What do the telecom sector experiences offer to public service delivery?

Improving Service Delivery for e-Inclusion

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LIRNE*asia* is a pro-poor, pro-market think tank whose mission is *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.*

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List of Abbreviations

BoP	Bottom of the Pyramid
CRM	Customer Relationship Management
ICTs	Information and Communication Technologies
ID	Identification Number
IVR	Interactive voice response
MEs	Microentrepreneurs
SD	Standard Deviation
SEC	Socio Economic Category
SIM	Subscriber Identity Module
SMS	Short message service
TV	Television

Executive Summary

Context: The use of ICTs in new methods of public service delivery results in governance that is cheaper, productive and quicker in low and middle income countries. The barriers to the electronic governance are being possibly eased out by the ubiquitous mobile phone. The sustained use of mobile phones and its impact on the poor would not have been possible without a better service quality by the telecom service providers who are able to cater to the poor customers with relatively insignificant amount of disposable income. It is important to explore whether telecom service providers' service delivery can be emulated by the public utility service providers who also operate with and for larger amount of poor population.

Method: A questionnaire survey among bottom of pyramid (BoP) microenterprises (MEs) in three countries, Bangladesh, India and Sri Lanka was conducted. The study defined MEs as those who employed less than ten hired workers, and BoP or the poor as those who occupy C, D & E levels in the socio economic category (SEC) classifications. In each country, two cities were selected - the capital city and another city which is weaker in terms of governance, inferred by the proxy indicators related to the human development of the province / state (Bangladesh - Dhaka & Gaibandha and Kurigram cities [Rajshahi Division]; India - New Delhi & Patna [Bihar], Sri Lanka - Colombo & Kurunegala and Kuliyapitiya [Kurunegala district] and Puttalam and Chilaw [Puttalam district]. The respondents for the study were selected through probability, multi stage cluster sampling method to satisfy the representativeness of the study. The data were collected by the Nielsen Private Limited during March – May 2013. The response rate for Bangladesh, India and Sri Lanka were 80 %, 99% and 86% respectively with the final sample size, 3180 (Bangladesh - 986, India - 1279 and Sri Lanka – 915). The sample reflected the national composition of the microenterprises.

Sample: Of the total MEs studied, 53.4% have no worker, 36% have '1-3' workers and 10.4% have '4-9' workers. 40% of the MEs operate out of owned fixed location, outside the home followed by 25% of MEs operate in unpaid variable locations. The main source of money to start business comes from own savings in 55% of cases followed by 16% of borrowing from friends and relatives. Roughly half of the MEs are in trade (buying and selling goods and wares), followed by 30% of services MEs and 20% in manufacturing. Almost all sample MEs, make or receive payments by cash in their businesses than any other modes.

Access and Service Delivery in Telecom: Among various ICTs used for business, mobile phones are predominant (71% of sample) with pre paid connections (96%) and one SIM card (79%). The phone usage is high in Bangladesh, 89% when compared to Sri Lanka, 79% and India 52%. Almost all sample MEs prefer to interact with customers and suppliers in-person than mobile phones.

Coverage, referral by friend / family, most friends on same network and cheap prices are the four major reasons for selecting a particular service provider. The median recharge value per week is one dollar and recharge is done through a shop / agent / dealer more (54%) followed by the scratch cards (41%). The nature of mobile phones seems to be still basic or feature phones and usage is limited to

voices. Mobile based social networking and others like banking, payments, and government services etc. are not used much. Most important reasons for using mobile phones for business include 'contacting and coordinating with suppliers', 'to act or contact others in an emergency', and 'to contact or coordinate with customers'.

It appears that service delivery by the telecom service providers is good in all three countries. When asked about major problems faced by MEs, half of the sample responded in negative. Sri Lankan MEs are more satisfied than others. Lack of coverage and call drops are major problems faced by sample out of which only 41% complained to the service providers. Large part of non complaining is due to problem perceived as not worth complaining.

The main point of contact of service providers for MEs seems to be 'through call centers'. Most of the MEs felt that the call center personnel or officer of telecom service providers treated them politely, able to interact in local language, able to find relevant information easily and were satisfied with the time taken by the firms.

Access and Service Delivery in Electricity: In the sample, 67% of MEs use electricity use for business purposes, higher in Bangladeshi MEs, 91% followed Sri Lanka, 84% and India, 37%. Except India, the main source of electricity is an electricity company for MEs. 30% of sample MEs have electricity in others names. On an average, sample MEs spend $14 / month (median, $9 and SD=15) for electricity, Sri Lankans spending more than others. Payment is done at the electricity office followed by the landlords. One fourth of MEs do not receive any receipt at all with slightly more than half of them get a company receipt. Only small amount of MEs, 4% receive SMS receipts.

Despite 87% of sample MEs face blackout problems of which 71% feel that the businesses are affected severely, only 21% of them complain. Bangladeshis face more face blackouts than others. About 39% of sample MEs say that they get advance notice about the power blackouts. Half of Sri Lankan and Bangladesh get the notices, whereas only 5% of Indian MEs get them. Out of 1341 MEs that did not complain, 57% felt that there is no use.

In the sample, 2006 MEs interacted or talked with the electricity service provider. The overall service delivery quality in the electricity sector seems to be low as expected, as none of the items related to service delivery is able to secure agreement from more than 50% of the MEs in the sample. However, out of those interacted with the service provider, nearly half of MEs felt that information on location of payments was available and interactions were carried out ME's language, and in polite manner.

Service delivery in business registration and other sectors: Slightly more than one third of sample MEs have registered with the government authorities. More than half of MEs in Sri Lanka and Bangladesh have done so when compared to miniscule MEs in India. However close to ninety percent of MEs pay taxes to the government. Mandatory requirement from the government and perceived benefits for the business in the long term for the dominant reasons for registration. Reasons seem to be distributed across the following for non registration - unaware of need to register, unnecessary workload, payment of taxes if registered, no perceived benefits and higher cost of registration. Two

third of MEs have gone to the government offices directly for registration. Lack of time and complex procedures are the major reasons cited for using intermediaries by the MEs.

Though the offices are computerized, according to half of the MEs, other activities like submission and payment of registration fee follow, predominantly, non electronic means. On an average, MEs visit two times after the first visit and wait for an average of 60 minutes during every visit. It roughly takes ten days to get the registration. It looks like the amount of bribe paid to the government official is almost equal to the required fee paid.

Among the other government offices, health centers, post office, voters' card office and census office are the most interacted offices by the MEs. Use of ICTs seem to be in the range of 21 - 61% low across various government offices with differential use of intermediaries, 6-33% as reported by the MEs. Service delivery is lower than the telecom sector in the listed parameters.

Comparison of service delivery in locations of good and weak governance: A comparison of weak and good governance places showed that mobile penetration and amount of recharge are slightly low in the weak- governed places. The difference is high in India when compared to Sri Lanka and Bangladesh. All listed problems are faced by MEs in weakly governed city are larger when compared to good location in India, but not much different in Sri Lanka. In Bangladesh, some reverse trends are observed.

While talking of customer relationship management, across the three countries, the overall trend is tilted towards better service at the weak locations by the telecom service providers, despite the relative poor governance of the location. The telecom service providers are able to even out the influences of the external factors in delivery of the services.

There are no differences in electricity access across locations in Sri Lanka and Bangladesh. In India, weak governance location offers better access than the good-governed place. BoP MEs in weak governed locations, despite having better access, on an average incur less monthly electricity expenses, 6 USD than others. Except India, MEs in other countries are fully dependent on power supply from the provider. Lack of need is cited as the dominant reason by many followed by a small number of MEs that did not have adequate documents for non connection. Physical visit to the electricity company followed by the payment to the landlord are dominant channels of payment.

In terms of power blackouts and voltage fluctuations, MEs in weak-governed locations in India and Sri Lanka suffer more than the good locations. In Bangladesh, almost all MEs in both the locations face the blackout problems. In Sri Lanka and India, the differences between good and weak locations are larger when compared to problems faced in the telecom domain. The nature of impact of power blackouts are also severely felt by BoP MEs in weak locations than good ones. However only quarter of them complain to the service provider. Out of the various reasons for not complaining to the service provider, lack of confidence in the supplier seems to be dominant and is uniform across the locations in all countries.

In terms of receiving advance notices about power blackouts, Bangla MEs in good locations are in the slightly advantageous position. Sri Lankan service providers do not differentiate much as nearly half of them receive the notices. India is doing badly as less than five percent of them receive notices, irrespective of the location. Public announcement in both weak and good governance locations i Bangladesh and weaker location in Sri Lanka is most successful.

Overall the level of customer relationship management in electricity seems to be scoring less when compared to the telecom sector, as none of the items received 50% positive agreement. In Sri Lanka and Bangladesh, MEs felt slightly better in weak location than good governance location in most of the items including, ready availability of information on procedures and documents to get new connection, how to contact the service provider, easiness in finding payment locations, polite treatment by the service personnel, encouragement to contact through phone, and interaction in local language. The numbers for India is too less to analyze.

In other government services, experiences of MEs have been mixed. For instance, business registration is higher in weaker location in Sri Lanka, unlike Bangladesh. Intermediaries are used by more MEs in good locations in Bangladesh, but there is difference in Sri Lanka. In many of the indicators, not much of difference in all the countries, examples being, polite interaction of government officials and satisfaction with amount of time taken to finish the work.

Recommendations: In almost all the activities related to information availability, location of service availability, efficiency of services and use of ICTs, telecom sector is scoring better than the electricity sector. The telecom sector also offers insights on processes in sustaining the service delivery post customer acquisition.

The recommendations for the electricity sector include: improving customer relationship management practices; ready availability of information on procedures and documents related to getting new connection and renewing old connection including estimated time frames; improved customer interactions at the supplier's own offices or call centers; increased payment channels that are available to the consumers; enhancing legalized ownership for the poor and formalizing intermediaries like landlords to enhance the access; tracking of complaints / applications to increase the accountability in the service delivery; prior information sharing on problems like blackouts for better management through alternatives by the consumers; encouraging business registration and sharing the database with local market opportunities; adapting business intelligence to offer dynamic tariff structure in public services delivery; creating network externalities for the electricity ownership, especially for the poor through receipts; and exploring third party services to compensate the demand and supply gap

1 Introduction

The report attempts to understand the ways by which public service delivery in low and middle income countries can be improved through electronic means. It has been repeatedly reasoned that emergence of information and communication technologies (ICTs) has enabled to leapfrog many stages in bringing better governance in low and middle income countries (Basu, 2004; Schuppan, 2009). Heeks (2001) argues that use of ICTs in selected areas of government will result in better governance. In other words, ICTs can be used for automation - replacing manual processing of information , informatization - use of information for decision making, and transformation - use of ICTs in new methods of public service delivery to generate efficiency gains in governance that is cheaper, productive and quicker. He also argues that egovernance brings better developmental outcomes through e-administration - faster processes within administration by using ICTs, e-society - by linking business and government, and e-citizens & e-services- by interconnecting citizens and public utility services. As the governments in developing world are gearing towards electronic mode, multiple modes of delivery are being contemplated.

The desired outcomes of egovernance are either derailed or slowed down by the exiting barriers both internal and external. Some of them include, legislative and regulatory barriers, budgetary barriers, technological change, and the extant digital divide (OECD, 2003). Some of these barriers are seem to be overcome by the emergence of mobile phones, a low cost communication device. These devices are being treated as a panacea to deal with the digital divide in many poor countries (Chaudhuri, 2010; Finger, Rossel and Misuraca, 2006; Lirneasia, 2008). The growth of mobile phones are largely credited to the competitive market forces (Samrajiva, 2010), which are made possible by policy reforms in the telecommunications arena. Needless to say, mobile phones are increasingly pervading into lives of citizens in the low and middle income countries (Donner, 2008; Lirneasia, 2008; Tsao, 2013). The mobile phones are being explored for delivering governance related services or public utility services (Ojo, Janowski and Awotwi, 2013; Singh and Sahu, 2008).

The penetration and continued use of mobile phones are possible only due to the network access provided the service providers who are mostly private players in the developing world. Telecom service providers in the developing world are able to cater to the larger amount of poor customers who have relatively insignificant amount of money to spend on mobile phones (Samrajiva, 2010). The sustained use of mobile phones and its impact (for instance, World Bank, 2012) on the poor would not have been possible without a better service quality by the telecom service providers. The telecom service providers are able to provide better services, even with the larger amount of poor in their customer base. The present study tests this assumption about the existing better service delivery by the telecom service providers, especially for the poor people or Bottom of the Pyramid (BoP). This also leads to the next question for the study, whether telecom service providers' service delivery can be emulated by the public utility service providers.

To attain this goal, an empirical study among BoP microentreprenuers (MEs) in three countries, Bangladesh, India and Sri Lanka was conducted. The report is based on the findings emerging from the data. The study explored the nature of service delivery in the telecom sector, in other words, whether customer relationship management systems are effective in the telecom sector in these developing countries. In order to understand and compare the differences in service delivery efficiency data were collected on the electricity sector, business registration department and and other public utility offices.

The objectives of the report are three fold: how is the service delivery in the telecom sector in low and middle income countries?; whether similar service delivery is present in the most important public service sector, electricity and other public utility service offices, including business registration? and whether lessons from telecom sector can be translated to the public service delivery. The report is divided into eight sections. The first section introduced the scope and need for the research. The second section describes the methodology adopted by the study based on which the report is written. The third section describes the sample at two levels - microentrepreneurs and microenterprises. The next three sections share the observations on service delivery in the telecom sector, electricity sector, business registration and other public service offices. Ownership and uses of mobile phones and electricity, along with details on business registration are also discussed in this section. The seventh section compares two locations, good and weak governance on telecom, electricity and other government sectors in the three countries. The final section discusses the findings of the study in the light of lessons that can be translated from telecom to the public sectors.

2 Methodology

A survey was conducted among the BoP urban microentrepreneurs (MEs) in three countries, Bangladesh, India and Sri Lanka. The study defined microentrepreneurs as those who employed less than ten hired workers, i.e 0-9. The hired workers are paid employees or full time equivalent, excluding the owner. This is an adaptation of international definition followed by World Bank and European Commission*1*. BoP or the poor is identified as those who occupy C, D & E levels in the socio economic category (SEC) classification in Bangladesh and Sri Lanka. It was SEC D & E levels in India. Please see Annexure 1 for the SEC classification in three countries. In all the three countries, only cities or urban localities as defined by the respective national governments were selected for the study. The owners of the microenterprise who are older than 14 were included in the study.

There were small changes made in the study during the middle of fieldwork, as we were not able to find desired number of MEs in the certain worker categories. In Bangladesh, SEC B1 and B2 were included to cover the MEs in 1-3 and 4-9 worker categories. In India, SEC B2 was added to achieve the quotas for 1-3 and 4-9 workers categories in Patna city. Whereas in New Delhi, SEC C was added

[1] Please see for details: http://europa.eu/legislation_summaries/enterprise/business_environment/n26026_en.htm

to cover MEs with 4-9 employees. In Sri Lanka we were not able to find the adequate number of MEs in the 1-3 and 4-9 workers category and extended the framework to include SEC B1 and B2.

In each country, two cities were selected, the capital city and another city which is weaker in terms of governance. The governance was inferred by the proxy indicators related to the human development of the province / state in which the city is located. The study assumed that BoP MEs would experience differential efficiency levels in customer services in these two locations due to overall difference in governance levels. The government performance of strong and weak provinces / states in which cities are located are presented in Annexure 2. In Bangladesh, Dhaka, the national capital city and Gaibandha and Kurigram cities from the Rajshahi Division were selected. In India, New Delhi, the National Capital city and Patna, capital city of Bihar State or province were selected on the basis of data available on cities. In Sri Lanka, Colombo, the national capital city from Western province and four urban centers, Kurunegala and Kuliyapitiya from Kurunegala district and Puttalam and Chilaw from the Puttalam district were selected. As the number of MEs were inadequate in the selected weaker locations in Bangladesh and Sri Lanka, additional urban centers or cities were selected.

The respondents for the study were selected through multistage cluster sampling method. This method is appropriate when the researcher does not have access to the list of units in the population to select the sample (Babbie, 2009). 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. We picked up the cities 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. In few instances, for the 6-9 workers category, we used snowball sampling to find the respondents, but within the same block. In India, the city is divided into wards by the Election Commission of India. The list of wards was taken and sixteen wards were selected through systematic sampling process. Within each ward, all the streets were listed alphabetically. Every third street was selected and respondents were found for the study. In Bangladesh, cities were divided into wards, then mahallas and then streets. Similar method as in India was followed. As some of the wards were inaccessible due to incessant hartals (public protests) and governmental restrictions, additional wards were selected using the similar process.

The sample size for each country was as follows: Sri Lanka – 900, India – 1200 and Bangladesh - 900. In each country, the respective sample was divided equally between the two locations differed by levels of governance, strong and weak. The numbers were decided after considering the required number of cases for statistical analysis and amount of funds available for the study.

As the countries did not have specific data on MEs, in other words, there was lack of data on BoP MEs, closest data extant national statistics on microenterprises was used to determine the quotas of the MEs in the sample. Also, composition of MEs on parameters like location, gender, industrial

domain and number of workers were not uniformly available across the countries, in each country different parameters, determined by the availability, were used in deciding the composition of the sample. The composition of MEs in the population and the sample is presented in Annexure 3.

A single questionnaire was used across the three countries. A colloquium of fifteen experts from all the countries were assembled in Colombo city and possible items for the questionnaire were deliberated. The experts were from the electricity, telecom, egovernance and MEs domains. The questionnaire was constructed using the items gathered in the colloquium. The draft was reviewed by the experts over the email and a skype conference. After modifications, questionnaire was pilot tested in the three countries with a total of 30 respondents. On the basis of feedback, questionnaire was modified and finalized. The final questionnaire was translated into four languages, Sinhala, Tamil, Hindi and Bangla. The translation was cross checked by the native speakers who have English efficiency almost equal to native speakers.

The questionnaire had six sections with the following headings - microenterprise details, ICT access and use, CRM in telecom, access and CRM in electricity, CRM in government services, privacy & trust[2] and respondent details. The questionnaire is appended as Annexure 4.

The study approached service delivery from the customer relationship management perspective. Starkey, Williams and Stone (2002) use the definition of Woodcock et al., (2000) to define customer relationship management, According to them, "customer management is about finding the right customers, getting to know them and growing their value, and retaining their business". To quote (p. 379):

> "It (CRM) is achieved by companies enabling their people, processes, policies, suppliers and customer-facing technologies to manage all customer interactions proactively during each stage of customer lifecycle in a way that enhances each customer's experiences of dealing with the company."

The customer lifecycle involves the following stages: targeting the new customers, managing the enquiries from potential customers, welcoming new customers, getting to know them, development them, managing their problems and winning back, if they leave. The study designed the questionnaire to cover these stages.

The Nielsen Private Limited, an international market research agency was commissioned to conduct the fieldwork. It organized a three day training program for the interviewers separately in the three countries. A member from the research team participated in the training program. The training program involved discussion of the study objectives, understanding of the questionnaire and the

[2] This report excludes the discussion on privacy and trust, as it falls beyond the scope.

sampling process. Few mock interviews were also conducted to enhance the familiarity with the questionnaire.

The fieldwork was conducted during March – May 2013. After identifying the valid respondents, the response rate for Bangladesh, India and Sri Lanka were 80 %, 99% and 86% respectively. The final sample size is 3180 (Bangladesh - 986, India - 1279 and Sri Lanka – 915). The final report presents the currency values in US dollars. The exchange rates used are, 78 Taka (Bangladesh), 54 Indian Rupees (India) and 124 Lankan Rupees for one US dollar.

3 Sample description

The samples across three countries show some differences in education, banking access and the nature of businesses, which might be affecting the way ICTs are used in receiving services from the providers. The sample description will be done at two levels: individuals and enterprises.

3.1 Entrepreneur characteristics

In the total sample of 3180 MEs, 15 % are women. The share of female owners is high for Sri Lanka with 26% followed by India, 12 % and Bangladesh 9%. Across the three countries, the trends being same, 85% of the sample is married and 74% are the only earning member in the family. On an average, ME owners have five family members (SD=2.5) and are 38 years old (SD =11). India and Bangladesh seem to have slightly larger family size with 6 (SD=2.7) than Sri Lanka, 4. Sri Lankan ME owners are slightly older 41.8 years (SD=10.8) when compared to India and Bangladesh, 36 years (SD=10).

Almost all in the sample have education higher secondary or below, with nearly one fourth are illiterates. India has higher percent of illiterates with 41, followed by Bangladesh, 17% and Sri Lanka 7. 64% of the MEs can do simple addition, subtraction and multiplication when compared to 8% of those who cannot recognize or write numbers. MEs with poor mathematical abilities are less in Sri Lanka with 1% when compared to 10% in Bangladesh and 14% in India. Similarly, Sri Lanka has more people with better mathematical skills, 81% when compared to Bangladesh, 69% and India 46%. Roughly half of the sample has a bank account in their names. Sri Lanka has highest bank penetration with 70% followed by India, 45% and Bangladesh 39%. The characteristics of the sample MEs are summarized in Table 1.

3.2 Microenterprise characteristics

Of the total MEs studied, 53.4% have no worker, 36% have '1-3' workers and 10.4% have '4-9' workers[3] (See Table 2). This composition is resultant of quotas determined by the national trends and selection of MEs in the BoP space. Within countries, there are differences in compositions. In Sri Lanka, nearly half of the MEs have workers in the range of 1-3, followed by 35.6% of MEs with no workers. In India, zero worker MEs are 80%. In Bangladesh, 1-3 workers category MEs are 57% and no worker MEs are 36%.

Table 1: Characteristics of the sample micro entrepreneurs

SNo	Description	Total Sample (3180)	Sri Lanka (986)	India (1279)	Bangladesh (915)
1	Percentage of MEs owned by women	15	26	12	9
2	Percentage of owners who are married	85	86	85	81
3	Percentage of owners who are only earning members of the family	74	71	74	77
4	Mean number of family members in the family (Standard Deviation)	5 (2.5)	4.41 (1.63)	6.03 (2.75)	5.51 (2.58)
5	Percentage of owners who have no education / Illiterates	21	7	41	17
6	Percentage of owners who cannot recognize or write numbers	8	1	14	10
7	Percentage of owners who can do simple addition, subtraction & multiplication etc	65	81	46	69

[3] Sum of paid full-time, paid part-time and paid occasional workers in the MEs.

8	Percentage of owners who have bank accounts in their names.	51	70	45	39
9	Mean age of owners in years (Standard Deviation)	38 (11)	42 (10.8)	36 (10)	36 (10)

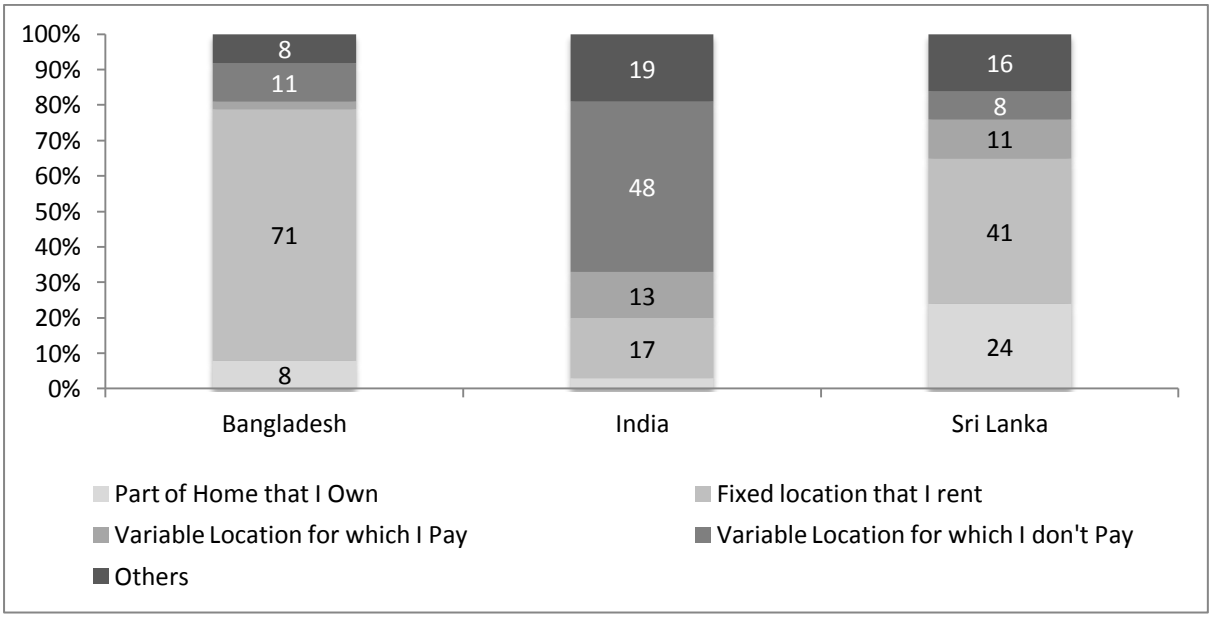
Table 2 : Number of workers in the sample groups

No. of workers	Total Sample (3180)	Sri Lanka (986)	India (1279)	Bangladesh (915)
0	53.4	35.6	80	36
1-3	36	49	11	57
4-9	10.4	15	8.7	7

Note: Figures in percentages

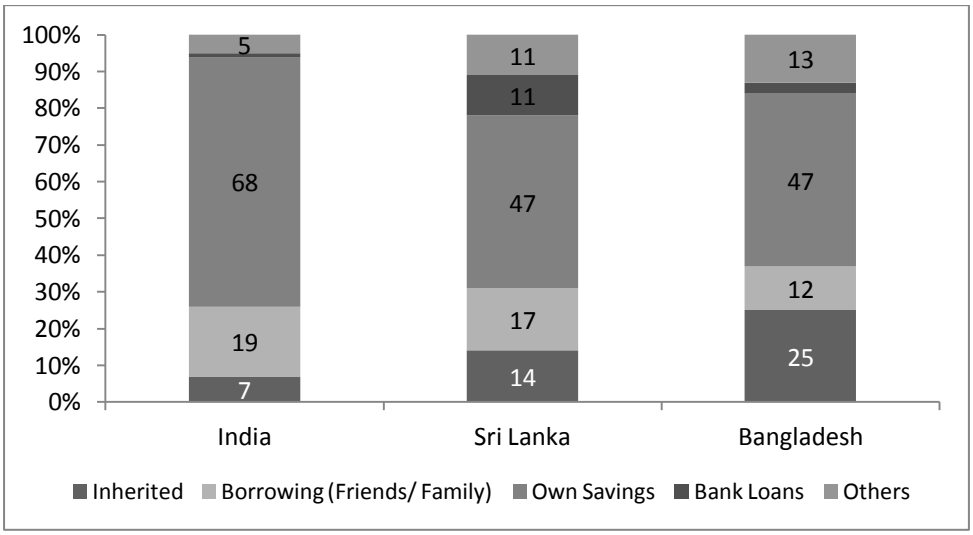
40% of the MEs operate out of owned fixed location, outside the home followed by 25% of MEs operate in unpaid variable locations (See Figure 1). There are variations across the countries. 71% of Bangladeshi MEs operate from rented fixed location, outside home when compared to 41% of Sri Lankan MEs, whereas in India its only 17%. Almost half of Indian MEs operate in unpaid variable location when compared to 11% Bangladeshis and 8% Sri Lankans.

Figure 1: Location of sample micro entrepreneurs



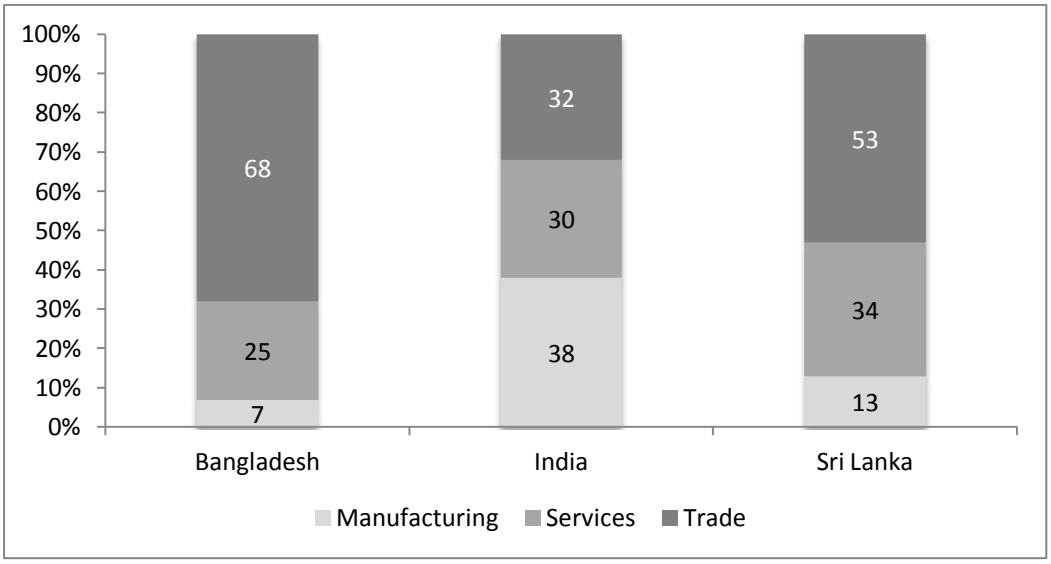
The main source of money to start business comes from own savings in 55% of cases followed by 16% of borrowing from friends and relatives. In India, own savings started the business in 68% of MEs compared to 47% in Bangladesh and Sri Lanka. The next biggest sources are 'inherited' in Bangladesh, 25% and borrowing from friends and relatives in Sri Lanka, 17% (See Figure 2).

Figure 2: Main source of money to start the business



Roughly half of the MEs are in trade (buying and selling goods and wares), followed by 30% of services MEs and 20% in manufacturing. Indian MEs are scattered across three domains, whereas half of Sri Lankan and 68% Bangla MEs are in trade. Only 7% of Bangla MEs are in manufacturing compared to 13% in Sri Lanka (See Figure 3).

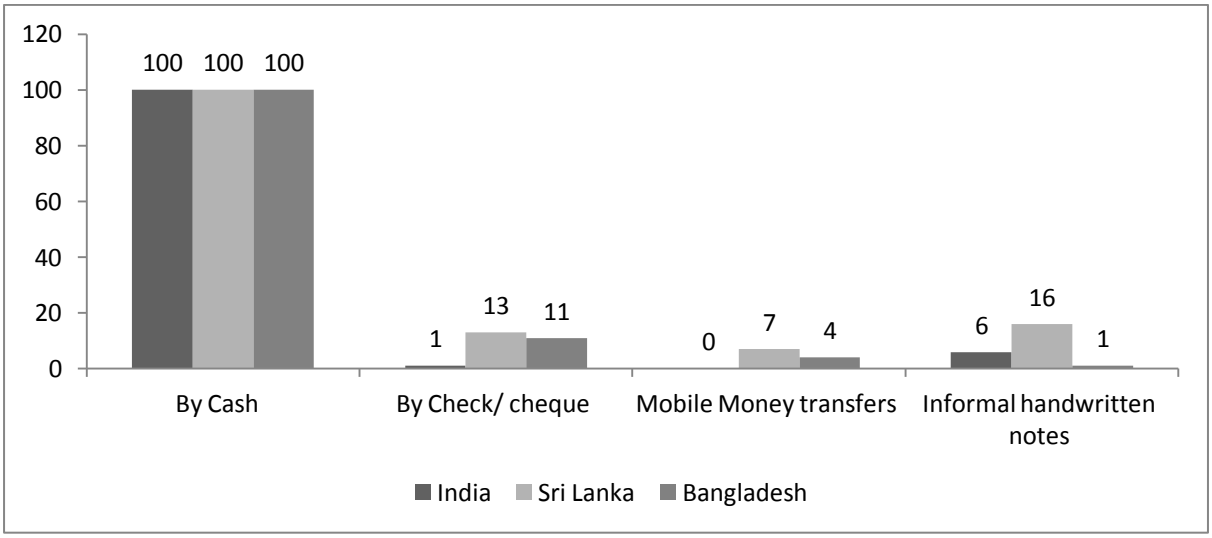
Figure 3: Industrial domain of the microenterprises



Just 3% of sample MEs advertise. Sri Lankans are slightly better with 6% when compared to 3% of Bangladesh and none in India. Overall, less than one tenth of sample MEs have a business bank account, as in India. Slightly more than half of Bangla and Sri Lankan MEs have a separate bank account to use just for business purposes. Almost all sample MEs, make or receive payments by cash in their businesses than any other modes (See Figure 4). Indian MEs deal only in cash. 7% of Lankan MEs use mobile transfers and 11% Bangla MEs use cheques /checks.

Except 6% of sample MEs, all prefer to interact with customers in-person than mobile phones. 90% of MEs in India and Sri Lanka prefer personal interaction when compared to 98% in Bangladesh. There are slight variations when compared to interactions with suppliers, in which 90% of MEs prefer personal interaction. The trend is similar across countries, with slight difference in Bangladesh, 94%. A summary of the above is presented in Figure 5.

Figure 4: Mode of money transaction by the sample MEs

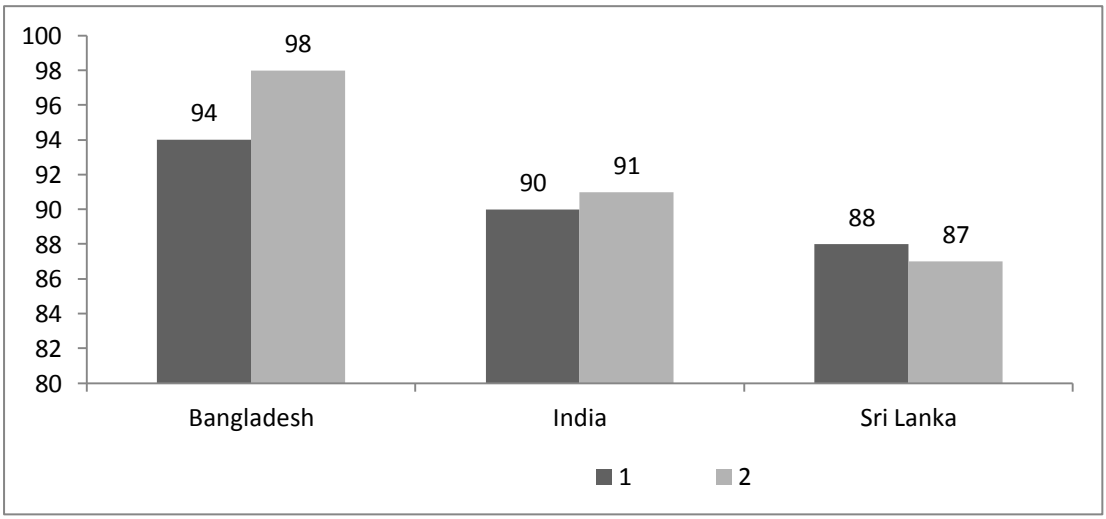


Notes:

1. In my business, interacting with suppliers in person is preferred than mobile phones.
2. In my business, interacting with customers in person is preferred than mobile phones.

Nearly two thirds of sample MEs have customers who live nearby. For India and Sri Lanka, it is in the range of 63-66% when compared to 86% of Bangladeshi MEs (See Figure 6). 85% of MEs in the study utilize the extra income / profit from the business for both home and business use, compared to 7% of exclusive business use. The trend is similar across the three countries.

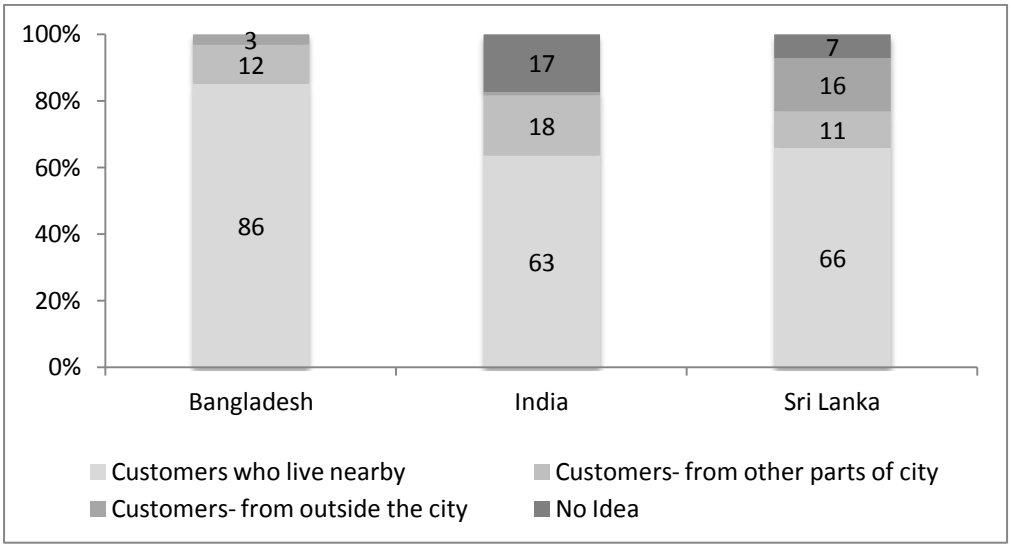
Figure 5: Mobile use preferences with suppliers & customers



Notes:

1. In my business, interacting with suppliers in person is preferred than mobile phones.
2. In my business, interacting with customers in person is preferred than mobile phones.

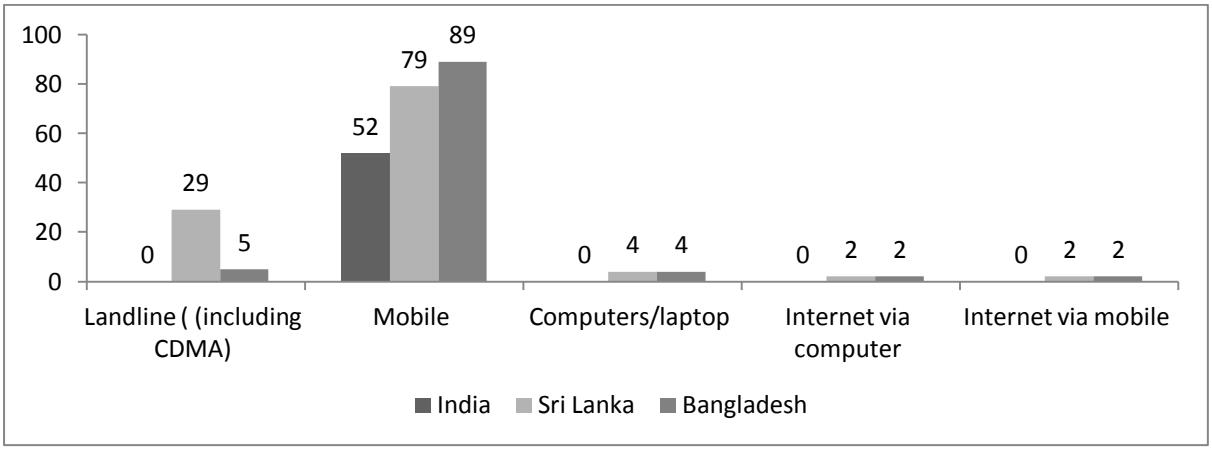
Figure 6: Nature of customers



44% of the MEs feel that business growth is same when compared to a year ago and rest divided equally between growing and declining MEs. Stable MEs are higher in India, 57% when compared to 38% in other countries. Declining MEs are higher in Sri Lanka, 38% when compared to 33% of Bangladeshi and 17% Indian MEs.

Among various ICTs, mobile phones are used predominantly used by the MEs. 71% of the sample MEs use mobile phones for business related activities compared to use of landline, 9%, and computer or laptops, 3%. Accessing Internet either through mobile phones or computers is around 1%. Similar use of mobile phone is high in Bangladesh, 89% when compared to Sri Lanka, 79% and India 52%. Landline is still prevalent among 29% Sri Lankan MEs, 5% Bangladeshi MEs and none in India. Accessing Internet is 2% in Bangladesh and Sri Lanka, with none in India (See Figure 7). This trend is similar to earlier studies (for instance, Ilavarasan and Levy, 2010)

Figure 7: Use of various ICTs by micro entrepreneurs



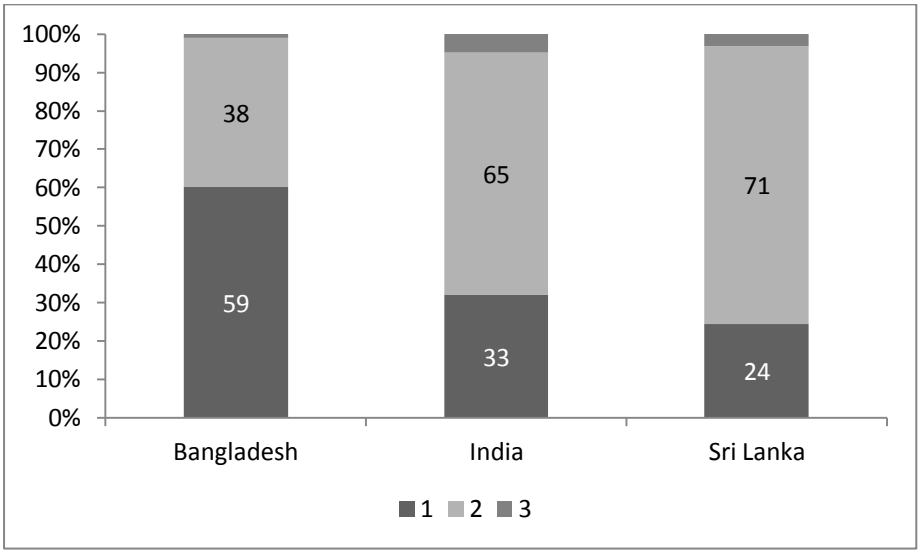
4 Service delivery in the telecom sector

Service delivery in the telecom sector was understood using set of items in the questionnaire that captured both access and use of mobile phones along with the nature of interactions mobile subscribers, MEs in this case; they had with the service providers. As the sample is selected through a multi stage cluster sampling, generalization of findings to the population seems to be feasible.

71% of the sample MEs use mobile phones for business related activities compared to use of landline, 9%, and computer or laptops, 3%. Accessing Internet either through mobile phones or computers is around 1%. Similar use of mobile phone is high in Bangladesh, 89% when compared to Sri Lanka, 79% and India 52%. This infers that the telecom firms can still have unmet demand from the MEs, the sample had 29% of MEs not owning any mobile phones. Landline is still prevalent among 29% Sri Lankan MEs, 5% Bangladeshi MEs and none in India.

Accessing Internet is 2% in Bangladesh and Sri Lanka, with none in India. Out of the those who do not use the mobile phone for the business, 59% of Bangla MEs feel that phones are too expensive when compared to 75% of Sri Lankans and 65% of Indians who 'do not see a need to use a mobile for business' (See Figure 8). Recent research indicates that mobile Internet is increasing among general population in low income countries.[4]

Figure 8: Reasons for not using the mobile phones for business



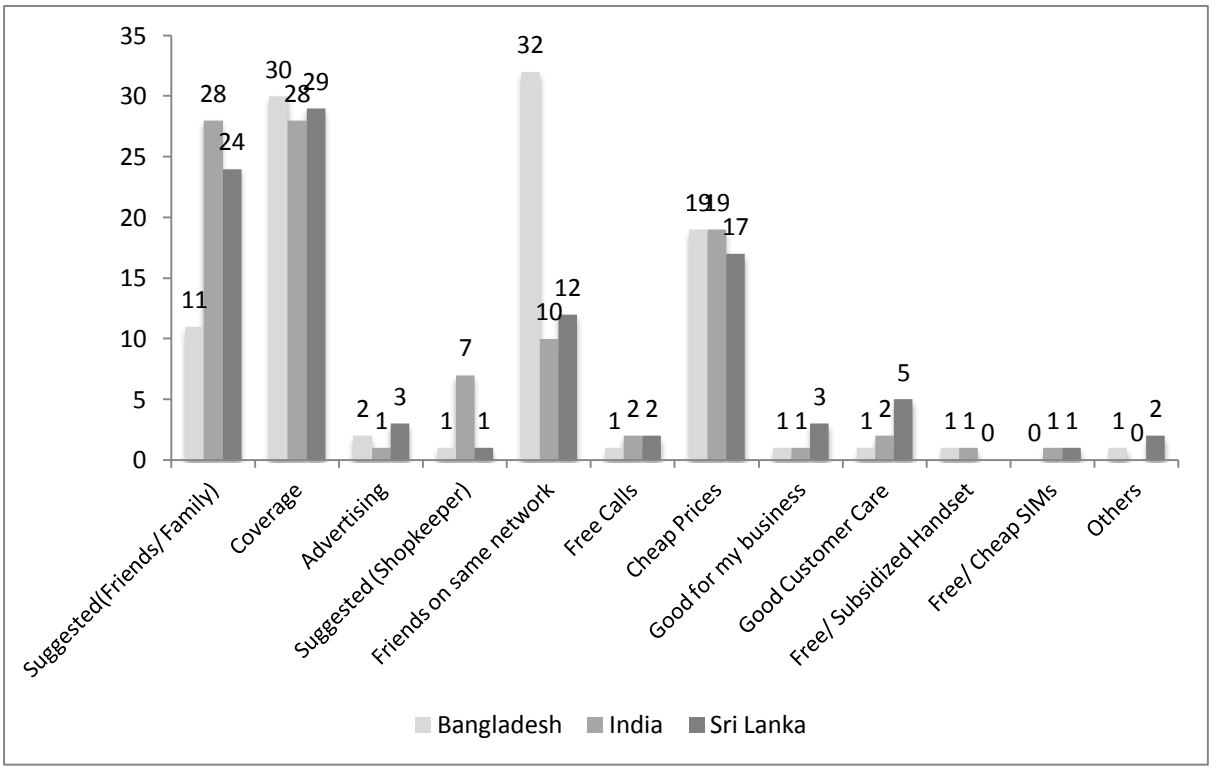
Note: 1. Too expensive for me to afford; 2. Don't see a need to use mobiles for business; 3. Others

Grameen Phone (18%), Banglalink (11%), Bharti Airtel (7%), Vodafone (8%), and Dialog (16%) etc are some of the telecom service providers are used by the MEs. Respondent MEs said that the following are the four major reasons for selecting a particular service provider (See Figure 9): coverage (29%), referral by friend / family (20%), most friends on same network (19%) and cheap

[4] For instance, http://www.thenews.com.pk/Todays-News-3-217906-Usage-of-mobile-internet-on-the-rise-in-Pakistan.

prices (18%). The top three reasons are same across the three countries, but with slight variations. In India referrals and coverage come on top with 28% each. In Sri Lanka, coverage tops with 29% followed by 24% of referrals. Bangladesh offers a different story with 32% come from 'most friends on same network' followed by 30% coverage and only 11% referrals. Its interesting to note that MEs are not completely driven by cost factors while subscribing to a provider. Apart from referrals, arising out of satisfaction over services, coverage - ability to receive or make calls in any given point of time is cited one of the major reasons across the countries. Extant research (for instance, Wangenhiem and Bayon, 2007) shows that customer satisfaction affects word of mouth referral making, which in turn affects new customer acquisition.

Figure 9: Reasons for selecting a particular service provider



Telecom service providers do not perceive MEs as a special group that need to be developed or groomed into a big market. At appears that MEs are treated like any other BoP customer who has low disposable income for telecom spending. 96% of the sample MEs use pre-paid connections. In India, there is no post paid connected ME. In Bangladesh, its 99%, much higher than Sri Lanka, 89%. As the sample is predominantly pre-paid, post-paid subscribers are only 98 MEs in number. Out of these 98 MEs, 84 are from Sri Lanka and eleven are from Bangladesh. The rest of the discussion is based only on Sri Lankan MEs, as the numbers are insignificant for other countries. 44% of MEs feel that they received a special package from their mobile service providers. Out of this, 43% get cheap rates, followed by 14% get free talk time or cheaper rates within the group. Among the post paid mobile users, hard copy bills are more prevalent, 94%, and rest received via SMS. The contents of the bill are clear to 87% of post paid MEs. Post paid MEs prefer paying through registered office of the

service provider, 45%, followed by payment through local dealer, 39%. Telecom firms are making efforts to increase the number of post paid subscribers using different incentives, reducing the entry barriers. For instance, Airtel, a leading telecom service provider brand has introduced customizable plan for the new post-paid users.[5]

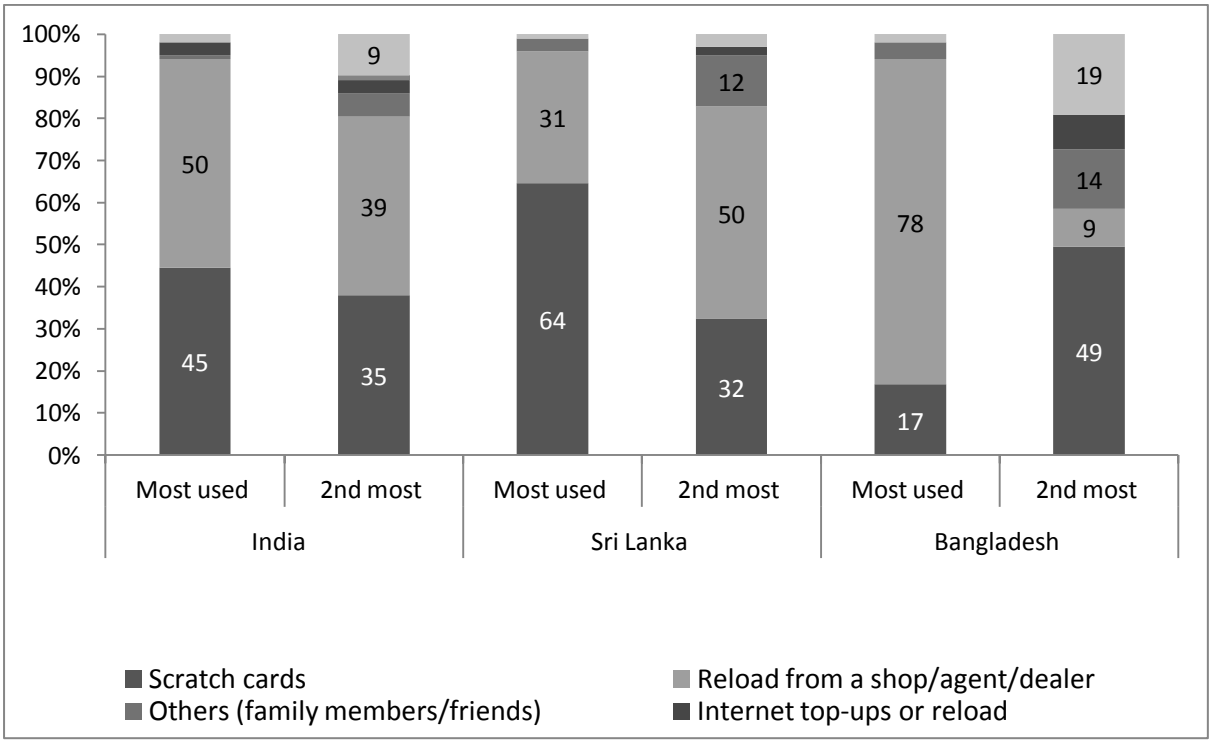
While coming to ownership of number of SIMs, more than three fourth of the sample, 79%, have one SIM and 18% have two SIMs. 30% MEs in Bangladesh have two SIM cards compared to 14% in India and 10% in Sri Lanka. The median recharge value per week for the sample hovers around one dollar compared to $ 0.93 of India, $1.98 of Sri Lanka and $1.28 of Bangladesh. The frequency of recharging is 4 times for 32% of the total sample. Bangladesh MEs recharge, ten times a month (every three days) when compared to four times of India and five times of Sri Lanka.

It appears that Bangladesh holds more SIM cards, recharges more times and relatively higher amounts. At the bottom, Indian MEs hold single SIM cards more, spend less money on recharging and less frequently. As a first option, recharging is done through a shop / agent / dealer more (54%) followed by the scratch cards (41%), by the MEs (See Figure 10). These two options are used in three countries as well, with some differences. Reload from a shop / agent / dealer is dominant for India (50%) and Bangladesh (78%), and scratch card for Sri Lanka (64%).

The telecom service providers have created an enabling infrastructure through which multiple recharges of low values are available to the BoP. Through third party vendor or small dealers, MEs are able to reach out the service providers in a nearby location. The service delivery is not just managing the customer problems, but making the services easy to access as in the case of recharging. On an average, Sri Lankans and Indians have median monthly expense for the mobile phones of eight and nine dollars respectively when compared to six dollars of Bangladeshis.

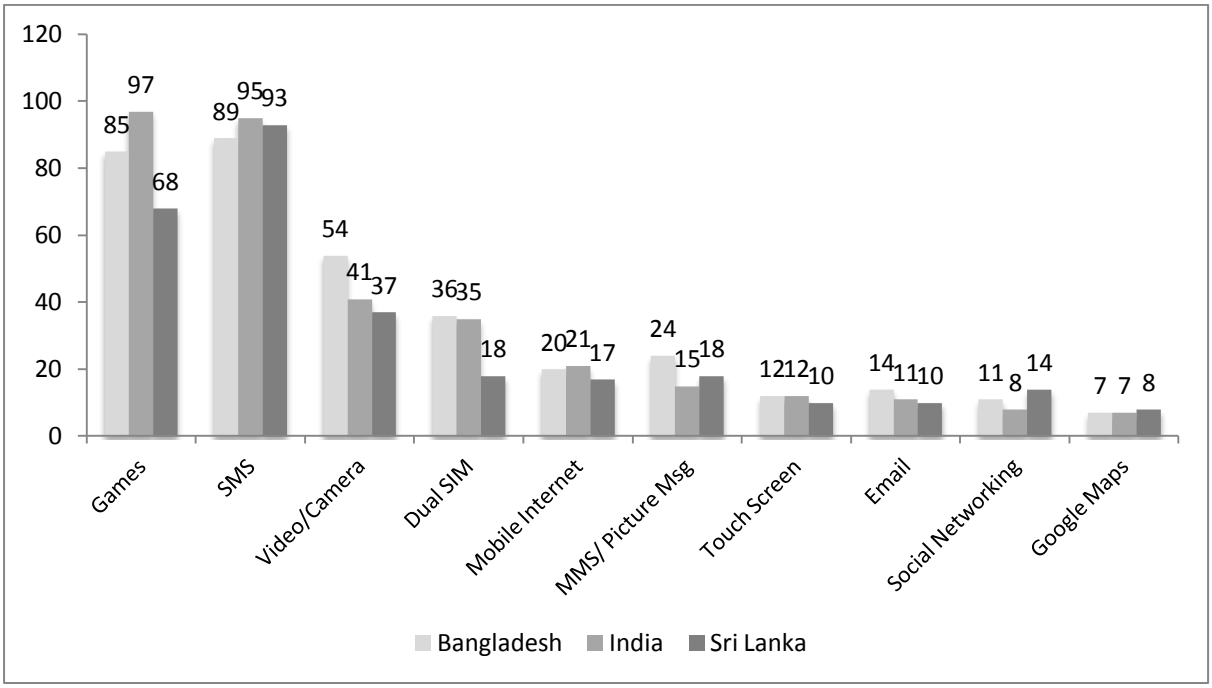
[5] Aulakh, G. (2013, October 11th). Airtel unveils customized plans to increase its post-paid customer base. *The Economic Times*. Available at http://articles.economictimes.indiatimes.com/2013-10-11/news/42942349_1_customer-base-bharti-airtel-plan

Figure 10: Modes of recharging of mobile phones by the sample



The nature of mobile phones seems to be still basic or feature phones (See Figure 11). On availability of touch screen, in India and Bangladesh, it is 12% when compared to 10% of Sri Lankans. Of those who know the availability of touch screen almost everybody is using that. On mobile Internet, India and Bangladesh have slender lead with 21% when compared to 17% of Sri Lankans. In terms of use, Sri Lankans use more than, 43%, Bangladeshis, 35% and Indians, 15%. Mobile based social networking is not penetrating much in the sample. Only 14% of Sri Lankans have Apps for social networking in their phones when compared to equally low Bangladeshis, 11% and Indians 8%. However, among those who are having, 51% of the Sri Lankans use them as 49% of Bangladeshis, which is much higher than Indians, 10%. Though the findings indicate predominance of basic phones, it is also likely the micro entrepreneurs are not familiar with the functions. For instance, one more question on availability of SMS, 10% Bangla MEs responded in negative as in smaller amount in India, 5%, and Sri Lanka, 6%. Though these numbers are small, SMS is ubiquitous with the mobile phone penetration.

Figure 11: Features present in mobile phones of the sample



It appears that mobile phones are yet to be utilized in other domains like banking, payments, government services etc. The study listed out the following services: banking and financial services (e.g. checking balance statuses in a bank account, mini-statements and checking of account history, monitoring term deposits, access to loan statements, ordering checkbooks etc.); making or receiving a payment (e.g. paying utility bills such as electricity/water bills, telephone bills, paying insurance premiums, reloading mobile phones etc.) or sending or receiving money to/ from someone; governmental services (local, state or central) (e.g. Payment of property taxes for residential & commercial properties, applying for water/electricity/telephone connections, registration for birth and death certificates, filing of passport forms); health services (e.g. telemedicine consultations, wellness clinic programs, health check packages, channeling a doctor etc.); competition polls or participation in other live programs on TV or radio; entertainment related information services (e.g. sports updates, horoscopes, TV and movie updates, etc) and other general information services (e.g. news, etc.). Out of the listed services in the Table 3 given below, making or receiving payment tops the list with 6.5% in the sample. This is largely due to higher use in Sri Lanka, 9% and Bangladesh, 8%. Sri Lanka seems to be moving ahead when compared to other countries, in entertainment related information services or participating in competition polls. Bangladeshis are catching up in health related services and news. India is lagging behind in all areas.

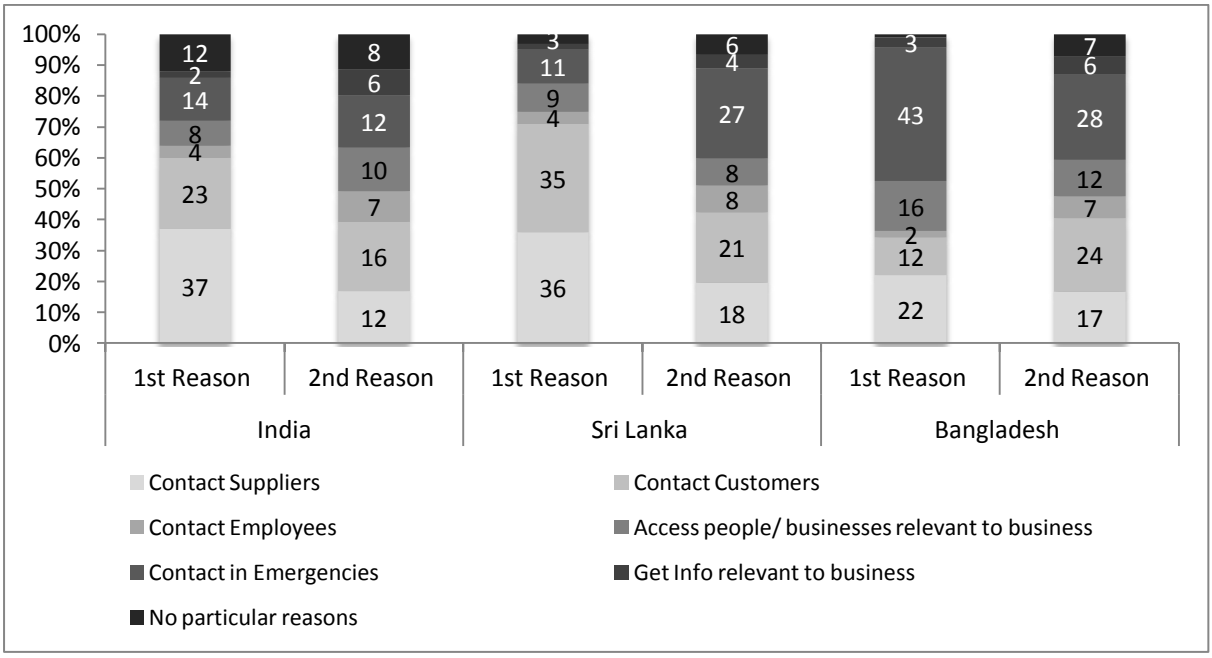
Table 3: Use of mobile phones

Accessed services by the mobile phones	Sample (2254)	Sri Lanka (775)	India (665)	Bangladesh (814)
Banking and financial services	2.1	3	1	2
Making or receiving a payment	6.5	9	2	8
Governmental services (local, state or central)	0.6	1	0	1
Health services	3.4	3	1	6
Competition polls or participation in other live programs on TV or radio	3.1	9	0	0
Entertainment related information services	3.5	7	1	2
Other general information services	5.3	7	1	8

Note: All figures are in percentage and of respondents who said 'Yes' to the questions. The other option was 'No'.

In the sample, out of the most important reasons for using mobile phones for business (See Figure 12), 'contacting and coordinating with suppliers' leads with 31% followed by 'to act or contact others in an emergency', 23% and 'to contact or coordinate with customers', 23%. Across the countries percentage of MEs who cite these reasons are varying, however coordination with suppliers tops the list in India, 37%, and Sri Lanka, 36%. In Bangladesh,its emergency, 43%.

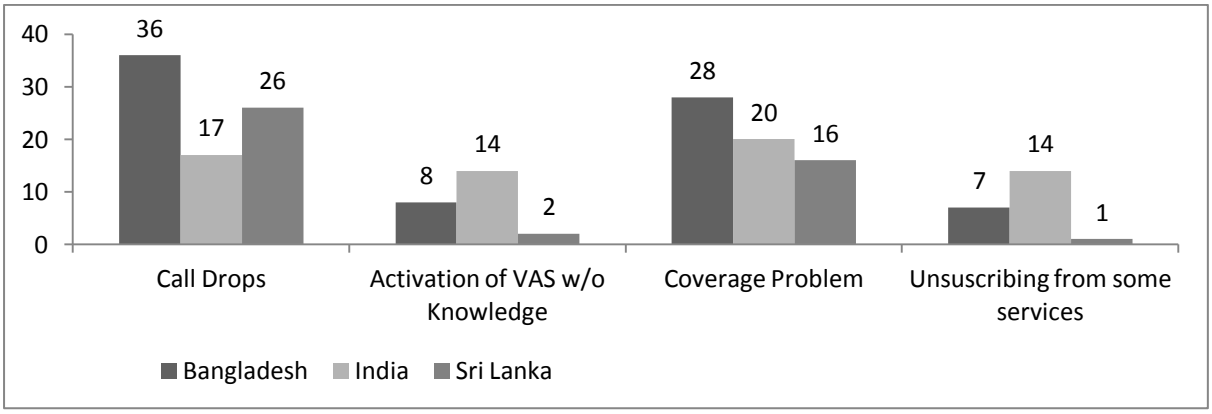
Figure 12: Usage of mobile phones by the sample



As of now, the usage of mobile phones is limited to voices as per this study. Telecom service providers might be exploring how customers are using the services and how to make them to experiment new services. But its not evident among the MEs as over the period of time use of mobile phones is limited to voice based services as reinforced in this study. However, some studies (for instance, (Kang and Maity, 2012; Silva, Pulasinghe and Panditha, 2012) show that non voice use in mobile phones among the BoP are on the rise.

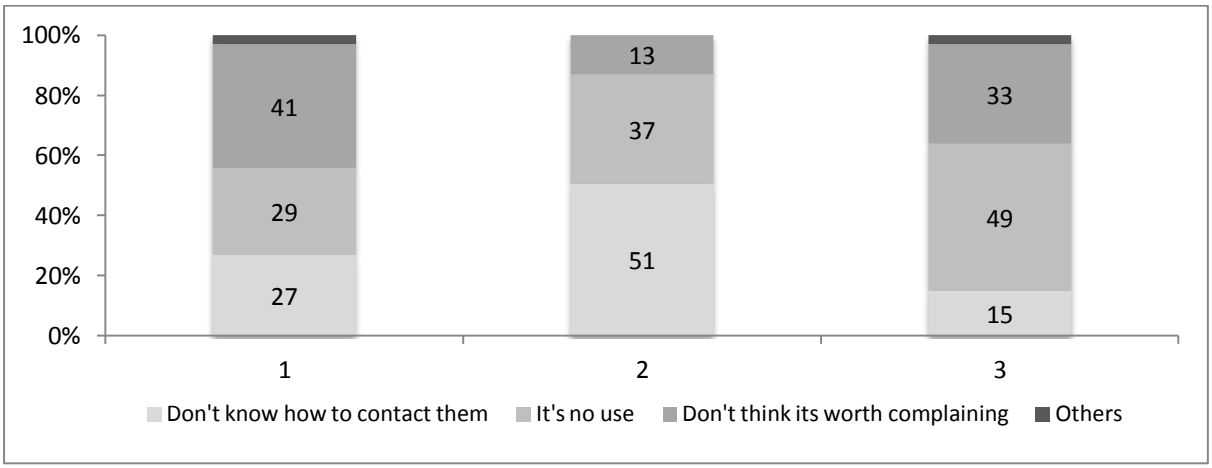
It appears that service delivery by the telecom service providers is good in all three countries. When asked about major problems faced by MEs, half of the sample responded that there were no problems by citing that the question is not applicable. Sri Lankan MEs are more satisfied, as 62% said problems are not applicable, 62%, followed by Bangla MEs, 46% and Indians, 45%. Among the rest (See Figure 13), call drops (26%) and lack of coverage (16%) are two major problems faced by Sri Lankan MEs. Similar trends are seen in Bangladesh with call drops (36%) and lack of coverage (28%). Indian MEs face multiple problems: lack of coverage (20%), call drops (17%) billing related (14%), unsolicited and deceptive activation of VAS service (14%), and unsubscribing from some services (14%).

Figure 13: Telecom problems faced by the sample



Out of the MEs who faced problems as discussed above, only 41% complained to the service providers. Part of the reason for not complaining can be explained by the following responses (See Figure 14). Out of the sample 33% felt that the problem was not worth complaining and 37% felt that complaining is not of any use and 29% do not know how to contact them. There are some differences across countries. In India, more MEs, 51%, do not know how to contact the service providers. In Sri Lanka, 49% MEs felt that the complaint is of no use, whereas in 41% MEs in Bangladesh did not think the problem is not worth complaining.

Figure 14: Reasons for not contacting despite telecom problems



Notes: 1 - Bangladesh; 2-India; 3 - Sri Lanka.

When we asked them whether network dis-connectivity / call drops affect their business, 61% responded in negative. For large number of MEs in India (69%), half of Sri Lankan MEs (53%) and 61% of Bangladesh MEs, network dis-connectivity / call drops is not affecting their business. This is also partially explains the non-complaining behavior of the MEs. However, telecom service providers need to focus on those MEs that feel that complaining is of no use or do not know where to contact the companies. The intensity of network dis-connectivity / call drops was not directly measured by the

study. However, by looking at the number of MEs who said that these problems are not affecting them, one can infer the problem is not recurring one. This infers better service delivery of the telecom providers.

A small amount of MEs in the sample, 83, felt that their major complaints had not been attended by the service provider. Out of which, 73 did not go to anyone for further action and four went to police station. Only one went to the regulator. Across the sample, above 95% of the sample did not change the telecom service provider. Out of the 90 MEs who shifted to new telecom service provider, 39% cited 'to get better network connectivity' as the reason followed by 25% of 'to get better packages'. Interestingly, 22% said that there is no particular reason. As the shifting numbers across the telecom service providers are not large in number, the service providers do not have to worry about wooing them back.

We also asked the MEs about their last interaction with the service provider for which, not surprisingly, half of the sample said 'never' and 15% do not remember. Among the rest of MEs, 12% interacted few months ago, 5% interacted 'few weeks ago' and 'this week' each. 13% of Sri Lankan MEs interacted few months ago as 12% of Indian MEs and 10% of Bangladesh MEs. 11% of Indian MEs interacted this week and few weeks ago, each.

The main point of contact of service providers for MEs seems to be through call centers. Roughly, three fourth of contacted used the centers followed by one quarter of MEs that walked into the operator's stores and authorized agents. Contacts via SMS is only 1.5% and there was no email communication. There are preferential differences across the countries. 92% of Indians preferred call centers when compared to 69% of Sri Lankans and 56% walk-ins.

Further exploration into service delivery was made using eleven items (See Table 4). Out of the listed service delivery activities, 90% of the sample MEs felt that the call center personnel or officer of telecom service providers treated them politely followed by 81% MEs are able to interact in local language. 82% of MEs agreed that all the relevant information was available easily. Time take taken to address the query or problem is satisfactory for 75% of MEs and waiting time was satisfactory to 63% of MEs. Only, slightly more than one quarter of MEs in the sample felt that tracking application through phone was possible either through mobile phone or Internet. Half of MEs felt that automated responses in IVR call center were clear, information to contact the service provider and on procedures to file complaints was readily available.

Across the countries, there were some differences. Waiting time to reach concerned officer was satisfactory only to 36% of MEs in Bangladesh compared to roughly three quarters of MEs in other countries. Automated responses in Sri Lanka is slightly poor, 16% when compared to 31% of India and 27% of Bangladesh. 41% of Sri Lankans are able to track the applications through phone or Internet, but only 19% of Bangladeshis.

We created a service delivery index by adding all the responses (yes=1, no=0) to calculate cumulative score. The reliability score of service delivery index of eleven items, Cronbach'a alpha, is 0.792.

which indicates that the index is a reliable measure to the service efficiency. Sri Lanka, 7.8, scored higher than Bangladesh, 7.1, and India, 6.7. A one-way ANOVA was used to test for differences among three countries by service delivery index score. The score significantly differed across the three countries, $F(2, 500) = 6.58$, $p = .001$.

The telecom service providers can improve their service delivery in at least two areas - tracking of customers' complaints, increasing awareness about the availability of information on where to contact the service provider and where to file complaints. Though the service providers are spreading this information in television commercials or Internet, the target group of the study, BoP MEs are finding difficulties in these areas.

5 Service delivery in the Electricity sector

Unlike telecom sector, reform of electricity sector has been slow in the sample countries. The electricity sector is still predominantly either government owned or controlled. As the government has the monopoly over the electricity supply, there is no competition for customers either for acquiring or retaining. This has consequences for the way services are delivered to the people, especially BoP. The major difference between the sectors is nature of technologies; in telecom sector new entrants were able to compete through wireless technologies whereas in electricity sector the new entrants are still dependent on the incumbent's infrastructure. An earlier study of impact of privatization, competition and regulation in 36 developing countries (Zhang, Parker and Kirkpatrick, 2008) showed that the competition in electricity generation is more important than privatization or the establishment of independent regulation in bringing about performance improvements. However there are push factors from the international monetary institutions to bring changes in the electricity sector. One of the areas being better service delivery through electronic means. The study did not expect to find great service delivery or customer relationship management from this sector. But it attempted to benchmark with the telecom sector which can be used by the policy makers.

In the sample, 67% of MEs have electricity which they use for business purposes. Electricity use is higher among Bangladeshi MEs, 91% when compared to Sri Lanka, 84%. Its lowest in India, 37% (See Figure 15). This difference can be explained by the location from which MEs operate. 48% of Indian MEs operate from a variable location for which they do not pay, compared to 71% of Bangla MEs which operate from a rented fixed location, outside the homes. 78% of sample MEs felt that there is no need for electricity, similar to Sri Lanka and Bangladesh. 90% Indian MEs felt no need for electricity. Out of those MEs who have electricity, 59% have separate electricity connection for the business.

Figure 15: Nature of electricity connection of the sample

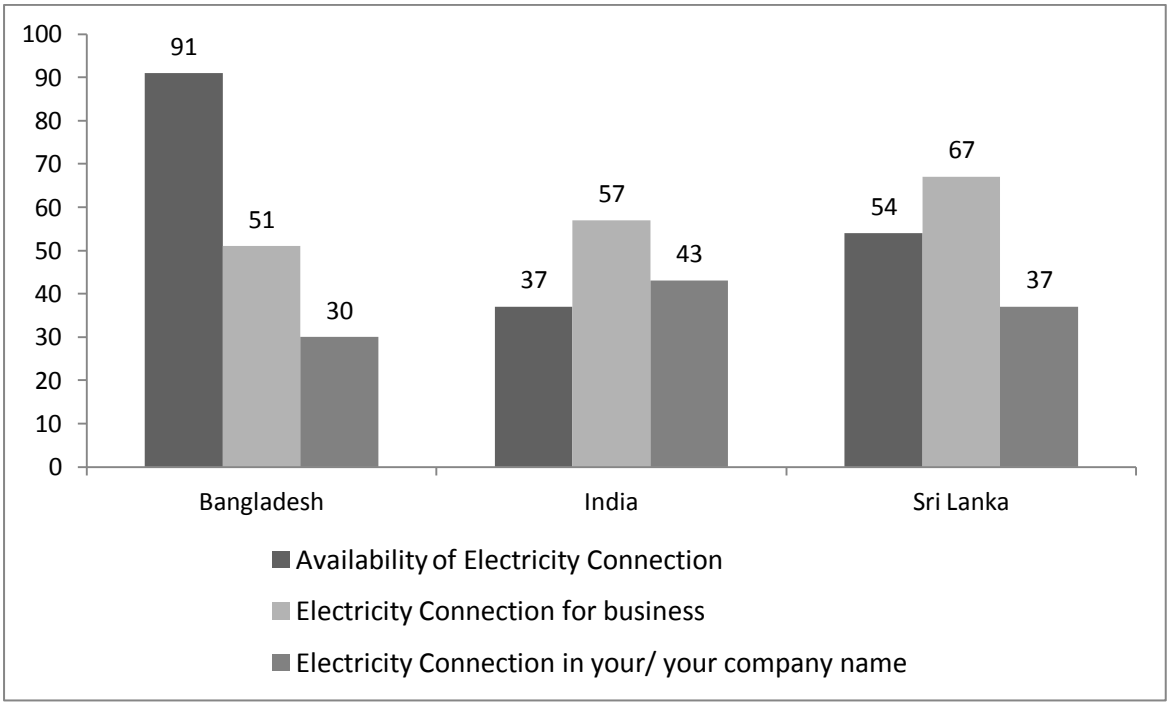


Table 4: Service Delivery in Telecom

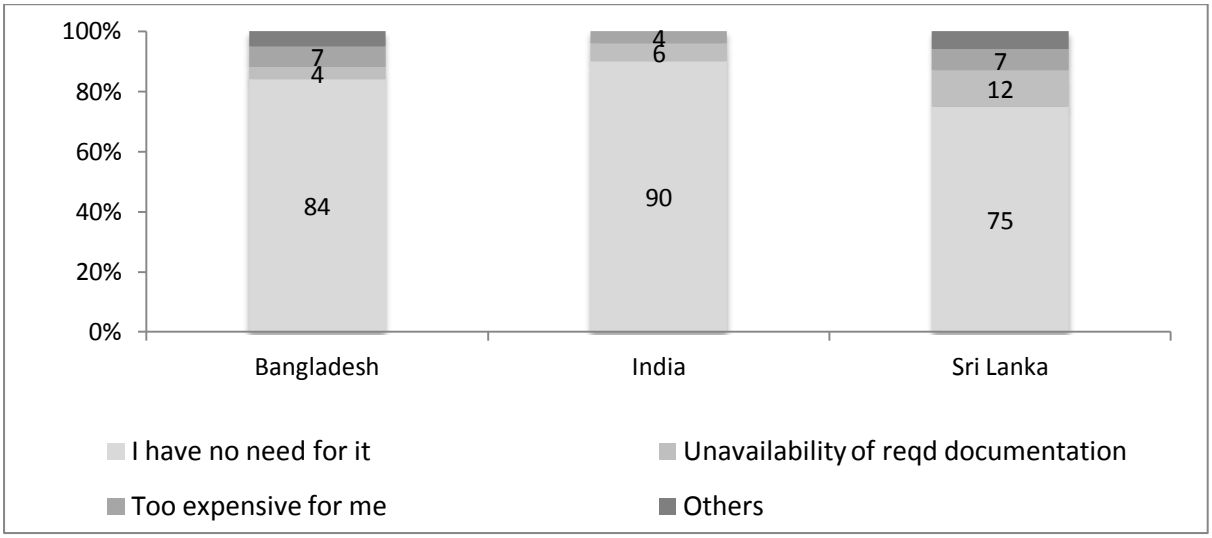
SNo	Management of Customers	Sample (739)	Sri Lanka (229)	India (303)	Bangladesh (207)
1	I was treated politely by the office / call center personnel	90	93	91	86
2	All the information relevant to my work/query/problem was available easily	82	89	83	74
3	The waiting time to reach the concerned officer was satisfactory	63	74	72	36
4	The time taken to resolve the problem / answer the query was satisfactory	75	80	77	65
5	I am satisfied by the action taken by the operator	69	80	61	68
6	Call center agent redirected me to use (IVR, Internet, USSD etc) without answering	25	16	31	27

	the query.				
7	I find the automated responses (IVR) in call center helpline are clear	55	41	55	71
8	The interaction with the office was carried out in my language or language I chose/preferred	81	84	77	84
9	Tracking my application or complaint through a phone / the Internet was possible	28	41	25	19
10	Information on how to contact the service provider is /was readily available	52	69	44	46
11	Information on procedures to file complaints is/was readily available	57	70	51	51

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know / Can't Say / Not applicable)

Roughly half of the MEs are required by the landlord/government/third party to get a separate connection for business in Sri Lanka and Bangladesh where one third of MEs use separate connection to keep their business expenses separate from personal use. Out of those MEs with shared connection, low cost or inexpensiveness is cited by 44% of Indian MEs when compares to nearly one fourth of Sri Lankan and Bangladeshi MEs which reasoned due to difficulty in getting any other connection (See Figure 16).

Figure 16: Reasons for not having electricity



The above data suggest that the ease of accessing electricity through formal mechanisms is not present for the BoP in the sampled countries. The service providers seem to be not bothered about acquisition of new customers as the demand is outstripping the supply in most of the developing countries. Also, the electricity sector seems to be subsidized which in turn would create more burdens on the state, if new customers are acquired. Nevertheless, this cannot be given as an excuse not to extend smooth access of basic services like electricity to the BoP.

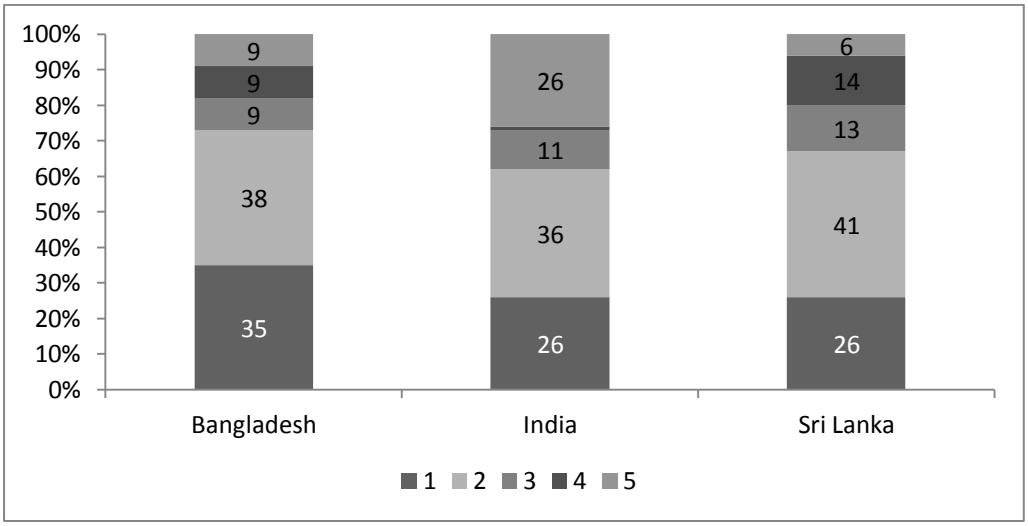
The main source of electricity is an electricity company for MEs in Sri Lanka and Bangladesh. In India, the sources seem to be heterogeneous, where 66% forms an electricity company and 22% is from battery. Diesel generator contributes 8% and solar for remaining 4%. Electricity connection is registered in businesses' name in only 36% of the sample, which might explain the difficulties in getting a connection.

43% of Indian MEs have connection in own names when compared to 37% of Sri Lankan and 30% of Bangladeshi ones. When the study explored the reason for using somebody's name to get connection, 30% of sample MEs said that the connections was already in somebody's name and did not want to change it. In 39% of the cases, the landlord's name could not be changed, even desired. These reasons are not much different across the three countries (See Figure 17).

The service providers do not know the actual users, as the data indicate. As the connections are in somebody else’s name and the occupants might keep on shifting, the service providers tend to have incorrect usage data or incapable of understanding the customers' usage patterns. No wonder, electricity firms continue with the same tariff patterns over a period of time unlike the telecom sector which announces new tariff packages continuously to acquire new customers.

All Sri Lankan MEs pay after using the electricity and a small percentage of Bangladeshi MEs (3%) pay before use. Interestingly 13% of the Indian MEs do not pay any bill at all. Larger of these non paying MEs are located in Patna, a weak governed city. On an average, sample MEs spend $14 / month (median, $9 and SD=15) for electricity. Sri Lankan MEs spend more money ($23) than Indian and Bangla MEs ($9).

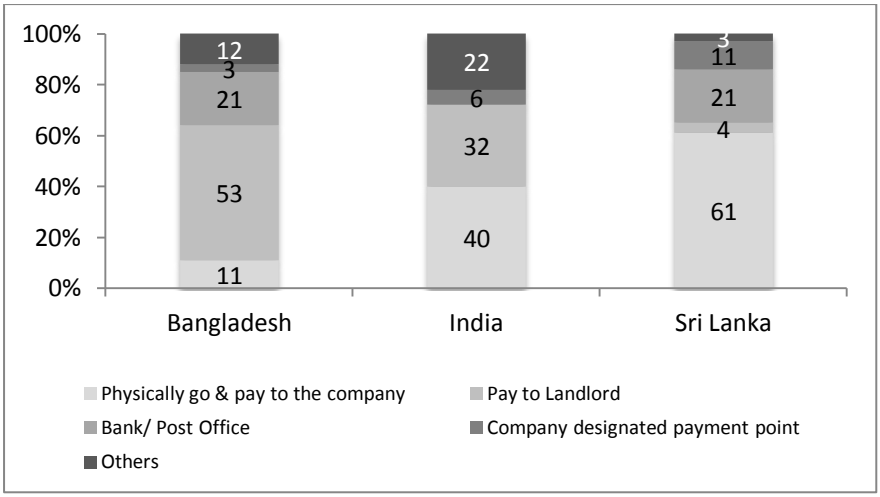
Figure 17: Reasons for having electricity connection in others' name



Notes: 1 - Connection already there & didn't change the ownership;
2 - Connection in landlord's name & can't change the ownership;
3 - Don't have required documentation to obtain it in my name;
4 - In my parent's/ spouses' name; 5 - Others including procedures being too long/ don't want to say etc.

Payment in person at the electricity company (37%) is most common for the sample MEs followed by paying to landlord (29%) (See Figure 18). Electronic payment either through mobile phones (4%) or online to electricity company (0.7%) is low with no one paying through online banking. Payment at the banks or post offices comes in between these extremes (18%). There are country differences. Bangladeshi MEs are the only ones who use some electronic means - 1% by online to the company, and 9% by mobile phones.

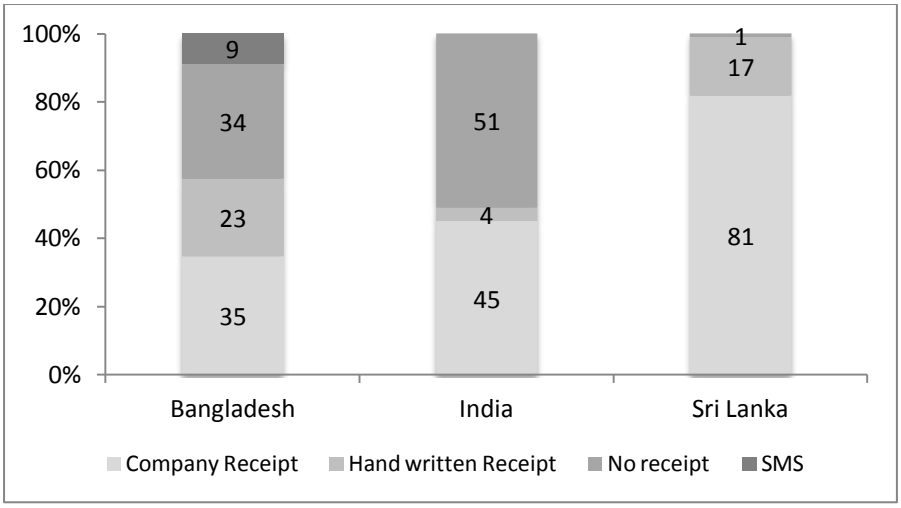
Figure 18: Payment of electricity bill



In the sample, one fourth of MEs do not receive any receipt at all with slightly more than half of them get a company receipt (See Figure 19). Only small amount of MEs, 4% receive SMS receipts. 17% get a hand written receipt. These trends are expected when larger number of MEs are not having connection in their names. However, 80% MEs feel that there is no extra fee charged on their mode of payment. 70% MEs also receive some form of electricity bill and 27% do not receive anything. Out of those who receive bills, 74% are satisfied with the information in the bills. 20% of the MEs are not satisfied. 9% of MEs in Bangladesh get receipts in SMS. Company receipts are predominant in Sri Lanka, 81% when compared to 45% of India and 35% of Bangladesh. Though ICTs seem to be making a present in the Bangladesh, Sri Lanka seems to be more successful in bringing more number of MEs under the formal mechanism with 94% of getting a bill. Nearly half of Indian MEs do not get an electricity bill when compared to 40% of Bangladeshis.

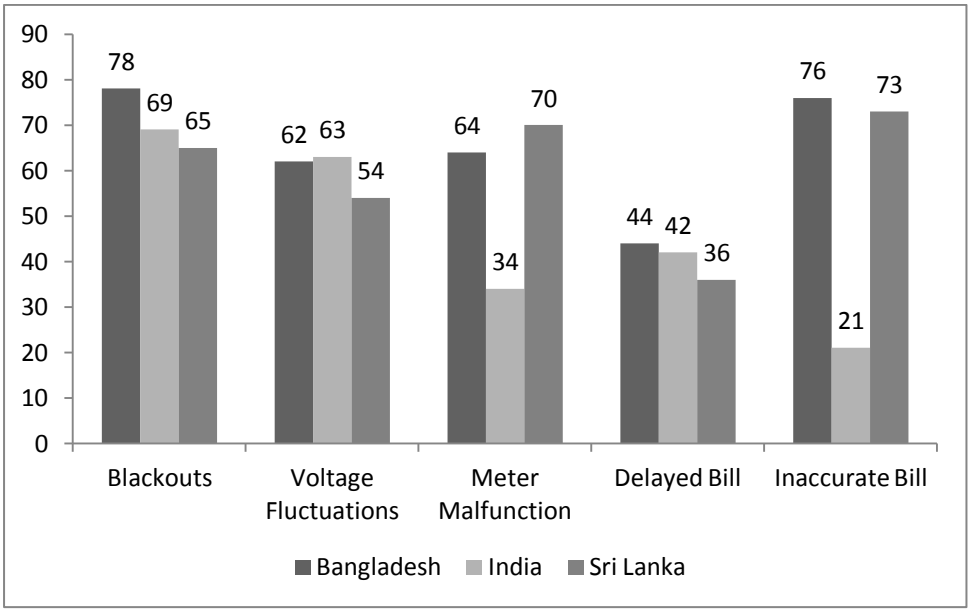
87% of sample MEs face blackout problems of which 71% feel that the businesses are affected severely, yet only 21% of them complain. Comparing to blackouts, voltage fluctuations are faced by 48% of MEs of which 61% MEs are affected severely and again only a less amount of people 17% complain. Meter malfunctioning as a problem is faced by less number of sample MEs, 7%, and 59% are effected severely by it, but 41% of MEs complain to someone. A small amount of MEs, 9% receive inaccurate bill out of which 76% are severely affected and 36% of them complain.

Figure 19: Forms of receipt for the electricity usage payment



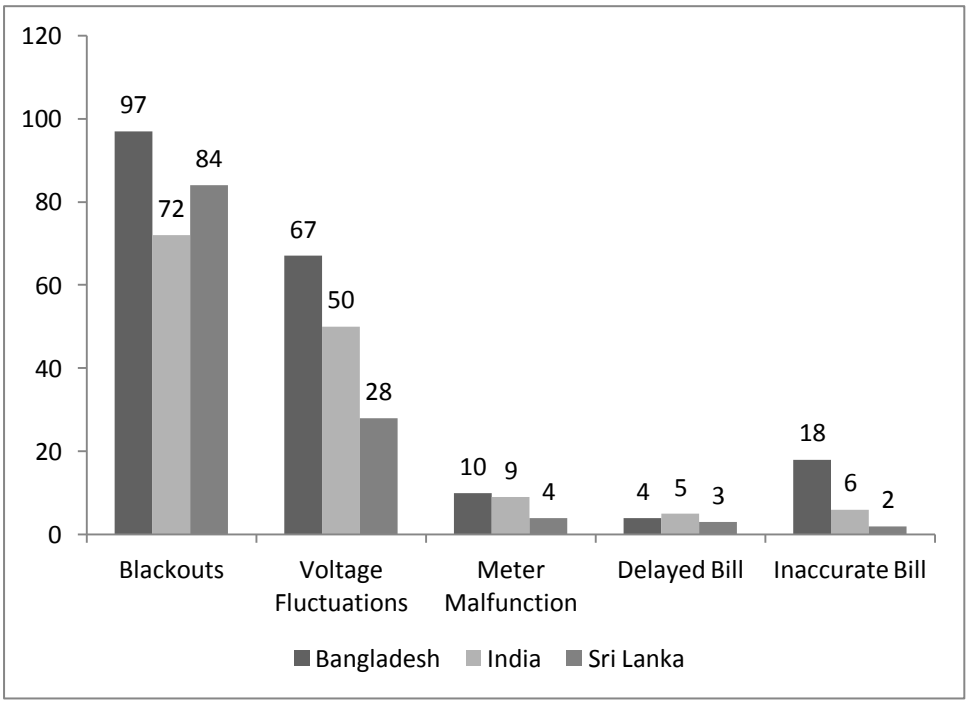
The intensity of the problems seems to be high as the more than half of the MEs feel that business is affected severely, indicating poor service quality (See Figure 20). It's also possible that lack of electricity or fluctuations affect the lives of MEs more seriously than the telecom services, indicating the need for better service delivery in the electricity domain.

Figure 20: Severity of the electricity related problems faced by the sample



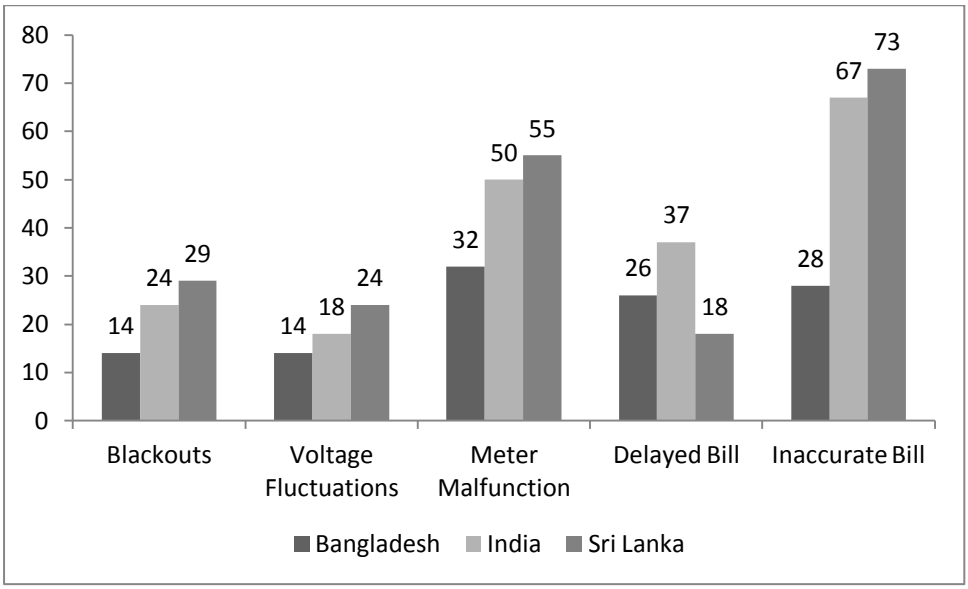
When one looks at the problems faced by the MEs, Bangladeshis seems to be troubled more than others (See Figure 21). 97% of them face blackouts compared to 84% of Sri Lankans and 72% of the Indians. Voltage fluctuations are also high there with 67% followed by 50% of Indians and 28% of Sri Lankans. Inaccurate billing is also relatively high in Bangladesh (18%) than India (6%) and Sri Lankans (2%).

Figure 21: Electricity related problems



All countries MEs express more or less that problems related to electricity services are severely affecting their businesses. Among the MEs that complained (See Figure 22), Sri Lankans MEs are more 29% when compared to 24% Indians and 14% Bangladeshis for blackouts. For voltage fluctuations, Sri Lankans are again more with 24% when compared to 18% of Indians and 14 % of Bangladeshis. Rest of the problems are complained by only small number of MEs in their respective countries.

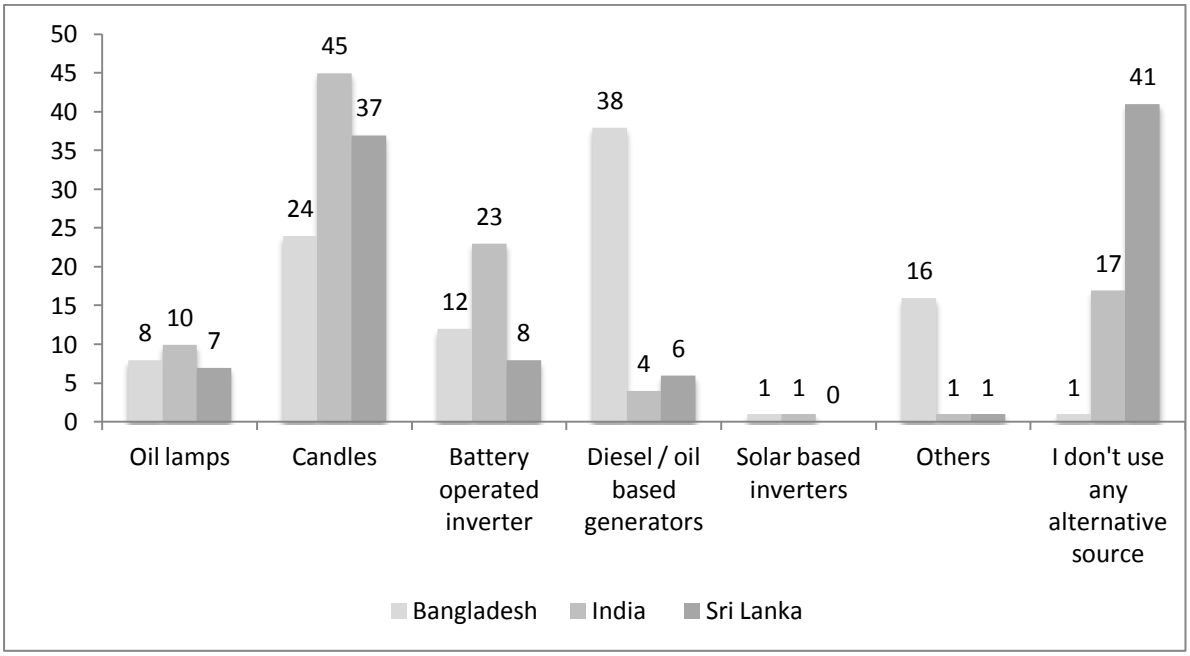
Figure 22: Complaints of electricity problems



Blackouts are managed by multiple ways by the sample MEs (See Figure 23). Candles are predominant alternative source of power, 33%, followed diesel / oil based generators. 20% of the MEs do not use any alternative power. There are some differences across countries Indian MEs use candles (45%) and battery (23%). Bangla MEs use diesel / oil based generators (38%) and candles (24%). Sri Lankan MEs use candles (37%) and 41% of them do not use any alternative power. Across countries, MEs spend a dollar per week in alternative power sources.

About 39% of sample MEs say that they get advance notice about the power blackouts. Half of Sri Lankan and Bangladesh get the notices, whereas only 5% of Indian MEs get it (See Figure 24). Public announcements are most common way of receiving the notices (59%) followed by neighbors (31%). SMS is not mentioned by the sample MEs. Bangla MEs depend mostly on public announcements (98%) as in Sri Lanka (73%). Indian MEs get the notice through neighbors mostly (56%) followed by public announcements in a small 6% of the cases.

Figure 23: Alternative sources of electricity



As the mobile penetration is increasing, service providers can inform the MEs about the power blackouts or other related details to the MEs directly. The ownership of the connection is not essential to receive the information. Users can register at the service provider's website which sends the information.

Out of 1341 MEs that did not complain, 57% felt that there is no use when compared to 21% felt the problems are not worth complaining. This trend is reflected in three countries as well. The main point for lodging the complaint was office of the electricity company for 69% of sample MEs. This number is high for Sri Lanka, 83% and low for India, 56%. In Bangladesh, it is 71%. Only 15% of sample used the hotline or customer care center. India used this channel relatively more, 23% when compared to very low 3% in Bangladesh. Sri Lanka is 13% (See Figure 25).

Calling through phone is most used mode of complaining with 58% followed by in person, 27% in the sample (See Figure 26). For Sri Lanka this is high, 85% followed by 47% of India and 36% of Bangladesh. Out of 717 sample MEs that complained, 3/4th of Sri Lankan MEs were satisfied with the action taken while only 1/4th of Indian and Bangladesh MEs were satisfied. Less than 1/5th of MEs in Sri Lanka and Bangladesh received a reference ID for their complaints while this is less than 1/10th for India. In the sample, 2006 MEs interacted or talked with the electricity service provider. 1/3rd of Sri Lankan and 1/4th of Bangladeshi MEs interacted whereas only 7% of the Indians did.

Figure 24: Source of information about power blackouts

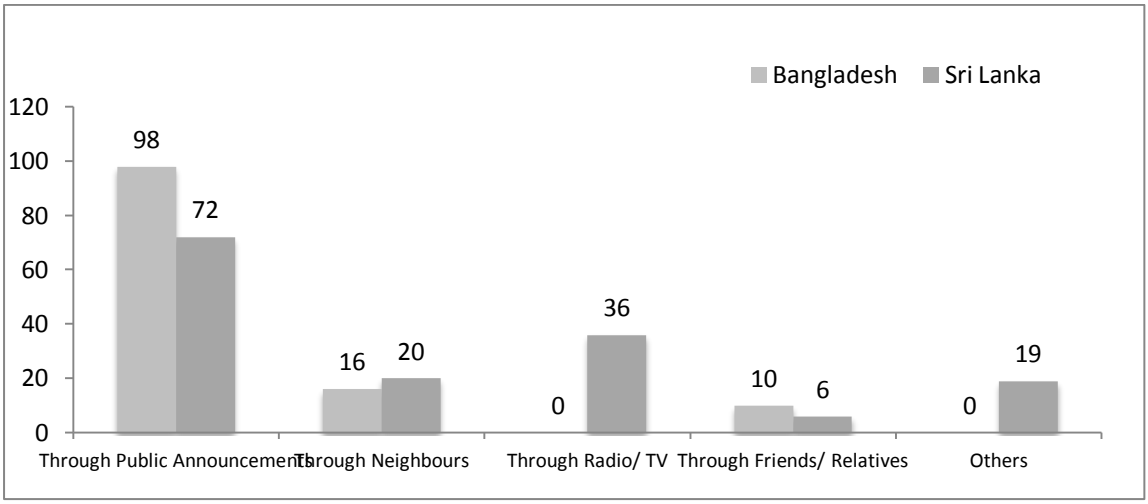
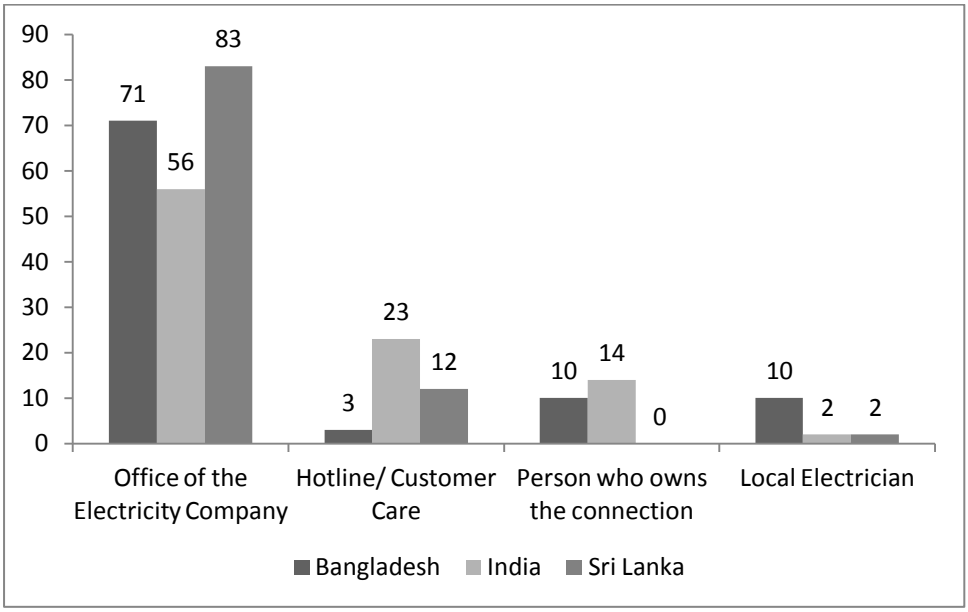


Figure 25: Place /person to whom the electricity complaint was made



The study explored the nature of service delivery in electricity service provision using 15 items (See Table 5). None of the items related to service delivery is able to secure agreement from more than 50% of the MEs in the sample. Within this, 47% of MEs in Sri Lanka and Bangladesh felt that information on location of payments was available and interactions were carried out ME's language. 43% felt that interaction by the service provider official were polite. Roughly one of third of this group of MEs felt that waiting time is appropriate and information on how to contact the service providers was available. Only 14% of the MEs felt that application or complaint could be tracked through phone or Internet. Service providers typically preferred in person interaction as seeking interaction through phone, 17% or self service like IVR, SMS or Internet, 8%, seem to be small.

Figure 26: Channels of complaining

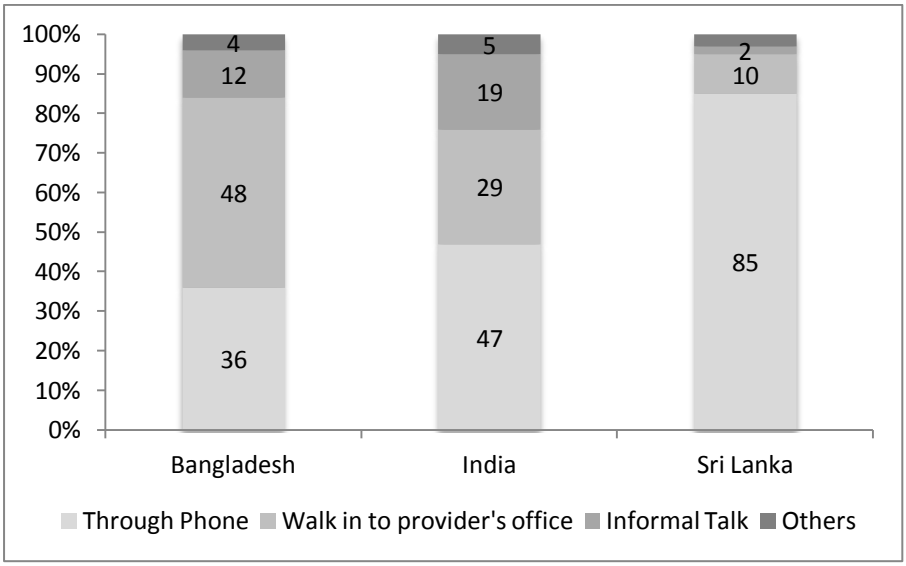


Table 5: Service delivery in electricity sector

Management of Customers	Sample (473)	Sri Lanka (285)	Bangladesh (188)
Information on procedures and documents (like applications etc.) to get new connection was readily available	34	34	34
The amount of time I need to wait to get a new connection is satisfactory	26	26	25
Information on procedures to reconnect was readily available	26	26	26
The amount of time taken to reconnect was satisfactory	23	23	23
Information on how to contact the service provider is /was readily available	33	30	36
It is easy to find the locations where payment can be made	47	47	47
Information about the procedure for changing ownership of a connection was readily available	17	16	17
The amount of time I need to spend to change the ownership of the connection satisfactory	13	14	12

I was treated politely by their office / call canter personnel.	43	35	50
The waiting time to reach a concerned officer was appropriate.	29	23	34
The interaction with the office was carried out in my language.	47	31	63
Tracking my application or complaint through a phone/internet was possible, if needed.	14	15	12
I find the automated responses in call center helpline are clear.	20	17	23
Service provider wants me to contact through phones only (voice)	17	14	20
Service provider wants me to obtain information through self service (IVR, SMS, USSD Internet) only.	8	6	9

Note: India had a base of 30 MEs and is not included in the table. All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know / Can't Say / Not applicable)

Across Sri Lanka and Bangladesh, there were differences in few areas. For instance polite interaction by service providers is high in Bangladesh, 50% when compared to 35% of Sri Lanka. Usage of ME's language was present more in Bangladesh, 63% when compared to 31% of Sri Lanka as observed by the MEs. Across the sample, not even one percent MEs said that the electricity person has asked for bribe.

We created a service delivery index by adding up all the fifteen items (yes=1, no=0) to calculate a cumulative score. The reliability score of service delivery index using Cronbach'a alpha, is 0.88. This score indicates that the delineated index is reliable for intended measurement of effective service delivery. Sri Lanka is 3.6 is lower than Bangladesh, 4.3. Overall low score infers relatively weak service delivery practices than the telecom sector. An independent two sample T test was conducted to test for differences between Sri Lanka and Bangladesh. The test, $t(471)=-2.094$, $p=.037$, showed that the service delivery in electricity differs in these countries with Bangladesh (4.3, SD=4.02) doing better than Sri Lanka (3.6, SD=3.65).

The overall service delivery quality seems to be low as expected. None of the indicators are able to get at least 50% agreement from the MEs. Rather than pointing out need for privatization or competition for better service delivery, electricity providers need to put in efforts to improve the service delivery. Also, ICTs can be used in customer facing activities to improve the overall process. The suggestions are listed in the last section of the report.

6 Service Delivery in the Government sector

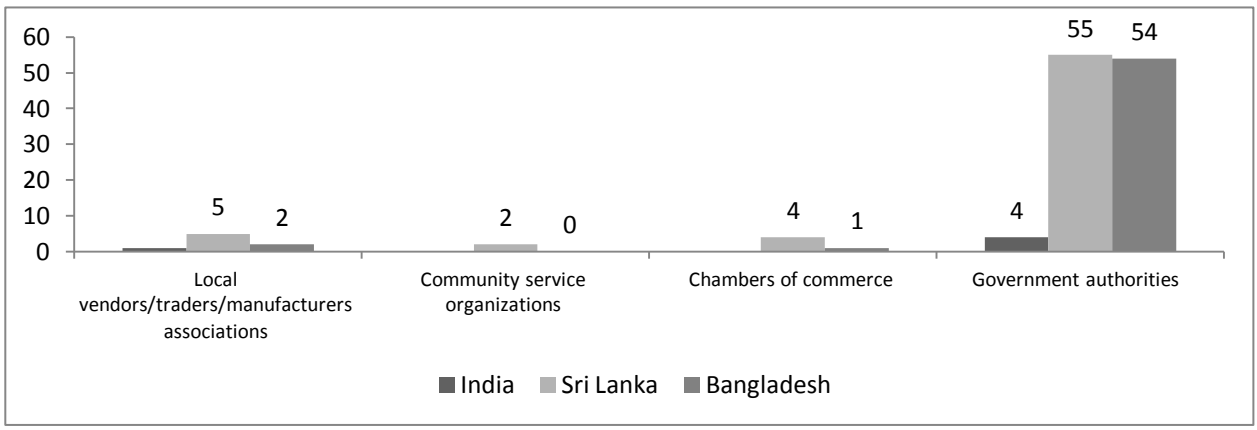
In addition to electricity, the study also focused on one more important service delivery area - business registration of the microenterprises. The business registration activity is important many ways. Business registration enables or reduces cost for firms to access additional credit channels, marketing, infrastructure, government contracts, provide formal receipts to customers and protection from corruption etc. Through registration, the government gains control over the microenterprises, thus monitoring the unregulated / illegal activities (unhygienic food, spurious pharmacy and use of heavy machinery in residential area etc) and ensuring better public safety. The government can also help these businesses by providing better access to credit or skill training, if the data are available through the registration (Bruhn, 2013).

MEs when asked about their business registration details in the three countries, 38% stated that they have registered their business with government authorities (See Table 6). The other organizations where MEs registered are local vendors/traders/manufacturers associations (3%) followed by chambers of commerce (2%) and community service organizations (1%). A similar trend was observed in Sri Lanka (55%) and Bangladesh (54%). In India, it varies significantly with just 4% of MEs registering with government authorities (See Figure 27: Registration Details). In India and Bangladesh, it is observed that none of the MEs business registered with the community service organizations. In India, overall registration seems to be low.

Table 6 : Nature of business registration

S.No	Business Registration	Sample (3180)	Sri Lanka (986)	India (1279)	Bangladesh (915)
1	Local vendors/traders/manufacturers associations	3	5	1	2
2	Community Service Organizations	1	2	0	0
3	Chambers Of Commerce	2	4	0	1
4	Government Authorities	38	55	4	54

Figure 27: Registration Details

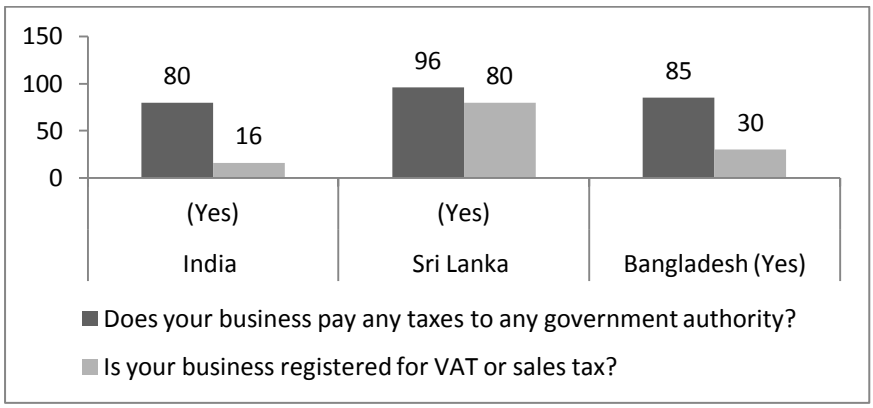


Majority of the Sampled MEs (87%) indicated that they pay taxes to the government in all the three countries (See Table 7). 96% Sri Lankan MEs pay taxes compared to 85% in Bangladesh and 80% in India (See Figure 28). Coming to MEs registration for VAT/Sales Tax, Sri Lankan MEs are high with (80%) followed by Bangladesh (30%) and India (16%).

Table 7: Paying Taxes & Registered for VAT / Sales Tax

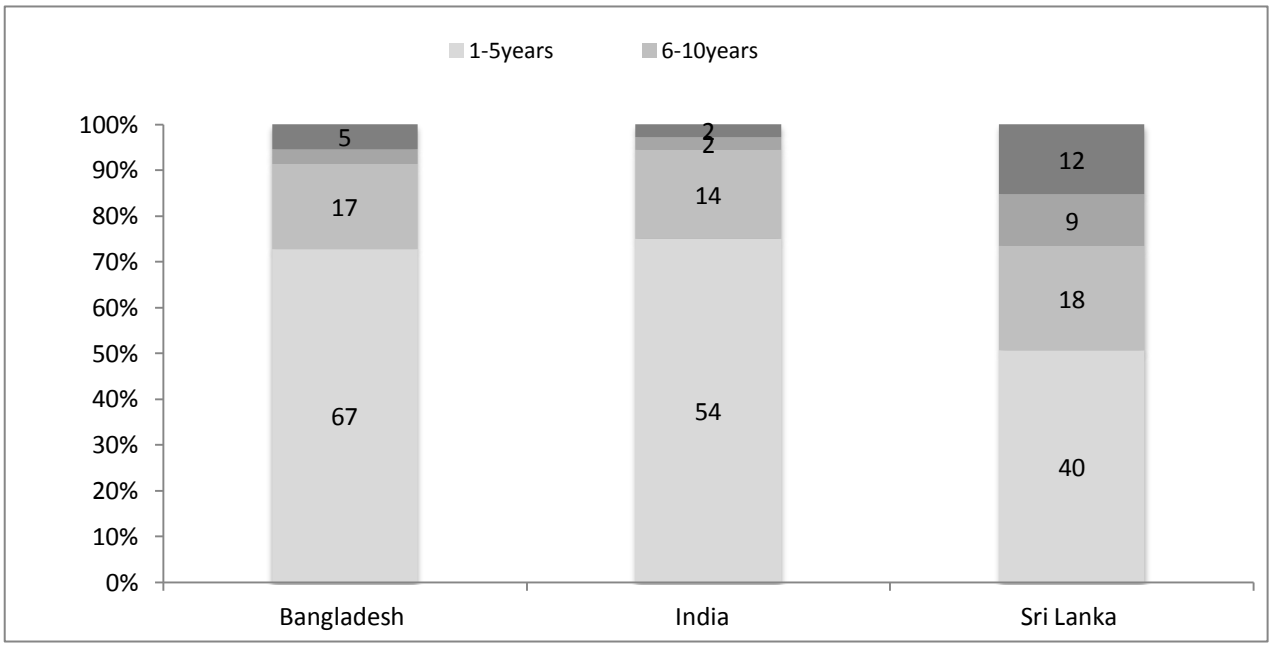
S.No	Paying Taxes & Registered for VAT / Sales Tax	Sample (1091)	Sri Lanka (545)	India (56)	Bangladesh (490)
1	Does your business pay taxes to any government authority?	87	96	80	85
2	Is your business registered for VAT or Sales Tax	42	80	16	30

Figure 28: Paying Taxes Registered for VAT / Sales Tax



In the sample, majority of the MEs have recently registered their business with government authorities (1-5 years). Among the three countries, in Bangladesh, more number of MEs register with 67% when compared to 54% in India and 40% in Sri Lanka (See Figure 29). Among the businesses that registered 6-10 years ago, Sri Lanka hosts more 18% followed by Bangladesh (17%) and India (14%). About (12%) of the Sri Lankan MEs have registered their business 16 + years ago compared to 5% Bangladeshi and 2% Indian MEs (See Figure 29).

Figure 29: Years of registration with a government authority

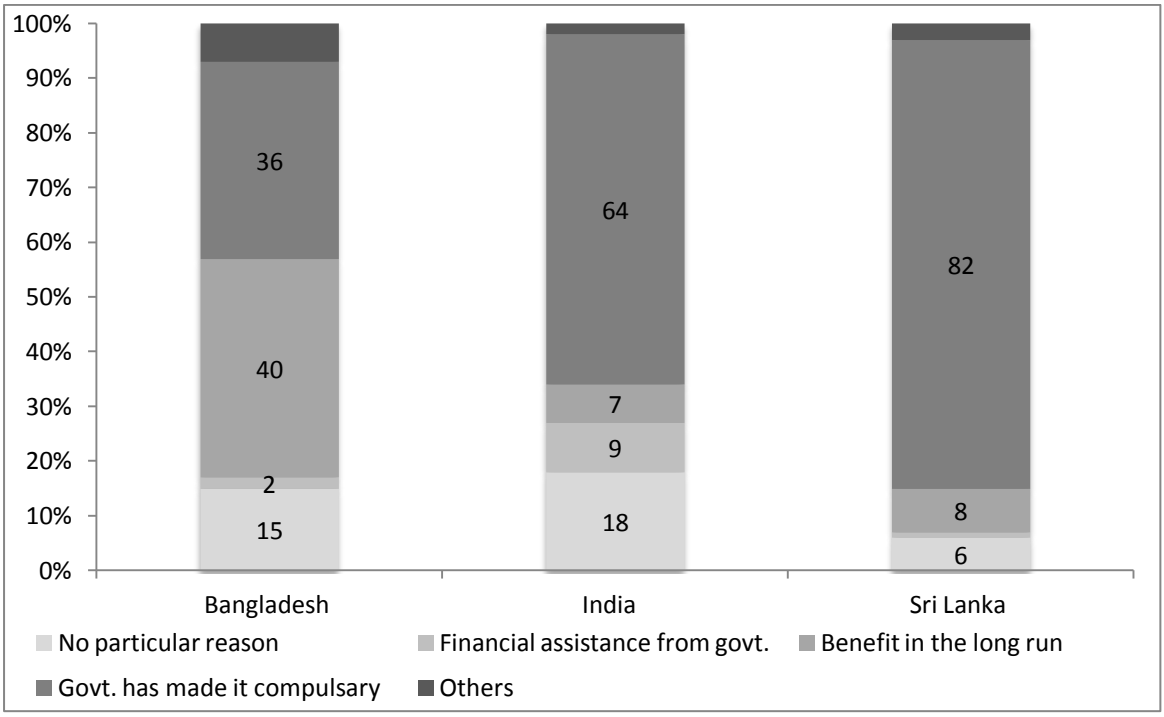


The study tried to explore the reasons why sampled MEs registered their business with Government authorities. Out of the sample, more than half of the MEs (61%) registered their business since government made it compulsory followed by perceived benefits that their business would get in the long-run (18%) and 'no particular reason' (15%) (See Table 8). More than three fourths (82%) of the Sri Lankan MEs register with the government authorities due to government compulsions followed by Indian MEs (62%) and Bangladeshi MEs with only 36%. This implies that Government enforcing laws in registration is more efficient in Sri Lanka than others. 40% of the Bangla MEs registered their business with Government authorities since they felt that it would benefit their business in the long run followed by Sri Lanka (8%) and India (7%) (See Figure 30).

Table 8: Reasons for registering with a government authority

S.No	Reasons for registering with a government authority	Sample (1091)	Sri Lanka (545)	India (56)	Bangladesh (490)
1	No particular reason	13	6	18	15
2	I will get some financial from the government	5	1	9	6
3	The government has made it compulsory	61	82	64	36
4	My friend/family told me to do so	2	3	2	1
5	My business will benefit from it in the long term	18	8	7	40

Figure 30 : Reasons for registering with a government authority

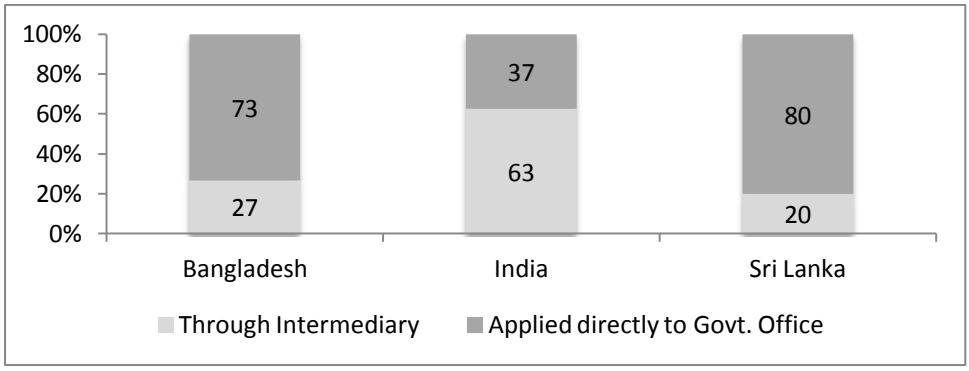


Out of the sample 1091, 63% said that they applied directly at the Government office followed by seeking an intermediary (37%) when asked about the process of registration (See Table 9). Higher number of Sri Lankan MEs (80%) approach government office directly for registration followed by Bangladesh (73%) and India (38%). Indian MEs are high in seeking the registration services from an intermediary (63%) followed by Bangladesh (27%) and Sri Lanka (20%) (See Figure 31 : Details of Registration Process.)

Table 9: Registration process details

S.No	Registration Process	Sample (1091)	Sri Lanka (545)	India (56)	Bangladesh (490)
1	Through an intermediary	37	20	63	27
2	Applied directly at the government office	63	80	37	73
3	Through a website accessed at a cyber café	0	0	0	1
4	Through a website accessed on some other location/computer	0	0	0	0

Figure 31 : Details of Registration Process



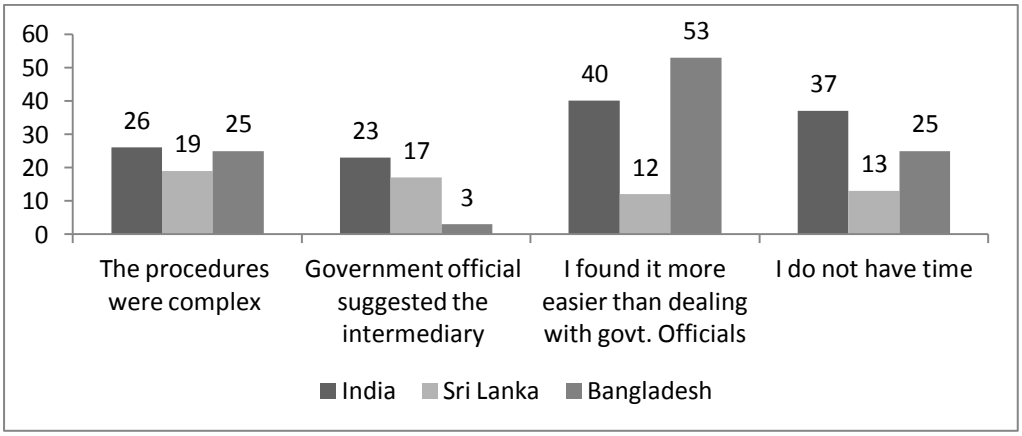
Out of the sampled MEs 272, 35% preferred to seek services through an intermediary. MEs approach an intermediary because they found it easier to deal with an intermediary rather than dealing with government officials for the registration (See Table 10). Out of these, Bangladeshi MEs lead with 53% followed by India (40%) and Sri Lanka (12%) (SeeFigure 32). It is observed that Bangladeshi and Indian MEs felt easier to deal with an intermediary rather than approaching government officials compared to Sri Lankan MEs. The other reasons mentioned by MEs for approaching an intermediary are lack of time (25%) followed by complexity in procedures (23%) (See Table 10). Similar trends are seen in the three countries (See Figure 32).

From an overall perspective India and Bangladesh follows a similar trend for sourcing an intermediary and Sri Lankan MEs differ in this case because they mostly prefer to apply directly at the government office rather than using an intermediary for registration services.

Table 10: Reasons for using an intermediary for registration

S.No	Reasons	Sample (272)	Sri Lanka (107)	India (35)	Bangladesh (130)
1	The procedures were complex	23	19	26	25
2	Government official suggested the intermediary	14	17	23	3
3	The required documents were not with me	8	19	0	4
4	The government office was far for me	8	2	6	15
5	I found it easier than dealing with govt. officials	35	12	40	53
6	I do not have time	25	13	37	25
7	I do not know	10	22	3	3

Figure 32: Reasons for using an intermediary for registration



The study explored the nature of service delivery of government offices in registration process using different questions. When MEs were asked to share their experiences of service delivery in Government office during registration process it appeared that majority of the sample MEs in the three countries agreed that they obtained application in a printed form from office (77%) and filled the application manually (68%). Indian MEs mostly obtain application in printed form from office (90%), when compared to Sri Lanka (72%) and Bangladesh (71%) (See Table 11)

More than half of the MEs in three countries prefer to fill the applications manually. Out of the sample MEs, 76% of the Sri Lankan MEs prefer to fill the application form manually, followed by Bangladesh (67%). This indicates that MEs are not much inclined to use online sources for registration at Government offices. Similar trend was found in the other aspects of using online sources during registration process in Government services.

The MEs preference in using online sources for uploading the supporting document copies in a website is also very less with all most single digit percentages in the three countries. Indian MEs percentage is nil indicating that no MEs preferred to upload supporting documents in a website compared to Sri Lanka (4%) and Bangladesh (8%).

In case of MEs preference for using credit card or e-transfer for payment was also found to be less among MEs in three countries.14% of Indian MEs use credit card or e-transfer options for payments followed by Bangladesh with 5% and Sri Lanka with 3%.

Table 11: ICTs in business registration

SNo	Experiences	Sample (815)	Sri Lanka (438)	India (21)	Bangladesh (356)
1	The office was computerized	56	55	62	51
2	The application form was obtained in a printed form from office	77	72	90	71
3	The application form was downloaded from a website	13	5	24	11
4	The application form was filled manually	68	76	62	67
5	The application form was filed online	13	5	29	6
6	Supporting documents copies were submitted in the office	66	68	52	77
7	Supporting documents copies were uploaded in a website	4	4	0	8
8	Payment was done in cash or demand draft	53	66	38	56
9	Payment was done through credit card or e-transfer	7	3	14	5
10	The certificate of registration received was hand written	26	18	19	41
11	The certificate of registration received is a typed one	46	42	48	48
12	The certificate was a computer printed one	42	24	48	53
13	The document was signed manually	66	61	71	67
14	The document was signed digitally	16	5	19	24

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable

The Government can improve their service delivery in registration process in the above areas – like uploading the supporting document copies in a website, payment through credit card or e-transfer and ease in downloading and filing application form from a website. Though the Government is providing options for online payment and uploading & filing the application form for registration, the target groups of the study, BoP MEs are finding difficulties in these areas.

The study tried to explore the MEs experiences in accessing a website to get registration done across three countries and found that none of the MEs in Sri Lanka and India access website for registration purpose. Even in Bangladesh only five MEs access website to get the registration done.

On an average MEs visit 3 times (SD=2.40) the government office after the first visit across the three countries. Indian MEs slightly visit more times (3 times, SD=3.51) than Bangladeshi (3 times, SD=2.33) and Sri Lankan MEs (2 times, SD=1.37) (See Table 12). May be this may be one of the reason why Indian MEs prefer more to source an intermediary for business registration due to lack of time as mentioned in the earlier findings.

On an average MEs spend over one hour (SD=61.62 minutes) in the government office every visit across three countries. Indian MEs spend less time (42 minutes, SD=70.31) compared to Bangladesh (1 hour, SD=53.54) and Sri Lankan MEs (1 hour 19 minutes, SD=61.03) (See Table 12). The reason why Sri Lankan MEs spend more time is may be due to non use of intermediaries which also explains the less time spent by the Indians. During the process of registration on an average MEs meet two officials (SD=1.22) in the same office across three countries. Similar trend is observed across three countries, Bangladesh (2 officials, SD=1.21) followed by India (3 officials, SD= 1.48) and Sri Lanka (2 officials, SD=0.99).

On an average MEs need three documents (SD=1.31) for registration across the three countries. Similar trend is observed across the three countries, Sri Lanka slightly on the lesser side (2 documents SD= 1.05) than Bangladesh (3 documents, SD=1.16) and India (3 documents, SD= 1.73). MEs in the three countries reported that the entire process of registration would take 11 days (SD=18.65). In Sri Lanka the whole registration process would take less time (8 days, SD=11.98) compared to India (12 days, SD=21.31) and Bangladesh (12 days, SD=22.68)

The study tried to explore the fee paid to the government during the process of registration and found that MEs spend (12 USD, SD= 13) on an average. In India MEs paid more fees to Government (14 USD, SD=17) compared to Bangladesh (13 USD, SD=13) and Sri Lanka (9 USD, SD=10). The study also tried to gain insights on whether MEs paid any bribe to the government official and found out that on an average they paid 10 USD (SD=8). Indian MEs are on the higher side (18 USD, SD=12) compared to Sri Lanka (8 USD, SD= 6) and Bangladesh (5 USD, SD=6) in paying bribes to the government officials (See Table 12).

From an overall perspective seeing the above results it is observed that in Sri Lanka the process of registration is much effective in terms of time taken, fee paid, bribes, ease and speed etc. compared to Bangladesh and India.

Table 12 : Experience of service delivery during registration

S.No	Experiences regarding the registration	Sample	Sri Lanka	India	Bangladesh
1	Number of visits made by you to the government office after the first visit -Share your experiences	2.53 (2.40)	1.83 (1.37)	3.26 (3.51)	2.51 (2.33)
2	What is the average time spent (in minutes) by you at government office every visit	60.28 (61.62)	78.84 (61.03)	42.43 (70.31)	59.59 (53.54)
3	Number of different officials in the same office you met for registration	2.42 (1.22)	2.11 (0.99)	2.55 (1.48)	2.61 (1.21)
4	Number of documents needed for the registration	2.55 (1.31)	2.17 (1.05)	2.86 (1.73)	2.62 (1.16)
5	How long (in days) did the whole registration process take	10.73 (18.65)	8.22 (11.98)	11.98 (21.31)	12.00 (22.68)
6	The fee paid to the government in USD	12 (13)	9 (10)	14 (17)	13 (13)
7	Amount of bribe paid to the government official in USD	10.33 (8)	8 (6)	18 (12)	5 (6)

Out of total 691 MEs, 80% of the MEs agreed that they get the receipts for the fees/charges paid at the office across the three countries. A similar trend is observed in the three countries out of which Sri Lanka leads with 87% followed by India (77%) and Bangladesh (75%). 34% of the sample MEs agreed that government officials visit their business for verification purpose. In Sri Lanka, it is high with 46% followed by Bangladesh (42%) and India (14%) (See Table 13).The other experiences like receiving updates via SMS and submitting documents in electronic form during registration process are almost in single digits with just 2% and 7% across three countries.

Table 13: Service delivery in business registration

S.No	Description	Sample (691)	Sri Lanka (545)	India (56)	Bangladesh (90)
1	Did you get the receipt for the fees / charges paid at the office charges paid at the office	80	87	77	75
2	Did government officials visit my business to check or verify the records submitted by me	34	46	14	42
3	I had received regular updates via SMS about my application	2	3	2	2
4	I needed to submit some documents in electronic form	7	9	4	8

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

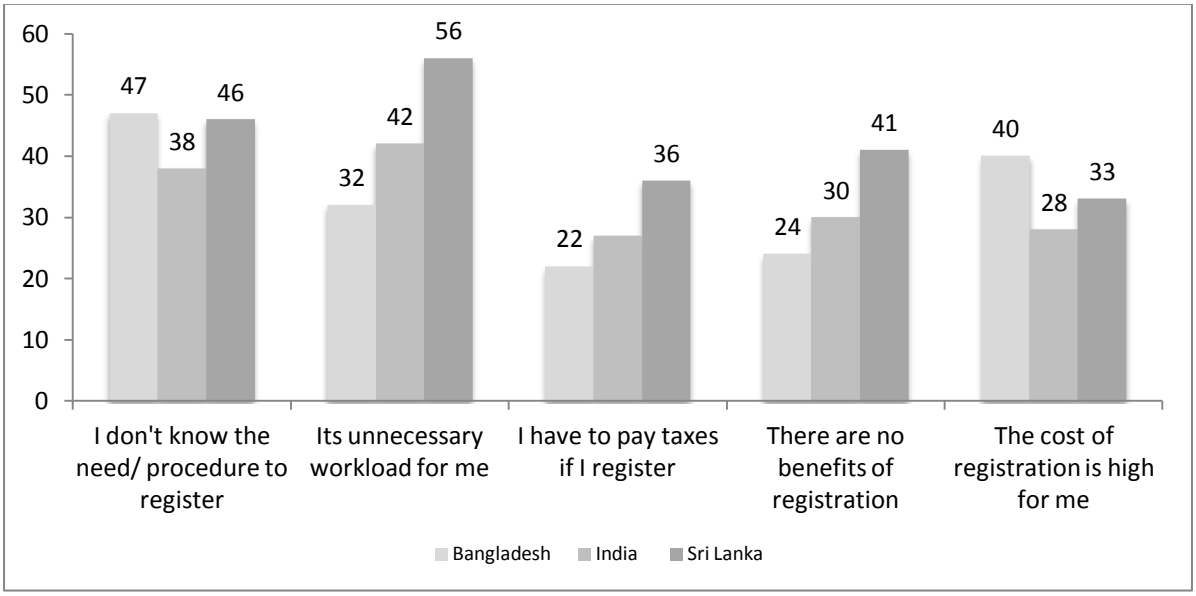
The study tried to comprehend the reasons behind MEs not banking on government authorities for registration and found that 38% of MEs across three countries lack awareness of the need and how to register (See Table 14). Similar trend is observed in Bangladesh (47%) and Sri Lanka (46%) whereas Indian MEs are slightly less with 38%. Further MEs felt that it's unnecessary workload (43%) and need to pay taxes if they register (37%) across the three countries. More than half of the Sri Lankan MEs (56%) felt registration adds to their workload followed by India (42%) and Bangladesh (32%) (See Figure 33). Bangladesh MEs are comparatively less in pointing out payment of taxes as a reason for not registering with government authorities, but similar trend is observed in India (37%) and Sri Lanka (36%). The other reasons mentioned by MEs for not registering with the government authorities are high cost of registration (34%) and no benefits of registration (32%) (See Table 14).

The study tried to gain insights on experiences of MEs while interacting with different government offices in the last two years. It found that 39% of MEs contacted government health centers/hospitals followed by post office (22%), trade license offices (New & Renewal) 20% and voter card office (17%) across the three countries (See Table 15). It was observed that low contact of MEs is with sanitation office (3%), public distribution office (5%), cooking gas cylinders office (5%), driving license office (5%) and poor identification office (5%) in the three countries.

Table 14: Reasons for non registration

S.No	What are the main reasons for not registering with the Govt. Authorities? (%)	Sample (2089)	Sri Lanka (441)	India (1223)	Bangladesh (425)
1	I am not aware of the need to register or how to register	44	46	38	47
2	It is unnecessary workload for me	43	56	42	32
3	I have to pay taxes of I register	37	36	37	22
4	There are no benefits of registration	32	31	40	24
5	The cost of registration is high for me	34	33	28	40

Figure 33: Reasons for non registration



Note: Figures are in percentage.

Out of the sample, Bangladesh MEs are high in contacting government health centers/hospitals (72%), post office (37%) and also trade license office (37%) when compared to India (28%) (9%) (1%) and Sri Lanka (18%) (21%) (26%) respectively. In case of contacting trade license office Indian MEs are almost negligible (1%) compared to Bangladesh and Sri Lanka. Earlier results showed that Indian MEs are low in registering their business with Government authorities as well as approaching more through an intermediary for registration. Overall results indicate that Bangladesh MEs are high in

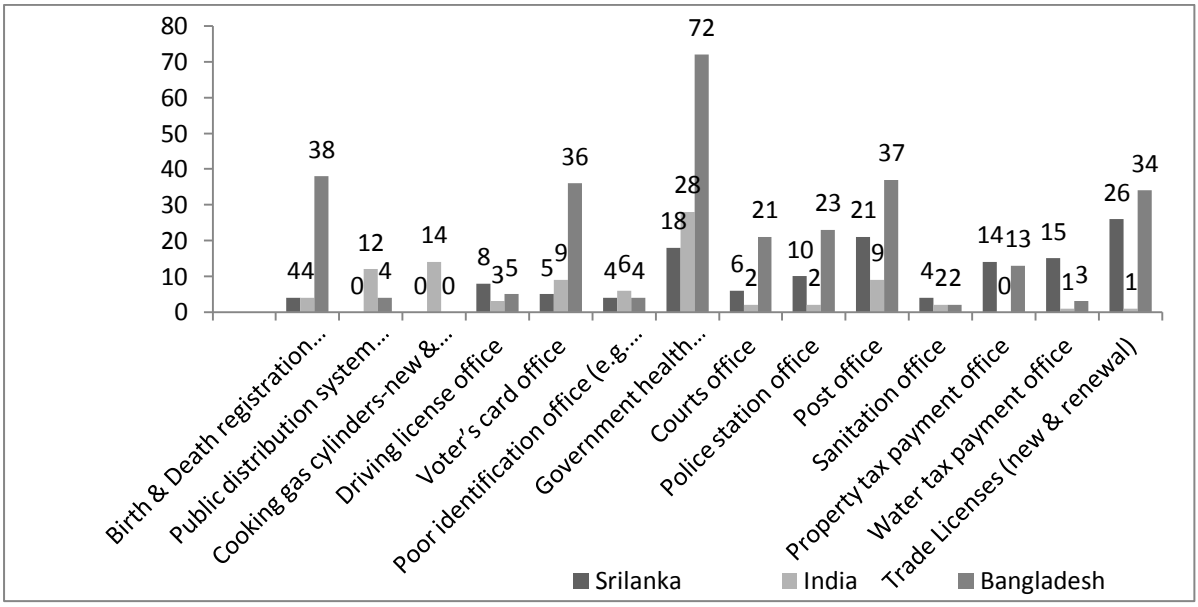
contacting the Government offices in relation to business related matters in the last two years followed by Bangladesh and India.

Table 15: Contacts with various government offices in the last two years

S.No	Experiences of contacting the below mentioned offices for business in the last 2 years? (Yes) (%)	Sample (3180)	Sri Lanka (986)	India (1279)	Bangladesh (915)
1	Birth & Death registration office	15	4	4	38
2	Public distribution system office	5	0	12	4
3	Cooking gas cylinders-new & refill	5	0	14	0
4	Driving license office	5	8	3	5
5	Voter's card office	17	5	9	36
6	Poor identification office (e.g. samurdi in LK)	5	4	6	4
7	Government health centers/hospitals	39	18	28	72
8	Courts office	13	6	2	21
9	Police station office	12	10	2	23
10	Post office	22	21	9	37
11	Sanitation office	3	4	2	2
12	Property tax payment office	9	14	0	13
13	Water tax payment office	6	15	1	3
14	Trade Licenses (new & renewal)	20	26	1	34

Note: Figures are in percentage for response Yes.

Figure 34: Contacts with various government offices in the last two years



Note: Figures are in percentage

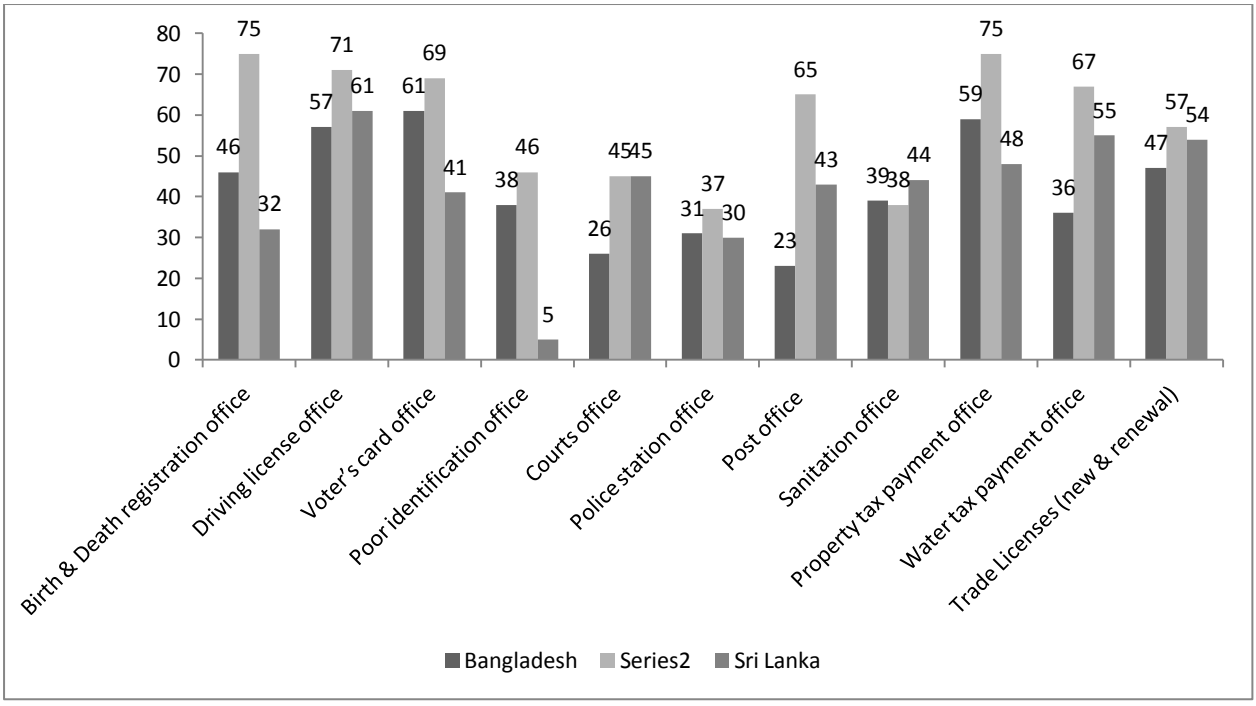
The study tried to explore the awareness about the electronic medium prevailing in 14 government offices and found that awareness is high in driving license office (63%), followed by property tax payment office (61%), voters' card office (57%), water tax payment office (53%) and trade Licenses (53%). Awareness about electronic medium is very less in cooking gas cylinders –new & refill office (21%) and public distribution system office (23%) as reported by the sample MEs (See Table 16). Out of these in India awareness about the electronic medium is high in driving license office (71%), property tax payment office (75%), voters' card office (69%), water Tax payment office (67%) and trade Licenses (57%) compared to Sri Lanka and Bangladesh (See Figure 35: Use of ICTs in government offices) From an overall perspective India is ahead in using electronic medium in Government offices followed by Sri Lanka and Bangladesh.

Table 16: Use of ICTs in government offices

S.No	Is there awareness about the electronic medium in the below mentioned offices? YES (%)	Sample	Sri Lanka	India	Bangladesh
1	Birth & Death registration office	51	32	75	46
2	Public distribution system office	23	0	25	43
3	Cooking gas cylinders-new & refill	21	0	63	0

4	Driving license office	63	61	71	57
5	Voter's card office	57	41	69	61
6	Poor identification office (e.g. samurdi in LK)	30	5	46	38
7	Government health centers/hospitals	46	41	58	38
8	Courts office	39	45	45	26
9	Police station office	33	30	37	31
10	Sanitation office	44	43	65	23
11	Sanitation office	40	44	38	39
12	Property tax payment office	61	48	75	59
13	Water tax payment office	53	55	67	36
14	Trade Licenses (new & renewal)	53	54	57	47

Figure 35: Use of ICTs in government offices



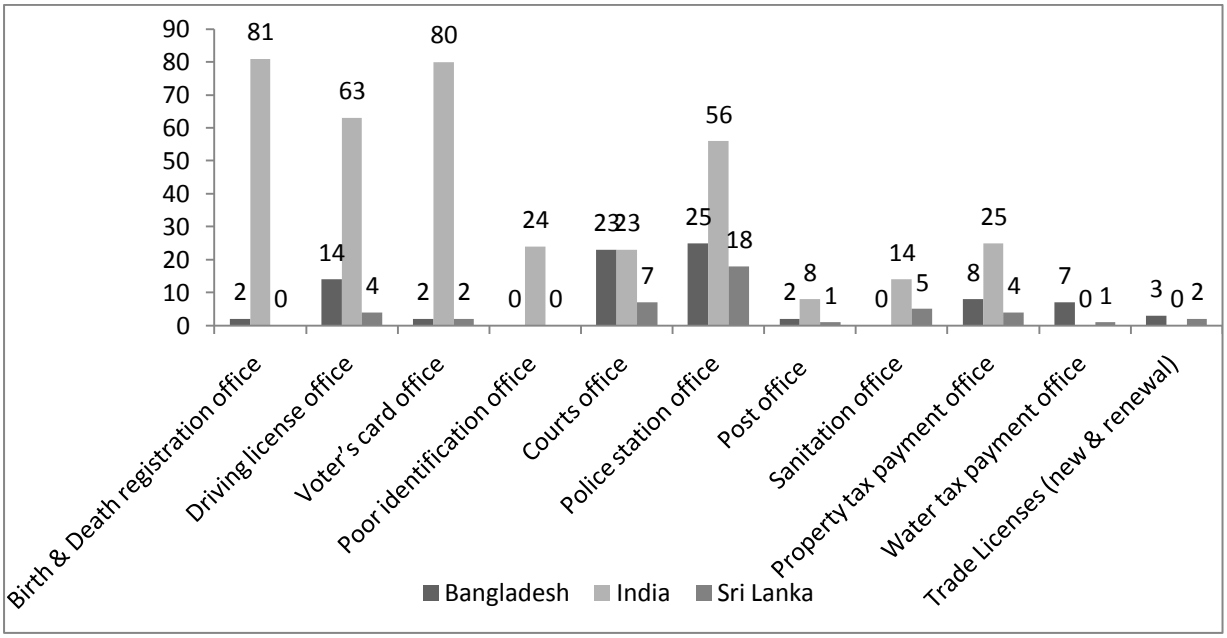
Note: Figures are in percentage

The study also tried to explore the tendency of MEs paying bribes to the Government officials in 14 different offices and found that payment of bribes are high in police station (33%) followed by courts office (18%), driving license office (17%) and property tax payment office (12%) and payment of bribes is found less in Trade licenses (2%) and water payment office (3%) across the three countries (See Table 17). Out of the three countries Indian MEs are paying bribes to government officials more in police station (56%) followed by courts office (23%), driving license office (34%) and property tax payment office (25%) compared to Bangladesh and Sri Lanka (See Figure 36: Paying bribes to government officials). From an overall perspective in India MEs' payment of bribes to government officials is high and comparatively less in Sri Lanka.

Table 17: Paying bribes to government officials

S.No	Information on payment of bribes to government officials	Sample	Sri Lanka	India	Bangladesh
1	Birth & Death registration office	6	0	15	2
2	Public distribution system office	5	0	11	3
3	Cooking gas cylinders-new & refill	6	0	19	0
4	Driving license office	17	4	34	14
5	Voter's card office	8	2	19	2
6	Poor identification office (e.g. Samurdi in LK)	8	0	24	0
7	Government health centers/hospitals	6	1	14	3
8	Courts office	18	7	23	23
9	Police station office	33	18	56	25
10	Sanitation office	4	1	8	2
11	Sanitation office	6	5	14	0
12	Property tax payment office	12	4	25	8
13	Water tax payment office	3	1	0	7
14	Trade Licenses (new & renewal)	2	2	0	3

Figure 36: Paying bribes to government officials



MEs when asked about the use of intermediaries to access the services in 14 offices stated that they make use of intermediaries mostly for Driving License (28%), followed by courts office (26%), police station (22%),Trade licenses (21%) and prefer less to employ intermediaries for post office (5%) and Public distribution system office (8%) (See Table 18). Out of the three countries Indian MEs are high in making use of an intermediary for Driving License (55%), Courts office (32%), police station (44%), Trade licenses (43%) compared to Sri Lanka and Bangladesh with (18%) (11%), (22%) (24%), (5%) (18%) and (10%) (10%) respectively.

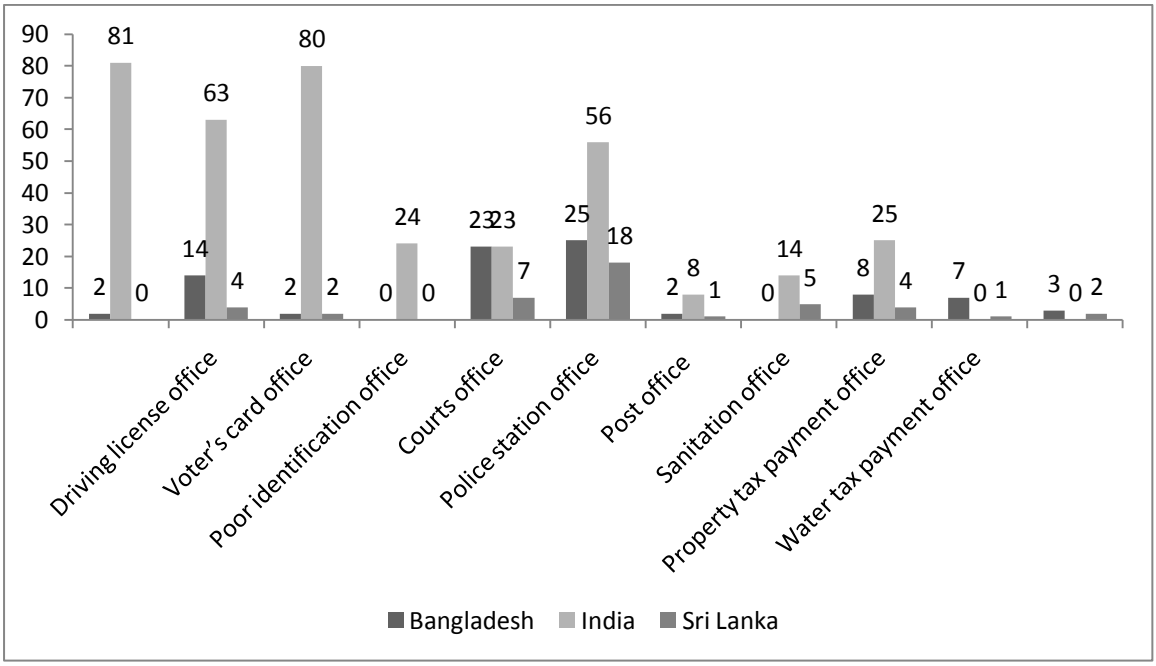
It is observed from an overall perspective that Indian MEs are high and Sri Lankan MEs are low in using intermediaries. Earlier results also showed that most of Indian MEs prefer to get the registration done through intermediaries and majority of the Sri Lankan MEs prefer to apply directly rather than seeking the services of an intermediary.

Out of the sampled MEs (1857), when asked to share their experiences related to interaction with government office, 47% of the MEs said to have received the receipts and 20% agreed that their records were verified by government officials visits, 19% submitted some documents in electronic form, and 16% have participated in a customer care satisfaction survey. Surprisingly just 3% of MEs said that they received SMS about their application (See Table 19).

Table 18: Use of intermediaries to access the government services

S.No	Use of Intermediary Yes (%)	Sample	Sri Lanka	India	Bangladesh
1	Birth & Death registration office	14	3	36	3
2	Public distribution system office	8	0	21	3
3	Cooking gas cylinders-new & refill	11	0	33	0
4	Driving license office	28	18	55	11
5	Voter's card office	10	4	21	4
6	Poor identification office (e.g. samurdi in LK)	10	0	35	6
7	Government health centers/hospitals	11	3	23	6
8	Courts office	26	22	32	24
9	Police station office	22	5	44	18
10	Post office	5	2	11	2
11	Sanitation office	11	5	29	0
12	Property tax payment office	13	6	25	8
13	Water tax payment office	17	1	44	7
14	Trade Licenses (new & renewal)	21	10	43	10

Figure 37: Use of intermediaries to access the government services



Note: Figures are in percentage

Out of the above listed experiences, Sri Lanka seems to be leading in all the aspects followed by India and Bangladesh like submitting documents in electronic form (30%) (19%) (8%), receiving the receipts for the fee paid (77%)(40%) (24%), cross verification of records by government official visits (41%)(8%) (11%), and receiving SMS about the application (4%) (3%) (1%). There is an exception in case of customer care satisfaction survey, where India is slightly ahead with 24% and Bangladesh (1%) than Sri Lanka (19%) (See Table 19).

Table 19: Information processing in other government offices

S.No	Experiences related to interaction with government office.	Sample (1857)	Sri Lanka (490)	India (545)	Bangladesh (822)
1	I needed to submit some documents in electronic from	19	30	19	8
2	Did you get the receipt for the fee paid at the office	47	77	40	24
3	There were visits by the government officials to check the records submitted by me	20	41	8	11

4	I had received SMS about my application	3	4	3	1
5	There was a customer care satisfaction survey	16	19	24	4

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

Sample MEs visit three times (SD=2.58) to the government office apart from registration after the first visit across the three countries. Out of these Sri Lankan MEs visit less (two times, SD=1.53) compared to Bangladesh (three times, SD=3.44) and India (3 times, SD=2.77) (See Table 20). On an average MEs spend over twenty five minutes (SD=33 minutes) in the government office every visit across three countries. Indian MEs spend less time (5 minutes, SD=19.75 minutes) compared to Bangladesh (57 minutes, SD=50.15 minutes) and Sri Lankan MEs (11.92 minutes, SD=29.08). Indian MEs spend less time compared to Sri Lankan and Bangladesh MEs, may be, because of sourcing an intermediary.

MEs meet two officials on an average (SD=1.16) in the same office across three countries. Similar trend is observed across three countries, Bangladesh is leading slightly with three officials (SD=1.38) followed by India (2 officials, SD= 1.06) and Sri Lanka (2 officials, SD=1.04) (See Table 20). On an average MEs need three documents (SD=1.35) for registration. In Bangladesh the entire process takes a longer time (12 days, SD=22.68) compared to Sri Lanka (6 days, SD=9.98) and India (4 days, SD=5.04). The study tried to explore the fee paid to the government during the process of registration (apart from business registration) and found that MEs spend 10 USD (USD= 14.33) on an average. Almost same figures are observed in the three countries, India is slightly less with 9 USD (SD=20) compared to Bangladesh (10 USD, SD=12) and Sri Lanka (10 USD, SD=11).

The study also tried to gain insights on whether MEs paid any bribe to the government official and found out that on an average they paid 9 USD (SD=11.33). Indian MEs are on the higher side (18 USD, SD=26) compared to Bangladesh (6 USD, SD= 5) and Sri Lanka (4 USD, SD=3) in paying bribes to government officials during the process of registration (See Table 20). India is also leading in terms of money paid to the intermediary for registration (apart from business registration) with 12 USD (SD=21) followed closely by Sri Lanka (10 USD, SD=22) and then Bangladesh (2 USD, SD=2).

From an overall perspective seeing the above results it is observed that in India the process of registration is much effective in terms of time taken, fee paid, ease and speed etc. compared to Bangladesh and Sri Lanka but weaker in terms of payment of bribes and money to the intermediaries.

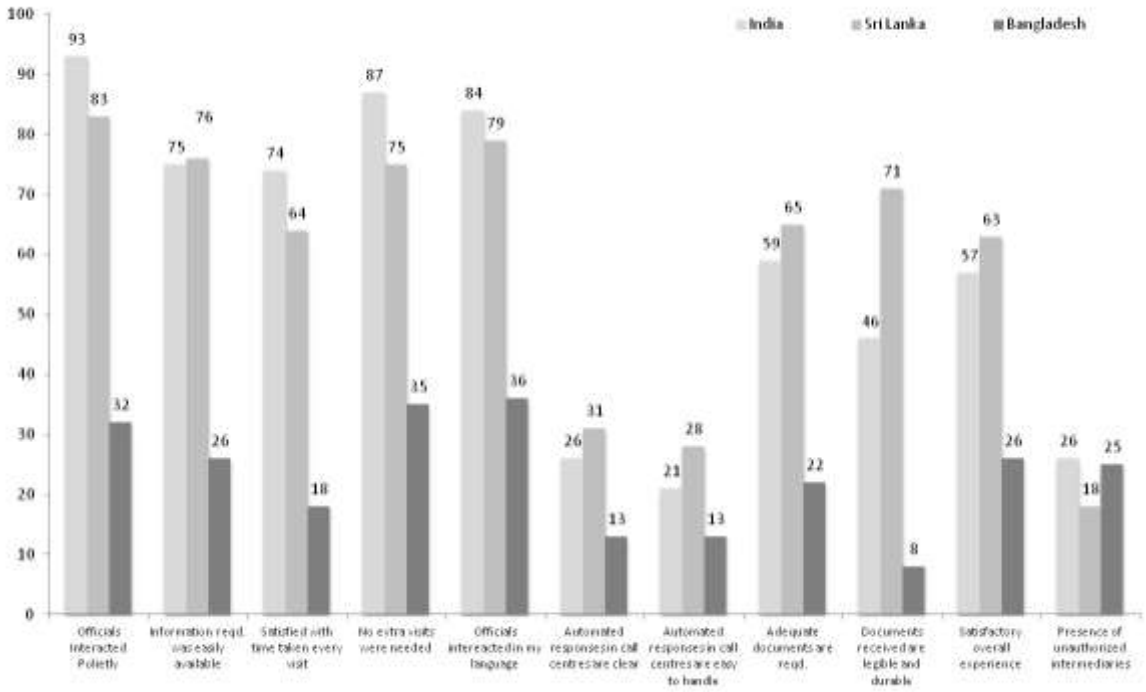
Table 20: Service delivery in other government offices

S.No	Experiences regarding the registration	Sample	Sri Lanka	India	Bangladesh
1	Number of visits made by you to the government office after the first visit	2.73 (2.58)	1.90 (1.53)	2.97 (2.77)	3.33 (3.44)
2	What is the average time spent (in minutes) by you at government office every visit	24.42 (32.99)	11.92 (29.08)	4.72 (19.75)	56.63 (50.15)
3	Number of different officials in the same office you met for registration	2.25 (1.16)	1.99 (1.04)	2.14 (1.06)	2.63 (1.38)
4	How long (in days) did the whole registration process take	7.94 (1.31)	5.53 (9.98)	4.14 (5.04)	14.17 (28.00)
5	Number of documents needed for the registration	2.39 (1.35)	2.17 (1.27)	2.23 (1.35)	2.79 (1.43)
6	The fee paid to the government in USD	9.66 (14.33)	10 (11)	9 (20)	10 (12)
7	Amount of bribe paid to the government official in USD.	9.33 (11.33)	4 (3)	18 (26)	6 (5)
8	Amount of money paid to the intermediary in USD	8 (15)	10 (22)	12 (21)	2 (2)

The study tried to explore the experiences encountered by MEs in recent interaction with a government office using eleven statements and found that more than half of the MEs agreed on the aspects like, government officials interacted politely with them (69%), interaction with the office was carried out in their language (66%), took only necessary visits to office (66%), information relevant to their work was available easily (59%) and were satisfied with the time taken at office during each visit (52%) across the three countries. Overall MEs were dissatisfied with ease in handling the automated response in call center helpline (23%) and clarity of the automated responses in call center (23%) (See Table 21).

Indian and Sri Lankan MEs more or less followed a similar trend and Bangladesh varies with low agreement in their recent experiences related to interacting with the government officials (See Figure 38).

Figure 38: Service delivery in other government offices.



Note: All figures in percentage who said Yes as response.

The respective percent of MEs agreed on the listed statements (See Table 21) for India, Sri Lanka and Bangladesh are as follows: government officials interacted politely with them (93%) (83%) (32%), interaction with the office was carried out in their language (84%) (79%) (36%), took only necessary visits to office (87%) (75%) (35%), information relevant to their work was available easily (75%) (76%) (26%) and satisfied with the time taken at office during each visit (74%) (64%) (18%) (See Figure 38).

In Bangladesh percentage of MEs agreement on all the aspects is very low compared to India and Sri Lanka which indicates that MEs do not have a pleasant experience and overall dissatisfied with their recent interaction with government officials. Earlier results also show that in India and Sri Lanka the process of registration is much effective compared to Bangladesh which indicates that the Government has to take necessary measures to improve and streamline the process of registration and other aspects as the MEs seems to face difficulties in these areas.

Table 21: Service delivery interactions in other government offices

S.No	Experiences while interacting with the Government (%)	Sample (1857)	Sri Lanka (490)	India (545)	Bangladesh (822)
1	A government officials interacted politely with me	69	83	93	32
2	All the information relevant to my work/ query/problem was available easily.	59	76	75	26
3	I was satisfied with the time taken at the office during each visit	52	64	74	18
4	I took only the necessary amount of visits to the office	66	75	87	35
5	The interaction with the office was carried out in my language	66	79	84	36
6	I find the automated responses in call center helpline are clear	23	31	26	13
7	I find the automated responses in call center helpline easy to handle	21	28	21	13
8	The number of documents required at the office were/are adequate.	47	65	59	22
9	There were/are unauthorized intermediaries to help you at the concerned office	17	18	26	8
10	The documents received by me are legible and durable.	48	71	46	26
11	Over all my experience in dealing with the agency satisfactory.	48	63	57	25

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

7 Comparison between Locations / Cities of Good and Weak Governance

The study collected data from two places or cities representing good and weak governances, measured by various parameters. In India, New Delhi and Patna were selected. In Bangladesh, Dhaka represented good, whereas Gaibandha & Kurigram represented weak governances. In Sri Lanka, for good governance, Colombo was selected and weak governance were represented by Kurnegala & Puttalam. For justification of selection of these locations and for details on various parameters, please See Annexure 2.

7.1 Comparison of Telecom Sector

To understand whether customer service management differed in telecom and electricity, we picked up some important questions for further analysis. The mobile penetration is slightly low in the weak-governed places. The difference is high in India (28 percent) when compared to Sri Lanka (three percent) and Bangladesh (14 percent). The amount of money spent by MEs in recharging is also less in weaker locations. In all three countries, the difference is of one dollar, whereas in India overall spending is low when compared to other countries. MEs that use scratch cards are higher in Sri Lanka, without much differences between good (61%) and weak governance locations. Bangladesh MEs prefer reloading from a shop / agent or dealer in general, more so on weak-governed locations (86%) when compared to good (70%). The contrast is evident in India where MEs in good governed locations prefer scratch cards and weak-governed locations prefer reloading from the shop keepers. The above discussion is summarized in Table 22.

Table 22: Mobile phone in locations of good and weak governance.

SNo	Description (in percentage)	Sri Lanka		India		Bangladesh	
1		Good	Weak	Good	Weak	Good	Weak
2	Number of MEs (N)	501	485	641	638	460	455
3	Percentage of MEs who owned mobile phones	80	77	68	36	96	82
4	Average recharge per week in US $	3	2	2	1	3	2
5	Percentage who recharged using scratch cards	61	69	58	19	23	9

6	Percentage who recharged by 'reload from a shop / agent / dealer'	34	27	34	78	70	86

The nature of problems faced by MEs in two different locations seem to be same in Sri Lanka, when compared with other countries (See Table 23). All listed problems are faced by MEs in weakly governed city are larger when compared to good location in India. For instance, call drops are faced by 44% MEs in Patna when compared to the good governance city, New Delhi, 2%. Call drops and coverage problems are faced more by MEs in Dhaka, good-governed city when compared to weak-governed places in Bangladesh. In terms of complaining to the service provider, Sri Lankan MEs in weak places are more forthcoming, 42% almost double of other location. In India and Bangladesh, MEs in good governed locations are more vocal than others, with difference of about 10%.

Table 23: Telecom problems in locations of good and weak governance

SNo	**Problems faced (in percentage)**	**Sri Lanka**		**India**		**Bangladesh**	
		Good	**Weak**	**Good**	**Weak**	**Good**	**Weak**
	Number of MEs (N)	401	374	435	230	442	372
1	Not applicable	61	63	68	3	38	54
2	Billing related	2	5	4	33	16	12
3	Call drops	27	25	2	44	42	28
4	SIM not working	9	8	7	13	14	4
5	Activation of VAS service without knowledge of customer	n/a	4	9	26	6	12
6	Coverage Problems	19	12	11	37	36	19
7	Percentage who complained about these problems to the telecom service provider	28	42	69	58	24	35

The MEs located in both the locations did not differ in reasons for not complaining to the service provider (See Table 24). The differences between both the locations are in the range of 0-9 percentage. The impact of network disconnectivity or call drops, indicators of quality in service delivery, tend to affect the MEs located in weak governed locations in all three countries (See Table 25). The extent of impact is high for Indian MEs with difference of 21 percentage, in Bangladesh it was 18 percentage and low in Sri Lanka with 16 points. Relatively less amount of MEs felt that their major complaints were not attended by the service providers.

Table 24: Reasons of not complaining telecom problems

SNo	Reasons for not complaining (in percentage)	Sri Lanka		India		Bangladesh	
		Good	Weak	Good	Weak	Good	Weak
	Total MEs (N)	112	81	43	93	208	111
1	I do not know how to contact them	17	12	51	51	24	33
2	It is of no use	47	52	40	35	30	28
3	I am scared of them	0	0	0	0	1	3
4	I did not think it was worth complaining	34	33	9	14	44	36
5	Others	2	2	0	0	0	0

We looked at the differences between good and weak governance places in customer relationship management practices in telecom. There were eleven items to understand the service delivery from the perspective of customer relationship (See Table 26). Across the three countries, information relevant to query or problem of the customers are easily available in weak locations better the than good locations. For instance, 91% MEs in weaker parts of Sri Lanka and India than 87% and 76% respectively.

Table 25: Impact of telecom problems on business and response

Description (in percentage)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total MEs (N)	156	139	139	224	272	171
Does network dis-connectivity / call drops affect your business?	33	49	17	38	28	46
Have any of your major complaints not been attended by the service provider?	3	8	12	7	9	6

In Sri Lanka, service delivery is better at weak locations in the areas of time taken to resolve the query, satisfaction with the action taken by the operator, clarity in automated responses in call centers, availability of information to contact the service provider and to file the complaints. Good locations are doing better in lesser waiting time to meet the concerned officer, answering by call center agents before directing to IVR, and tracking the application or complaint online.

Table 26: Telecom service delivery in different locations

Management of Customers (in percentage)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total MEs (N)	131	98	152	151	117	90
I was treated politely by the office / call center personnel	93	94	88	93	85	87
All the information relevant to my work/query/problem was available easily	87	91	76	91	68	82
The waiting time to reach the concerned officer was satisfactory	78	69	67	77	35	38

The time taken to resolve the problem / answer the query was satisfactory	78	83	77	77	57	74
I am satisfied by the action taken by the operator	76	85	58	64	56	82
Call center agent redirected me to use (IVR, Internet, USSD etc) without answering the query.	12	20	35	26	21	34
I find the automated responses (IVR) in call center helpline are clear	40	44	55	56	71	70
The interaction with the office was carried out in my language or language I chose/preferred	83	85	77	76	81	88
Tracking my application or complaint through a phone / the Internet was possible	46	34	33	17	15	24
Information on how to contact the service provider is /was readily available	63	78	44	43	37	58
Information on procedures to file complaints is/was readily available	63	80	54	49	32	74

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

In India, weak location is doing better than good locations in the following areas: polite treatment of customers by the service personnel, satisfactory waiting and problem resolving time, response by call center agents before diverting to use IVR, and clarity in the automated responses. Good location seems to be doing better in tracking application online and ready availability of information for complaints.

In Bangladesh, weak locations are lower than good location, in only one area: redirection of call center agents to use IVR without answering the query. In rest of the areas, service delivery seems to be better than good location or equal in the weak locations.

The overall trend is tilted towards better service at the weak locations by the telecom service providers. This better service is possible despite the relative poor governance signaled for the overall environment in the province or the district. The BoP MEs at the weaker locations are receiving on par service delivery, if not better, than the good governed locations. The telecom service providers are able to even out the influences of the external factors in delivery of the services.

7.2 Comparison of Electricity Sector

India stands alone in terms of MEs using electricity for business purpose, where weak governance location offers better access than the good-governed place (See Table 27). There are no differences across locations in Sri Lanka and Bangladesh. However, BoP MEs in weakly governed locations, despite having better access, on an average incur less monthly electricity expenses, 6 USD than others. Similar expenditure difference is seen in Bangladesh too.

Table 27: Electricity ownership and expenses in different locations

Electricity Related	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total number of MEs (N)	501	485	641	638	460	455
Have an electricity connection used for business, in percentage.	83	85	30	44	92	90
Total number of MEs (N)	414	410	193	281	422	411
Have a separate electricity connection for business, in percentage.	67	67	48	63	42	61
Average monthly electricity expenses in US $ (Standard Deviation)	24 (23)	22 (28)	14 (13)	6 (5)	12 (13)	7 (9)

Except India, MEs in other countries are fully dependent on power supply from the provider (See Table 28). In India alternative sources of electricity are present. One third of MEs in good governed location use battery, where diesel generator meets the demand for 12% MEs in the weak governance location.

Table 28: Sources of electricity in India

Source	Good Governance Location	Weak Governance Location
Total sample (N)	193	281
Solar	6	2
Diesel generator	2	12
Battery	32	16
Electricity Company	61	70

When asked for a reason for not having electricity connection for business, lack of need is cited as the dominant reason followed by a small number of MEs that did not have adequate documents to get the connection (See Table 29). As the most of the businesses are not tied to a location, need for electricity might be less.

Table 29: Reason for no electricity connection for business in different locations

Most important reason	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	87	75	448	357	38	44
I have no need for it	78	76	97	82	92	77
I cannot get a connection as I do not have required documents	9	16	2	11	3	5

While paying for electricity used by the MEs, physical visit to the electricity company seems to be dominant followed by the payment to the landlord (See Table 30). Post office payments are present in Sri Lanka. There are no major differences across the locations in all the countries, except in Bangladesh. More MEs in good governed location pay to the landlord than the weak locations.

Electricity providers should contemplate in extending number of options where BoP MEs can pay the electricity bills.

Table 30: Channels of electricity bill payment.

Channels of payment	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total	413	410	120	231	420	411
Physically go and pay to electricity company	60	62	53	34	9	14
Pay to a company designated payment point	11	11	6	6	2	3
Online to electricity company	1	1	0	0	0	1
Pay via mobile to the electricity company	0	0	0	0	0	17
Bank/post office	22	21	0	0	6	36
Pay to landlord	4	4	34	32	81	24
Pay to third party (may include neighbours)	1	1	8	12	1	2
Pay online through my bank	0	0	0	0	0	
I don't pay anyone			0	16		1

In terms of power blackouts and voltage fluctuations, MEs in weak-governed locations in India and Sri Lanka suffer more than the good locations (See Table 31). Rest of the problems like meter malfunctioning, delayed bills and inaccurate bills are experienced by relatively lesser number of MEs. In Bangladesh, almost all MEs in both the locations face the blackout problems. In Sri Lanka and India, the differences between good and weak locations are larger when compared to problems faced in the telecom domain. The nature of impact of power blackouts are also severely felt by BoP MEs in

weak locations than good ones. However only quarter of them complain to the service provider. Similar impact is felt for voltage fluctuations as well. However the amount of MEs complain becomes all the more less, especially in Indian and Bangladesh.

Out of the various reasons for not complaining to the service provider, lack of confidence in the supplier seems to be dominant (See Table 32). This perception seems to be uniform across the locations in different countries. For instance, nearly half of MEs in good and weak governance locations, feel that complaining is of no use.

Table 31: Nature of electricity problems faced

Electricity related problems	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total number (N)	413	410	120	231	421	411
Do you face blackouts with the electricity supply?	76	91	28	94	98	95
Do you get advance notice about blackouts?	41	43	5	4	59	42
Do you face voltage fluctuations with the electricity supply?	11	45	11	71	60	74
Do you face meter malfunction?	3	5	9	9	9	11
Do you get bill in a delayed manner?	1	4	3	7	1	7
Do you get inaccurate bill?	1	3	3	8	14	22
Does blackouts affect your business severely?	64	66	35	74	74	82
Did you complaint about the	29	29	24	24	8	20

blackout? (only among those who said yes for blackouts)						
Do voltage fluctuations affect your business severely?	58	53	77	62	56	68
Did you complaint about the voltage fluctuations? (only among those who said yes for fluctuations)	24	24	31	17	8	19

Out of the MEs that contacted electricity providers for complaining, phone is most used by MEs in weak locations in Bangladesh and reverse in Sri Lanka and India (See Table 33). Only in Sri Lankan good location, one third of MEs complained received a reference id. Rest of the locations across countries, this is a small amount indicating poor acknowledgment of complaints.

Table 32: Reasons for not complaining to the electricity provider

Reasons	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total sample (N)	232	260	23	150	377	299
I do not know how to contact them	4	4	4	7	10	9
I do not know the process to complain	8	5	0	11	7	5
It is of no use complaining	48	52	48	55	57	69
I am scared to complain	1	1	0	6	1	1
It did not think it was worth complaining	31	28	13	11	21	11
Others	1	4	0	1		1

I do not interact or pay to the service provider but interact or pay to my landlord/third party	6	5	35	9	3	3

Table 33: Channels used for complaining to electricity providers

Channels of complaining	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total sample (N)	94	116	36	221	41	99
Through phone	88	83	67	44	17	44
Walk-in to the authorized agent/ providers office	9	12	22	30	76	36
Email	0	0	6	0	2	4
Letter	2	2	0	4	0	0
Via online chat / website	0	0	3	0	0	0
Informal talk	1	3	3	22	5	15
Did you receive a reference ID or written form for your complaint?	30	10	0	8	12	20
Are you satisfied with the action taken?	73	71	36	22	24	28

Walk in to the authorized agent or providers' office is done by Bangladeshi MEs in good locations, double of MEs in other locations. Sri Lankan MEs in both the locations seem to be more satisfied with the action taken, 71-73%, when compared to relatively low level of satisfaction in weak locations in other countries.

Sources of alternative sources differ across different locations in three countries (See Table 34).

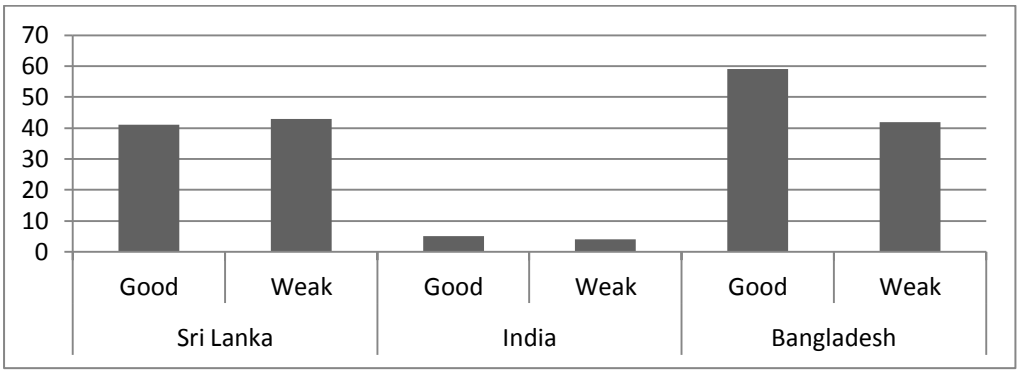
Half of Sri Lankan MEs in weak locations do not use any alternative sources of power. Quarter of them use candles which are used by half of MEs in good location as well.15% of Indian MEs in weak locations use oil lamps and 20% use battery operated inverters. Half of them use candles. Diesel / oil based generators are used by 34% good location MEs in Bangladesh which is less than 42% of MEs in weak locations.

Table 34: Managing power black outs

Common Alternatives	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total MEs (N)	413	410	120	231	421	411
Oil lamps	5	9	1	15	1	16
Candles	51	23	32	52	27	20
Battery operated inverter	8	8	28	20	16	8
Diesel / oil based generators	5	7	8	2	34	42
Solar based inverters	0	1	0	1	1	1
Others			0	1	19	13
I don't use any alternative source	30	52	33	9	2	1

In terms of receiving notices about power blackouts, there are not much differences between locations, but countries differ widely (See Figure 39). Bangla MEs in good locations are in the slightly advantageous position as they receive advance notice about the power blackouts when compared to weak locations. Sri Lankan service providers do not differentiate much as nearly half of them receive the notices. India is doing badly as less than five percent of them receive notices, irrespective of the location.

Figure 39: Receipt of notices about power blackouts



In terms of reaching consumers about sharing notices about power blackouts, Bangladesh seems to be successful in using public announcement in both weak and good governance locations (See Table 35).

Table 35: Information about power blackouts

Sources of Information	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total MEs (N)	170	175	6	10	249	171
Through newsreports	21	5	67	10	0	0
Through radio or TV	66	7	0	0		0
Through SMS	0	0	0	0	0	0
Through posters/notices	10	0	0	0		0
Through neighbours	34	6	83	40	27	1
Through friends /relatives	11	2	33	30	16	1
Through Public announcements	54	93	17	0	98	99
Others	0	0	0	20		0

Neighbours are good source for 27% of MEs in good location. In Sri Lanka, public announcements are working well for weak locations and radio or TV announcements are good source for good locations. In India, though overall numbers are less, newsreports and neighbours are good source for good locations and weak locations are dependent on neighbours and friends or relatives.

Table 36: Electricity service delivery in different locations

Management of Customers (in percentage)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total MEs (N)	139	146	1	25	55	133
Information on procedures and documents to get new connection was readily available	31	36	0	64	18	40
The amount of time I need to wait to get a new connection is satisfactory	27	25	0	64	13	30
Information on procedures to reconnect was readily available	26	26	0	52	7	33
The amount of time taken to reconnect was satisfactory	22	23	0	44	7	29
Information on how to contact the service provider is /was readily available	22	37	0	56	9	47
It is easy to find the locations where payment can be made	42	53	0	88	22	57
Information about the procedure for changing ownership of a connection was readily available	14	18	0	48	2	23
The amount of time I need to spend to change the ownership of the connection satisfactory	16	12	0	44	0	17
I was treated politely by their office / call center personnel	27	42	0	72	36	56
The waiting time to reach a concerned officer was appropriate	22	24	0	56	27	37
Service provider wants me to contact	10	18	0	8	9	25

through phones only						
Service provider wants me to obtain information through self service	7	4	0	4	2	12
The interaction with the office was carried out in my language	25	36	0	88	58	65
Tracking my application or complaint through a phone/internet was possible, if needed	12	18	0	36	0	17
I find the automated responses in call center helpline are clear	19	15	0	28	9	29

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

Overall the level of customer relationship management in electricity seems to be inferior when compared to the telecom sector (See Table 4). We compared the differences between good and weak locations across the three countries (See Table 36). In India, the sample size who attempted this question was less and is discarded in the further discussion. Sri Lanka MEs seem to have better experience than Bangladesh in the following parameters - ready availability of information on new connections and reconnections, amount of time needed to get a new connection and reconnection, location for payments, and scope for contacting in phones. Bangladesh MEs are more satisfied than Sri Lankans on two fronts: polite treatment by the call center personnel and appropriate time to reach the concerned officer.

Though the need for telecom services are realized by the target group and extent of use of these services are much greater than the government services, the electricity supplier appears not enthusiastic in attracting or retaining customers. Except one, none of the items crossed the 50% mark, indicating overall scope for improvement. Nevertheless, the trend points towards better service delivery in the weak locations. In Bangladesh and Sri Lanka, in almost all indicators, MEs in weak locations feel better than MEs in good governance location on customer relationship.

7.3 Comparison of Service Delivery in Government Sector

The sampled MEs located in both good and weak locations do not much differ in terms of business registration with Government authorities across the three countries (See Table 37). In India (7%) and Bangladesh (57%) the MEs in good locations are slightly high in registering with Government authorities compared to weak location MEs with (2%) and (50%) respectively. Sri Lankan MEs are just the reverse way where results indicate that MEs in weak locations are comparatively high (61%)

than the MEs located in good location with 49% in registering with Government authorities (See Table 37).

From an overall perspective Indian MEs are very less in registering with Government authorities in both good as well as weak locations. In Bangladesh and India MEs in good locations are high in registering with Government authorities whereas in Sri Lanka it is just the other way.

Table 37: Business registration in different Locations

Reason	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	501	485	641	638	460	455
Government Authorities (in %)	49	61	7	2	57	50

The sampled MEs who stated the reasons for registering with Government authorities in India and Bangladesh are high in good locations whereas MEs in weak locations are relatively more in Sri Lanka (See Table 38). Most of the MEs in weak locations stated that they have registered with Government authorities because of Government compulsions across the three countries. Sri Lankan MEs are comparatively more with (91%) followed by India (69%) and Bangladesh (42%). The other reasons stated by MEs are benefits that their business would get in the long term. In Sri Lanka MEs in good locations are high (14%) in registering with Government authorities due to the perceived benefits whereas MEs in Bangladesh (15%) and India (34%) for the same are more located in weak locations (See Table 38) . It was also found that there are good number of MEs in good locations across the three countries who had stated no particular reason for registering with Government authorities.

Table 38: Reasons for registering in different Locations

Reasons for registering with Government authority (in %)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	247	298	43	13	264	226
No Particular reason	10	2	23	0	16	14
I will get some financial assistance from the Government	0	1	7	15	6	6
I will get some non-financial assistance from the Government	-	-	0	0	1	3
The Government has made it compulsory	72	91	63	69	30	42
My friend/family told me to do so	4	1	2	0	1	1
My business will benefit it in the long term	14	4	5	15	45	34

MEs who shared their business registration process details in India and Bangladesh are mostly in good locations whereas MEs in weak locations are relatively more in Sri Lanka (See

Table 39). MEs who directly applied at the Government office are mostly located in weak locations in Bangladesh (95%) and India (85%) but relatively high in good locations in Sri Lanka (83%). MEs who have registered their business through an intermediary are mostly from weak locations across the three countries where Sri Lanka is high with (22%) followed by India (15%) and Bangladesh (6%).

Table 39: Channels of registration in different locations

Channels of registration (in %)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	247	298	43	13	264	226
Through an intermediary	17	22	77	15	44	6
Applied directly at Government office	83	78	23	85	55	94
Through a website accessed at cyber cafe	0	0	0	0	1	0
Through a website accessed on some other location/ computer	0	0	0	0	-	0

The sampled MEs in Bangladesh (116) and India (33) who sourced an intermediary are mostly from good locations whereas in Sri Lanka (66) most of the MEs were from weak locations (See Table 40). Out of the reasons stated MEs who sourced an intermediary due to complexity in procedures are mostly from good locations and comparatively less from weak locations across the three countries. Out of these similar trend is observed in Indian (27%), Bangladesh (27%) MEs from good locations who sourced an intermediary due to complexity in procedures and Sri Lankan MEs are slightly less with (22%). MEs who stated lack of time are mostly from good locations in India (39%) and Sri Lanka (17%) whereas in Bangladesh most of the MEs (57%) were from weak locations. MEs who stated that they sourced an intermediary based on Government official suggestions are mostly from weak locations in Sri Lanka (18%) and India (50%) whereas none of the MEs were from strong locations in Bangladesh (See Table 40).

Table 40: Reasons for approaching an intermediary

Reasons for approaching an Intermediary (in %)	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	41	66	33	2	116	14
The procedures were complex	22	17	27	0	27	14

Government official suggested the intermediary	15	18	21	50	3	0
The required documents were not with me	12	23	0	0	4	0
The Government office was far for me	2	2	6	0	16	0
It was found more easier than dealing with Govt officials	7	15	39	50	56	29
I do not have the time	17	11	39	0	21	57
I do not know	29	18	3	0	3	0

Most of the MEs who shared their experiences at Government office during registration are from weak locations across the three countries (See Table 41). Out of these most of the MEs who obtained application in a printed form from office were slightly high from weak locations in India (91%) and Bangladesh (73%) and whereas in Sri Lanka most of the MEs (79%) are from good locations. MEs who filed application manually are mostly from weak locations in India (64%) and Bangladesh (84%) and MEs are equally distributed in good and weak locations (76%) in case of Sri Lanka. Most of the MEs who submitted supporting documents in the office are from good locations in India (60%) and Bangladesh (83%) whereas MEs are almost equally distributed in good and weak locations in Sri Lanka with (67%) and (68%) respectively. The office was computerized mostly in good locations across the three countries. Most of MEs who paid in cash or demand draft are from weak locations in Sri Lanka (67%) and Bangladesh (68%) whereas MEs are slightly high in good locations in case of India (40%). MEs who signed the document manually are from weak locations in India (73%) and Bangladesh (83%) whereas MEs in Sri Lanka (62%) are slightly high in good locations. (See Table 41).

Table 41: ICTs use in registration

MEs Experiences at Government office during registration	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Total (N)	206	232	10	11	144	212
The office was computerized	63	48	70	55	63	42
The application form was obtained in the printed form from the office	79	66	90	91	68	73
The application form was downloaded from the website	5	6	40	9	14	9
The application form was filed manually	76	76	60	64	41	84
The application form was filed online	7	4	40	18	9	4
Supporting documents copies were submitted in the office	67	68	60	45	83	72
Supporting document copies were uploaded in the website	3	5	0	0	8	8
Payment was done in the cash or demand draft	64	67	40	36	37	68
Payment was done through credit card or e-transfer	1	4	20	9	6	5
The certificate of registration received was hand written	16	21	30	9	29	50
The certificate of registration received a typed one	49	36	60	36	53	45
The certificate was a computer printed one	31	18	20	73	54	52
The document was signed manually	62	59	70	73	42	83
The document was signed digitally	8	3	0	36	25	24

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

Sample MEs in Bangladesh are just four in number who shared their experiences of accessing a website to get the registration done at the government office and nil in Sri Lanka and India. From an overall perspective, MEs accessing website for registration purpose is very less across the three countries and that small percentage of MEs who accessed website for registration purpose are mostly from good locations.

The study tried to explore the nature of experiences MEs had regarding the registration across the three countries in good and weak locations and found that on an average MEs from weak locations visited more number of times to the government office after the first visit, in India (4 times, SD=1.36) and Sri Lanka (2 times, SD=1.36) whereas MEs from good locations visited more number of times in Bangladesh (3 times, 1.36). MEs from weak locations spend more time at government office during every visit in Sri Lanka (87 minutes, SD=63.78) and Bangladesh (64 minutes, SD=64.36) whereas MEs from good locations spend more time in India (75 minutes, SD=92.96). MEs from good locations in India (3 officials, SD=1.64) and Bangladesh (3 officials, SD=1.64) met on an average more number of officials in the same office for registration whereas Sri Lankan MEs from weak locations did the same (2 officials, SD= 1.06). MEs from good locations needed more number of documents in India (3 documents, SD=1.39) and Bangladesh (3 documents, SD=1.11) whereas MEs from weak locations required more number of documents in case of Sri Lanka (2 documents, SD=1.12). MEs in weak locations from Sri Lanka (11 days, SD=14.51) and India (13 days, SD=17.53) take more number of days for the entire registration process whereas MEs in good location take quite a long time in case of Bangladesh (15 days, SD=15. 21). MEs from good locations paid more fees to the government in Bangladesh (22 USD, SD=14) and India (16 USD, SD=17) whereas MEs from weak locations paid more fees to the government in Sri Lanka (12 USD, SD=12).

MEs who shared their experiences regarding the registration are mostly from good location in India (43) and Bangladesh (264) whereas MEs from weak locations are slightly high in Sri Lanka (298). MEs from good locations in India (79%) and Sri Lanka (91%) are slightly high in getting the receipts for the fee paid whereas MEs from weak locations are high in case of Bangladesh (80%). It was observed that government officials visits for verifications of business records seems to be high in weak locations in Sri Lanka (54%) and India (31%) whereas in Bangladesh its high in good locations (56%). MEs in good locations are slightly high in receiving regular updates about their applications status via SMS across the three countries. MEs from weak locations mostly submitted some documents in electronic form in Bangladesh (10%) and India (8%) whereas MEs from good locations in Sri Lanka (15%) are high for the same (See Table 43).

Table 42: Information / documents processing during registration

Experiences of MEs regarding registration	Sri Lanka		India		Bangladesh	
	Good	**Weak**	**Good**	**Weak**	**Good**	**Weak**
Number of visits made by you to the government office after the first visit	1.71 (1.38)	1.93 (1.36)	3.00 (1.36)	3.77 (1.36)	3.18 (1.36)	1.83 (1.36)
What is the average time spent (in minutes) by you at government office every visit?	87.47 (63.78)	70.77 (57.35)	23.45 (45.27)	74.54 (92.96)	64.36 (64.36)	55.67 (42.83)
Number of different officials in the same office you met for registration	2.09 (0.91)	2.13 (1.06)	3.11 (1.64)	1.77 (0.73)	2.89 (1.34)	2.39 (1.05)
Number of documents needed for registration	2.08 (0.96)	2.26 (1.12)	3.00 (1.39)	2.42 (2.54)	3.03 (1.11)	2.16 (1.02)
How long (in days) did the whole registration process take	5.84 (8.45)	10.83 (14.51)	11.58 (22.66)	13.15 (17.53)	14.68 (15.21)	9.23 (28.19)
The fee paid to the government in USD.	7 (6)	12 (12)	16 (17)	9 (17)	22 (14)	5 (3)
Amount of Bribe paid to the government official	8 (-)	8 (6)	20 (11)	16 (15)	5 (6)	- (-)

Note: Sample size is not mentioned as it is not uniform for all the items displayed in the table.

Table 43: Interactions during registration

Experiences regarding registration	Sri Lanka		India		Bangladesh	
	Good	**Weak**	**Good**	**Weak**	**Good**	**Weak**
Total (N)	247	298	43	13	264	226

Did you get the fee receipt for the fees/charges paid at the office charges paid at the office	91	85	79	69	70	80
Did government official visit my business to check or verify the records submitted by you	35	54	9	31	56	26
I had received regular updated via SMS about my application	5	1	2	0	3	1
I needed to submit some documents in the electronic form	15	5	2	8	6	10

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

The number of MEs who shared their experiences related to interaction with government office apart from business registration seems to be high in Sri Lanka (260) and India (373) whereas in Bangladesh (429) MEs from good locations were slightly high for the same. MEs who submitted some documents in electronic form were mostly from good location in Sri Lanka (42%) and Bangladesh (11%) whereas MEs from weak locations were high in case of India (23%). MEs located in good locations are high in getting the receipts for the payments made across the three countries. Government officials visits for verification of records seems to be high in weak locations in Sri Lanka (47%) and India (11%) whereas the same seems to high in good locations in case of Bangladesh (13%). In case of receiving application updates via SMS, overall occurrence is minimal. It is also observed that the customer care surveys were mostly conducted in weak locations across the three countries (See Table 44).

Table 44: Interactions in other government offices

SNo	Experiences of MEs in interacting with government office apart from registration	Sri Lanka		India		Bangladesh	
		Good	Weak	Good	Weak	Good	Weak
	Number of MEs (N)	230	260	172	373	429	393
1	I needed to submit some documents in electronic form	42	20	10	23	11	5

2	Did you get the receipt for the fee paid at the office	79	75	57	32	27	22
3	There were visits by the government officials to check the records submitted by me	34	47	1	11	13	9
4	I had received SMS about my application	8	1	1	3	1	1
5	There was a customer care satisfaction survey	14	23	13	29	3	5

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

The study tried to explore the experiences of MEs on most recent interaction with government across the three countries. MEs in good locations spend more time in Sri Lanka (5 minutes, SD=0.92) and Bangladesh (2.7 minutes, SD=1.28) whereas it is less in the case of India (2 minutes, SD=0.80). The entire registration process takes more number of days for the MEs in weak locations in Sri Lanka (4 days, SD=5.51) and India (4.7 days, SD=5.53) but it is almost double in Bangladesh (8 times, SD=15.14). The number of documents needed to access the services are comparatively more in good locations in India (2.6 documents, SD=1.69) and Bangladesh (3 documents, SD=1.37. The fee paid to the government official was slightly high in Bangladesh (15 USD, SD=11) and India (10 USD, SD=14) whereas the same seems to be high in weak locations in case of Sri Lanka (11 USD, SD=10). MEs from weak locations pay more bribe in Sri Lanka (4 USD, SD=3) and Bangladesh (10 USD, SD=7) whereas in India (28 USD, SD=31) it is high in good locations. The amount paid to the intermediary seems to be high in good locations in Sri Lanka and India and equal in both good and weak locations in case of Bangladesh. (See Table 45).

Table 45: Service delivery in other government offices

MEs Experiences on most recent interactions with government office	Sri Lanka		India		Bangladesh	
	Good	Weak	Good	Weak	Good	Weak
Number of visits made by you to the government office after the first visit	1.75 (1.17)	2.02 (1.76)	2.76 (2.19)	3.07 (3.00)	3.78 (3.51)	2.83 (3.30)

What is the average time spent (in minutes) by you at government office every visit?	5.09 (.92)	1.98 (1.14)	2.07 (0.80)	2.17 (1.14)	2.69 (1.28)	2.56 (1.47)
Number of different officials in the same office you met for registration	2.01 (0.92)	1.98 (1.14)	2.07 (.80)	2.17 (1.14)	2.69 (1.28)	2.56 (1.47)
How long (in days) did the whole registration process take	3.55 (5.51)	7.36 (12.54)	4.00 (5.01)	4.71 (5.53)	19.31 (34.84)	8.25 (15.14)
Number of documents needed to access the services	2.02 (1.19)	2.33 (1.32)	2.64 (1.69)	2.04 (1.69)	3.11 (1.37)	2.39 (1.42)
The fee paid to the government in USD.	9 (12)	11 (10)	10 (14)	9 (17)	15 (11)	5 (10)
Amount of Bribe paid to the government official in USD.	3 (3)	4 (3)	28 (31)	4 (10)	5 (4)	10 (7)
Amount of money paid to the intermediary	15 (35)	6 (5)	29 (27)	3 (2)	2 (2)	2 (1)

The study tried to explore the experiences of MEs in good and weak governed locations using eleven statements and found that sampled MEs who shared their experiences are high in weak locations in Sri Lanka (260) and India (373) and just the reverse in Bangladesh (429) (See Table 46). Following are the nature of interactions shared by Sri Lanka, India and Bangladesh respectively: government officials interacted politely (85%) (98%) (34%), ease in information availability (79%) (86%) (32%), time taken at the office was satisfactory (66%) (75%) (26%), only necessary amount of visits were made to the office (75%) (94%) (37%) and interaction with the office was done in local language across the three countries (83%) (90%) (37%). MEs in weak locations mostly felt that the documents are legible and durable in Sri Lanka (77%) and Bangladesh (50%) and it is relatively high in MEs located in good locations in case of India (50%). Overall MEs in weak locations were more satisfied than the MEs in good locations across the three countries.

Table 46: Service delivery in any government office

SNo	MEs' experiences on recent interaction on with a government Office	Sri Lanka		India		Bangladesh	
		Good	Weak	Good	Weak	Good	Weak
	Number of MEs (N)	230	260	172	373	429	393
1	The government officials interacted politely with me	81	85	82	98	30	34
2	All the information relevant to my work/query/problem was available easily	73	79	53	86	20	32
3	I was satisfied with the time taken at the office during each visit	62	66	71	75	10	26
4	I took only the necessary amount of visits to the office	75	75	70	94	33	37
5	The interaction with the office was carried out in my language government	73	83	71	90	35	37
6	I find the automated responses in call center helpline are clear	37	26	47	16	13	13
7	I find the automated responses in call center helpline easy to handle	35	22	32	15	14	13
8	The number of documents required at the office were/are adequate	72	58	53	62	21	23
9	There were/are unauthorized intermediaries to help you at the concerned office	16	20	48	16	7	8
10	The documents received by me are legible and durable	65	77	50	44	25	26
11	Over all my experience in dealing with the agency satisfactory	61	66	39	65	20	31

Note: All figures in percentages and of respondents who said 'yes' to each question. The other options were 'No' and 'Do not know' / Can't say / Not applicable'

8 Recommendations

Imparting lessons from a competition driven private sector, telecom, to a government monopolized sector, electricity, and other government sector has its own challenges. For instance, with respect to electricity, there are differences in terms of organizations environments, goals, structures and managerial values and strategies, and cannot be replicated across the sectors (Boyne, 2002). The notion of service delivery as public good in the government vis-à-vis the monetary returns in the private sector is often cited for poor service delivery in the government sector. However, a review of 34 empirical studies to understand this difference does not offer clear support (Boyne, 2002). The present study made an attempt to delineate the performance indicators in private and public sectors and provides adequate base for policy agents to think out the better performance of service delivery. The sectors in comparison in the study are viewed from the same target group, BoP MEs and offers empirical observations on identical parameters or items. Moreover, the sectors are catering to larger amount of BoP in the developing countries and idea of public sector units should not be preventing in improving delivery of services, especially via electronic means.

The service delivery in telecom sector (See Table 4; Table 26) is much better than the electricity (See Table 5; Table 36) and in government offices (See Table 46). In almost all the activities related to information availability, location of service availability, efficiency of services and use of ICTs, telecom sector is scoring better than the government sectors.

The telecom sector also offers insights on processes in sustaining the service delivery post customer acquisition. For instance, access of service providers during times of problems or payment of bills or fees to access services are readily available through third party vendors or retailers. Wider engagement of representatives in accessible forms, like neighbourhood shops, are resulting in better service delivery which in turn bring more users to the services. When telecom sector can generate revenue though poor customers by proper identification and customizing of services, government agencies can definitely imitate them. The revenue generated can be definitely used to fill the demand and supply gap, if desired.

Improving customer relationship management practices: Overall, electricity companies should improve their customer relationship management (CRM) practices. At the philosophical level, the firms have moral responsibility towards the customers as in government have for citizens. At the business level, the firms will benefit in the longer run, as the loosening of the monopoly status increases the competiveness of the firms. Having a better CRM system will help the firms to face open competition in the future. For instance, the state owned telecom service provider in India, BSNL, is not able to match up the competition in terms of customer acquisition or retention presently, despite being a monopoly once.

Information availability: At present unauthorized intermediaries play a larger role in connecting the public services due to information opaqueness. Ready availability of information on procedures and documents related to getting new connection and renewing old connection should be made. There shall be a charter which clearly delineates the amount of time to be taken for the action. This information shall be made available through all possible channels and local languages. The important one being a toll free number which can be called through a mobile phone.

The electricity and other public service providers should provide information on how to contact them, especially through various electronic means - portals, and social media platforms etc. For instance, In India the contact number can be displayed in the meters. This is similar to telecom service providers whose contact phone numbers are present as a part of the SIM.

Improved customer interactions: The call center personnel or office personnel of the electricity and other government offices should be given training in importance of hospitable interaction with the consumers. This involves polite treatment by the office and call center personnel, carrying out the interaction in local language, and less or satisfactory time to meet the concerned officers etc. If the service provider is using automated call center help lines, the information should be clear to the consumers.

Increased payment channels: The payment channels should be many and divergent as in the telecom sector. The telecom sector is able to manage the payment system even to the level of ten pennies recharges. The model of engaging intermediaries as in the telecom sector to process the payments should be replicated in the public service sectors including the electricity. These intermediaries are designated payment channels who operate using mobile phones. Payment through mobile money payment can be a good option.

Enhancing legalized ownership: Larger number of MEs in all the sample countries do not have electricity accounts in their names and continue to use in others name. This phenomenon borders on illegality and lack of control over the usage by the consumers. The electricity agencies should think of ways by which ownership of accounts are extended to the real users. This is linked to the ease of getting a new connection or renewing old connections and level of information available to the users for the same.

Alternately, the landlords like players can be made to play a formal role, by distributing the electricity at the micro level, for instance MEs. The MEs will have an option of selecting an appropriate vendor depending upon its needs and usage pattern. This is almost similar to spectrum allocation and usage by the government to the private players in the telecom space.

Tracking of complaints / applications: In the sample, less than one fifth of sample receive an acknowledge for the complaints filed for electricity related problems or an ID for the documents submitted. Also larger number of MEs does not complaint about their electricity related problems, as level of confidence on the supplier is low. As a business, an electricity supplier needs to improve its' level of positive impression in the consumers' minds. Tracking of an application or a complaint through mobile phone (either through a voice call or SMS) should be made possible. With the tracking of complaints possible, there will be an increased accountability resulting in better service delivery. As the voicing against poor service delivery increases, the BoP would reproduce similar behaviour in other areas where public goods are delivered. This results in overall better governance, which the public institutions aim to accomplish.

Prior information sharing: Blackout is one of the major problems faced by the BoP MEs. Due to demand supply gap, blackouts are inevitable in developing countries. However, prior information on blackouts, which can also be systematic and regular, will help the MEs to find alternative ways of sourcing power and to plan out the business related activities accordingly. An SMS in local language and automated call sharing of information are good options.

Database of MEs: At present, the business registration seems to be very low. Either procedures are very complex for the MEs and there are no perceived benefits. The government should encourage business registration and identify ways of introducing incentives for the same. The incentives are not necessarily in the form of entitlements, but in the form of market opportunities. For instance, Just Dial, an ecommerce firm in India offers toll free based business directory services that connects any business with any customer who is looking for concerned services. The government can leverage big databases of MEs to connect with the local market opportunities through public private partnership models.

Business Intelligence: Demonstration of case studies and suggestive frameworks literature for aligning ICT strategies for better customer relationship management are abundant for learning and implementation (for instance, Layne and Lee, 2001; Lindgren and Jansson, 2013; Sen and Sinha, 2011). The use of ICTs in indentifying the customer base or delivering to the differentiated customer segments is not impossible.

The usage pattern is not adequately studied as the tariff structure is not very dynamic in the electricity sector. Even with the limits set by the government, electricity supplier have an option of introducing multiple connection plans. This can be dependent on the number of units consumed. For instance, Reliance in India introduced free mobile handsets, which were bundled with the telecom usage for a stipulated time by the consumers or declining amount of money paid by the post paid customers as security amount. Similar innovations can be introduced by the electricity suppliers. Apart from easing access for its consumers, the supplier will be able to include more number of new customers.

Opening network externalities: If the access to electricity for MEs are formalized, either through the government or through intermediaries as explained above, the receipt will serve as identification document which can be used for other purposes as well. For instance, a record of electricity payments for a stipulated period can be used as a proxy for extending finance to MEs by the lending institutions. In the absence of other identification documents, electricity receipts will serve as legal document for accessing entitlements or other services from the government.

Exploring third party services: As the power blackouts are not unavoidable, venturing into different partnership businesses are possible as in the telecom sector. The telecom service providers increases overall customer experience by bringing third part content providers and service providers. For instance, mobile money or paid SMS services or ringtones in mobile phones. Electricity department can join hands with alternative source or goods providers. For instance, electricity department joining hands with CFC blub manufacturers or NGOs that product handles will result in a three way symbiotic relationship between consumers, electricity suppliers and the third party.

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10 Annexures

10.1 Annexure 1: Socio Economic Category Classification

Table A1. 1: Socio Economic Category Classification in Sri Lanka

Profession	Educational Qualifications				
	Uneducated	Till 5th grade	5th–9th grade	O/L and A/L	Graduate/ Professional qualification
1. Animal husbandry/cultivation	E2	E2	E1	D	-
2. Administration/ 3. management post-senior	-	B1	B1	A2	A1
4. Administration/ 5. management post-junior	-	B1	B1	A2	A1
6. Labourer/transport/mason – trained	E2	E1	D	C	-
7. Labourer/transport mason – untrained (Natami, cleaners etc)	E2	E2	E1	D	-
8. Clerk/secretary	D	D	C	B2	B1
9. Trade (Pavment traders etc)	E2	E1	D	C	B2
10. Industrial trained	E2	E1	D	C	B2
11. Industrial untrained	E2	E2	E2	D	-
12. Professional (Doctor, Lawyer)	-	-	-	-	A1
13. Service (Teacher, Army)	E2	E1	D	C	B2
14. Self-employed (zero employees) Small contract	E1	D	C	B2	B1
15. Business (1-9 employees)	C	B2	B1	A2	A1
16. Business (over 9 employees.)	B2	B1	A2	A1	A1

Table A1. 2: Socio Economic Category Classification in India

Occupation	Educational qualification						
	Illiterate	School upto 4 years/literate but no formal schooling	School 5-9 years	SSC/HSC	Some college but not graduate	Graduate/Post Graduate general	Graduate/Post Graduate Professional
1. Unskilled workers	E2	E2	E1	D	D	D	D
2. Skilled workers	E2	E1	D	C	C	B2	B2
3. Petty traders	E2	D	D	C	C	B2	B2
4. Shop owners	D	D	C	B2	B1	A2	A2
5. Entrepreneurs – employees none (0)	D	C	B2	B1	A2	A2	A1
6. Entrepreneurs – employees <10 (1-9)	C	B2	B2	B1	A2	A1	A1
7. Entrepreneurs – employees >10	B1	B1	A2	A2	A1	A1	A1
8. Self-employed professionals	D	D	D	B2	B1	A2	A1
9. Clerical/Salesman	D	D	D	C	B2	B1	B1
10. Supervisory level	D	D	C	C	B2	B1	A2
11. Officers/Executives: Junior	C	C	C	B2	B1	A2	A2
12. Officer/Executives: Middle/Senior	B1	B1	B1	B1	A2	A1	A1

Table A 1: Socio Economic Category Classification in Bangladesh

Occupation	Education							
	Illiterate	Literate with no formal education	Class 4s	Class 5 to 9	S.S.C/ H.S.C	Have some college education but not graduate	General Graduate or above	Professional Graduate or above
1. Unskilled worker	E2	E2	E2	E1	D	D	D	D
2. Skilled worker	E2	E1	E1	D	C	C	B2	B2
3. Petty trader	E2	D	D	D	C	C	B2	B2
4. Shop owner	D	D	D	C	B2	B1	A2	A2
5. Business person/Industrialist without any employee	D	C	C	B2	B1	A2	A2	A1
6. Businessperson/Industrialist with 1 to 9 employees	C	B2	B2	B2	B1	A2	A1	A1
7. Businessperson/Industrialist with more than 10 employees	B1	B1	B1	A2	A2	A1	A1	A1
8. Self-employed professional (e.g. Doctor, Engineer, Lawyer etc)	-	-	-	D	B2	B1	A2	A1
9. Clerk/Salesperson	D	D	D	D	C	B2	B1	B1
10. Supervisory Level	D	D	D	C	C	B2	B1	A2
11. Officer/Executive-Junior	C	C	C	C	B2	B1	A2	A2
12. Officer/Executive-Middle/Senior	B1	B1	B1	B1	B1	A2	A1	A1

10.2 Annexure 2: Comparison of Good and Weak Governance Locations

Table A2. 1: Comparison of Good and Weak Governance Divisions in Bangladesh

SNo	Parameter	Good Governance		Weak Governance		
		Dhaka Division	Dhaka District	Rangpur Division	Gaibandha district	Kurigam district
1	Incidence of poverty (headcount rate) by cost of Basic needs method – using upper poverty line (%)	30.5	16.32	46.2	52.27	50.15
2	Incidence of poverty (headcount rate) by cost of Basic needs method – using lower poverty line (%)[1]	15.6	na	30.1	na	na
3	Literacy Rate for persons aged 7 years and above[2]	57.73	47.1	54.68	47.54	33.45
4	% of electrified households -National level[3]	67.34	na	30.07	na	na
5	% of electrified households - in Urban level[4]	96.15	na	68.68	na	na

Notes:

1. BBS. (2010). Report of the Household Income & Expenditure Survey 2010, Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, p.62
2. BBS. (2010). Report of the Household Income & Expenditure Survey 2010, Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, p.78
3. BBS. (2010). Report of the Household Income & Expenditure Survey 2010, Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, p.25

4. BBS. (2010). Report of the Household Income & Expenditure Survey 2010, Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, p.25

Table A2. 2: Comparison of Good and Weak Governance Cities in India

SNo	Parameter	Good Governance		Weak Governance	
		Delhi - Union Territory	**New Delhi**	**Bihar - State**	**Patna City**
1	HDI Ranking 2006[1]	1	na	35	na
2	HDI Score 2006[1]	0.740	na	0.507	na
3	Competitiveness Ranking[2]	na	1	na	35
4	Factor Conditions[2]	na	1	na	37

Notes:

1. HDI Ranking and scores are average of three dimensions: A Long and Healthy Life (Infant Mortality Rate and Life Expectancy at age), Knowledge (7 + aged Literacy Rate and Mean Years of Education for 15+ age group), and A Decent Standard of Living (Estimated Earned Income per capita per annum). Source: GoI. (2006). HDI and GDI Estimates for India and the States/UTs: Results and Analysis. Ministry of Women and Child Development. Govt. of India. Available at http://wcd.nic.in/publication/GDIGEReport/Part2.pdf, accessed 3 April 2013, p. 30-31.
2. Competitiveness is measured by a composite index of factor conditions, context for firm strategy and rivalry, related and supporting industries, and demand conditions. The factor conditions are indicated by human resources, capital availability, physical infrastructure, administrative infrastructure, information infrastructure and Scientific and technological infrastructure. Source: IFC. (2012). India City Competitiveness Report 2012. Institute for Competitiveness, Gurgaon. Available at

3. Kapoor, A. (n.d.). India Competitiveness report. Available at http://www.slideshare.net/amitkapoor/india-city-competitiveness-report-2012, accessed 3 April 2013, p. 19-20.

Table A2. 3: Comparison of Good and Weak Governance Provinces in Sri Lanka

SNo	Parameter	Good Governance		Weak Governance		
		Western Province	**Colombo District**	**North Western Province**	**Kurunegala District**	**Puttlam District**
1	Province GDP Contribution to National Economy (%)[1]	48.4%	na	9.6%	na	na
2	Poor household %[2]	3.0	2.5	8.2	8.6	7.5
3	Poverty Head Count Index (%)[3]	4.2	3.6	11.3	11.7	10.5
4	Poverty Gap Index (%)[4]	0.8	0.7	2.4	2.6	2.0

Notes:

1. Central Bank of Sri Lanka, Statistics Department, Press Release, Communications Department, 2008 – 07 -10
2. Economic and Social Statistics of Sri Lanka 2012, Central Bank of Sri Lanka, Colombo.
3. Poverty Headcount Index is the percentage of population below the poverty line and is widely used to measure poverty in Sri Lanka.
4. Source: Economic and Social Statistics of Sri Lanka 2012, Central Bank of Sri Lanka, Colombo.

5. Poverty gap index is measured by $\frac{1}{n}\sum_{i=1}^{n} \circ \frac{Z-X_i}{Z}$ whereas N= Total number of persons, Z= - Poverty Line, XI= Expenditure of the poor persons, and (Z-Wk)=0 : for non poor persons.
6. Source: Economic and Social Statistics of Sri Lanka 2012, Central Bank of Sri Lanka, Colombo.

10.3 Annexure 3: Comparison of Sample and Population

Table A3. 1: Bangladesh - Composition of MEs in population and BoP MEs in the sample: Selected Indicators

		Good Governance		Weak Governance			
				In Population			In Sample
SNO	Parameter	In Population - Dhaka Urban (%)	In Sample (%)	Gaibandha	Kurigram	Gaibandha & Kurigram (%)	Gaibandha & Kurigram (%)
1	**Number of Small Establishments (less than 10 employees)** [1]						
	Manufacture	8	7	5	6	5	6
	Trade	69	70	70	66	68	67
	Service	23	23	25	28	26	28
	Total	100	100	100	100	100	100
2	**Number of Small Establishments (less than 10 employees** [2]						
	0 Employees	33	33	45	34	40	39
	1-3 employees	58	59	49	59	53	55
	4-9 employees	9	8	6	7	7	6
	Total	100 (N=318,991)	100 (N=460)	100 (N=13,163)	100 (N=10,229	100 (N=2339	100 (N=455)

Notes:

1. Economic Census 2001 & 2003, National Report, Bangladesh Bureau of Statistics, pp 745-6, 749, 759.
2. Economic Census 2001 & 2003, National Report, Bangladesh Bureau of Statistics, pp 745-6, 749, 759.

Table A3. 2: India - Composition of MEs in population and BoP MEs in the sample: Selected Indicators

SNO	Parameter	In Population	In Sample
1	**Sector wise establishment distribution** [1]		
	Manufacturing	38	38
	Service	31	30
	Trade	31	32
	Total	100 (N= 19746000)	100 (N=1279)
2	**Hired workers Category** [2]		
	Without hired workers	78	77
	With hired workers	22	23
	Total	100 (N= 19746000)	100 (N=1279)
3	**Gender Category** [3]		
	Sole proprietor is male	86	88
	Sole proprietor is female	11	12
	Total	100 (N= 19746000)	100 (N=1279)

Notes:

1. National Sample Survey Organisation, Non-agricultural Enterprises in the Informal Sector in India 1999 – 2000. Based on Statement 2, p.16
2. National Sample Survey Organisation, Non-agricultural Enterprises in the Informal Sector in India 1999 – 2000. Based on Statement 2, p.16
3. National Sample Survey Organisation, Non-agricultural Enterprises in the Informal Sector in India 1999 – 2000. Key Results, Page ii, Statement 10, p.24

Table A3. 3: Sri Lanka - Composition of MEs in population and BoP MEs in the sample: Selected Indicators

		Good Governance				Weak Governance			
		In population			In Sample	In population			In Sample
SNO	Parameter	Western Province-Urban	Colombo District - Urban	Colombo city		Kurunegla Urban	Puttlam Urban	North Western Province Urban	
1	Number of Small Industrial Establishments (less than 10 employees) [1]	10	13	5	15	8	11	9	11
2	Trade and services – All business [2]	87	87	95	85	92	89	91	89
	Total	100 (97)	100 (52,218)	100 (27,819)	100 (501)	100 (3,528)	100 (2,708)	100 (6,236)	100 (485)

Notes:

1. Census of Industry, 2003/2004, Department of Census and Statistics, Page 90, 101, 206

2. Census of Trade and Services, Sri Lanka.

10.4 Annex 4: Questionnaire

Improving Customer Services in Telecom, Electricity and Public Utility Services

Country: 1 Sri Lanka 2. India 3. Bangladesh Main Questionnaire No:_____

Screener Questionnaire Number
Permitted SEC categories:
India: SEC: C, D & E
Sri Lanka: SEC: C, D & E
Bangladesh: SEC: C, D & E
SEC from screener: 5=E 4=D 3=C 2=B 1=A

- The number of have hired workers or full time equivalent should be in the range of 0-9, excluding owner.
- The enterprises with no hired workers are included in the sample.
- Number of hired workers or full time equivalent should not be ten.
- The respondent should be the owner of the business and /OR actively involved in the running of business(Manager if 5-9 employees business).

Dear Respondent:

Greetings of the day!

You are being asked to participate in a research study to understand how satisfied you as a small business are with service delivery in telecom, electricity and public utility services. The interview will take approximately one hour. There are no obvious physical, legal, or economic risks associated with participating in this study because your answers will be kept strictly confidential. Your participation is voluntary. You are free to discontinue your participation at any time or refuse to answer any question without consequences.

Na. Name _____

Mo. Mobile number, if any: _____ _____

Address

Ad 1.:_____

Ad 2.:_____

Ad 3.:_____

A. MICRO-ENTERPRISE DETAILS

Thank you for participating in the survey

A1. Just for our counting purposes, please tell us about the number of employees in your business, excluding owners? **[READ ALL THE OPTIONS. FROM HEREONWARDS UNLESS SPECIFIED DON'T READ ANSWERS FOR ANY QUESTION... Value will be zero, if any option is not applicable]**

a. Paid full-time	
b. Paid part-time	
c. Paid occasional	
d. Unpaid family members/ others	
e. Total employees	

A2. Could you please tell us where your business is located? **[Single Answer=SA] [PLEASE OBSERVE AND MARK]**

From a part of my home that I own	1
From a part of my rented home	2
From an fixed location that I own, outside my home	3
From a fixed location that I rent, outside my home	4
Variable location for which I pay	5
Variable location for which I do not pay	6
Others (Please specify_____)	7

A3. How did you get the money to start your business? Please tell me the main source. **[SA]**

Inherited	1
Gifted	2
Borrowing from friends and relatives	3
Own savings	4
Sale of assets	5
Loan from a local money lender	6
Bank loan	7
Loan from other financial institution	8
Loan from an NGO	9
Mortgaged the assets	10

A4. Please tell us about your business. **[SA] [PLEASE OBSERVE AND MARK, IF NEEDED]**

My business makes some goods or wares by manual labour or by machinery-Manufacturing	1
My business provide maintenance and repair of certain goods or activity-Services	2
My business buys and sells goods and wares-Trade	3

A5. Please tell us more about your business. **[READ EACH OPTION]**

	1= Yes 2= No	
a. Does your business pay any amount to any government authority?	1	2
b. Does your business have a separate bank account to use just for business purposes?	1	2
c. Do you advertise your business?	1	2

A6. How do you normally do make or receive payments in your business? **[MA]**

	1 = Yes 2 = No 3 = Don't know/ Can't say/Others		
a. By Cash	1	2	3
b. By Check / Cheque	1	2	3
c. By Credit card	1	2	3
d. Bank account transfer	1	2	3
e. Online banking	1	2	3
f. Mobile Money transfers	1	2	3
g. Letter of Credit	1	2	3
h. Western Union / Moneygram	1	2	3
i. Informal handwritten notes	1	2	3
j. Others	1	2	3

A7. Do you think: interacting with customers in-person is more preferred than mobile phone in your business.

1. Yes 2. No 3. Can't say

A8. Do you think: interacting with suppliers in-person is more preferred than mobile phone in your business.

1. Yes 2. No 3. Can't say

A9. Please tell us: where do your main customers live? **[SA]**

Customers who live nearby	1
Customers who are from other parts of the city	2
Customers who are from outside of the city	3
Customers who are from outside of the country	4
I have no idea	5

A10. If you have extra income / profit from business, will you utilize it for business or home use? **[SA]**_____
1. Only business 2. Only home use 3. both 4. Can't say

A11. Do you think, your business is growing or stay the same or declining compared to a year ago?
1. Growing 2. Same 3. Declining 4.Not Applicable

B. ICT access and use

Read out loud. [From now all questions are related to the mobile phone used for business. However, if you do not use a mobile for business, all questions should be answered for the most used mobile phone, where applicable.]

B1. Do you use _____for your business related activities?

Item	**1 =** Yes, 2 = No	
a. Landline ((including CDMA)	1	2
b. Mobile phone	1	2
c. Computers/laptop	1	2
d. Internet via computer	1	2
e. Internet via mobile	1	2

If answer is NO to B1b (mobile=2), go to B18. Else continue.

B2. Please tell me how many active mobile SIM cards/connections you have in total that you regularly use? __ _____[Number]

B3. Who is your main mobile telecom service provider? **[SA]**

Bangladesh	India	Sri Lanka
11. Grameen Phone [BD]	21. Bharti Airtel [IN]	41. Dialog Telekom [LK]
12. Robi [BD]	22. Reliance Mobile [IN]	42. Mobitel [LK]
13. BanglaLink [BD]	23. Vodafone [IN]	43. Etisalat [LK]
14. CityCell [BD]	24. BSNL [IN]	44. Hutch[LK]

15. TeleTalk [BD]	25. Tata Indicom [IN]	45. Airtel [LK]
16. Airtel [BD]	26. Idea Cellular [IN]	46. Other _____
17. Other _____	27. Aircel [IN]	47. Don't know
18. Don't know	28. Spice [IN]	
	29. BPL Mobile [IN]	
	30. Shyam [IN]	
	31. MTNL	
	32. Other _____	
	33. Don't know	

B4. What is the most important reason for selecting **…….[Int. Read B1-B]** the service provider? **[SA]**

Suggested by a friend/ family	1
Coverage	2
Advertising	3
Shop keeper suggested	4
Most friends on same network	5
Free calls	6
Cheap prices	7
Good package for small businesses like mine	8
Good customer care by the service provider	9
Free or subsidized handset provided with the connection	10
Free or subsidized data / Internet connectivity	11
Free or cheap SIMs	12
Door-to-door marketing / operator runs stalls locally (at bazaars etc)	13
Others (please specify)	14

B5. Is your mobile phone connection pre-paid? **[Please explain to get the response, if needed]**
1. Yes 2. No
[If answer is yes in B5 e.g. prepaid, continue. Else go to B9.]

B6. What is average total recharge per week?_____(In local currency (Translator :SLRs INRr, Taka)

B7. How many times do you recharge in a month?_____

B8. How do you normally recharge your mobile? Give the most used option first. What is the next (if relevant)?

	1st	2nd
Scratch cards	1	1
Reload from a shop/agent/dealer	2	2
Reload from others (family members/friends)	3	3
Internet top-ups or reload	4	4
I don't know how	5	5
I gave money to someone else to go recharge it for me	6	6

[**Please go to B15]**

[Continue only If answer is No to B5, e.g. Postpaid]

B9. As a small business owner (manager), do you get any special package from your mobile service provider?

1. Yes 2. No 3. Don't know

If yes for B9, continue. Else go to B11

B10. What is the most important benefit you get from the special package? What is the second important benefit (if relevant)?

	1st	2nd
I get cheaper rates	1	1
I get free talk time/cheaper rates within the group	2	2
I get free talk time/cheaper rates outside the group	3	3
I get free talk time/cheaper rates during some duration of the day	4	4
I get free or subsidized handsets	5	5
I can make free calls	6	6
There is better customer service	7	7
I can make free calls to customer service	8	8
I get free / cheap data plans	9	9

I get longer credit period (i.e. a longer period to settle the bill)	10	10
I get higher credit limit	11	11

B11. What is your average total monthly expense for the mobile phone?_____[SLRs/INR/Taka]

B12. How do you get your bills? **[SA]**

Hard copy	1
SMS	2
Email	3
Check bill online	4
I do not know	5

B13. Do you understand the content in the bill?
1. Yes 2. No

B14. How do you normally make payments? **[SA]**

Through local dealer	1
Through the registered office of the service provider	2
I pay a fixed rental amount to a 3rd party (family / friend)	3
I give money to my family / friend to go and pay	4
Online payment	5
Others	6

B14a. In addition to the billed amount, do you incur extra charges or fees when using this payment option?
1. Yes 2. No 3. Don't know

B14b. What is the main reason you choose this method to make payments? **[SA]**

No particular reason	1
Its conveniently located on a route I travel	2
it's the closest payment point to me	3
It doesn't charge me extra fees	4
Payment is credited immediately	5

B15. I will read out some of the possible features in your mobile phone one by one.
(a) Please tell us whether its available on your phone.
(b) Whether you normally use it?

Features	**A. Availability** 1 = Yes (ask b) 2 = No (next feature) 3 = Don't know/Can't say (next feature)	**B. Use** 1 = Yes 2 = No 3 = Don't know/Can't say

a. Touch Screen	1	2	3	1	2	3
b. Video recorder/ camera	1	2	3	1	2	3
c. Mobile Internet	1	2	3	1	2	3
d. Email	1	2	3	1	2	3
e. Dual SIM	1	2	3	1	2	3
f. MMS, picture messaging facility	1	2	3	1	2	3
g. Google Maps	1	2	3	1	2	3
h. SMS	1	2	3	1	2	3
i. Games	1	2	3	1	2	3
j. Apps for social networking (Facebook, twitter)	1	2	3	1	2	3

B16. Please tell us whether you access each of the listed services through mobile phones?

	1 = Yes	2 = No
a. Banking and financial services (e.g. checking balance statuses in a bank account, mini-statements and checking of account history, monitoring term deposits, access to loan statements, ordering checkbooks etc.)	1	2
b. Making or receiving a payment (e.g. paying utility bills such as electricity/water bills, telephone bills, paying insurance premiums, reloading mobile phones etc.) or sending or receiving money to/ from someone	1	2
c. Governmental services (local, state or central) (e.g. Payment of property taxes for residential & commercial properties, applying for water/electricity/telephone connections, registration for birth and death certificates, filing of passport forms,	1	2
d. Health services (e.g. telemedicine consultations, wellness clinic programs, health check packages, channeling a doctor etc.)	1	2
e. Competition polls or participation in other live programs on TV or radio	1	2
f. Entertainment related information services (e.g. sports updates, horoscopes, TV and movie updates, etc)	1	2
g. Other general information services (e.g. news, etc.)	1	2

B17. Please tell us the most important reason to use a mobile phone for business. What is the next important reason (if relevant)?

	1st	2nd
To contact or coordinate with suppliers	1	1
To contact or coordinate with customers	2	2
To contact or coordinate with with employees	3	3
To access a wider set of people/ businesses of relevance to my business	4	4
To act or contact others in an emergency	5	5
To get information relevant to my business	6	6
No particular reason	7	7
Other	8	8

Ask those who answered No in to B1(b) [not owning mobile phone], else go to B19

B18. What is the main reason you don't use a mobile phone for business? **[SA]**

It is too expensive for me to afford	1
I don't see a need to use a mobile for business	2
Cannot get a connection where I live (service not available)	3
I am restricted from purchasing a phone by a particular person (i.e. I cannot make decisions on my own; someone doesn't like me having a phone)	4
Others	5

[Ask those who said they use a computer for business related activities. If B1, C Computer =yes. Else go to next section]

B19. Please tell us the most important reason to get a computer for your business. What is the next important reason (if relevant)?

	1st	2nd
To contact suppliers and customers	1	1
To do financial recording	2	2
To maintain employee records	3	3
To maintain inventory	4	4
To search for products in Internet	5	5
For social recognition	6	6
To use social networking applications facebook, twitter, orkut, others	7	7
No particular reason	8	8

C. C. CRM in Telecom

[This section is applicable only to those who use a mobile phone. B1b = 1. Else go to the next section. Please answer the following question with respect to your most used mobile phone or mobile used for business]

C1. When was the last interaction with the service provider? **[SA]**

Today	1
This week	2
Few weeks ago	3
This month	4
Few months ago	5
This year	6
Last year	7
Few years ago	8
Never	9
Can't remember	10

If C1=9 or 10, go to C4. Else, continue.

C2. How do you normally contact your telecom service provider? **[SA]**

Walk-in to the authorized agent / operator's stores	1
Via email	2
Through the call centre	3
SMS (SMS requests to download ringtones etc)	4
Online chat	5
Letters	6
Others:_____	7

C3. I will read out some statements regarding various experiences that business owners have had with their telecom service providers. For each statement I will now read out, can you please tell me whether you have personally experience this or not.

	1=Yes (Experienced) 2= No (Not Experienced) 3=DKCS/NA/Other		
a. I was treated politely by the office / call center personnel			
b. All the information relevant to my work/query/problem was available easily.	1	2	3
c. The waiting time to reach the concerned officer was satisfactory.	1	2	3
d. The time taken to resolve the problem / answer the query was satisfactory.	1	2	3
e. I am satisfied by the action taken by the operator.	1	2	3
f. Call center agent redirected me to use (IVR, Internet, USSD etc) without answering the query.	1	2	3
g. I find the automated responses (IVR) in call center helpline are clear.	1	2	3
h. The interaction with the office was carried out in my language or language I chose/preferred.	1	2	3
i. Tracking my application or complaint through a phone / the Internet was possible.	1	2	3
j. Information on how to contact the service provider is /was readily available	1	2	3
k. Information on procedures to file complaints is/was readily available	1	2	3

C4. Please tell me the mobile phone related problems you have faced. **[Multiple Answer=MA]**

Not applicable	1
Billing related	2
Call drops	3
SIM not working	4
Activation of VAS service without knowledge of customer	5
GPRS related problems / GPRS settings	6
MMS settings	7
Data connectivity is slow	8

Coverage problems	9
Unable to call other networks	10
Unsubscribing from some services	11
Others	12

If the response is other than 1 in C4, continue. Else go to C9

C5. Have you complained about these problems to the telecom service provider?
1 . Yes 2. No

[If No, continue. Else got to C6]

C5a. Why did you not complain to the service provider? **[SA]**

I do not know how to contact them	1
Its of no use	2
I am scared of them	3
I did not think it was worth complaining	4
Others:_____	5

C6. Does network dis-connectivity / call drops affect your business?
1. Yes 2. No 3. Can't say

C7. Have any of your major complaints not been attended by the service provider?
1. Yes 2. No 3. Not applicable

If yes to C7, continue. Else go to C9

C8. Whom did you go for further action? **[SA]**

No one	1
Police station	2
Regulator	3
Municipality	4
Consumer court	5
Non-governmental organization	6
Other (please specify)_____	7

C9. Did you change your primary telecom service provider in the last year?
1. Yes 2. No

[If Yes to C9, continue. Else go to next section]

C10. What was the main reason to change the service provider? **[SA]**

To get better network connectivity	1
To get a better packages	2
No particular reason	3
I was unhappy with the customer care	4
Most of my contacts use the new service provider	5

C11. Did your operator make any attempts to retain you? 1. Yes 2. No

[If Yes to C11, continue. Else go to next section].

C11a. What did they offer?**[MA]**

Some monetary compensation	1
Extra talk time	2
An apology letter	3
Waving off some charges	4
Other (specify)	5

D. Access and CRM in Electricity

Read out: All questions from now on are on electricity use by your business. If the business is in part of your house, assume home use is business use. Unless specified, all the questions pertain to the primary electricity connection]

D1. Do you have an electricity connection which you use for business purpose? Where electricity can be from the grid, solar, generator and other sources-
1. Yes 2. No

[If answer is No to D1, go to D1a. Else go to D2]

D1a. What is the main reason for not having electricity connection for business? What is the next important reason (if relevant)?

	1st	**2nd**
I have no need for it	1	1
I cannot get a connection as I do not have required documentation	2	2

No source of electricity in my area	3	3
Its too expensive for me	4	4
Other (specify)_____	5	5

Go to Next section.

D2. Do you have a separate electricity connection separate for your business?
1. Yes 2. No

If D2 = yes, continue. Else go to D2b

D2a. Please tell us the most important reason for having a separate electricity supply for your business? **[SA]**

Its cheaper than any other connection	1
I am required (by the landlord/government/third party) to get a separate connection for business	2
I got it because I want to keep my business expense separate from person expenses	3
Other (pls specify)	4

Go to D3

If D2 = No, continue. Else go to D3

D2b. Please tell us the most important reason for having a shared connection [either as a part of home or somebody's home or business] for your business? **[SA]**

It's cheaper than any other connection	1
It's difficult to get any other connection	2
I cannot get a connection as I do not have required documentation	3
It's easier than having two connections	4
I don't have a choice	5

D3. Who/what is the main supplier of electricity to you? **[SA]**

Solar	1
Diesel generator	2
Battery	3
Electricity Company	4

If D3=4, Electricity Company continue. Else go to D4

D3a. Please give the name of the electricity supplier/company:_____

D4. Is the electricity connection in your/or your business's name?
1. Yes 2. No

[If D4=no, continue. Else go to D5.]

D4a. Please tell us the most important reason for not having connection in your name. What is the next reason (if relevant)?

	1st	2nd
Connection was already there and I didn't change ownership	1	1
I do not have necessary documents to obtain it in my name	2	2
Procedures is too long are long	3	3
No particular reason	4	4
It's in the landlord's name and I can't change it even if I wanted	5	5
It's in my parents/ spouses name	6	6
I do not want to say	7	7

D5. Please tell us about your most important step in conserving energy [reducing electricity bill] you have been following? **[SA]**

I have not done anything	1
Switched to energy efficient fluorescent/ to energy efficient light bulbs	2
Turn off unnecessary appliances /lights when not needed	3
Run machines/appliances at off peak rate hours	4
Other	5

D6. When do you pay for your electricity? **[SA]**

I pay before use because I have a prepaid meter [BD only]	1
I pay after use	2
I pay before use	3

[If D6=1, continue. Else go to D9] [Bangladesh only]

D7. What is average recharge per month?_____(Int. SLRs//INR/Taka)

D8. What is the most common way of recharging? **[SA]**_____

Internet recharge	1
Scratch card from BPDB authorized shops.	2
Smart card from DESCO Vending stations	3
Mobile top up	4
Others	5

Go to D14

D9. How much is your average monthly electricity bill? _____(Int. SLRs//INR/Taka)

D10. What is the most frequent used method of payment for your electricity consumption? **[SA]**

Physically go and pay to electricity company	1
Pay to a company designated payment point	2
Online to electricity company	3
Pay via mobile to the electricity company	4
Bank/post office	5
Pay to landlord	6
Pay to third party (may include neighbours)	7
Pay online through my bank	8
I don't pay anyone	9

D11. What is the form of receipt for this method? **[SA]**
1. SMS 2. Company Receipt 3. Hand Written receipt 4. No receipt

D12. In addition to the billed amount is there an extra fee charged for using this method of payment?
1. Yes 2. No 3. Don't' know

D13. Do you get an electricity bill?
1. Yes 2. No 3. Not applicable

If Yes, continue. Else go to D14.

D13a. Are you satisfied with the information in your bill?
1. Yes 2. No 3. Can't Say

D14. I will read some the possible problems you may face with the electricity supply. Please tell us **(A)** whether you faced it in the last 2 years it **(B)** how they affected your business and **(C)** how you handled the same.

	A.	**B.**	**C.**
	Did you face this problem? 1. **Yes (ask b and c)**	**Does this affect your business severely?** 1. **Yes 2. No 3. Can't say**	**Did you complain about this problem?**

	2. No (next problem faced)				1. Yes	2. No
1. Blackouts	1	2	1	2	3	1	2
2. Voltage fluctuations (e.g. dimmed lights, equipment burn out)	1	2	1	2	3	1	2
3. Meter malfunction	1	2	1	2	3	1	2
4. Delayed bill	1	2	1	2	3	1	2
5. Inaccurate bill	1	2	1	2	3	1	2

[Continue, if answer is NO for all C in D14c. Else go to D15]

D14d. Why did you not complain to the service provider? **[SA]**

I do not know how to contact them	1
I do not know the process to complain	2
Its of no use complaining	3
I am scared to complain	4
It did not think it was worth complaining	5
Others:_____	6
I do not interact or pay to the service provider but interact or pay to my landlord/third party	7

Go to D19

D15. For the main problem with electricity you complained about, whom did you complain to? **[SA]**

Office of the Electricity Company / depot	1
Hotline / Customer care centre	2
Landlord or other person in whose name the connection is registered	3
Local electrician	4
Government / regulator	5
I will not go to anyone	6
I will rectify the problem myself	7
Others	8

D16. For the main problem with electricity you complained about, how did you complain to the ___ [**read answer in D15**]? **[SA]**

Through phone	1
Walk-in to the authorized agent/ providers office	2
Email	3
Letter	4
Via online chat / website	5
Informal talk	6
Others	7

D17. For the main problem with electricity you complained about, were you satisfied with the action taken?
1. Yes 2. No 3. Not applicable

D18. Have you ever received a reference ID verbally or in written form for your complaint?
1. Yes 2. No 3. Not applicable

D19. Have you ever interacted/talked with the electricity service provider?
1. Yes 2. No

If Yes, continue. Else go to D21.

D20. I will read out some statements regarding various experiences that business owners have had with their electricity providers. For each statement I will now read out, can you please tell me whether you have personally experience this or not.

	1=Yes 2= No 3=DKCS/NA/Other
a. Information on procedures and documents (like applications etc) to get new connection was readily available	1 2 3
b. The amount of time I need to wait to get a new connection is satisfactory	1 2 3
c. Information on procedures to reconnect was readily available	1 2 3
d. The amount of time taken to reconnect was satisfactory	1 2 3
e. Information on how to contact the service provider is /was readily available	1 2 3
f. It is easy to find the locations where payment can be made	1 2 3
g. Information about the procedure for changing ownership of a connection was readily available	1 2 3
h. The amount of time I need to spend to change the ownership of the connection satisfactory	1 2 3
i. I was treated politely by their office / call center personnel.	1 2 3
j. The waiting time to reach a concerned officer was appropriate.	1 2 3
k. Service provider wants me to contact through phones only (voice)	1 2 3

l.	Service provider wants me to obtain information through self service (IVR, SMS, USSD Internet) only.	1	2	3
m.	The interaction with the office was carried out in my language.	1	2	3
n.	Tracking my application or complaint through a phone/internet was possible, if needed.	1	2	3
o.	I find the automated responses in call center helpline are clear.	1	2	3

D21. For business purposes, what is the most commonly used alternative to manage power black outs? **[SA]**_____

Oil lamps	1
Candles	2
Battery operated inverter	3
Diesel / oil based generators	4
Solar based inverters	5
Others:_____	6
I don't use any alternative source	7

If 7 go to D23

D22. What is the cost of the alternative power supply in a week? _____(local currency)

D23. Do you get advance notice about power blackouts? 1. Yes 2. No

If Yes, continue. Else go to D24.

D23a. How do you get advance notice about power blackouts? **[MA]**

Through newspapers	1
Through radio or TV	2
Through SMS	3
Through posters/notices	4
Through neighbours	5
Through friends /relatives	6
Through Public announcements	7
Other pls specify	8

D24. Have any electricity person asked you for bribe? 1. Yes 2. No

[If Yes, continue. Else go to next section.]

D24a**.** For what? _____ **[MA]**

For regular supply of power	1
Not to be included under commercial tariff	2
Non-approved connection	3
For restoring connection in time	4
Other (specify)	5

E. CRM Government services

[Earlier we talked about your interactions with telecom and electricity providers. As a small business you might have had to interact with the government organizations and institutes etc for various business purposes, we want to know about your interactions with the government and how easy or difficult the processes were to you.]

E1. I will read out some organization where a small business can register. Please tell us whether your business is registered with them. **[Read all]**

	1= Yes	2= No
A. Local vendors/traders/manufacturers associations	1	2
B. Community service organizations	1	2
C. Chambers of commerce	1	2
D. Government authorities	1	2

[If YES for E1d continue. Else go to E7]

E2. You said that you have registered with the government. Please tell me.

	1= Yes	2= No
a Does your business pay any taxes to any government authority?	1	2
b Is your business registered for VAT or sales tax?	1	2

E3. How many years ago did you register with a government authority

a. _____years / 9999= I don't know.

E4. Why did you register with a government authority? Please give the top most reason.

No particular reason	1
I will get some financial assistance from the government	2
I will get some non-financial assistance from the government	3
The government has made it compulsory	4
My friend / family told me to do so	5
My business will benefit from it in the long term	6

E5. How did you get the registration done? **[Select one]**_____

Through an intermediary	1
Applied directly at the government office	2
Through a website accessed at a cyber café	3
Through a website accessed on some other location/computer	4

If the response is (1), ask E5a.
If the response is (2), ask E5b.
If the response is (3), or (4) ask E5c.

E5a. Why did you approach an intermediary to get registration done? **[MA]**

The procedures were complex	1
Government official suggested the intermediary	2
The required documents were not with me	3
The government office was far for me	4
I found it more easier than dealing with govt. Officials	5
I do not have time	6
I do not know	7

Go to E6

E 5b. I am reading some statements on your experiences at the government office when you went to get the registration done. Please respond with Yes or No or Cant' recall.

Experiences	1= Yes 2=No 3= Can't recall 4.DKCS/Refused/others

a. The office was computerized	1 2 3 4
b. The application form was obtained in a printed form from office	1 2 3 4
c. The application form was downloaded from a website	1 2 3 4
d. The application form was filled manually	1 2 3 4
e. The application form was filed online	1 2 3 4
f. Supporting documents copies were submitted in the office	1 2 3 4
g. Supporting documents copies were uploaded in a website	1 2 3 4
h. Payment was done in cash or demand draft	1 2 3 4
i. payment was done through credit card or e-transfer	1 2 3 4
j. The certificate of registration received was hand written	1 2 3 4
k. The certificate of registration received a typed one	1 2 3 4
l. The certificate was a computer printed one	1 2 3 4
m. The document was signed manually	1 2 3 4
n. The document was signed digitally	1 2 3 4

Go to E6

E5c. I am reading some statements on your experiences of accessing a website to get registration done at the government office for registration. Please respond with Yes or NO or Cant' recall. **[Answer all]**

Experiences	1= Yes 2=No 3= Can't recall 4= DKCS/Refused/others
a. The website address is easy to type	1 2 3 4
b. The website is in the local language	1 2 3 4
c. The cybercafe person assisted me.	1 2 3 4
d. Time consumed for the process was satisfactory	1 2 3 4
e. Cost of applying for registration was satisfactory	1 2 3 4
f. I found the registration through website is transparent	1 2 3 4

E6. Please share your experiences regarding the registration. Kindly give us the details on the following
88 = Don't remember/Can't say 99= Not applicable

Experiences	Response
a. Number of visits made by you to the government office after the first visit	
b. What is the average time spent (in minutes) by you at government office every visit?	
c. Number of different officials in the same office you met for registration	
d. Number of documents needed for the registration	
e. How long (in days) did the whole registration process take?	
f. The fee paid to the government in local currency	
g. Did you get the receipt for the fees / charges paid at the office charges paid at the office	1 = Yes 2=No
h. Amount of bribe paid to the government official in local currency	
i. Did government officials visit my business to check or verify the records submitted by me.	1 = Yes 2=No
j. I had received regular updates via SMS about my application	1 = Yes 2=No
k. I needed to submit some documents in electronic form	1 = Yes 2=No

Go to E8.

E7. Please tell the main reason(s) for not registering with the government authorities. **[MA]**

Reasons	1 = Yes 2=No
a. I am not aware of the need to register or how to register	1 2
b. It is unnecessary workload for me	1 2
c. I have to pay taxes if I register	1 2
d. There are no benefits of registration	1 2
e. The cost of registration is high for me	1 2

E8. Please answer all the following questions.

(A) Have you ever contacted or interacted with any of the following government offices in relation to your business in the last two years?
1=Yes **continue (B) and (C) and (D)** 2=No **go to next government offices**

(B) Do you know whether this office provides service through electronic means?
1 = Yes 2=No 3= do not know/Can't say

(C) Did you pay any bribe to the government officials in the concerned office?

1 = Yes 2=No 3= DK/CS/Refused/others

(D) Did you use any intermediary to access the services offered by the concerned office?
1= Yes 2=No 3= DK/CS/Refused/others

Offices	A Contacted? 1 = Yes (go to b-c) 2=No (next row)	B Use of Electronic means 1 = Yes 2=No 3= DK/CS	C Paid Bribe 1 = Yes 2=No 3=DK/CS/Refused/others	D Use of Intermediary 1 = Yes 2=No 3= DK/CS/Refused/others
1. Birth & Death registration office	1 2	1 2 3	1 2 3	1 2 3
2. Public distribution system office	1 2	1 2 3	1 2 3	1 2 3
3. Cooking gas cylinders – new & refill	1 2	1 2 3	1 2 3	1 2 3
4. Driving license office	1 2	1 2 3	1 2 3	1 2 3
5. Voter's card office	1 2	1 2 3	1 2 3	1 2 3
6. Poor identification office (e.g. samurdi in LK)	1 2	1 2 3	1 2 3	1 2 3
7. Government health centers / hospitals	1 2	1 2 3	1 2 3	1 2 3
8. Courts office	1 2	1 2 3	1 2 3	1 2 3
9. Police station office	1 2	1 2 3	1 2 3	1 2 3
10. Post office	1 2	1 2 3	1 2 3	1 2 3
11. Sanitation office	1 2	1 2 3	1 2 3	1 2 3
12. Property tax payment office	1 2	1 2 3	1 2 3	1 2 3
13. Water tax payment office	1 2	1 2 3	1 2 3	1 2 3
14. Trade Licenses (new & renewal)	1 2	1 2 3	1 2 3	1 2 3

E9. Please tell us any two government offices have interacted frequently in recent times? **[You may use the above list to remind, if needed]**

1_____

2._____ _____

[IF E8 a=0, ie. Never interacted or contact a govt. authority in last 2 years for business, skip to next section]

E10. I will read some statements and request you to respond with the details with respect to your most recent interaction with a government office, apart from business registration.

Experiences	**Response**
a. Number of visits made by you to the government office after the first visit	
b. What is the average time spent (in hours) by you during every visit?	
c. Number of different officials in the same office you met related to your work.	
d. How long (in days) did the whole registration process take?	
e. Number of documents needed to access the services	
f. I needed to submit some documents in electronic form	1 = Yes 2=No
g. The fee paid to the government in local currency	
h. Did you get the receipt for the fee paid at the office	1 = Yes 2=No
i. Amount of bribe paid to the government official in local currency	
j. Amount of money paid to the intermediary in local currency	
k. There were visits by the government officials to check the records submitted by me.	1 = Yes 2=No
l. I had received SMS about my application.	1 = Yes 2=No
m. There was a customer care satisfaction survey.	1 = Yes 2=No

E11. I will read some statements and request you to respond with the details with respect to your most recent interaction with a government office. Can you please tell me whether you experience this or not

Item	1=Yes 2= No 3= DKCS/Refused		
a. The government officials interacted politely with me.	1	2	3
b. All the information relevant to my work/query/problem was available easily.	1	2	3
c. I was satisfied with the time taken at the office during each visit.	1	2	3
d. I took only the necessary amount of visits to the office.	1	2	3
e. The interaction with the office was carried out in my language.	1	2	3
f. I find the automated responses in call center helpline are clear.	1	2	3
g. I find the automated responses in call center helpline easy to handle.	1	2	3
h. The number of documents required at the office were/are adequate.	1	2	3
i. There were/are unauthorized intermediaries to help you at the concerned office	1	2	3

j. The documents received by me are legible and durable.	1	2	3
k. Over all my experience in dealing with the agency satisfactory.	1	2	3

F. Privacy & Trust

[Thank you very for your cooperation. We are almost finishing the interview.]

F1.A. I will read list of items. Please tell us whether you have them. **[Read all]**
1. Yes **ask (B) and (C).** 2. No **Go to next row**
Please think about your interactions with the government and private sector in getting something done

F1.B. How frequently do you use _____ when interacting with the government?
1. Regularly 2 . Not regularly 3. Never

F1.C. How frequently do you use _____ when interacting with the private sector?
1. Regularly 2 . Not regularly 3. Never

	A	B	C
Items	Do you have it? ***1. Yes 2. No***	Frequency of use with the ***government*** ***1. Regularly*** ***2. Not regularly*** ***3. Never***	Frequency of use with the ***private sector*** ***1. Regularly*** ***2. Not regularly*** ***3. Never***
1. National Identity card (Translator: Sri Lanka) / Adhaar card (India), Voter's ID card (Bangladesh and India), BPL Card (India)	1 2	1 2 3	1 2 3
2. Driver's license	1 2	1 2 3	1 2 3
3. Bill with house or business address	1 2	1 2 3	1 2 3
4. Your own phone number	1 2	1 2 3	1 2 3
5. Other.	1 2	1 2 3	1 2 3

Please ask Q F2 only who own a mobile phone B1b=1
SHOWCARD (7 items)

This is a list of information that your mobile service provider _____ **(Int. readout from QB1b**) may or may not have requested from you for their records.

F2.A. Does your mobile phone company ***know*** the following information about you? **[Read all]**
1. Yes 2. No 3. Don't know 4. N/A for those with no mobile
Irrespective of the answers please ask F1B and F1C and F1D

F2.B. If the mobile company knows the following information how comfortable are you for them *to* ***use this information to advertise*** some services to you?

1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable

F2.C. If the mobile company knows the following information how comfortable are you for them to ***share this information with some other company*** **for** advertising some service/ product to you?

1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable

F2.D. If the mobile company knows the following information how comfortable are you for them to ***share this information with the government?***

1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable

	A	b	c	d
Items	Mobile company knowing information about you 1. Yes 2.No 3. Don't know/Can't say/Others	Using information to advertise 1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3 . Very Comfortable 4.DKCS/Refused/ Others	Sharing information with some other company 1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3 . Very Comfortable 4. DKCS/Refused/ Others	Sharing information with the government 1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3 . Very Comfortable 4. DKCS/Refused/ Others
1. Your name and home/ business address	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
2. Your age	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
3. Your personal / business bank account number	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
4. Your mobile number	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
5. The phone numbers of the people you communicate with	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
6. The locations where you used your mobile phone	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

SHOW CARD 2 (12 items)

F3.A ***Have you ever given*** your_____[read items in the list] to any government department/ agency that **provides services of relevance to your business**?
1. Yes 2. No 3. Don't know

Go to Next row
Irrespective of the answers please ask F3B and F3C.

F3.B If one government department/ agency knows [read items in the list] how comfortable are you with that government department/agency sharing ***this information*** with other government departments/ agencies***?***
1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable

F3.C If one government department/ agency knows [read items in the list]how comfortable are you with that government department/agency making ***this information public or letting others know it***?
1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable

	a	b	C
Item	**Given to govt. agency** **1. Yes** **2.No** **3. Don't know/Can't say**	**Sharing information with other agencies** **1. Very Uncomfortable** **2. Neither Comfortable nor Uncomfortable** **3 . Very Comfortable**	**Making information public or letting others know** **1. Very Uncomfortable** **2. Neither Comfortable nor Uncomfortable** **3. Very Comfortable**
1. Your name home/ business address	1 2 3	1 2 3	1 2 3
2. Your age	1 2 3	1 2 3	1 2 3
3. Your personal/ business bank account number	1 2 3	1 2 3	1 2 3
4. Your mobile number	1 2 3	1 2 3	1 2 3
5. Income level			
6. The number of family members	1 2 3	1 2 3	1 2 3
7. Your electricity usage patterns (e.g.. number of units used by your household over an year)	1 2 3	1 2 3	1 2 3

G. Respondent Details

G1. Gender **[Record without asking]:**
1. Female 2. Male 3. Transgender

G2. Please tell me about your numerical abilities.**[SA]**

I cannot recognize or write numbers	1
I can recognize numbers but cannot write them	2
I can read and write numbers but cannot do any calculations	3
I can do simple addition, subtraction & multiplication, etc.	4
I can calculate interest rates, tax calculations etc.	5

G3. How old are you? _____years

G4. Are you physically disabled? **[Record without asking, if possible]:**
1. Yes 2. No

G5. Do you have any bank account in your name? 1. Yes 2. No

G6. How much highest formal education have you had? **[SA]**

1 Illiterate 2 Primary school 3 High school/Std. 10 / Certificate holder
4. Higher secondary school/Std. 11/ Diploma 5. Bachelor's degree 6. Master's degree

G7. How comfortable are you in doing the following activities? Use the options.

	1. Very Uncomfortable 2. Neither Comfortable nor Uncomfortable 3. Very Comfortable 4. Not applicable			
a Sending a SMS	1	2	3	4
b Switching on/off a computer	1	2	3	4
c Using a search engine to find information on the Internet	1	2	3	4
d Using e-mail to communicate	1	2	3	4

G8. Marital Status:
1. Married 2. Unmarried 3. Divorced 4.Widowed

G9. Including you, how many family members do you have? _____Nos

G10. Are you the only member of your family who earns money?
1. Yes 2. No

Thanks for the participation!