



Using your data to drive growth in mobile money services

The mobile money
customer journey
with a gender lens

December 2016





The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences.

For more information, please visit the GSMA corporate website at www.gsma.com. Follow the GSMA on Twitter: [@GSMA](https://twitter.com/GSMA).



GSMA Connected Women works with mobile network operators and their partners to reduce the gender gap in connectivity and improve access to mobile money services by overcoming barriers to women's ownership and use of mobile phones. Progress in this area will deliver substantial socio-economic benefits for women, business and the wider economy.

For more information, please visit the GSMA Connected Women website: www.gsma.com/connectedwomen.

Follow GSMA Connected Women on Twitter: [@GSMAM4d](https://twitter.com/GSMAM4d) [#ConnectedWomen](https://twitter.com/ConnectedWomen).



This project has been supported by the Bill and Melinda Gates Foundation.



This document is an output from a project co-funded by UK aid from the UK Government.

These views do not necessarily reflect the views of the UK Government nor its official policies.

Authors

Georgia Barrie
Elisa Minischetti
Oliver Rowntree

Acknowledgements

GSMA Mobile Money
Claire Sibthorpe



CONTENTS

1

INTRODUCTION

2

Customer segmentation

3

Analysing the customer journey with a gender lens

4

Deep dive on specific segments

5

Recommended further reading

Mobile money is widely cited as a game changer for financial inclusion and one of the drivers of growth for the mobile industry.

However, studies have shown that women are consistently less likely than men to use mobile financial services. This is a loss to women, many of whom have yet to reap the benefits of mobile money, and a loss to mobile money providers who have yet to capture these women as subscribers.

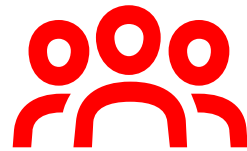
If analysed, customer data is a valuable resource for providers to better understand their customers. Looking at it with a gender lens will help providers understand where they are losing potential female subscribers and develop actionable strategies for realizing this opportunity.

This document sets out an approach to analysing customer data with a gender lens which can help mobile financial service providers better target women.



THE OPPORTUNITY

WHY THIS MATTERS?



From a social standpoint

- Women are often the household's active financial managers.
- As such, they need financial tools that are secure, reliable, private and convenient.*
- Informal financial services don't always meet these needs, but mobile financial services could have a strong appeal for women.
- Women reinvest up to 90% of their income into their families, compared to just 30-40% by men.**
- Women play important roles in generating supplementary household income, personally receiving remittances/government-to-person (G2P) payments.***



From a commercial standpoint

- Women represent approximately 50% of every country's addressable market.
- Ignoring this segment would mean missing out on an important market opportunity.
- There is a gender gap in mobile money services which highlights that women represent an underserved customer segment where there is significant growth potential.
- If providers want to continue to grow adoption and usage of their service, they need to start focussing their attention on untapped segments of the market, such as women.

* For more on this, please see ["Unlocking the potential – women and mobile financial services in emerging markets"](#) ** [World Development Report 2013](#)

*** According to a [GSMA study](#), remittances are especially critical for 31% of women interviewed, who reported receiving remittances from siblings, parents, children, and spouses, in contrast to 26% of men

OBJECTIVES OF THE ANALYSIS

By analysing customer data with a gender lens, providers can:

1

SIZE THE GENDER GAP
in their customer base and the commercial benefit of closing it.

2

IDENTIFY PRIORITY CUSTOMER SEGMENTS
where there are key opportunities for reducing the gender gap/growing the subscriber base.

3

Understand **AT WHAT STAGE OF THE MOBILE MONEY CUSTOMER JOURNEY THEY LOSE POTENTIAL FEMALE CUSTOMERS** (e.g. registration, trial, regular use).

4

Develop hypotheses on how to grow their customer base in order to develop **STRATEGIES and ACTIONABLE RECOMMENDATIONS FOR HOW TO BETTER TARGET WOMEN.**

[% MEN registered
or using the service]

-

[% WOMEN registered
or using the service]

=

[% MEN registered
or using the service]

Mobile money
Gender gap

THERE ARE 3 PHASES TO THE ANALYSIS

1

Customer segmentation

Categorising and understanding male and female subscribers by usage patterns and demographic profile.

This will help understand priority under-penetrated segments as well as generate a target and baseline for reducing gender gap.

2

Mapping the segmented data along the mobile money customer journey

Identify stages at which women tend to drop off more often than men.

This will help pinpoint where to focus efforts to help reduce the gender gap.

3

Deep dive on specific segments

Understand the profile of best and poorest performing segments.

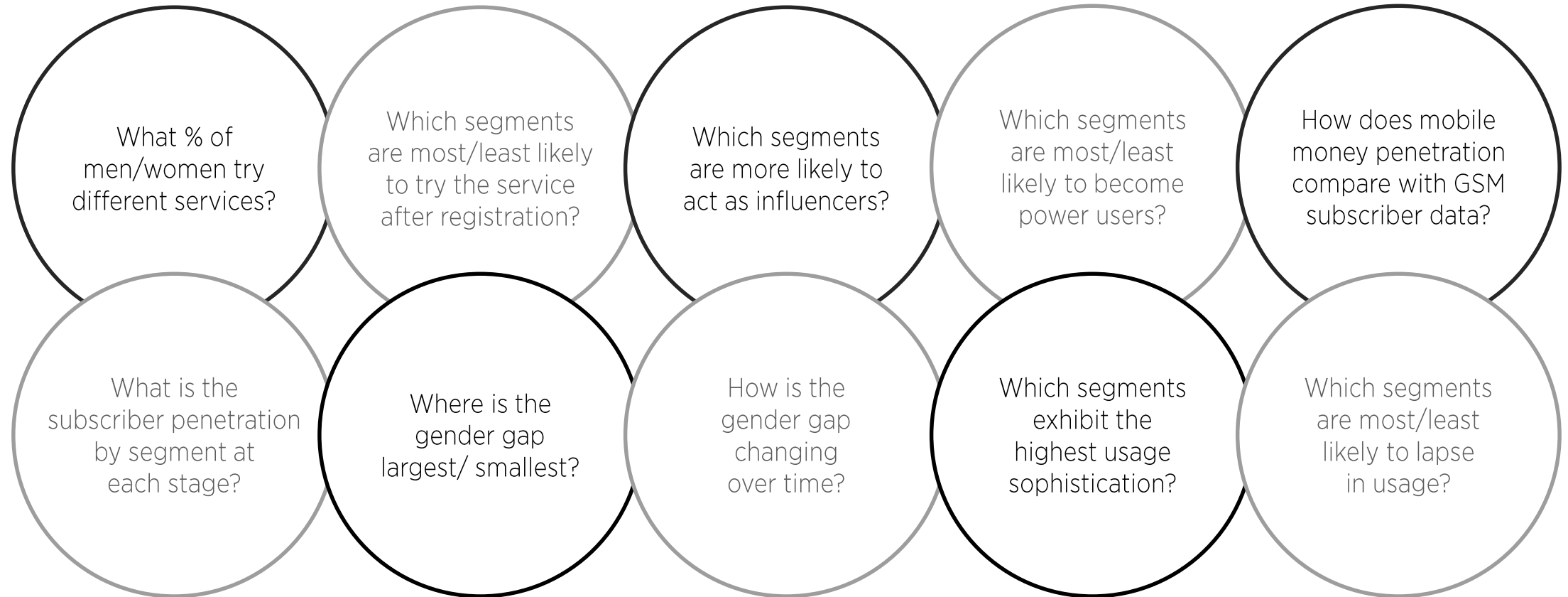
This is the most in-depth part of the analysis, and aims to answer specific questions about your user base.

The analysis we are presenting will help you understand WHAT is happening with your customers and WHERE female customers drop off compared to their male counterparts, but not WHY this happens.

To unveil the reasons behind the gender gap in your customer base, we recommend carrying out qualitative research, which will also help you to test the hypotheses developed during the data analysis.



POTENTIAL QUESTIONS TO ANSWER DURING THE ANALYSIS



DATASETS REQUIRED TO CONDUCT THE ANALYSIS



Transactional data

Each row represents a mobile money transaction between sender and a receiver.

Data should include:

- Sender/ receiver account number
- Amount sent and transaction fee
- Type of transaction
- Timestamp

-
- Transactional data is typically accurate as it is generated by the platform.
 - It is recommended that this analysis be conducted on at least six months of transactional data in order to understand which customers become lapsed users.



Subscriber data

Each row represents an individual subscriber, agent or merchant.

Data should include:

- Account number
- Account type [subscriber, agent, merchant]
- Demographic information: age, gender
- Date of registration

-
- Data often has errors as it is generated manually as part of the KYC process.
 - Gender accuracy can be verified through a phone survey of randomly selected customers.

OTHER DATA SETS THAT ARE “NICE-TO-HAVE”



Call Detail Records (CDR)



Agent Data



Location Data



National Demographic Data

DATASET

- Data on subscribers from their mobile phone calls.
- Often stored in a separate database to mobile money transactional data.

- Data on agent location, demographics and transactions.
- May be included with subscriber data, or a separate data set.

- Information on the locations of subscribers and transactions.
- This data can be included in multiple data sets, including CDR.

- Including age categories, urban and rural definitions.
- Sources include UN, World Bank, national statistics offices.

WHY IT IS HELPFUL

- Where available it can help in giving more detailed information on subscribers.
- Particularly helpful for accurate information on subscriber locations when using the service.

- Important for understanding how female and male subscribers interact with agents and the performance of agents [e.g. if some are more effective and driving uptake/use by women].

- This is necessary for urban/rural segmentation in particular.

- Important for understanding the penetration of the service among population segments, and to understand what proportion of a country’s population is using mobile money.

RELIABLE GENDER DATA IS IMPORTANT FOR THE ANALYSIS

Gender data is often available, but:

- May be **difficult to access**, as often times is:
 - Recorded on paper forms that are not digitised.
 - Recorded on databases that do not sync.
- May not be always **reliable**:
 - Studies reveal that in certain contexts men register on behalf of women, which makes the KYC information less reliable
 - There can be human error when recording the data.
- May not always be consistently **collected** for all subscribers (e.g. by agents)

Due to these issues only 39.2% of respondents to GSMA's [SOTIR 2015](#) survey reported the gender composition of their customer base.

Although higher than previous years, it still indicates that the majority of respondents are not tracking gender data.

Operators should aim to capture gender of their customers at point of registration. If the gender wasn't collected at the point of registration, or if operators wish to verify the accuracy of their gender data, some of the possible options include:

1. Running gender checks by calling a sample of subscribers that is representative of their total base. This can be done through their own call centre, or by a research agency.
2. Checking the names of subscribers whose gender is unknown against a database of common first names. These could be taken from the GSM base if available, or from other sources such as data scraped from Facebook.

In order to validate gender data, operators can also use their agent network, which could collect or update this information during customer interactions.



CONTENTS

1

Introduction

2

CUSTOMER SEGMENTATION

3

Analysing the customer journey with a gender lens

4

Deep dive on specific segments

5

Recommended further reading

DEFINING SUBSCRIBER CATEGORIES BASED ON USAGE PATTERNS AND DEMOGRAPHICS



Usage type

Grouping similar usage behaviours

- Subscribers should be segmented based on their usage at least over the last 3 months, or more depending on the service maturity.
- Drawing customer segmentation conclusions using less than 3 consecutive months of data does not lead to solid analysis.
- The right segmentation will often depend on the maturity of the mobile money deployment.

Examples of usage behaviours include type of transaction, average number of monthly transactions conducted, volume and value of transactions, number of parties that users interact with.



Demographic

Grouping similar demographic profiles

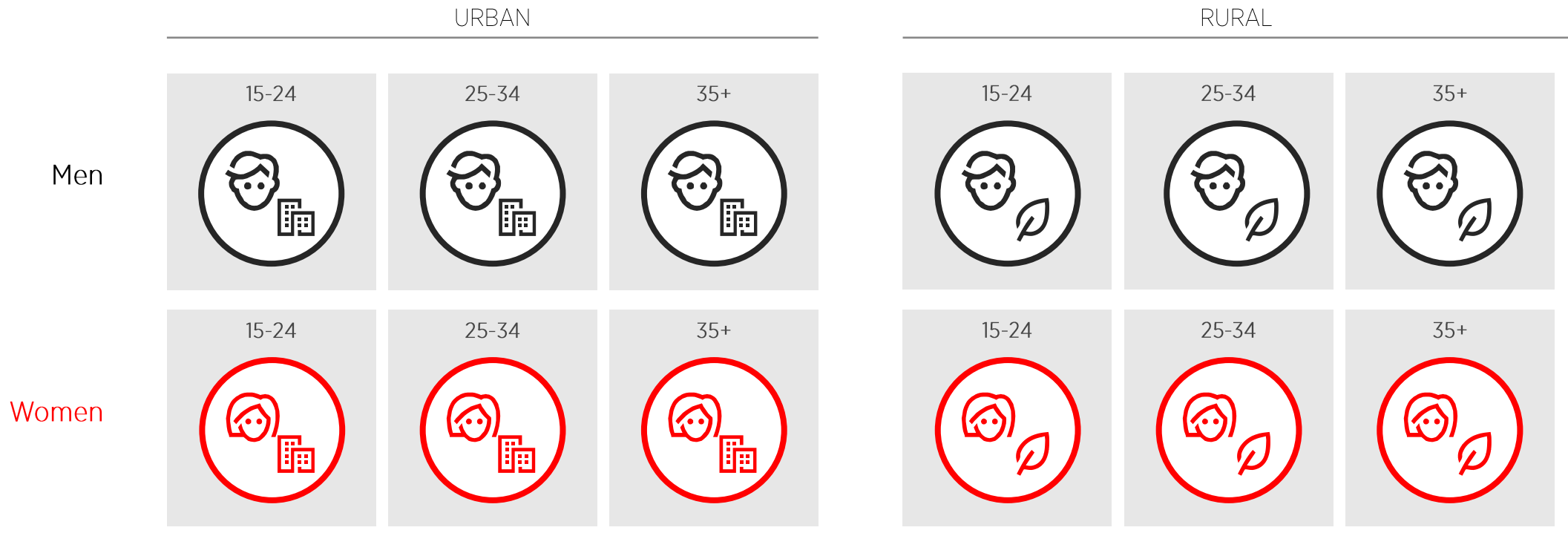
- The level to which subscribers can be segmented by demographic is dependent on the detail and accuracy of the subscriber data.
- Even with gender-focused analysis it is important to segment by other usage categories, as young urban women may behave differently from older rural women.

Most common demographic segmentations are male/female, urban/rural and by age bracket, as it allows to calculate the gender gap and to compare for location and age.

SEGMENTING BY URBAN/RURAL AND GENDER TO REVEAL DIFFERENCES IN USAGE PATTERNS

Tip: try to keep the number of segments to 12 for simplicity

ILLUSTRATIVE EXAMPLE



Urban/rural region split is unique and needs to be defined for each market. The categorisation of urban/rural of the National Statistics Institute for the country where the analysis is conducted is usually accurate.

Age brackets can be defined based on where usage behaviours most closely align. Alternatively, age brackets can be matched to other external data sources for comparison (e.g. UN/ census data).

UNDERSTANDING WHERE WOMEN ARE UNDER-REPRESENTED AND IDENTIFYING OPPORTUNITIES

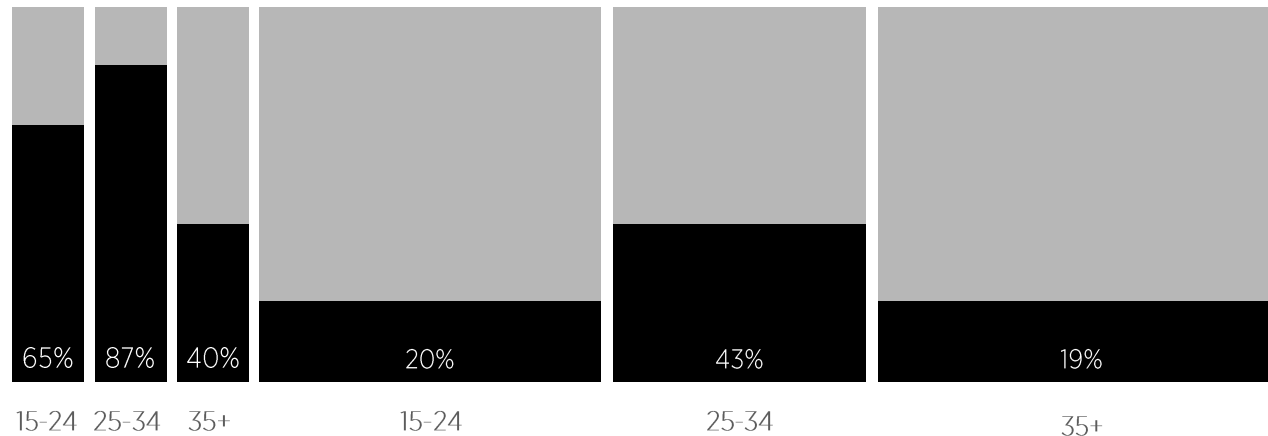
Dummy data for illustration only

URBAN RURAL

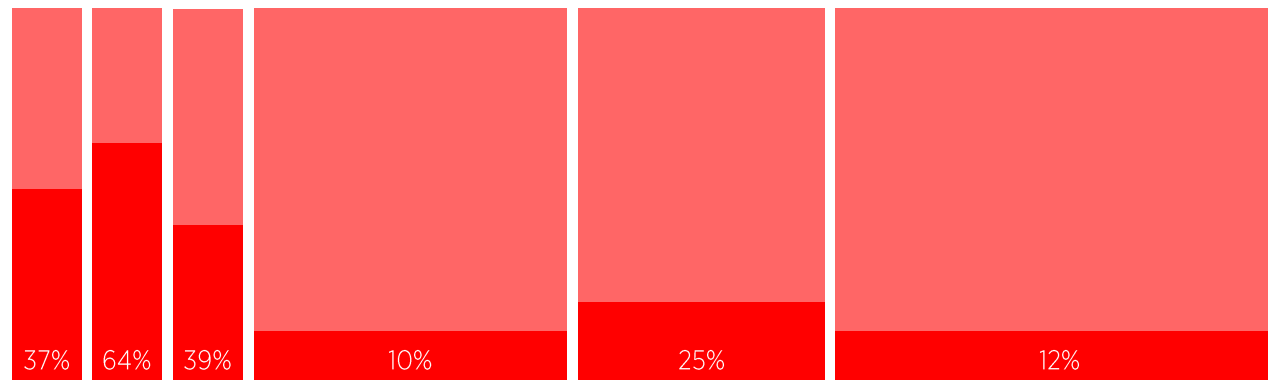
ILLUSTRATIVE EXAMPLE



BY AGE GROUP



- Examining penetration by region and gender shows which are least saturated segments.
- Identifying the most and least saturated segments is important as it helps create a more targeted intervention.
- The width of the bar represents the amount of people in each segment.



Size represents number of people in the segment yet to register

Size represents proportion of segment who registered



CONTENTS

1

Introduction

2

Customer segmentation

3

**ANALYSING THE CUSTOMER
JOURNEY WITH A GENDER LENS**

4

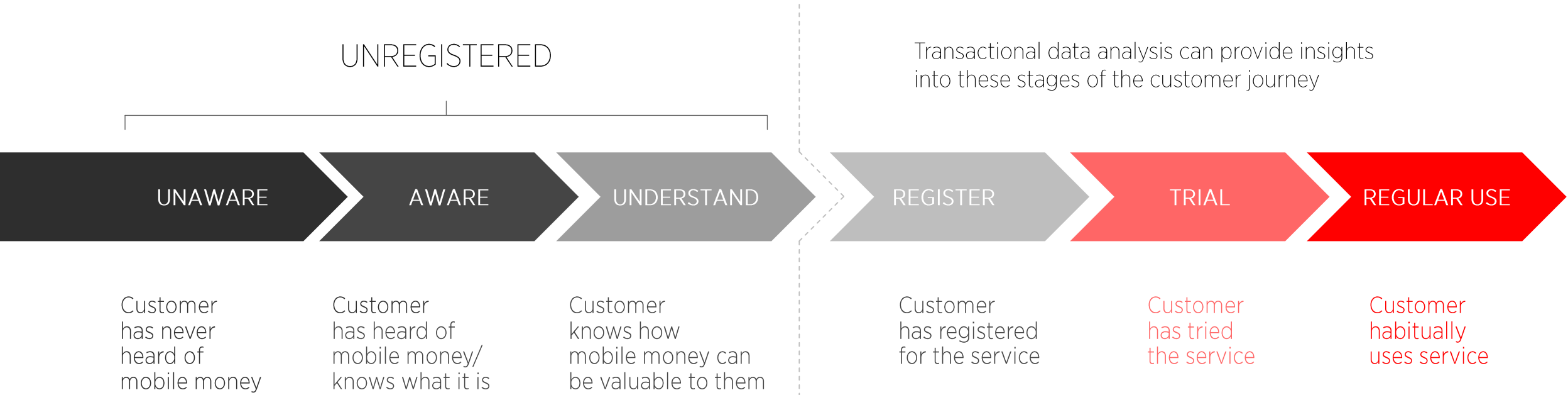
Deep dive on specific segments

5

Recommended further reading

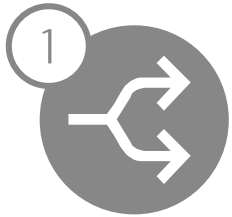
THE CLASSIC MOBILE MONEY CUSTOMER JOURNEY FRAMEWORK

- The mobile money customer journey is the journey that existing and prospective customers go through from first owning a SIM card through to becoming a heavy user of mobile money services.
- Analysing your subscriber base in this way allows for meaningful categories to be created, and to understand how many users traverse each stage of the customer the journey.



For a complete understanding of the mobile money customer journey, please see [“Driving customer usage of Mobile Money for the Unbanked”](#) and [“Getting the most out of your data”](#)

THE TWO STAGES TO CONSTRUCTING A GENDERED MOBILE MONEY CUSTOMER JOURNEY



Define the stages of the customer journey

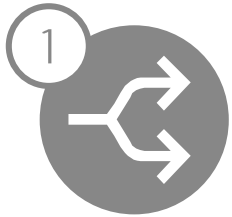
- Define a customer journey relevant to your data [e.g. it can include a further segmentation of usage types if you have more than 3 months of data. See slide 28]. The customer journey should be based on a hierarchy of user categories, going from service registration to greater usage.
- Measure the percentage of people who 'progress' to each stage of the journey.



Split the customer journey by gender

- Percentage of people who make it past each stage of the customer journey can be calculated for both men and women.
- Figures can be compared to identify gender gaps in the customer journey.

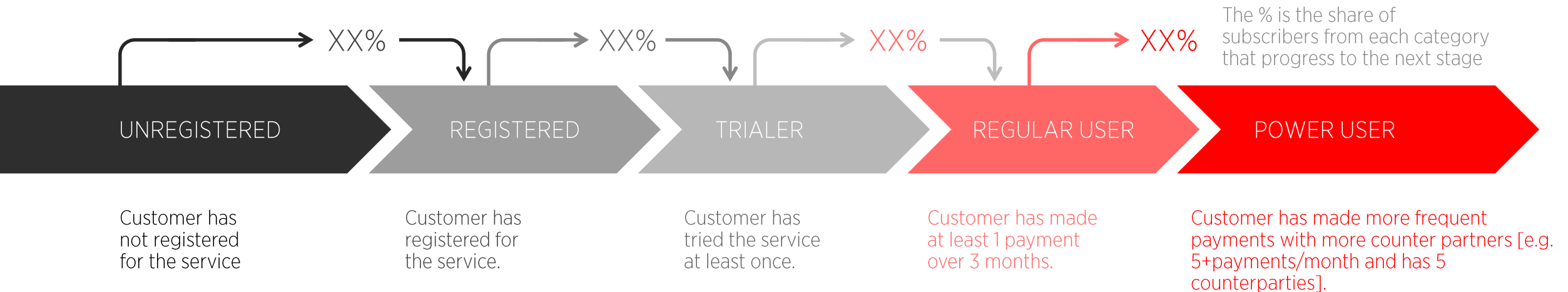
DEFINING THE STAGES OF THE MOBILE MONEY CUSTOMER JOURNEY



Define the stages of the customer journey



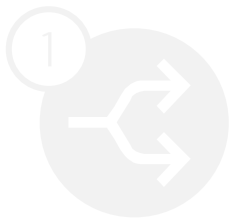
Split the customer journey by gender



- These categories are not fixed, and should be customised according to maturity of service.
- If different categories are used, there needs to be some hierarchical progression from one to the next.
- The thresholds should be defined so each category includes a significant portion of the base.

SPLITTING THE CUSTOMER JOURNEY BY GENDER TO IDENTIFY THE GENDER GAPS

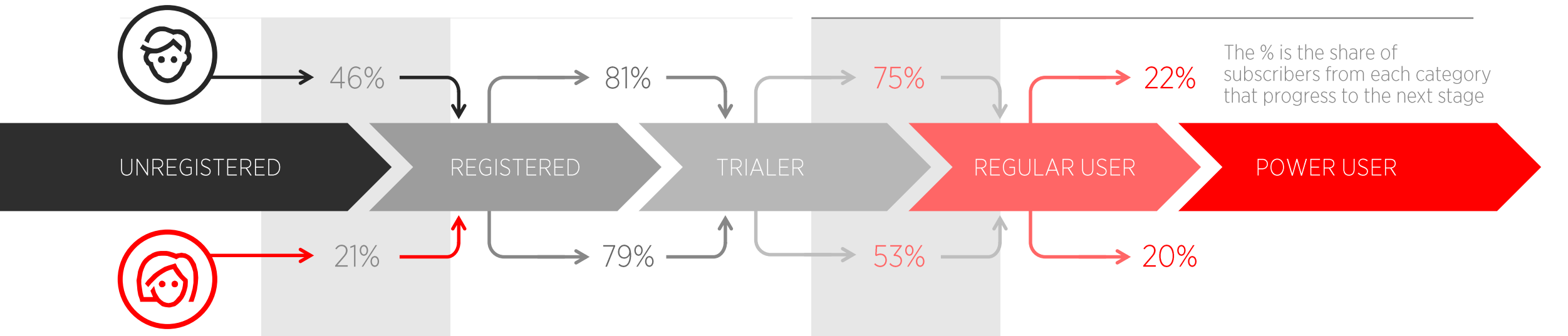
Dummy data for illustration only



Define the stages of the customer journey



Split the customer journey by gender



Splitting the customer journey by gender allows us to assess at which stage women are more likely to drop off compared to men. Light grey boxes highlight where in the journey the gender gap is highest in this example. Creating hypotheses about why the gender gap occurs at each stage can help to develop targeted strategies on how to address it.



CONTENTS

1

Introduction

2

Customer segmentation

3

Analysing the customer journey with a gender lens

4

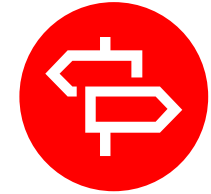
DEEP DIVE ON SPECIFIC SEGMENTS

5

Recommended further reading

WHY DEEP DIVE ON SPECIFIC SEGMENTS?

Deep diving on specific segment facilitates further exploration of the questions raised during the customer journey segmentation.



Potential approaches to deeper analysis could include:

- Demographic splits on more specific cuts of subscriber data and types of usage.
- Gender-disaggregated analysis of time series data to understand changes in behaviour and engagement.
- Focusing on specific stages in the customer journey to better understand what is happening at that stage and where there is potential for growing the customer base and reducing the gender gap.
- Geographic behaviour of penetration and usage by region.
- Analysis of networking effects: how interactions between subscribers drives uptake and engagement.

This process can be used to identify priority customer segments to focus on as well as to start formulating hypotheses about the existence of gender gaps at different stages of the customer journey.

Hypotheses need to be tested in follow up research, and can be used to inform strategic decisions on new products and marketing.

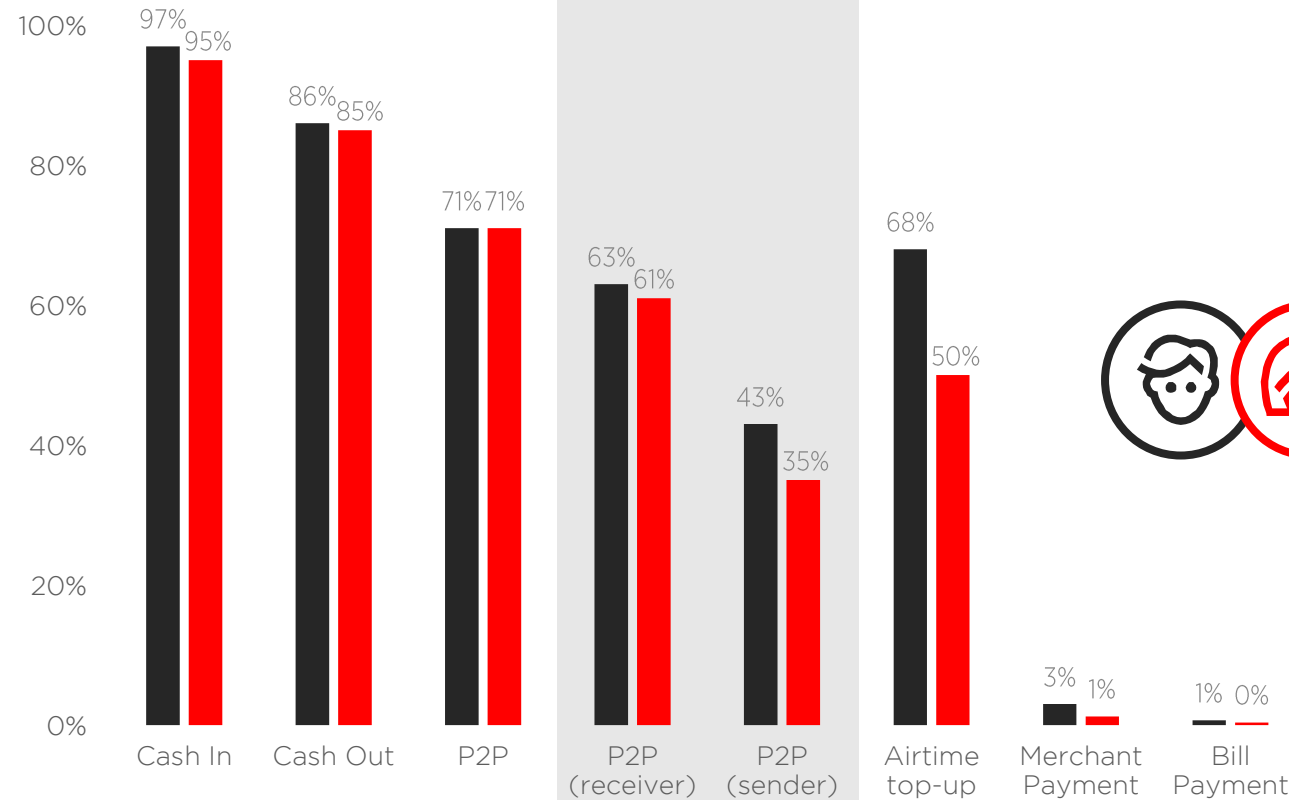
UNDERSTANDING SERVICE PENETRATION BY GENDER

Dummy data for illustration only

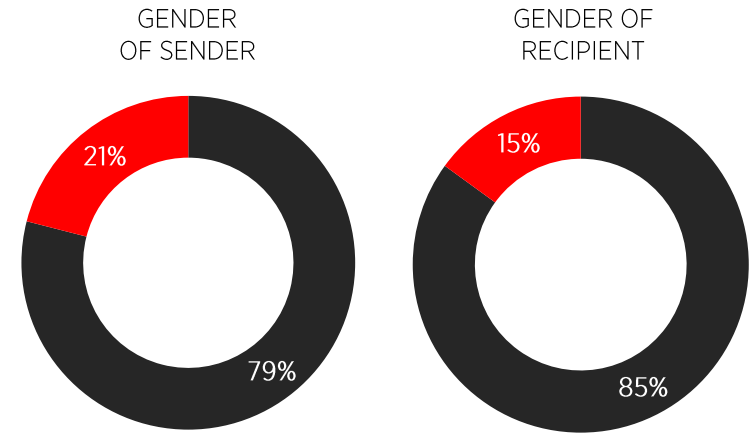
SERVICE PENETRATION* BY GENDER [% total users of each gender]

WHY THIS IS USEFUL

A gender comparison of different product usage highlights behavioural differences. Such insights could help MM providers reach a greater number of women by taking a more product-specific approach.



SPOTLIGHT ON P2P: Volume of P2P Transfers by gender of sender and recipient

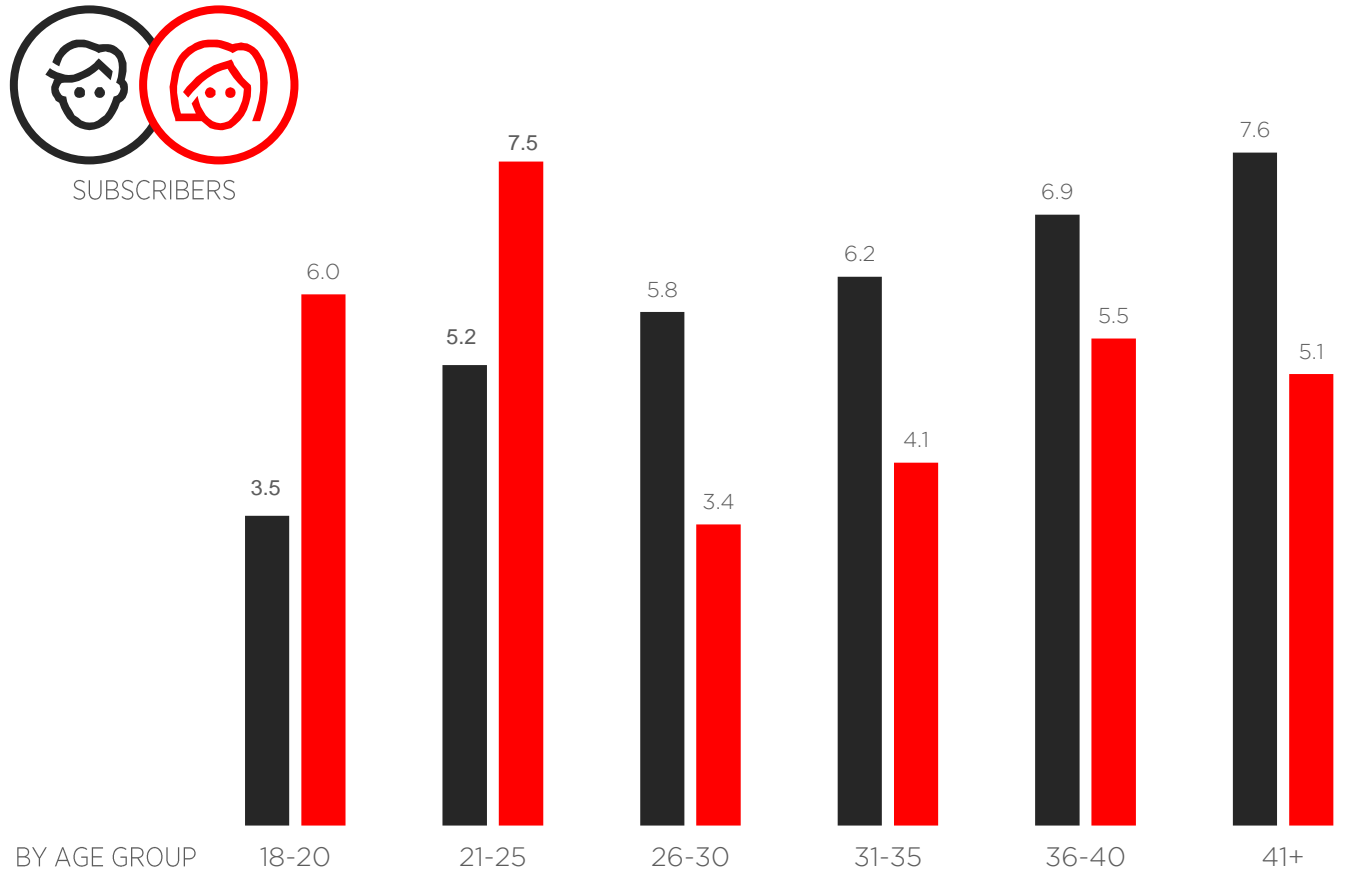


(* Share of active users who used the service at least once over the last 90 days)

ASSESSING AGENT INTERACTION BY GENDER

Dummy data for illustration only

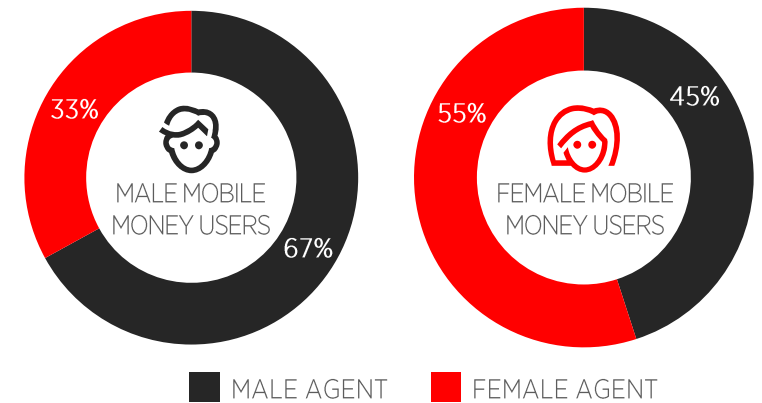
NUMBER OF DIFFERENT AGENTS DEALT WITH BY SUBSCRIBER PER MONTH



WHY THIS IS USEFUL

Integrating agent information in the customer journey analysis is helpful to: (a) compare how many agents male and female customers interact with on average; (b) identify the gender of the agent they tend to interact with more often; (c) identify which agents are more or less effective at driving adoption and usage amongst women. The results of such analysis can help to understand how agent interactions can be improved to increase the engagement of female customers.

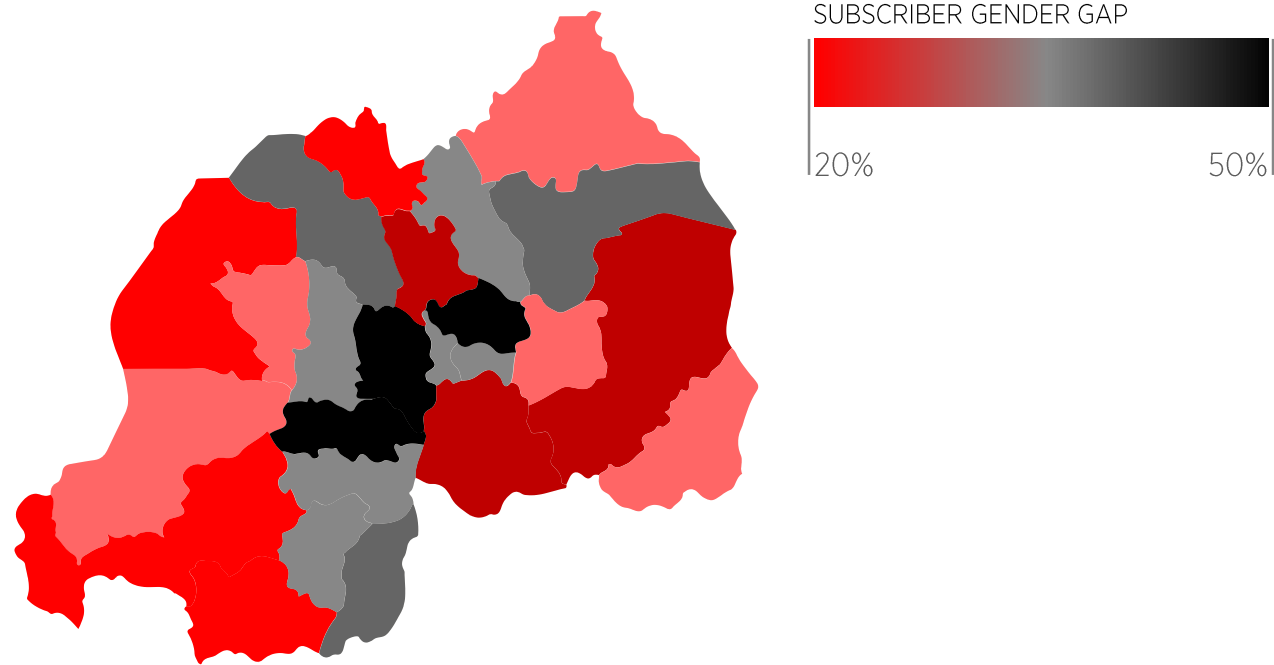
GENDER OF MAIN MOBILE MONEY AGENT USED BY MALE AND FEMALE MOBILE MONEY USERS



MAPPING GENDER DATA FOR EASIER VISUALISATION

Dummy data for illustration only

SUBSCRIBER GENDER GAP PLOTTED BY DISTRICT



WHY THIS IS USEFUL

- When sufficient geographic data is available, plotting the gender gap in subscribers onto a map by region helps to visualise where the largest gender gaps are.
- It can help identify (a) where the largest number of potential subscribers are located; and (b) where the likelihood to try mobile money is lower.
- Mapping can also be used for other metrics, such as penetration by age category, overall penetration by gender, concentration of agents.
- This can also be helpful for targeting follow-up qualitative research.

PLOTTING THE DATA OVER TIME TO UNDERSTAND TRENDS IN CUSTOMER SEGMENTS

Dummy data for illustration only

GENDER GAP PATTERN AMONG REGISTERED SUBSCRIBERS OVER TIME



WHY THIS IS USEFUL

Examining penetration of the service and how the gender gap evolves over time across locations and age groups helps you understand whether the gender gap is likely to close over time or not, and helps to assess whether targeted intervention might be needed. This exercise is also helpful to understand the impact of specific initiatives.



URBAN

- 15-24 ———
- 25-34 ———
- 35+ ———



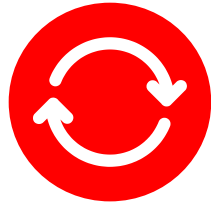
RURAL

- 15-24 ·····
- 25-34 ·····
- 35+ ·····

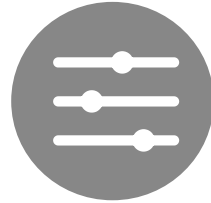
SPLITTING USERS BY MORE USAGE TYPES

N.B. Other types of usage should be considered based on the particular dynamics in your market

Example Categories



High frequency:
Users who are transacting frequently



High sophistication:
Users performing various types of transactions



Sticky:
Users who are transacting consistently



Influencer:
Users who could be influencing others to join*



New users:
Users who recently subscribed

Potential Category Definitions

A high frequency user is a customer who uses the service more than the average.

For instance, those who are using services beyond cash in or cash out and/or are using at least one non-P2P service [such as bill pay, savings/credit].

For example, users who remain active or in a high-value segment across multiple quarters.

Influencers could be identified by the size of their network (e.g. the number of users they interact with).

Those who have transacted with a new subscriber within 30 days of the new subscriber registering can also be defined as influencers.

Particularly useful when they signed up during the period analysed, to see the entire customer journey.

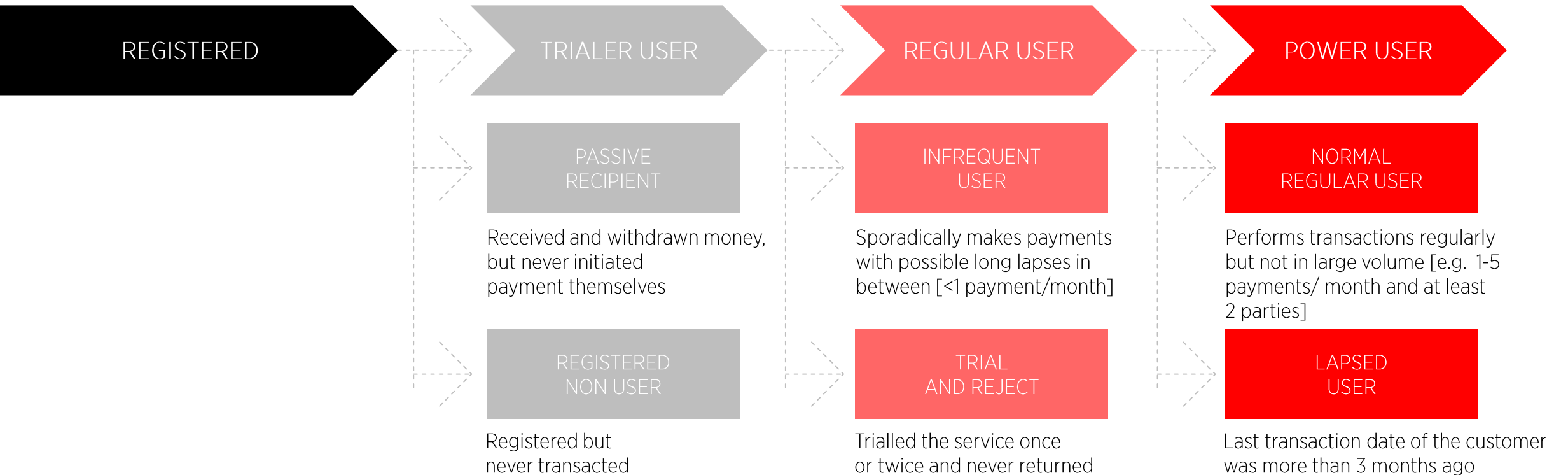
*According to a CGAP study, those who have more than 5 connections using mobile money, are likely to become mobile money users. ["The Power of Social Networks to Drive Mobile Money Adoption"](#), CGAP

FURTHER SEGMENTING THE CUSTOMERS BY USAGE TYPE AND OVER TIME

Segmenting customers by usage type and observing their behaviour over time allows for a better understanding of how female and male customers engage with the service.

In turn, this facilitates customer re-engagement strategies, aimed at those who have stopped using the service.

See [“Getting the most out of your data”](#) for a complete deep dive on these usage categories.



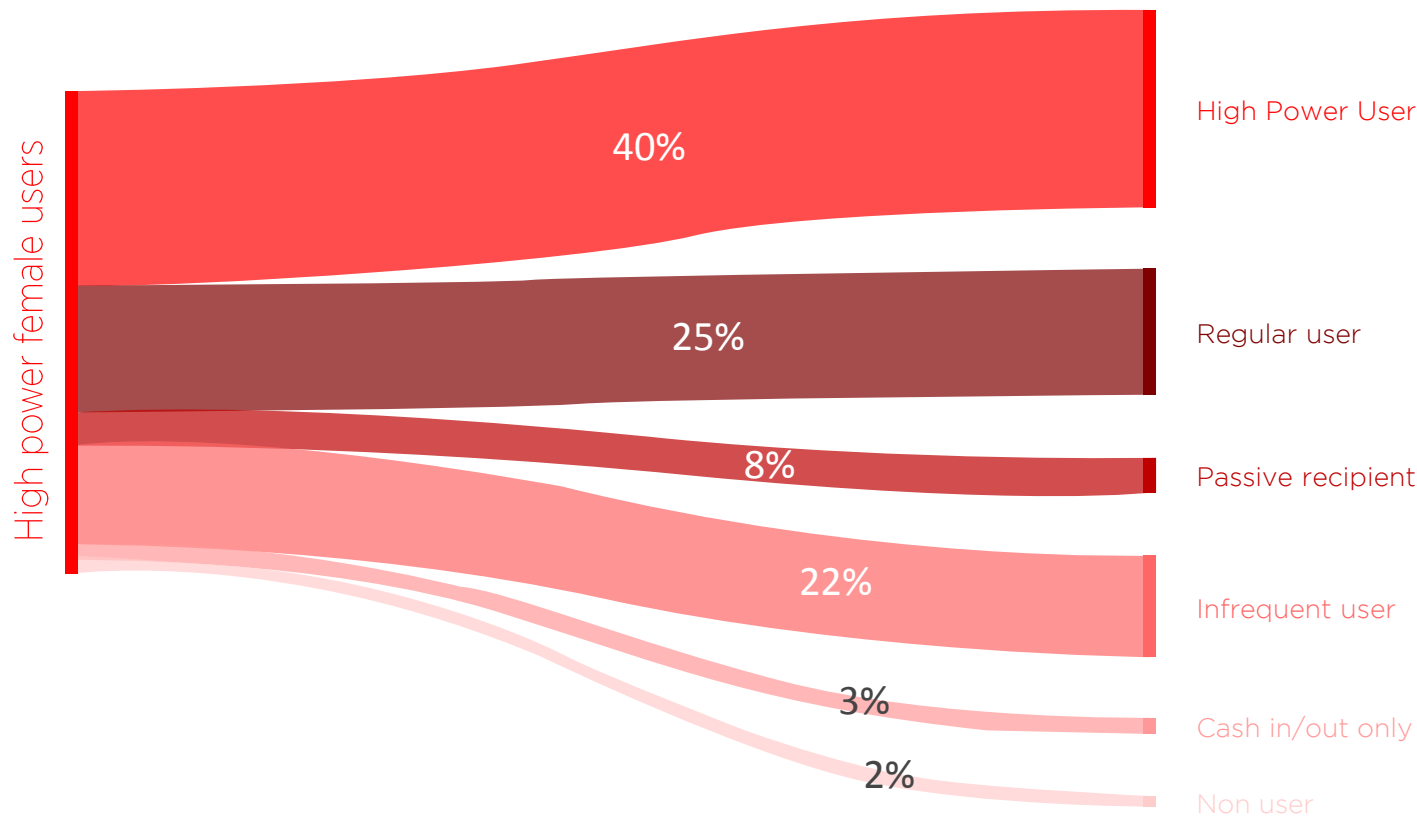
UNDERSTANDING TRENDS IN USAGE OVER TIME

Dummy data for illustration only

CHANGE IN CATEGORY OF HIGH POWER USERS OVER TIME

WHY THIS IS USEFUL

3 MONTHS LATER



- Observing how customers use the service over time provides insights on the proportion of customers who stop engaging with the service and in turn, can help formulate strategies on how to re-engage them.
- It also helps identify the best performing customers. This information can be used to formulate ideas for rewards and promotions for frequent usage, or on how to employ them as ambassadors who can incentivise usage of the service amongst the poorest performing segments.

FOCUSING ON SPECIFIC STAGES OF THE JOURNEY

SHARE OF REGISTERED USERS WHO TRIED THE SERVICE AFTER REGISTRATION

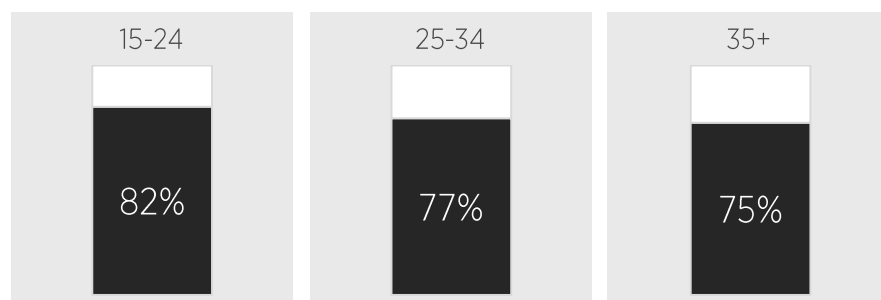
Dummy data for illustration only

WHY THIS IS USEFUL

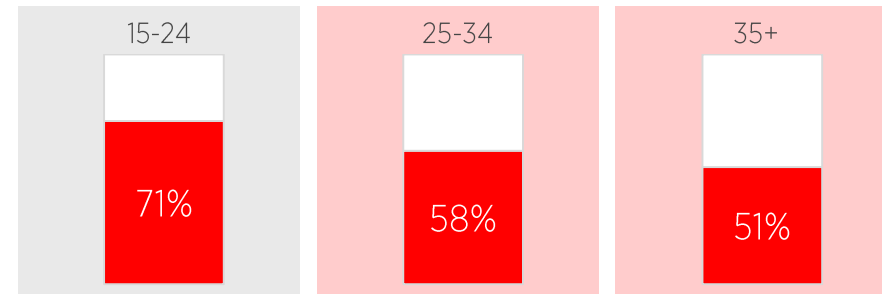
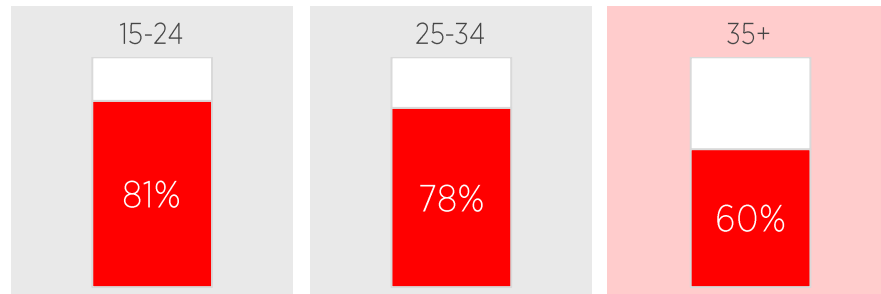
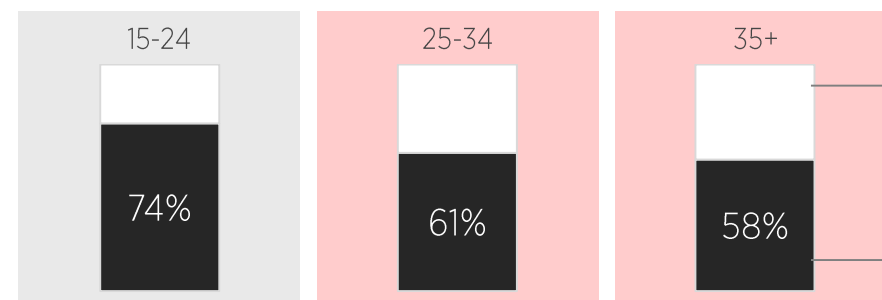
Focusing on specific stages of the journey helps identify which user segment to target to encourage usage of the service.



URBAN



RURAL



Total who registered since last year but never used the service
% who tried using service after registration last year

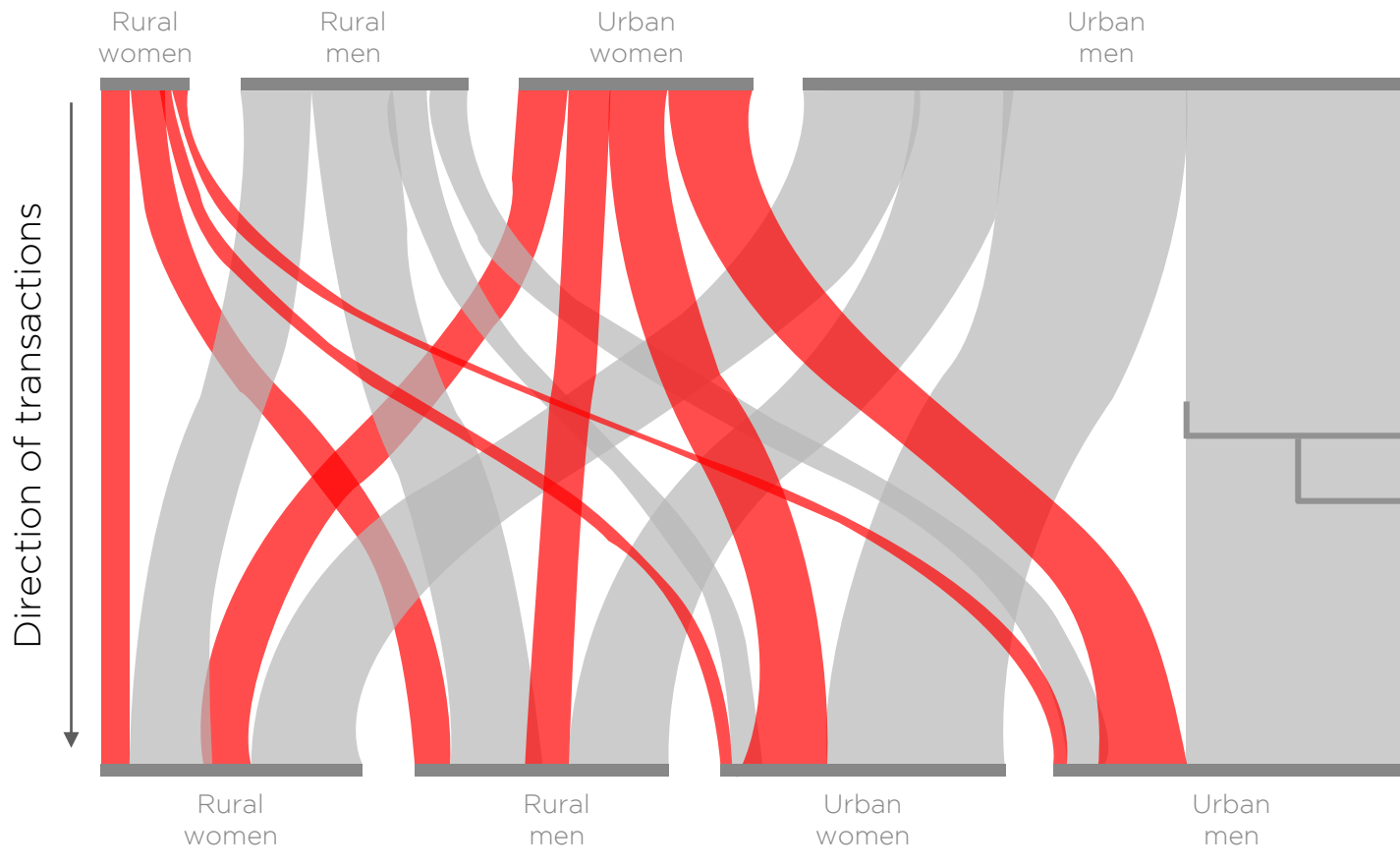
Denotes segments where likelihood to try is low

MAPPING TRANSACTIONS BY SENDER AND RECEIVER

Dummy data for illustration only

SENDER

WHY THIS IS USEFUL



Mapping transactions by sender and receiver across location and gender helps visualise the trajectory of P2P transactions, and to identify who is more likely to receive and to send P2Ps.

This can, in turn, help inform strategies for increased usage of the service amongst customers.

Width of the line represents the volume of transactions between the two groups



Transactions sent by men



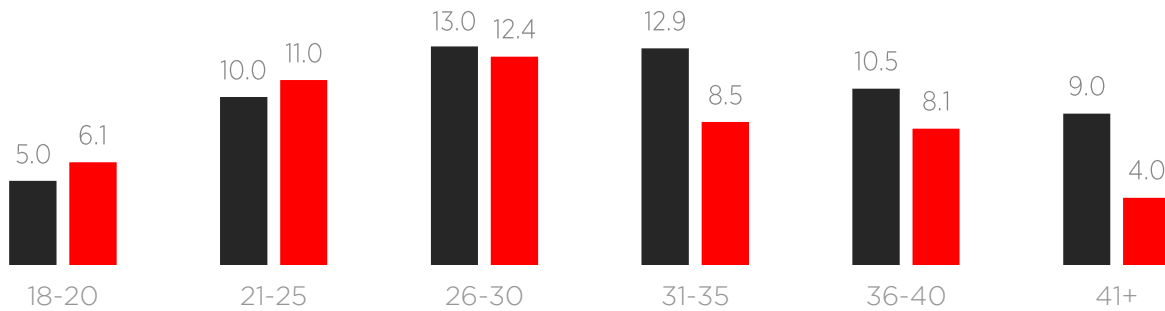
Transactions sent by women

RECEIVER

ANALYSING USERS INTERACTIONS

Dummy data for illustration only

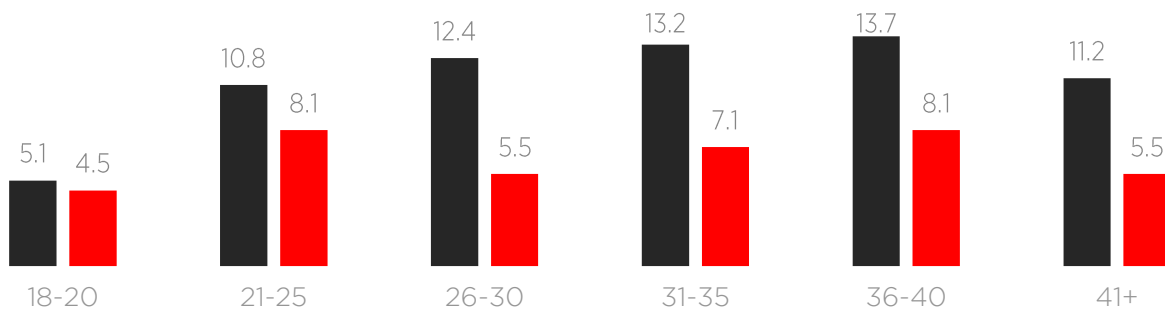
AVERAGE NUMBER OF TRANSACTIONS WITH DISTINCT COUNTERPARTIES PER MONTH, URBAN



WHY THIS IS USEFUL

Analysing interactions between mobile money users during a set period of time allows you to identify segments that can influence others to use the service more frequently.

AVERAGE NUMBER OF TRANSACTIONS WITH DISTINCT COUNTERPARTIES PER MONTH, RURAL



AVERAGE NUMBER OF TRANSACTIONS WITH DISTINCT COUNTERPARTIES* PER MONTH



(*) the parties who are involved in a mobile money transaction. This includes senders/receivers of P2P.



CONTENTS

1

Introduction

2

Customer segmentation

3

Analysing the customer journey with a gender lens

4

Deep dive on specific segments

5

RECOMMENDED FURTHER READING

RECOMMENDED FURTHER READING

ON INSIGHTS ON HOW TO
REACH WOMEN CUSTOMERS
WITH YOUR MOBILE MONEY SERVICE:



-
- [Unlocking the potential: women and mobile financial services in emerging markets](#)
 - [Women and Mobile Money: Insights from Kenya](#)
-
- [Reaching half of the market: women and mobile money](#)
 - [Example: Telesom in Somaliland](#)
 - [Example: Beam in India](#)
 - [Example: Nationwide in PNG](#)
 - [Example: UBL in Pakistan](#)

ON THE MOBILE MONEY
CUSTOMER JOURNEY:



-
- [Getting the most out of your data: Segmenting your mobile money customer base to drive usage](#)
 - Mobile Money Technical Notes: to obtain these please email: mmu@gsma.com
-
- [Driving customer usage of mobile money for the unbanked](#)

Note: Please visit the [GSMA Connected Women](#) and [Mobile Money](#) websites for our latest resources