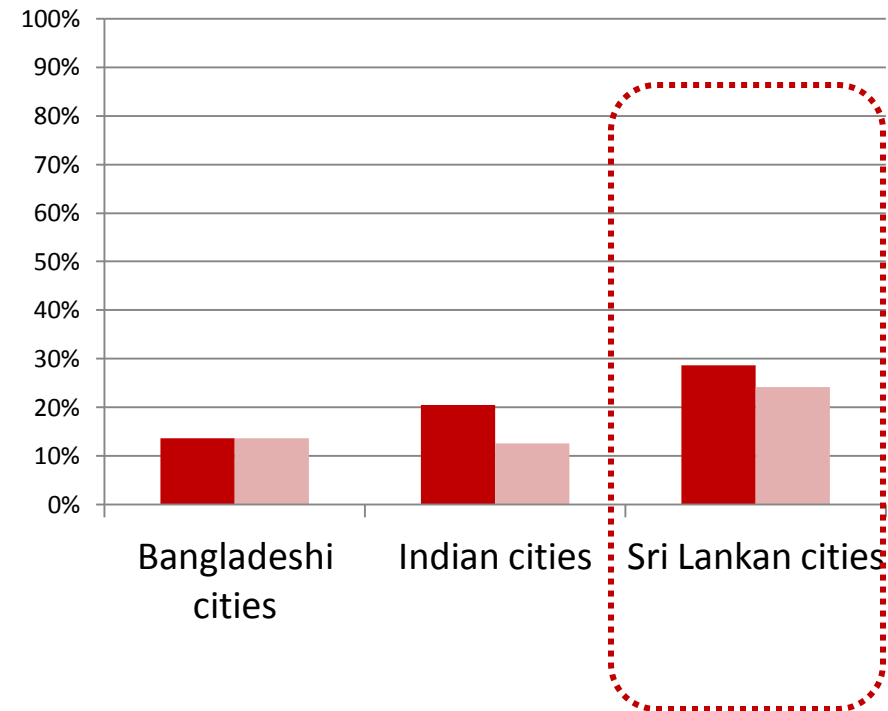
Did you face this problem? (% low income MEs who use electricity for business from electricity co.)

## Blackouts and voltage fluctuations most common problems faced



**Please tell us whether you faced these problems in the last 2 years. (% low income MEs who use electricity for business from electricity co.)**

## However few complained about it



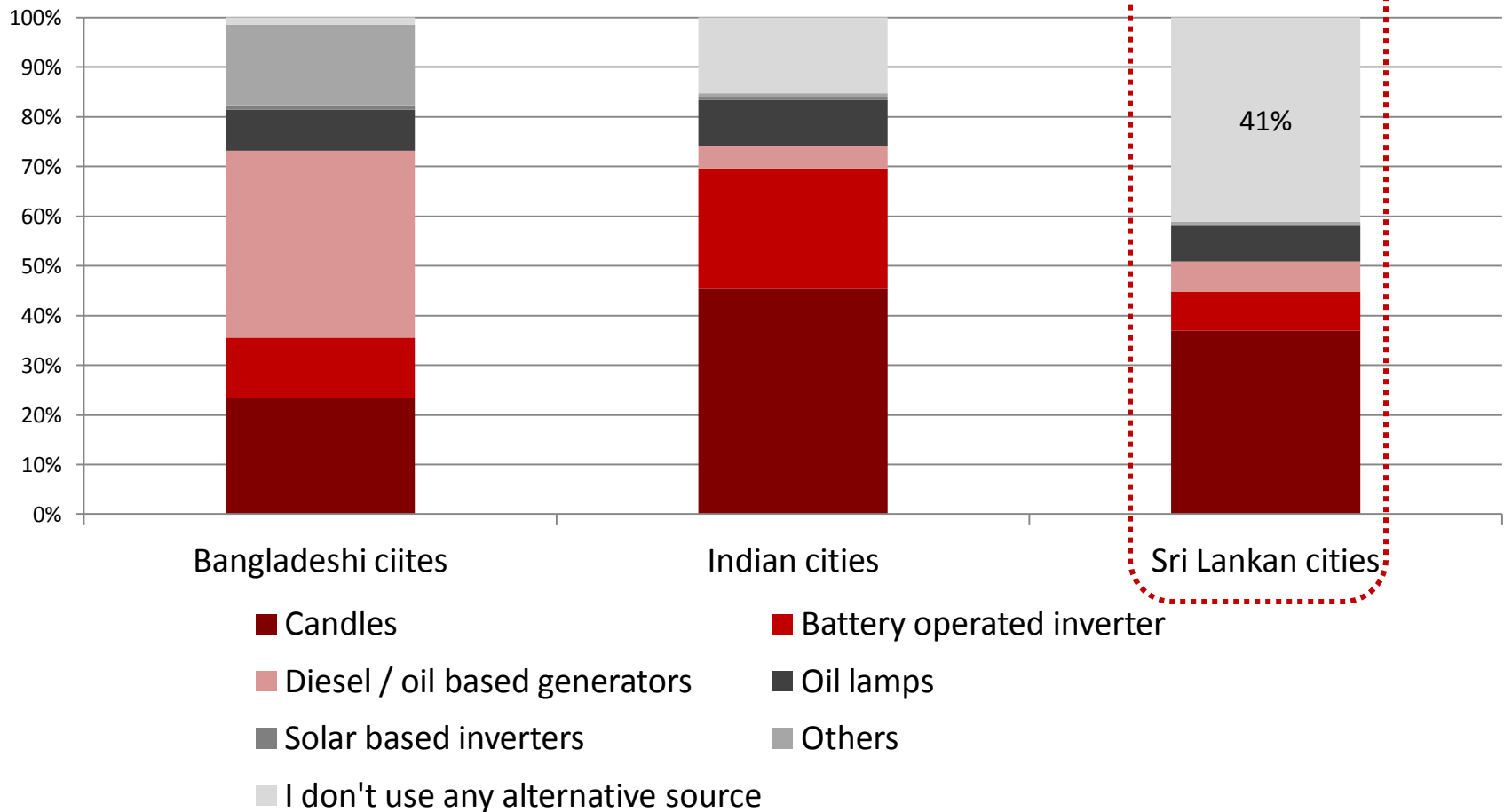
**Did you complain about this problem? (% low income MEs who faced those problems)**

# MEs say blackout affect their business severely



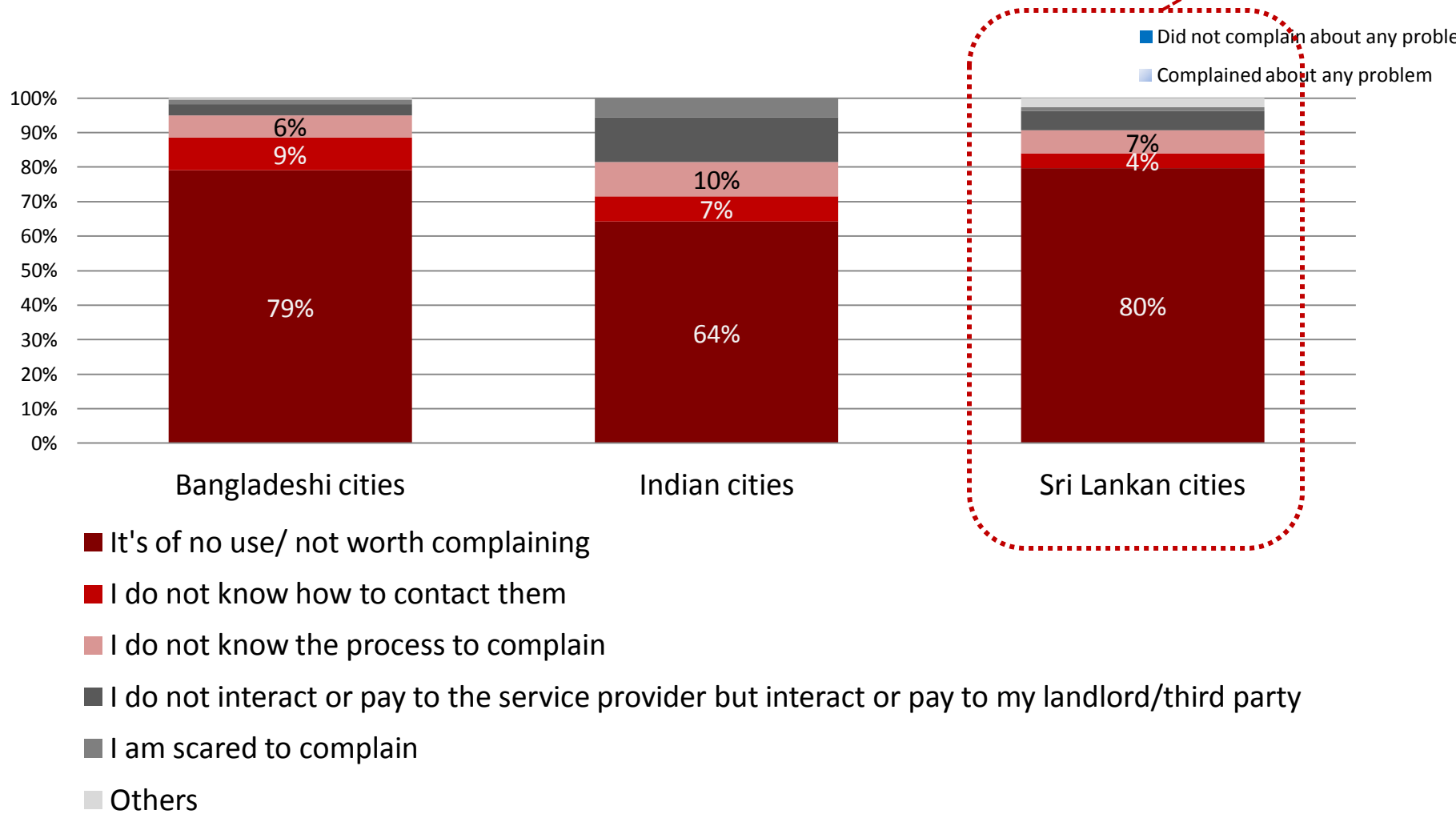
Do blackouts affect your business severely? (%BOP MEs who faced blackouts)

# Many LK MEs do not use alternatives during blackouts



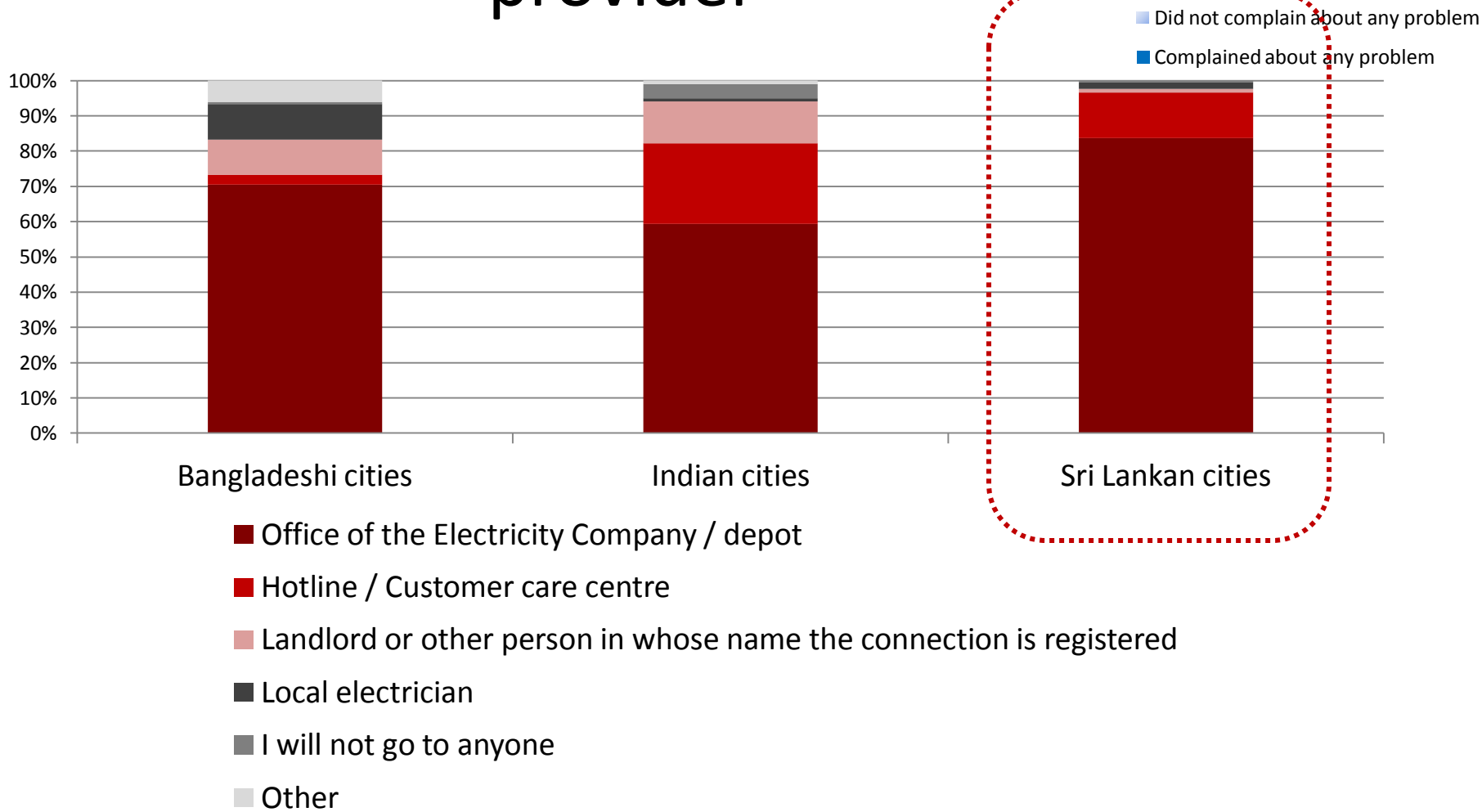
How power black outs are managed for business purposes? (% low income MEs who use electricity for business)

# Most see no use of complaining



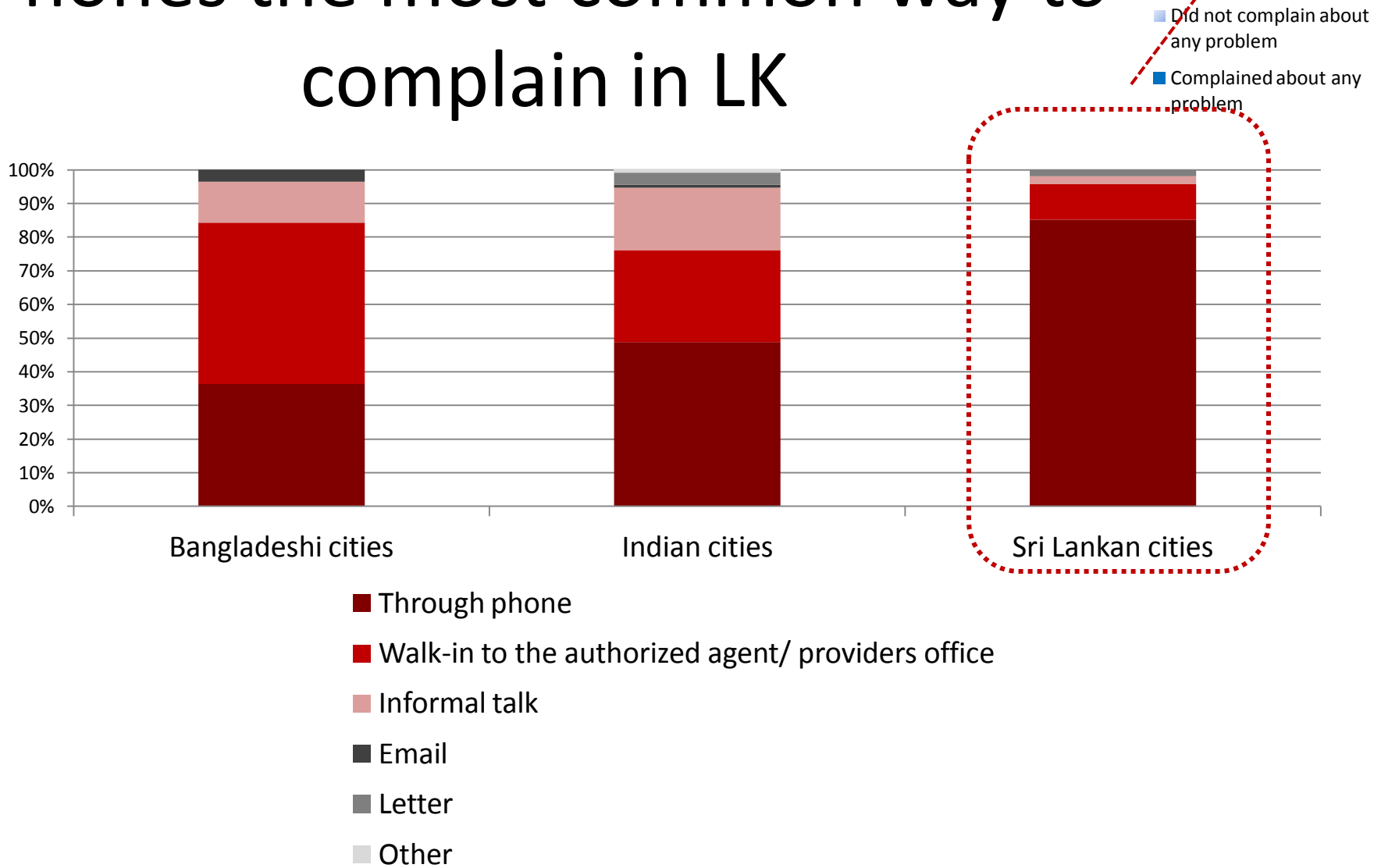
**Why did you not complain to the service provider? (% low income MEs who use electricity for business)**

# MEs in LK mainly complained to the provider



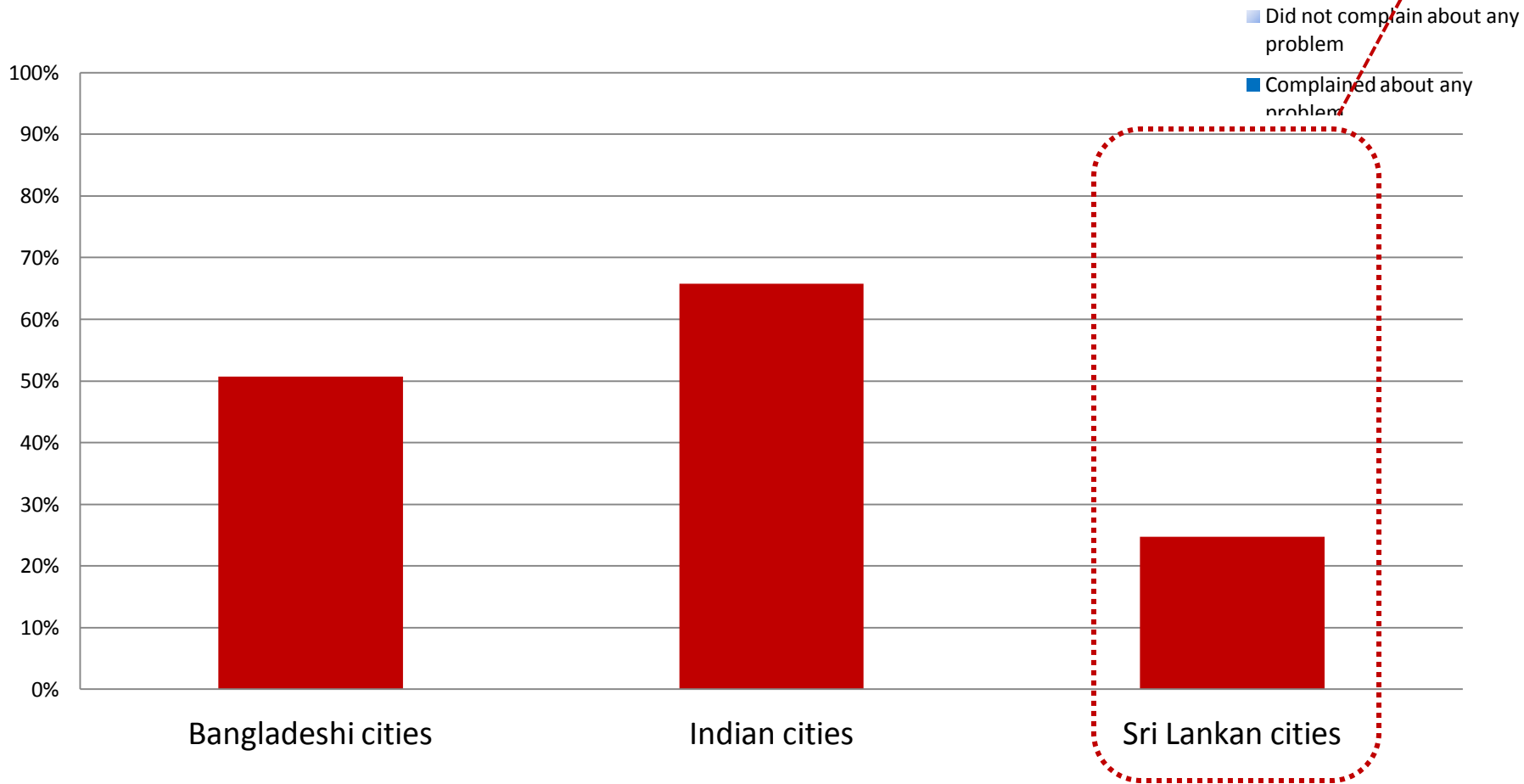
For the main problem with electricity you complained about, whom did you complain to? (% low income MEs who complained)

# Phones the most common way to complain in LK



**For the main problem with electricity you complained about, how did you complain? (% low income MEs who complained)**

# Unsatisfied with the action taken for problem complained about

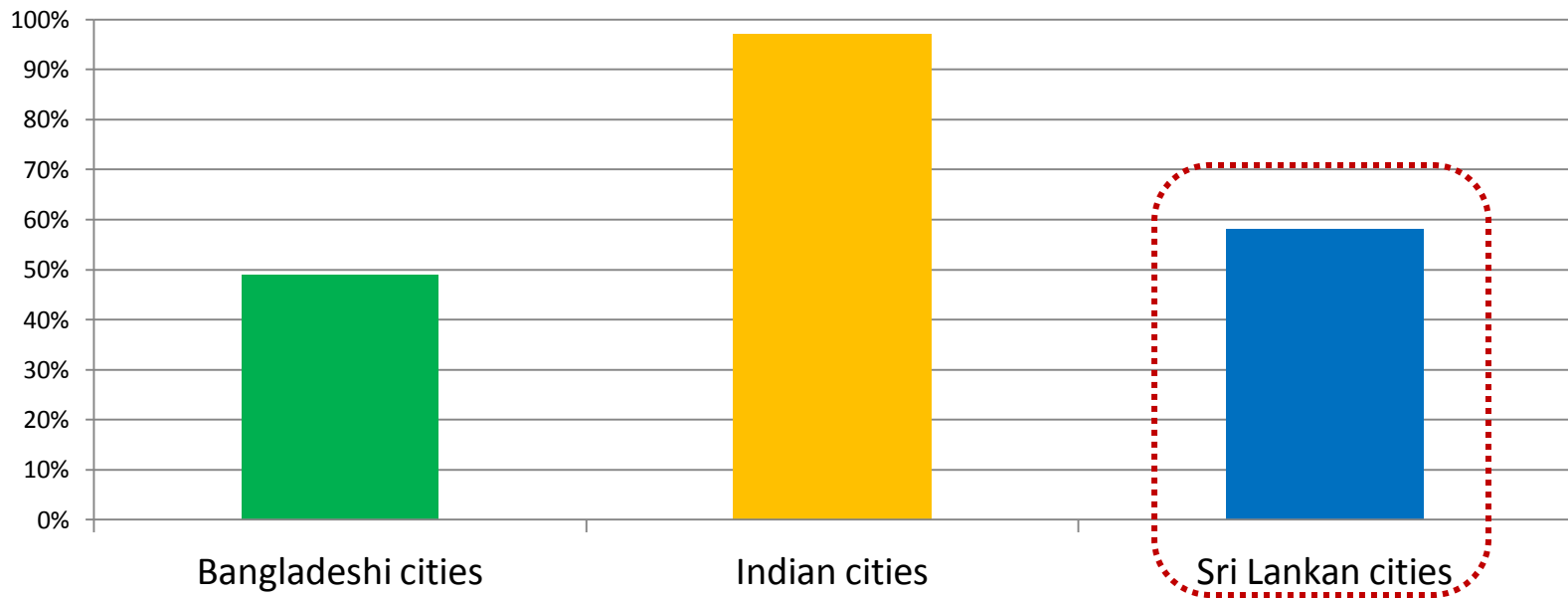


**For the main problem with electricity you complained about, were you satisfied with the action taken? -NO**

**(% low income MEs who use electricity for business who complained about a problem)**



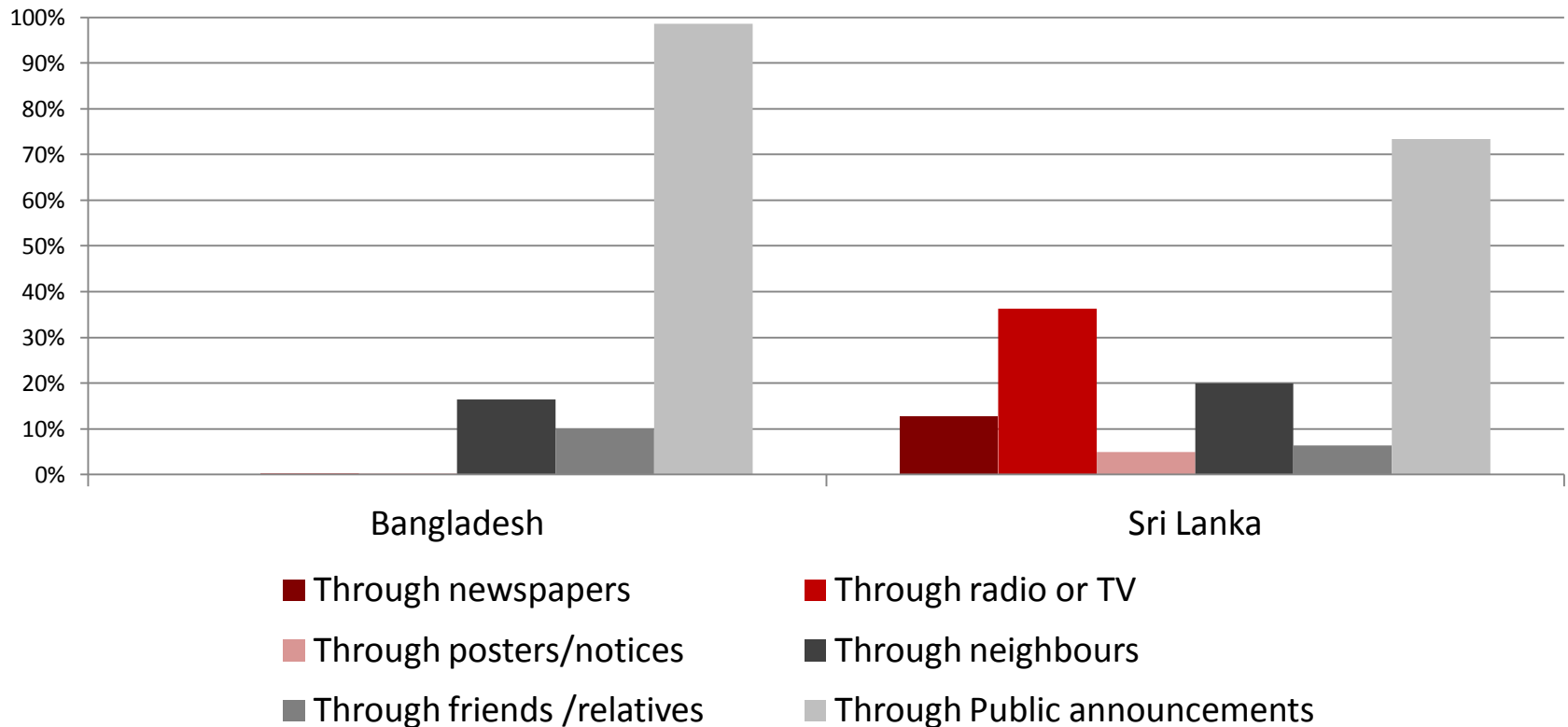
# Majority in LK do not get an advance notice about power cuts



**Do you get advance notice about power blackouts? - NO (% low income MEs who use electricity for business)**

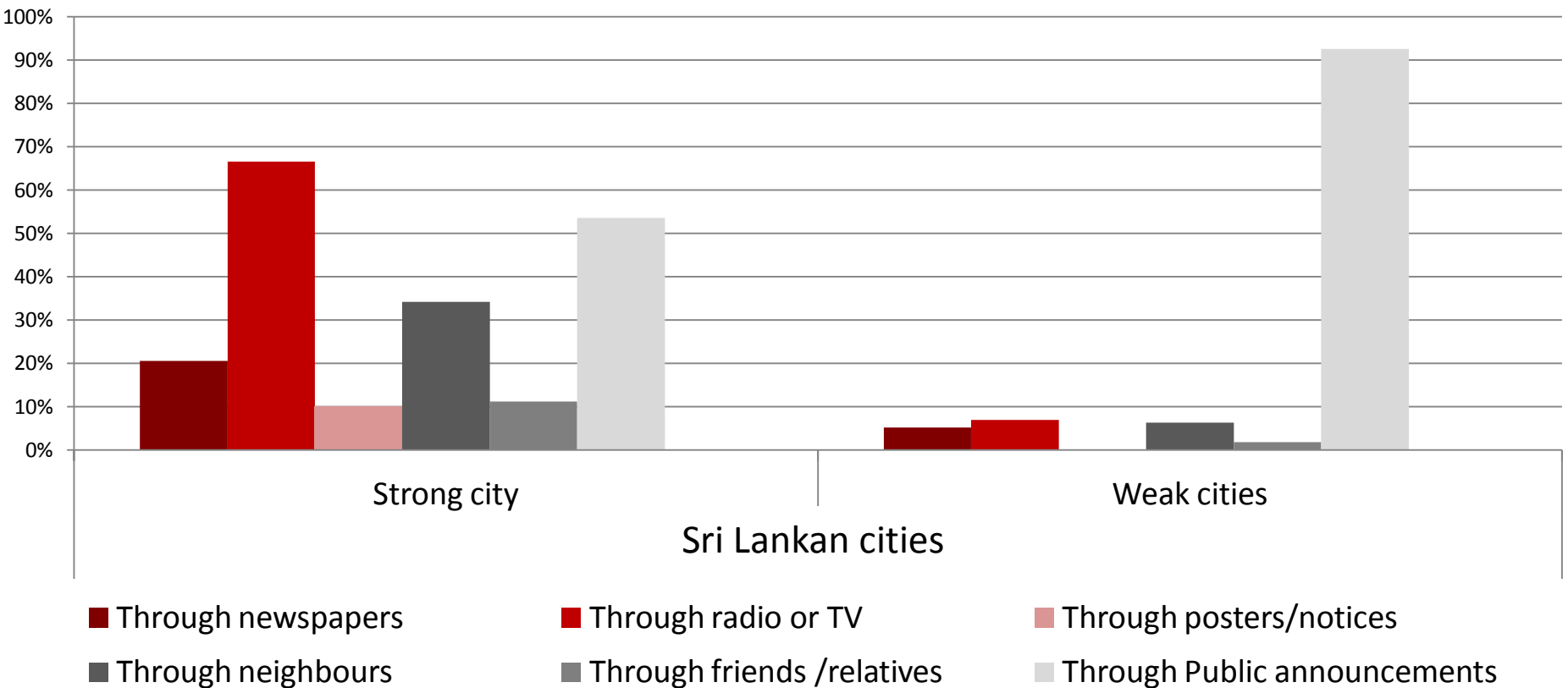
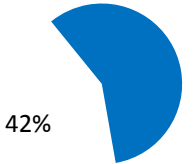
# Public announcements the method of getting through to most about power cuts

42%



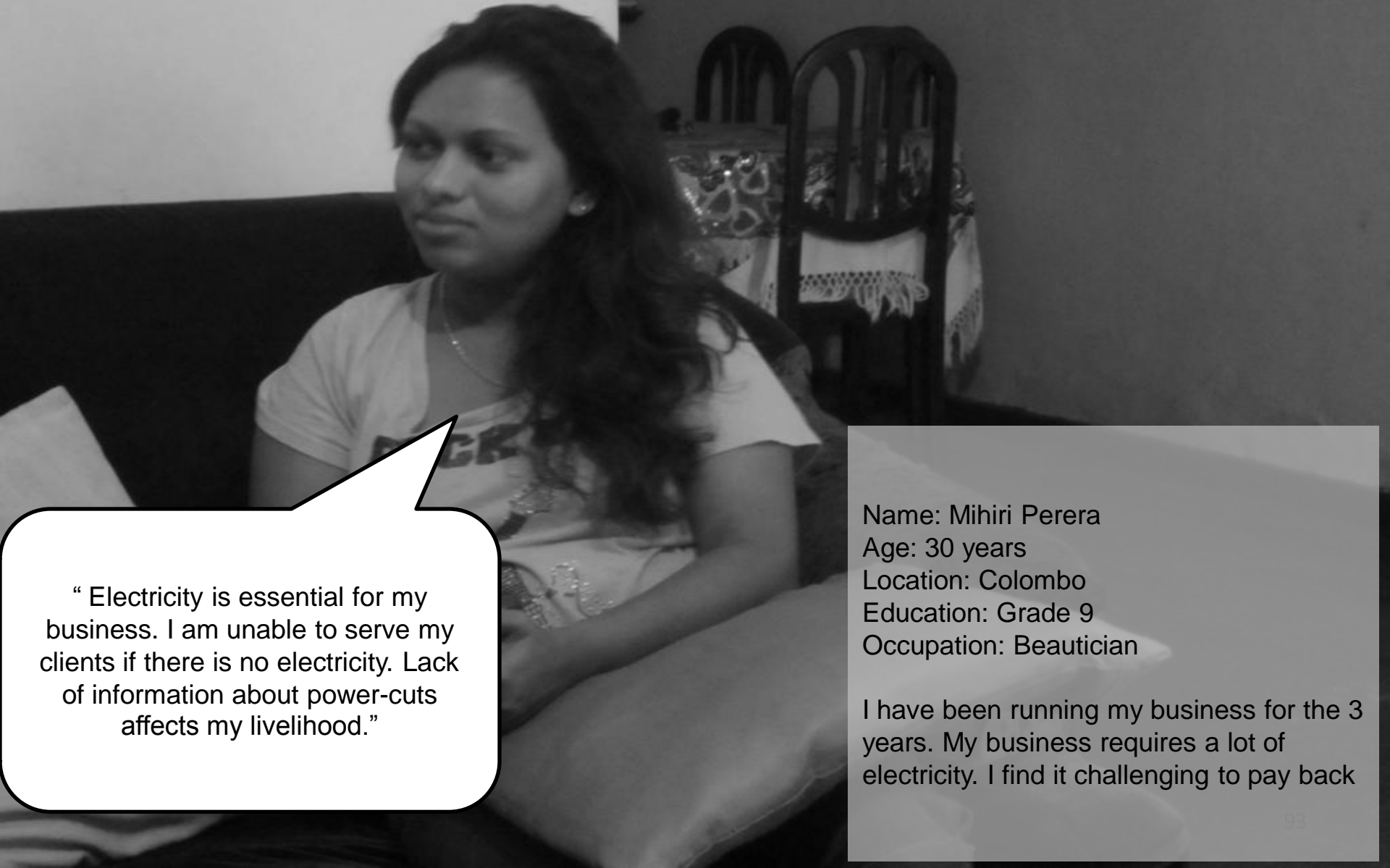
How do you get advance notice about power blackouts? [MA] (% low income MEs who get advance notice)

# Radio/TV only seen by strong city LK



**How do you get advance notice about power blackouts? [MA] (% low income MEs who get advance notice)**

# Uninformed power cuts affects my business

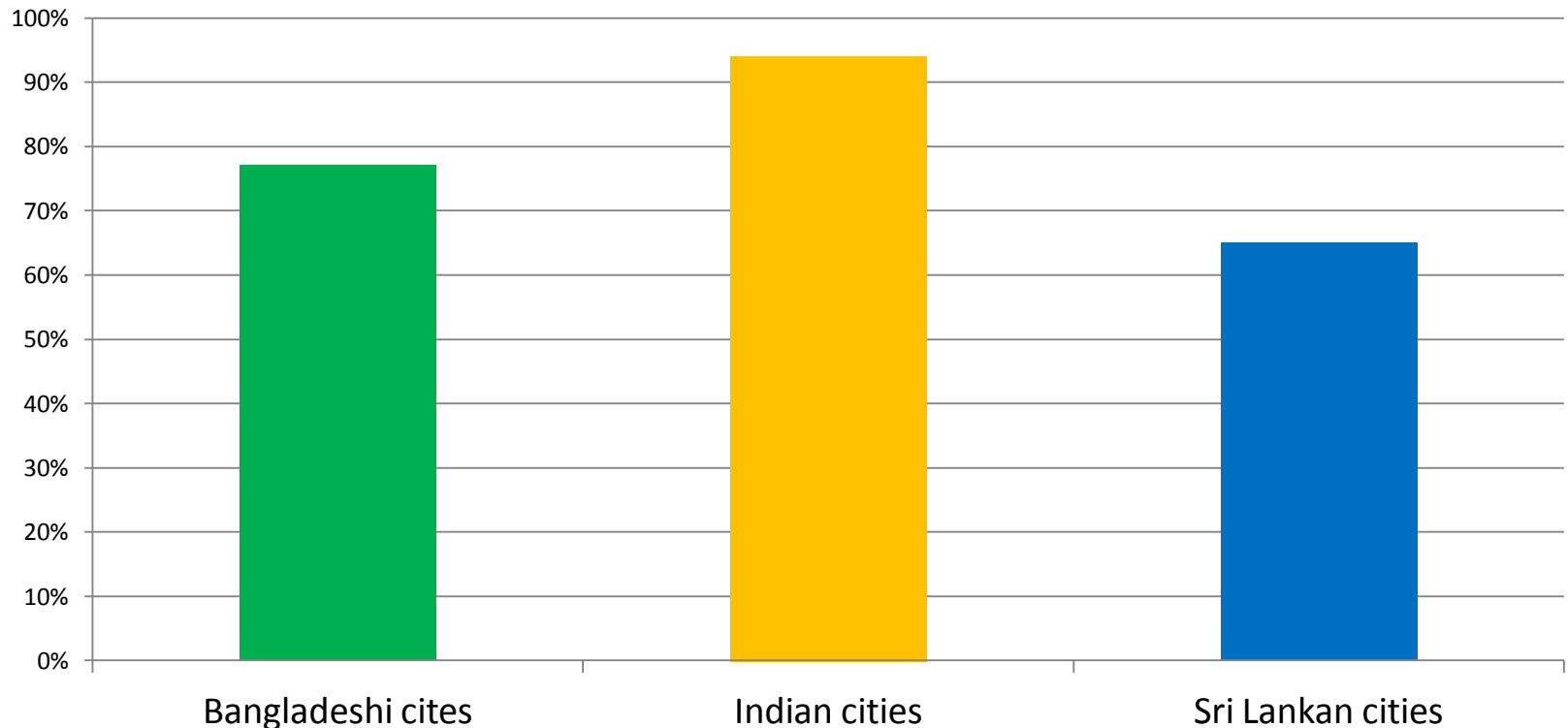


“ Electricity is essential for my business. I am unable to serve my clients if there is no electricity. Lack of information about power-cuts affects my livelihood.”

Name: Mihiri Perera  
Age: 30 years  
Location: Colombo  
Education: Grade 9  
Occupation: Beautician

I have been running my business for the 3 years. My business requires a lot of electricity. I find it challenging to pay back

# Majority in LK have not interacted with the service provider



**Have you ever interacted/talked with the electricity service provider? - NO**  
(% low income MEs who use electricity for business)

# Overall satisfaction can be higher

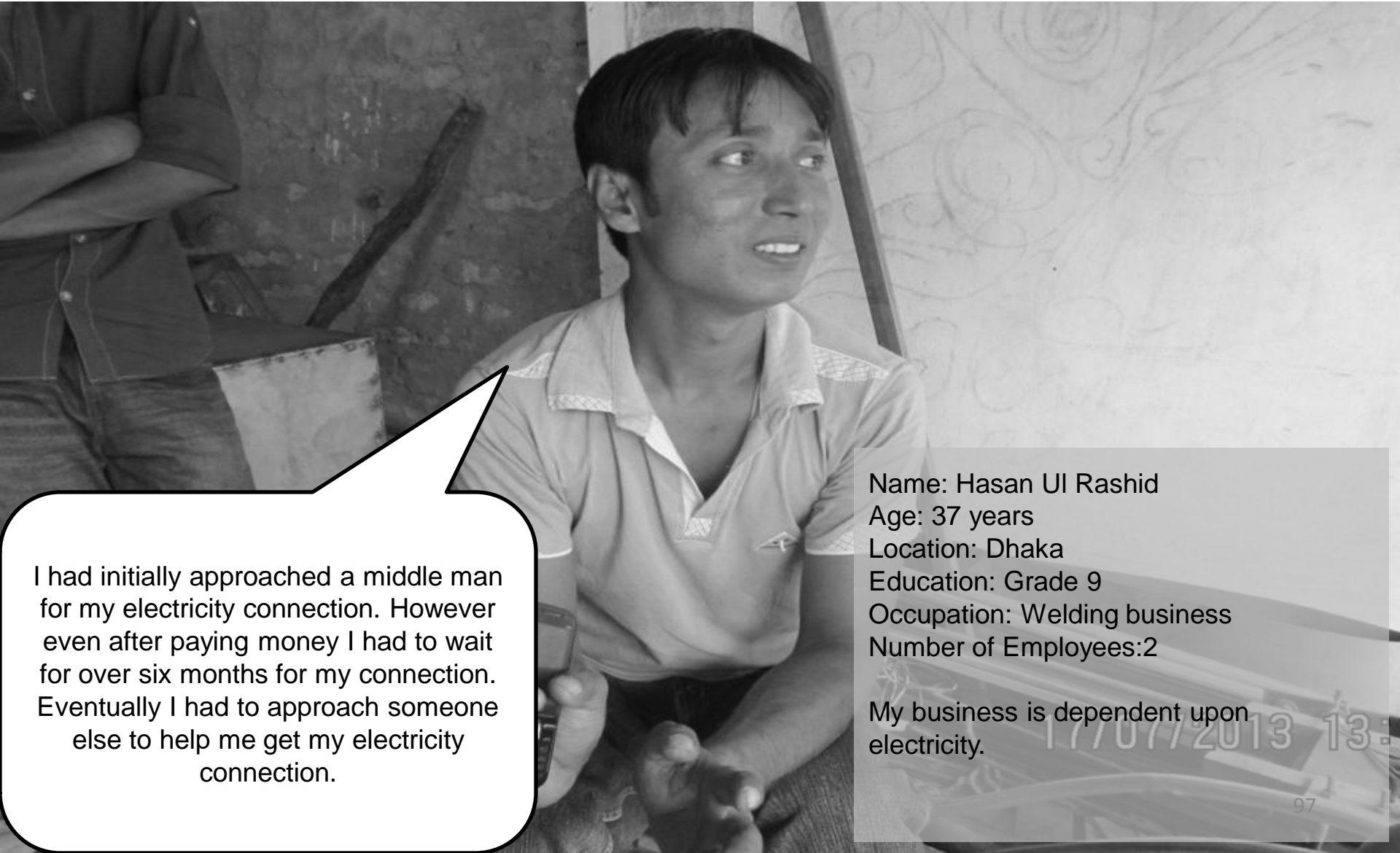
■ Interacted with provider

■ Have not interacted with provider

	Sri Lankan cities
It is easy to find the locations where payment can be made	66%
Information on procedures and documents to get new connection was readily available	55%
I was treated politely by their office / call center personnel	55%
Information on how to contact the service provider is /was readily available	46%
Information on procedures to reconnect was readily available	45%
The amount of time I need to wait to get a new connection is satisfactory	44%
Amount of time taken to reconnect was satisfactory	39%
The waiting time to reach a concerned officer was appropriate	38%
Information about the procedure for changing ownership of a connection was readily available	32%
The amount of time I need to spend to change the ownership of the connection satisfactory	30%

**Experience with the service provider- YES (% low income MEs who have interacted with the provider)**

# I don't know how to get an electricity connection myself



I had initially approached a middle man for my electricity connection. However even after paying money I had to wait for over six months for my connection. Eventually I had to approach someone else to help me get my electricity connection.

Name: Hasan UI Rashid  
Age: 37 years  
Location: Dhaka  
Education: Grade 9  
Occupation: Welding business  
Number of Employees:2

My business is dependent upon electricity.

# No one picks up the phone at the electricity company



Once there was a major electricity shortage in this area. We called the office, but no one picked up, We had no choice but to go to the office ourselves to register our complaint.

Name: Ram Kumar  
Age: 24 years  
Location: Patna  
Education: Grade 9  
Occupation: Food business  
Number of Employees:0

My business is very important for my livelihood. But when such disruptions happen my business suffers.



# What can be done?

## Telecom sector

Shazna Zuhlye

Colombo, 18 Feb 2014



This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada and the Department for International Development , UK.



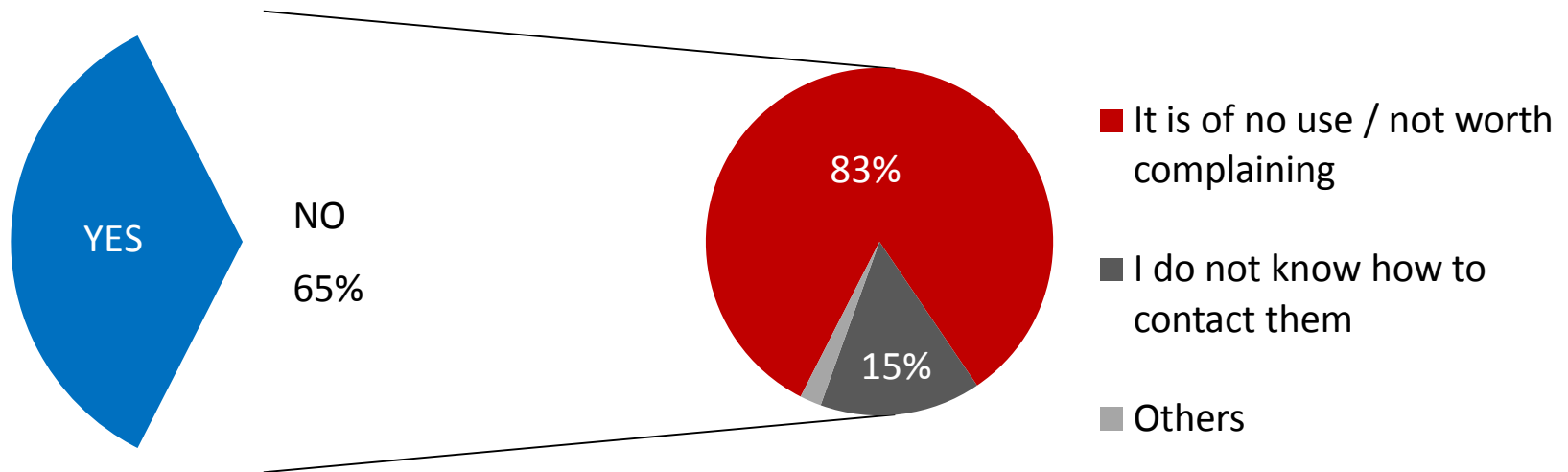
**IDRC | CRDI**

International Development Research Centre  
Centre de recherches pour le développement international

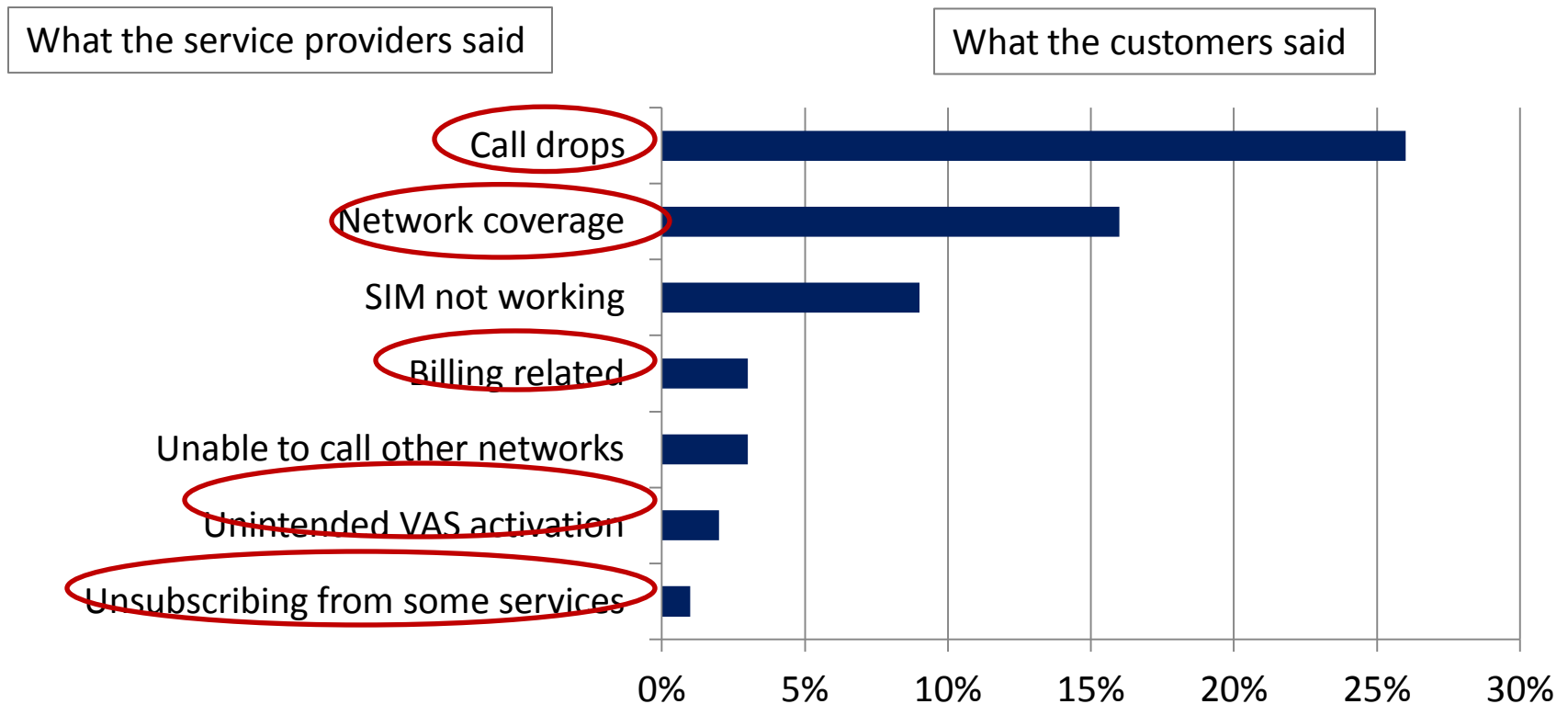
**Canada**

# Telecom services in LK: 83% don't think complaining is worthwhile; 15% don't know how to reach

If you have faced a problem, have you complained?

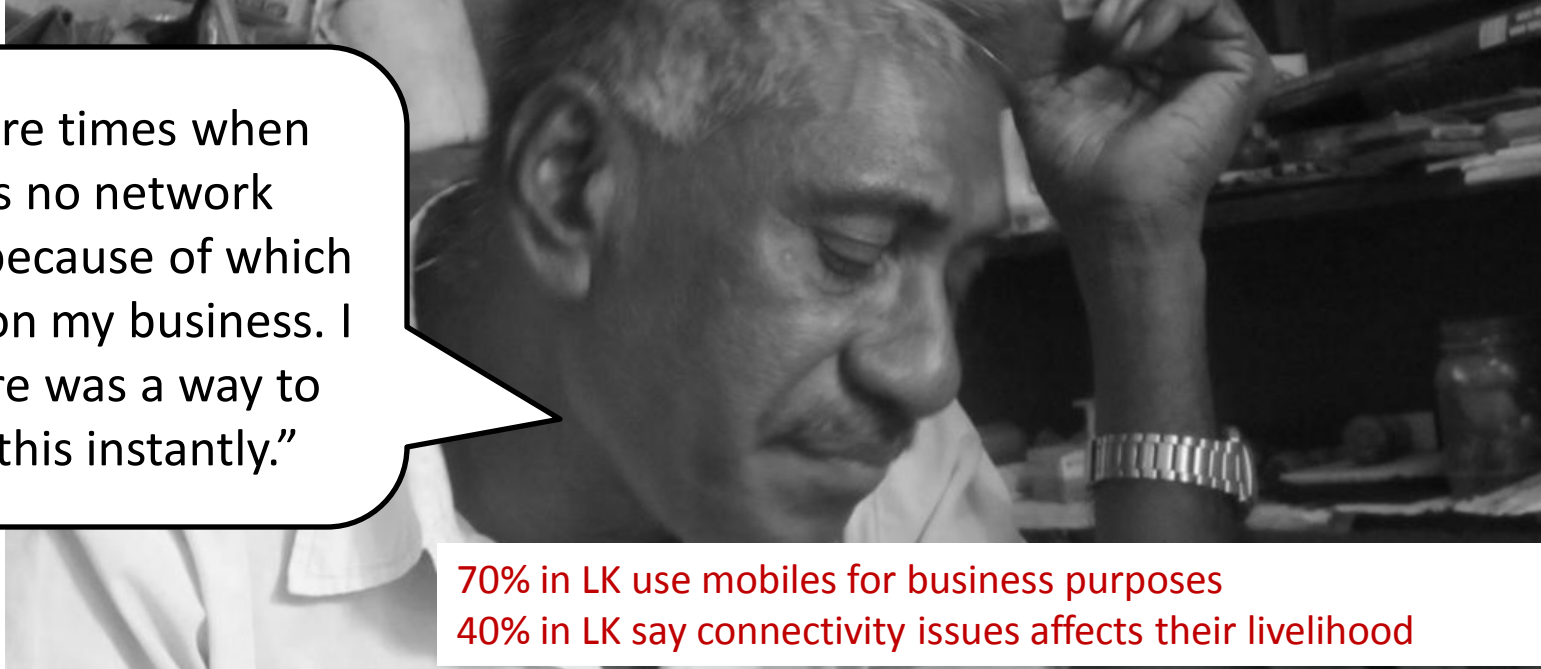


# Our supply side and demand side studies echo the same problems



In LK, network coverage related issues resulted in customers leaving for a competitor without complaining

# Problem: Network Coverage / Frequent Call Drops



“There are times when there is no network coverage because of which I lose out on my business. I wish there was a way to resolve this instantly.”

70% in LK use mobiles for business purposes  
40% in LK say connectivity issues affects their livelihood

Name: Asif Ali

Age: 56 years

Education: Grade 9

Occupation: Rental company dealing with furniture, cutlery, glassware

Number of Employees: Four (Family members)

I have been running my business for the 15 years and I need good telecom service for my business. I need to be constant touch with my customers to follow up with them about their requirements and my payments.

# Solution: Crowd Sourced Map of Problem Areas



Enable customers to log problems pertaining to coverage through USSD/ SMS. Operators can use this information to optimize the network and improve network connectivity.

# Problem: Call Drops while speaking to MNO



“Every time I call up the telecom customer care, I need to go through the IVR to speak to the customer care executive. A lot of times, the call drops and I need to repeat the entire process and narrate my problem to a new executive.”

Name: Kumar

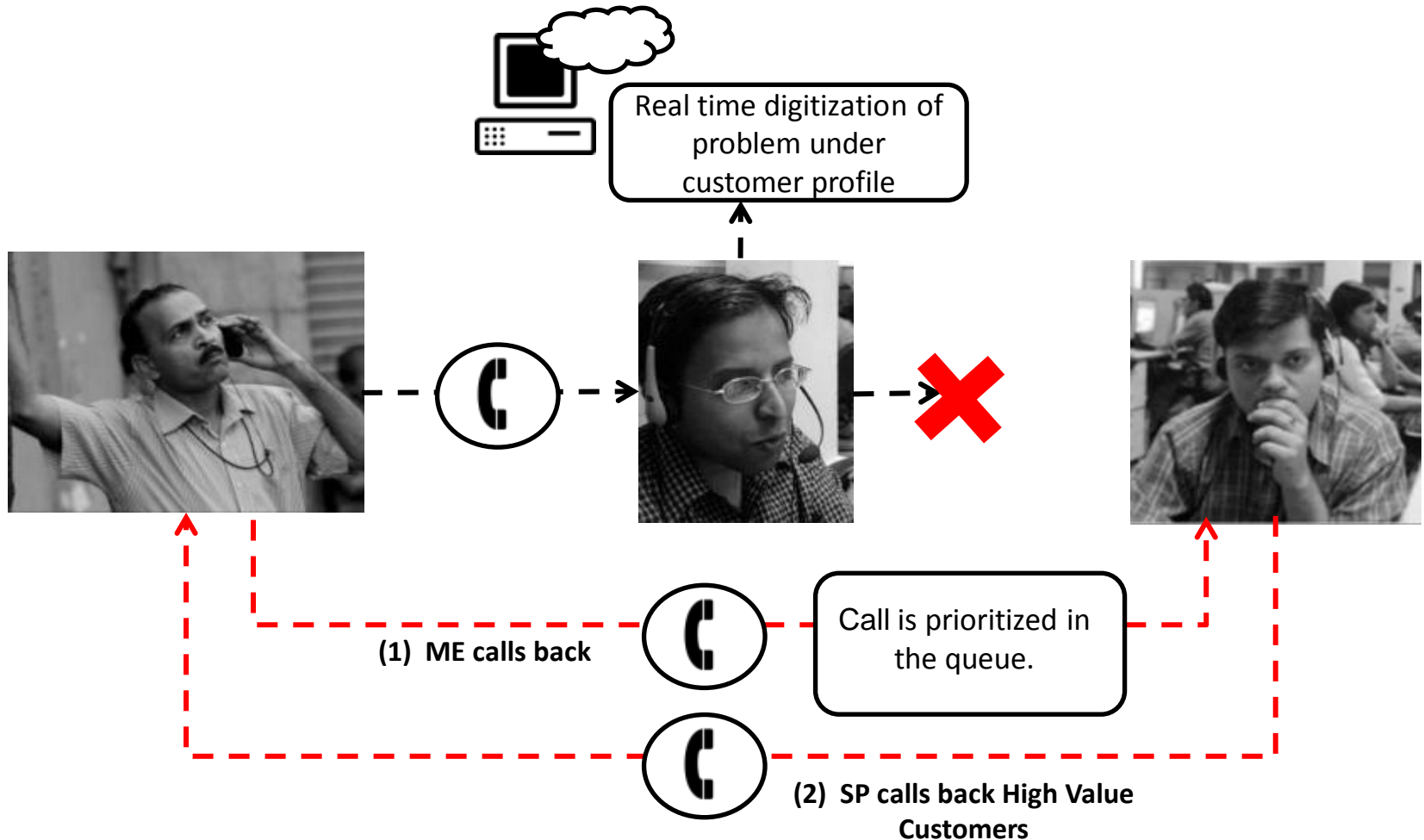
Education: Grade 9

Occupation: Tea and savories shop owner

Number of Employees: None

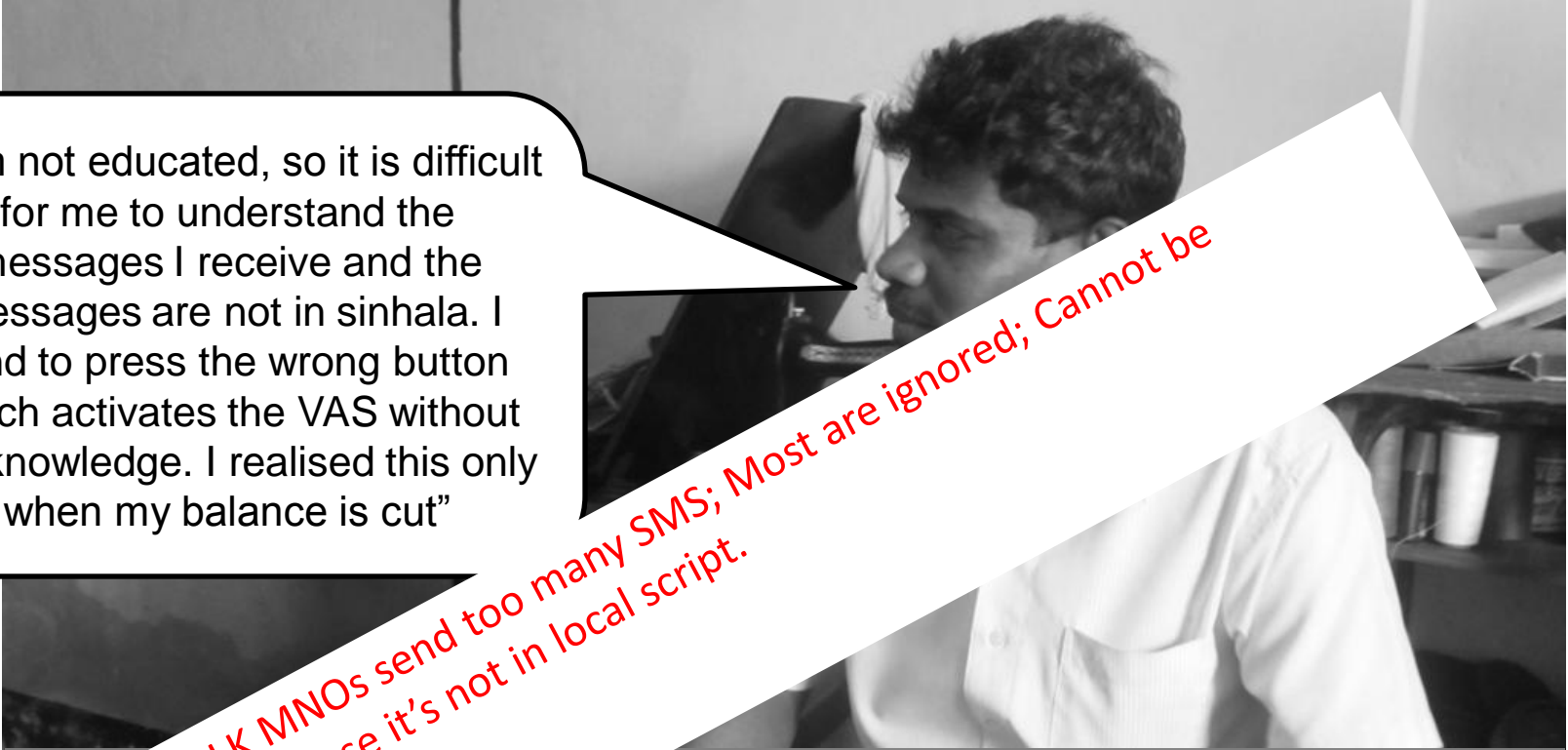
I have been running my business for the 15 years and I started this business as I had no other option since I am not very educated.

# Solution: Prioritized Queues or Call Back Option



**Solution:** Customer Care Executive digitizes the issue in real time. In case of a call drop and the customer calls back within a stipulated span of time (for high valued customers) or the customer is prioritized in the queue. Customer will not need to repeat the problem as it is in the database.

# Problem: Unintended VAS Activation



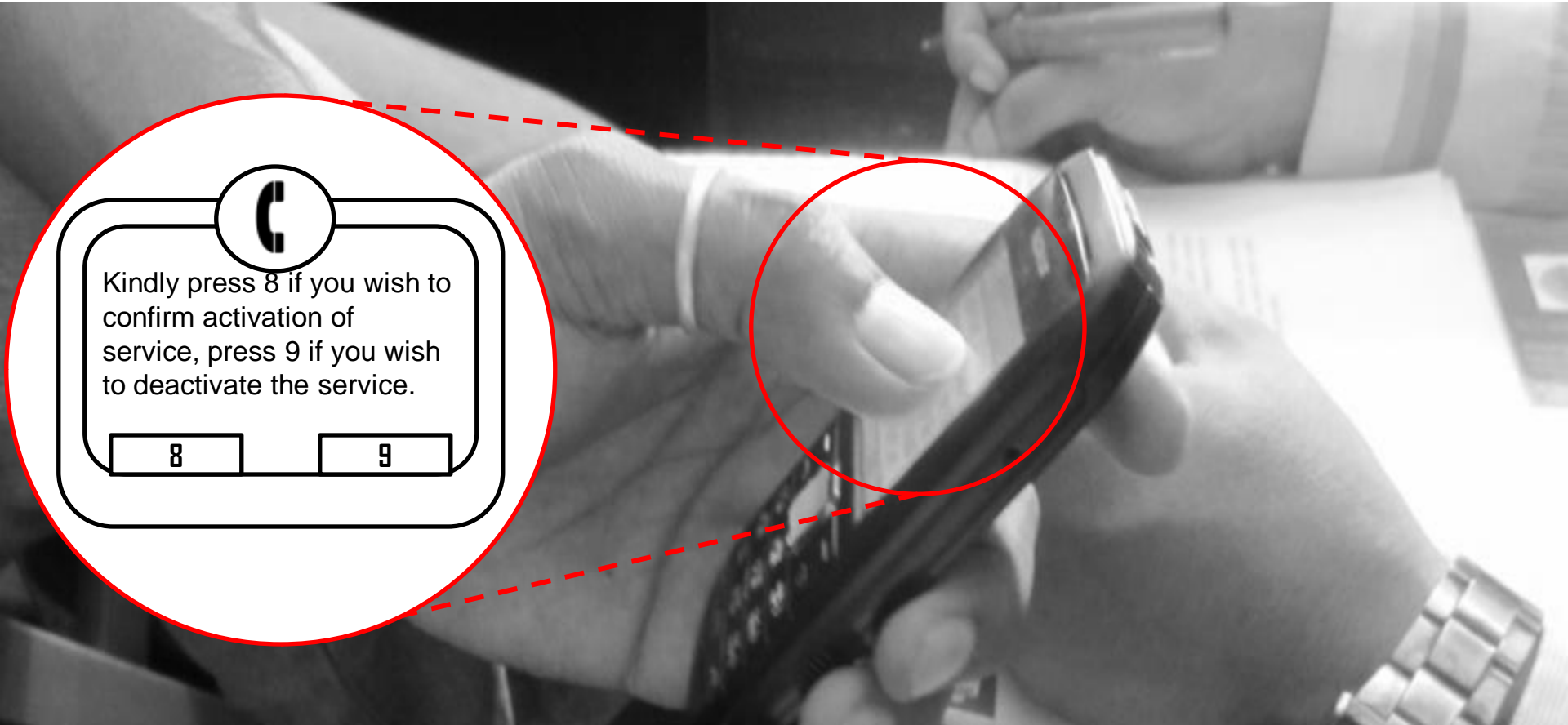
“I am not educated, so it is difficult for me to understand the messages I receive and the messages are not in sinhala. I tend to press the wrong button which activates the VAS without my knowledge. I realised this only when my balance is cut”

*In addition, LK MNOs send too many SMS; Most are ignored; Cannot be understood because it's not in local script.*

I have been running my business for the past seven years and I tend to get irritated with the messages I get from my telecom company.



# Solution: Active reconfirmation




**Solution:** On activation of VAS, the ME receives a confirmation (automated call or SMS) requesting them to confirm their activation.

**OR**

Reconfirmation request sent through SMS or IVR about VAS activated on phone at a given frequency (every 3-4 months). If VAS is not confirmed, it will get automatically deactivated.

# Problem: Postpaid Bill Shock



I initially had a postpaid connection. However the bill that I received was so high that I decided to settle my dues and shift back to using prepaid.

Name: Asanka

Age: 35 years

Education: Grade 4

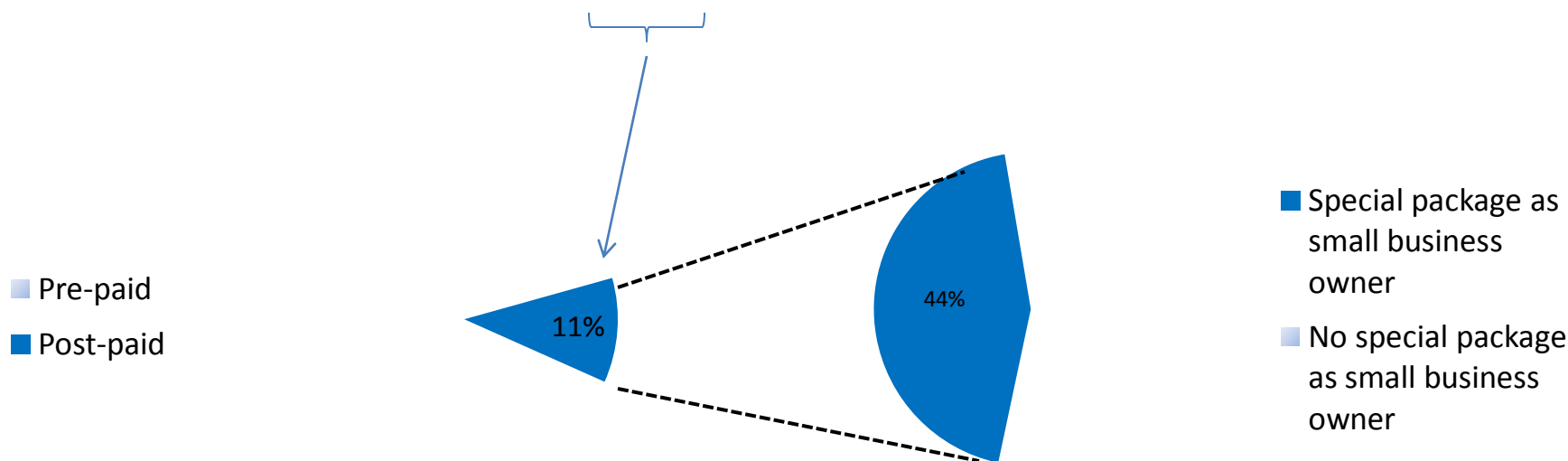
Occupation: Dried Fish Seller

Number of Employees: None

My phone is important for my business but I still feel it is better to use prepaid than to worry about a high bill in postpaid

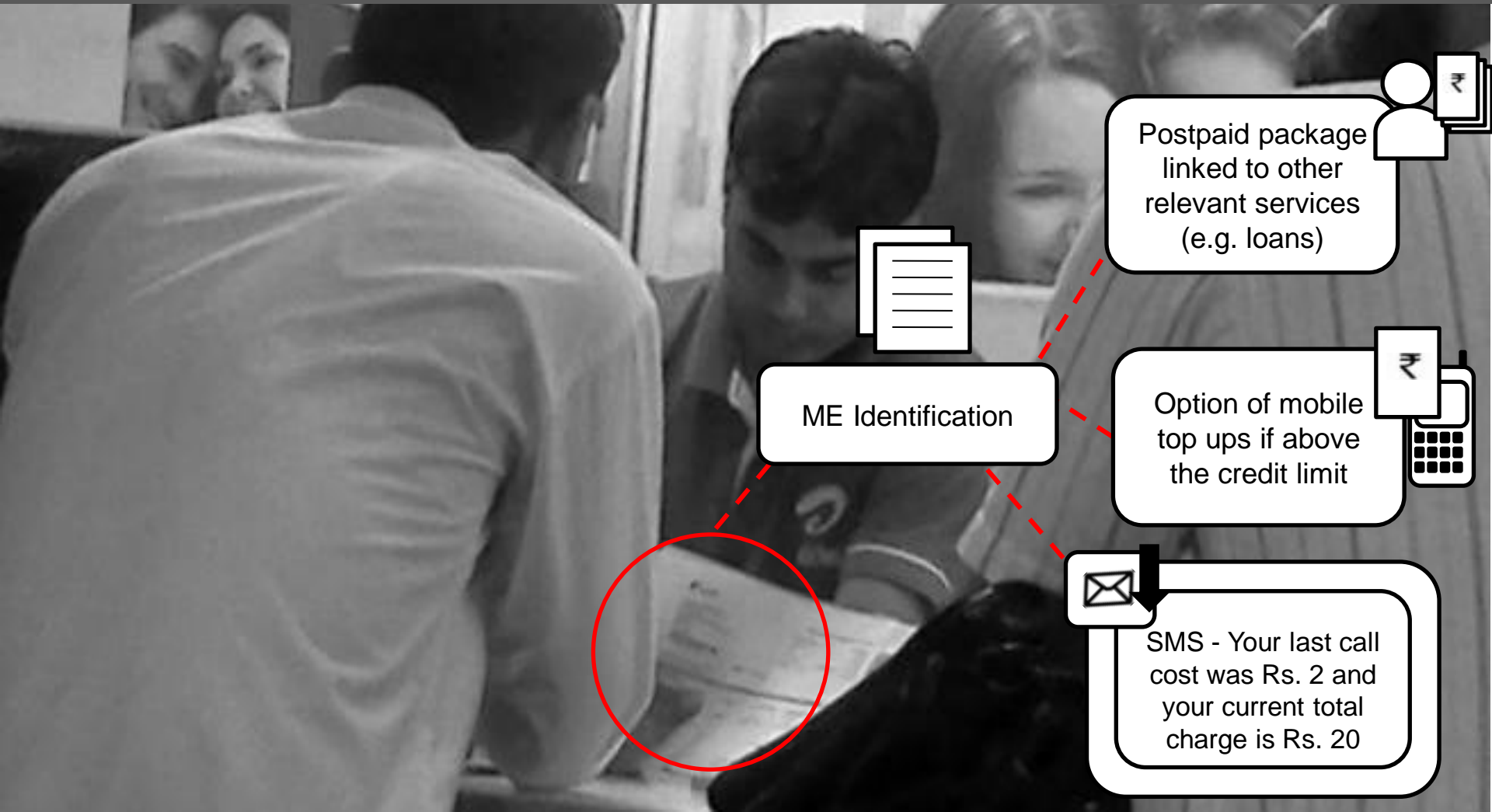
# Low income MEs – High spenders but no differential services offered

	Monthly Spend
BOP pre-paid mobile owners (2011)	LKR 401
Low-income MEs who use pre-paid for business (2013)	LKR 1345
Low-income MEs who use post-paid for business (2013)	LKR 1551



# Solution: Postpaid Lite

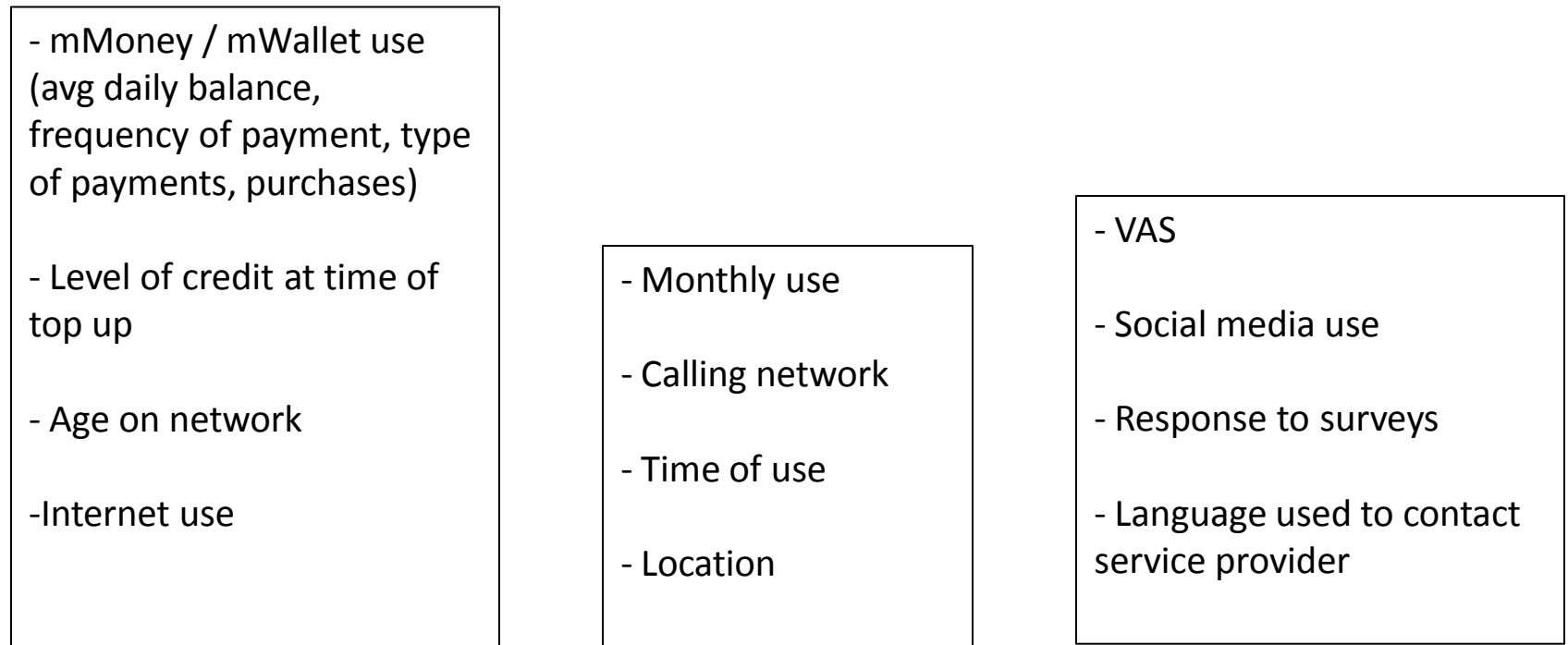
- Postpaid plans for low income users lower credit limit with ways to avoid bill shock
- Topping up option (as in prepaid) once credit limit is reached
- Push notifications re. call charges



# Extending it to Bundled Services

- Tailor make marketing strategies – not blanket promotions. Micro-segment! (The McKinsey Quarterly, 2008)
- Recognize low-income micro-entrepreneurs (MEs); i.e. often unbanked poor, as a target market segment
- Use Transaction Generated Data (TGD) to generate **predictive models to design financial products** or **propensity models for marketing** (CGAP, 2012)
- Example: Tested hypothesis → Consistent credit loads = Predictability in income, Ability to repay

# MNOs have access to an abundance of data – how much of it is being used?



Directly relevant for financial services

Less directly relevant for financial services

Adapted from CGAP, 2012

# What can be done?

## Electricity sector

Nilusha Kapugama



This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada and the Department for International Development, UK.

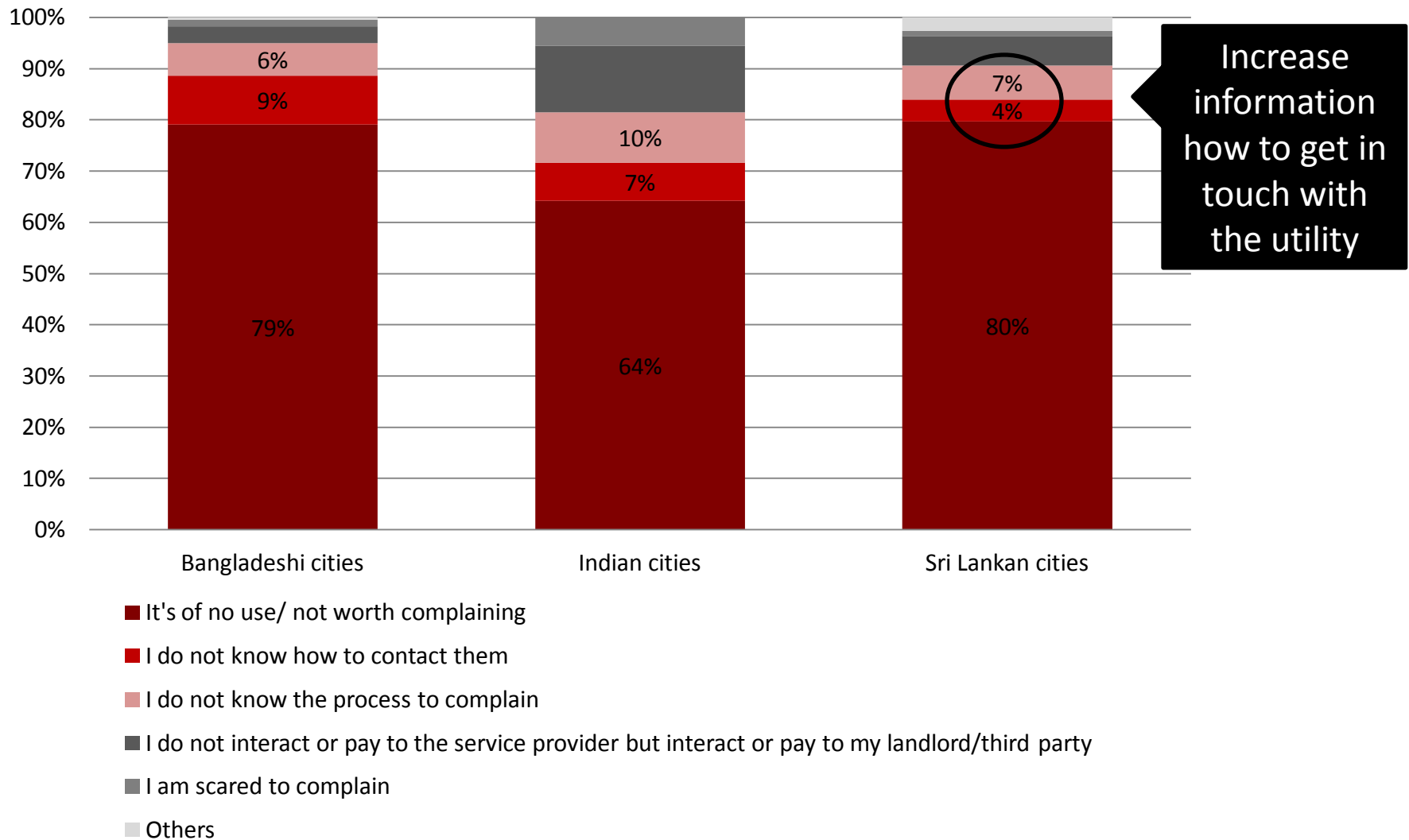


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International Development Research Centre  
Centre de recherches pour le développement international

**Canada**

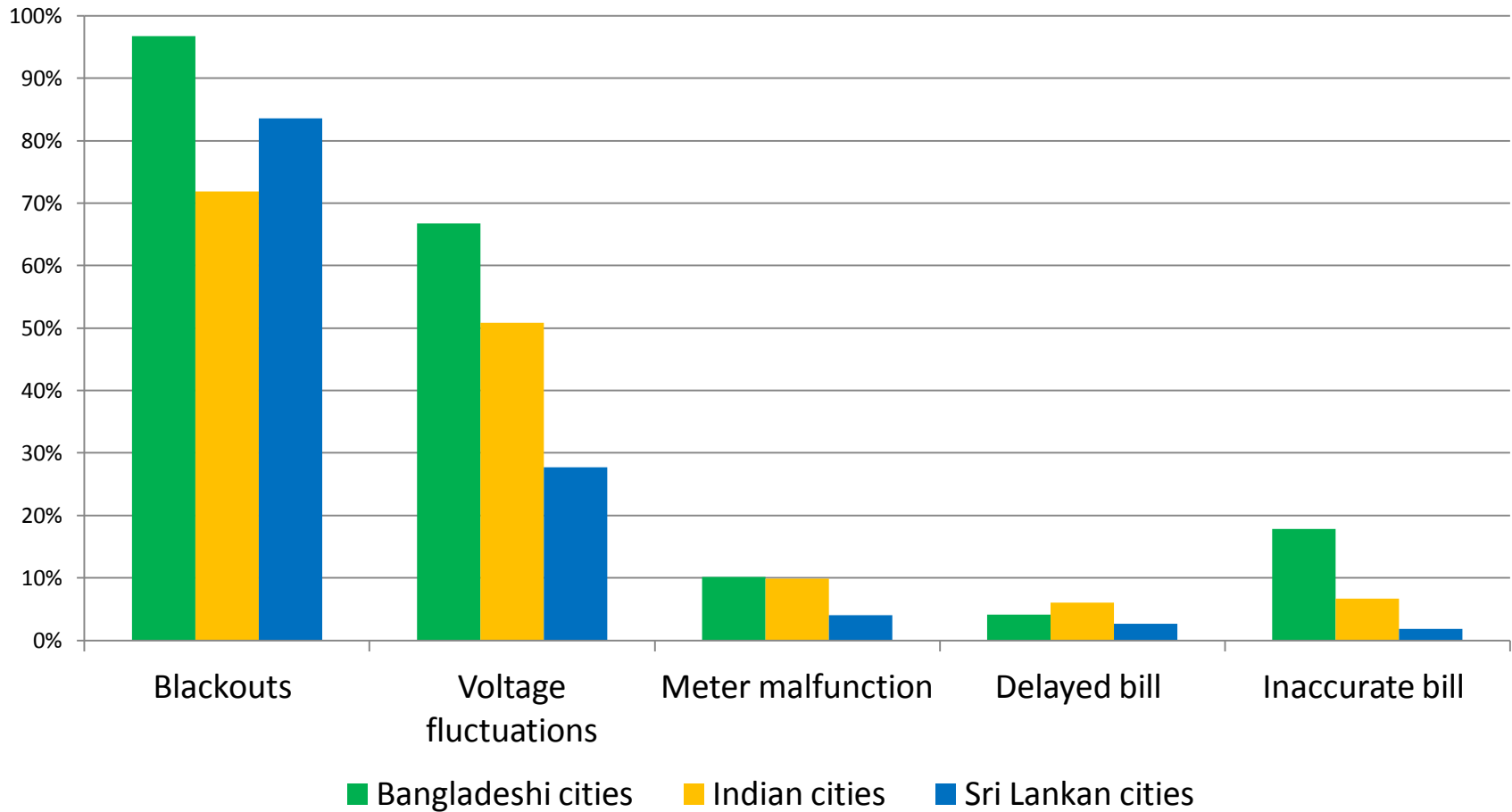
# Most see no use of complaining



Why did you not complain to the service provider? (% BOP MEs who use electricity for business and who faced problems but didn't complain)



# Blackouts and voltage fluctuations most common problems in LK



**Did you face this problem? (% BOP MEs who use electricity for business from electricity co.)**

# Problem: Lack of information on power-cuts



The Beauty Parlour Owner

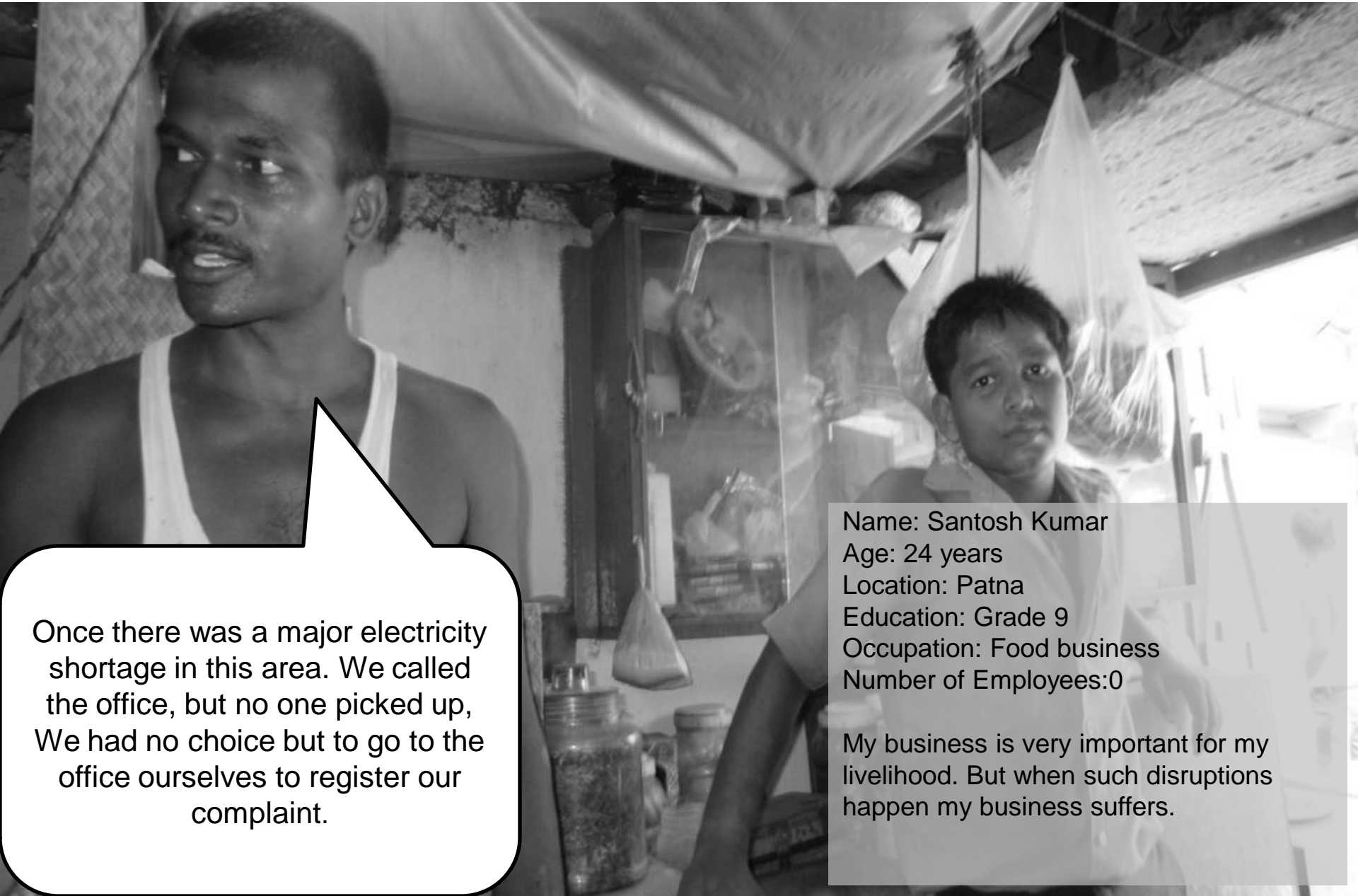
Name: Mihiri  
Gender: Female  
Age: 30 years  
Education: Secondary Education  
Location: Colombo  
Business: Services– Beauty Parlor  
Employees: None  
Years of Service: 3



Inside the Beauty Parlour

- Runs her business from a rented accommodation
- Has an electricity connection.
- Electricity is essential for her business.
- Unable to serve her clients if there is no electricity.
- Lack of information on power-cuts has an adverse effect on her livelihood.

# Problem: Called but no response...



Once there was a major electricity shortage in this area. We called the office, but no one picked up, We had no choice but to go to the office ourselves to register our complaint.

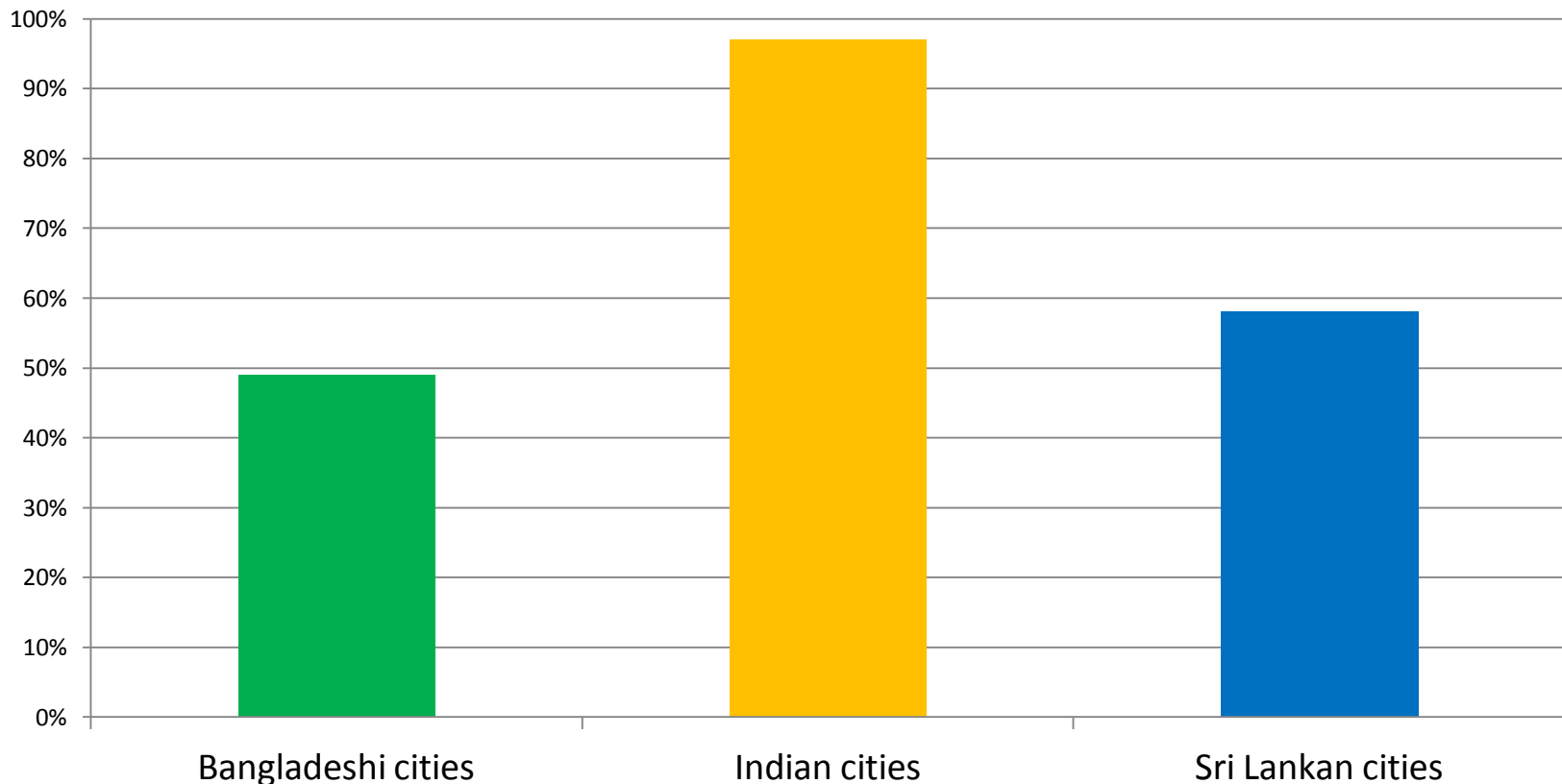
Name: Santosh Kumar  
Age: 24 years  
Location: Patna  
Education: Grade 9  
Occupation: Food business  
Number of Employees:0

My business is very important for my livelihood. But when such disruptions happen my business suffers.

# Communicate with your customer...

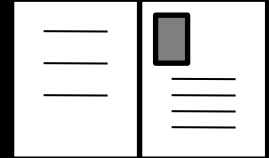
- Communication is two way
  - Utility needs to let customer know about planned and unplanned outages
  - Customer needs to talk to the utility to get information or make a complaint
- The need for efficient and professional service
- Managing the expectations of your customer

# 58% in LK do not get an advance notice about power cuts



**Do you get advance notice about power blackouts? - NO (%BOP MEs who use electricity for business)**

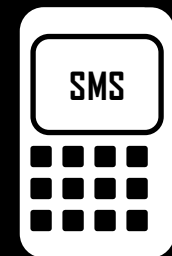
# Solution: Provide Information on Blackouts



**When setting up SMS services ensure that the sign up processes are not complicated**

**Ensure the services receive sufficient publicity to enable sign up**

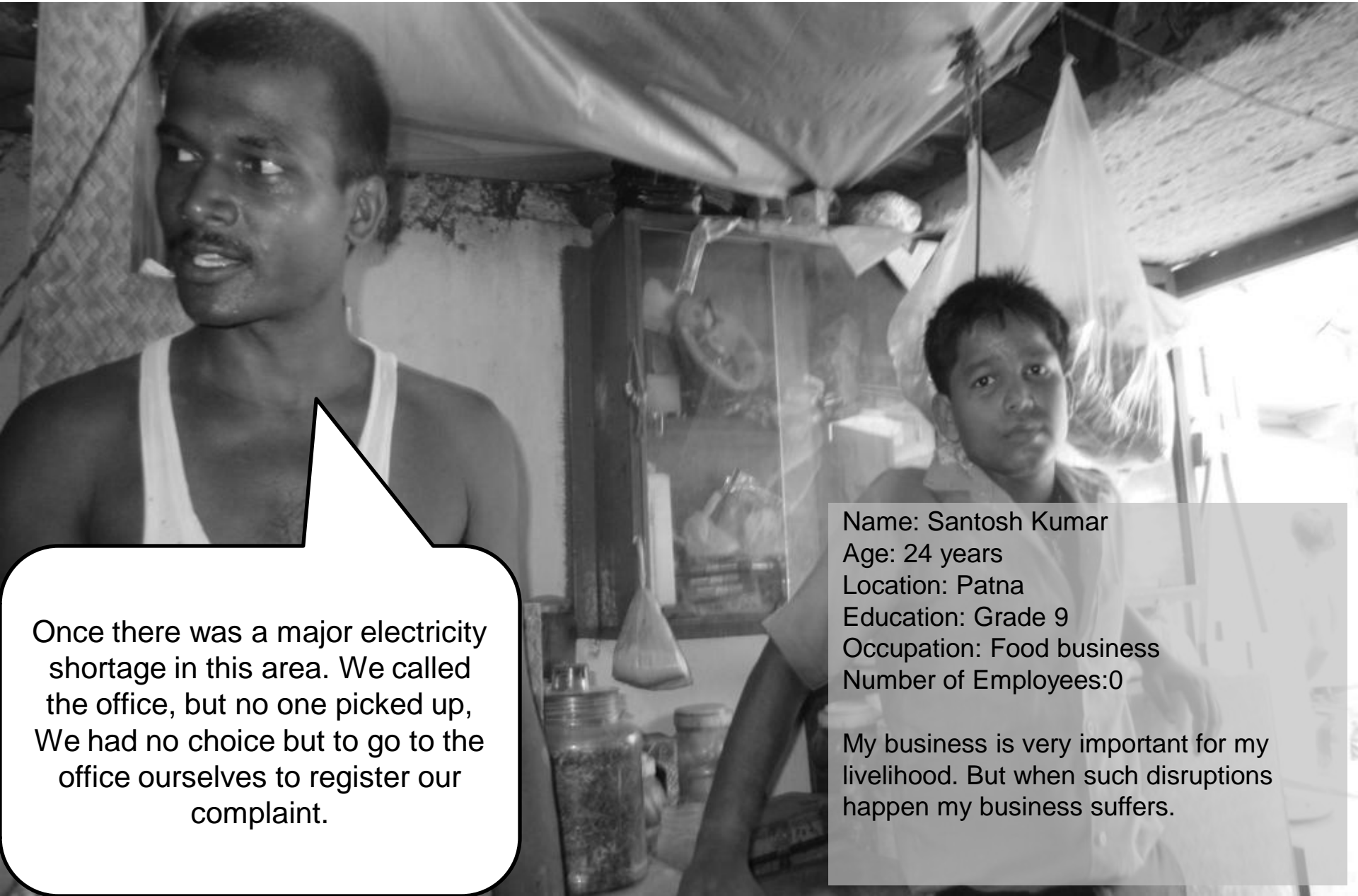
**Use the bill as a method of sending information**



The consumer being made aware of planned outages through multiple methods such as public announcements, newspapers, SMS and electronic media.

If unplanned outage, use medium such as SMS to convey the information to consumer

# Problem: Called but no response...



Once there was a major electricity shortage in this area. We called the office, but no one picked up, We had no choice but to go to the office ourselves to register our complaint.

Name: Santosh Kumar  
Age: 24 years  
Location: Patna  
Education: Grade 9  
Occupation: Food business  
Number of Employees:0

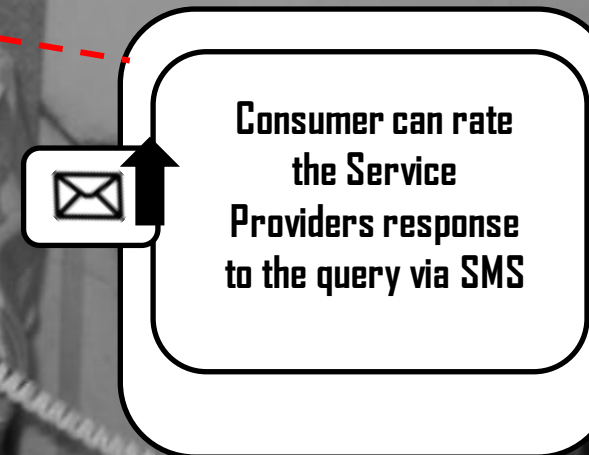
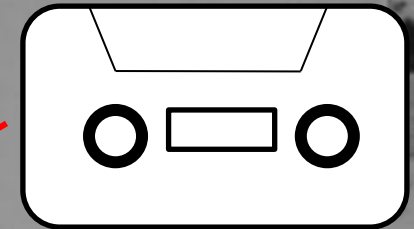
My business is very important for my livelihood. But when such disruptions happen my business suffers.

# Current CEB and LECO systems have trade-offs and creates confusion

	Pros	Cons
Area engineer's office	<ul style="list-style-type: none"><li>• Customers feel as if they have spoken to someone with authority</li></ul>	<ul style="list-style-type: none"><li>• Lack of accountability as reference numbers are not always given</li><li>• Under-trained staff</li><li>• Unanswered calls</li><li>• Takes up valuable time of the area engineers</li></ul>
Centralised call centre	<ul style="list-style-type: none"><li>• Effective management of customers by trained staff</li><li>• Maintenance of historical data on customer complaints/inquiries</li><li>• Establishment IVRs for information provision</li></ul>	<ul style="list-style-type: none"><li>• Lack of a personal touch</li></ul>



# Solution : A Dedicated call center for receiving complaints/inquiries



Consumer can rate  
the Service  
Providers response  
to the query via SMS

- Maintain dedicated call centers
- Remove discretion from the complaints receiving process by accepting all complaints and issuing a reference number.
- Record calls so that the Supervisors can keep track of interactions.
- After the query has been resolved, the consumer can rate the Service Provider via SMS.

# More with call center data

- Distribution companies already have SAIDI/SAIFI data originating from the system
- The call centre data can be analysed together with the system generated data for more in-depth understanding of issues such as breakdowns and voltage fluctuations

# Problem: insufficient info on effective consumption of electricity

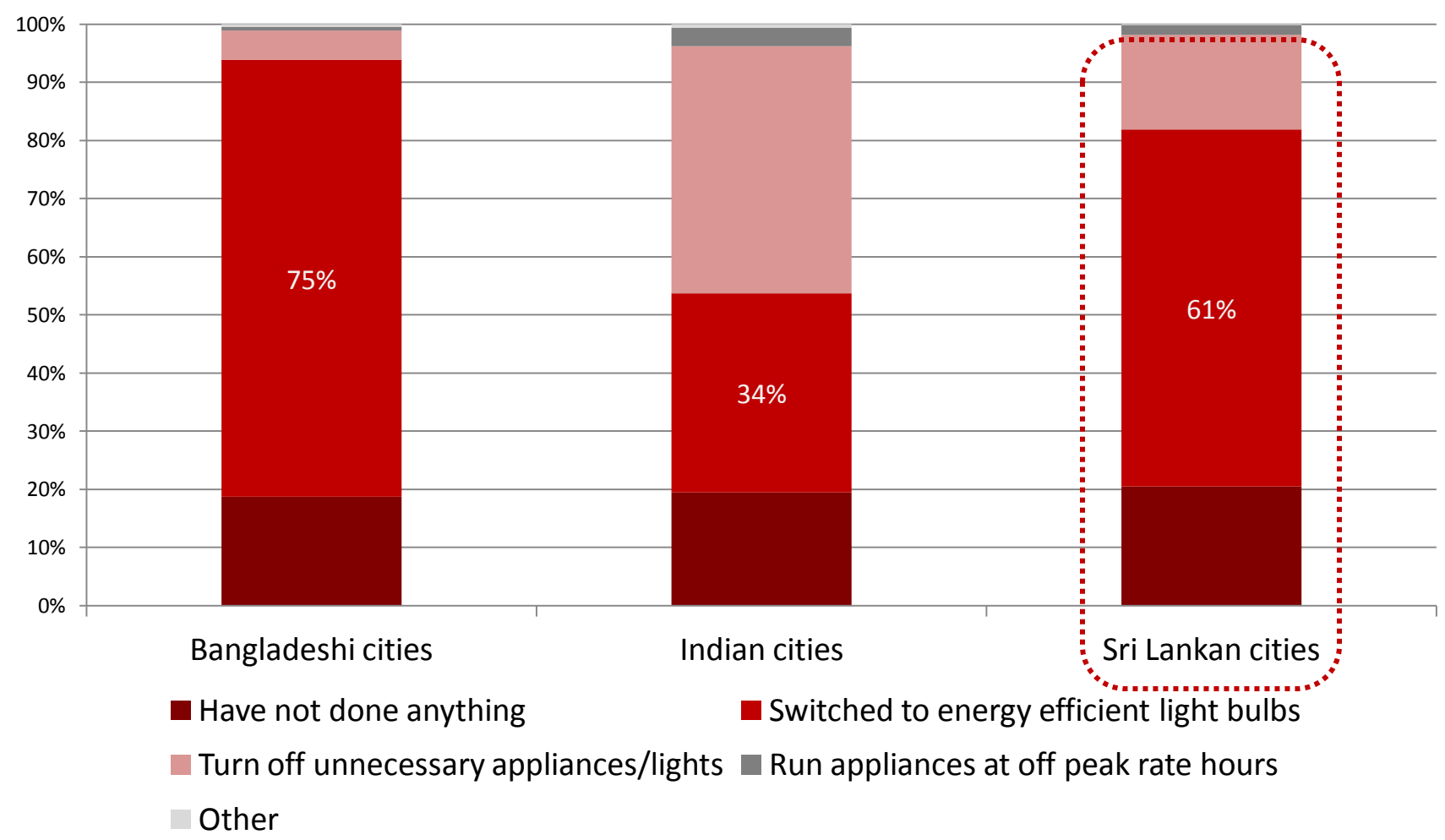


My electricity bill has risen lately. Since I am the only earning member of my family, things are difficult for me. I switch off my refrigerator when I am not using it, but I would like to know more about how else I can reduce my electricity bill.

Name: Nazreen  
Age: 46 years  
Location: Colombo  
Education: Grade 4  
Occupation: Food business  
Number of Employees:0

I require electricity for my business since I run my business from home. Any increase in my costs will adversely affect my business.

# About 80% of consumers have done something to reduce their power consumption



Please tell us about your most important step in conserving energy [reducing electricity bill] you have been following?(% BOP MEs who use electricity for business with supply from electricity co.)

02. In the case of cheques, payments, cheques should be written on the Electricity bill. The Electricity Account Number should be written on the backside of the cheque. All cheques must be crossed made payable to "General Manager, Ceylon Electricity Board", The Electricity Supply could be disconnected without any notice if a cheque is defaulted and returned. In such an event payment could only be made by cash.

03. In accordance with the Government Gazette (extra ordinary) No. 1572/ 25 dated 24/10/2008, a monthly interest of 2% on account balance will be added if the Electricity bill is not paid within 30 days.
04. Any complaints regarding the payment of electricity bills will be considered only if submitted within 2 years period from the date of payment.

Inquiries about bills, service connections :- etc

- a) Colombo West Office - 2574159
- b) Colombo South Office - 2828427
- c) Colombo East Office. - 2694181
- d) Colombo North Office - 2337673

**Breakdowns:-** In case of a breakdown first check whether the trip switch or main switch is off.

Please inform Maligawatta Control Centre (Tel :- 2498498) if it is not an internal fault (Open for 24 hrs.)

*More than 60% of the electricity distributed among the customers are generated from thermal power stations. Therefore, you are kindly requested to use electricity with utmost care conserving Electricity energy.*

*Help us by paying your Electricity bill as early as possible !!!*

**CEB Call Centre - 1987**

**Please also visit our web site**

**www.metroceb.lk**

**ECO**

**Electricity Company (Pvt) Ltd**

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[Information](#)



## s on electricity bills for power savers

By : admin | Categories : latest news, News and Press Release | 0 Comment

was launched on the 01st of April 2012, in line with the power conservation drive 'Today for our future'. Under the purview of the ministry of power and energy, where over 4.6 million consumers could win concessions on their electricity bills.

Consumers who show a reduction of 20% in their electricity bills in comparison to the March 2012 bill, will gain full concessions on their April, May or June 2012 bills. Those consumers who show a reduction of 10% of their electricity bill could gain 50% concessions on their electricity bills. All electricity consumers are eligible to register for this scheme. Consumers must register their April, May or June 2012 bills in order to receive the concessions, or total exemption of the bill.

Consumers who show a 20% reduction in their electricity bills will have a month's electricity bill exempted from payment to CEB or LECO. Similarly 5000 consumers who show a 10% reduction in their electricity bills will have a month's electricity bill exempted from payment.



# Implementing DSM...

- DSM is defined as “modification of consumer demand for energy through various methods such as financial incentives and education”
- Many new learnings emerging from the field of behavioral economics
  - Behaviors of human beings change in response to nudges
  - Tried with success by the Energy Market Authority, Singapore
    - Low, D. (Ed.). (2012). *Behavioural Economics and Policy Design: Examples from Singapore*. World Scientific

# Introduce smart meters

- Will enable time of day metering [and cost reflective pricing]
- Bill shock will lead to peak demand

**NOT AN OPTION RIGHT NOW FOR MOST OF YOUR CONSUMERS**

Consumers will manage their consumption more efficiently  
Overall daily demand may stay the same but consumption may shift to a different time

# Nudges for modifying behaviour...

- Inform people of approximate electricity consumption of household appliances
  - Ensure it is in a format easily understood by the consumer
    - Eg. No. of units used by appliances (instead of KWh)
- Inform the high energy consuming households of the average consumption of similar households
  - People respond when they are compared to others like them



# Information through bills

Energy consumed for various

Eg: 1 fan for  
10 hours = 2  
units

**Bold, repeated messaging has proven to be effective**

## Ceylon Electricity Board - Colombo City Instructions for the Consumers

01. Bill payments :- Payments could be made by cash, cheques & bank drafts at the following Point of Sale (POS) Counters.

- From 8.30 a.m. upto 5.00 p.m. during weekdays and from 8.30 a.m. to 3.00 p.m. on Saturdays at the Colombo City office, 340, R.A. De Mel Mawatha, Colombo 03.
- From 8.30 a.m. to 3.00 p.m. during weekdays, on Saturdays till 1.00 p.m. at Colombo South and North Area Offices, till 2.00 p.m. at Colombo East Area Office, at POS Counters.
- From 7.45 a.m. to 6.00 p.m. on weekdays & 7.45 a.m. to 2.00 p.m. on Saturdays at the CEB Head Office (Colombo 02) Counters.
- From 8.30 a.m. to 3.00 p.m. at CEB POS Counters situated at Peoples's Bank Branches at Malwatta Street, 1st City Branch & Bambalapitiya.

02. In the case of cheque payments, cheque number should be written on the Electricity bill. The Electricity Account Number should be written on the backside of the cheque. All cheques must be crossed made payable to "General Manager, Ceylon Electricity Board". The Electricity Supply could be disconnected without any notice if a cheque is defaulted and returned. In such an event payment could only be made by cash.

03. In accordance with the Government Gazette (extra ordinary) No. 1572/ 25 dated 24/10/2008, a monthly interest of 2% on account balance will be added if the Electricity bill is not paid within 30 days.

04. Any complaints regarding electricity bills will be handled by the following:-

Colombo East Office - 2828427  
Colombo North Office - 2694181  
Colombo South Office - 2337673

**Breakdowns:-** In case of a breakdown first check whether the trip switch or main switch is off.

Please inform Maligawatta Control Centre (Tel :- 2498498) if it is not an internal fault (Open for 24 hrs.)

More than 60% of the electricity distributed among the customers are generated from thermal power stations. Therefore, you are kindly requested to use electricity with utmost care conserving Electricity energy.

Help us by paying your Electricity bill as early as possible !!!

**CEB Call Centre - 1987**  
Please also visit our web site

generated by computer

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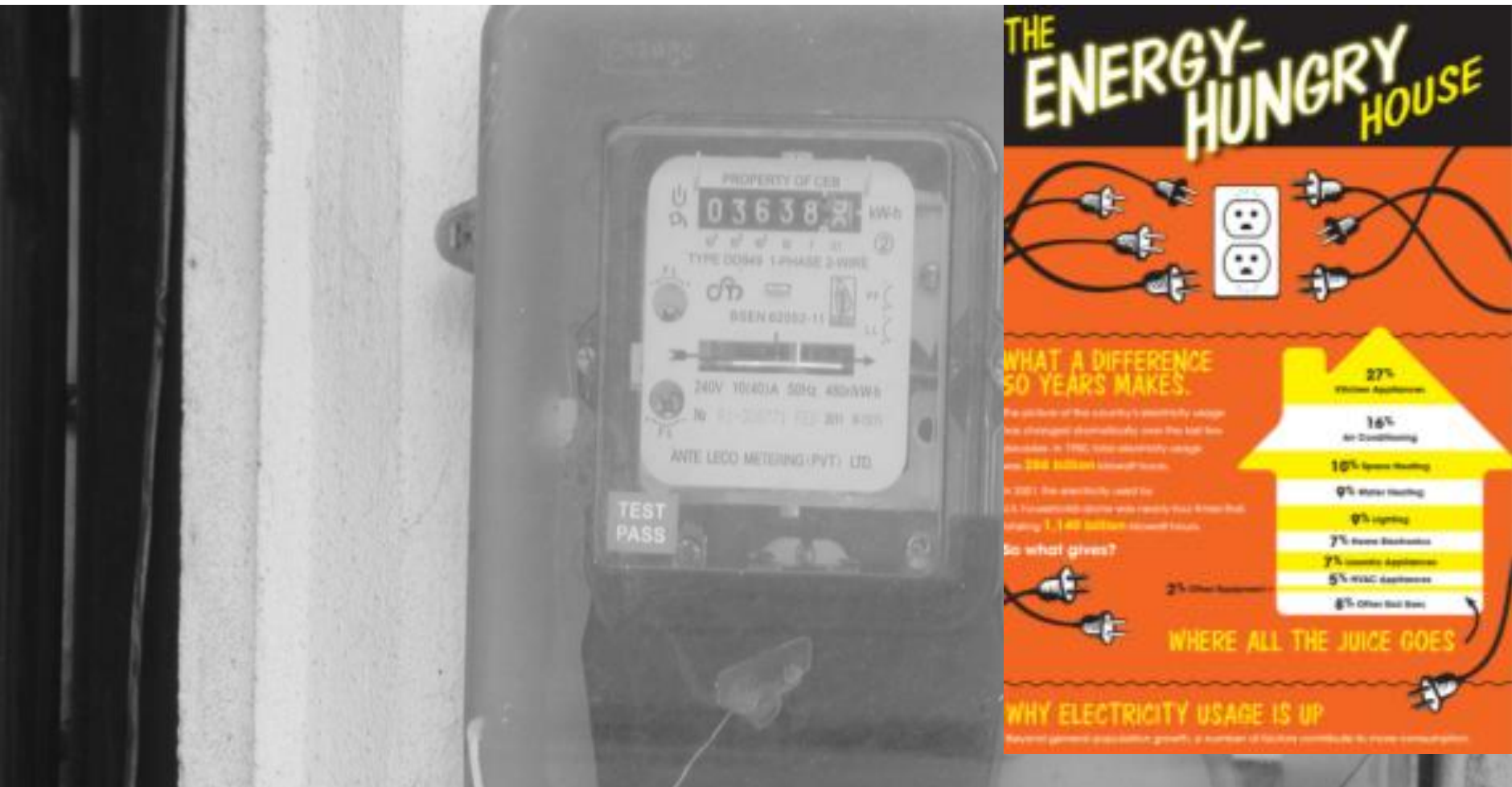
740.79

Meter Reading

308771

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# Solution: Greater awareness of consumption



Inform high energy users that their consumption is higher than average when compared to their neighbours (single phase vs 3 phase)

infographic on the meter. The infographic should be in the local language.

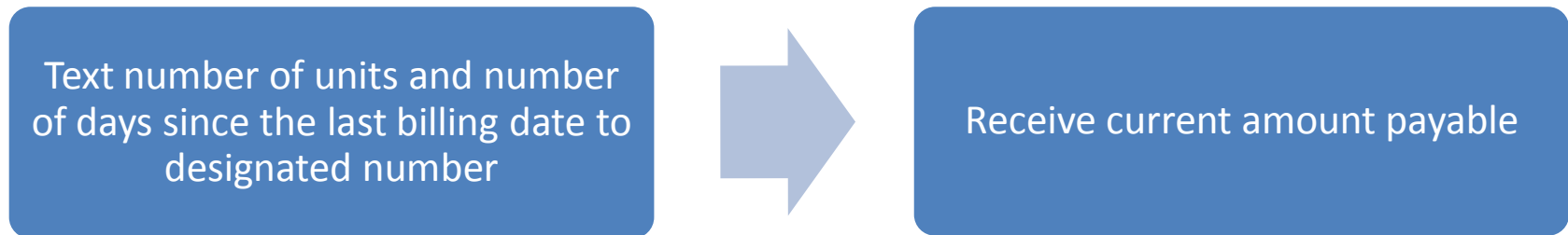
Information through the bill.

# Real-time feedback has an impact

- Most consumers only find out their consumption when they receive the bill
- Often results in bill shock and too late to make changes to consumption
- Bill calculators available online however, these are not accessible for all
- Why not let people find out their consumption real-time (when they want) through SMS

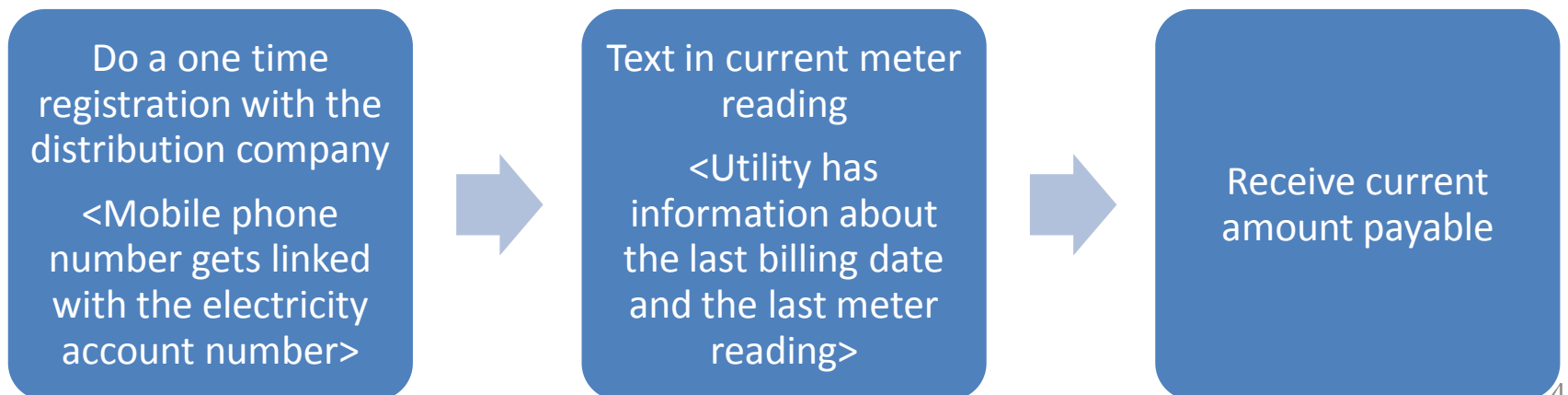
# 2 possible systems...

## A basic solution



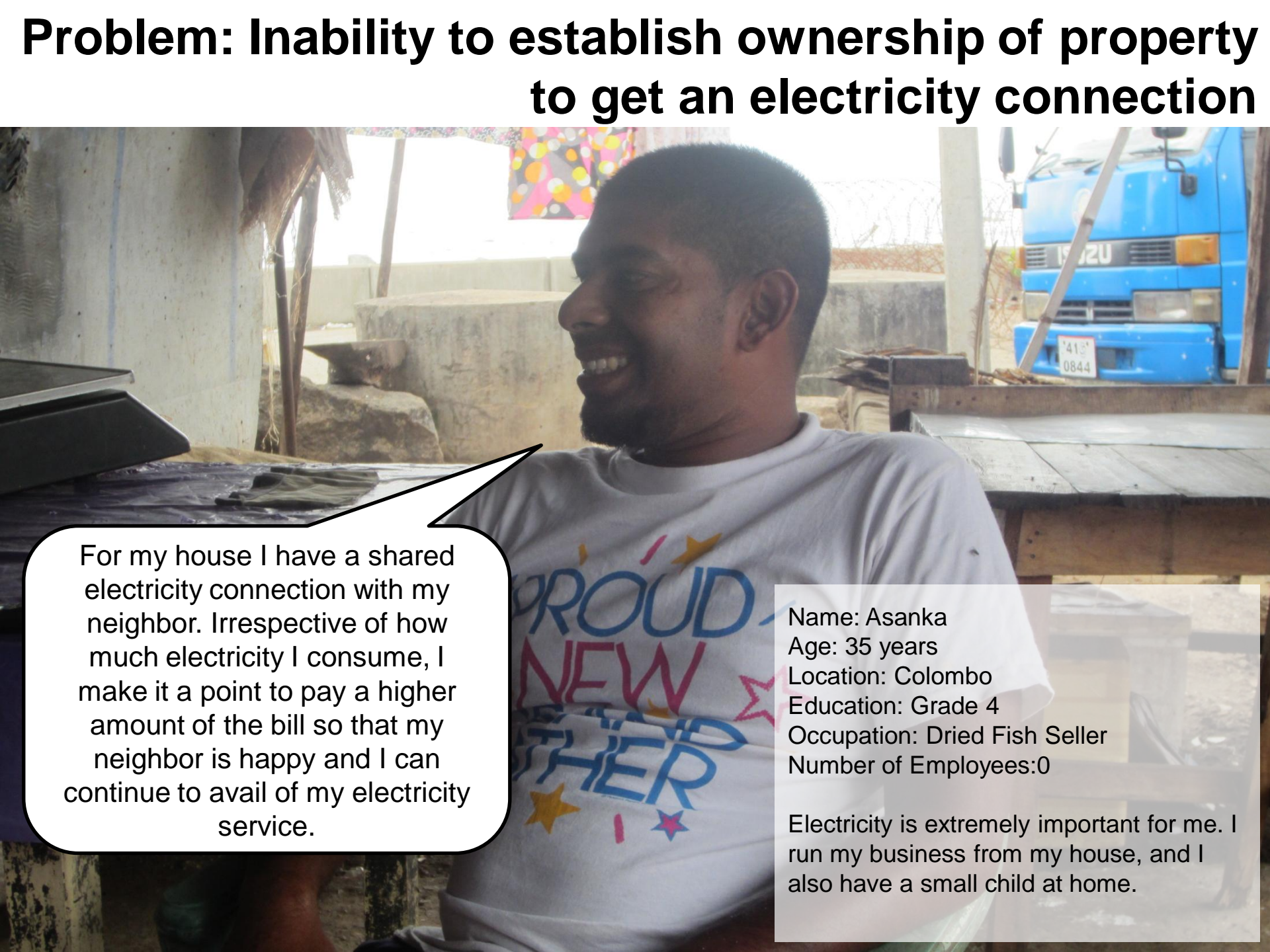
- The format of the SMS has to be specified and printed on the monthly bill

## An advanced solution





# Problem: Inability to establish ownership of property to get an electricity connection

A man with a beard and short hair, wearing a white t-shirt with colorful text and stars, is sitting outdoors. He is smiling and looking towards the left. In the background, there is a blue truck with the number '15720' and a license plate '41 0844'. There are some wooden structures and a colorful patterned cloth hanging in the background.

For my house I have a shared electricity connection with my neighbor. Irrespective of how much electricity I consume, I make it a point to pay a higher amount of the bill so that my neighbor is happy and I can continue to avail of my electricity service.

Name: Asanka  
Age: 35 years  
Location: Colombo  
Education: Grade 4  
Occupation: Dried Fish Seller  
Number of Employees:0

Electricity is extremely important for me. I run my business from my house, and I also have a small child at home.

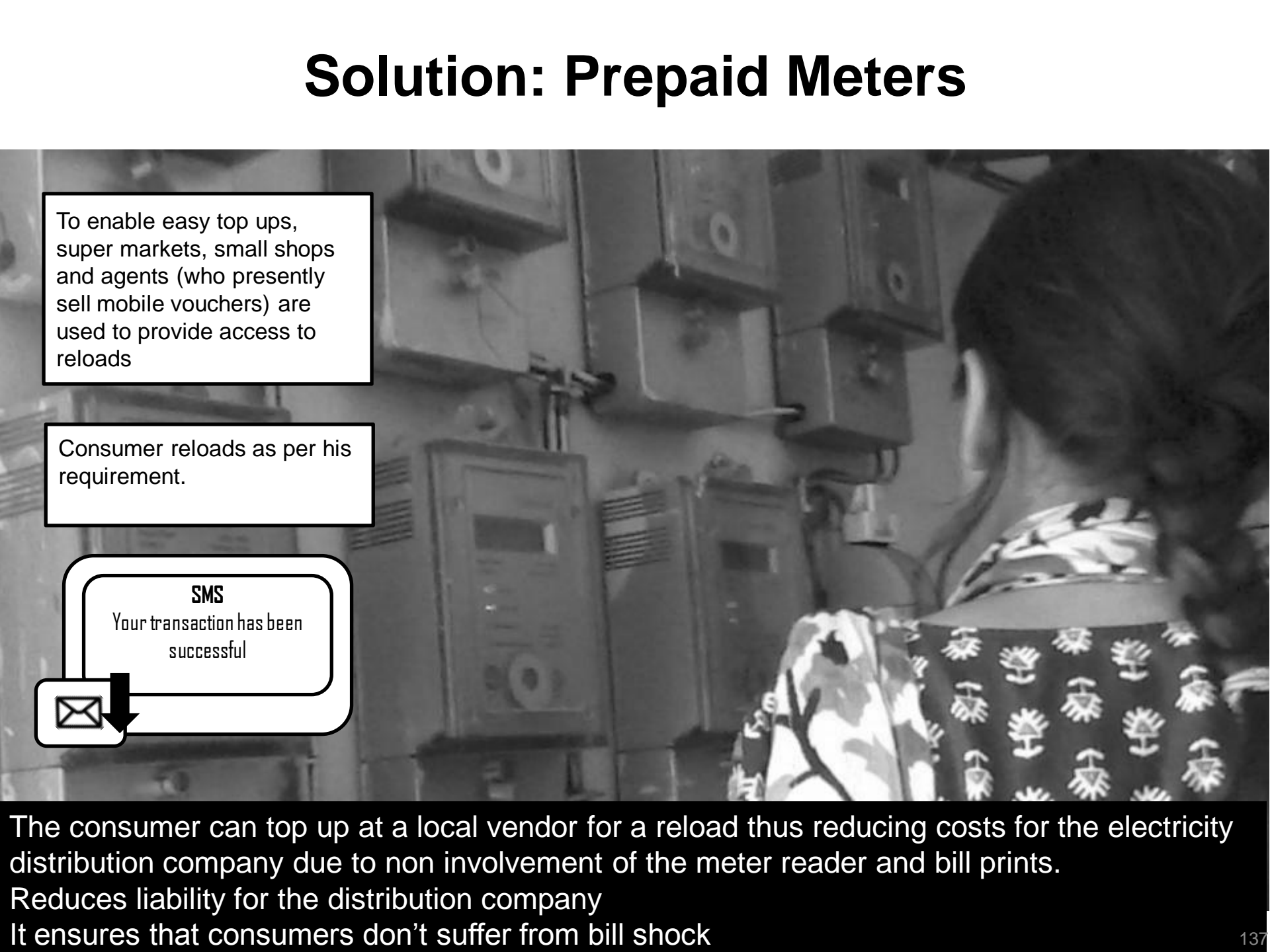
# Solution: De-linking property rights and provision of electricity



Relaxing existing document requirements to enable MEs with temporary structures to acquire an electricity connection

Existing regulations do not allow supply of electricity to those without property rights, therefore this requires a change in law. It will ensure that having an electricity meter does not automatically entail property rights over time. This will remove the need to submit property papers in order to get an electricity connection.

# Solution: Prepaid Meters



To enable easy top ups, super markets, small shops and agents (who presently sell mobile vouchers) are used to provide access to reloads

Consumer reloads as per his requirement.

**SMS**

Your transaction has been successful



The consumer can top up at a local vendor for a reload thus reducing costs for the electricity distribution company due to non involvement of the meter reader and bill prints.

Reduces liability for the distribution company

It ensures that consumers don't suffer from bill shock

# Pre-paid contd...

- Prevents bill shock
- Reduces liability to the distribution company
- Reduces the cost of generating a bill
- Leverage existing systems used by telecom for top ups/recharge