



# Service Design in Telecom, Electricity and Governance for BOP MEs

A Qualitative Research and Design Recommendations Report

“*Service Design in Telecom, Electricity and Governance for BOP MEs: A Qualitative Research and Design Recommendations Report*” is the outcome of a research study and design analysis conducted by CKS Consulting Pvt. Ltd., commissioned by LIRNEasia.

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Introduction

Service Delivery in Telecom

Service Delivery in Electricity

Service Delivery in Governance

Cross Country and Sector Analysis

Conclusion

Appendix

# Introduction

Research Background

Research Framework

Research Objective

Research Locations

Research Design

Research Sample

Design Analysis

ME Profiling



Customer – Service Provider Interactions



A Framework for Customer Relationship Management

## Achieving e-inclusion by improving government service delivery & exploring the potential of 'big data' for answering development questions

- The increasing success of mobile connectivity, especially with respect to voice, can be attributed in many ways to the budget telecom network business model, characterized by intense competition and regulation. Another factor that has contributed to the success of mobile voice is the use of ICT in service delivery, to allow for smooth and efficient customer relationship management
- Given the success of mobile voice, there is significant learning from the mobile telecom sector that can be introduced into government services and public utilities to enable better customer relationships
- This study, of which this report is a part, aims to encourage the use of ICT in the provision of government and other public utility services to impact the uptake of internet and more-than-voice services
- This report outlines customer relationship management in telecom, electricity and governance in three countries - India, Sri Lanka and Bangladesh and explores the benefits of service design interventions catering to the urban BoP micro entrepreneurs (ME) customer segment

# Research Framework: Voice and Exit

Organizations whose members react strongly via		Exit	
		Yes	No
Voice	Yes	Voluntary associations, competitive political parties, and some business enterprises, for example, those selling output to a few buyers	Family, tribe, nation, church, parties in non-totalitarian one-party systems
	No	Competitive business enterprise in relation to customers	Parties in totalitarian one-party systems, terroristic groups, and criminal gangs

Characteristics of Organizations Based on Voice and Exit

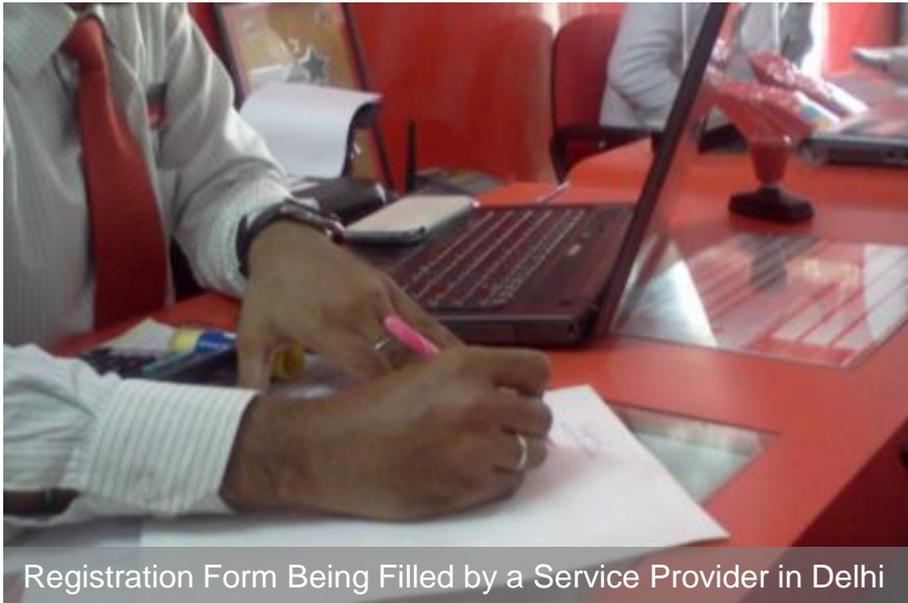


Mapping Voice and Exit in Govt. Service Delivery

- In *Exit, Voice and Loyalty* (1970), Albert Hirschman identifies two distinct options for customers (or employees or citizens) dissatisfied with a service of a company (or organization or government)
  - **Exit:** leaving without trying to fix things when dissatisfied. For e.g., opting for illegal electricity connection because there is a delay in getting a new electricity connection
  - **Voice:** speaking up and trying to remedy the defects when dissatisfied with a service. For e.g., calling customer care to complain about bad network coverage
- Although Hirschman's analysis is closely tied to American political and economic traditions, it offers a compelling framework through which we can analyze service delivery in emerging economy contexts
- Hirschman's postulation on voicing and exiting any service formed the theoretical framework for service design recommendations outlined in this report



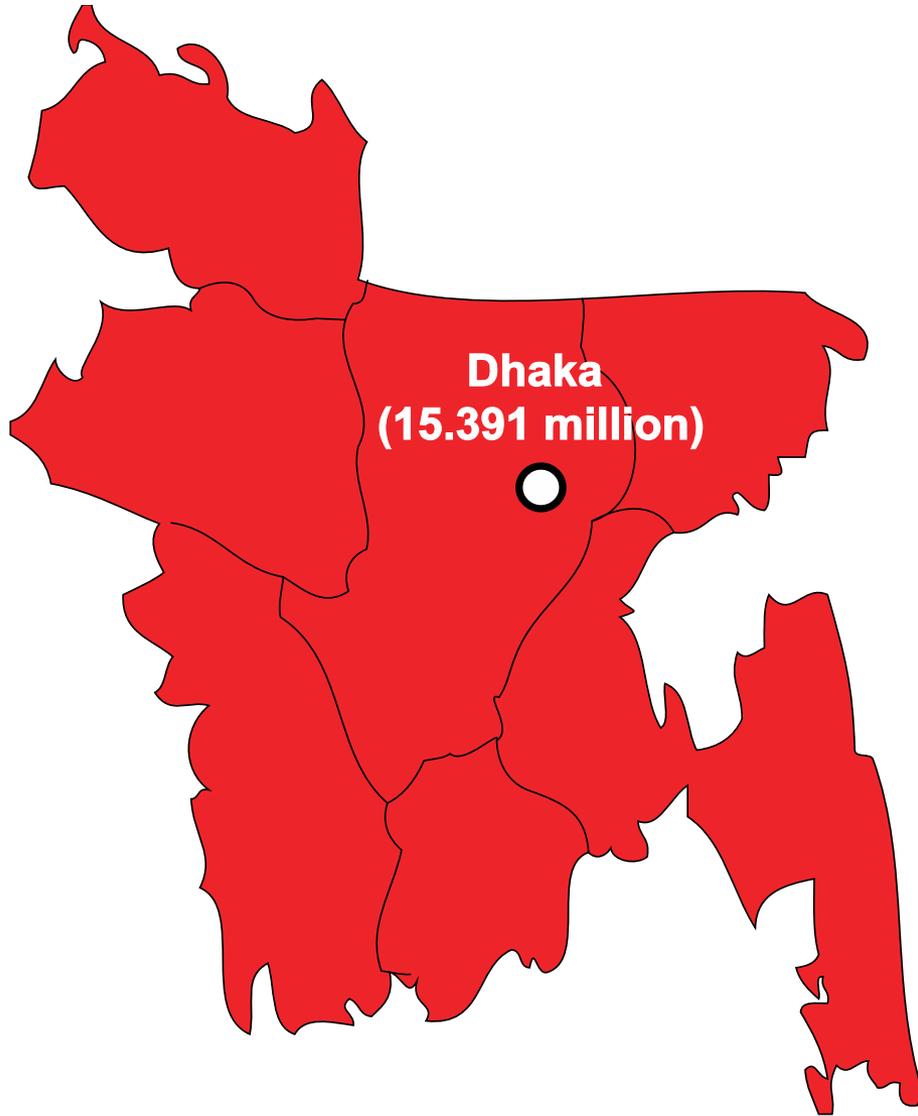
ME in Colombo



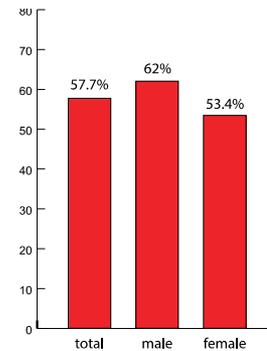
Registration Form Being Filled by a Service Provider in Delhi

- Understand customer relationship management practices in telecom, electricity and governance in three countries, Sri Lanka, Bangladesh and India
- Understand and map service experiences of BoP MEs in the three chosen sectors
- Identify use cases of successful service delivery and customer relationship management in the three sectors
- Identify failure cases in service delivery and customer relationship management in the three sectors
- Develop service design concepts for efficient service delivery in telecom, electricity and governance

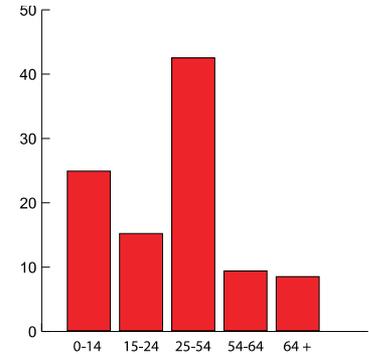
# Research Location: Bangladesh



**Area:** 143,998 sq km  
**Population:** 163,654,860  
**Population Density:** 1,136.5/ sq km  
**Urban Population:** 28.4%  
**Population Below Poverty Line:** 31.5%

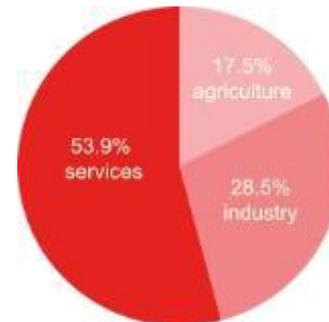


Literacy rates



Age distribution

**GDP:** \$311 billion  
**Per Capita Income:** \$2,100  
**Mobile Connections:** 84.369 million  
**Internet Users:** 617,300



% contribution to GDP

Source: CIA Fact book

# Research Location: Sri Lanka



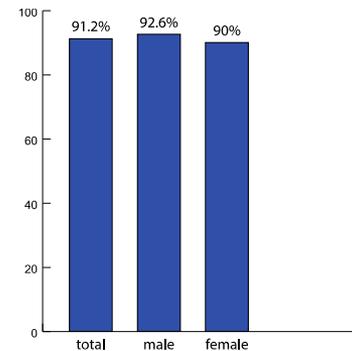
**Area:** 65,610 sq km

**Population:** 21,675,648

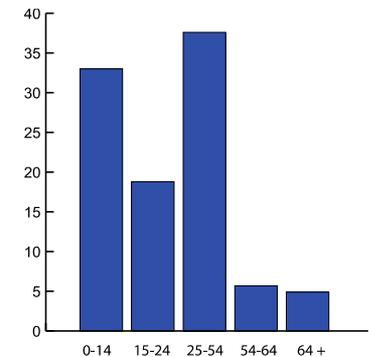
**Population Density:** 329.34/per sq. km (2010)

**Urban Population:** 15.1%

**Population Below Poverty Line:** 8.9%



Literacy rates



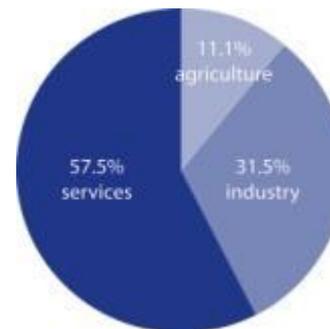
Age distribution

**GDP:** \$128.4 billion

**Per Capita Income:** \$6,200

**Mobile Connections:** 19.336 million

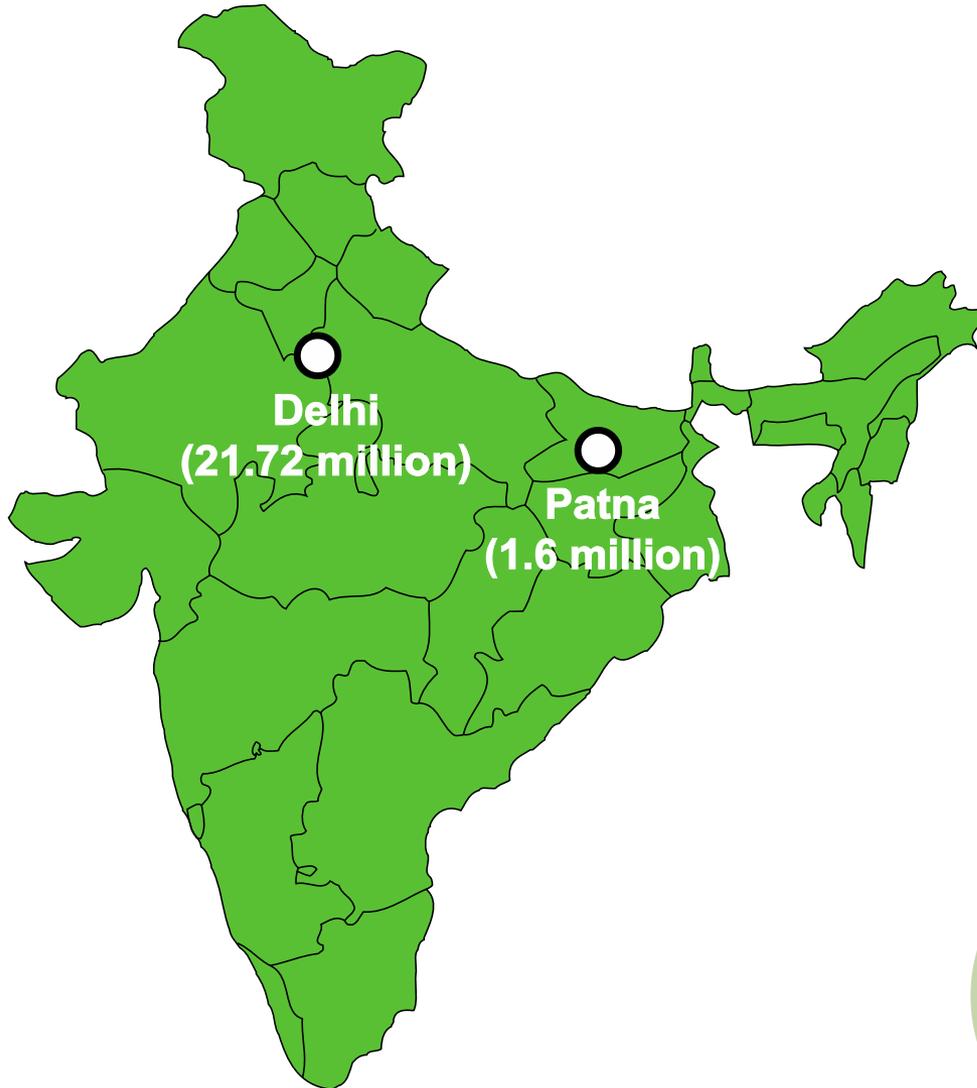
**Internet Users:** 1.777 million



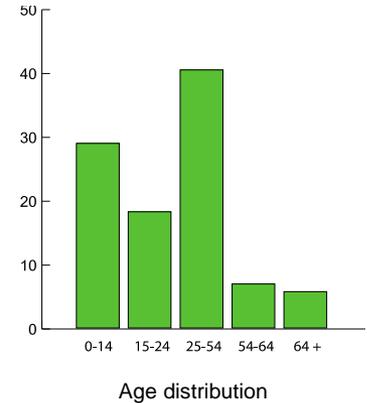
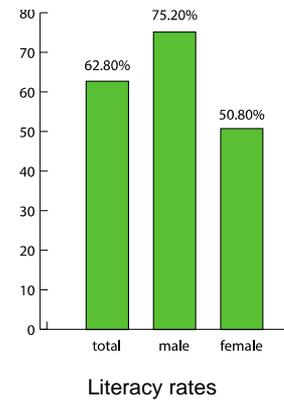
% contribution to GDP

Source: CIA Fact book

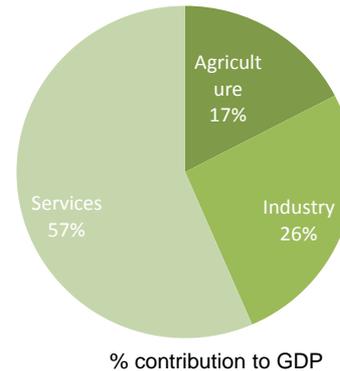
# Research Location: India



**Area:** 3,287,263 sq km  
**Population:** 1,220,800,359  
**Population Density:** 371.3/ sq km  
**Urban Population:** 31.3%  
**Population Below Poverty Line:** 29.8%



**GDP:** \$4.761 trillion  
**Per Capita Income:** \$3,900  
**Mobile Connections:** 32.685 million  
**Internet Users:** 61.338 million



Source: CIA Fact book

# Research Location: Rationale



Field Location - Govindpuri in Delhi



Field Location - Paltan in Dhaka

- The specific cities chosen as research locations were Delhi and Patna in India, Colombo in Sri Lanka and Dhaka in Bangladesh
- The country capitals of Delhi, Colombo and Dhaka were chosen as 'strong' cities for their good governance
- The fourth city of Patna in India, was chosen as a 'weak' city, for it's relatively poor governance in comparison to the other locations
- Following are the list of sites, where fieldwork was conducted in the four locations
  - Delhi - fieldwork was conducted in south, south east and west Delhi in areas such as Khanpur, Najafgarh and Govindpuri respectively
  - Patna - fieldwork was conducted in the central part of Patna in localities such as Jakkampur and Khagaulia Marg
  - Dhaka - fieldwork was conducted in areas in the south and north of Dhaka such as Paltan, Mirpur in and Gulshan respectively
  - Colombo - field work was conducted in areas falling under Colombo 1 to 15, with a preference for areas in north Colombo



Customer Interaction at the Electricity Office

## Secondary Research

- Secondary research conducted at the beginning of the project sought to find information about the four research locations (Colombo, Dhaka, Patna and Delhi) focusing on
  - Customer Relationship Management in the telecom sector
  - Customer Relationship Management in the electricity sector
  - Customer Relationship Management in the governance sector

## Research Tools

- Field guides created for the in-depth interviews with BoP MEs and SPs emphasized upon the following topics:
  - Background of the respondents
  - Visual Documentation of the site and the ME/SP
  - ME's experience with Telecom
  - ME's experience with Electricity
  - ME's experience with Governance
  - Roles and responsibilities of the Service Provider (SP)
  - Customer Relationship Management practices followed by the SP



Queue for Electricity Bill Payments

# Research Protocol: Ethnographies at Site of Provision



Telecom Site of Service in Delhi



Electricity Site of Service in Colombo

- The ethnographies were conducted at the site of service provision for all the three sectors. These sites were visited by the MEs as well
  - The size of outlets selected for the telecom sector differed across locations. The outlet in Dhaka was a small customer service point whereas larger customer service outlets were selected in the other three locations
  - The electricity offices visited in the four locations, were offices of the electricity distribution company, dealing with customers on a daily basis
  - The government offices visited in the four locations were responsible for registration or licensing of a business. Compared to telecom and electricity, government offices were not well maintained with respect to facilities offered to consumers in any of the locations
- The ethnography included observation of customer interactions with the SP. In addition to this, walk in customers were spoken with, to gauge the kind of problems experienced by customers
- An attempt was made to understand the processes involved, and the time taken in order to resolve a customer query
- This also involved visual documentation of the space, artifacts used, and customer behavior

# Research Protocol: In-Depth Interviews with Service Providers



Government Service Provider in Colombo

- In Depth interviews were conducted with SPs who interact directly with consumers in the three sectors
- The interviews were conducted at the SPs site of service in order to gain a better understanding of their interaction with customers
- Visual documentation of the various tools used by the SP during customer interactions, such as computers, registers, forms, bills, receipts and so on was undertaken in order to complement information gathered through interviews



Telecom Service Provider in Colombo

# Research Protocol: In-Depth-Interviews with Micro Entrepreneurs



Interview with ME in Dhaka

- In-depth interviews with MEs were conducted at their place of business, with some businesses being run out of their homes, or rented spaces
- Each interview, lasting between one to two hours, was documented through audio recordings, photographs and extensive notes
- These interviews covered a range of experiences of the ME with telecom, electricity and governance services
- Information about their background, business, daily routine as well as their mobile usage was gathered.



Interview with ME in Patna

# Research Protocol: Community Group Workshops



Community Group Workshop at Patna

- This workshop was conducted after the commencement of In depth interviews with MEs, SPs and the ESSP in all locations
- The community group workshop was conducted with five MEs, and included various activities to understand the collective experience of the MEs in the three sectors. These activities included
  - Retelling Good Experiences: MEs were asked to pick out a cue card depicting a sector and narrate a good experience in that particular sector
  - Retelling Bad Experiences: MEs were asked to pick out a cue card depicting a sector and narrate a bad experience in that particular sector
  - Redesign Artifacts: MEs were provided with artifacts including electricity bills, to elicit responses about their understanding of the artifact and potential design changes
  - Match your Emotions: MEs were provided with hypothetical scenarios in the three sectors and then asked to map their perceived experiences through the use of emoticons (happy, sad, neutral). This was one activity that the MEs could not really connect with
- The MEs successfully participated in the various sections of the workshop and provided valuable insights into their experiences with the three sectors



Emotion Mapping

# Research Sample: Service Providers in Dhaka

Type of Protocol	Sectors	Work Experience	Gender/ Location	Customer Relationship Management Role
ESSP	Telecom		Banglalink	The centres were dealing with customer registration/ complaints/queries/billing
	Electricity		Dhaka Electricity Supply Company Ltd - DESCO	
	Governance		North Dhaka City Corporation - NDCC	
IISP	Telecom – Shahin Kadir	5 years	M	Handles customer complaints in person in the store
	Sharmin Sultana	3 months	F	Handles customer complaints on the phone through a call centre
	Electricity – Nasrin Sultana	10 years	F	Resolving billing/usage related queries in person at the customer care centre
	Tajul Islam	26 years	M	Resolves customer queries through on site visits or via telephone
	Governance – Saydul Islam Chaudhary	20 years	M	Government official who helps facilitate access to services.
	Moniruzzaman Mridha	27 years	M	Responds to citizen queries on the telephone and in person

# Research Sample: Service Providers in Colombo

Type of Protocol	Sectors	Work Experience	Gender/ Location	Customer Relationship Management Role
ESSP	Telecom		Mobitel Head Office, 108, W.A.D. Ramanayake Mawatha, Colombo 02	The centers were dealing with customer registration/ complaints/queries/billing
	Electricity		Ceylon Electricity Board, Y.M.B.A. Borella	
	Governance		Divisional Secretariat Office Kaduwela	
IISP	Telecom – Prasad Gunawardene	10 years	M	Handles customer complaints in person in the store
	Ryan Philip	7 years	M	Handles customer complaints in store
	Electricity - Nimala Mohandiram	7 years	F	Resolving billing/usage related queries in person at the customer care centre
	S.M. Gunasena	35 years	M	Customer interaction through on site visits
	Governance – Palitha Jayasinghe	10 years	M	Intermediary who helps MEs access government services.
	Sanath Malawarachi	8 years	M	Helps train MEs for business development

# Research Sample: Service Providers in Patna

Type of Protocol	Sectors	Work Experience	Gender/ Location	Customer Relationship Management Role
ESSP	Telecom		Reliance Web World	The centers were dealing with customer registration/ complaints/queries/billing
	Electricity		Bihar State Power Holding Corporation Ltd	
	Governance		Labour Office (Shram Sanstha)	
IISP	Telecom – Mukesh	6 years	M	Handles customer complaints in person in the store
	Nishant	4 years	M	Handles customer complaints on the phone through a call centre
	Electricity - Madhulika	5 years	F	Resolving billing/usage related queries in person at the customer care centre
	Rajesh Kumar	3 years	M	Customer interaction through on site visits (Meter Reader)
	Governance – Jay Prakash	1 years	M	Intermediary who helps facilitate access to government services (Ward Officer)
	Mukund Singh	22 years	M	Responds to citizen queries through face to face interaction

# Research Sample: Service Providers in Delhi

Type of Protocol	Sectors	Work Experience	Gender/ Location	Customer Relationship Management Role
ESSP	Telecom		Airtel	The centres were dealing with customer registration/ complaints/queries/billing
	Electricity		Bombay Suburban Electricity Supply – BSES	
	Governance		Municipal Corporation of Delhi	
IISP	Telecom – Nafees	1 year	M	Handles customer complaints through phone at a call centre
	Mukesh Yadav	4 years	M	Handles customer complaints on the phone through a call centre
	Electricity – Brij Mohan	9 years	M	Resolving billing/usage related queries in person at the customer care centre
	MD Khan	35 years	M	Resolves customer queries through on site visits or via telephone
	Governance – Ram	13 years	M	An intermediary who helps facilitate access to services
	Ajit Kumar	4 years	M	Government official who helps facilitate access to services

# Research Sample: Micro Entrepreneurs in Dhaka

Name	Type of Protocol	Age (in yrs.)	Gender	SEC	Occupation	Education	Number of Employees	Experience
Hussain	IIME	24	M	C	Manufacturing	Secondary	3	Telecom and governance
Jalaluddin		30	M	C	Trade	Primary	0	Electricity and governance
Lokmanoshan Rabbi		30	M	B2	Services	Primary	4	Telecom and electricity
Ashutosh Ghosh		40	M	D	Manufacturing	Secondary	4	All three sectors
Raihan		30	M	D	Trade and Services	Secondary	0	Telecom and governance
Mohammad Nazrul Islam		37	M	B2	Services	Secondary	3	All three sectors
Lutfor Rehman		48	M	D	Trade	Uneducated	0	All three sectors
Harun Ur Rashid Jony		37	M	B2	Services	Secondary	2	All three sectors
Md. Mohsin	CGW	38	Mr	D	Trade	Secondary	3	Electricity and governance
Md. Dulal Hussain		45		D	Service	Primary	0	All three sectors
Md. Aminur Sardar		25		D	Manufacturing	Primary	0	Telecom and governance
Md. Shah Alam		25		D	Service	Secondary	0	Telecom and electricity
Md. Kamal Hossain		35		D	Trade	Secondary	0	All three sectors

# Research Sample: Micro Entrepreneurs in Colombo

Name	Type of Protocol	Age (in yrs.)	Gender	SEC	Occupation	Education	Number of Employees	Experience
Fatima Rilaya	IIME	46	F	C	Manufacturing	Secondary	0	Telecom and electricity
Mohammad Asim Mamdhoom		56	M	B1	Trade	Secondary	4	All three sectors
M.A.M. Ramsin		38	M	B2	Manufacturing	Secondary	2	Telecom and electricity
Rukman		40	M	B2	Service	Secondary	1	Telecom and governance
Assanga Perreira		35	M	C	Trade	Secondary	0	All three sectors
Manorika Perreira		30	F	C	Service	Secondary	0	All three sectors
Anita Fernando		53	F	D	Manufacturing	Primary	0	Telecom and electricity
Sajith Ranasinghe		31	M	D	Trade	Secondary	1	All three sectors
Chamila Wasalee Rodrigo	CGW	40	F	B2	Manufacturing	Primary	1	Telecom and electricity
Priyanta Udaya Kumara		42	M	B	Service	Secondary	1	Telecom and electricity
H.P. Dilsha Kumari		32	F	C	Service	Secondary	0	All three sectors
Sujeeva Waidyawansha		42	F	C	Service	Secondary	0	Telecom and governance
Manjula Kumara		33	M	C	Service	Secondary	0	Telecom and governance

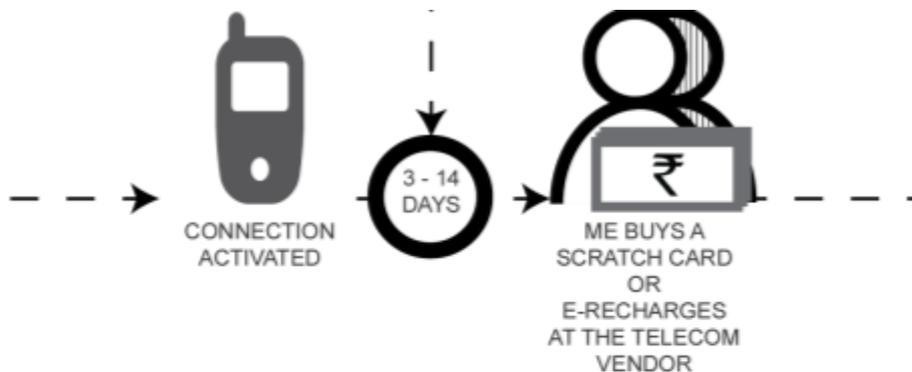
# Research Sample: Micro Entrepreneurs in Patna

Name	Type of Protocol	Age (in yrs.)	Gender	SEC	Occupation	Education	Number of Employees	Experience
Kajim	IIME	24	M	E	Service	Secondary	0	All three sectors
Deepika Devi		40	F	C	Service	Secondary	2	Telecom and electricity
Snowy Kumari		29	F	B2	Service	Secondary	0	Telecom and electricity
Ali Raza		32	M	D	Trade	Secondary	0	Telecom and electricity
Rakesh		32	M	B2	Service	Secondary	0	Telecom and electricity
Pinku Prasad		40	M	C	Service	Secondary	0	Telecom and electricity
Ramesh Kumar		28	M	D	Trade	Secondary	1	Telecom and electricity
Santosh Kumar		24	M	B2	Manufacturing	Secondary	0	Telecom and electricity
Pappu Sharma	CGW	34	M	B2	Service	Secondary	2	Telecom and electricity
Rajendra		48		B2	Trade	Primary	0	Telecom and electricity
Naresh Kumar		50		B2	Trade	Secondary	0	Telecom and Electricity
Shambhu		28		B2	Service	Secondary	1	All three sectors
Amit Kumar		28		B2	Manufacturing	Secondary	0	Telecom and electricity

# Research Sample: Micro Entrepreneurs in Delhi

Name	Type of Protocol	Age (in yrs.)	Gender	SEC	Occupation	Education	Number of Employees	Experience															
Biasdev Sharma	IIME	54	M	B2	Manufacturing	Primary	0	Electricity and governance															
Madanlal		54	M	B2	Services	Secondary	2	Electricity and governance															
Gopal Sharma		41	M	D	Trade	Primary	1	All three sectors															
Shakil		37	M	C	Manufacturing	Primary	5	All three sectors															
Ashok		57	M	C	Manufacturing	Primary	0	Electricity and governance															
Jarnail Singh		51	M	D	Services	Secondary	3	All three sectors															
Sahib		33	M	B2	Services	Secondary	3	Telecom and electricity															
Sushil		35	M	D	Trade	Secondary	0	Telecom and governance															
Mohammad-ud-din	CGW	50	M	B2	Services	Primary	1	All three sectors															
Mohan Lal		35							C	Trade	Primary	0	Telecom and electricity										
Dhirender		43												B2	Trade	Secondary	0	Telecom and electricity					
Sheetal		17																	B2	Manufacturing	Secondary	0	Telecom and electricity
Chandan		44																					

# Design Analysis: Data Extraction and Consolidation



## Experience Mapping

- Post field research, field reports were created focusing on the MEs experience in the telecom, electricity and governance sectors in Dhaka, Colombo, Patna and Delhi.
- Notes and visuals collected on field formed the basis for the field-report
- The field reports also focused on the cross-country and cross-sector analysis of data gathered
- Experience maps were created to represent process flows and deviations that were observed on field
- The experience maps represented the pain points encountered by MEs in the service, while also highlighting process differences in the locations
- Data analysis also consisted of the creation of use and failure cases

# Design Analysis: Use Case Analysis

A	B	C	D
This is the current scenario of use of a service.			
Use Case Scenario	Location	Protocol	Reason
Commercial establishments have installed a commercial	Patna	ME_Deepika Devi	This is due to a mandate undertaken by the electricity board
Services allow for face-to-face interaction as well as facilities through which consumers can enquire and in case of dissatisfaction with a service	Delhi	SP_Mahesh	This allows better services for the MEs. MEs (if to) can go to the BSES offices to lodge any complaint call up the SPs to save their time and money.
maintain detailed records in registers apart from a digital copy of the same.	Delhi	SP_Mahesh	This enables the SPs to keep a back-up of the case there is any problem with the computer
After paying an intermediary to ensure access to an electricity connection in case he/she does not have an ID card or legal structure or proof of ownership	Patna	ME_Pinku Prasad	In case of a raid, the intermediary informs the ME the same so that preemptive measures can be taken

- Use Cases are statements representing best practices of service delivery and customer relationship management observed, that have resulted in successful outcomes in the telecom, electricity or government offices
- These were observed as being prevalent in certain locations, which can be implemented in other locations
- These included coping mechanism adopted by MEs in order to overcome failures in specific stages of the service delivery in the three sectors
- The first column records the specific scenario that has proved to be advantageous for both the BOP MEs and the SP
- The second and third column record the location where the scenario is prevalent and the research technique from where the information has been collected
- The fourth column provides an description of the factors that determine the success of a service delivery or customer relationship management practice

# Design Analysis: Failure Case Analysis

A	B	E	F	G	H	I
Case Scenario	Challenges	Causes				
		Attitude	Technical	Architecture	Process Related	Organizational
wait for long periods of time to note for the new connection and for status updates. Waiting 5 months.		Intermediaries continuously dodge MEs by not receiving calls			_SPs at the electricity office ask the consumers to come in at a later time to enquire about it as they need more time to check documents _SPs are not aware of the status of the demand note, because of which the consumer is asked to come again in a few days	
It appears is difficult for rented accommodation		The landlord has to be convinced to provide property papers. In most instances the landlord does not cooperate			A photocopy of land papers is mandatory for provision of a new connection	

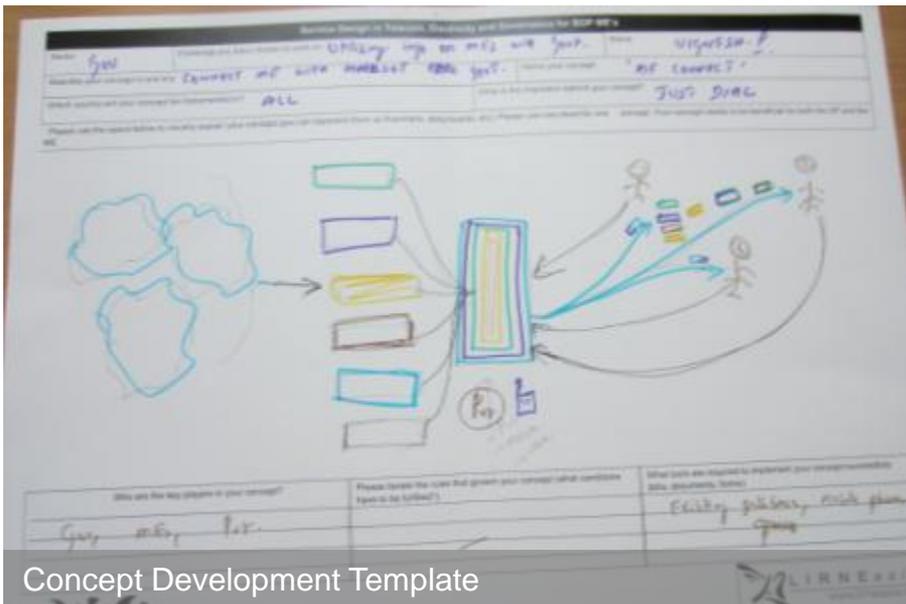
- Failure Cases are statements highlighting specific scenarios of breakdown or lapses in the service delivery mechanism in telecom, electricity and governance, broadly define by the three categories below
  - A customer voices (customer pain-points)
  - A customer exits a service
  - Perceived failures are experienced by the ME/SP
- The first column records the specific failure case scenarios experienced by the ME/SP
- The second column provides an insight into the challenge that emerges as a consequence of the specific failure scenario
- The subsequent columns map the failure to its causes, which have been categorized into (i) attitude (ii) technical (iii) architecture (iv) process (v) information (vi) organizational

# Design Analysis: Concept Building and Refinement



Experts Voting on Most Promising Concepts

- On concluding the failure and use case analysis, an internal concepting workshop was conducted where experience maps and the use and failure case scenarios helped identify intervention points in service delivery
- Based on the opportunity areas and the identification of design elements, several concepts were developed for improving the service delivery in the three sectors
- A Collaborative workshop with sector specific experts was also undertaken to understand the feasibility of the concepts developed, refine concepts and facilitate the development of new concepts
- Through prioritization and voting exercises the most promising concepts were identified, and potential concepts were refined
- Leveraging on the knowledge and expertise possessed as a group, the workshop aimed to analyze concepts across sectors as well as locations



Concept Development Template



A Sweet and Savories Shop

- In order to understand the different types of MEs studied as a part of this report, and their relationship to the three sectors a series of profiles
- The profiles provided are only a representation of the MEs that were interviewed
- The profiles helps understand the prominent services availed by the ME in all the three sectors, their needs and their attitude towards their business and the three sector under study

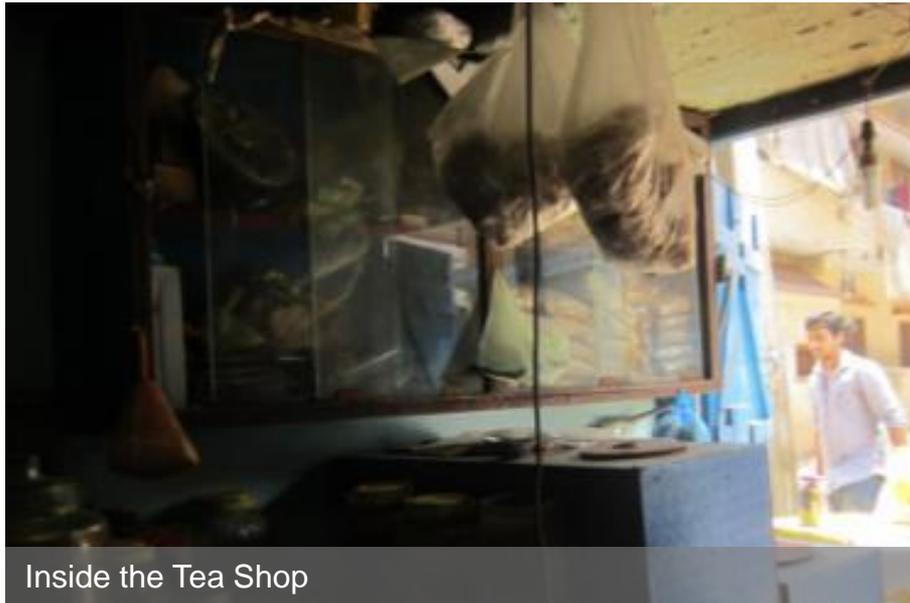


An Electrical Shop

# ME Profiling: *I Pay and Hence It Is Acceptable*



The Tea Shop Owner



Inside the Tea Shop

Gender: Male  
Age: 40 years  
Education: Primary Education  
Location: Patna  
Business: Services– Tea shop  
Employees: 0  
Years of Service: 10

- He runs his shop in the front portion of his house. He lives in a settlement and claims to own the place as he had been living there for more than 20 years
- He has a prepaid mobile phone and does not use it frequently for his business. This phone is usually shared by the members of his house as well
- There is an illegal electricity connection in his shop for which he pays a nominal fixed charge to a local agent to ensure uninterrupted electricity supply. He believes that since he is paying for access to electricity, it is acceptable behavior
- He does not have any idea about a license or a business registration. He thinks that the government will not inconvenience shop owners in his locality by mandating a license or registration as the socially down trodden live there

# ME Profiling: *I Like Using my Mobile Phone*



The Mechanic

Gender: Male  
Age: 24 years  
Education: Secondary Education  
Location: Dhaka  
Business: Services– Mechanic shop  
Employees: 3  
Years of Service: 3

- The ME's mobile phone is his personal identity. He does not use it frequently for his business. He uses his mobile phone for getting electricity bills and uses it extensively for calling his friends. He also regularly checks his messages
- He has an electricity connection which has always existed at the place of his business. He has a 'peak and off-peak' meter which charges a particular amount from 12 AM to 6 PM and a different amount from 6 PM to 12 AM. He regularly experiences blackouts at his shop. He has arranged for a power back up at an extra cost. He gets his monthly electricity bills as an SMS. He pays his electricity bill through an intermediary
- He has a trade license since it is mandatory for his business. However he is not aware of any additional benefits of having a trade license



Machinery at the Mechanic Shop

# ME Profiling: *Loan with my Business Registration*



The Beauty Parlour Owner

Gender: Female  
Age: 38 years  
Education: Secondary Education  
Location: Colombo  
Business: Services– Beauty Parlor  
Employees: None  
Years of Service: 12

- She has a prepaid mobile connection and uses it for contacting customers. However she does not consider a mobile phone to be essential for her business since she primarily receives walk in customers
- She runs her business from a rented accommodation and has an electricity connection. Her electricity connection is frequently disconnected due to non payment of dues. Occasionally she makes part payments. Electricity is very essential for her business. She does not get customers if there is a blackout
- She registered her business so that she can avail a business loan to develop her business. She perceives that additional benefits will accrue to her in the future in the form of government schemes after registration



Inside the Beauty Parlour

# ME Profiling: *Electricity Is My Life*



Electrical Appliances at Use



A Sweet Shop Owner

Gender: Male  
Age: 37 years  
Education: Primary Education  
Location: Dhaka  
Business: Trade– Bakery and Sweets  
Employees: None  
Years of service: 10

- He runs his shop from a permanent structure situated on land that is leased from the government at a nominal rent paid through the local police station. He uses his mobile phone for contacting customers. He does not use any other feature of the mobile phone other than voice calls
- Electricity is the most important need for his business. He has applied for an electricity connection and has had trouble in getting it. He had approached an intermediary for this and is awaiting his demand note, a note that indicates the time to be taken for provision of the connection. At present he has a shared connection with his neighbour. Unscheduled power cuts are his biggest problem
- He has a trade license since it is mandatory to have one. However he believes that it will benefit his business in the future. He says the government does not interfere in the running of his business

# ME Profiling: *The System Is At Fault*



A Garment Manufacturer

Gender: Male  
Age: 41 years  
Education: Primary Education  
Location: Delhi  
Business: Manufacturing– Garments  
Employees: 1  
Years of Service: 20

- He lives and runs his business in a residential camp which is a settlement provided by the government for migrants
- He has a mobile phone which is used only for making voice calls. His mobile phone is also used by his family members. He is unaware of any Value Added Services (VAS) that can be activated on his mobile. He does not remember the last time he spoke to the customer care executive
- He has a legal electricity connection and regularly pays his bills himself. He also says that the blackouts are now reduced, because of which there has been a tariff increase
- He has a business registration which he obtained after repeated visits to the office, and bribery. He thinks that government complicates processes to be followed for accessing essential government services



Sewing Machines Inside the Shop

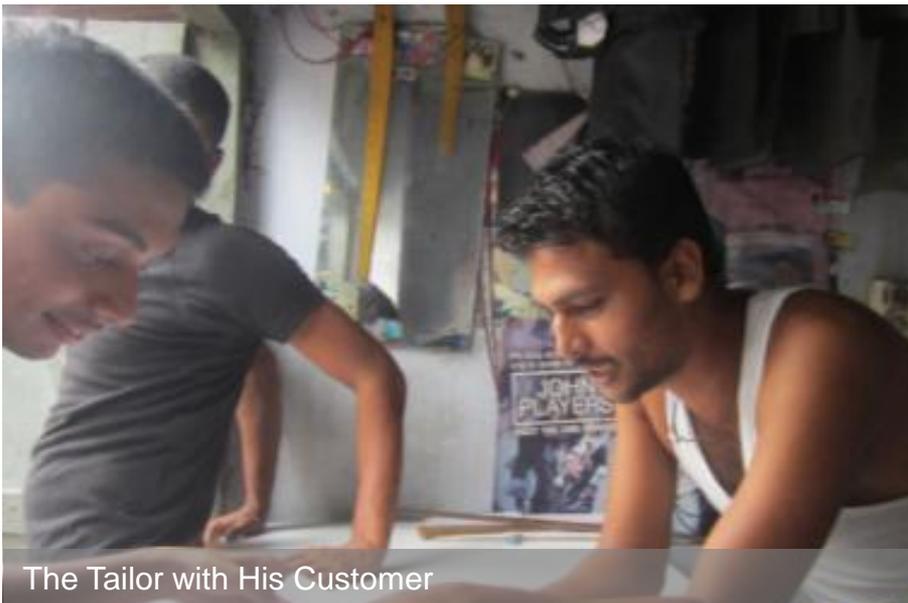
# ME Profiling: *I Have a Small Business*



A Tailor

Gender: Male  
Age: 32 years  
Education: Primary Education  
Location: Patna  
Business: Services– Tailor  
Employees: 0  
Years of Service: 5

- He has a rented shop. He learnt this business from his father. Most of his customers know about his shop through word of mouth publicity
- He uses a prepaid mobile connection for staying in touch with his friends and family. He uses his mobile phone only for voice calls. He does not consider it to be essential for his business
- His shop has an electricity connection in the owner's name. He pays his bills regularly and ensures that he oversees the meter reading process. Some times when unable to arrange for funds, he gets permission from the engineer at the electricity office to make part payment
- He does not have a license or a business registration as he thinks it is not required for small businesses. He also believes that the government does not force small businessmen to get a license/ registration



The Tailor with His Customer

# ME Profiling: *My Business Just Goes On*



ME Using His Mobile Phone



Inside the Furniture Rental Shop

Gender: Male  
Age: 53 years  
Education: Secondary Education  
Location: Colombo  
Business: Trade– Rental Furniture  
Employees: 0  
Years of Service: 20

- He runs his shop from his place of residence. He has been living here for the last 25 years since it belongs to his family
- He primarily uses his mobile phone for his business. He has changed his number a few times in the recent past, as he has lost his mobile phone at regular intervals
- There is an existing electricity connection in his shop, which was applied for by his father when he was alive. His business is not heavily dependent on electricity
- He has got his business registered since it is mandated. He desires to follow all designated rules for his business. He does not consider registration to be essential for the running of his business

# **Service Delivery in Telecom**

Mobile Usage Patterns

Service Delivery Mechanisms

Voice and Exit

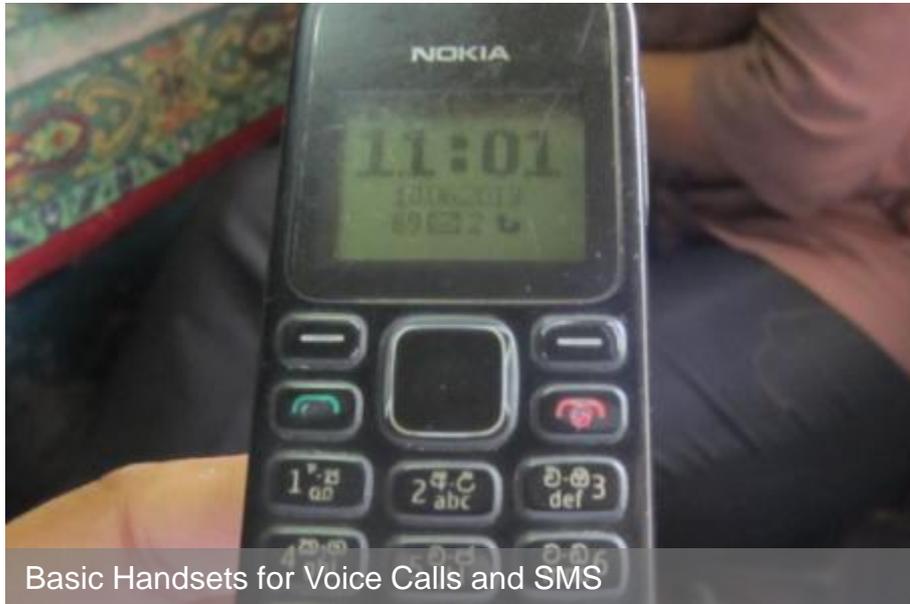
Use Cases from Telecom Service Delivery

Failure Cases from Telecom Service Delivery

Service Design Concepts

# Mobile Usage Patterns

# Mobile Usage Patterns: Handsets



Basic Handsets for Voice Calls and SMS



Basic Handsets with Radio



Touch Screen Phones with Data Connectivity



Touch Screen Phones with Multimedia

# Mobile Usage Patterns: SIM Cards

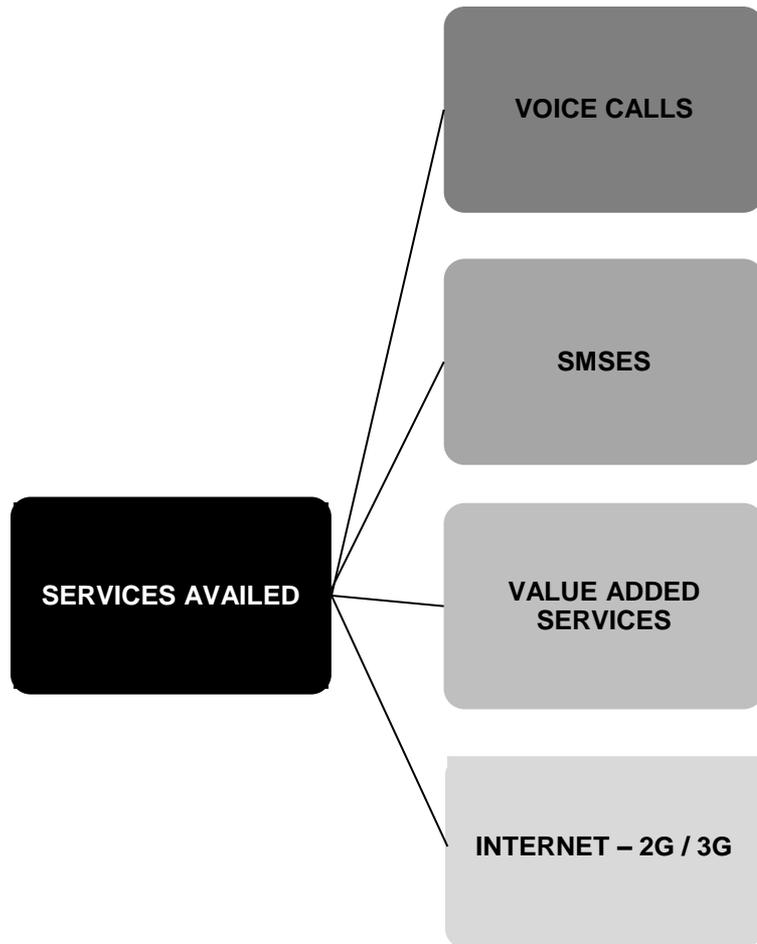


Application for a New SIM Card in Delhi



ID proof Submitted for a New Connection in Delhi

- All MEs interviewed purchased their SIM cards from a telecommunications vendor. Most of the MEs purchased a prepaid SIM over a postpaid SIM
- In all locations an application form, photograph ID proof and address proof is submitted in order to authenticate the identity of the customer.
  - In Delhi and Patna, a drivers license/ voter ID card is provided as address proof
  - In Colombo, the National Identity Card (NIC) is provided as address proof. In Dhaka a voter ID card is provided as address proof
- Activation of SIM cards varies across locations
  - In Delhi, Patna and Dhaka, SIM activation is completed within 72 hours
  - In Dhaka, some MEs interviewed mentioned that 72 hours is a long duration, and serves as a challenge to them contacting customers and family members
  - In Colombo, SIM activation is completed within 24 hours. Therefore, the mobile usage starts early for customers, especially the ones who need their phones for their business



## Voice Call

- Voice calls were the most frequently used mobile telecom service among MEs interviewed across all locations

## SMS

- A majority of MEs interviewed read and understand SMS received. However SMSes are not actively used as a medium of communication
- In Colombo, MEs find it difficult to understand messages sent by the operator since the Sinhala script has not been incorporated at the backend by the operator/handset manufacturer

## Value Added Service

- It was observed that MEs do not access valued added services. In most instances, these are unknowingly activated by the MEs due to which their balance is deducted

## Internet (3G and 2G)

- Most of the target consumers are aware of these services, however usage was found to be extremely low. Only 1 of the MEs interviewed had activated an internet package on his phone, to be used by family members.

# Mobile Usage Patterns: Voice Calls



ME in Delhi



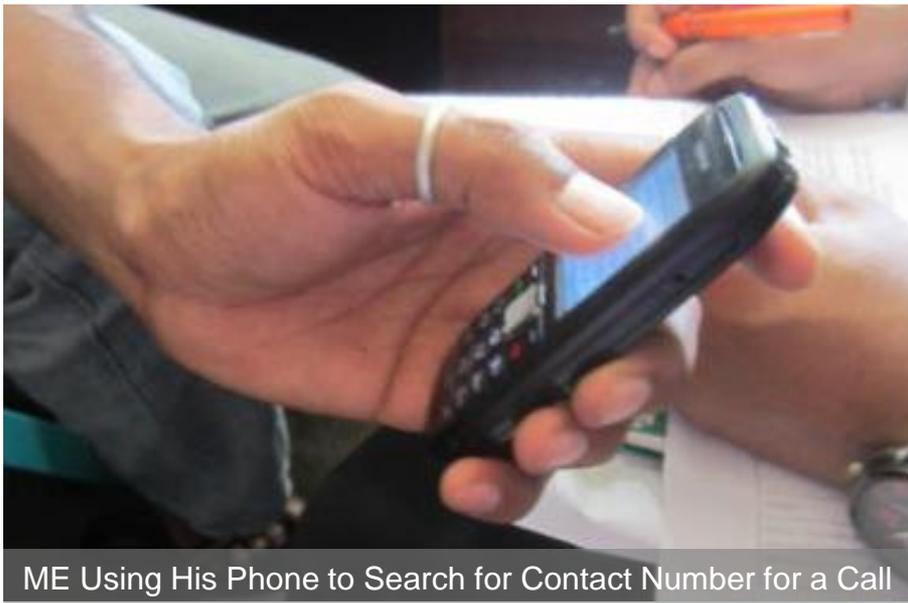
MEs Mobile Phone in Patna

- In all locations, voice calls were the most frequently used mobile telecom service among MEs interviewed. Older MEs believe in using their mobile phones for basic functions only
  - *“On my phone I only use three buttons, call, disconnect and centre button”*
    - Mohammad Asim Mamdhoom, Catering Business, Colombo
- In all locations, speaking to family and dealing with business requirements were primary motivations behind using the service
- In Dhaka and Patna, MEs interviewed resorted to the adoption of a second SIM in order to reduce cost of making voice calls.
  - *“My local telecommunications vendor keeps me updated about latest schemes around new connections. This helps me reduce my overall cost since I can use a second SIM to make calls”*
    - Pappu Sharma, Carpenter, Patna

# Mobile Usage Patterns: Short Messaging Services (SMS)



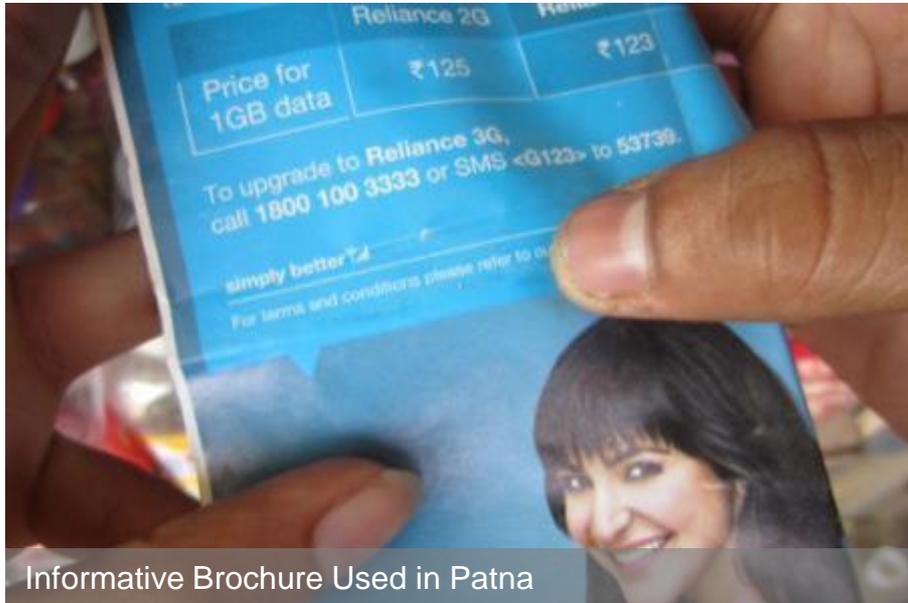
ME Using His Phone to Read a Message



ME Using His Phone to Search for Contact Number for a Call

- Most of the MEs interviewed read and understand SMS received. However SMSes are not actively used as a medium of communication
- In all locations, MEs were able to understand information about balance remaining on the phone through flash messages, received after the call is terminated
- In Colombo, frequency of SMSes sent by the operator to provide information about services on offer, are higher as compared to India and Bangladesh.
  - Due to the absence of the Sinhala script, some MEs find it difficult to understand the information provided in these messages
- MEs tend to delete the SMS they receive from the telecom operator.
  - *“As soon as I receive a message from my telecom operator, I delete it so that I don’t activate some unwanted service by mistake”*
    - Mohammad Nazrul Islam, Electrician, Dhaka

# Mobile Usage Patterns: Value Added Services (VAS)



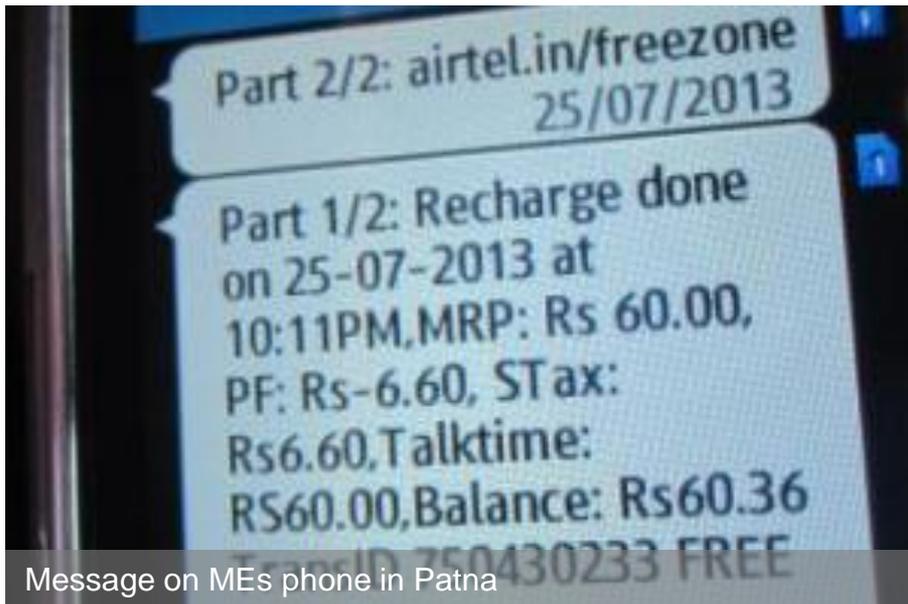
- In all locations it was observed that MEs do not access VAS, as they are considered as offerings not customized to ME requirements
- In Delhi and Patna, activation of caller tunes without the customers consent, a frequent occurrence, is seen as a significant reason for MEs to call up customer care to rectify the same
  - *“Reliance (the telecom operator) has more than one lakh customers, if they rob one rupee from each customer, they have a lakh of rupees”*
  - Deepika Devi, Tailor, Patna
- In Colombo and Dhaka, the use of emergency credit, a service enabling MEs to obtain a short duration loan as talktime was commonly used amongst MEs
- In Dhaka, one of the MEs has registered with his telecom operator, to receive his electricity and water bill via SMS. The ME considers this service to be extremely useful since the message is received four days prior to receiving the hard copy bill



# Mobile Usage Patterns: Reloading Behaviour



Ten Rupee recharge cards in Delhi



Message on MEs phone in Patna

- In all locations, most MEs prefer electronic reloading to using a scratch card.
  - *"I prefer electronic reload since if there are any problems the risk is on the vendor, rather than on me as a customer"*
    - Rajendra Prasad, Shopkeeper, Patna
- In Patna and Colombo, some MEs were comfortable using scratch cards for reloading their phone
  - *"I prefer a scratch card, since I do not wish to give my number to the telecommunications vendor"*
    - Snowy Kumari, Beautician, Patna
- In Colombo MEs prefer reloading for the lowest denomination possible (Rs. 50; USD 0.4), as frequently as required.
  - *"When the Rs. 50 gets over, the call gets cut"*
    - Rukman, Bicycle Business, Colombo
  - In Dhaka, Patna and Delhi, MEs reload once a week/ once in two days.
- In Patna and Delhi, only on reloading with specific reload amounts, does the customer receive full talk time
  - In Colombo and Dhaka, full talk time is provided on all mobile reloads.
- In all locations, MEs were aware of their approximate monthly expenditure on mobile reloads, by calculating the frequency of reloads with the reload amount

# Service Delivery Mechanisms: Customer Care



Customer Service Outlet in Dhaka



Customer Service Outlet in Patna

- In all locations, customers can resolve queries in person at the telecom operators outlet, or by calling up on the customer care number. A customer has to go through an IVR system in order to speak with a customer care executive
- In Delhi and Patna, customers have the additional option of registering a complaint on 198, a toll free number collectively managed by all telecom operators under the directive of the Telecom Regulatory Authority of India (TRAI)
- In all locations MEs associate customer care with a person as opposed to a system
- MEs do not call up customer care unless the problem is financially significant, since they are unable to estimate the time taken to get through to the customer care executive. The cost of the same is an additional consideration
- In all locations, balance deduction due to activation of undesired value added services is the strongest reason for calling up customer care

# Service Delivery Mechanisms: Modes of Interaction



SP in Dhaka Addressing a Customer Query



ME in Dhaka Interacting with IVR

## Human-Human Interaction

- In all locations, this was observed as being the most popular method of customer – SP interaction. MEs resort to this approach to enquire about a new connection, make payments, reload their phone, and to get a complaint addressed
- In all locations, local telecommunication vendors are a point of contact for new connections. MEs depend upon them in order to get information about the service
  - *“My telecommunications vendor regularly informs me about promotional schemes for new connections. I use this as a second SIM”*
    - Pappu Sharma, Carpenter, Patna
- In Colombo the security guard was the first point of contact for walk in customers at the telecom operators outlet

## Human-Machine-Human Interaction

- In all locations, this mode of interaction was observed in use by MEs to deal with complaints, on calling customer care, the ME engages with the IVR service. After engaging with IVR, the ME is connected to a customer service executive

# Service Delivery Mechanisms: Artefacts



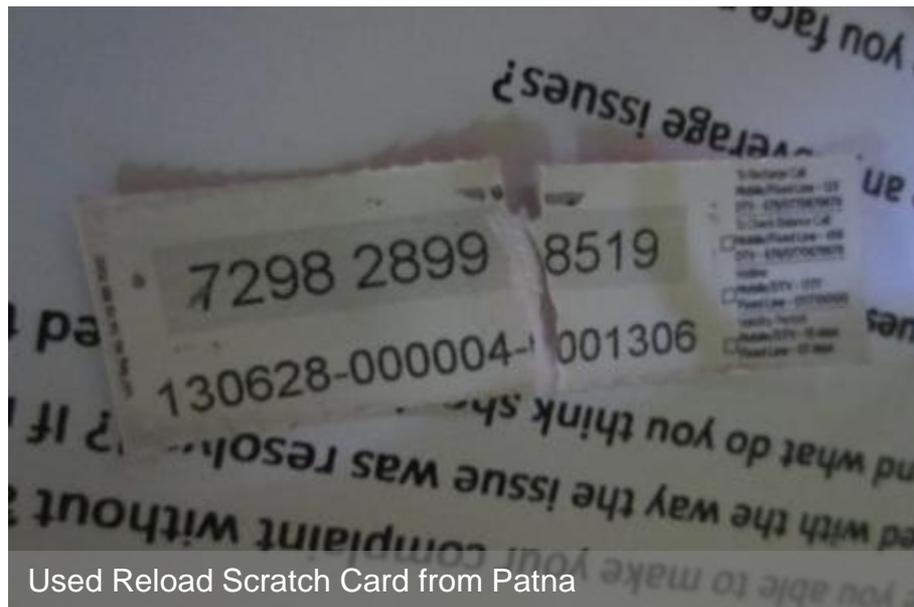
Token Number for Customers in Colombo



Reload Coupon in Delhi



Replacement SIM in Dhaka



Used Reload Scratch Card from Patna

# Service Delivery Mechanisms: Architecture



Waiting Space for Customers in Colombo



Customers Crowding Around a Counter in Dhaka

## Waiting Space

- In all locations, it was observed that customer service facilities such as seating space provided, vary across operator outlets depending on factors such as location and size and type of outlet
  - The telecom operators outlet visited in Colombo was the head office for Mobitel, whereas a smaller outlet of Banglalink was selected in Dhaka
  - In Delhi, Patna and Dhaka, some of the outlets frequented by MEs are not equipped with the same level of facilities as observed in telecom operator outlets that are larger in size
  - A designated seating space was observed in use at the Vodafone customer care outlet in Delhi and at the Mobitel customer care outlet at Colombo
  - Banglalink's outlet in Dhaka and Reliance Telecom's outlet in Patna did not have any seating space for customers

## Seating space in front of the SP in store

- In Delhi and Colombo, seating space is provided in front of the SP's desk
  - In Dhaka and Patna no seating space was provided for customers in front of the SP's counter. As a consequence customers tend to crowd around the counter to get their queries answered

# Service Delivery Mechanisms: Counters



Payment Counter in Colombo



Customer Care Outlet in Patna

- In all locations, a dedicated payment counter was found to be in use at the telecom operators outlet
  - In Patna, the payment counter was separated from the rest of the office for security purposes. To deal with crowds at the payment counter, manual receipts are provided against bill payments
- In Patna, Dhaka and Delhi customers tend to approach the SP closest to the entrance for any queries. This results in crowds around the SPs table
- In Colombo, a dedicated counter was provided for dealing with loss of SIM/change of SIM.
  - In Delhi and Dhaka, no segregation is made between the different counters. All customer queries are given equal importance
- In Delhi and Patna it was observed that walk in customers were provided the additional convenience of purchasing a phone along with their SIM card
- In Colombo and Delhi, a token system is used to manage crowds. This enables the SP to handle one customer query at a time
  - The absence of a token system in Patna and Dhaka resulted in the SPs having to address multiple queries simultaneously

# Service Delivery Mechanisms: Information and Communication



SP Using His Phone for Internal Reporting in Dhaka

- In all locations all sites of service provision were equipped with computers to record and respond to customer queries, with access to an internal software database
- In Dhaka, in addition to computers, SPs use mobile phones update immediate supervisors about day to day functioning at the customer care outlet
- In Colombo, an alternate payment mechanism, Easy Pay, was provided to customers. However it was observed that this was not commonly used by walk in customers or MEs interviewed
- In all locations flyers, informative posters, banners and brochures were provided in the local language at sites of service provision, to enable ease in communication
  - In Delhi, Patna and Colombo, TV screens used to communicate service offerings in store

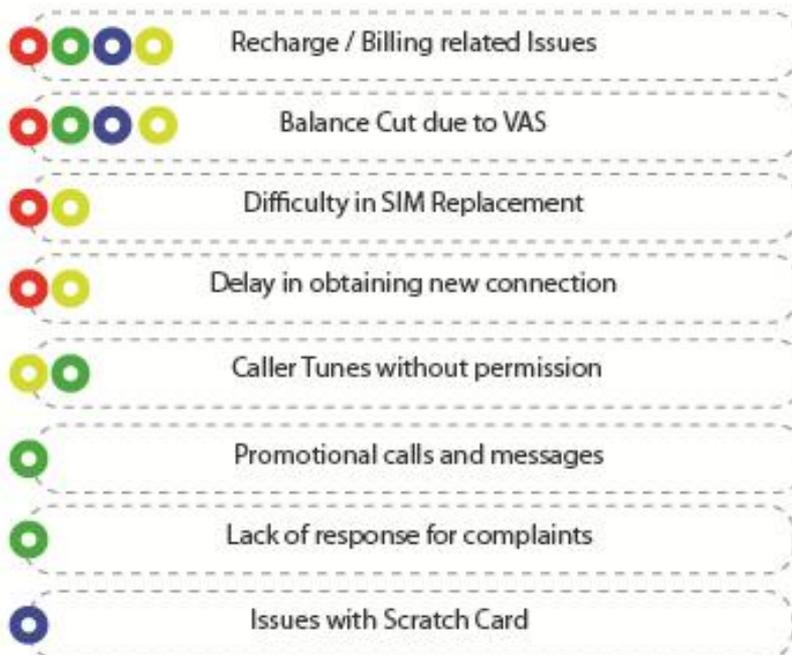


Token System in Use in Colombo

**Voice and Exit**

VOICE: Speaking up and trying to remedy the defects when dissatisfied with a service  
EXIT: Leaving a service without trying to fix things when dissatisfied

Colombo Dhaka Patna Delhi



## **Use Cases from Telecom Service Delivery**

# Ideal Use Cases From Telecom



- In Dhaka and Colombo, MEs receive full talktime irrespective of the reload amount. As a consequence MEs reload as frequently and for the lowest denomination required

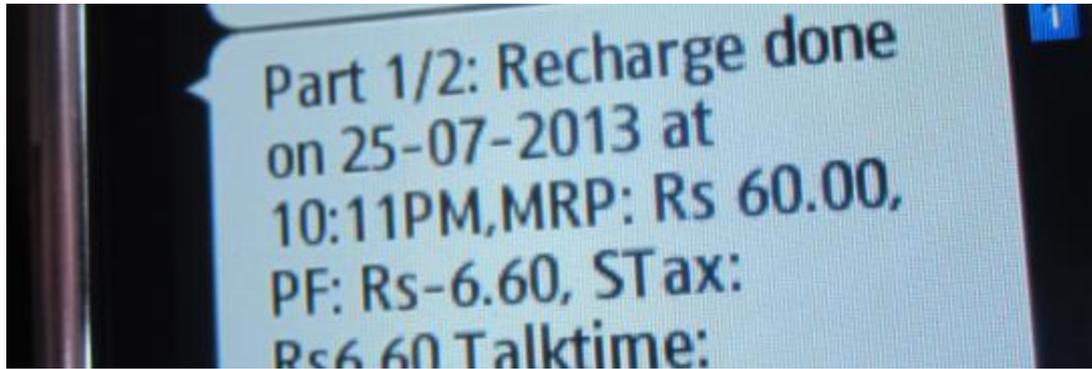


- In Dhaka, using ITop Up, customers can make calls even after exceeding their credit limit, by topping up credit balance on their postpaid number. A customer can get an ITop up by visiting the SP at the telecom operators outlet



- In Colombo multiple payment options are provided to postpaid consumers. Bills can be paid through an authorized intermediary, online, in-store at the payment counter or through an Easy Pay machine

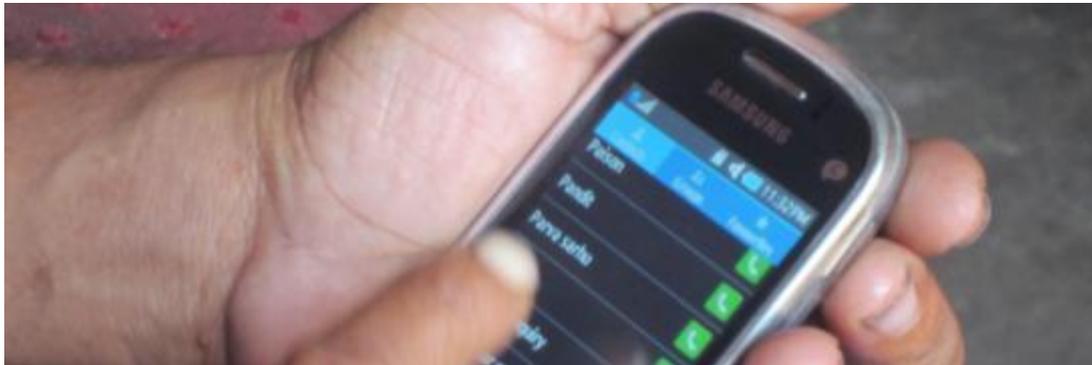
# Ideal Use Cases From Telecom



- In Dhaka, Delhi and Patna messages can be sent to customers in the local language font . This helps the telecom operator communicate efficiently with customers about different services



- In Colombo SIM replacement only requires the submission of an ID proof unlike in Dhaka where additional documents need to be submitted. The ME has to personally visit the office to receive a replace his SIM



- In Delhi and Patna, customers have the facility of 'Do Not Disturb (DND)' to reduce instances of unsolicited calls

## **Failure Cases from Telecom Service Delivery**



- In Patna, discrepancies in documentation submitted for a new connection can only be rectified at the vendor outlet where they were originally submitted. Customers are informed about this only after visiting the head office

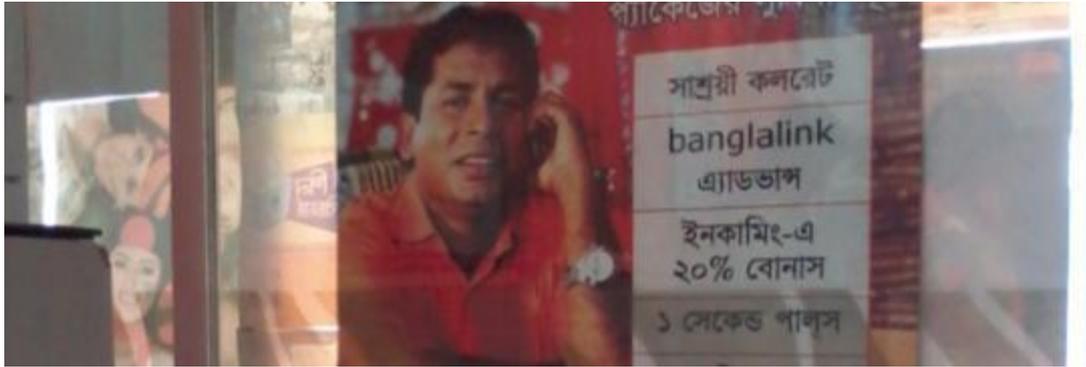


- In Colombo, the efficiency of informative SMS campaigns is limited in nature since messages cannot be sent in the local script



- In Patna the decision of the call centre executive is considered to be non negotiable by the ME. No higher authority is approached in case of dissatisfaction

# Failure Cases From Telecom



- In all locations MEs do no call customer care unless their problem has significant financial impacts. This is because, connecting to a customer care executive is a long, tedious process due to the IVR system. Furthermore MEs are unaware of the costs involved
- In Delhi and Patna while calling up customer care, continuity of the call with the call centre executive is a challenge. Disconnection of the call occurs most due to network issues. This forces the ME to start all over again after reconnection
- In Patna, an internal policy of telecom operators allows them to randomly assigned caller tunes to customers without consent. The caller tune, often insensitive to the customer religious beliefs, is activated free of cost for the first month after which the customer has to pay INR 30 (USD 0.48)

# Failure Cases From Telecom



- In all locations MEs believe that complete or partial exit from the service is the only feasible solution to overcome network problems



- In Dhaka verification requirements for getting a replacement SIM are difficult to fulfil. Original SIM papers and/or designated FNF (friends and family) number has to be provided by the ME



- In Delhi, Patna and Dhaka, MEs are unaware of the organizational limitations of the SP. The ME expects the SP to go out of his way in order to resolve problems faced by the ME. This is a failure from the SPs perspective

**As the conclusion of the Use and Failure case analysis, three distinct solution categories emerged for better service delivery designs for MEs**

**Ease of Access**

Solutions catering to challenges associated with the access to service, or part of a service

**Identity**

Solutions aiming to identify MEs as customer segment, for the provisions of post-paid connections and value added services

**Control**

Solutions catering to the need for control of consumption, expenditure and usage

# **Service Design Concepts in Telecom**

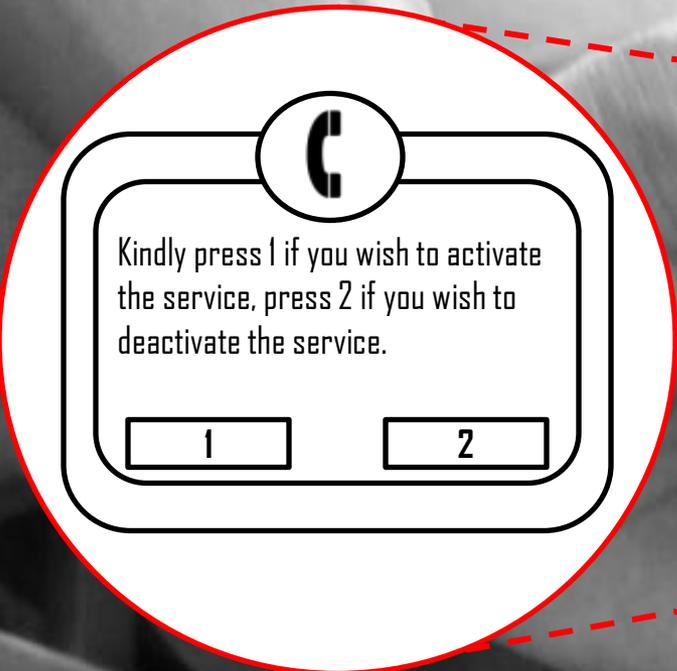


- Lack of control is a deterrent to MEs availing a service
  - MEs stop using postpaid connections since they have to pay a one-time bill at the end of the month
  - MEs face network issues because of which they migrate from one telecom service to another
  - MEs experience problems with VAS being activated on their number without their consent
- Key Players: Micro Entrepreneurs

- *“I threw away my previous SIM as my balance was always being deducted for no reason and every time I called customer care, they never gave me a proper response”*
  - Kazim, Tailor, Patna
- *“I once received a bill for INR 2000 (USD 30) even when I didn’t use my phone to make a lot of calls”*
- *“I tried deactivating dialogue TV on my phone, but I couldn’t get through to customer care. This service costs SLR. 6 per day (USD 0.04 per day)*
  - Ramsin, Shoe Shop Owner, Colombo
- *“I started using a new SIM from a different telecom operator because I was facing a lot of network problems, every time I went outside of Dhaka, I had no coverage”*
  - Lokman Hossain Rabbi, Mechanic, Dhaka

# Control: Verification for VAS

**Solution:** On activation of VAS, the ME receives a confirmation call through IVR or an SMS, requesting them to confirm their choice. This way the ME can realize if the VAS being activated by mistake and press the required digit to avoid it. In addition to this, the MEs will receive a call/ SMS asking them to confirm their use of the VAS.

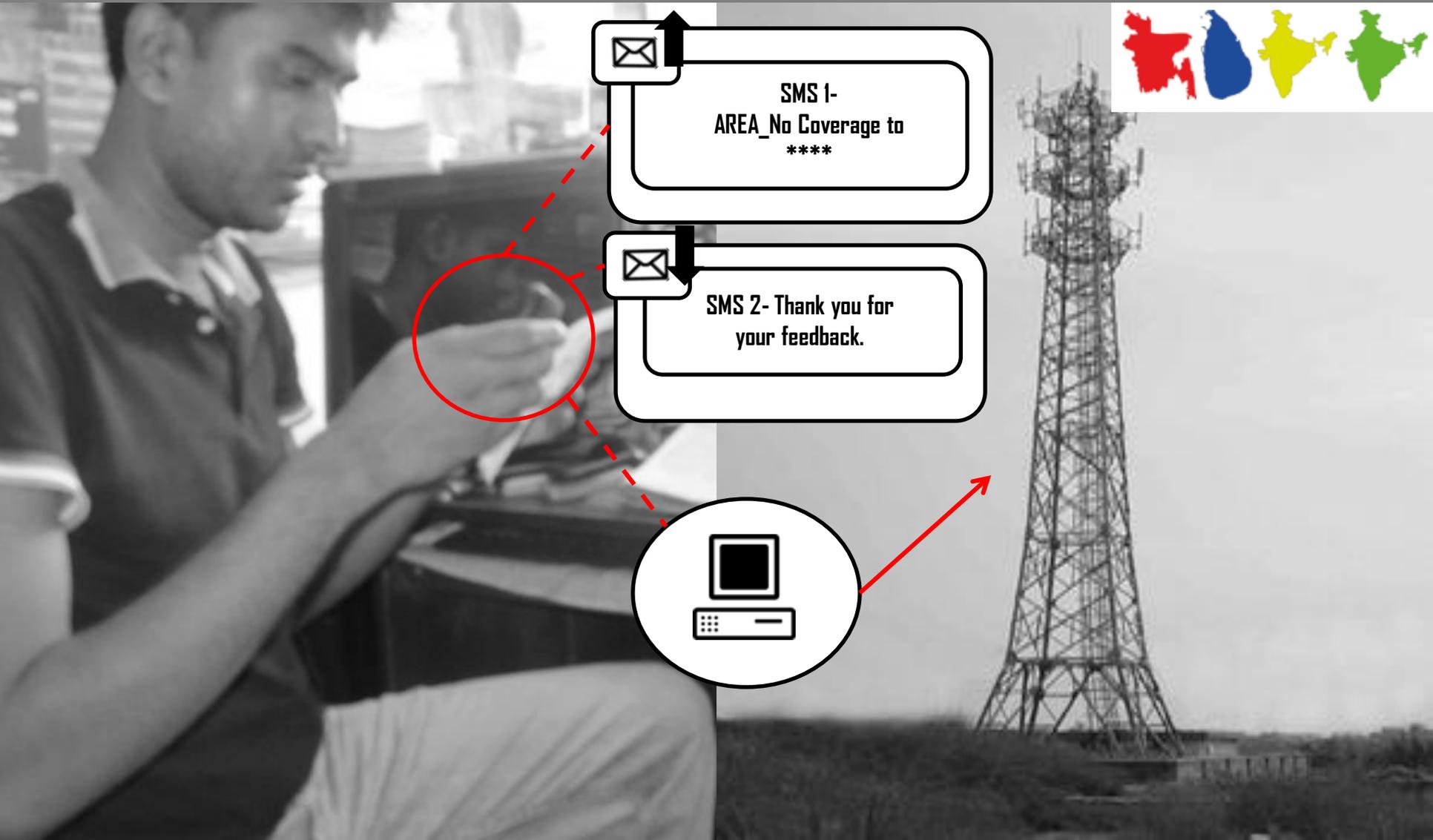


A circular callout containing an IVR menu. At the top is a telephone handset icon. Below it, the text reads: "Kindly press 1 if you wish to activate the service, press 2 if you wish to deactivate the service." At the bottom, there are two rectangular buttons labeled "1" and "2".



# Control: Crowd Sourced Call Drop Map

**Solution:** Enable customers to log in problems pertaining to coverage through USSD/ SMS. This information will be saved in the form of a database enabling the operator to optimize phased introduction of new towers to improve network connectivity.



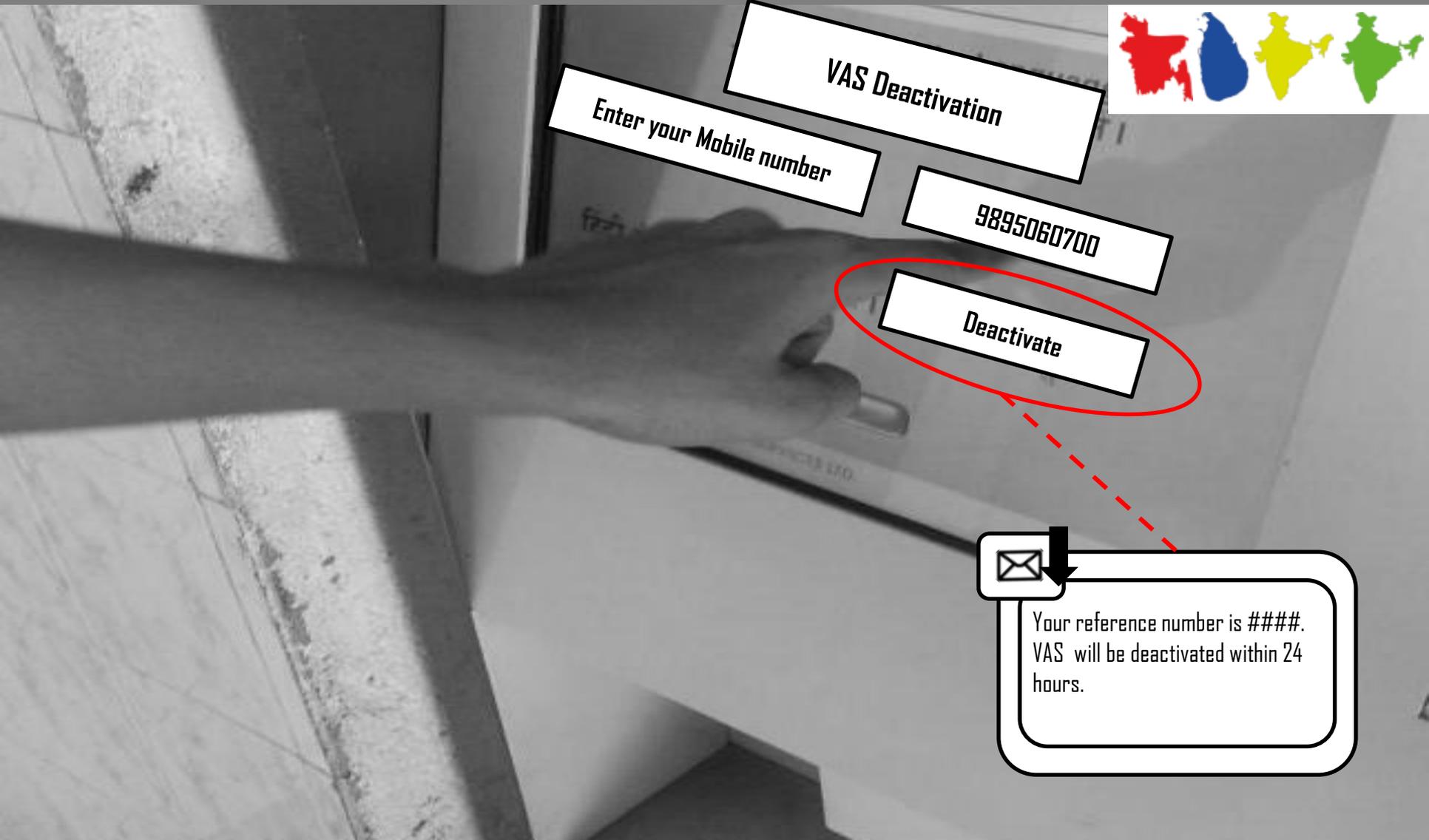


- Easy access to services is not available to MEs
  - In order to deactivate any VAS, a significant problem, the ME finds it difficult to get through to the customer care executive, since it is a time consuming process
  - In some instances, the call drops while speaking to the customer care executive, thus forcing the ME to narrate his complaint all over again to a different call center executive
- Key Players: Micro Entrepreneur, Service Provider

- *“I cannot get through to customer care when I call them for any complaint, I even try calling on different customer care numbers, but to no avail”*
  - Ali Raza, Shopkeeper, Patna
- *“Last month I called customer care to get a Caller Tune removed. I waited for over 20 minutes, listening to the music (IVR) before I could speak to someone”*
  - Sahib, Mechanic, Delhi
- *“Every time, I need to call up a lot of times before I can actually speak to a Customer Care Executive. When I finally get to the executive, the call gets cut”*
  - Mohammad Nazrul Islam, Electrician, Dhaka

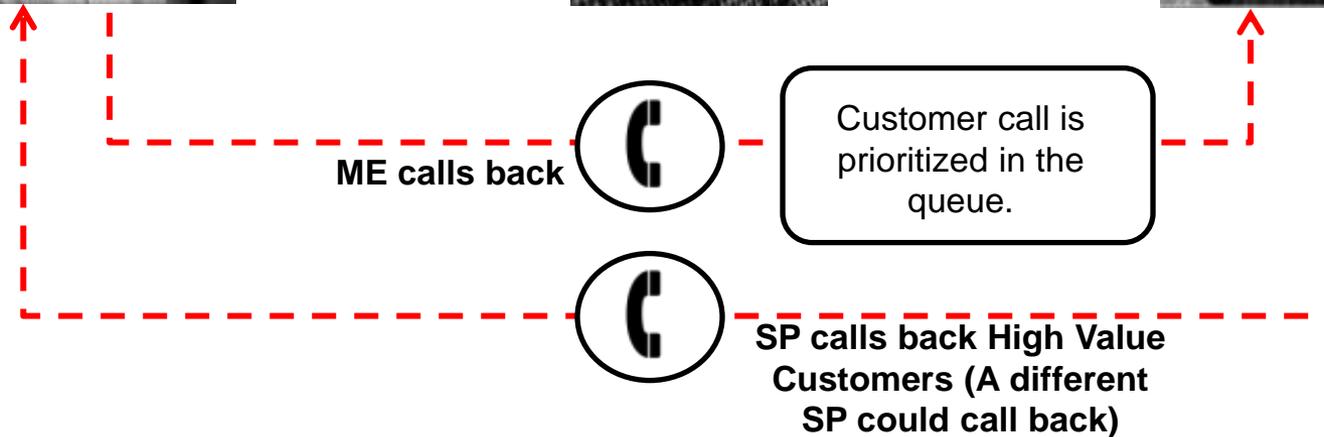
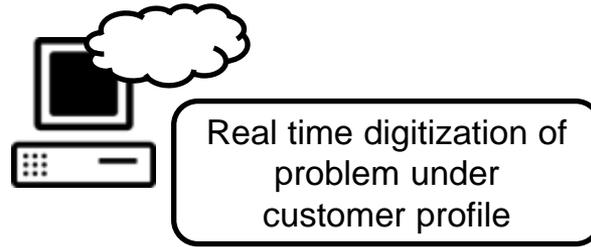
# Ease of Access: Automated Complaint Registration

**Solution:** Automate VAS complaint registration by the use of machine at the telecom operators outlet. This will enable the ME to deactivate the service without having to queue up/ call up customer care for the same



# Ease of Access: We Will Call You Back!

**Solution:** The Customer Care Executive digitizes the complaint in real time. If the call drop the customers number is recorded in a database. If the customer calls back within a stipulated time, their call is prioritized in the queue. The same is accessible to the customer care executive who can call back high value customers in case of a call drop.



# Ease of Access: SMS for Deactivation

**Solution:** Permit SMS based activation and deactivation of VAS, thus enabling MEs to initiate the process on his own. MEs who are not comfortable using SMS can take the help of friends/family/ local telecommunications vendor to initiate the process on their behalf.



SMS 1- VAS\_CT\_DEA  
to ###



Your reference number is  
####. This service will  
be deactivated within 24  
hours



# Ease of Access: Phone Backup

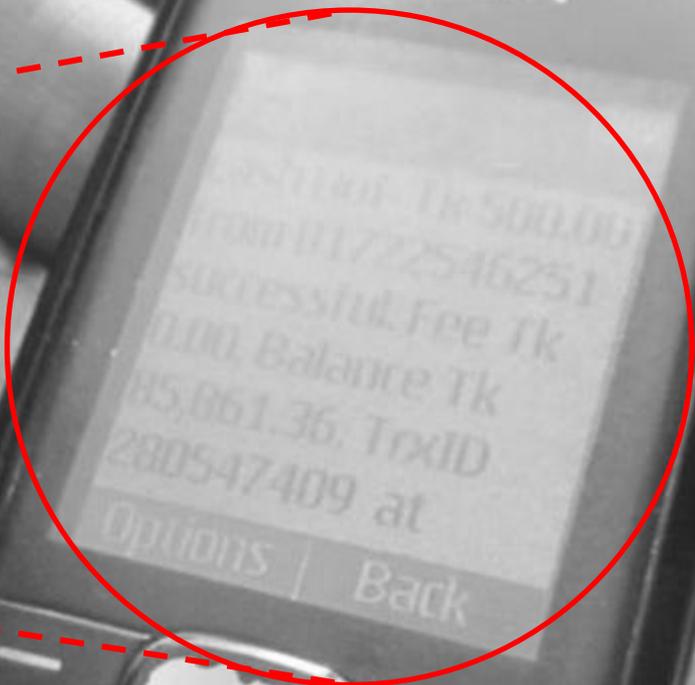
**Solution:** Provision of a phone backup service for customers. The customer can back up his data at the telecom operators outlet. In case the ME loses the SIM, they can visit the telecom outlet to get a back up of their contacts.



ME gets his lost contacts on getting a replacement SIM

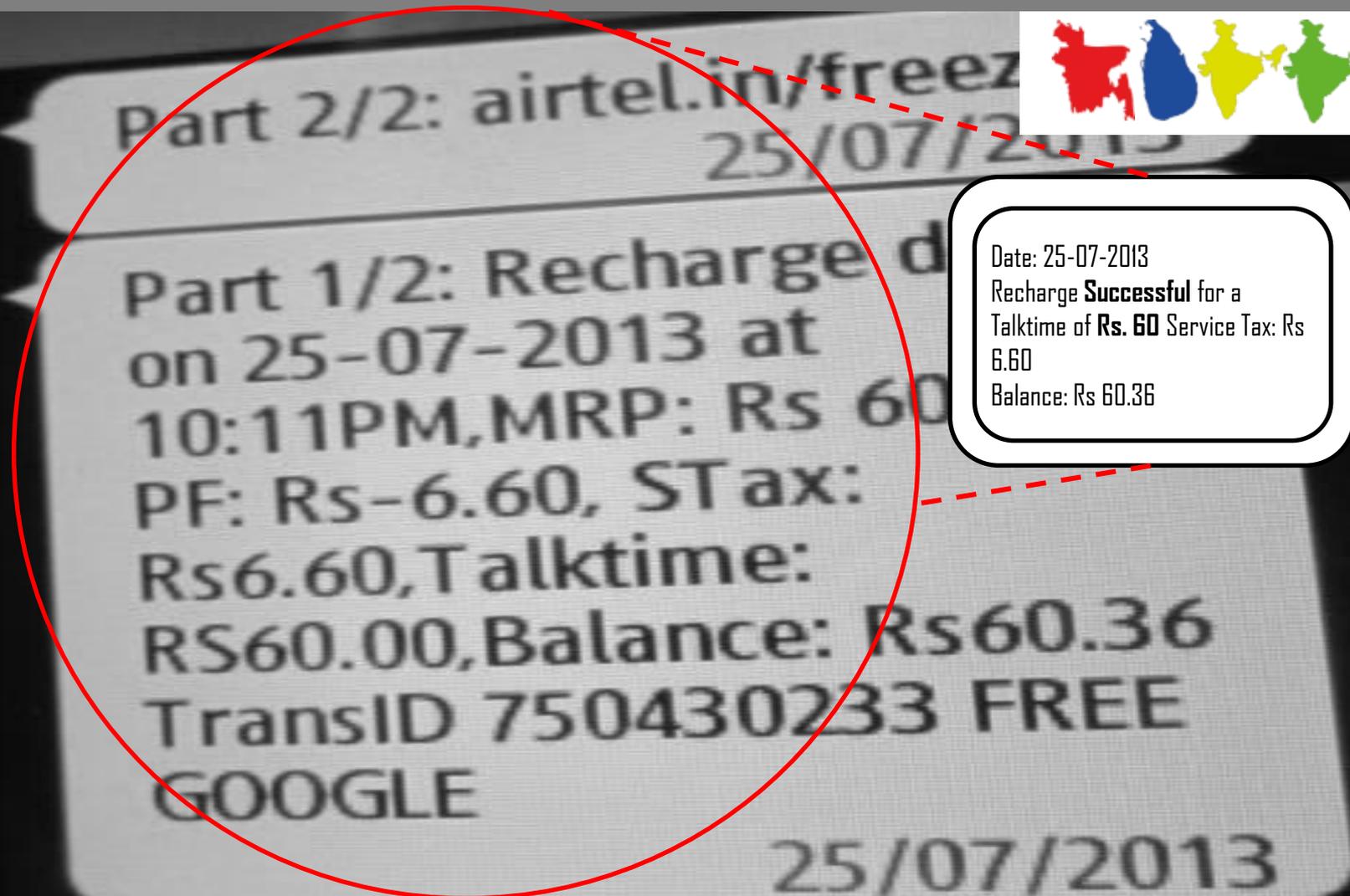


The data and contacts are backed up by the Service Provider



## Ease of Access: SMS Redesign

**Solution:** Redesign the messages that are sent to customers. The length of the SMS can be reduced in addition to emphasizing on key information for the customer.



Part 2/2: airtel.in/freeze  
25/07/2013

Part 1/2: Recharge d  
on 25-07-2013 at  
10:11PM,MRP: Rs 60  
PF: Rs-6.60, STax:  
Rs6.60,Talktime:  
RS60.00,Balance: Rs60.36  
TransID 750430233 FREE  
GOOGLE

Date: 25-07-2013  
Recharge **Successful** for a  
Talktime of **Rs. 60** Service Tax: Rs  
6.60  
Balance: Rs 60.36

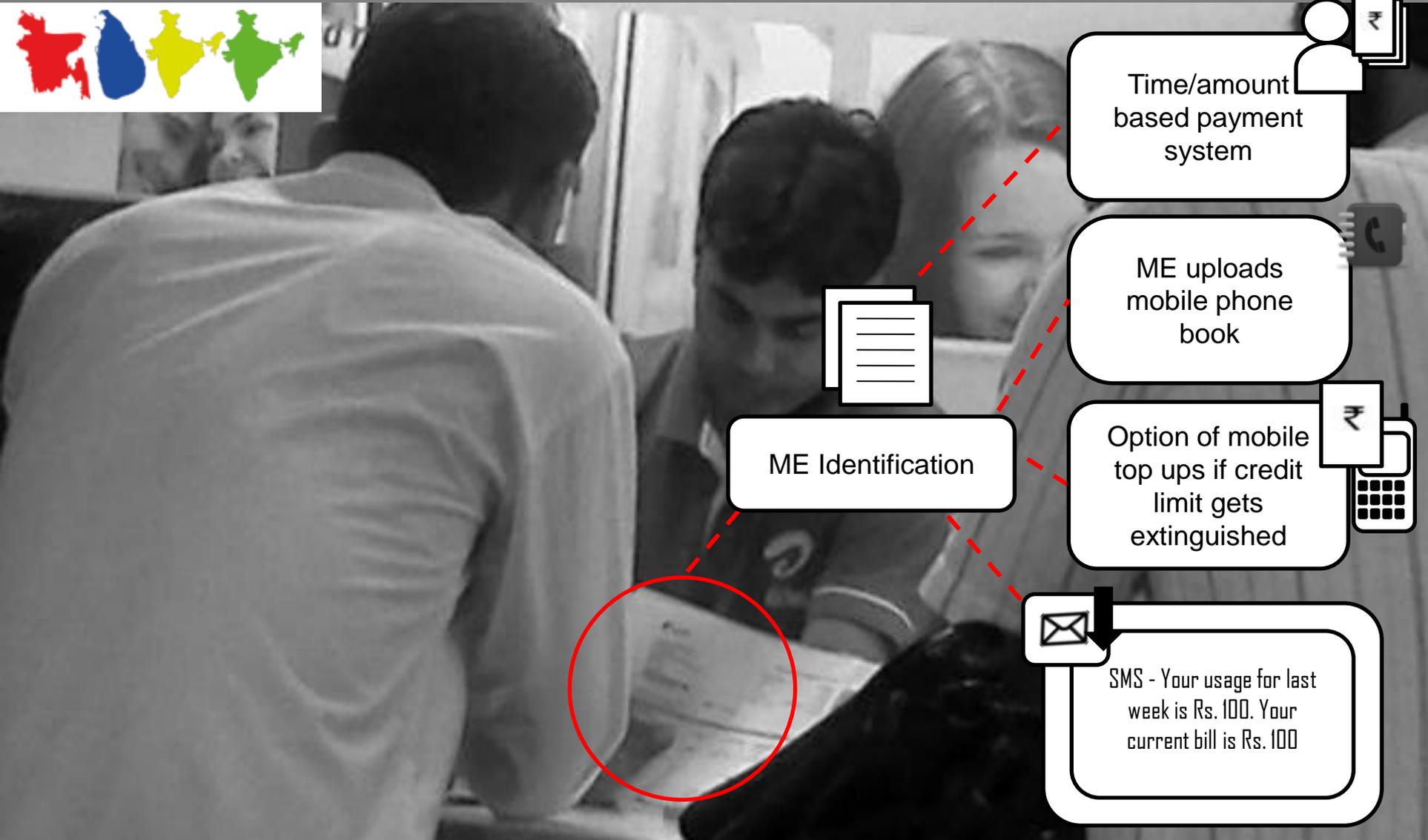
25/07/2013



- MEs are unable to avail certain services since they are unable to identify themselves as MEs
  - For MEs, processes to be followed for getting a replacement SIM are more difficult as compared to requirements for purchasing a new SIM card. In Dhaka, some MEs are unable to recollect the FNF number or provide original SIM papers that are asked to ascertain their identity
  - MEs believe that postpaid as a service is not customized to their requirements since they are unable to keep track of their consumption
- Key players: Micro entrepreneur
- *“I had to get my replacement SIM through a friend who works at the telecom office otherwise I would have had to run around to get it myself”*
  - Iqbal Hussain, Bakery Business, Dhaka
- *“In the past when I had postpaid, I once received a bill for INR 2000 (USD 30) even when I didn’t use my phone to make a lot of calls”*
  - Shakil, Clutch Purse Manufacturer, Delhi
- *“I had a postpaid connection because of which a lot of my friends were using my phone. They would say that they need to make a ten minute call but the time would always extend”*
  - Sahib, Bike Mechanic, Delhi
- *“Postpaid is only for rich people, people like ME cannot afford it”*
  - Rakesh Kumar, Electrician, Patna

# Identity: Postpaid Lite

**Solution:** Provision of an ME centric postpaid scheme with special VAS applications to encourage self identification by MEs. The scheme offers a lower credit limit and the absence of physical bills. Business analytics are used to refine service offerings and help MEs understand patterns in usage. The MEs receive weekly SMS updating about their usage.



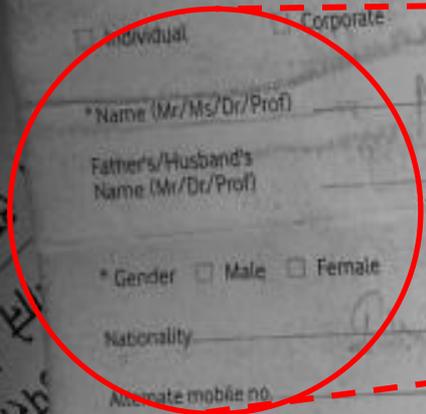
# Identity: Registering MEs

**Solution:** Enable segmentation of MEs through allocation of a designated digit in the MEs number. This will enable the operator to identify MEs for ME centric schemes and plans.

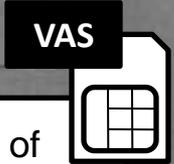


## Customer agreement form

A/c ID no. (for office use only)



**What business are you running?**  
A. Manufacturing  
B. Service  
C. Trade



Allocation of designated digit in number -  
####'5'####

Individual  Corporate  Reimbursement

\* Name (Mr/Ms/Dr/Prof) \_\_\_\_\_ First name \_\_\_\_\_ Middle name \_\_\_\_\_ Last name \_\_\_\_\_  
Father's/Husband's Name (Mr/Dr/Prof) \_\_\_\_\_ First name \_\_\_\_\_ Middle name \_\_\_\_\_ Last name \_\_\_\_\_

\* Gender  Male  Female Marital status  Married  Single \* Date of birth (dd/mm/yy) [ ][ ]/[ ][ ]/[ ][ ][ ][ ]

Nationality \_\_\_\_\_ PAN/GIR no. \_\_\_\_\_

Alternate mobile no. \_\_\_\_\_ Email id. \_\_\_\_\_

Existing Connection Type (if any)  Prepaid  Postpaid Existing Operator Name \_\_\_\_\_

**Bills to be sent at**

Residence address/alternate address

Building name \_\_\_\_\_  
Room/Flat/House no. \_\_\_\_\_ Sector/Phase no. \_\_\_\_\_  
Road name \_\_\_\_\_  
Nearest landmark \_\_\_\_\_  
Area \_\_\_\_\_ City \_\_\_\_\_  
Pincode [ ][ ][ ][ ][ ][ ] Email \_\_\_\_\_

Office address-corporate customers (for company paid accounts, bills will be sent only at the office address)

Company's name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
\* Landmark \_\_\_\_\_  
Pincode [ ][ ][ ][ ][ ][ ]  
Department \_\_\_\_\_ Designation \_\_\_\_\_  
Industry: Call centre/BPO/Banking/NBFC/Government \_\_\_\_\_  
Vehicle owned/operated, if any  Yes  No Reg. no. \_\_\_\_\_  
Make/model \_\_\_\_\_

Bank details \_\_\_\_\_

Preferred language  Home  Office  
English Hindi Other

# Identify: Super Agents for VAS Promotion

**Solution:** Introduce super agents, chosen on the basis of existing business provided to the telecom operator, to encourage uptake of ME centric Value Added Services. The agent is additionally remunerated by the operator on a profit sharing basis with a monthly cap.



Vendor Code\_VAS 123 to  
####



The telecom operator to provide a vendor code for each super agent

ME authenticates his identity with the super agent



Super agents contribution recorded through SMS

## **Service Delivery in Electricity**

Electricity Consumption

Service Delivery Mechanisms

Voice and Exit

Use Cases in Electricity Service Delivery

Failure Cases in Electricity Service Delivery

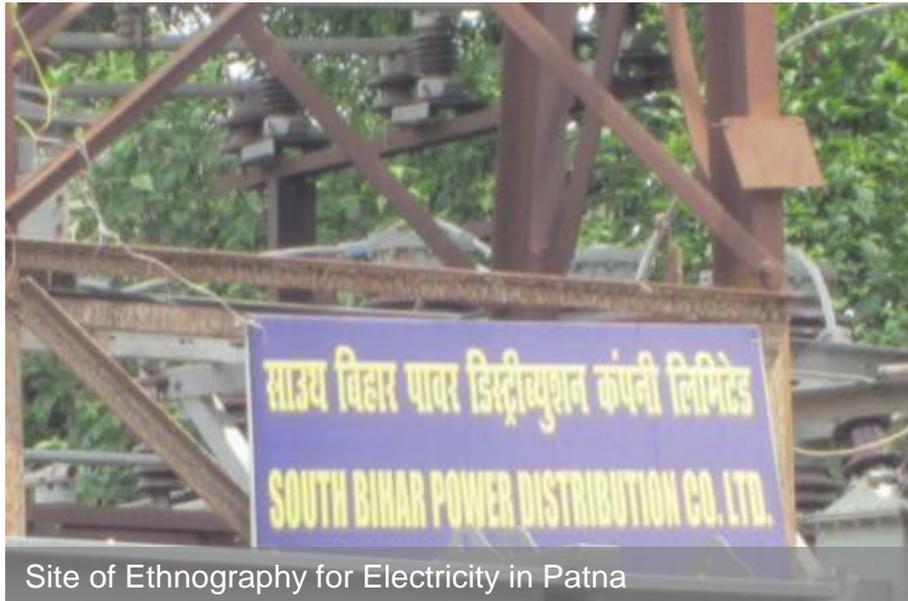
Service Design Concepts

# Electricity Consumption

# Overview of Electricity Distribution Companies



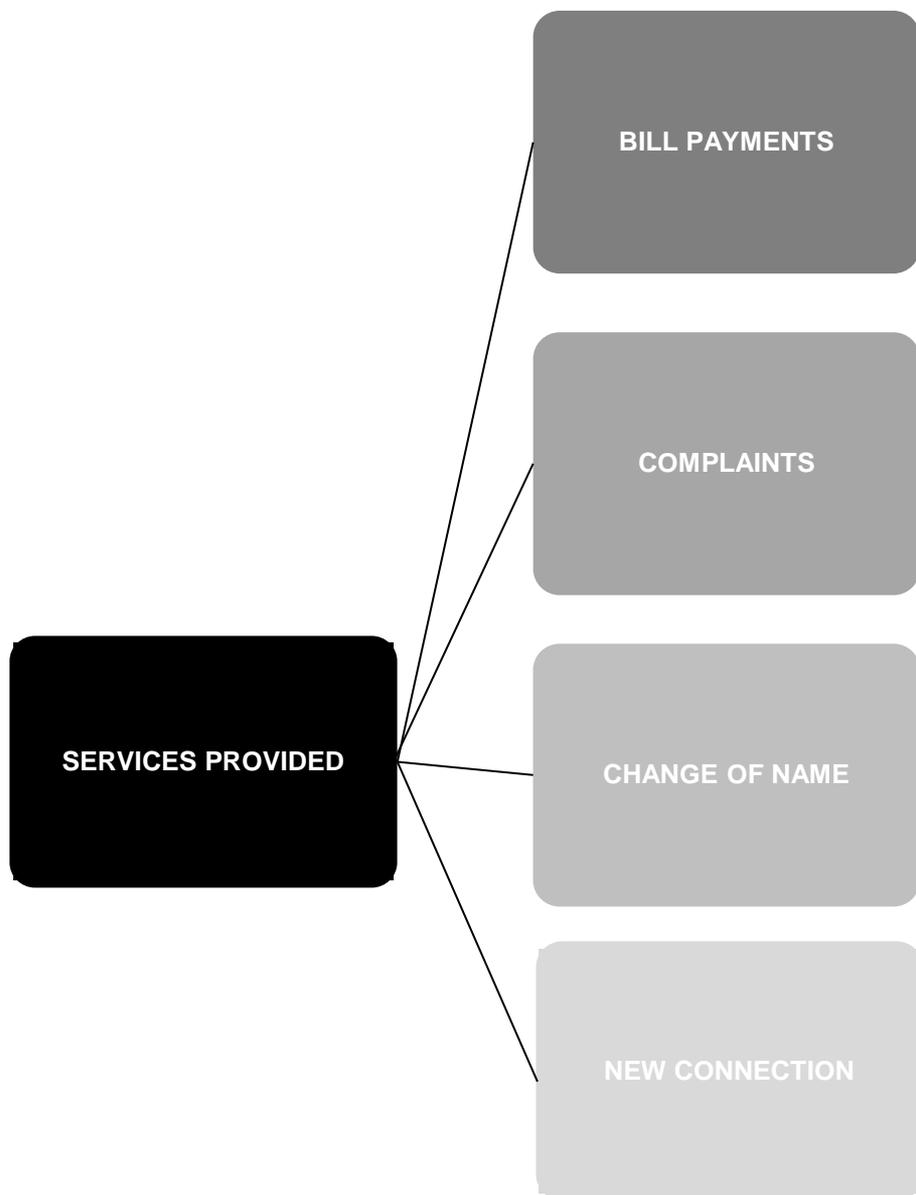
Payment Centre for Consumers in Delhi



Site of Ethnography for Electricity in Patna

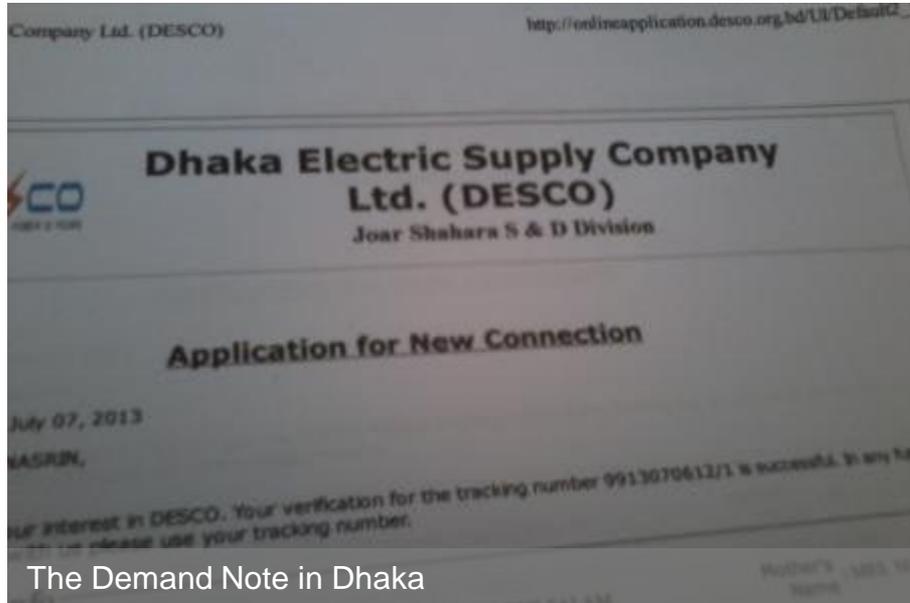
- Across all locations, the ethnography at site was conducted at the office of the electricity distribution company.
  - BSES Yamuna Power Limited (BYPL), Delhi
  - Bihar State Power (Holding) Co. Ltd, Patna
  - Dhaka Electricity Supply Company Ltd. (DESCO), Dhaka
  - Ceylon Electricity Board (CEB), Colombo
- Outlets chosen were sites where customers interact with service providers for various activities including applying for a new connection, making a complaint and paying bills.
- In Colombo and Dhaka, the electricity distribution company is owned entirely by the government
  - In Delhi, the electricity distribution company is privatized
  - In Patna the electricity distribution company is partly privatized

# Electricity Consumption: Electricity Services Availed by MEs



- Across all locations, differential tariffs were observed to be in use for different types of establishments.
  - In all locations a lower tariff is charged for households in comparison to commercial establishments
  - In Colombo, electricity is provided to religious establishments at subsidized rates
- Across all locations, a separate meter is installed for commercial establishments with a high level of consumption
  - In Dhaka, Delhi and Patna, it was observed that shops have a non commercial meter, with a commercial tariff rate
- In Patna and Dhaka, in addition to these services, temporary electricity connections are also provided in order to meet electricity requirements for community get together/ festivals. A security deposit is charged for the same
  - In Dhaka a trolley meter, connected to a battery operated generator, is used for providing a temporary electricity supply
- In all locations bill payments were the most common interaction observed between consumers and SPs.
  - In Patna billing related complaints was a significant consumer query observed
  - In Colombo change of name was a significant consumer query that was observed

# Electricity Consumption: New Connection



- Across all locations, ID proofs, address proofs, property papers and rental agreements, have to be submitted along with a fee and a form to apply for a new connection
- In Dhaka, Colombo and Patna a copy of the neighbours electricity bill is asked in addition to the above mentioned documents to ascertain the location of the residence
- Across all locations, after all documents are submitted, a verification visit is made by an electricity board official to determine the load to be provided
- In Dhaka after the inspection, the ME receives a demand note, which confirms that ME has fulfilled all requirements and the connection has been approved
- The time taken for providing an electricity connection varies across locations
  - In Colombo the ME receives his connection two weeks after all documents are approved
  - In Delhi, Dhaka and Patna the ME is supposed to be provided with an electricity connection within 21 days. However in most instances the ME has to wait for a longer duration



# Electricity Consumption: Name Change



Consumers at The Electricity Office Counters in Dhaka

- This procedure is initiated by the ME in order to change the name in which the meter has been installed
  - In Delhi and Patna, receiving the electricity bill in ones name is given additional importance since the electricity bill is accepted as a valid form of address proof
  - In Colombo, the name change process involves payment of past arrears, a security deposit based on average consumption of the six months excluding taxes. In addition a fee is charged and permission has to be sourced from the divisional secretariat
  - In Delhi, Dhaka ad Patna documents such as ID proof, address proof along with a fee and application need to be submitted for a name change



Customer Interaction at The Electricity Office in Colombo

# Electricity Consumption: Types of Meter Observed



Prepaid Electronic Meter in Dhaka



Old Analog Meter in Patna



Digital Meter in Delhi



Electricity Meter Observed in Colombo

# Service Delivery Mechanism: Modes of Interaction



## Points of Contact

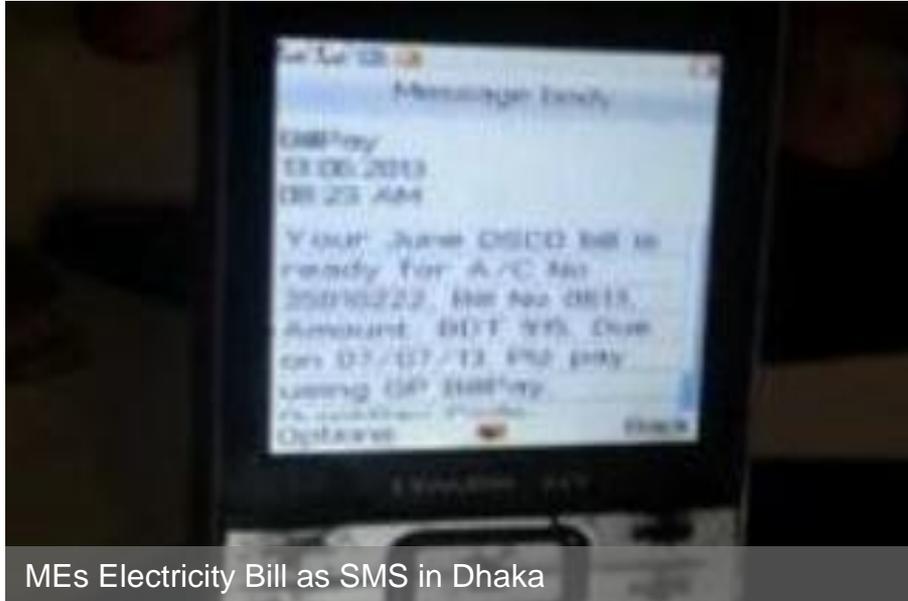
- In all locations, to application for a new electricity connection and information about processes to be followed is obtained at the electricity office with the SP being the first point of contact
  - In all locations friends and acquaintances are an additional source of information regarding processes to be followed
  - In Dhaka MEs approach the lineman or local electricians acting as intermediaries, to help them apply for a new electricity connection
- In Patna and Colombo, MEs interact with the meter reader in case of any billing related queries
- In all locations, blackout related issues are resolved by linemen employed by the electricity board



## Human - Human Interaction

- In all locations, this was observed to be the most popular mode of consumer-SP interaction. This was observed for enquiries pertaining to new connections, bill payments, and other service related complaints
  - In Patna and Colombo, consumers receive their electricity bill through this mode of interaction
- In all locations, this was considered to be the most effective medium to resolve complaints pertaining to the service

# Service Delivery Mechanism: Modes of Interaction



MEs Electricity Bill as SMS in Dhaka

## Human – Machine Interaction

- In Dhaka, Delhi and Colombo, a customer care number was used to provide information to consumers
  - In Patna the mobile numbers of employees at the highest hierarchy of the electricity distribution company have been publicized through newspapers in order to achieve the same purpose. There was no separate customer care number
- This kind of interaction is observed for bill payments
  - In Patna, bills can be paid through an Any Time Payment (ATP) Machine, with the additional caveat that the remaining balance, over and above the amount due, is adjusted with the next months electricity bill



ATP Machine Used to Process Payments in Delhi

## Human-Human-Machine Interaction

- In this mode of interaction, the consumer interacts with the SP, and the SP employs the use of a machine, in order to initiate consumer transactions.
  - In Delhi, bill payments are an example of such interactions
- In Dhaka, Colombo, and Delhi, bill payments are made through intermediaries who receive the bill amount from the ME and may online, or in the case Dhaka, through a mobile wallet

# Service Delivery Mechanism: Architecture



Bill Payment Counter at Delhi



Waiting Space for Consumers in Dhaka

## Architecture

- In Dhaka, Patna and Colombo, segregated sections were dedicated to bill payments and complaints. This increases the efficiency, making it easier for MEs to find a particular counter
  - In Delhi, separate buildings were observed to be in use for bill payment and complaints

## Waiting space

- In Patna, Dhaka and Colombo, seating arrangement for consumers was available
  - No waiting space was observed in Delhi

## Counters

- In Colombo and Patna, joined tables are used to address consumer queries. This encourages transparency in interactions, but consumers crowd the tables
- In Delhi and Patna, counters with grills were used at the payment counters. This was for safety as consumers attack the SP in case of long black outs. This limits interaction between consumer and SP.
- In Dhaka, glassed customer care windows were used
  - In Colombo, this was used at the payment counter
- In Dhaka, a token system with an LCD display is used for crowd management
  - In Colombo, a token system was experimented with. However, this is not regularly implemented

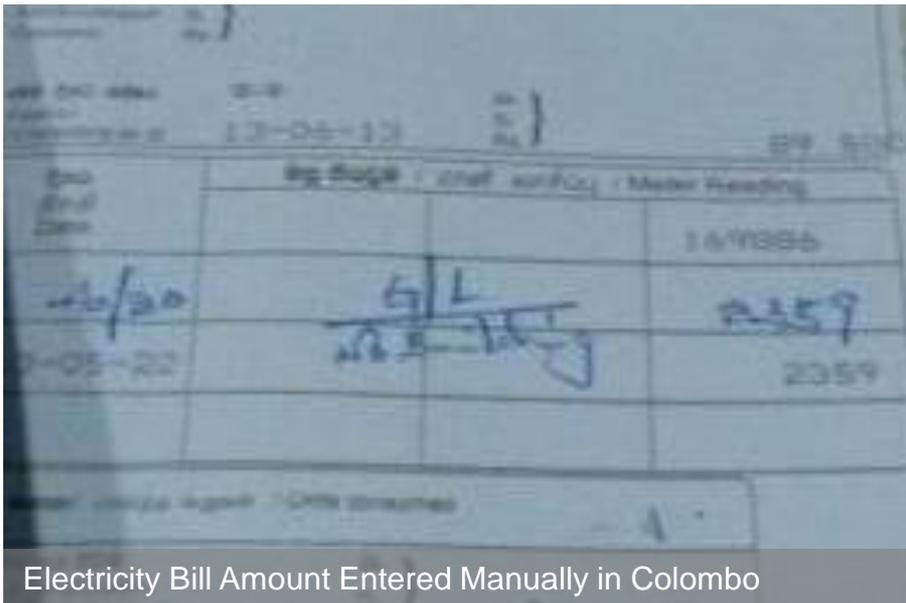


# Service Delivery Mechanism: Bill Generation



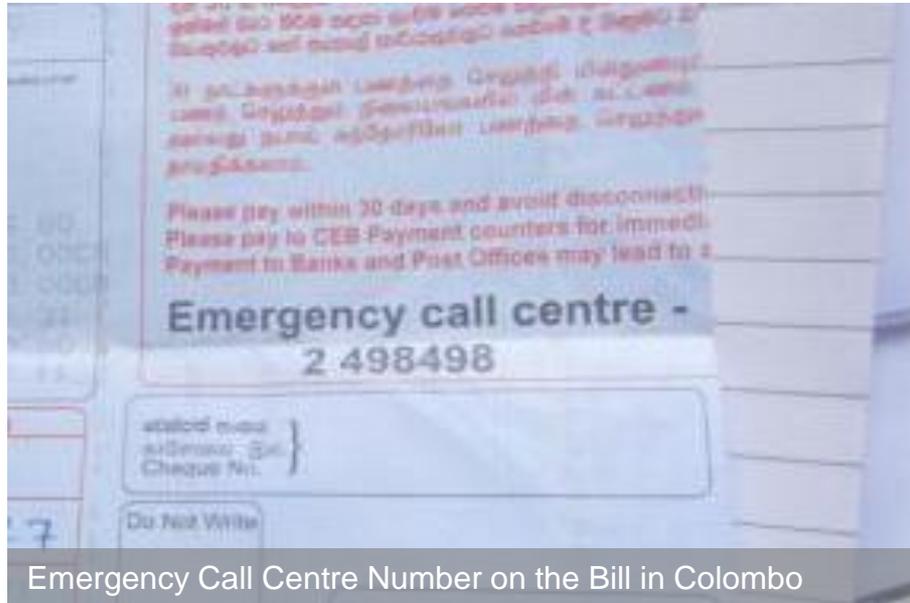
Meter Reading Machine Used by The Meter Reader in Patna

- In Delhi and Dhaka, the meter reader is responsible for noting the reading on the meter, after which the bill is sent to the consumer by registered post
  - In Patna and Colombo, spot billing is followed, wherein the meter reader delivers the bill to the consumer immediately after noting the reading
  - In Colombo the meter reading and bill amount is manually written on the bill by the meter reader
- In Patna, as part of protocol, the meter reader takes a photograph of the meter reading. Each photograph taken is numerically tagged to ensure that the correct meter reading is recorded internally
- In Colombo, in case a residence is found to be locked during a meter reading visit, an approximate reading is made based upon the average reading of the last six months
  - In Dhaka and Patna, in case the meter reader is unable to take a reading, a consolidated bill is sent the following month



Electricity Bill Amount Entered Manually in Colombo

# Service Delivery Mechanism: Bill Formats



Emergency Call Centre Number on the Bill in Colombo



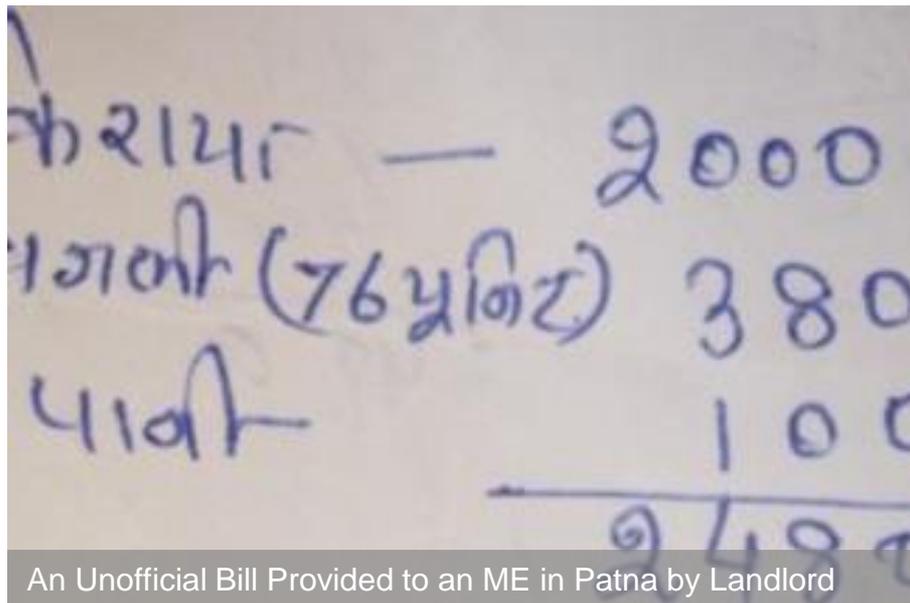
Electricity Bill in Patna

- Across all locations there were observed differences and variations in the information provided in electricity bills
  - In Colombo the bill provided to the consumer is printed in three languages, English, Sinhala and Tamil, with an emergency call center number displayed prominently
  - In Delhi the bill is printed in English and Hindi, whereas in Dhaka the bill is prominently in English, with some information like phone number and address provided in Bengali
  - In Patna, the bill is printed only in English, containing several repetitions of information that are confusing for MEs. No information about emergency call numbers is displayed
  - *"I don't know the various sections which make up the bill"*
    - Deepika Devi, Tailor, Patna

# Service Delivery Mechanism: Bill Payment



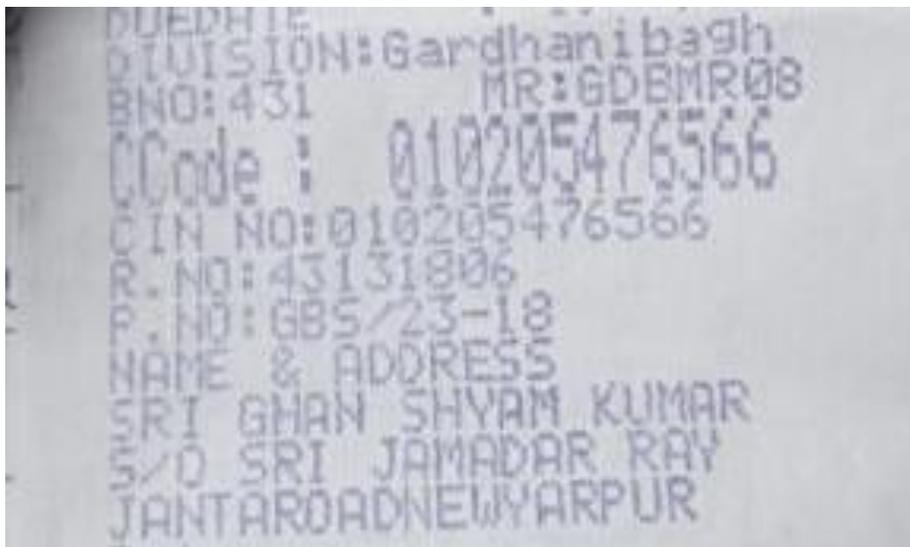
Payment Receipt from Authorized Intermediary in Colombo



An Unofficial Bill Provided to an ME in Patna by Landlord

- In Delhi, Dhaka and Patna, most MEs prefer to pay their electricity bill in person at the electricity office
  - In Patna, consumers are comfortable with making payments at the Any Time Payment (ATP) machine
  - In Patna, a manual bill is often given to consumers by the landlord (in case of rented space)
- In Colombo, Dhaka and Delhi, some MEs prefer paying through an intermediary at an additional cost
  - *“I pay through Cargills (intermediary), for an additional fee so that I do not have to spend money commuting to the head office in order to make a payment”*
    - Fatima Rilaya, Food Business, Colombo
- In Colombo MEs are issued a red bill if they do not pay a particular months bill. This makes it necessary for the ME to pay the bill immediately
- Across all locations, some MEs are dependent upon informal systems in order to ensure continued access to the service
  - *“I pay Rs. 5 per unit (higher than market rate) to my landlord for my electricity consumption, who pays the bill.”*
    - Rajendra Prasad, Shopkeeper, Patna

# Service Delivery Mechanism: Bill Storage



MEs Bill in Patna

- Across all locations MEs store their bills carefully, in a location that is easily accessible to them
  - In Colombo some MEs keep a dedicated file to store electricity bills
  - In Patna and Dhaka, bills of previous months are stored carefully in a drawer, as proof of payment to be referred to in case of any requirement
  - In Delhi bills are securely kept, since the same is also admissible as valid address proof for any form of identity authentication



File Used by ME to Store Electricity Bills in Colombo

# Service Delivery Mechanism: Registering Complaints



SP Attending to Calls

- In Colombo, Dhaka and Delhi, it was observed that computers were used to record consumer complaints
  - In Dhaka and Delhi, manual records of consumer complaints were also maintained
  - In Patna, to file a complaint, a handwritten application has to be submitted to the SP
- In Delhi, Dhaka and Colombo, customers call the customer care or the electricity office for registering a complaint



Token System in Dhaka

**Voice and Exit**

# Voice and Exit

VOICE: Speaking up and trying to remedy the defects when dissatisfied with a service  
EXIT: Leaving a service without trying to fix things when dissatisfied

● Colombo ● Dhaka ● Patna ● Delhi

- Delay in installing meter for new connection
- ● Problems in name or address change
- ● Burnt pole / wire / transformer = 5-6 hr power cut
- Short circuits = disconnected phase
- Discrepancy in bill value
- Delay in response to complain
- ● High bill value
- Load shedding
- Ensure reconnection after arrear payment
- Show cause for meter tampering = fine imposed
- Broken meter
- Burnt transformer / pole catching fire = 2-3 day power cut
- ● High meter reading by the meter reader

- High bill value = shared electricity
- Lack of documents for new connection = illegal connection
- ● High bill value = illegal electricity
- Failure to pay a red bill = electricity disconnected
- High bill value = pay less

# **Use Cases in Electricity Service Delivery**

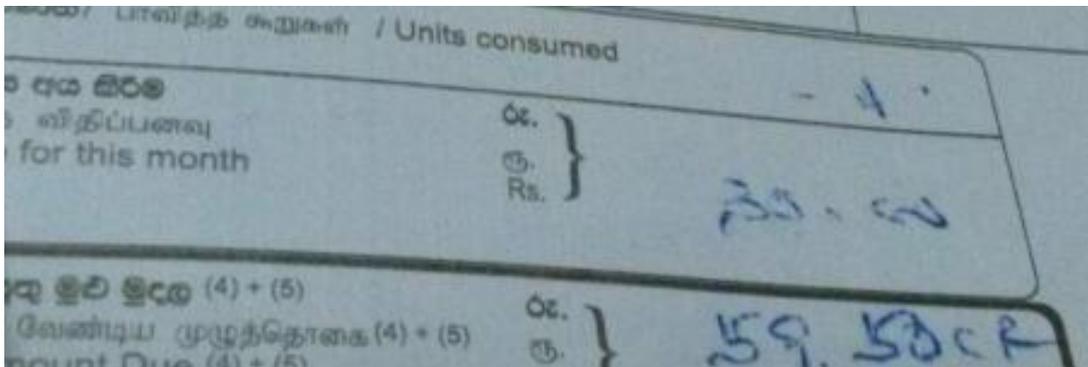
# Ideal Use Cases in Electricity



- In Patna, an Any Time Payment (ATP) machine is used in addition to a normal payment counter to enable customers to make payments



- In Colombo, a red bill is provided to communicate the threat of disconnection. Additionally reconnections are done on the same day on clearance of outstanding dues and the reconnection fee by 3 pm



- In Colombo bills are provided in three languages. The prominence of the emergency contact number results in consumers calling on the number for information

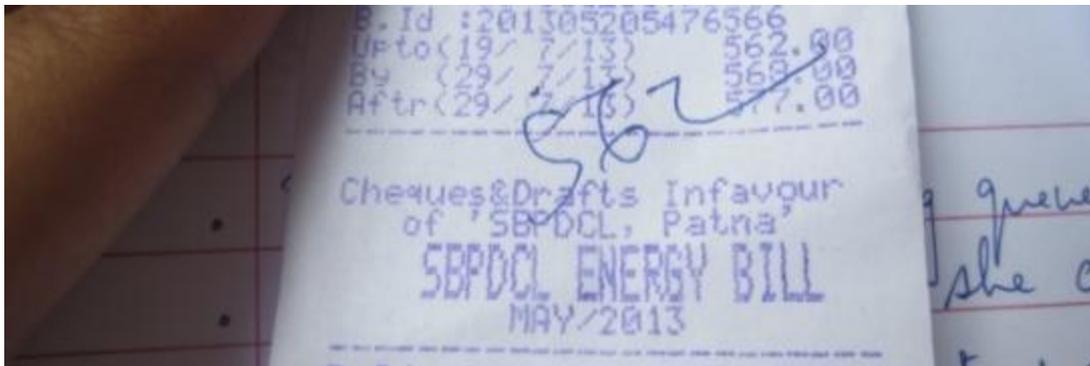
# Ideal Use Cases in Electricity



- In Dhaka, on provision of a security deposit, trolley meters are provided for temporary connections. These are utilized for festive occasions



- In Patna, the policy of spot billing is followed. Additionally, the area to be covered by the meter reader is routinely alternated in order to minimize the risk of bribery

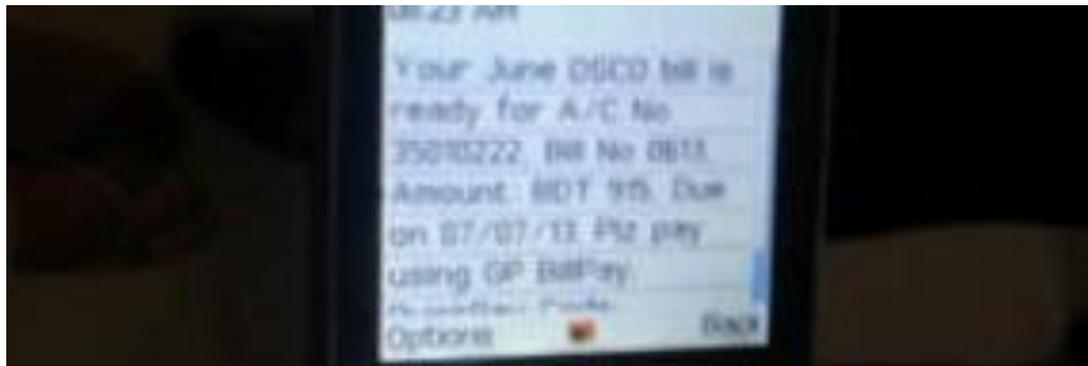


- In Patna, the electricity bill mentions information relevant for the ME at the top of the bill, This information includes amount to be paid, units consumed and the due dates of the same

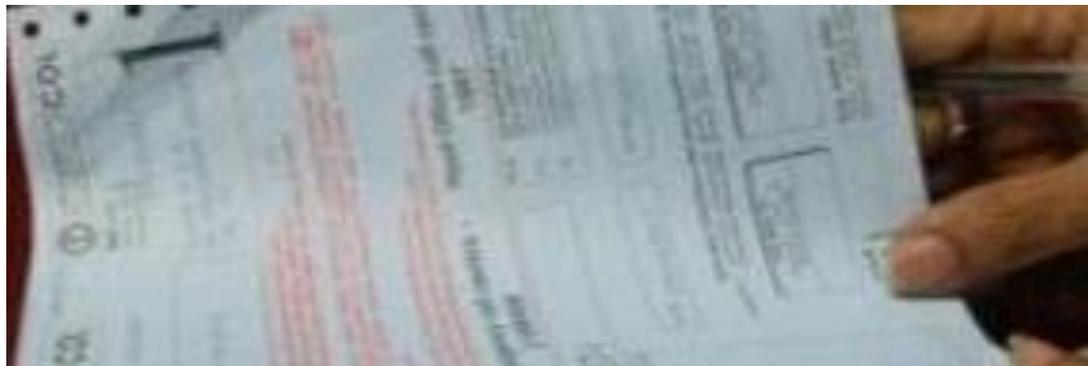
# Ideal Use Cases in Electricity



- In Dhaka and Colombo, electricity bills can be paid through an authorized intermediary for an additional fee, saving MEs time and money



- In Dhaka, consumers pay a one time fee of Tk. 15 (USD 0.18) to the telecom operator to receive an SMS for their electricity bill. This SMS is sent 3-4 days prior to receiving a physical bill. The bill can also be paid using a mobile phone



- In Colombo, the meter reader is an important source of information for consumers, enabling MEs to reduce their overall consumption of electricity

# Ideal Use Cases in Electricity



- In Patna, the electricity board uses a digitized database to track drastic fluctuations in consumption thereby identifying instances of meter tampering



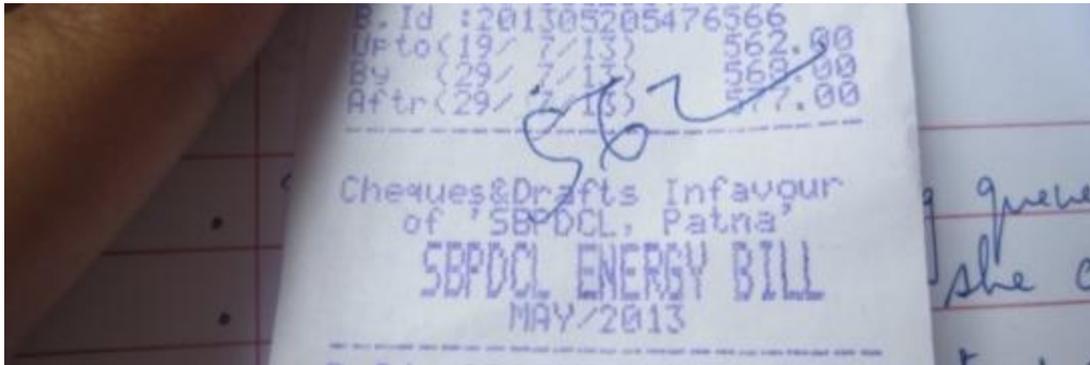
- In Delhi, heavily insulated wires are used by the electricity board. This minimizes instances of electricity theft as well as short circuits due to wire entangling.

# **Failure Cases in Electricity Service Delivery**

# Failure Cases in Electricity



- Across all locations the SP is the primary source of information about processes followed, resulting in them having to repeatedly convey information to consumers



- In Patna, part payments can only be made after procuring the consent of the SP. The same is indicated on the bill once permission is procured



- In Dhaka and Colombo, the ME cannot estimate the time taken to get an electricity connection until he receives the demand note/estimate from the electricity board. Multiple visits have to be made by the ME till this point.

# Failure Cases in Electricity



- In Dhaka, for some MEs, getting a new connection through an intermediary does not result in any advantage since it costs additional money without any reduction in time taken



- In Patna, a consumer complaint can only be filed with the consent of the SP. A written application has to be provided for the same



- In Patna sourcing property papers to fulfil requirements for a new meter is difficult for consumers living in rented accommodation, who often have to bribe their landlords to source land papers

# Failure Cases in Electricity

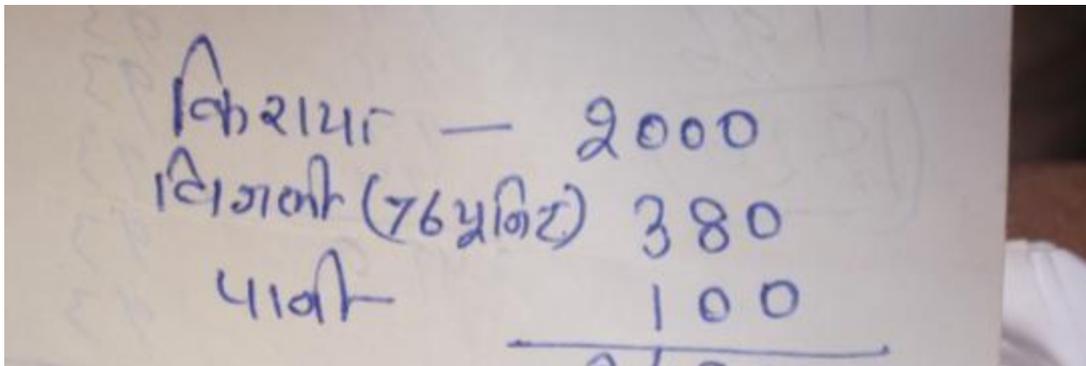


Charge Category	Amount
Current Bill	-----
Current D.P.S:	4.35
Current DPSSd:	0.00
Fix/Mis Chg :	70.00
Energy Chg :	173.85
ED :	10.43
Meter Rent :	20.00
FPPCA Chgs :	0.00
Shunt Cap chg :	0.00
Other Charges:	0.00

- In Patna, the bill structure used does not provide information such as an emergency contact number. The bill provided is only in English, making it difficult for MEs to understand the sub categories of the bill



- In Patna, some MEs who do not have valid property papers resort to an illegal electricity by paying a nominal amount to an intermediary. The intermediary intimates the ME in case of any planned raids by the electricity distribution company



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- In Patna, some MEs living in a rented accommodation have to pay above market rates to the landlord on a monthly basis, in order to continue accessing electricity

# Failure Cases in Electricity



- In Dhaka, consumers have to bribe the lineman in order to resolve an existing problem with their connection. Bribes are also expected to be paid, in order to obtain a new connection



- In Delhi and Colombo, MEs are not made aware of the spike in the electricity rates



- In Delhi and Patna, MEs believe that there is no use in calling the office in case of a blackout. Visiting the office in a group is considered to be the most effective to ensure resumption of service at the earliest

**As the conclusion of the use and failure case analysis, five distinct solution categories emerged for better service delivery designs for MEs in the electricity sector**

<b>Infrastructure</b>	Solutions addressing the lack of required physical infrastructure to obtain a new electricity connection
<b>Tracking and Record Keeping</b>	Solutions related to the tracking and record-keeping of the documents associated with the electricity connection and billing
<b>Policy</b>	Solutions associated with identifying and evaluating the existing policies for the MEs in electricity
<b>Information</b>	Solutions associated with awareness, availability and quality of information
<b>Control</b>	Solutions associated with the control of consumption, expenditure and usage

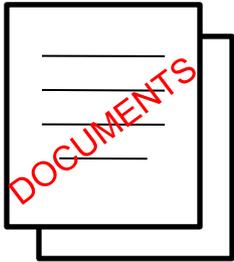
# **Service Design Concepts in Electricity**



- Some MEs do not have an electricity connection because they cannot fulfill the technical criteria mandated for a connection. MEs need to have a permanent structure to obtain a new connection
- Key Players: Micro Entrepreneur, Service Provider
- *“To ensure my temporary connection is not disconnected, I bribe the SP with food at my shop”*
  - Gopal Sharma, Tea stall Owner, Delhi
- *“I pay Rs. 50 every month to a local electrician for my temporary connection at my shop”*
  - Pinku Prasad, tea stall owner, Patna
- *“Irrespective of my usage, I pay a higher portion of my shared connection, so that I don’t lose access to the service”*
  - Assange Perreira, Dried Fish Seller, Colombo

# Infrastructure: Trolley Your Power

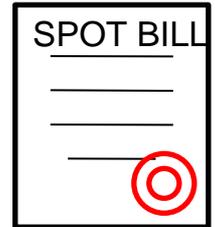
**Solution:** Issue trolley meters to shops with temporary structures.



ME gives documents and security deposit for temporary connection



ME is then provided with a temporary trolley meter and is provided with a spot bill

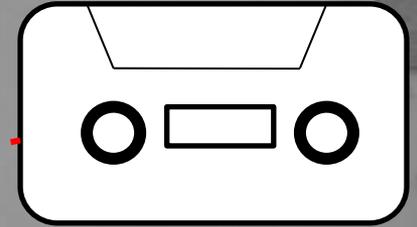
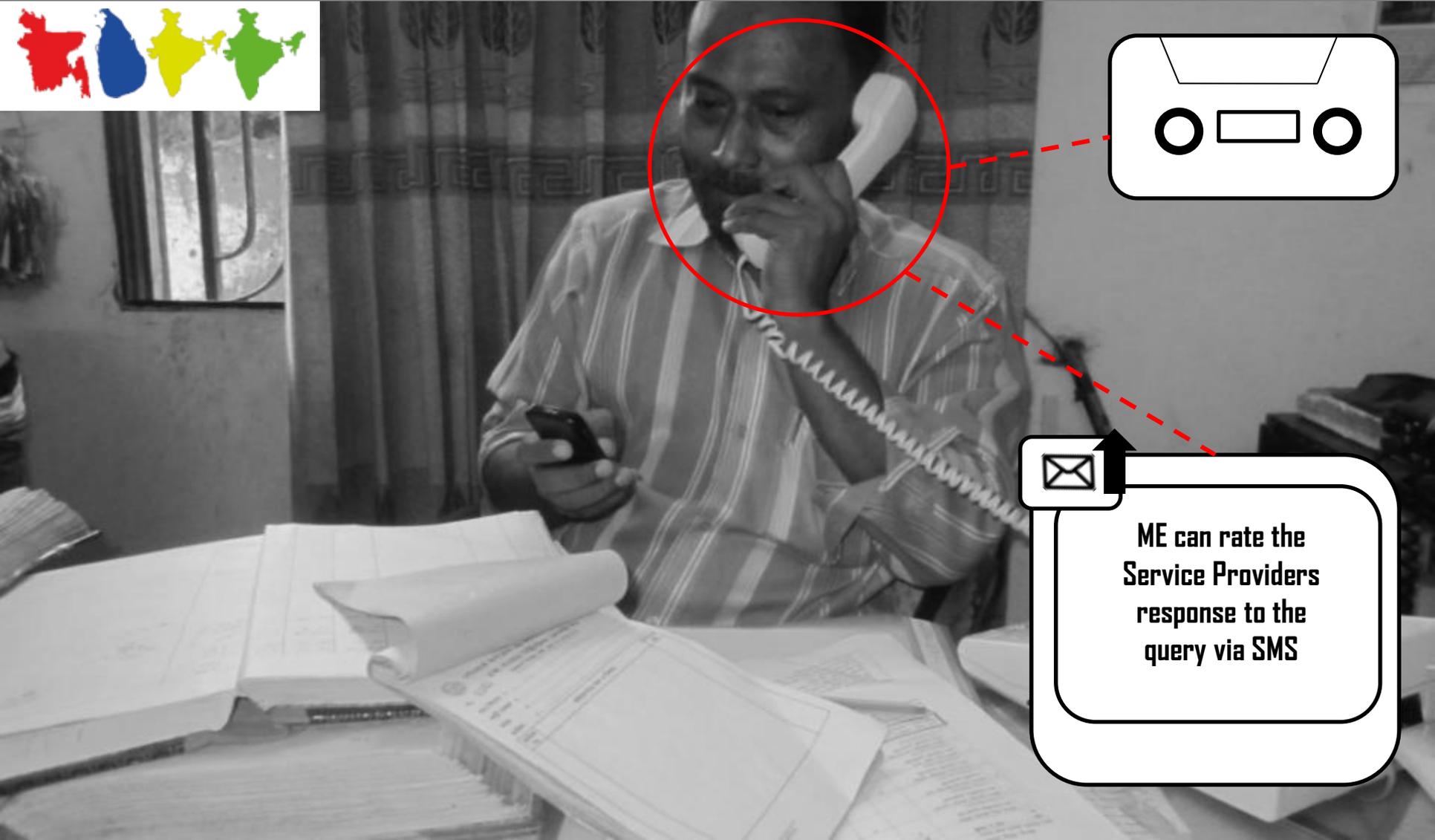




- MEs find it difficult to keep track of the status of their complaints
  - MEs have to visit the office frequently in order to track the status of their request for a new connection
  - MEs believe that they have to visit the office in order to resolve any problems pertaining to their electricity connection.
- Key Players: Micro Entrepreneur, Service Provider
- *“The time duration is not fixed, it took me six months to get a new connection”*
  - Harun-ur-jony, Welding business, Dhaka
- *“If people are calling from the same area with the same complaint, then we just note the complaint once for the area, we do not make note of individual complaints in this situation” –*
  - Taze-ul-Shah, SP Electricity, Dhaka
- *“If there is no electricity for long hours, the entire neighbourhood goes together to the office to complain because individual complaints don’t make an impact”*
  - Santosh Kumar, Snack seller, Patna

# Tracking & Recording: Call Me Please

**Solution:** Consumer calls made to the electricity office by the MEs should be recorded so that the Supervisors can keep track of SP interactions. After the query of the ME has been resolved, the ME can rate the SPs response via SMS.



# Tracking and Recording: Insta-Complaint

**Solution:** Provision of an ATP machine to register electricity complaints. The ME gets a confirmation about his complaint being registered via SMS. In case of a mandatory meeting with the SP, the ME is given a token.



# Tracking & Recording: Use Complaints Data as Resources

**Solution:** Remove discretion from the complaints receiving process by ensuring that all complaints are accepted, logged and issued a reference number. A dedicated person is to be appointed for receiving consumer complaints. Non resolution of a complaint will entitle a consumer for compensation in his next months bill.



Monthly/ quarterly reports



Business analytics for process optimization

# Tracking & Recording: Know Your New Connection

**Solution:** The electricity board does a pre evaluation of available infrastructure in order to help understand backend requirements for processing new connections. An approximate time range is established within which a new connection has to be processed.



BIHAR STATE POWER (HOLDING) CO. Ltd.

3774767

Division: GARDHANIBAGH

Service Contract No. 191/1901

Received from: GBD

The sum of Rs. 75

EMI: MALTI DEVI

Seventy Five only

CASHIER CHEQUE NO.

New Application Charges

For and on behalf of Bihar State Power (Holding) Co. Ltd.

Sir,

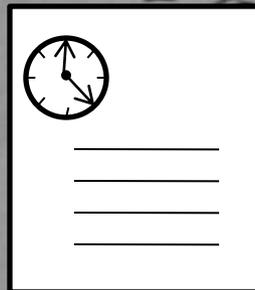
1. Name: Malti Devi

2. Address for communication

Address	Telephone No.
(a) Permanent C/o Dina Nath Paswan Raghu Nath Taluk, Near By Pass Road, PO. Anisabad, Patna - 800002.	Mob. - 9308117001
(b) Present - DA	

3. (a) Location of premises where supply is required

Plot No. 687	House No.	Holding No. 175/516/2E
Ward No. 12	Road Near By Pass	Street
PO. Anisabad, P.S. Gardhanibagh Town, Patna		District. Patna



Approximate time for new connection



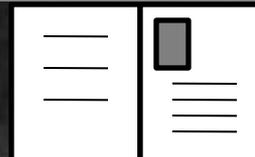
SMS updates of the status of the new connection



- The electricity company lacks in set standards
  - Due to paperwork requirements, some MEs living in rented accommodation, are unable to arrange for property papers for their connection
  - All consumer complaints do not get registered, instead the consumer is verbally communicated that his complaint will be addressed soon
- Key Players: Micro Entrepreneur, Service Provider
- *“Earlier we got a bill of INR 1000 (USD 15) for two months, now we get this amount for one month. Every time we go to the office for clarification, they give some explanation and make us go back, they are not even willing to explain properly”*
  - Madanlal, Tailor, Delhi

# Policy: Delink Electricity Provision From The Purity of Tenure

**Solution:** Delink electricity from property rights by initiating a change in law. This will ensure that having an electricity meter does not automatically entail property rights over time. This will remove the need to submit property papers in order to get an electricity connection.



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

Prepaid meters can be provided to these MEs in order to reduce the financial liability of the service provider



# Policy: Reduce Corruption in Linemen

**Solution:** Establish best practices to be followed by employees of the electricity board. This involves determining fault restoration time for solving every complaint category. Data regarding performance on key indicators should be collected and shared publically to ensure compliance.



Linemen to log onto the system to check the complaints assigned. After resolution the lineman needs to update the same



Best practices to be announced for consumer awareness

Data regarding complaints made can be utilized as an internal resource in the integration of ERP and CRM across different levels of the electricity board.

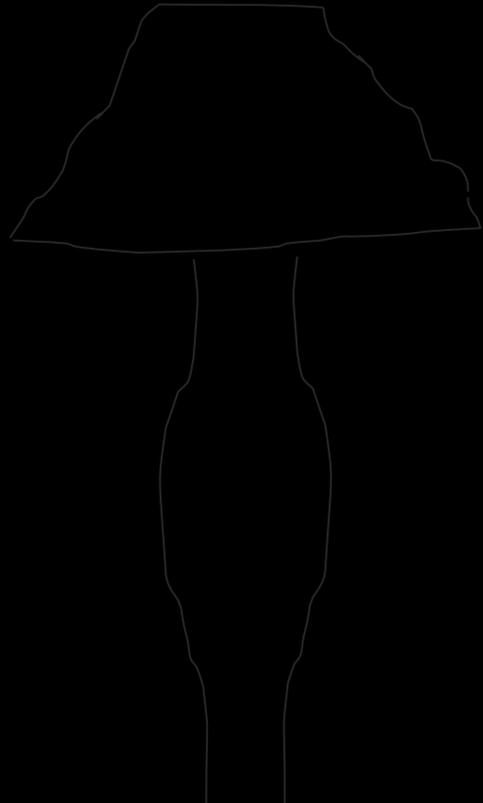
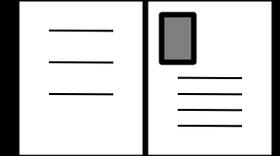


- MEs are unaware of electricity services due to lack of information
  - MEs are not provided with adequate information about power cuts and exact rates for electricity
  - MEs find it difficult to understand the various sub sections that are part of the electricity bill
- Key Players: Micro Entrepreneur, Service Provider

- *“The price per unit has been increased and we never got to know, all of a sudden we started getting high bills so we enquired at the office. That’s when we found out that the prices have increased”*
  - Madanlal, Tailor, Delhi
- *“We only look the amount payable, everything else is written in English so we are unable to comprehend”*
  - Lutfor Hossain, Grocery Shop Owner, Dhaka

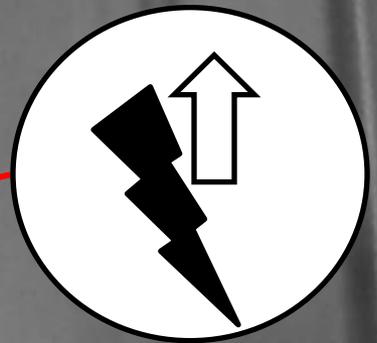
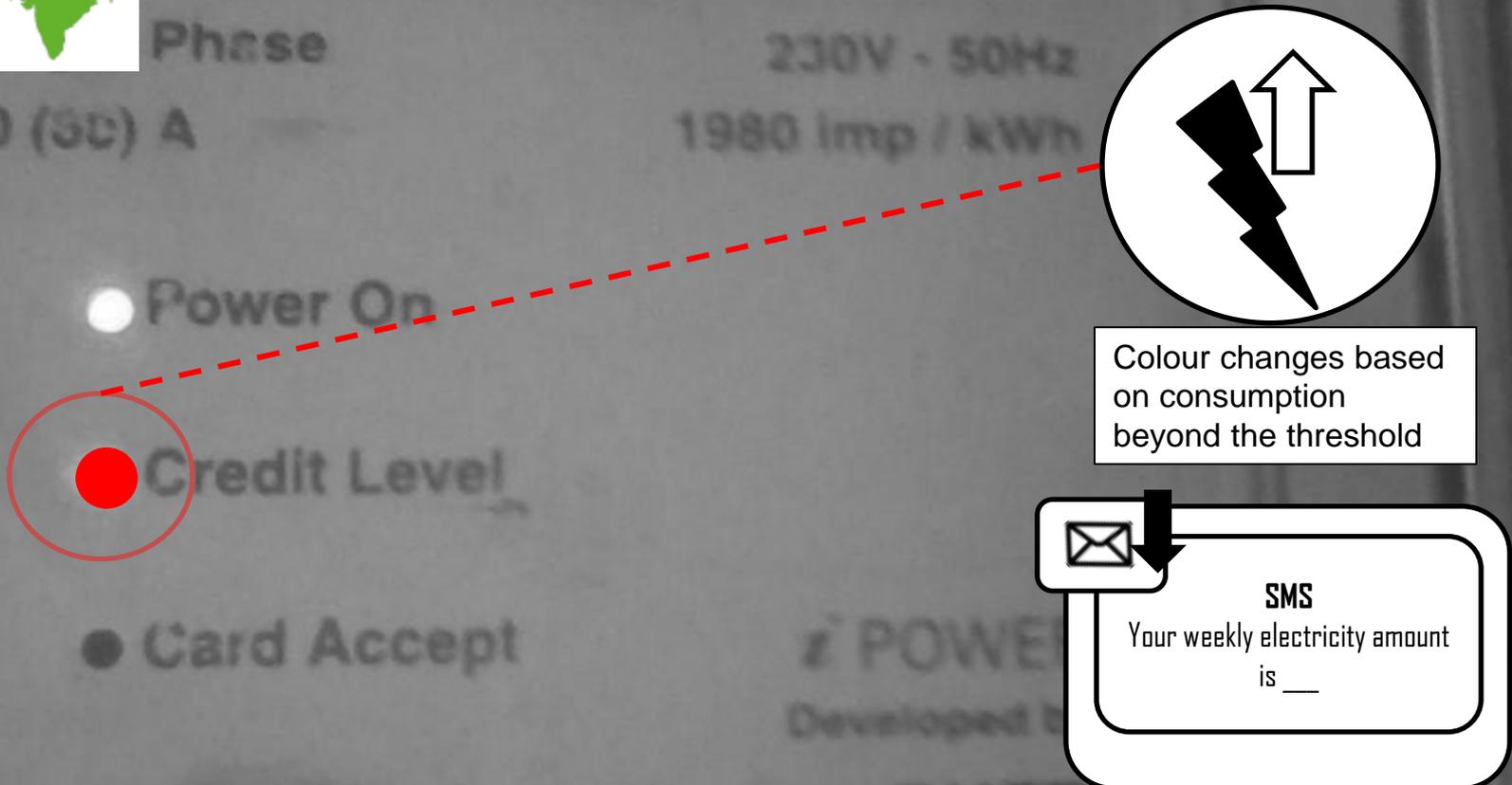
# Information: Planned Blackouts

**Solution:** The MEs need to be made aware of the blackouts and power cuts through public announcements, newspapers, SMS and many other methods.

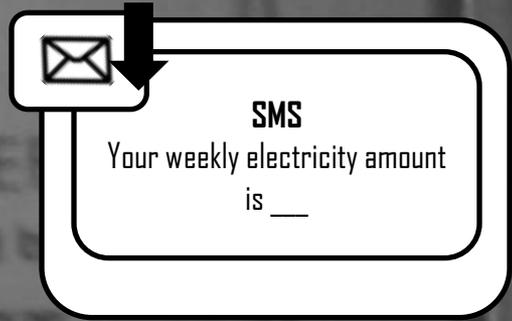


# Information: Color Meters

**Solution:** Provision of smart meters to enable 1) remote or near-wireless reading of the meter (wherein the meter reader walks down the road with the reading machine to record consumption) 2) colour indications for consumption over a certain threshold 3) weekly SMS on consumption by MEs.



Colour changes based on consumption beyond the threshold



SMS  
Your weekly electricity amount is \_\_\_

# Information: Energy Hungry House

**Solution:** Provision of an infographic on the meter highlighting their consumption as compared to their neighbourhood to create awareness. The infographic will be in the local language.



## बिजली

### WHAT A DIFFERENCE 50 YEARS MAKES.

The picture of the country's electricity usage has changed dramatically over the last five decades. In 1960, total electricity usage was **288 million** kilowatt-hours.

In 2011, the electricity used by 2.5 billion Indians alone was nearly four times that, totaling **1,148 billion** kilowatt-hours.

So what gives?

WHERE ALL THE JUICE GOES

### WHY ELECTRICITY USAGE IS UP

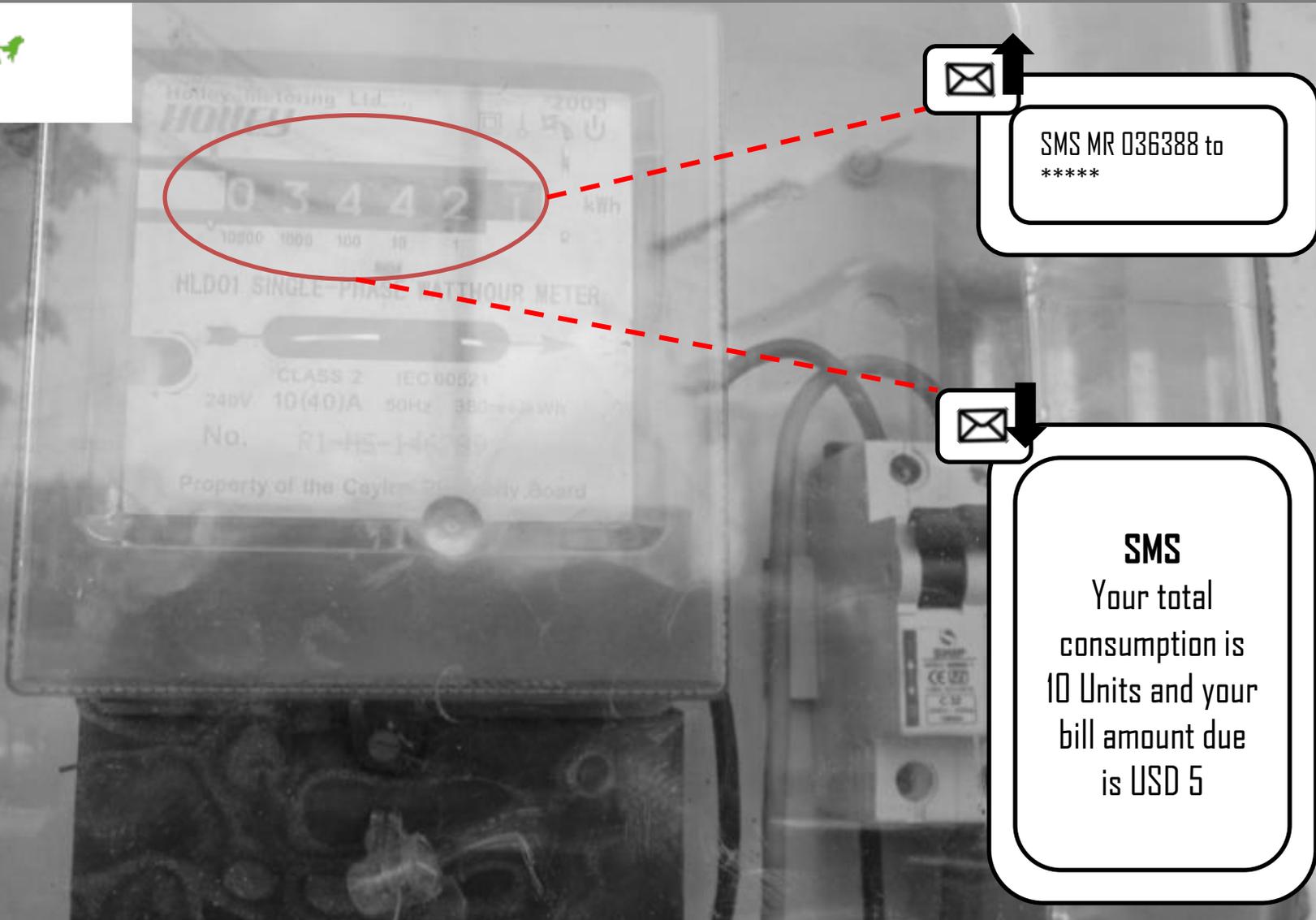
Beyond general population growth, a number of factors contribute to rising consumption.





# Information: Your Bill Your Phone

**Solution:** The ME can SMS his meter reading to a designated number after which he receives his consumption and amount due as SMS. This gives the ME extra time to arrange for funds as it is received before the physical copy of the bill.



# Information: Middle Man

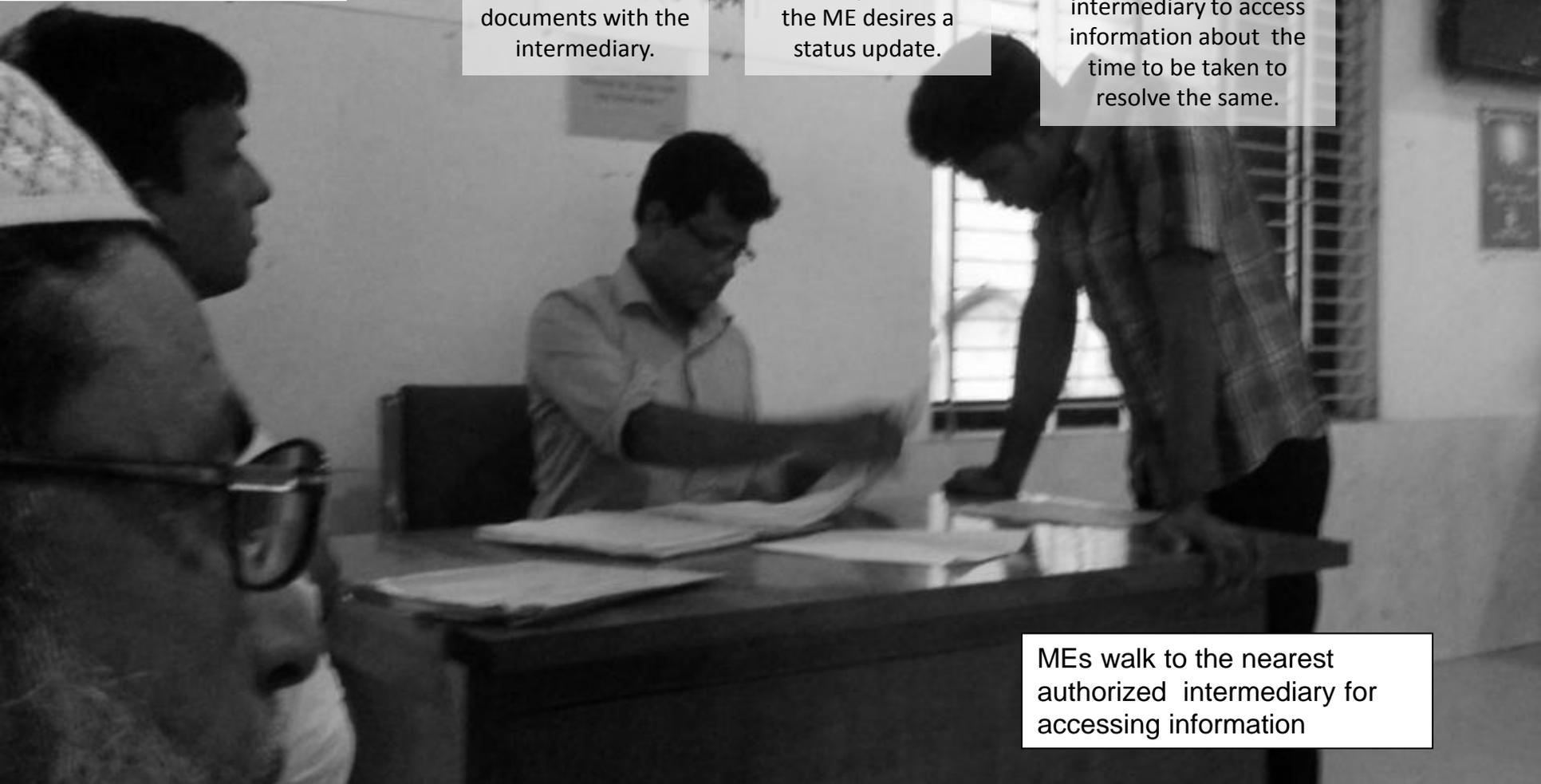
**Solution:** Employ the use of authorized intermediaries for providing information and resolving consumer complaints quickly since consumers are unable to get adequate information about their electricity connection



MEs wanting a new connection can submit their documents with the intermediary.

The intermediary can be called or visited upon, when the ME desires a status update.

In case of disruptions in service the ME meets the authorized intermediary to access information about the time to be taken to resolve the same.



MEs walk to the nearest authorized intermediary for accessing information



- MEs find it difficult to control their electricity consumption
  - MES are experiencing an increase in their electricity bills
  - Control over consumption is a significant challenge since MEs perceive that they are already doing everything in their capacity to reduce consumption
- Key Players: Micro Entrepreneur, Service Provider

• *“If I feel that the meter reader has taken wrong reading, I do not pay for that month. I pay the following months bill with the interest amount*

- Deepika Devi, Tailor, Patna

# Control: Use of Prepaid Meters

**Solution:** Incorporate the use of smart prepaid meters, in which the meter functions on the basis of a key. For a top up, the consumer take the key to a local vendor for a reload thus reducing costs for the electricity board due to non involvement of the meter reader and bill prints.



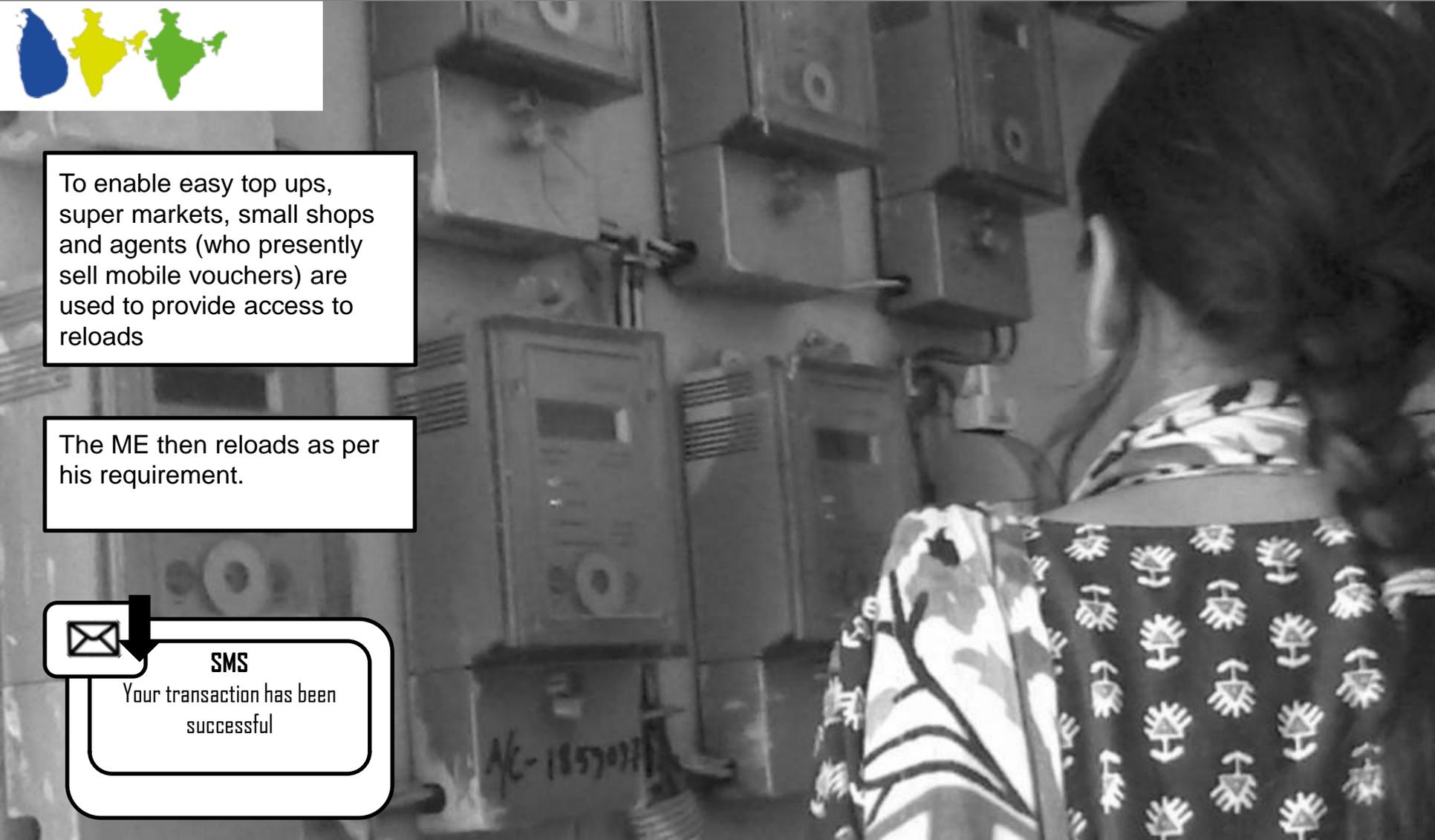
To enable easy top ups, super markets, small shops and agents (who presently sell mobile vouchers) are used to provide access to reloads

The ME then reloads as per his requirement.



**SMS**

Your transaction has been  
successful



# Control: Easy to Read Bill

**Solution:** MEs are given an approximate consumption for various appliances because MEs are completely dependent upon the bill to understand their usage.



1 fan for 10 hours = 10 units

මහලු මිටරයක් / மரணி மீட்டர் / Meter Reading  
 Total Amount Due as indicated in Last Bill  
 Total Amount upto Last Bill as calculated by computer  
 Rs. Bal. + ரொக்டிம் பீல / Last Bill)

0.71CR + 2,579.90  
 FU CHG 904.96  
 3,481.65  
 3,490.00CR  
 749.14

13-05-07 Paym  
 13-05-29 Trf/  
 13-05-29  
 740.79

දින / நாள் / Date	මිටර කියවුම / மரணி மீட்டர் / Meter Reading
13/06/04	308771
13-05-06	2525
12Jun2013	E B COLLECTION 3,480.00 CR

# Control: Bill Rectification

**Solution:** The machine carried by the Meter Reader, prompts the meter reader to re-enter the bill amount after entering it the first time. It will then ask for a confirmation for print.



Please Enter the Meter Reading

\*\*\*\*

!! Please Re-enter the Meter Reading

\*\*\*\*

Please press yes to confirm the printing

YES

NO

# Control: Pay When You Can

**Solution:** Through computerization reduce the transaction costs of receiving a payment from consumers thus enabling consumers to make part payments as and when possible. In addition this will result in better cash flow for the electricity board. Removal of SPs discretionary power will enable consumers to pay their electricity bill in phased frequent payments.



# **Service Delivery in Governance**

Recognizing Micro-Entrepreneurships

Service Delivery Mechanisms

Voice and Exit

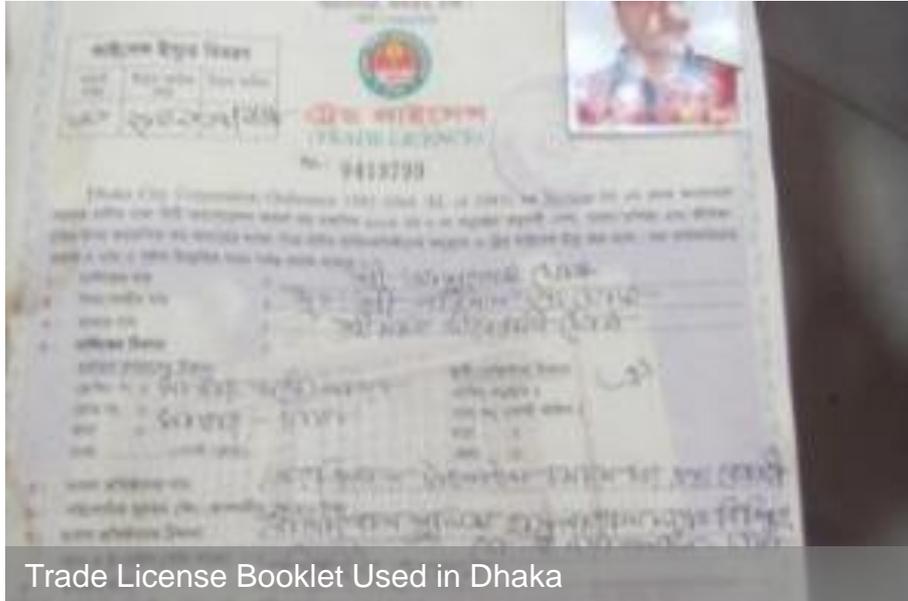
Use Cases from Recognizing MEs

Failure Cases from Recognizing MEs

Service Design Concepts

## **Recognizing Micro-Entrepreneurships**

# Recognizing Micro-Entrepreneurships: Types of Recognition



Trade License Booklet Used in Dhaka



Weights and Measures Used in Patna

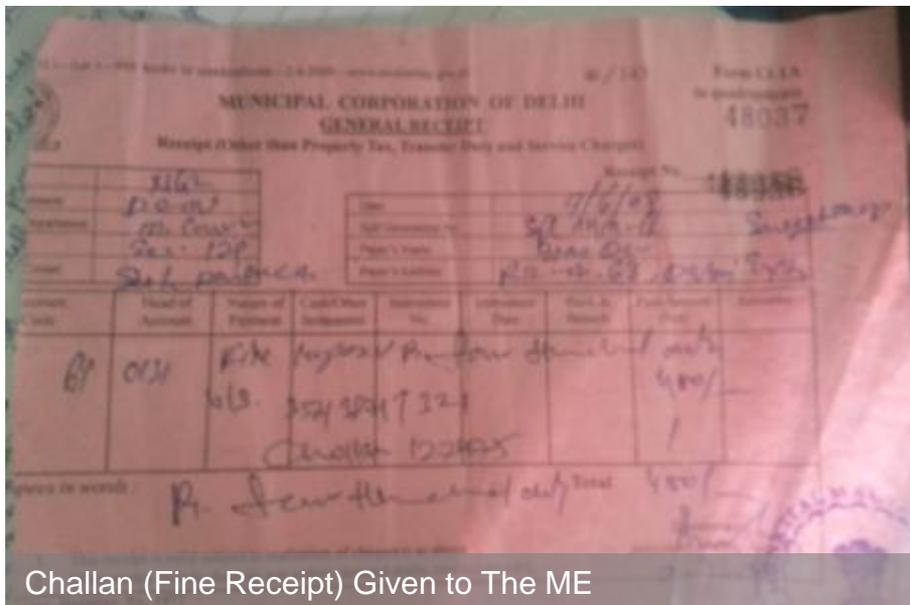
## Business Registrations

- Registering a business is mandatory
  - In Delhi, business registrations legitimize conducting commercial activities in residential locations and are valid for a year
  - In Patna, in lieu of business registrations, MEs who employ labour are expected to have labour registrations
  - In Colombo, there was different process followed at the Divisional Secretariat office in Kaduwela, and the Western Provincial Council. No prior approvals need to be taken from the *Grama Niladari* officer for registration at the Western Provincial Council, since processes to be followed are easier as compared to the Divisional Secretariat at Kaduwela
  - In Dhaka, the trade license serves this purpose. No business registration is required in addition to the trade license

## Trade Licenses

- In all locations, trade licenses are provided by the government to allow MEs to conduct business
  - In Patna, trade licenses allow MEs to conduct particular kinds of trades such as medical stores
  - In Dhaka, all MEs interviewed had trade licenses allowing them to conduct business in a location
  - In Delhi, trade licenses are mostly availed by consumers running a big business and not by the MEs. Obtaining a trade license is a tough task for MEs
  - In Colombo, acquiring a trade license is not an easy procedure. None of MEs had a trade license

# Recognizing Micro-Entrepreneurships: Types of Recognition

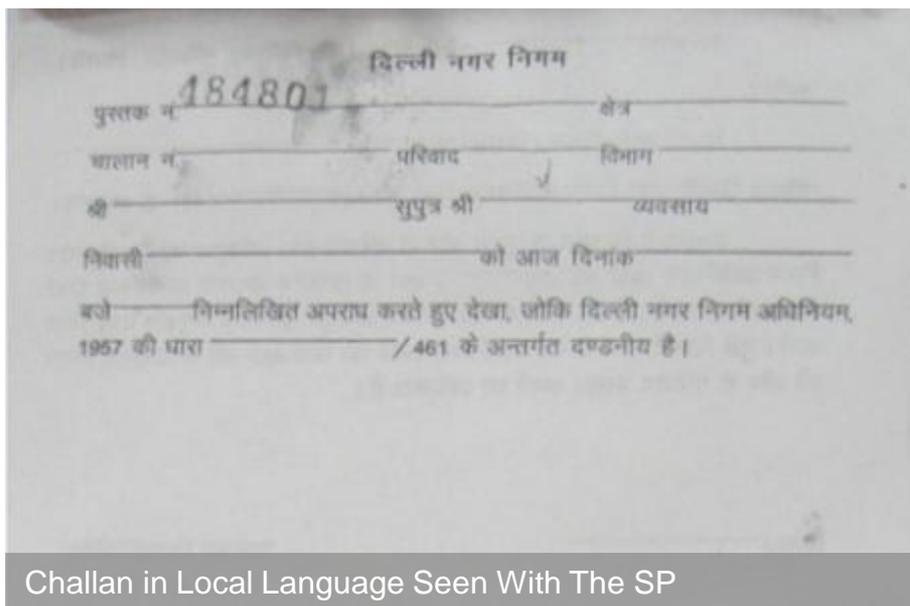


Challan (Fine Receipt) Given to The ME

- In Dhaka, the trade license is valid for five years. The booklet is submitted for renewal on a yearly basis, during, a seven day window within which the ME has to submit all documents. After submission, the new license booklet is issued seven days. The MEs also applies for a new license for his business when he moves his business to a new location
  - In Delhi, business registrations need to be renewed annually
  - In Dhaka, trade license needs to be renewed annually

## Challans (Fines)

- In Delhi, regular fines, known as *challans* are often used as a work around for not having a business registration or a trade license. MEs continue to receive challans instead of obtaining a registration or license
- In Delhi, there was a difference between the challan received by the ME and the challan observed with the SP. The challan with the SP was in the local language whereas the challan given to the ME was in English.



Challan in Local Language Seen With The SP

## Naptol Vibhaag (Weights and Measures)

- In Delhi and Patna, MEs owning their own shops had annual interactions with the *Naptol Vibhaag* (Weights and Measures) department to ensures that the weights and weighing machines used meet established standards

# Recognizing Micro-Entrepreneurships: Types of Recognition



Identity Proof Used in Delhi



Identity Card Used in Patna

## Other Forms of Government Identification

- In Delhi, Dhaka and Patna, SPs aided MEs in obtaining voter ID cards
  - In Delhi and Patna, the 'Aadhar' card, a biometric dependent identification card issued by the government, was observed to be in use
  - In Delhi and Patna, voter ID card is also used by MEs for which they require the assistance of the SP
  - In Dhaka, the voter ID card serves the purpose of a National ID card. This the standard ID proof required for documents like a trade license
  - In Colombo and Kaduwela, the ID proof used is the National Identification Card (NIC). This is required for obtaining documents such as a business registration

# Recognizing Micro-Entrepreneurships: Authorizing Body



Trade License Office in Dhaka



Information Poster in Use in Delhi

Across all locations, various government departments at different levels serve as authorities for registering businesses and issuing trade licenses

- In Dhaka, the Dhaka City Corporation (DCC) and North Dhaka City Corporation (NDCC) are responsible for providing trade licenses. The fee of a trade license depends on the type and size of the business. MEs mostly paid Tk. 600 to 1500 (USD 7.5 to 18.75)
- In Colombo, the Colombo Municipal Corporation (CMC) handles trade licenses, while the Western Provincial Council (WPC) handles business registrations. The fee for a business registration is SLR 250 (USD 2)
- Business registration is also done at the Divisional Secretariat Office in Kaduwela, which handles business registrations for areas outside Colombo City. The fee for a business registration here is SLR 500 (USD 4)
- In Patna, labour registrations are handled by the Shram Vibhag (Labour Office), with trade licenses being handled by designated departments of the state government e.g., Health, Forestry. The fee was between INR 2000 to 3000 (USD 32.3 to 48.3)
- In Delhi, the Municipal Corporation of Delhi (MCD) is responsible for providing business registration as well as trade license. The fee for both depend on the size of the business. Consumers pay INR 3000 to 3600 (USD 48.3 to 58)

# Recognizing Micro-Entrepreneurships: Motivations to Register



Pukka Bill (Legitimate Bill)



Customer Interaction for Trade License

- Registering a business or obtaining trade license is mandatory across all locations, the motivations for doing so vary across cities
  - In Dhaka, a trade license is mandatory for any business. All MEs interviewed had a trade license, as the documents required are easily available and the process is simple
  - In Dhaka, many MEs mentioned that the trade license enhances their possibility of availing a business loan
  - Similarly, in Colombo, MEs interviewed had registered their business for the easy approval of a business loan. In Colombo, MEs prefer running a business for some time before registering the same
  - In Patna, only one ME interviewed had a trade license, since it was mandatory for him to run a pharmacy
  - In Delhi, a few MEs interviewed with businesses operating for a few years, had registered their business to enable the provision of a *pukka bill* (legitimate bill) to their customers

# Recognizing Micro-Entrepreneurships: Motivations to Register



Trade License in Delhi



ME with no Registration/ Trade License

- In Delhi and Patna, MEs do not have any expectations of service from the government in lieu of registration
  - In Delhi and Patna, MEs associate business registrations and trade licenses with government taxation, leading MEs to choose not to register
  - In Delhi and Patna, registration is perceived as a luxury to be applicable only for big businesses
  - *“Registration does not apply for small shops like ours”*
    - Santosh Kumar, Snack Seller, Patna
  - In Delhi and Patna, the prevailing perception of acquiring a business registration is the requirement to pay bribes coupled with paperwork
  - Some MEs in Delhi, do not have business registration due to the absence of a permanent structure necessary to obtain a business registration
  - None of the ME's in Delhi had a trade license due to the process being considered to be costly and time consuming
- Some MEs interviewed in the Colombo did not have trade licenses because they believed that it was not required for small businesses. In addition, the documents required are difficult for the MEs to procure

# Recognizing Micro-Entrepreneurs: Required Documentation



Site Plan



Voter ID Card in Delhi

- Across all locations ME are required to submit an application form, an application fee and supporting documents while applying for a new business registration or trade license
  - In Delhi, the application form for trade license is in English and is difficult for the ME to understand. The form is available for INR 250 (19.77 USD).
  - In Dhaka, the trade license application form is in the local language Bengali as well as in English which is easy for the ME to comprehend. It is available for Tk. 10 (0.12 USD) at the office
  - In Patna, the Labour Registration form have to be purchased from the open market for a fee of INR 50 (0.8003USD)
  - In Colombo, an application for a business registration is provided in three languages- Sinhala, Tamil and English which is very convenient for the ME
- In Dhaka, the required supporting documents include
  - an application form
  - an ID proof,
  - holding number (for address proof),
  - commissional certificate (character certificate)
  - photographs

# Recognizing Micro-Entrepreneurs: Required Documents

Application for Trade License in Dhaka

Form with fields for:

- 1. Name of Applicant
- 2. Name of Father/Thailand
- 3. Name of Mother
- 4. Local Address
- 5. Permanent Address
- 6. Telephone No.

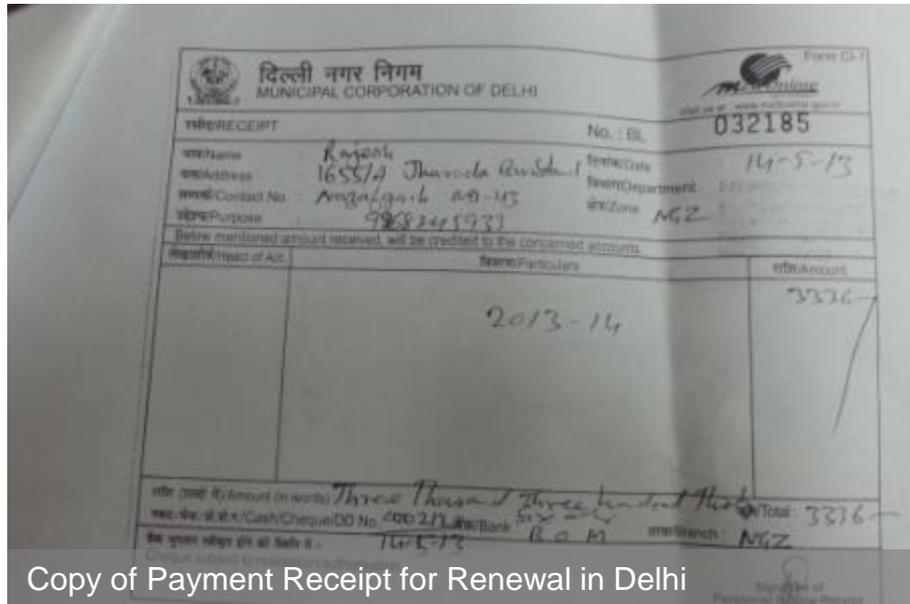
- In Colombo, copy of ID card needs to be submitted along with the filled application form at the Western Provincial Council Office for business registration . A copy of the ID card, deed /property documents, certificate of conformity, and change of use certificate are submitted for trade license.
- A copy of the ID card, address proof/ deed of place and permission from the Grama Niladhari Officer are submitted at the Divisional Secretariat Office in Kaduwela
- In Delhi, for a trade license the following documents are required along with the application form
  - property papers,
  - electricity bill,
  - site plan and a key plan from a registered architect,
  - demand draft in the name of the commissioner,
  - indemnity bond and affidavit (address proof)
- In Delhi, documents for a new business registration include
  - ID proof,
  - address proof
  - self evaluation form
  - demand draft for application fees
- In Patna, for the labour registration, the following documents are required
  - ID proof
  - Address proof
  - Postage stamp worth INR 5 for every labour employed
  - Affidavit as proof of business
  - PAN (Permanent Account Number) card

Application for Business Registration in Colombo

Form with fields for:

- 1. Name of Applicant
- 2. Name of Father/Thailand
- 3. Name of Mother
- 4. Local Address
- 5. Permanent Address
- 6. Telephone No.

# Service Delivery Mechanism: Renewal of License



दिल्ली नगर निगम  
MUNICIPAL CORPORATION OF DELHI

Form D-1  
No. : DL 032185

राजेश  
1655/3 Tharoda Road  
Contact No. : 988245933  
Purpose : 598245933

14-5-13  
MGZ

विवरण/Particulars	रकम/Amount
2013-14	3336

अथ (अथ) ₹ Amount (in words) Three thousand three hundred thirty six  
Total: 3336

काश/चेक/डिमांड नॉटिस/ Cash/Cheque/DD No. 200 2/3  
16-5-13

16-5-13

Copy of Payment Receipt for Renewal in Delhi

- Business registration or trade license requires a yearly renewal. However, in Colombo, registration is a one time process with no renewals involved. Trade license in Colombo needs to be renewed on a yearly basis
  - In Dhaka, the trade license Booklet and the *Challan* Booklet (a book of receipt for payment for renewal) needs to be shown for renewal. The documents needed include address proof, national ID card
  - In Delhi, a copy of the trade license needs to be provided for renewal along with a fee. Copies of the registration receipt and the payment receipt for renewal from the previous year are also required
  - In Patna, an affidavit is submitted for renewal of business registration. Other documents required include ID and address proof along with a fee



Trade License Renewal in Dhaka

# Service Delivery Mechanism: Office Architecture



Government- Labour Office in Patna



Shelves to Store Records in Patna

- Across offices observed in Delhi and Patna, hierarchies in the organization were manifested in the use of office space. Senior officials, who do not interact with consumers typically occupied offices on higher floors.
- In Delhi, different offices were set up for different services. E.g. the documents for renewal were taken for assessment to one office and after approval were taken to a separate office for submission and fee payment

## Counters

- In Dhaka, Colombo, Kaduwela and Patna, there were dedicated counters for business registrations / trade license. However, no distinctions are made between a big and a small business
  - At present these counters handle walk in enquiries, form preparation and form submissions
- One counter at each office, across all locations was dedicated to payments. Officers at the other counters handled enquiries and paperwork related transactions
- Heavy use of paperwork was a dominant theme in the transactions. Storage space was therefore a common constraint
  - In all locations, overflowing cupboards were observed

# Service Delivery Mechanism: Office Architecture



Consumers Crowded at the Government Office in Dhaka



Consumers at the Counter in Delhi

## Seating

- In all locations, there was a lack of adequate seating space at the SPs counter
  - In Patna and Dhaka, no dedicated waiting areas were provided, because of which MEs felt compelled to crowd around the counters to get the attention of the SP
- At the Western Provincial in Colombo and MCD in Delhi, a common seating area was provided for walk-in MEs. However, these are not in the immediate vicinity of the specific counters

# Service Delivery Mechanism: Modes of Interaction



Consumer Interacting With The SP

- In all the locations, the first point of contact for any information regarding registrations and licenses is the SP
  - In Dhaka and Patna, MEs interviewed has also contacted their neighbours and friends for the same
- Local government officials are also an important point of contact in the application process
  - In Patna and Dhaka, the Ward Officer gives information about Holding / Ward number needed for a business registration / trade license
  - In Kaduwela, the *Grama Niladhari* is the contact for approvals. The ME approaches him directly



Trade License Office in Dhaka

- In all the locations, the landlord is also the point of contact to obtain property papers

## Human-Human Interaction

- Face-to-face interactions are the most common mode of interaction between the SP or intermediaries and the ME
  - In Dhaka, Delhi and Colombo, the SP is approached in person for assistance with understanding the application requirements and procedure
  - In Delhi and Patna, MEs receive a letter of discrepancy by post, in case any discrepancies are found in the documents submitted

# Service Delivery Mechanism: Modes of Interaction



ME Using Phone to Enquire About Registration

- In Colombo and Dhaka, the ME has to visit the office to understand reasons for delay in provision of the license/registration
- In all locations, complaints are also directly made in-person to the SP
- In Delhi and Patna, walk in customers were lesser in comparison to Dhaka and Colombo. In Delhi and Patna, the number of people coming in were 5 to 10. In Dhaka and Colombo, there were around 60 to 70 consumers walking in

## Human-Machine-Human Interaction

- In government services this interaction is primarily restricted to MEs calling the SP's mobile phone or the landline number for process related enquiries
  - In Dhaka and Delhi, this is used to understand the process of getting a new license or renewal
  - In Delhi, the SPs at the office or the intermediary uses the internet to download application forms

## Human-Machine Interaction

- In Delhi this mode of interaction was available for MEs wanting to apply for trade licenses online. However this was not commonly used by the MEs interviewed

Trade Details

Trade Classification\*  Trade Category\*

Type of Trade\*

Name of the Unit/Shop\*  (Max length 50 chars) Name / Group, if any  (Max length 50 chars)

Type of Constitution

Names of Partners/Directors

<input type="text"/> (Max length 50 chars)	<input type="text"/> (Max length 50 chars)	<input type="text"/> (Max length 50 chars)
<input type="text"/> (Max length 50 chars)	<input type="text"/> (Max length 50 chars)	<input type="text"/> (Max length 50 chars)

Particulars of Trade (Maximum accessible attached)\*

On which floor the unit is situated?

Sufficient Space is available for trading & unloading  Yes  No

Compounding charges for a concession of land use have been paid  Yes  No

Legal Constitution of the Premises  Landlord  Tenant

Premises approved/regulated as per building bye-laws  Yes  No

Trade/activities of storage and public convenience/operation at apparently good locale  Yes  No

Unit/Shop Address

Plot/House No.  (Max length 30 chars) Street Name  (Max length 50 chars)

Area  (Max length 30 chars) Pincode  (Max length 7 chars)

Zone\*

City

Contact Details

Phone (CN)  Phone (Res)

Phone (Off)

Type of the constitution of the  (Max length 4 chars)

Online Registration Form

# Service Delivery Mechanism: Data Management and Inquiries



SP Counter in Delhi



Informative Manual Used in Dhaka

- Across all four locations, the predominant method of data management is manual in nature
  - In all locations, it was observed that all documentation is manual. As a result on manual data management indexing of licenses provided is a challenge. This is a problem in case the license is lost, since a manual search has to be done
  - In Patna, Application forms are not individually numbered, and forms are not available at the office, but as photocopies outside the office sold for a fee in the open market
- In Delhi and Dhaka, as an exception, computers are used for data storage and management. In Delhi internal communication and communication with the public is also carried out over the internet

**Voice and Exit**

VOICE: Speaking up and trying to remedy the defects when dissatisfied with a service  
EXIT: Leaving a service without trying to fix things when dissatisfied

● Colombo ● Dhaka ● Patna ● Delhi

● Delay in obtaining license

● Lack of information

● Delay in obtaining a registration

● Enormous delay in the process

● Considered not essential

● Considered not essential

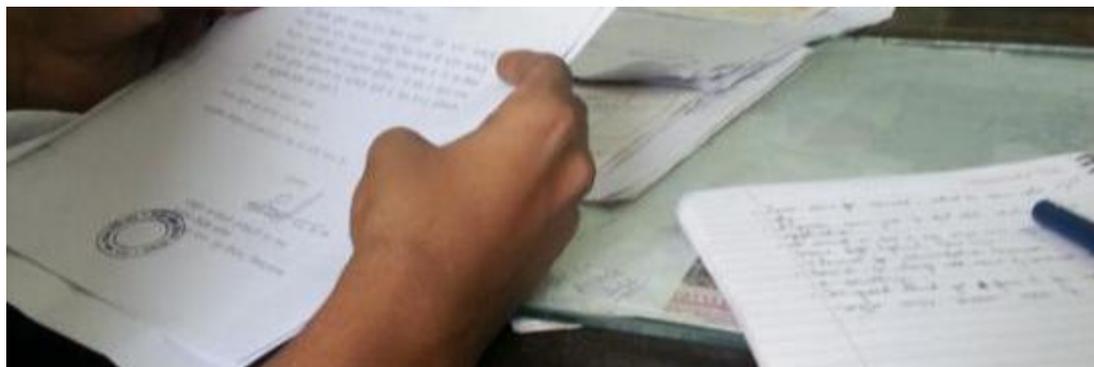
**Use Cases from Governance Service Delivery**

# Ideal Use Cases From Governance



- In Dhaka, obtaining a trade license is easier and less time-consuming in comparison to Delhi and Patna. The documents required for a trade license in Dhaka are easily obtained by the ME which is not the case in Delhi and Patna
- In Colombo and Dhaka, having a business registered enhances the MEs eligibility for a business loan. It also enables the ME to open a bank account in the name of the business
- In Dhaka, forms to be submitted for a trade license are available online. Some MEs have downloaded the same for their license

# Ideal Use Cases From Governance



- In Patna, forms to be submitted for labour registration (as well as other government related services) can be purchased from the open market for a fee. This allows the ME to obtain requisite forms without having to visit the office for the same



- In Dhaka, a consolidated booklet valid for 5 years is used for renewing trade licenses. The ME does not have to be physically present at the office in order to renew the same

## **Failure Cases from Governance Service Delivery**

# Failure Cases from Governance



- In Delhi and Patna, MEs believe that there is no incentive for a person to register a small business. Registration is perceived as a luxury, to be afforded only by well to do businesses



- There are no ICT systems available to make work easier for the SP



- In Dhaka, MEs have to visit the government office multiple times in order to derive information about the status of the trade license. This impacts their business



# Failure Cases from Governance



- In Dhaka, trade license renewals are provided in a three month window. As a result the offices are crowded since many MEs visit the office for the same



- In Delhi, due to paperwork requirements, MEs have to depend upon intermediaries to maneuver the same



- In Delhi and Patna, MEs who haven't registered their business find the process to be difficult, with bribery considered to be a strong component of the same

**As the conclusion of the use and failure case analysis, eight distinct solution categories emerged for better service delivery designs for MEs in the governance sector**

<b>Ease of Access</b>	Solutions allowing for ease of access to the service, or part of a service
<b>Information</b>	Solutions associated with awareness, availability and quality of information
<b>Identification</b>	Solutions encouraging the identification of MEs
<b>Policy</b>	Solutions associated with identifying and evaluating the existing policies for the MEs in governance
<b>Process</b>	Solutions associated processes which restricts MEs in accessing the service
<b>ICT</b>	Solutions addressing the need for the incorporation and improvement of existing ICT systems in government services
<b>Infrastructure</b>	Solutions addressing the lack of infrastructural facilities in the government offices
<b>Tracking</b>	Solutions associated with tracking the status of a new registration/license

# **Service Design Concepts in Governance**

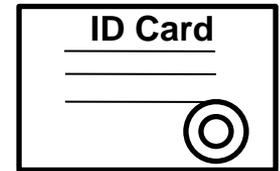
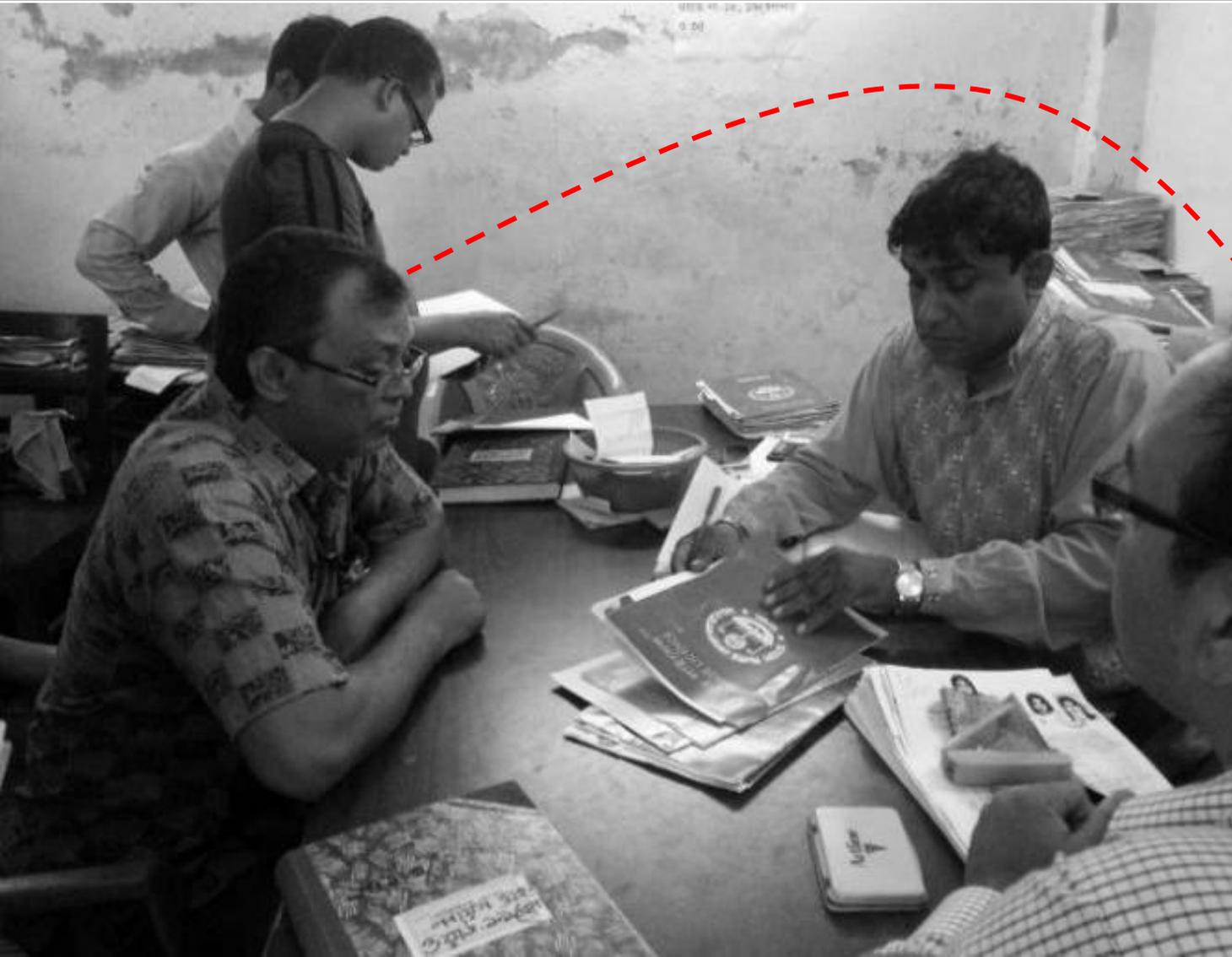


- MEs are not able to get easy access to government services
  - In Delhi and Patna, the documents needed to get a trade license or a business registration are enormous
  - Some of the documents needed are very difficult to obtain from the ME's part
  - The ME is not able to get a business registration/trade license even though he wants to possess one
- Key Players: Micro Entrepreneur, Service Provider

- *“If I go and register my business, I will have to spend a lot of money. Moreover, I will have to run around for a lot of documents”*
  - Ramesh Kumar, Mechanic, Patna
- *“I want to get a business registration because whatever work is a mandate from the government's side, I want to follow them thoroughly. But anytime, I happen to visit the office for registration, they ask for new documents, which I am not able to provide”*
  - Madanlal, Tailor, Delhi

# Ease of Access: Less Documents for Convenience

**Solution:** The ME submits a copy his National ID along with his photographs and the fee. On filling up a detailed form and submitting the documents, the SP hands the trade license immediately to the ME. As of now, the ME has to arrange for many documents which is not easy to procure.



**National ID  
Card**



# Ease of Access: Streamlining Processes

**Solution:** Easily accessible, simplified procedures for business registration available at multiple locations. The registration should be a one time process and mandated only for specific trades. The receipt for registration will act as temporary registration till the actual certificate is received.

## Temporary Registration/ License

Form CI-1A  
in quadruplicate

341023

Receipt No. \_\_\_\_\_

MUNICIPAL CORPORATION OF DELHI

Date: 1/10/07

Self Generating No. \_\_\_\_\_

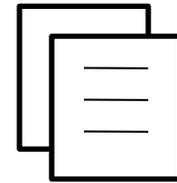
Payer's Name: Capital Sharni

Payer's Address: 39/S-228 T Huda Durgam

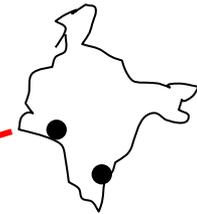
Account Code	Head of Account	Nature of Payment	Cash/Other Instrument	Instrument No.	Instrument Date	Bank & Branch	Paid Amount (Net)	Remarks
	9/c	Under Reg.					1507 1	
Total							1507	

Signature of personnel issuing receipt

1. This receipt is valid subject to realisation of cheque(s) as above.  
2. Other modes include cheques, pay orders, demand drafts, credit/debit card.



Minimal Documents



Multiple Locations

# Ease of Access: Call Up To Be Informed

**Solution:** Call Centers to be handled by the Government for easy access to information. The backend needs to be re-engineered so that information can be availed without having to visit the office. The information will be provided in English as well local language depending on the option chosen.



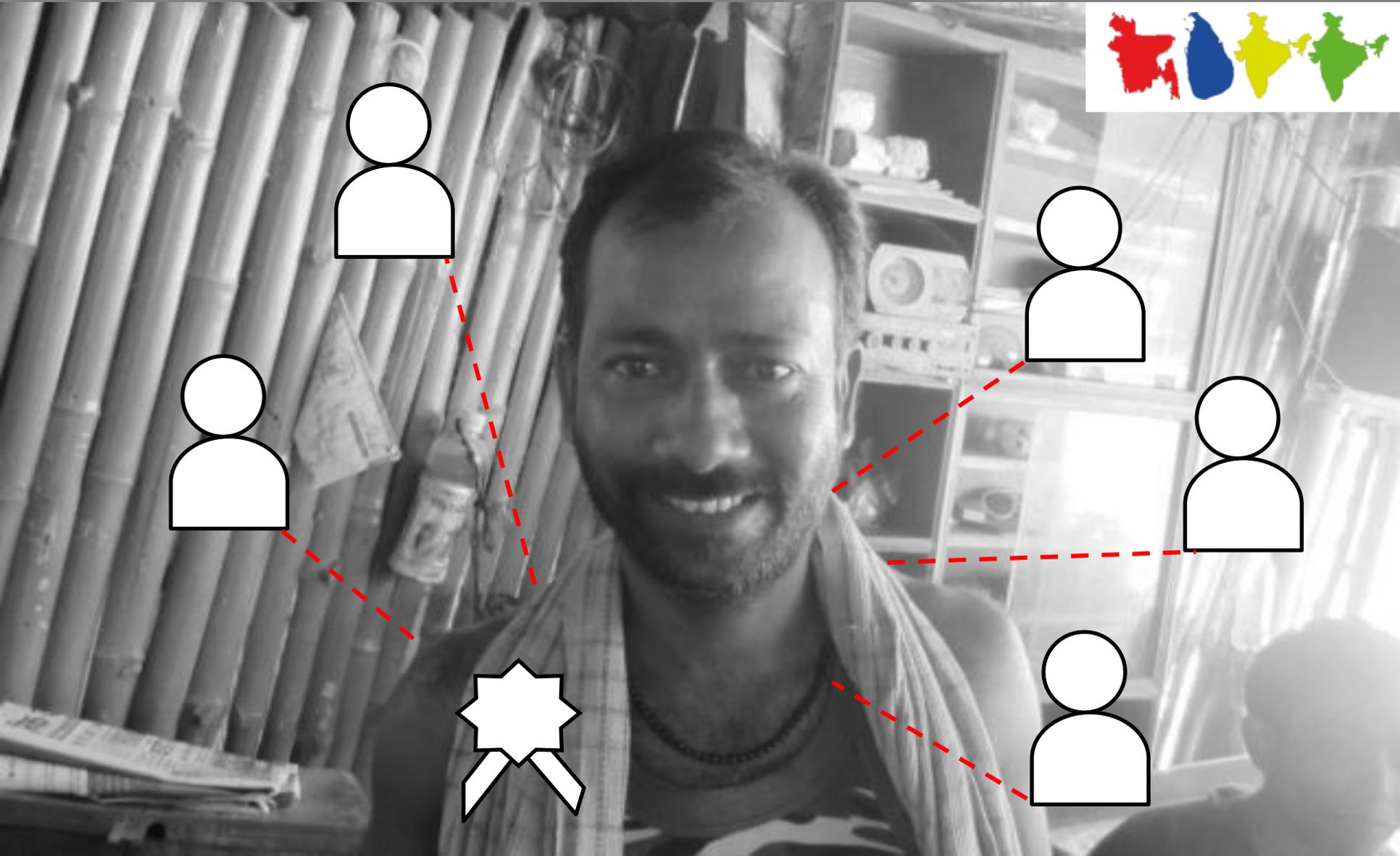
বিদ্যুত বিল

மின்சாரக் கட்டணம்

Multiple Languages

# Ease of Access: Champion ME

**Solution:** Experienced and registered MEs act as Champions to other MEs in their locality, introducing them to the process and benefits of Business Registrations and Trade Licenses.





- There is lack of information about registration/ licenses
  - MEs in Patna and Delhi do not get a business registration/ trade license because they are not aware of the benefits of business registration/ trade license
  - For them, getting a business registration or trade license is just extra work and wastage of money
  - They have the perception that, business registration or trade license are only meant for the big businesses and not for small businesses like theirs
- Key Players: Micro Entrepreneur, Service Provider
- *“There is no use of getting a business registration/trade license since we are a small business’.*
  - Santosh, Snack Trader, Patna
- *‘We had to run around a lot to get the registration done. There are not any benefits, we did it because it is Government’s work and we want to have everything done as per rules.’*
  - Madanlal, Tailor, Delhi

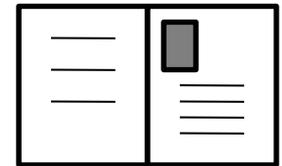
## Information: Camps for Awareness

**Solution:** Organize frequent camps at multiple locations for registrations and licenses, as conducted presently for providing National ID cards. The SPs can distribute forms for registration in these camps. The ME can collect the form in one visit and then submit documentation on the next visit.



# Information: Awareness

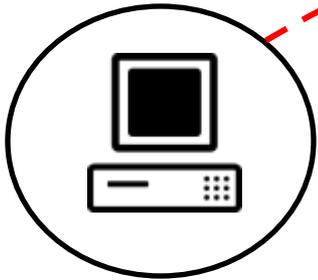
**Solution:** The MEs need to be made aware of the process and benefits of trade license/ business registrations through public announcements, workshops, newspapers, hoardings and many other methods.





- Business registrations/ licenses does not identify MEs
    - MEs find no benefit in getting a business registration or trade licenses. They think, this is just a waste of time and money, since they do not get any benefit out of this.
  - Key Players: Micro Entrepreneur, Service Provider
- 
- *“We do not need any kinds of registration because our business is very small. We do not earn much in a month. If I’ll have to get a registration, then I’ll have to spend a lot too”*
    - Ramesh Kumar, Mechanic, Patna

**Solution:** To connect the ME with the market through a government maintained database of ME information. This operates through a search engine connected to a digital directory of MEs categorized by business. This can happen if the ME is registered with the Government.



ME Database with the Government



ME Information given to consumers



- In many cases of land encroachment of a rented shop, the ME is fined rather than the landlord. Although, the ME has no say in encroachment, the ME is interrogated in matters related to these
  - Key Players: Micro Entrepreneur, Service Provider (Inspecting Officer)
- 
- *“I have taken this place on rent, even then I have to pay to government to conduct my business”*
    - Gopal Sharma, Tea stall, Delhi

# Policy: Fine the Fraud

**Solution:** Provision of the fine receipt in the name of the landlord rather than the ME. This will ensure that MEs do not have to pay a fine for renting out a location that has been encroached upon by the landlord.

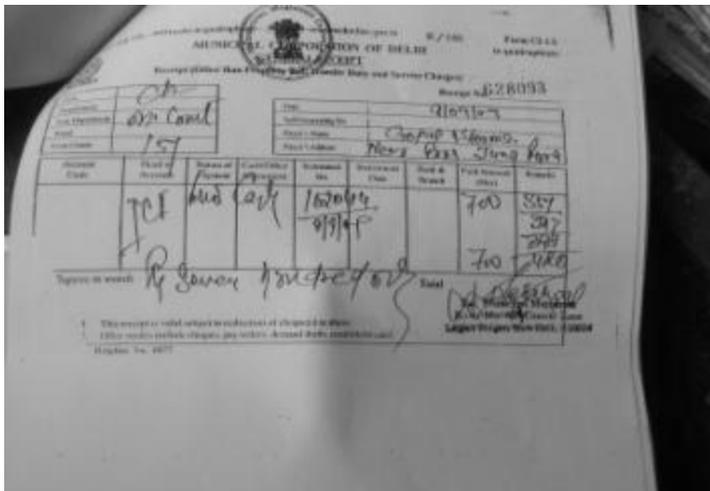
Name of Landlord:



Handwritten receipt on a grid form. The receipt is for a fine of 450/-.

Sl. No.	Date of Receipt	Name of Person	Category of Receipt	Amount	Particulars	Date & Time	Particulars	Signature
1	12/12/2024	Shri. [Name]	Penalty for [Description]	450/-	[Description]	[Date]	[Time]	[Signature]

Total 450/-



- There is a lack of proper processes in place for MEs
  - MEs find difficulty in the processes related to billing and paying fines
  - In Delhi, the ME needs to pay a fine, when the Inspecting officer comes for an inspection, for not having a business registration/ trade license
  - The fine amount differs for every ME. The SP takes the liberty to decide the fine amount depending on the ME
  
- Key Players: Micro Entrepreneur, Service Provider (Inspecting Officer)
  
- *“MCD officials come here to fine us for not having registration. The fine amount varies from INR1000 to INR 1500 (USD 15-23). They come twice a month to fine us. They not only fine us, but breaks a part of our shops and take away our belongings”*
  - Gopal Sharma, Tea Stall Owner, Delhi
  
- *“The amount of challan the MCD officials give us vary from Rs. 400 to Rs. 1,000, and also ask us to pay the amount at their office which is far from my shop. It needs me 2 hours reach the office. I have to shut my shop on that particular day for the work to get done... If you ask them more questions, then they impose more fine amount”.*
  - Biasdev Sharma, Snack Shop, Delhi

# Process: Temporary License

**Solution:** The receipt that is given to the ME for not having a trade license/ business registration can be provided as a temporary license with a validity of six months. This temporary license will mention the procedure for getting a new trade license/ business registration and the benefits of the same.

100 635—999 books in quadruplicate—11-8-2007—www.mcaonline.gov.in क/137 Form CI-1A in quadruplicate

**MUNICIPAL CORPORATION OF DELHI**

Receipt No. 341023

**Temporary License valid for six months**

Date	1/10/07
Self Generating No.	
Payer's Name	Capital Bank
Payer's Address	38/5-228 T Huda Daryapur

Account Code	Head of Account	Nature of Payment	Cash/Other Instrument	Instrument No.	Instrument Date	Bank & Branch	Paid Amount (Net)	Remarks
	910	Under B/L					157 /	

Amount in words: One hundred and fifty seven only

Total

1. This receipt is valid subject to realisation of cheque(s) as above.  
2. Other modes include cheques, pay orders, demand drafts, credit/debit card.

Signature of Personnel Issuing

**Temporary License**



**Process**

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**Solution:** The receipts should have pre printed fine amounts. This will discourage incidents of fluctuating fine amounts and bribes.



Visit us at : [www.mcdonline.gov.in](http://www.mcdonline.gov.in)

1058596

26/04/2010

Department : JUDICIAL

Central Zone

रशि / Amount
0.00
300.00
800.00
10.00

**700**

कुल / Total :

books in quadruplicate - [www.mcdonline.gov.in](http://www.mcdonline.gov.in) क/146

**MUNICIPAL CORPORATION OF DELHI**

**GENERAL RECEIPT**

Receipt (Other than Property Tax, Transfer Duty and Service Charges)

Receipt No. **628093**

Date	9/9/09
Self Generating No	
Payer's Name	Gopal Sharma
Payer's Address	Near Post Jung Park

Nature of Payment	Cash/Other Instrument	Instrument No	Instrument Date	Bank & Branch	Paid Amount (Net)	Remarks
Auto Care		152044	8/9/09		700	357
						397
						398
					700	420

Rupees in words : *Rs Seven hundred only*

Total

*(Signature)*  
 Sol. Municipal Magistrate  
 Room No. 405 Central Zone  
 Lajpat Nagar, New Delhi - 110024

1. This receipt is valid subject to realisation of cheque(s) as above.
2. Other modes include cheques, pay orders, demand drafts, credit/debit card.

# Process: Thermal Print Machines

**Solution:** To have thermal print Machines to provide receipts of the fine to be paid by the ME. This will ensure that the amount to be paid is standardized.



F1	INR	200
F2	INR	500
F3	INR	700



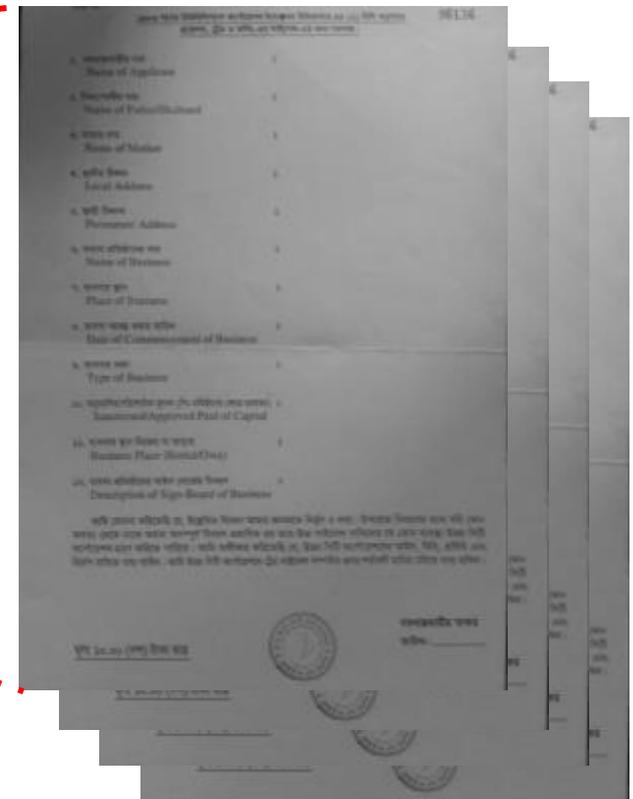
- The databases are not well maintained
  - There are no ICT systems in place in government offices
  - The SP has to have a record of all the consumers who have registered a business or have a trade license
  - The records are maintained manually as there are no ICT systems
- Key Players: Service Provider

- *“They (government) are planning to set up ICT systems in the office. Soon, it will be in place”*
  - Ajit Kumar, SP Governance, Delhi
- *“All the works are done manually. We don’t know how to operate computers. They will have to hire new people in order to operate computers”*
  - Yogesh Kumar, SP Governance, Patna
- *“No, there is no work done through computers. We work manually on registers. We do not have a lot of knowledge about computers either”*
  - Manirunzaman Mrida, SP Governance, Dhaka
- *“My hands hurt from all the typing that I have to do on the type writing machine for making business registrations”*
  - Employee at Kaduwelle divison, Colombo

**Solution:** ICT usage is not seen in this sector, therefore, a step towards creating databases will be advantageous. The documentation for consumer files can be reduced since all information can be saved on a database.

A computer monitor with a black frame. On the screen, there is a white rectangular box containing a numbered list of four items. A red dashed line originates from the top of this box and points towards the right side of the image.

1. Name of Applicant
2. Type of Business
3. Date of starting the Business
4. Local Address



**Reduce  
Documentation**

# ICT: Token System

**Solution:** Creation of a systematic manner of customer engagement. At the entrance, there will be a desk which will have a designated person to hand out the tokens to the consumers. A screen will show which token number has to go to which counter for a business registration/ trade license.





- The space at the office is not well distributed
    - The Government offices in all the locations are always crowded and there is no systematic manner in which consumer queries are attended
    - There is no seating arrangement for the consumers
  - Key Players: Service Provider
- 
- Most of the offices did not have proper seating arrangements for the consumers. Therefore, the consumers would always be crowding the office premises. The space is not properly distributed. The consumer has to keep running from one floor to another to get different works done
  - In Patna and Dhaka, there are no dedicated waiting spaces for the consumers. It compels the consumers to crowd around the counters

# Infrastructure: More Space Requirements

**Solution:** The trade license/ business registration office should have more space to move around. Instead of cluttering the area with tables and other furniture, have just two SP tables where consumers can go for their requirements.



# Infrastructure: Different Rooms for Different Requirements

**Solution:** Segregation of the office to ensure that the ME goes to different sections to ensure smooth function of work related to business registration or trade licenses.



Business  
Registration

Trade License

Business  
Registration

Trade  
License

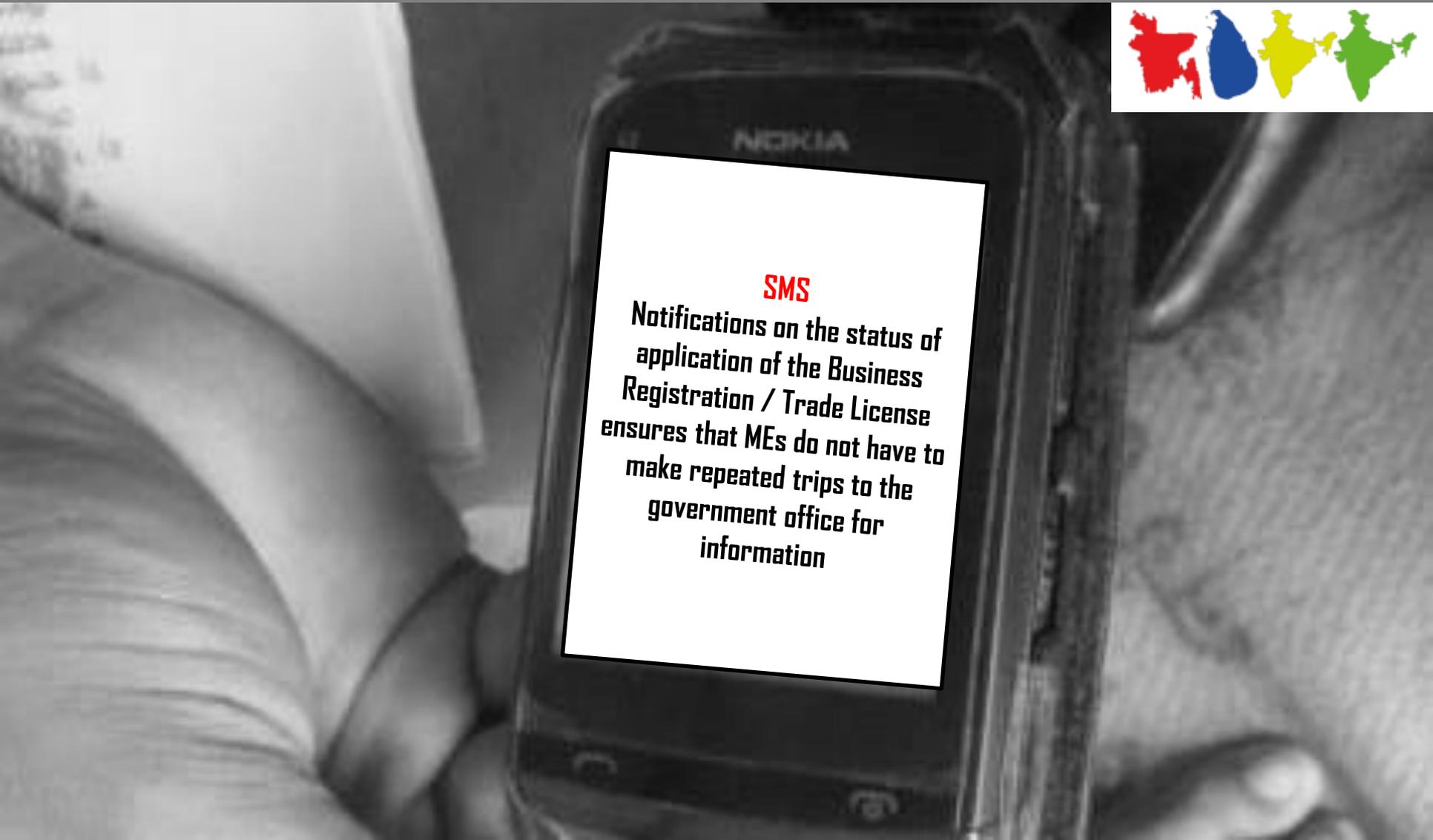


- Tracking records and status of trade license is difficult for MEs
  - MEs are seldom notified about the status of their application for business registration or trade license
  - This creates hurdle in the smooth operation of business registration/trade license application process
- Key Players: Service Provider

- *“I need to go back and forth to know the status of my trade license. This consumes a lot of my time”*

- Ashutosh Ghosh, Sweet Shop, Dhaka

**Solution:** Provision of an SMS notification to the ME at every stage of his application for a trade license/ business registration.



## **Cross Country and Sector Analysis**

# Acquiring a New Connection / Registration

	Telecom	Electricity	Governance
<b>Delhi</b>	Acquiring a new mobile connection is considered easy as there is little documentation involved and the process is quick	Acquiring a new connection is tedious because of several requirements, for example, requirement of a permanent wall for setting up the meter	Acquiring a trade license and/or registration is not considered as important for small businesses, as there is a lack of knowledge about the process and the time and money involved
<b>Patna</b>	Acquiring a new mobile connection is considered easy as there is little documentation required and the process is quick	Acquiring an electricity connection is time consuming and requires persistence	Acquiring a registration or license is considered necessary only for big and profitable businesses
<b>Colombo</b>	Acquiring a new mobile connection is considered easy as little documentation is required and the process is quick	Acquiring an electricity connection is time consuming because of a heavy dependence on the SP for the same	Acquiring a registration is a simple process as minimal documentation is needed and the process is quick
<b>Dhaka</b>	Acquiring a new mobile connection is considered easy, as little documentation is required and the process is quick	Acquiring an electricity connection is considered tedious due to lack of knowledge about the process, the time taken and bribery involved	Acquiring a trade license is considered to be easy as the documentation required is easily obtained

# Enquiries and Complaints

	Telecom	Electricity	Governance
<b>Dhaka</b>	Dedicated phone lines ensure easily access to customer care executives	Despite a dedicated phone line for customer care, there are delays in attending to complaints, in addition to instances of widespread bribery	Complaints are few, but enquires are made in person at the office
<b>Colombo</b>	Connecting to customer care is considered to be a challenge, even though dedicated phone lines exist	Complaints and enquiries can be made over phone through a dedicated number as well as in person at the office	Enquires are made in person at the office
<b>Patna</b>	Dedicated phone lines ensure easy access to customer care executives	Complaints and enquiries are made in person at the office	Enquiries and complaints are made in person at the office
<b>Delhi</b>	Dedicated phone lines ensure easy access to customer care executives	Dedicated phone lines ensure easily access to customer care executives, despite of instances of bribery during in-person interaction	Enquires are made in person at office. Information is available online if needed

# Billing and Payments

	Telecom	Electricity	Governance
<b>Dhaka</b>	Prepaid connections are popular, and are typically reloaded through e-reloads	Bills are paid in person at office or through intermediaries who pay using a mobile wallet on their mobile phones	Renewal of trade licenses is done in person or by a peon who is paid to do it
<b>Colombo</b>	Prepaid connections are popular and are typically reloaded through e-reloads	Most bills are paid through an authorized intermediary	Payments are made by personally visiting the office
<b>Patna</b>	Prepaid connections are popular and are typically reloaded through e-reloads	Most bills are paid in person at the office. In some instances the ATP machine is also used to pay bills	Payments for new trade licenses as well as renewals are made in person at office
<b>Delhi</b>	Prepaid connections are popular	Bill payments are done in person at the office or through intermediaries	<i>Challan</i> or fines are paid in lieu of not having trade licenses or business registrations

# Reasons for Exit

	Telecom	Electricity	Governance
<b>Dhaka</b>	MEs don't usually exit completely, they purchase a SIM of a different telecom service because of network issues or high calling rates. But they retain the first SIM since it is essential for its business	Exit is manifested through shared electricity connections because of high bills	Acquisition of a trade license is delayed
<b>Colombo</b>	Loss of SIM and lack of network are the primary reasons for existing the services of one telecom operator for another	Exit is manifested through shared electricity connections because of high bills	Acquisition of a trade license is delayed
<b>Patna</b>	Lack of network or incorrect and unwarranted balance deductions are the primary reasons for existing the services of one telecom operator for another	Excess electricity bills is reason to exit, resorting to shared and illegal connections	Acquisition of trade license is considered unnecessary for small businesses
<b>Delhi</b>	Lack of network or incorrect and unwarranted balance deductions are the primary reasons for existing the services of one telecom operator for another	Exit is manifested through illegal connections	Acquisition of trade license is considered unnecessary, expensive and time-consuming for small businesses

# Reasons for Voice

	Telecom	Electricity	Governance
<b>Dhaka</b>	Incorrect and unwarranted balance as well as lost SIM cards are cause for voice	Blackouts, burnt poles or wires coming in contact are reasons to voice	Delays in receiving trade license is a cause for voice
<b>Colombo</b>	Incorrect and unwarranted balance deduction are cause for voice	Delay in reconnection is considered as a strong reason to voice	
<b>Patna</b>	Incorrect and unwarranted balance as well as lost SIM cards are cause for voice	Blackouts and discrepancies in bill values are causes for voice	
<b>Delhi</b>	Incorrect and unwarranted balance deduction are cause for voice	Blackouts, load-shedding and discrepancies in bill values are causes for voice	

**Conclusion**

- Identification of BoP MEs as an addressable target market for better provision of service delivery in telecom, electricity and governance
- Provision of better bundling of services to fulfill the requirements of BoP MEs
- Greater need to make MEs aware of the benefits of government services, to encourage them to register as a business or trade
- Provision of Information about essential government schemes which are helpful for MEs

## Acronyms

ATP- Any Time Payment  
BOP- Bottom of the Pyramid  
BSES- Bombay Suburban Electric Supply  
CEB- Ceylon Electricity Board  
CGW- Collaborative Group Workshop  
CRM- Customer Relation Management  
ESSP- Ethnography at the Site of Service Provision  
FNF- Friends and Family Number  
ICT- Information and Communication Technology  
ID Card- Identification Card  
INR- Indian National Rupee  
IIME- In Depth Interview with the Micro Entrepreneurs  
IISP- In Depth Interview with the Service Provider  
IVR- Interactive Voice Response  
MCD- Municipal Corporation of Delhi  
NIC- National Identification Card  
ME- Micro Entrepreneur  
PAN- Permanent Account Number  
SP- Service Provider  
SLR- Sri Lankan Rupee  
SMS- Short Message Service  
Tk- Bangladeshi Taka  
USD- United States Dollar  
USSD- Unstructured Supplementary Service Data  
VAS- Value Added Service

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Anusmita Banerji	Center for Knowledge Societies
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