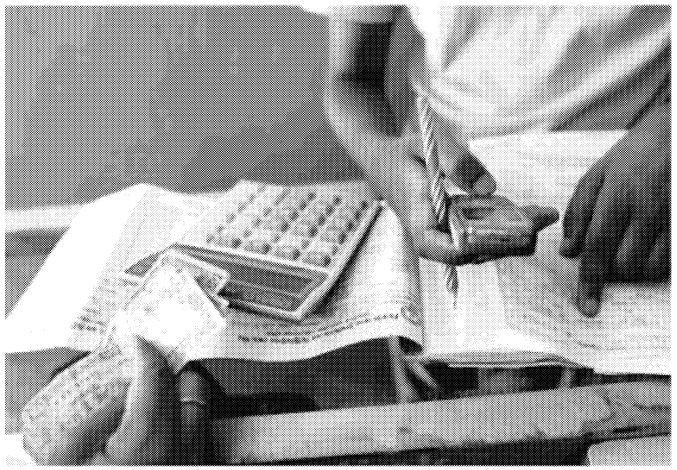
Mobile Money for the Unbanked



Mobile Money for the Unbanked 101

A guide to Commercial Best Practice

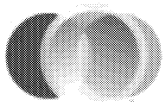
Fionán McGrath

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Mobile Money for the Unbanked

The MMU programme is supported by The Bill &Melinda Gates Foundation, The Mastercard Foundation and Omidyar Network.





The MasterCard Foundation



OMIDYAR NETWORK™

Preface



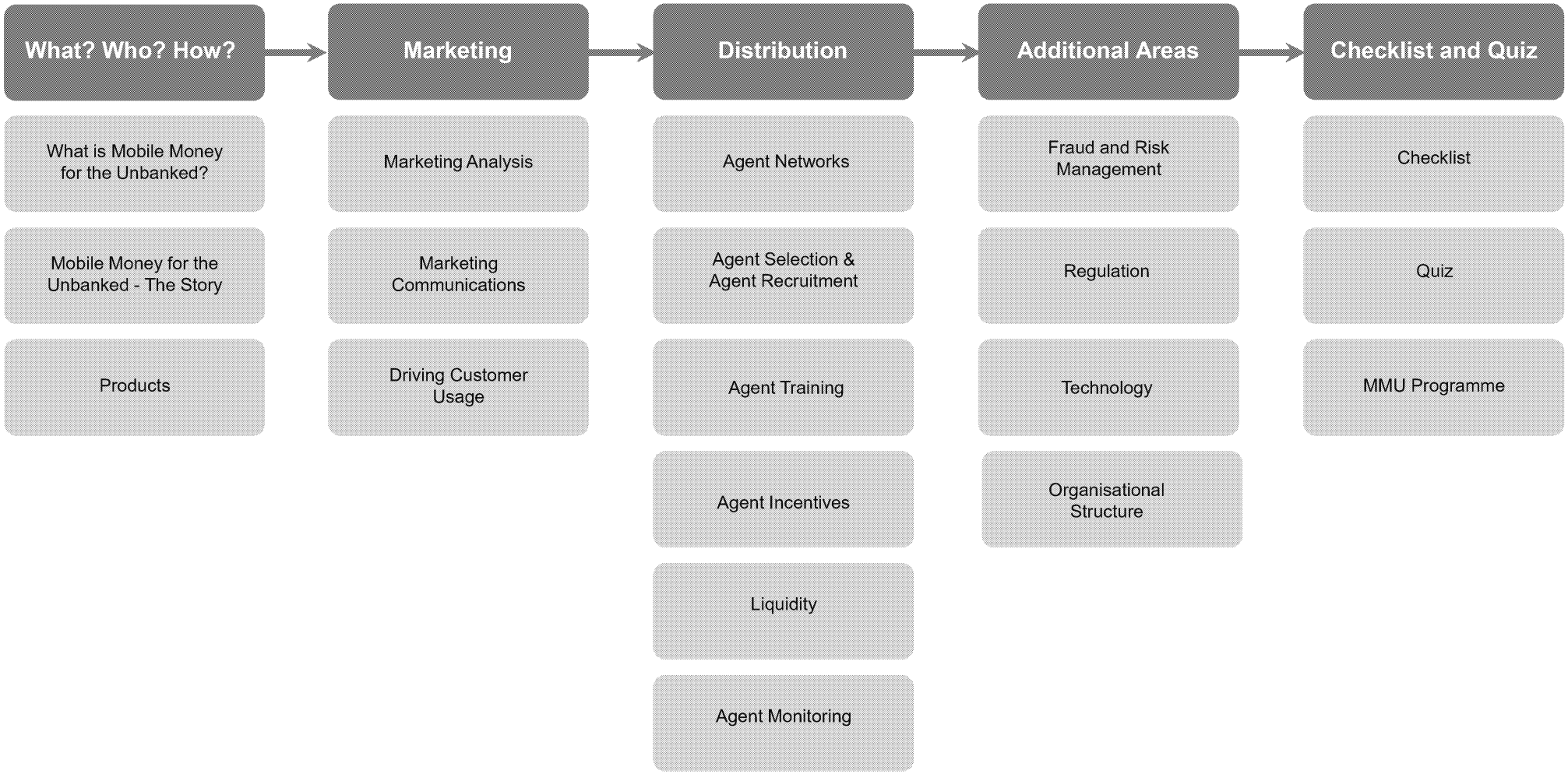
The Mobile Money for the Unbanked programme supports mobile money services to reach scale. We do this by identifying and sharing benchmark data, operational best practices, and commercially-viable interoperability approaches, as well as cultivating enabling regulatory environments. Mobile money is a sustainable, scalable approach to providing convenient and affordable financial services to the underserved

This commercial guide has been written primarily with wallet-based MNO-led services in mind. However, since it covers the main topics in mobile money services it is likely to have relevance to services led by banks or third parties also. It is hoped this guide will serve as a useful introduction and refresher to staff within mobile money services at all levels of maturity

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Contents

Mobile Money for the Unbanked



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What? Who? How?

Mobile Money for the Unbanked

WHAT?

- Mobile Money for the Unbanked uses existing and ubiquitous mobile phone networks to deliver financial services to those peoples without access to financial services via traditional banks or financial institutions
- MNO-led services are the focus of this guide but these exist alongside (and in many cases require) banks and third parties such as retail stores and franchises

WHO?

- 2.7 billion people worldwide have no access to financial services. 1 billion of these people have a mobile phone
- Developing nations have the greatest proportion of these people
- Trust of & dependence on MNOs is already very high in these markets making them viable for launching such a service

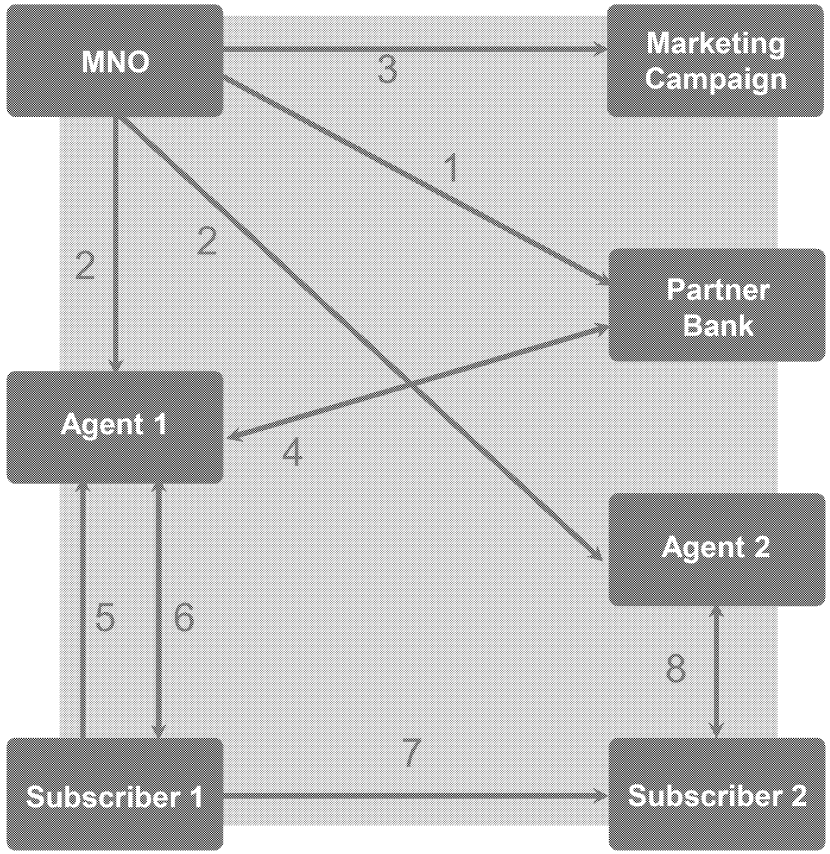
HOW?

- Wallet-based services are popular in most markets. This is a wallet that exists on your phone that stores eMoney
- Over The Counter (OTC) services are also in existence. This is where no wallet is used and users must visit an agent to perform transactions.
- Agent Networks are extensively used by both service-types to reach the end-user
- Existing Technologies such as USSD, SIM Toolkit or Smartphone Apps are used to perform transactions and debit/credit balances

PayPal - Exhibit 1026
PayPal v. Fintiv - IPR2023-00744
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Mobile Money for the Unbanked - The Story

Mobile Money for the Unbanked



Example Steps to Service Delivery

1. The MNO works with a Partner Bank to offer the service
2. MNO selects and recruits agents for their MM network
3. MNO starts a Mobile Money marketing campaign
4. Agent 1 goes to bank and buys eMoney with cash
5. Subscriber 1 registers for service
6. Subscriber 1 performs cash-in at Agent 1, converting cash to eMoney
7. Subscriber 1 now has eMoney to perform transactions i.e. a P2P transfer
8. Subscriber 2 receives the message and performs a cash-out at Agent 2

The commercial aspects of these steps will be explained in this guide

Products

Mobile Money for the Unbanked

This product list is not exhaustive but gives the most common mobile money products.

Cash-in/Cash-out	Depositing money into a mobile money account is called a cash-in. A cash-out is withdrawing money. Both of these are normally agent assisted.
P2P	P2P is a person to person money transfer.
Bill Payment	Payment of a utility or other bill using your mobile money account.
Airtime Top-Up	Topping up airtime for recharging a GSM account through a mobile money account.
Merchant Payment	Payment for good or services at a store using a mobile money account.
Bulk Payment	One-to-many transfers such as salary disbursal is a bulk payment.

Marketing - Market Analysis

Mobile Money for the Unbanked

Competitive Landscaping

Lesson It is crucial to identify the alternative services to Mobile Money so your service can be positioned accordingly and appeal to your target market.

Questions What are the formal & informal alternatives? What do they offer? How much does it cost? Are customers' needs currently being satisfied by the competition?

How? Desk research & market visits. Create a comparison matrix of products, features and costs

Market Segmentation

Lesson Segmentation is the process of grouping consumers likely to use the service, defining their requirements & profiling them. This leads to a viable target market selection.

Questions What groups need the service? What will be their motivations? Which products will they use i.e. P2P, Bill Pay etc? What attributes are important i.e cost, convenience?

How? Observe consumer behaviour and perform quantitatve market research

Target Market & Positioning

Lesson Choosing the correct target segment allows you to communicate effectively with prospective customers and position your service accordingly.

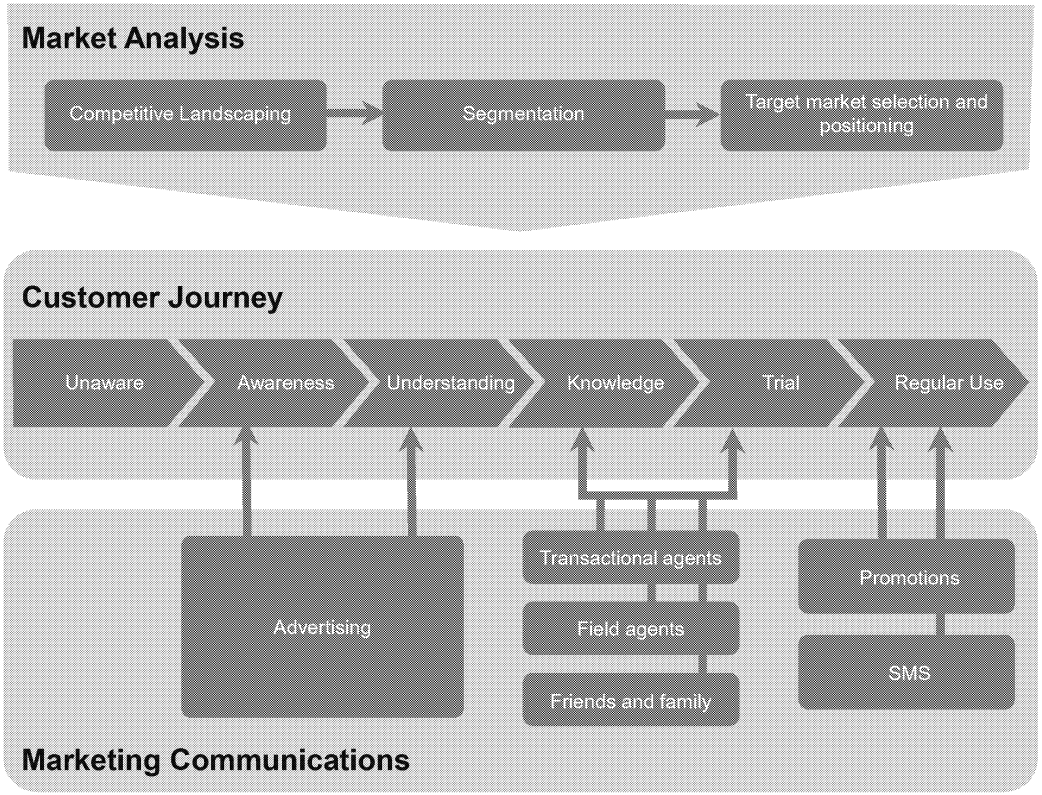
Questions What is the market size? Is the service aligned to target's needs? Are they early adopters? Is the target addressable and penetrable? What is the positioning statement?

How? Select your target market based on prior segmentation and the answers to the questions above

MMU Resource Driving Customer Usage of Mobile Money for the Unbanked

Marketing - Marketing Communications 1

Mobile Money for the Unbanked



Customer Journey

This shows the steps a user must go through in order to engage with the Mobile Money service. The onus is on the service provider to be prepared to guide a user from unawareness of the service to regular service usage.

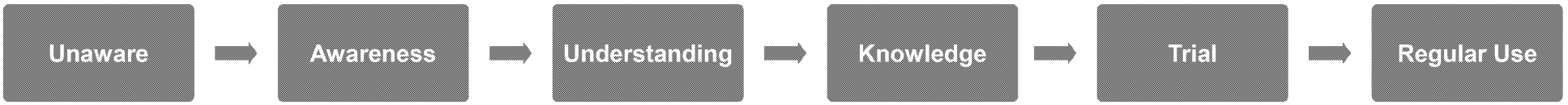
Mobile Money Marketing ≠ Airtime Marketing

Nearly everyone understands the concept of airtime and the steps to recharge. This is not so with mobile money as financial literacy is often very low.

MMU Resource Driving Customer Usage of Mobile Money for the Unbanked

Marketing - Marketing Communications 2

Mobile Money for the Unbanked



Awareness & Understanding

These marketing communications must have the objectives of

- **introducing the service** (a pre-launch message can be used to build anticipation)
- **explaining** how it is relevant & beneficial to users
- **leveraging the positioning statement** to deliver these messages directly & clearly
- **geographically targeting the channels** & users identified in the market analysis

Knowledge & Trial → Regular Use

These marketing communications must have the objectives of

- **user education** via agent demonstrations & walk-throughs
- **using promotions & tailored marketing** campaigns to encourage regular use
- **covering the target market** by being on-site
- **intelligently promoting regular usage** beyond initial registration

MMU Resource Driving Customer Usage of Mobile Money for the Unbanked

Marketing - Driving Customer Usage

Mobile Money for the Unbanked

ATL & BTL campaigns are well-suited to different stages of the marketing campaign. The design of each will follow from correctly performing an initial market analysis

ATL Communications

- Mass media campaigns let customers know what the service is, what is being offered & how it can be used
- Effective campaigns should encourage potential users to seek to use the service
- Commons Methods include TV, Radio, Newspaper & Billboards
- Be aware of the strengths of each method & mix methods accordingly

Hardworking ATL examples from the field show specific use cases of the service, how the service works, its benefits & can show the nearest agent store

BTL Communications

- To gain knowledge & start to use the service a more personal approach is required.
- Education on the nuances of the service is essential
- Effective campaigns ensure the users know the steps to transact & have tried it at least once
- Teams of field agents can be employed alongside transactional agents (see later)

Hardworking BTL examples from the field involve field agents paid against activation - not just registration - and perform customer hand-holding very effectively

MMU Resource Driving Customer Usage of Mobile Money for the Unbanked

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Distribution - Agent Networks

Mobile Money for the Unbanked

What is a Mobile Money Agent & why do they matter?

- Agents facilitate the important cash-in and cash-out transactions (at a minimum) by converting physical money to eMoney and vice-versa. In OTC services they facilitate other transactions also
- Agents also perform registration of users in the first instance, in many cases
- Agents are also key elements for branding and education which will reinforce marketing communications & the customer journey
- Agents are also the human-face of the mobile money network and provide the reach necessary to give the service coverage. MM agent networks can reach thousands in number.

Important Considerations of an Agent Network

- Agent network size - agents will not generate enough revenue if there are too many competing agents. If there are too few, customers cannot be reached
- Agents network location – agents need to be located in all the channels of high customer requirements as discovered in the market analysis
- Agent activity - There is a strong correlation between the average number of transactions that agents perform each day and the overall performance of the service
- MNOs must actively track & manage the agent network size as the service grows

MMU Resource Building, Incentivising and Managing a Network of Mobile Money Agents

Distribution - Agent Selection & Agent Recruitment

Mobile Money for the Unbanked

Agent Selection

Reach	Float Management	Literacy	Location	Trust
Multi-outlet Long history of business practice	Physical money eMoney Minimum float	Verbal & Financial Multi-lingual? Necessary to educate	Suitability for target market Presence in each community	Community outlets Handling money

- MM is sold as a service & not a product like airtime.
- While many services use existing airtime agent networks not every agent can be transformed to a MM agent.
- The five criteria above are essential to select agents.
- Requirements pre-launch and post-launch may differ as the focus shifts from registration to activation.
- The agent network management needs to mirror this growth and plan for it

Agent Recruitment

Idea Pitch	Document	Validation	Account Creation	Start Business

- Agents recruitment can be done by outside agencies or in-house S&D teams. Regional knowledge is important.
- Master agents or Aggregators can be very useful in adding a layer of management between the agents and the MNO.(See later)
- Starting with the selection process on the left, the recruiter pitches the idea, requests & confirms documents such as business permits, financial statements, creates an agent account on the system & starts to offer the service

MMU Resource Building, Incentivising and Managing a Network of Mobile Money Agents

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PayPal - Exhibit 1026
PayPal v. Fintiv - IPR2023-00744

Distribution - Agent Training

Mobile Money for the Unbanked

Agent Training to ensure an efficient service for the end-user

Who benefits from training?

- All member of the MMU S&D team
- Agents, Business Owners, Master Agents, Agent Management Teams, Foot Soldiers
- Education levels, literacy & numeracy levels will vary
- Everyone who engages the customer needs to be fully trained

Where & how often does the training take place?

- Centralised training pre-launch moving to decentralised training
  - Proximity
  - Opportunity cost
  - Expenses

- One off training pre-launch
- Continuous training
- Refreshers
- Product Intro
- Ongoing service activity

Who does the training?

- Existing in-house resources not always useful
- Agent/S&D teams have KPIS linked to sales, growth
- Dedicated out-sourced trainers with relevant KPIs can work
- Training effectiveness to be measured via mystery shopping & customer surveys

What is the curriculum?

1. What is MM?
2. How to make money?
3. MM Ecosystem?
4. How MM works?
5. Security for MM?
6. Customer Service
7. Agent Obligations
8. Liquidity Management
9. KYC/AML/CFT

MMU Resource Designing & Delivering Agent Training for Mobile Money Deployments

PayPal - Exhibit 1026
PayPal v. Fintiv - IPR2023-00744
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Distribution - Agent Incentives

Mobile Money for the Unbanked

Agent Incentives to ensure a satisfied & profitable MM front-line team

Why are incentives necessary?

- Incentives shape agent behaviour & encourage customer acquisition which promotes a reliable service
- Agents are often storekeepers with other investment opportunities so commissions must compare favourably to these to gain interest
- Agent churn results in loss of MNO recruitment & training investment → Incentives reduce this risk

Which transactions should be incentivised?

- Every action performed by an agent must be compensated
- Although not all transactions generate revenue for the MNO some of these get money (or users) into the system
- The amount of commission must be based on extensive research of local market conditions & agent profitability drivers

What drives agent profitability?

Understanding the following is imperative to developing a commission structure:

- **Float**: the amount of cash or eMoney on hand
- **Restocking Cost**: cost incurred to refloat
- **Volume of Transactions**: function of location, services offered and agent market size
- **Average commission size:** average commission for cash-ins/outs performed
- **Average Commission value:** average value of these cash-ins/outs

What type of structure should be applied?

- **Flat Rate** – simple but difficult to gain value & remain competitive over a wide range of transaction values
- **Percentage Based** – still simple but difficult to gain value at the lower end of transaction values & to remain competitive at the higher end of values
- **Tiered Structure** – not as simple but the best method to capture value across the value range whilst remaining competitive

MMU Resource Mobile Money Pricing & Commissions

PAYPAL-FINTIV000004521

Distribution - Liquidity

Mobile Money for the Unbanked

Agent Liquidity is essential since availability of cash/eMoney must match customer requirements. How to ensure agents remain liquid? Agents need to restock their eMoney or Cash.
There are two structures or roles very helpful in achieving this

Superagent

A business that purchases eMoney from an MNO wholesale and then resells it to agents

Why?

- Superagents make float available for a fee
- Banks, other financial institutions and large retail stores often play this role
- This system can be quick to implement

How?

- Superagents take their fee directly at time of sale/purchase

Masteragent

A person/business that is responsible for managing the liquidity of the agent network

Why?

- Masteragents make commission on every agent transaction
- Allows a quick scale-up of agent network by utilising a wholesale approach
- Facilitates a real-time rebalance

How?

- Masteragents get part of each agents' commission and this is usually paid later but can be real time
- A common split is 80/20 with the agent
- The MNO calculates the commission monthly and can pay both masteragents and agents directly

MMU Resource Building, Incentivising and Managing a Network of Mobile Money Agents

PAYPAL-FINTIV000004522

Distribution - Agent Monitoring

Mobile Money for the Unbanked

Individual Direct Agent Monitoring

- Direct agent monitoring is **necessary to ensure individual agent performance** and maintain high service levels.
- There is a risk that the service will be delivered inconsistently or poorly if agents are not well trained & monitored
- It can be carried out by agent visits and visual inspection, testing and mystery shopping.
- This can be carried out by an existing or new internal staff or by an outsourced third-party
- The following items need to be monitored:
  - Correct display of branding materials
  - Adherence to transaction logs
  - KYC Compliance
  - Customer Education
  - Overcharging

Agent Network Performance Monitoring

- Monitoring the performance of the agent network as a whole involves **establishing targets for certain network-wide KPIs** & actively ensuring these are met
- Most successful MM services actively track these KPIs and warn, suspend or cut non-performers from their network
- This monitoring reveals the active rate of agents and can expose shortcomings
- Metrics can include:
  - Number active customers/active agent
  - Number transactions/active agent
  - Commission targets

MMU Resource Building, Incentivising and Managing a Network of Mobile Money Agents

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Fraud & Risk Management

Mobile Money for the Unbanked

Risk management is a key component to the commercial success of MM. Effective risk management promotes commercial growth because it protects both reputation & revenue

What does a solid Fraud & Risk policy for a MM service look like?

1 - Determine the Risk Appetite

Set the costs that the service is comfortable with. Conservative approaches may yield slower growth than higher risk strategies

2 - Identify & Assess Risks

The whole ecosystem needs to be assessed with particular attention to the three key parties that may commit fraud – customer, agent & employee. All departments within the MM service need to be included – finance, ops, sales, marketing etc

3 - Establish Controls

These may be preventative or detective policies

Preventative
Access Rights
Duty Segregation
Transaction Limits

Detective
System Monitoring
Analyse agent patterns
Customer SMS Alerts

4 – Monitor & Review Risk Strategy

Regular policy and strategy review including an internal audit.

MMU Resource Managing the Risk of Fraud in Mobile Money

PAYPAL-FINTIV000004524

Regulation

Mobile Money for the Unbanked

In many markets the policy and regulatory environment is not yet genuinely enabling. MMU provides regulators, mobile money providers and other stakeholders with support to address regulatory barriers. This support increases the ability of mobile money providers to meet the financial needs of poor and low-income customers.

What are the key industry positions?

1. Let MNOs in

To unleash the potential of mobile money, regulators must create an open and level playing field that allows both banks and non-bank providers to offer mobile money services – particularly MNOs, which are well suited to building sustainable services and extending the reach of the formal financial sector rapidly and soundly.

2. Safeguarding customer money

Most risks posed by licensed non-bank mobile money providers can be successfully mitigated through prudential requirements that safeguard funds entering the system and meet customer demand to cash out electronic value.

3. Customer due diligence

Mobile money reduces the risk of money laundering and terrorist financing since electronic transactions can be monitored and traced more easily than cash. Proportional AML/CFT regimes and simplified risk-based customer due diligence (CDD) requirements are crucial for customer adoption of mobile money.

4. Distribution and outsourcing services

Banks and non-banks must outsource customer registration, cash collection, and disbursement activities to lower the cost of financial services, expand their reach, and thereby increase financial inclusion. Building an efficient mobile money distribution network depends on proportional and cost-effective regulation.

5. Interoperability

Service providers and policy makers should work together to assess benefits, costs, and risks of different interoperability solutions, ensuring that interoperability brings value to the customer, makes commercial sense, is set up at the right time, and regulatory risks are identified and mitigated.

6. Customer protection

Mobile money strikes a balance between creating innovative forms of financial access and offering an acceptable level of consumer protection. Tailored guidance from the regulator can help mobile money providers to improve transparency in their relationships with customers and prevent third party fraud.

MMU Resource MMU policy work, Regulatory paper and Mobile Money Regulatory Guide

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Technology

Mobile Money for the Unbanked

The two most popular options in developing nations are USSD or SIM-Toolkit.
Although others exist they depend heavily on network technology.
There are many considerations when choosing a service delivery channel

Delivery Channel Considerations
1. cost to use at user end
2. provider cost to install, launch and operate
3. user-familiarity with the technology
4. security of the channel
5. size, functionality & feature roadmap

USSD

A very popular choice and found on all GSM handsets & networks

PROs
- Ubiquitous
- Session-based → quite secure
- Low-cost for user & MNO
- Users can already be familiar through balance checks
- Service menu is easily updated

CONs
- Transaction delays possible → on network traffic
- Not always available to non-MNOs

SIM Toolkit

Another very popular choice although requires a SIM swap

PROs
- Ubiquitous
- Menu accessible on the handset
- Safe & secure
- Familiar to users
- Simple User Interface

CONs
- Need SIM swap to launch service
- Menu updates only via expensive +1 OTA campaigns
- Upper limit to size & functionality

Other Options for Delivery

APP
Uses a Smartphone App & a good data connection
- Can solve the size /security issues
- Requires smartphone & 3/4G

Mobile Internet
Uses at least a WAP enabled phone & a good data connection
- Not ubiquitous
- Expensive for the end user

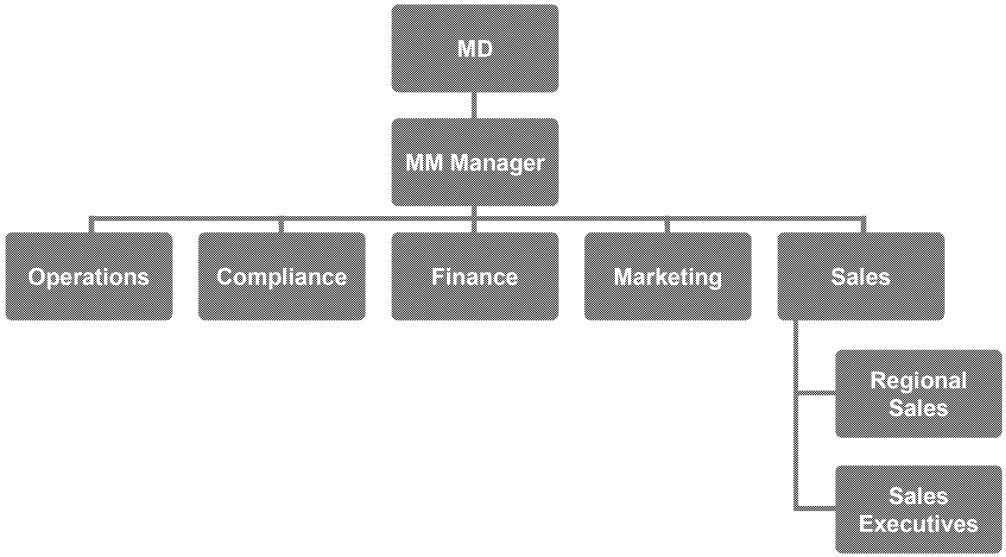
Structured SMS
Triggers a menu on SMSC & handset
- Not secure or very popular

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Organisational Structure

Mobile Money for the Unbanked

Mobile Money business model is completely different from the core GSM business. Through analysis of MM services a common thread of the best performers has emerged. A MM team designed specifically for the service & treated as a separate business unit performs best



Why is MM different to VAS?

One – the business model requires more time to ferment and the returns do not arrive as fast as other VAS services.
Two – it requires more cross-functional buy-in across departments, thus upper management engagement is necessary.

Why the need for a separate BU?

Motivation: Performance of the sales & distribution team is monitored by specialised KPIs for MM alongside their core GSM KPIs.

Expectation: the ROI of MM is longer than other services so the budget needs to be longer term

A Sample Organisation Chart for a high performing MM service is shown above.

•Each business discipline has it's own department within the MM BU.

•MM teams may not start like this with all dedicated units but needs to evolve

MMU Resource Organisational design to succeed in Mobile Money

PAYPAL-FINTIV000004527

Mobile Money Checklist - Have you...?

Mobile Money for the Unbanked

- A focused product offering with a clear positioning that meets the needs of the target market?
- A combination of ATL & BTL campaigns to ease the customer through the customer journey from unawareness to regular use?
- A geographically distributed, reliable, educated and consistently liquid agent network?
- A tiered tariff and agent commission structure to promote agent buy-in which is important as they are the front line in a mobile money service?
- Agent management tools using liquidity procedures and intelligent KPI monitoring?
- Determined your risk appetite and identified risks and controls to manage them?
- Correctly chosen your technology with consistent and reliable service delivery in mind?
- Designed and positioned your mobile money team within the organisation with the new service and relevant KPIs and targets in mind?
- Thought about interoperability and possible future innovation to deliver more value to your customers & revenues to your service?

Mobile Money Quiz - 1

Mobile Money for the Unbanked

Marketing

1. What are the three areas of Market Analysis?
2. What are the six steps in the customer journey?
3. For which steps are ATL campaigns most useful?
4. For which steps are BTL methods most useful?
5. Why should you use mixed media in ATL campaigns?
6. Why are field agents recommended and what can they bring that mass media cannot?

Distribution

7. What are the three minimum roles of an agent?
8. Name five essential criteria for agent selection
9. List the nine core elements of an agent training curriculum?
10. Why is it important to pay agents for every transaction? For which transactions should a MM service charge the customer?
11. What methods exist to ensure agent liquidity?
12. Name the main benefits of using a Super Agent and Master Agent structure

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PayPal v. Fintiv - IPR2023-00744
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Mobile Money Quiz - 2

Mobile Money for the Unbanked

Distribution

13. What are the benefits of a tiered commission structure?
14. List three KPIs which are regularly monitored by MM services

Technology

17. Name the two most popular channels to deliver the service to the unbanked
18. List two pros and two cons for each of these channels

Fraud & Risk

15. What is a risk appetite?
16. List three preventative and three detective risk controls

Organisational Structure

19. Why is MM different to VAS services?
20. Why is there a need for a separate BU?

Scoring

Award 1 point for each correct answer

0 – 8 Points : Poor

8 – 12 Points : Average

12-16 Points : Very good

17 + points : Excellent

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Glossary

Agent (Mobile Money Agent)

Mobile money agents are typically stores or shops where other trade already occurs . Agents are used to perform a cash-in and cash-out and perform other transaction such as transfers or bill payments

ATL - Above the Line

ATL is a type of advertising through media such as television, cinema, radio or print,

BTL - Below The Line

BTL advertising uses unconventional brand-building and promotional strategies, such as direct mail, sales promotions, flyers, point-of-sale, telemarketing and street-level brand ambassadors

Cash-In/Cash-Out

depositing cash into a wallet to receive eMoney/withdrawing cash from the balance in your eMoney wallet

KPI – Key Performance Indicator

a performance measurement indicating whether particular targets have been reached

KYC – Know Your Customer

refers to due diligence activities that financial institutions and other regulated companies must perform to ascertain relevant information from their clients for the purpose of doing business with them

MNO – Mobile Network Operator

the GSM service provider

MM – Mobile Money

OTC – Over the Counter

mobile money services that do not utilise the wallet function and do their transactions with the assistance of an agent are over-the-counter services

P2P – Peer to Peer Transfer

the sending of money from one person to another over the mobile money service

USSD – Unstructured Supplementary Service Data

protocol uses by GSM cellphones to communicate with the MNO systems and servers. It is available on all cellphones and is commonly used for balance enquiries or for airtime top-ups. An example command is *101#

ROI – Return on Investment

a measurement of efficiency used in finance and economics

S&D – Sales and Distribution

SIM Toolkit

This is a menu that resides on the SIM card within the phone that users can access directly form the handset. When in use, it communicates with the MNO systems and servers generally using SMS.

Wallet

services can utilise a mobile money wallet which is a virtual wallet to store eMoney and so a cash-in or cash-out (deposit/withdrawal) facility is needed.

WAP – Wireless Antenna Protocol

a precursor to 3G, GSM networks used WAP to deliver data services and content to subscribers

MMU Programme - What can we do for you?

Mobile Money for the Unbanked



Resource Library: best practice documents across all key areas of a mobile money service

Deployment tracker: don't forget to let us know about your service so we can feature it in our deployment tracker

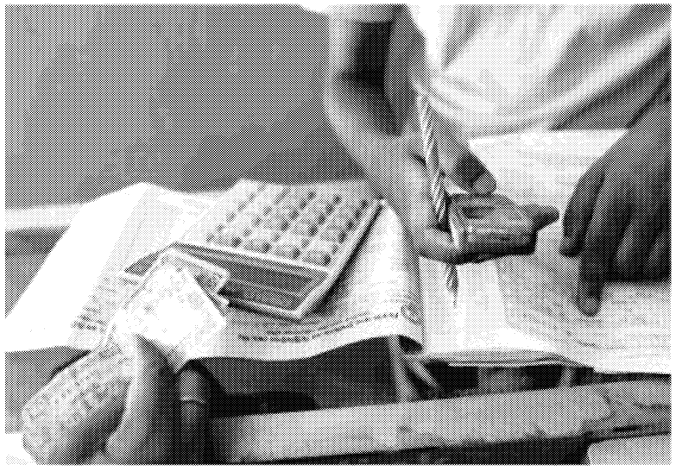
Adoption survey: participate in MMU annual adoption survey to get a personalized benchmarking report comparing your performance to other mobile money services regionally and globally, across a range of operational metrics

Be in touch in social media: join us on LinkedIn (add link to LinkedIn group), follow us on Twitter @gsmammu

Get involved on our blog: post comments directly on our blog and propose topics by writing to us at mmu@gsma.com

Visit us at www.gsma.com/mmu

Mobile Money for the Unbanked



Thank you!

Fionán McGrath