Mobile Money
for the Unbanked

Getting the Most Out of Your Data
Segmenting Your Mobile Money
Customer Base to Drive Usage

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Outline

- Introduction: The Opportunity
- Customer Segmentation Framework
- Case Study: xCash
  - Activating Dormant and Passive Users
  - Driving Activity Amongst Active Users
  - Encouraging Power Users
- Marketing Ideas for Operators
- Applying these Methods to Your Deployment

This presentation will provide new tools for operators to drive regular customer usage

- Increasing mobile money usage remains an important industry challenge; the global customer active rate as of June 2012 stood at 22%[1]

- MMU's 2012 publication, Driving Customer Usage, outlined marketing strategies to guide customers from awareness to registration to regular usage

- This publication will deepen strategies for driving activity of *registered customers* through customer segmentation and transactional data analysis

Who should read this?

✓ Mobile money managers

✓ Business intelligence teams

✓ Marketing teams

The customer journey in mobile money

Focus of this publication: *Deep dive on driving activity post-registration*

| Awareness | Understanding | Registration | Trial | Regular usage |

"Driving Customer Usage" – 2012 MMU publication

1. MMU 2012 Global Mobile Money Adoption Survey

The challenge: Operators need to refine their customer engagement approaches to grow activity rates

- Registration is only the beginning of a journey toward regular mobile money usage; customers will not become regular users until:
  - They have been **sufficiently educated** on the service and its use cases
  - **Trust has been built** with the service provider and its agents
  - They see the service as **applicable to their daily lives**

- Analyzing customer data can help operators understand where customers stand in this journey and where they have become stuck

- Armed with this knowledge, operators can target specific segments with **tailored interventions and promotions**

Thoughtful customer segmentation and a little **data analysis** can go a long way to increasing frequency of usage

The Power of Segmentation: Users have Differing Needs and Value Operators Can Address those Needs in a Targeted Way

I registered but forgot my PIN so I never used it

I use mobile money everyday to pay suppliers and staff

I receive money every month from my cousin and then withdraw it

"Registered non-user"
Needs: Info on PIN reset process

"Power user"
Needs: Loyalty rewards & recognition

"Passive recipient"
Needs: Education on use cases

Mobile money ARPU: $0.00

Mobile money ARPU: $7.00

Mobile money ARPU: $0.25

Simply dividing customers into 30-day active and inactive would not allow an operator to understand these customers' specific needs or values
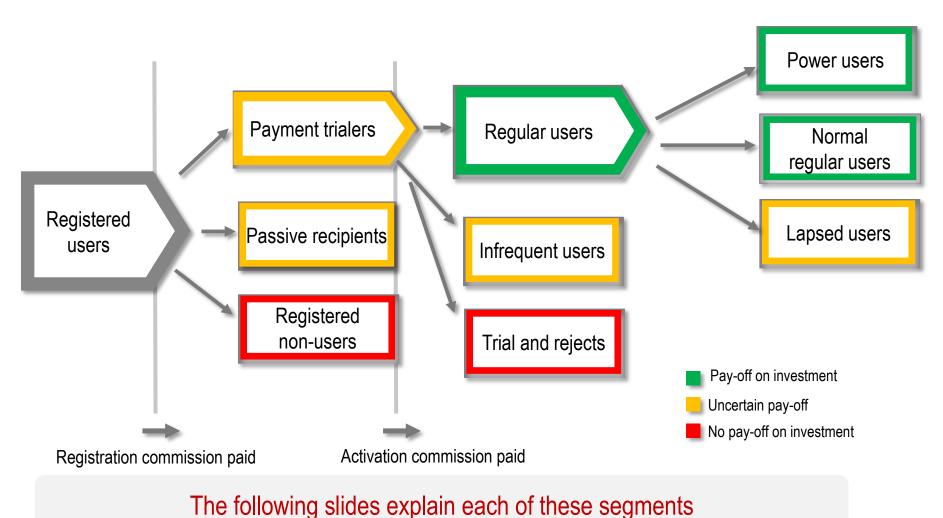
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- **Customer Segmentation Framework**
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MMU has developed a **customer segmentation framework** which allows operators to target specific segments in actionable ways
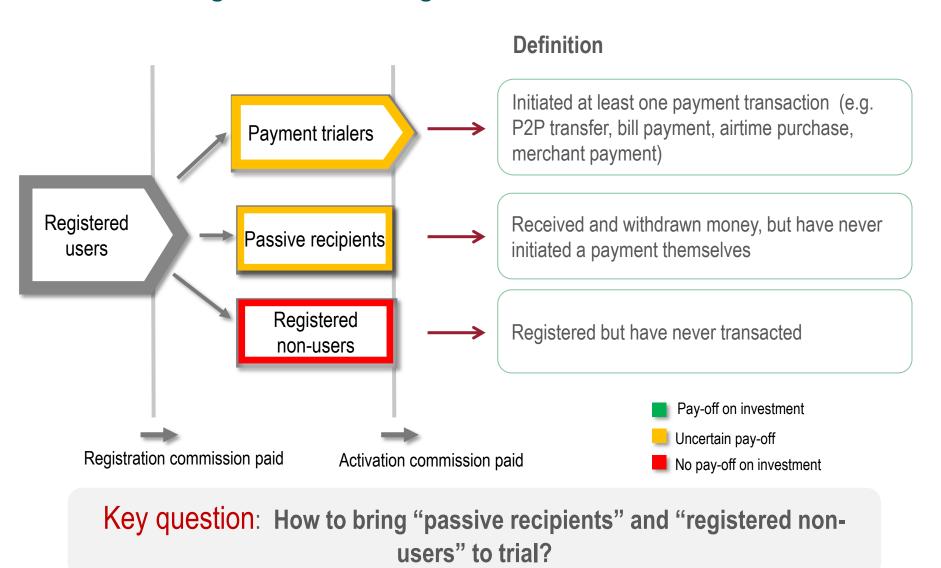
Registered users → Payment trialers → Regular users → Power users / Normal regular users / Lapsed users

Registered users → Passive recipients

Registered users → Registered non-users

Payment trialers → Infrequent users

Payment trialers → Trial and rejects

Registration commission paid

Activation commission paid

Legend:
- Pay-off on investment (green)
- Uncertain pay-off (yellow)
- No pay-off on investment (red)

The following slides explain each of these segments

Definition of segments: Post-Registration

Definition

Registered users	→	Payment trialers	→	Initiated at least one payment transaction (e.g. P2P transfer, bill payment, airtime purchase, merchant payment)
	→	Passive recipients	→	Received and withdrawn money, but have never initiated a payment themselves
	→	Registered non-users	→	Registered but have never transacted

Registration commission paid   Activation commission paid

- 🟩 Pay-off on investment
- 🟨 Uncertain pay-off
- 🟥 No pay-off on investment

Key question: **How to bring "passive recipients" and "registered non-users" to trial?**

Definition of segments: Post-Trial

Definition:

Registered users

→ Payment trialers → Regular users → Consistently make payments over an extended period of time (defined here as **1** payment / month over a minimum of **4** months)

→ Passive recipients

→ Registered non-users

Infrequent users → Sporadically make payments with possible long lapses in between usage (**<1** payment / month)

Trial and rejects → Trialled the service **once or twice** and never returned

Registration commission paid   Activation commission paid

Key question: **How to upgrade "infrequent users" and "trial and rejects" to regular usage?**

Note: The distinction between a "regular user" and "infrequent user" is somewhat arbitrary and your definition can differ.
We chose "minimum of 4 months" to make sure there was consistent usage over a period of time

Definition of segments: A more detailed breakdown of regular users

Definition:

Power users → Perform transactions often with multiple counterparties and use cases - defined here as **5+** payments per month and at least **5** sending or receiving counterparties

Regular users

Normal regular users → Perform transactions regularly but not in large volume – defined here as **1 – 5** payments per month and at least **2** counterparties

Lapsed users → Were regular users in the past, but have suddenly stopped using the service for at least three months and never returned

Key questions: 1) How can "power users" be cultivated and encouraged and 2) how can "lapsed users" be reengaged ?

Note: The distinction between a "power user" and "normal regular user" is somewhat arbitrary and your definition can differ.
We required a minimum number of counterparties to ensure power users were stimulating usage in others. This is discussed further on slide 31
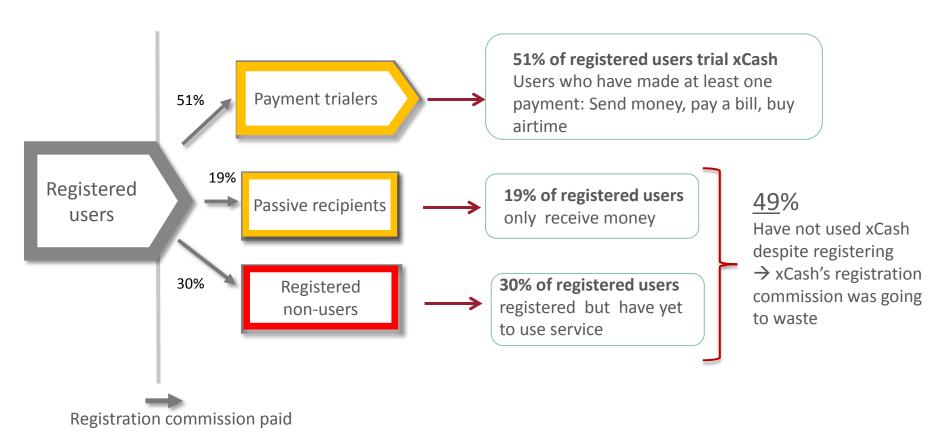
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Introducing "xCash": A case study in using customer segmentation to drive usage

xCash!

- The section will illustrate these concepts through a segmentation done on a mobile money service over 2+ years of usage.

- The pseudonym "xCash" will be used to protect the operator's identity and data.

About xCash

- Live telco-led mobile money deployment in an emerging market
- Product offering: P2P transfer, airtime top-up, bill payment and others
- Message focus: "Sending and receiving money"

What follows is Real User Data from a Live telco-led mobile money service

CGAP undertook a similar analysis across three anonymous operators, which can be found here:
http://www.slideshare.net/CGAP/the-challenge-of-inactive-customers

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For xCash, registration was only the first step
Almost half of registered users still had not made a payment

Registered users

51% — Payment trialers

51% of registered users trial xCash
Users who have made at least one payment: Send money, pay a bill, buy airtime

19% — Passive recipients

19% of registered users only receive money

30% — Registered non-users

30% of registered users registered but have yet to use service

49%
Have not used xCash despite registering
→ xCash's registration commission was going to waste

Registration commission paid

Key question: How can xCash get the "passive recipients" and "registered non-users" to trial?

Questions operators might ask to deepen their understanding on these segments

Question	Implications
Q1. What products do customers tend to trial with? What is the "gateway product" to mobile money usage?	• Some use cases will appeal to first-time users more than others • Operators will want to market those use cases more prominently to non-users
Q2. How long after registration do customers trial?	• A long gap between registration and trial might indicate that operators need to be patient and continually engage dormant users to encourage activation • If only a small percentage of users transact on the day of registration, it might mean that stronger activation incentives are required for agents and foot soldiers

Q1. What products do customers tend to trial with?
A. Sending money is the dominant use case for first-time xCash users

Operators can look at a typical *first transaction* to understand what attracts users to the service

First transaction: 83% P2P Transfer, 14% Airtime top-up, 4% Bill pay

Later transactions: 22% P2P Transfer, 67% Airtime top-up, 10% Bill pay

- Bill pay
- Airtime top-up
- P2P Transfer

First transaction   Later transactions

Possible xCash Action → Market sending money to non-users; market other use cases to current users

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Q2. How long after registration do customers trial?
A. Few trial on the day of registration; the median user trials 76 days later

22% of customers first transact more than 6 months after registration — 22%

30% of customers register and never transact — 30%

48%

34%

17%

Registration

Same day | **Within 2 months** | **Within 6 months**

Figure: When do users first trial post-registration?

Possible xCash Action → 1) Bolser agent incentive for activating customers, not just registering 2) Continue to market to dormant users in the first 6 months after registration

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Activation does not always lead to regular usage
Segmentation of xCash's post-trial user base

18%

Payment trialers

51%

Registered users

19%

Passive recipients

30%

Registered non-users

Regular users

22%

Infrequent users

11%

Trial and rejects

These are xCash's regular, committed users.
18% of registered users

These customers use the service, but very infrequently
22% of registered users

Trial and rejects try the service once or twice and never again. Something made them unhappy about it.
11% of registered users

Registration commission paid

Activation commission paid

Questions operators might ask to deepen their understanding on these segments

Question	Implications
Q1. How long does it take users to build trust in the service?	• Simply making a first transaction does not guarantee a customer fully trusts and understands the service • If customer activity is intermittent at the beginning, customer education and trust-building activities will continue to be important
Q2. What is causing the "trial and rejects" users to reject the service?	• A high number of trial and rejects could reveal weaknesses in initial customer experience, such as agent training or customer care
Q3. What are the ARPU implications of these segments?	• Calculating the ARPU of different segments can help marketing teams rationalize acquisition costs and spend • ARPUs can size the value of moving customers from one segment to another
Q4. Is every segment using the full range of use cases?	• Awareness of certain use cases might be lacking in certain segments. For example, do infrequent users understand the full functionality of the service?

Q1. How long do users take to build trust in xCash?
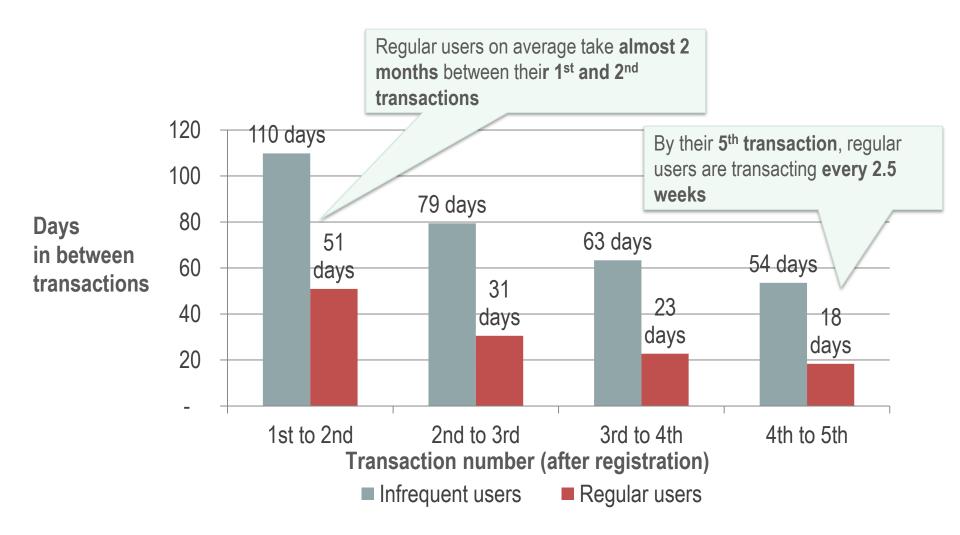## A. Regular usage requires substantial time and education to build trust

**Days
in between
transactions**

86 days

56 days

41 days

33 days

27 days

100
90
80
70
60
50
40
30
20
10
-

1st to 2nd   2nd to 3rd   3rd to 4th   4th to 5th   5th to 6th

Transaction number (after registration)

The average xCash customer takes **almost 3 months** between their **1st** and **2nd** transactions

More frequent (monthly) usage comes by the **5th transaction** when customers get comfortable with the service

Possible xCash Action → Continually market to newly registered users to instill trust and confidence, even 3-6 months after their first activity

Even "regular users" require multiple transactions before they are truly comfortable with the service

Regular users on average take **almost 2 months** between thei**r 1st and 2nd transactions**

By their **5th transaction**, regular users are transacting **every 2.5 weeks**

Days in between transactions

- 1st to 2nd: Infrequent users 110 days, Regular users 51 days
- 2nd to 3rd: Infrequent users 79 days, Regular users 31 days
- 3rd to 4th: Infrequent users 63 days, Regular users 23 days
- 4th to 5th: Infrequent users 54 days, Regular users 18 days

Transaction number (after registration)

■ Infrequent users ■ Regular users

Q2. What is causing "trial and reject" users to reject the service?
A. Focus groups revealed that forgotten PINs and poor experience at the agent point were the prime culprits

Sample reactions from focus groups with "trial and reject" users

"I lost my PIN and do not know how to get it back"

"I tried to withdraw money and the agent did not have enough"

"The agent did not train me enough"

Possible xCash Action → 1) Review PIN reset process 2) outbound call or SMS information on PIN resents to dormant customers 3)improve agent training

Q3. What are the ARPU implications of these segments
A. Regular users display significant and growing mobile money ARPU

Monthly average mobile money revenue per user (mobile money ARPU)

Regular users monthly ARPU grows 56% in first two years

- Regular Users
- Infrequent Users
- Trial and Reject

Infrequent user monthly ARPU is largely flat over time

Months after first mobile money use

Regular users become more regular, and increase in value, over time
Infrequent user value is relatively small and flat over time

Q4. Is every segment utilizing the full set of products offered?
A. For regular users, largely yes. For infrequent users, no.

- Most infrequent users had sent and received money but, unlike regular users, relatively few had purchased airtime or paid bills using xCash

- Marketing these other use cases could help make infrequent users more active

% of users who have tried different use cases

Pushing **airtime purchase** and **bill payment** might increase activity with infrequent users

Chart values:
- Send Money: Regular Users 92%, Infrequent Users 88%
- Receive Money: Regular Users 86%, Infrequent Users 74%
- Purchase Airtime: Regular Users 91%, Infrequent Users 42%
- Pay Bills: Regular Users 47%, Infrequent Users 10%

Legend: Regular Users, Infrequent Users

Possible xCash Action → SMS Campaign to infrequent users promoting purchase airtime and pay bills use cases

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Not all regular users are the same
Some blossom into power users, while others fall off and lapse

How can power users be cultivated and lapsed users be brought back onto the service?

Different regular users produce vastly different revenue streams over time

Investment in getting regular customers pays off, their ARPU increases rapidly
Lapsed users start as significant ARPU contributors but fall off quickly as they lapse

Questions operators might ask to deepen their understanding on these segments

Question	Implications
1. How important are power users to the business?	• If a relatively small portion of customers are driving the business, retention of these customers should be a high priority
2. How influential are power users in convincing others to use the service?	• A strong "network effect" with power users would imply that they are even more valuable than simply their direct revenue • Power users may have the opportunity to be evangelists for the service
2. Why are lapsed users lapsing?	• Every service will have a natural rate of lapse as customer needs and circumstances change • However monitoring lapse rates can tell operators whether the offering is disappointing formerly loyal users or if competition is poaching the best customers

Q1. How important are power users to the business?
A. Power users drive a large portion of xCash revenue

Size of segment vs. revenue contribution

*Total revenue over 3 months
for different segments*

	4%	
	14%	43%
	82%	32%
		25%

Power users contribute
43% of revenue but are only
4% of registered users

■ Power users

■ Other regular users

■ All other users

	% of registered users	Revenue contribution
■ Power users	4%	43%
■ Other regular users	14%	32%
■ All other users	82%	25%

Possible xCash Action → Build a specific marketing strategy in order to retain high-value power users

The profile of a power user: Frequent and broad usage

They interact with multiple counterparties
They have sent and received money with 21 registered counterparties on average (sent to 14, received from 8)

They use the service frequently
They do on average 13 transactions per month (2 send money, 1.5 bill pay, 9 airtime top-up, 1 receive money)

They use multiple products
99.6% do airtime top-up, 98% receive money, 68% pay bills over xCash

Bridging the banked and the unbanked segment
Powers users interviewed often had bank accounts but use xCash to interact with those who don't.

- Paul is 40 years old and works at a transportation company
- Paul uses mobile money for both business and social purposes: He pays his drivers weekly and sends money to his children and brothers
- Paul see no alternative for xCash for transactions under $100, despite having a bank account because it saves him time and costs

How can Paul (and other power users) be retained and encouraged?

Q2. How influential are power users in convincing others to xCash?
A. Quite influential. We estimate the average power user convinced 3.5 other users to register.

- Power users convince others to join xCash in order to transact with them

- By convincing others to join the service, power users can have a multiplicative impact on revenue and transaction volumes

- We estimate that the top 0.4% of power users, and the users they convinced to join xCash, accounted for 16% of xCash total revenue

"I advised my friends and colleagues to join xCash because I saw it as a means that will help me execute my business. "
- Power User

Power user and power influencer:
Michael convinced 60 other individuals to register

- Michael is 55 years old, has a grocery store and wholesales certain items to other stores
- Michael uses P2P for both business and social purposes and pays bills and airtime
- Michael uses mobile money to receive payment for goods from suppliers and then distributes that money in his personal life

How do we determine which user convince another one to join?
The Technical Notes (see final slide) explains in detail, but essentially we look at the <u>first</u> counterparty with which a new user transacts

Q3. What is causing lapsed users to lapse?
A. Users lapsed off xCash for a variety of reasons, some related to the service and others related to changing life circumstances

*"**MoneyFast** [a competitor to xCash] has more agents than xCash whereby they find the clients at home"*
-Lapsed User 1

"I am now working in the capital. At first when I was working from the rural areas, I had to send money to my mother.. My mother stays in the capital now"
-Lapsed User 2

"Sometimes you find you don't have money to make those transactions"
-Lapsed User 3

	Reason for lapsing	Actionable strategies
Lapsed user 1	Went to competition	Promote strengths in own deployment, improve on weaknesses
Lapsed user 2	Primary counterparty no longer needed to receive	Promote other use cases for xCash and new products
Lapsed user 3	Changing life circumstances and shortage of money	Demand issue, no clear solution

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Marketing to "passive recipients": Ideas for consideration

Idea 1: Timing is key

Passive recipients may be more likely to trial when they already have funds in their wallet – directly after they receive money.

→ Consider SMS blasts or promotions timed at the point of receipt (e.g. "congrats on receiving money. Do you know you can buy airtime with xCash?")

Idea 2: The agent is your best salesperson

A trusted agent can promote new uses cases at the time of withdrawal, but only with proper training and incentives.

→ Train agents to promote service to withdrawers. Consider rewarding agents for conversions.

Idea 3: Focus on frequent receivers

In xCash, frequent receivers were the ones most likely to convert to active use.

→ Specifically target customers who frequently receive, possibly with tailored promotions

Registered users → Passive recipients

Marketing to "registered non-users": Ideas for consideration

Idea 1: Try to convert users at the point of registration

Give users an opportunity to trial mobile money at the point of registration. Customers who wait to transact are more likely to forget their PIN or need to be reminded on how to use the service.

→ Incentives and hands-on demonstrations during registration drives can help make stickier users

Idea 2: Make a plan for PIN resets

Customers who have never used their mobile money PIN for a transaction are likely to have forgotten it and may not know the reset procedure.

→ Consider pre-emptive informal SMS, outbound calls or outbound IVR to registered non-users on PIN reset instructions, so the user will have already reset their PIN by the time they need to transact

Registered users → Registered non-users

""I registered during a promotion with friends. It was mainly for fun".
Quote from actual registered non-user

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Marketing to "trial and rejects": Ideas for consideration

Idea 1: Trial and rejection is likely about experience at the agent transaction point	Idea 2: Trial and rejects might need an extra push to use the service again
Trial and rejects are a good chance to learn about customer experience in trialing the service. They will reveal where the registration and transaction process is creating frustrations. →Improving experience a the point of registration and transaction (customer service, agent training, agent liquidity) will reduce the number of trial and rejects	Trial and rejects came away with a negative view of the service. They may require a special push to use the service again. → Targeted promotions, including GSM or mobile money incentives

Payment trialers → Trial and rejects

A few other targetable segments outside of the presented framework may also be of interest to operators

High ARPU GSM users (not registered for mobile money)
- A few operators have found that high ARPU GSM users are more likely to adopt mobile money
- Non-registered GSM users may be a good segment to target with high returns on investment
- **See next slide** for some data to support this claim

Social networks of mobile money users
- Mobile money may be more easily adopted within social networks where it is used by others
- A study by Real Impact showed that individuals with five mobile money connections are over 3.5 times more likely to adopt mobile money than individuals with only one connection

Users with dormant balances
- These users may have forgotten about existing balances or not understand how to retrieve the funds
- Helping with PIN reset information or nearby agent locations could unlock these segments

Users from high-activity regions
- One operator suggested focusing on specific regions with high demonstrated propensity to use mobile money as an efficient way to target marketing spend
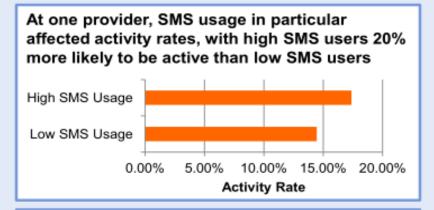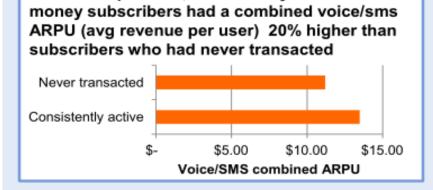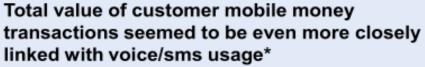
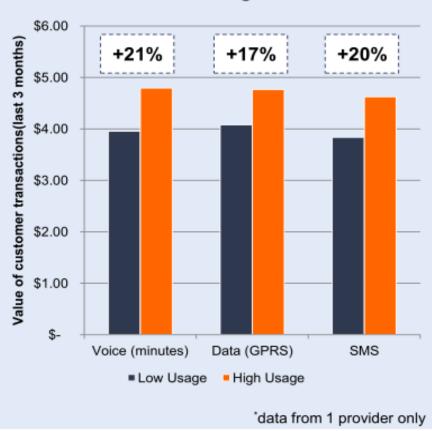A 2012 CGAP study found that heavy GSM users were more likely to be active mobile money users

http://www.slideshare.net/CGAP/the-challenge-of-inactive-customers

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How can these customer segmentation methods be applied to your mobile money operation?

- <u>All mobile money deployments are different</u>: The specific findings from xCash will likely **not** apply to your operation

  - To benefit from customer segmentation insights, you need to replicate this type of analysis on your data and customers

- What is required?

  - An analyst versed in database analysis (e.g. SQL, SAS)

  - Raw transaction records from the mobile money platform

- What is not required?

  - Purchasing data servers (the xCash analysis was done on a laptop computer)

  - Expensive change requests to your tech vendor. The required data already exists in mobile money transaction logs.

- When is a good time to introduce segmentation in your deployment?

  - Operators with **at least 1 year of data history** and an active user base will benefit most from user segmentation

- Operators will need to consider any relevant **data protection** and **privacy laws** when undertaking customer analysis; shielding of customer identities may be required

The **accompanying Technical Notes** provide analysts and BI teams methodologies to replicate this in their own deployment

Technical Notes: Mobile Money Customer Segmentation

Available by contacting mmu@gsma.com

- Technical Notes include full methodology for the analyses conducted:
  – Table structures for analysis
  – Defining and assigning customer segments
  – Picking the right set of customers for analysis

- Discussion around challenges in mobile money analytics
  – Methods for assigning mobile money revenues to individuals
  – Correcting for direct deposits
  – What constitutes a "transaction" for purposes of analysis

Please contact MMU at mmu@gsma.com if you wish to discuss customer business intelligence or be sent the Technical Notes. We'd be happy to engage on this topic.

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