



# **Mobile Banking Is it Bank versus Non-Bank?**

Banking on the Future Summit  
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# Today's discussion

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- Setting the stage
  - Questions that need to be answered
  - The definitions
- Reviewing the mobile payment models
  - Bank-led
  - Bank/JV
  - Non-Bank (Mobile network operator or third-party)
- Risks of the various models
- Leapfrogging the developed countries
- Integration of traditional and mobile payment systems
- Benefits of M-payments
- Conclusion

# Setting the Stage



# Questions that must be answered

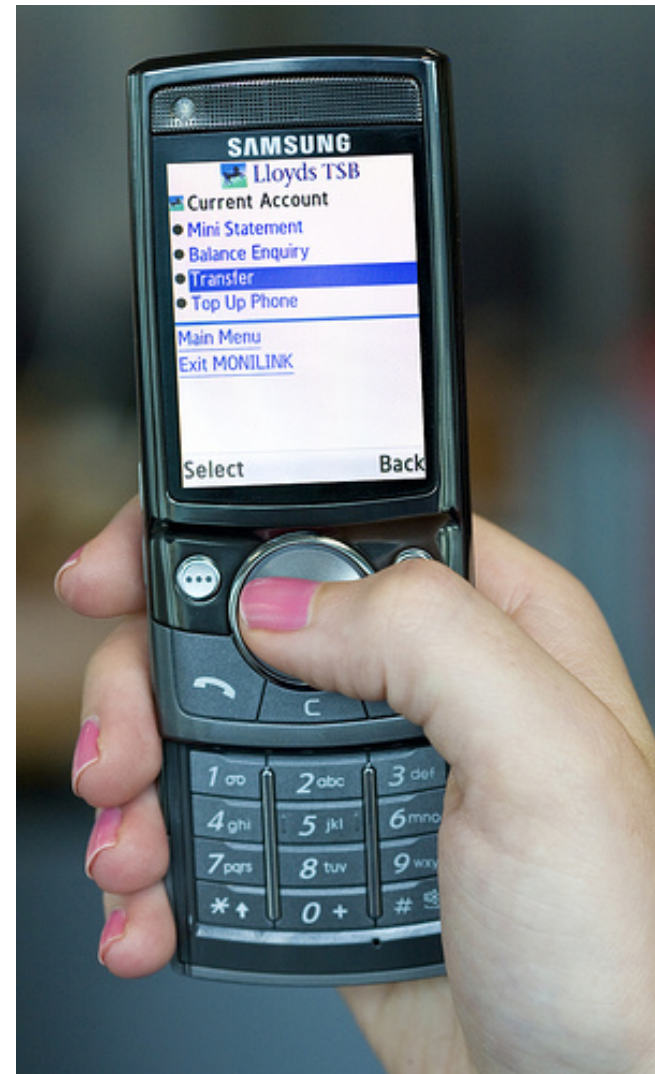
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- Are we addressing mobile banking or mobile payments?
- How effective is the inter-bank payment infrastructure?
- How readily available are ATMs and POS terminals?
- What percentage of the population is banked?
- What percentage of the population has Internet banking or advanced mobile hand-sets?
- Are mobile payments the sole domain of banks?
- Should there be a level-playing field between banks and non-banks?
- Who regulates the non-banks?
- Who protects the consumers?
- Should societal benefits determine the bank/non-bank strategy?

# Mobile Banking

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*Mobile Banking* is the provision of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank transactions such as performing balance checks, account transactions, payments, etc.



# Mobile Payments

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*Mobile payment* is a type of transaction in which the mobile handset plays a key role in the initiation, authorization and/or realization of the payment. Mobile payments are a substitute or a replacement of cash to make person to person, bill and point-of-sale payments.



# Branchless Banking & Authorized Retail Agents

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*Branchless banking* is the distribution of financial services to people who are not reached by traditional bank branch networks. It lowers the cost of delivery to banks, including costs of building and maintaining a delivery channel and to customers of accessing services.

*Authorized retail agents* are third-party outlets (exclusive or nonexclusive), such as post offices and small retailers, that act as agents for financial services providers and that enable customers to perform functions that require their physical presence, such as cash handling and customer due diligence for account opening.

# Mobile Banking versus Mobile Payments

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Though mobile banking and mobile payments are now two distinct, discrete categories of mobile financial services, the future will see the gradual integration of these two categories into a single interface.

Our discussion will focus on mobile payments.







# Reviewing the mobile payment models

# M-Payment Model Classification

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To classify a certain model, it is necessary to answer questions that deal with five basic issues, these are:

- Who is legally responsible for the cash/deposit?
- Whose brand is most exposed to the public?
- Where can cash be accessed?
- Who carries the payment instruction?
- Who owns the customer?

# Mobile Payment: Models

Models Key Issues	Bank Led	JV (Bank + Telco or Third Party)	Telco Led	Third Party Providers
Who holds the Deposit	Bank	Bank	Bank	Bank
Whose brand dominates	Bank	Bank and/or Telco	Telco/MPSP	MPSP
Cash-in/out Points	Bank Retail Agents	Banks Retail Agents	Banks Retail Agents	Authorized Retail Agents
Who carries the payment instruction (wallet accounting)	Bank or Telco	Telco	Telco	Third Party (MPSP)
Who owns the customer	Bank	Bank/Telco	Telco	Third Party (MPSP)
EXAMPLES	FNB (South Africa)	MTN (South Africa) and SMART (Philippines)	M-PESA (Kenya) G-CASH (Philippines)	Obopay PayPal



## Risks of the various models



# Risks of Bank Led Models

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- Operational risk
  - Technical Error/Failure, Redundancy/Downtime
- Anti Money Laundering
  - Customer due diligence (KYC)
- Consumer Protection
  - Consumer protection initiatives
  - Consumer education
- Authorized Retail Agents
  - Cash-out liquidity
  - Cash-in and Cash-out procedures
  - Physical security of Authorized Retail Agents (Vault, Guard etc.)
  - Trained personnel in Authorized Retail Agents

# Risks of Telco Led Models

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- Financial Risk
  - Capital adequacy of the Non-Bank (PSP)
- Operational risk
  - Technical Error/Failure, Redundancy/Down time
- Liquidity risks
  - Cash-out availability
- Anti Money Laundering
  - Customer due diligence (KYC)
- Consumer Protection
  - Consumer protection initiatives
  - Consumer education
- Retail Agents
  - Cash-in and Cash-out procedures
  - Physical security of Authorized Retail Agents (Vault, Guard etc.)
  - Trained personnel in Authorized Retail Agents

# Risks of Third Party Models (PayPal & Obopay)

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- Financial Risk
  - Capital adequacy of the Third-Party
- Liquidity risks
  - Cash-in cash-out by relatively inexperienced and remote retailer
- Technical risks
  - Technical Error/Failure
  - Redundancy/Down time
- Anti Money Laundering
  - Customer due diligence
- Consumer Protection
  - Consumers' rights should be protected
  - Consumer education
- Agent Risks
  - Cash-in and Cash-out procedures
  - Physical security of Authorized Retail Agents (Vault, Guard etc.)
  - Trained personnel in Authorized Retail Agents



# Risk Management

## Mobile Payment Service Provider

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- A separate entity if MPSP is a mobile network operator (MNO)
- Licensed, Regulated and Supervised by the Central Bank
- Minimum capital requirement ( e.g. 1 million Euros)
  - Additional capital at discretion of Central Bank
- Minimum liquidity requirements
- Float Management: Trust Account
  - Legal agreement between MPSP, Bank
  - Protect consumers' funds from insolvency
  - Invested in low risk financial instruments
  - Extensive reporting on transactions and account balance
  - Continuous oversight by Central Bank
- Technical and operational standards – similar to a bank
- MPSP must connect to banks & National Payment Systems



# Risk Management

## Mobile Payment Service Provider

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- Accreditation of Authorized Retail Agent
  - Standards and agreement approved by Central Bank
  - All financial liability assumed by MPSP
  - Legal agreements between MPSP and Authorized Retail Agent approved by Central Bank
  - Performance of Authorized Retail Agent monitored by Central Bank
- Consumer Protection
  - Dispute resolution, privacy and security, financial penalties for non-performance by Central Bank
- KYC compliance by Authorized Retail Agents & MPSP
- Limits on transaction and wallet amounts

# Leapfrogging the developed countries



# M-Payments - Nice-to-Have vs. Necessity

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- Mobile payments in a developed country is a ***nice-to-have***
  - Strong inter-bank payments systems (ACH, large value, credit/debit cards, ATM and POS)
  - Extensive bank branch networks
  - Personal computer and enhanced mobile device ownership is widespread
  - Heavy penetration of Internet banking
  - Millions of locations for cash-out (ATMs & POS)
  - Banked population is extremely high
- Mobile payments in a developing country is an ***absolute necessity***
  - Weak or non-existent inter-bank infrastructure
  - Limited branches
  - ATM deployment is marginal (e.g. Bangladesh 700 ATMS for 150 million)
  - Unbanked population is very high (in excess of 80%)
  - Primary mode of payment is cash
  - Mobile handsets are the primary tool available for payments

# A Shining Success - M-Pesa (Kenya)

## 2009 Winner - Best Mobile Money Service Award

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- Telco-led m-payment model
  - Safaricom/Vodafone
  - 5 million subscribers in less than two years
  - Offering services to the banked and unbanked
  - 160,000 P2P transactions per day
  - 118,061 m-banking transactions per day.
  - Bill payment, loan repayment, P2P
- Kenya has only 4 million bank account holders
- Banks behind an effort to shut it down



“An accessible and intuitive solution, reflected by an unprecedented take-up rate for a service of this kind, M-PESA will serve as a blueprint for other operators around the world. Targeting the unbanked, this provides a simple means for people to safely transfer and carry money.”

# Cross Country References

Country	Model	Lead Bank /Telco	Mode of Actions
THE PHILIPPINES	SMART (Bank led)	Banco D'Oro Smart Telecom	<ul style="list-style-type: none"> <li>Conventional ATM, POS are used through debit card</li> <li>Payment via value chain, account management</li> <li>Banks sign up accounts</li> <li>Accounts are managed by Mobile Network Operator, banks have real-time access to account information</li> <li>Core processing system lies with Mobile Network Operator but bank's delivery channel is used</li> </ul>
	G-Cash (Telco led)	Globe Telecom	<ul style="list-style-type: none"> <li>Cash in cash out, technology and delivery channels are managed by Telco</li> </ul>
KENYA	M-Pesa (Telco led)	Safaricom	<ul style="list-style-type: none"> <li>Safaricom is primarily a payment provider for the Microfinance Institution - FAULU</li> <li>Payments are conducted via airtime agents</li> </ul>
SOUTH AFRICA	MTN (Bank led)	Standard Bank, MTN	<ul style="list-style-type: none"> <li>Clients open bank accounts through remote interactive process</li> <li>Mobile money starter packs are available via MTN agents and bank branches</li> <li>Core system lies with Mobile Network Operator but bank's delivery channel is used</li> </ul>
INDIA	Bank led	mCHEK Airtel State Bank of India, ICICI and Citibank	<ul style="list-style-type: none"> <li>Mobile payment is restricted to bank account holders, residents of India and transactions in Indian rupees</li> <li>No interbank network available</li> <li>Banks can make multilateral agreements to create mobile switches.</li> </ul>
PAKISTAN	Bank-led	UBL	<ul style="list-style-type: none"> <li>Account Holder can initiate transaction via mobile with the help of an Interactive Voice Response (IVR.)</li> <li>Conventional ATM, POS are used as delivery channel.</li> </ul>



# Integration of traditional and mobile payment systems

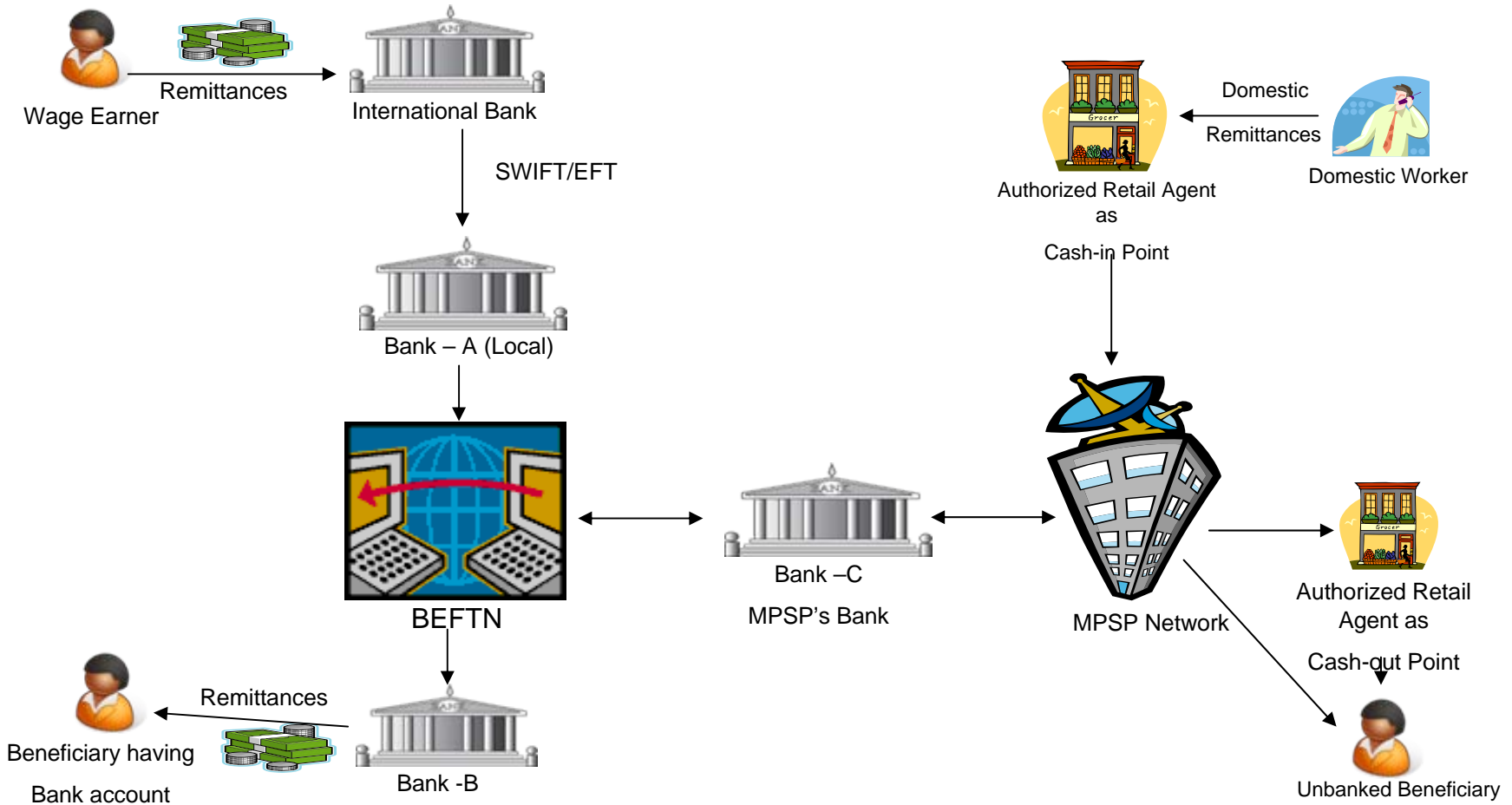
# M-Payments – Key Concepts

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- Broad distribution channel for banks
- Access for a very large segment of the population
- Introduction of financial services to unbanked population
- Ability to introduce new services to the market quickly
  - Electronic disbursement of local leg for international remittances
  - Local Remittances
  - Utility bill payment
  - Payroll distribution (e.g. manufacturing workers)
  - Point-of-Sale purchases
  - Person-to-Person transfers

# M-Payments – Key Concepts

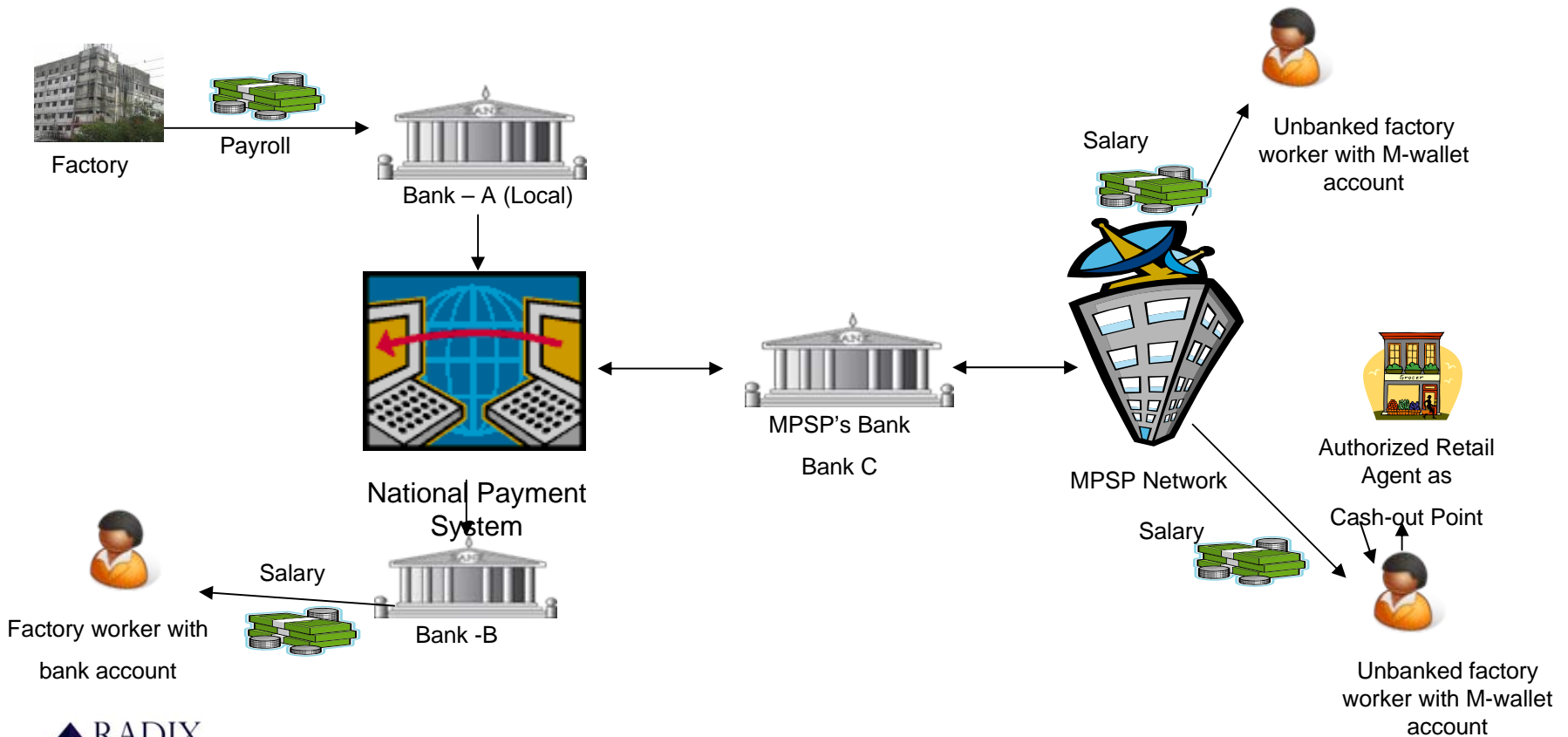
## International and Domestic Remittances





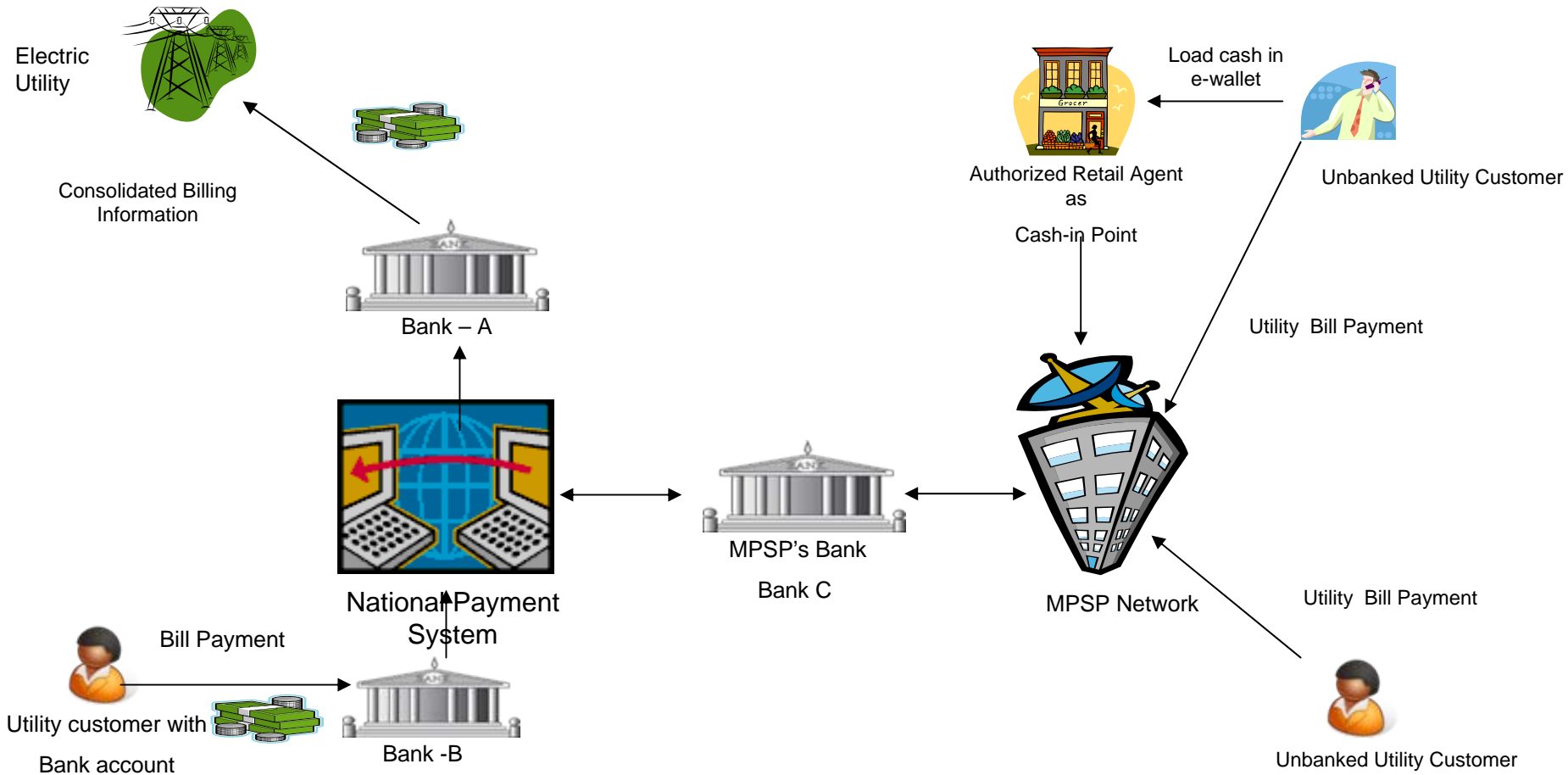
# M-Payments – Key Concepts

## Payroll



# M-Payments – Key Concepts

## Utility Bill Payment





# Benefits of M-payments

# M-Payments - Bank Benefits

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- Expansion of Foreign Exchange inflows
  - Increasing revenue
  - Improving balance of trade for a country
- Unbanked does not mean “Un-Bankable”
- New opportunities for bringing more customers into the banking system
  - Serving as cash-in/cash out points
  - Unbanked becoming more comfortable with financial services
- Linked to National Payments System
- New distribution channel for business applications
  - Payroll for banked and unbanked workers
  - Improve bill payment services for banked customers
  - Bill payment consolidation for utilities, insurance companies
  - Point-of-Sale transfers from merchant wallet to bank account

# M-Payments Social Benefits

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- Increases availability of financial services to all citizens of a country especially the unbanked population
- Increases international remittances through formal channels
  - Lowering costs, improving efficiency and safety
- Facilitation of domestic remittances
  - Safe and convenient method for urban workers to send money to families in the villages
- Utility bill payments
  - Eliminates long waiting time in queues
- Payroll
  - Faster, convenient and safer way of being paid
- Point-of-Sale purchases
  - Reduces need to carry cash
- Person-to-person payments



# Conclusion

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# Mobile Banking

## Is it Bank versus Non-Bank?

The answer is - it depends



Thank You





# Conclusion