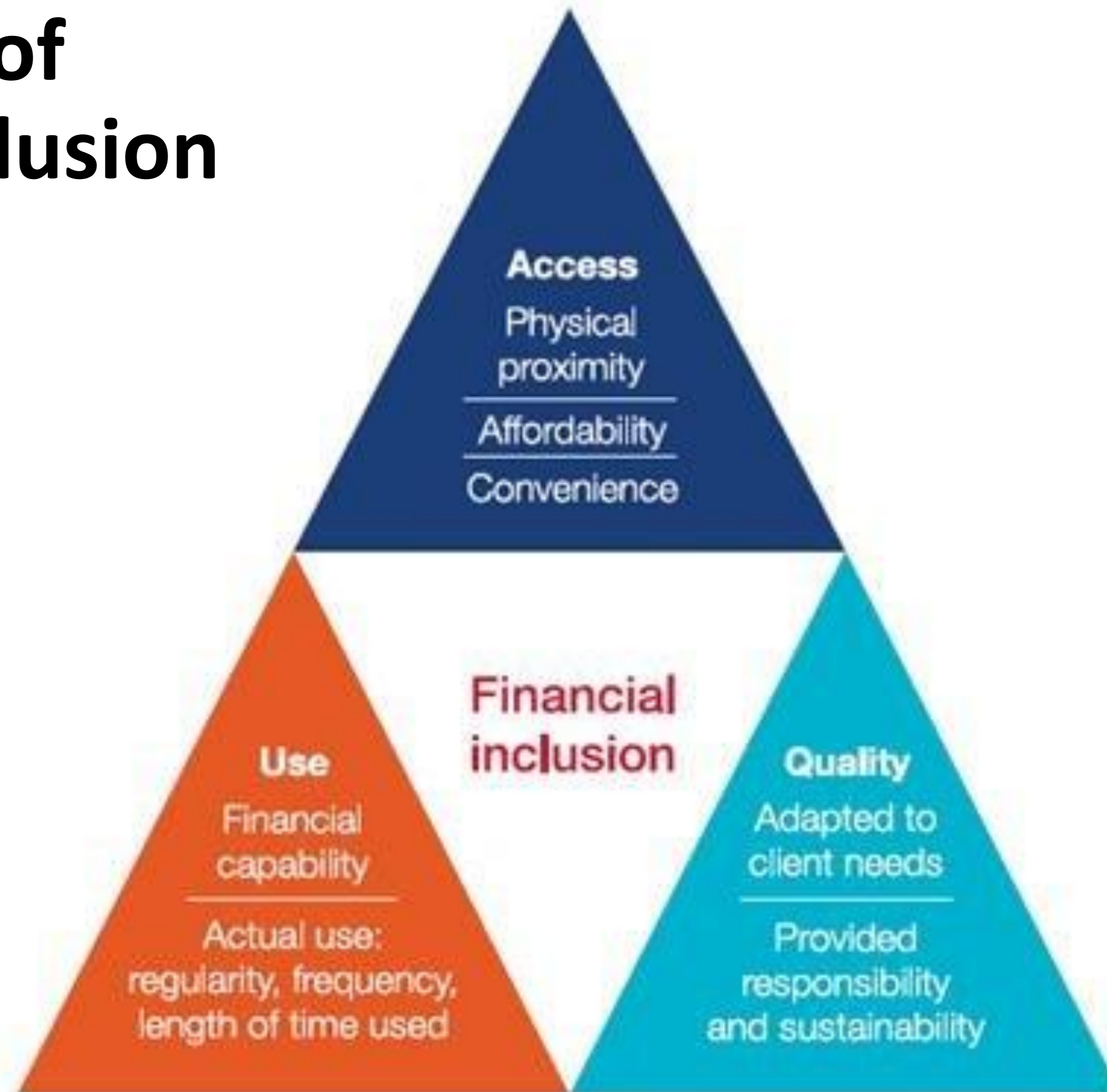# Digital Credit & Financial Inclusion

Tamara Cook
FSD Kenya

ICPAK 37th Annual Seminar
May 2021
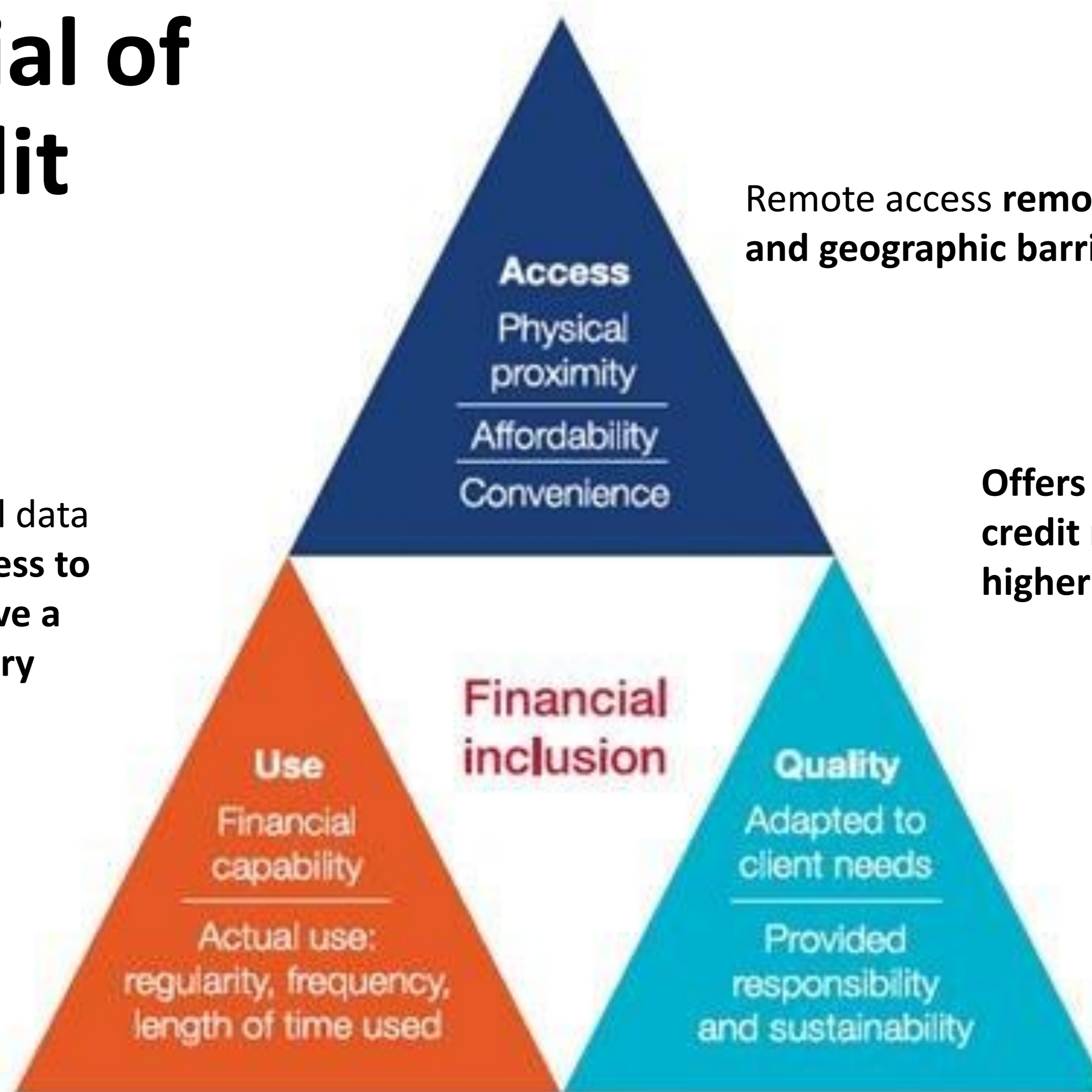
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# Dimensions of Financial Inclusion



Christian Chileshe

# The Potential of Digital Credit

Remote access **removes time, cost and geographic barriers**

**Offers the chance to build a credit rating and access higher value credit**

Use of non-traditional data sources promises **access to those who do not have a formal financial history**

Automated and algorithmic credit scoring should help **remove taste based (personal) biases**

**Access**
Physical proximity
Affordability
Convenience

**Financial inclusion**

**Use**
Financial capability
Actual use: regularity, frequency, length of time used

**Quality**
Adapted to client needs
Provided responsibility and sustainability

# Combination of digital savings & credit increased financial inclusion



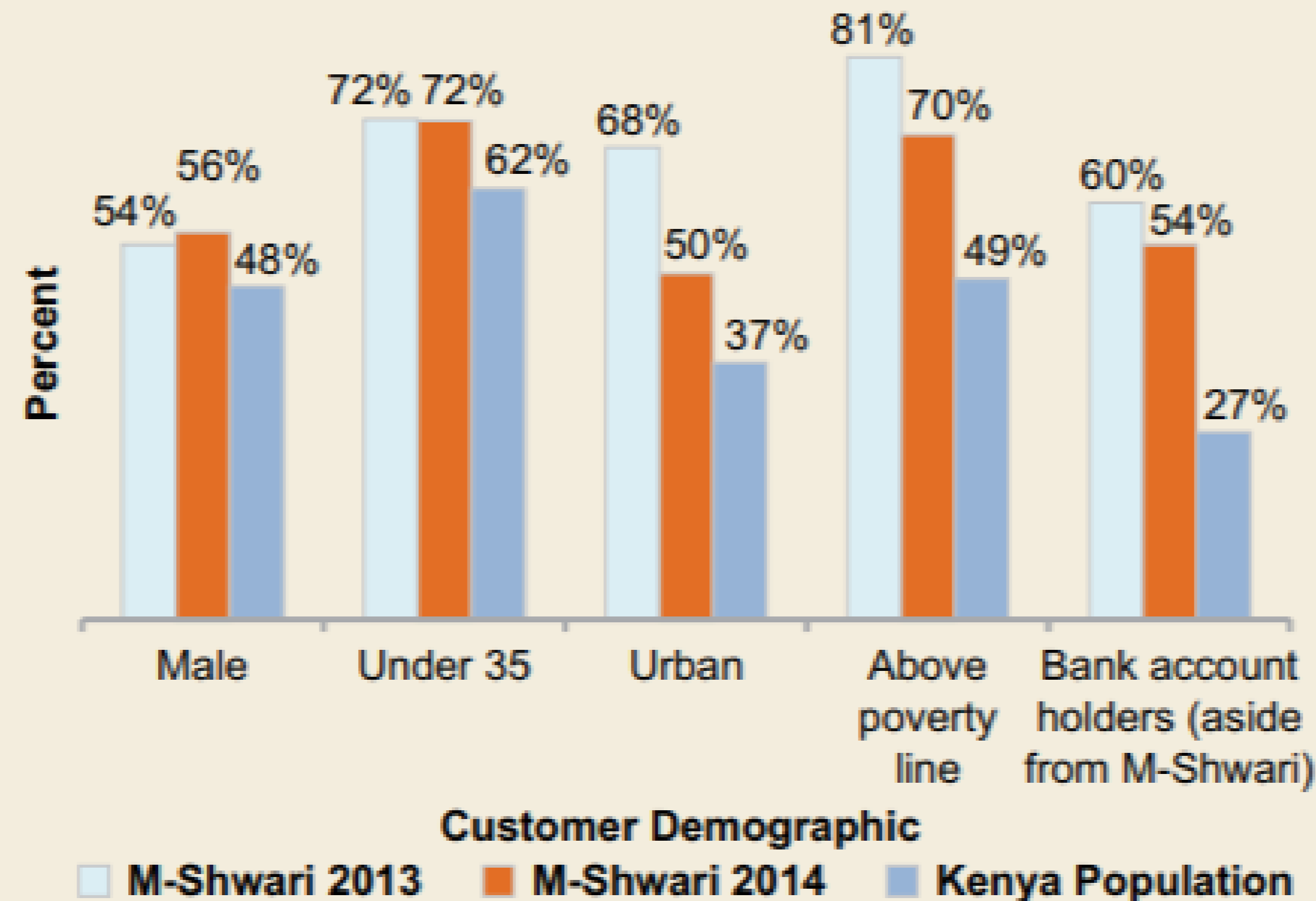**FIGURE 1**

**Growth in M-Shwari Savings Accounts (in millions)**

| Time | Number of accounts (millions) |
|------|-------------------------------|
| Q1 2013 | 2.9 |
| Q2 2013 | 4 |
| Q3 2013 | 4.8 |
| Q4 2013 | 5 |
| Q1 2014 | 7 |
| Q2 2014 | 7.6 |
| Q3 2014 | 8.1 |
| Q4 2014 | 9.2 |

Source: CBA (2014).

**TABLE 1  Key M-Shwari Statistics**

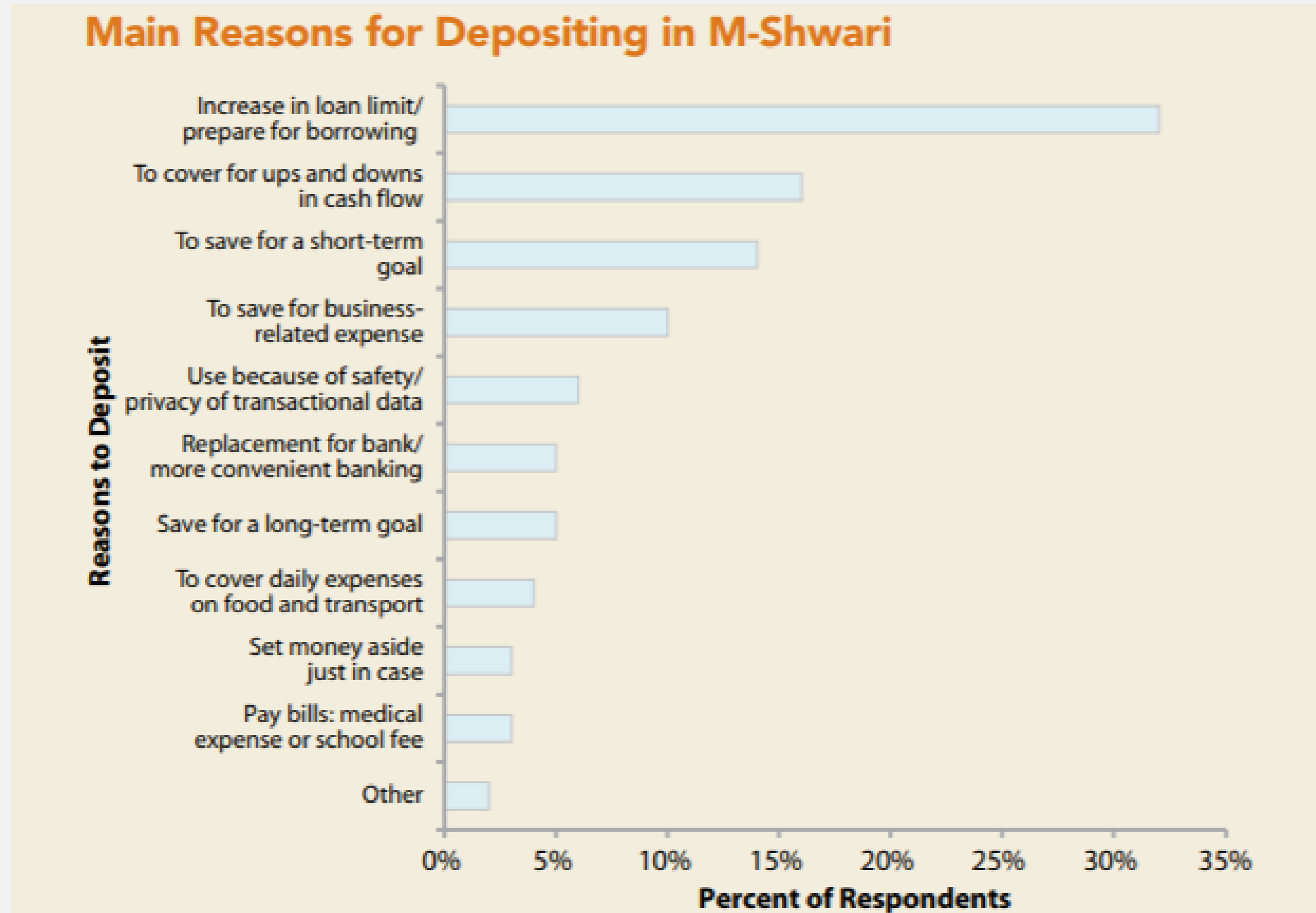| | |
|---|---|
| Total savings accounts | 9.2 million opened<br>7.2 million unique customers<br>4.7 million active 90 days |
| Total number of loans | 20.6 million cumulative loans since launch<br>2.8 million unique borrowers since launch<br>1.8 million active as of December 2014 |
| Deposit amounts | US$1.5 billion deposited since launch<br>US$45.3 million deposit balance as of December 2014 |
| Loan amounts | US$277.2 million disbursed since launch<br>US$17.7 million outstanding as of December 2014 |
| Average savings balance | KES 504 (US$5.56)—all accounts<br>KES 911 (US$10.06)—active 90 days<br>KES 1971 (US$21.76)—active 30 days |
| Nonperforming loans | 2.2% over 90 days |

## M-Shwari case study (2015)

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# Like M-Pesa, M-Shwari started out more young, urban and male but became more inclusive over time



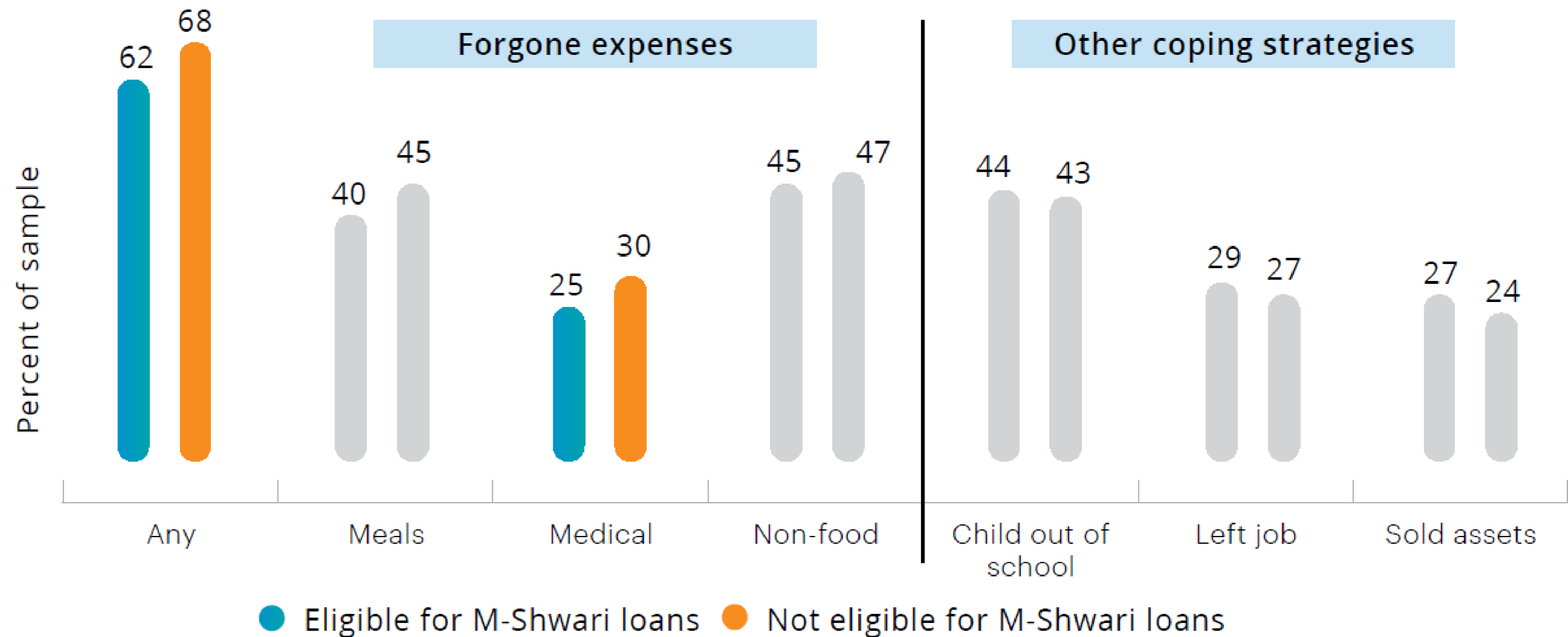M-Shwari Customer Demographics: Change from 2013 to 2014 and Compared with General Kenya Population

# Many reasons for saving but credit the biggest

## Main Reasons for Depositing in M-Shwari

A horizontal bar chart showing reasons to deposit (y-axis) against percent of respondents (x-axis):

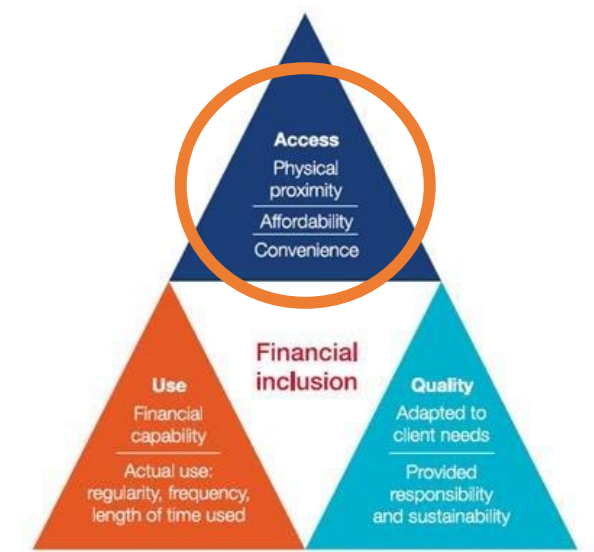| Reasons to Deposit | Percent of Respondents |
|---|---|
| Increase in loan limit/ prepare for borrowing | ~32% |
| To cover for ups and downs in cash flow | ~16% |
| To save for a short-term goal | ~14% |
| To save for business-related expense | ~10% |
| Use because of safety/ privacy of transactional data | ~6% |
| Replacement for bank/ more convenient banking | ~5% |
| Save for a long-term goal | ~5% |
| To cover daily expenses on food and transport | ~4% |
| Set money aside just in case | ~3% |
| Pay bills: medical expense or school fee | ~3% |
| Other | ~2% |

# 2017 Impact study showed M-Shwari borrowers less likely to forgo expenses following a shock



**Figure 6:** Access to M-Shwari decreases the likelihood that households forego medical expenses in the aftermath of a negative shock

Risk coping strategies in response to any negative shock in the past 6 months, by M-Shwari borrowing eligibility status

Forgone expenses | Other coping strategies

Percent of sample

Any: 62, 68
Meals: 40, 45
Medical: 25, 30
Non-food: 45, 47
Child out of school: 44, 43
Left job: 29, 27
Sold assets: 27, 24

● Eligible for M-Shwari loans   ● Not eligible for M-Shwari loans

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# Digital Divide – Mobile Phone Ownership



- In 2019, only **47%** of the population aged 3 and above owned a mobile phone (feature or smartphone)

- There appears to be a broadly equitable distribution of mobile phone ownership between genders

- **In 20 of 47 counties female ownership of mobile phones was at parity or above male ownership**

- In only 7 counties did female mobile phone ownership fall below 90% of male ownership

Kenya National Bureau of Statistics: Population and Housing Census 2019

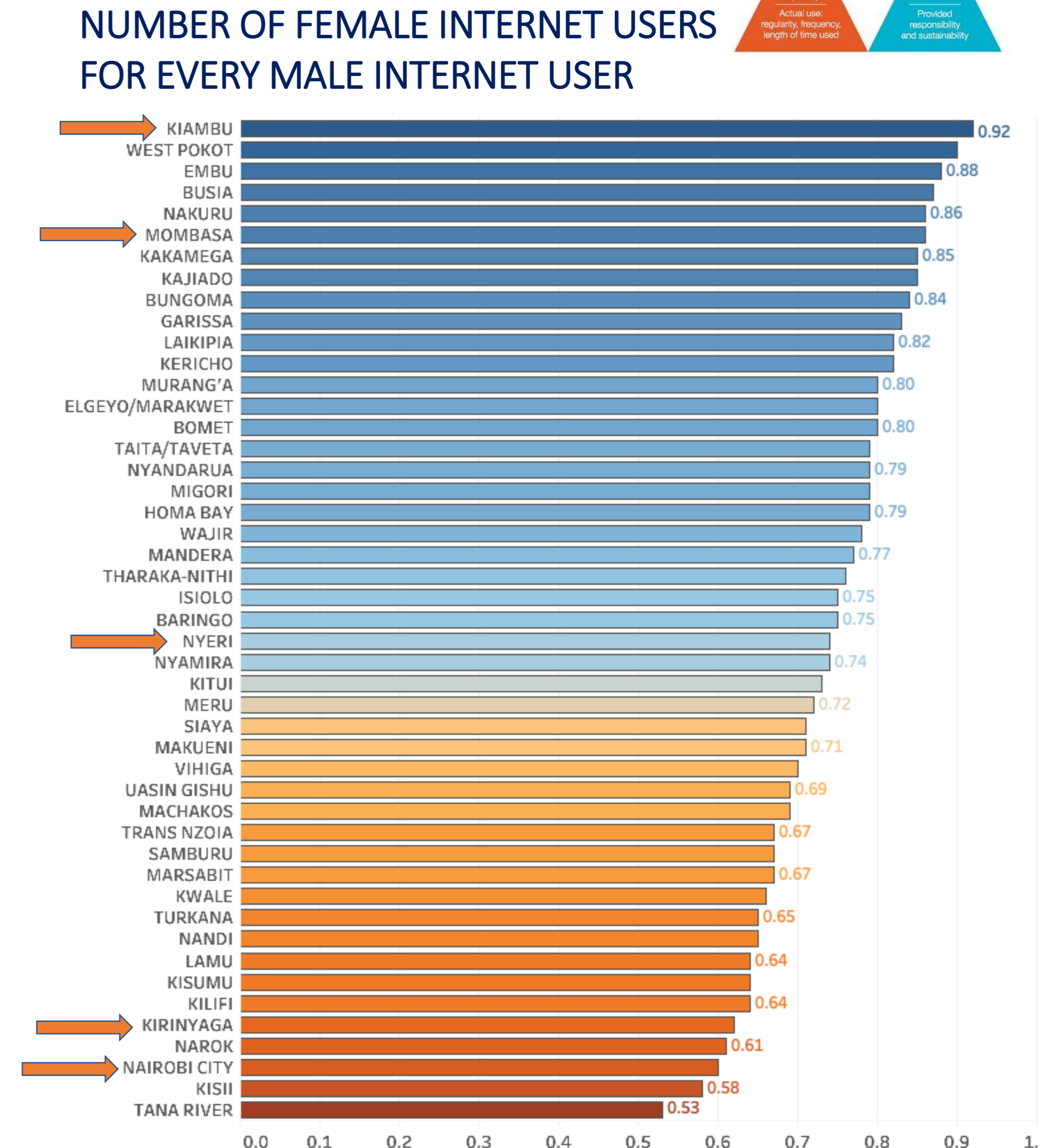**NUMBER OF FEMALE MOBILE PHONE OWNERS FOR EVERY MALE MOBILE PHONE OWNER**
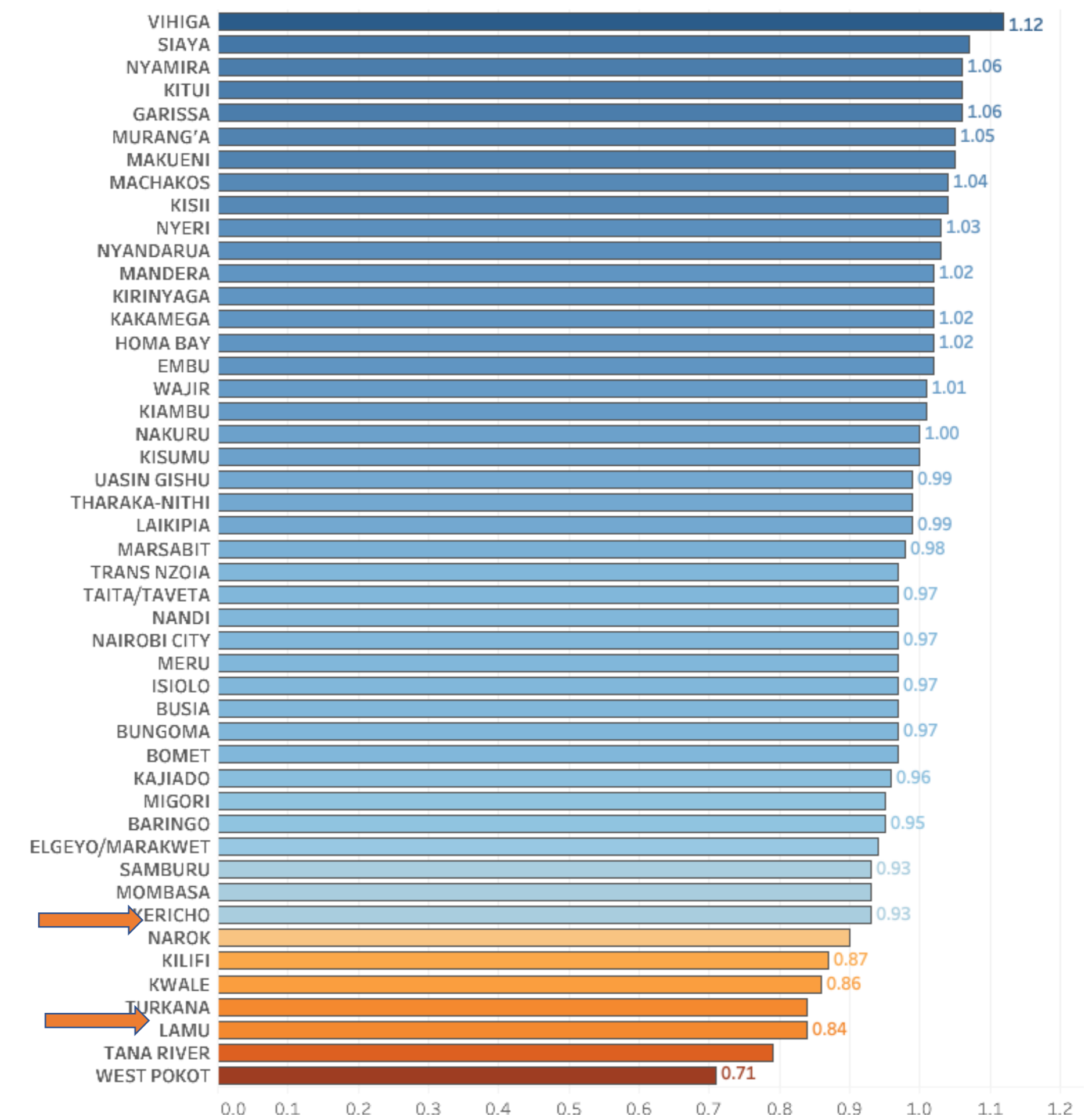
# Digital Divide – Internet Access
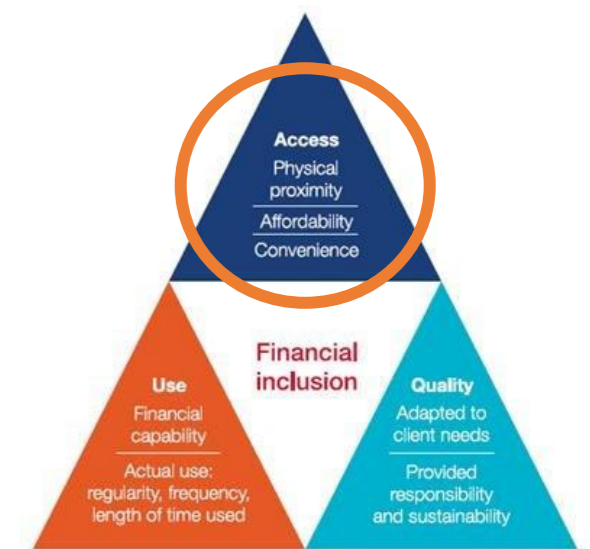
- Only **23%** of the population aged 3 and above have **used the internet**

- Internet usage is highly gendered and varies widely between counties

- 5 counties with the lowest incidence of multidimensional poverty have vastly different levels of inequality with Nairobi being the 3 most unequal nationally and Kiambu being the most equal.

  - **Nairobi** – female usage **60%** of male usage

  - **Kiambu** – female usage **92%** of male usage

Kenya National Bureau of Statistics: Population and Housing Census 2019



NUMBER OF FEMALE INTERNET USERS FOR EVERY MALE INTERNET USER

| County | Value |
|---|---|
| KIAMBU | 0.92 |
| WEST POKOT | |
| EMBU | 0.88 |
| BUSIA | |
| NAKURU | 0.86 |
| MOMBASA | |
| KAKAMEGA | 0.85 |
| KAJIADO | |
| BUNGOMA | 0.84 |
| GARISSA | |
| LAIKIPIA | 0.82 |
| KERICHO | |
| MURANG'A | 0.80 |
| ELGEYO/MARAKWET | |
| BOMET | 0.80 |
| TAITA/TAVETA | |
| NYANDARUA | 0.79 |
| MIGORI | |
| HOMA BAY | 0.79 |
| WAJIR | |
| MANDERA | 0.77 |
| THARAKA-NITHI | |
| ISIOLO | 0.75 |
| BARINGO | 0.75 |
| NYERI | |
| NYAMIRA | 0.74 |
| KITUI | |
| MERU | 0.72 |
| SIAYA | |
| MAKUENI | 0.71 |
| VIHIGA | |
| UASIN GISHU | 0.69 |
| MACHAKOS | |
| TRANS NZOIA | 0.67 |
| SAMBURU | |
| MARSABIT | 0.67 |
| KWALE | |
| TURKANA | 0.65 |
| NANDI | |
| LAMU | 0.64 |
| KISUMU | |
| KILIFI | 0.64 |
| KIRINYAGA | |
| NAROK | 0.61 |
| NAIROBI CITY | |
| KISII | 0.58 |
| TANA RIVER | 0.53 |

**Young, urban men**

Self-employed or wage-employment

Digital borrowers use more financial services than the average Kenyan adult

CGAP and FSD Kenya: A Digital Credit Revolution

Digital loans are **not widely used by the most vulnerable groups** characterised by irregular cash flows

CGAP and FSD Kenya: A Digital Credit Revolution 2018

Deepening

Not broadening

# Over indebtedness



- Algorithms determine creditworthiness based on **willingness to pay rather than ability to pay**

- Algorithms predict repayment likelihood not debt stress

- Many digital loan providers do not access CRB credit histories for applicants making them blind to loan stacking

- This allows, if not promotes, over indebtedness

- In 2018, **20% of recipients of digital loans reported reducing food consumption to repay their loans**. This figure likely increased markedly economic fallout from the COVID-19 pandemic

Centre for Financial Inclusion - The Stories Algorithms Tell:
Bias and Financial Inclusion at the Data Margins

# Algorithmic Credit Scoring and Bias

**Taste Based /Personal Bias**

**Statistical/Systemic Bias**

Centre for Financial Inclusion - The Stories Algorithms Tell: Bias and Financial Inclusion at the Data Margins

AppleCard - husbands received 10 to 20 times the credit limit of their wives

"Gender blindness" can be a cause of unintentional exclusion

Investigation took over 1 year

Centre for Financial Inclusion - The Stories Algorithms Tell: Bias and Financial Inclusion at the Data Margins

# Transparency

In 2018, **19% of digital loan users reported experiencing at least one form of poor transparency** e.g. unexpected fees or not understanding the costs or terms of the loan

CGAP and FSD Kenya: A Digital Credit Revolution

# Digital credit in Kenya & Tanzania (2018)



FIGURE 1. Share of mobile phone owners who have borrowed from each lender (top five in each country)

FSD Kenya Creating value through inclusive finance
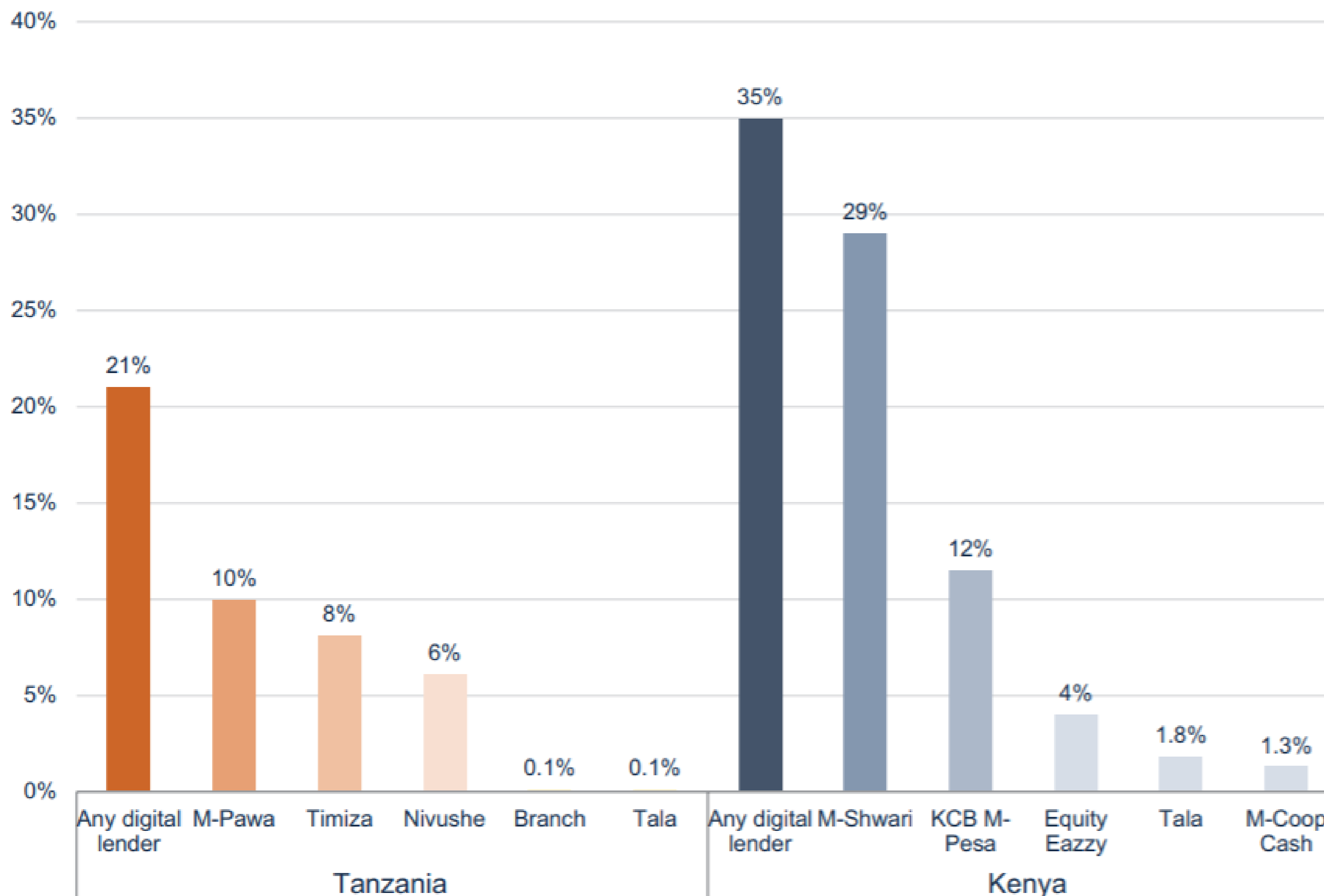
# Digital credit in Kenya & Tanzania (2018)

18



**FIGURE 5.** Uses of digital credit

| Use | Tanzania | Kenya |
|-----|----------|-------|
| For meeting day-to-day ordinary household needs | 37% | 35% |
| To purchase airtime | 36% | 15% |
| For business purposes such as investment or payroll | 31% | 37% |
| For personal household goods | 22% | 10% |
| To pay a bill | 14% | 10% |
| Just to try it out | 13% | 5% |
| For medical needs, including medical emergencies | 9% | 7% |
| To pay school or university expenses | 8% | 20% |
| Other | 7% | 17% |
| For betting | 1% | 3% |
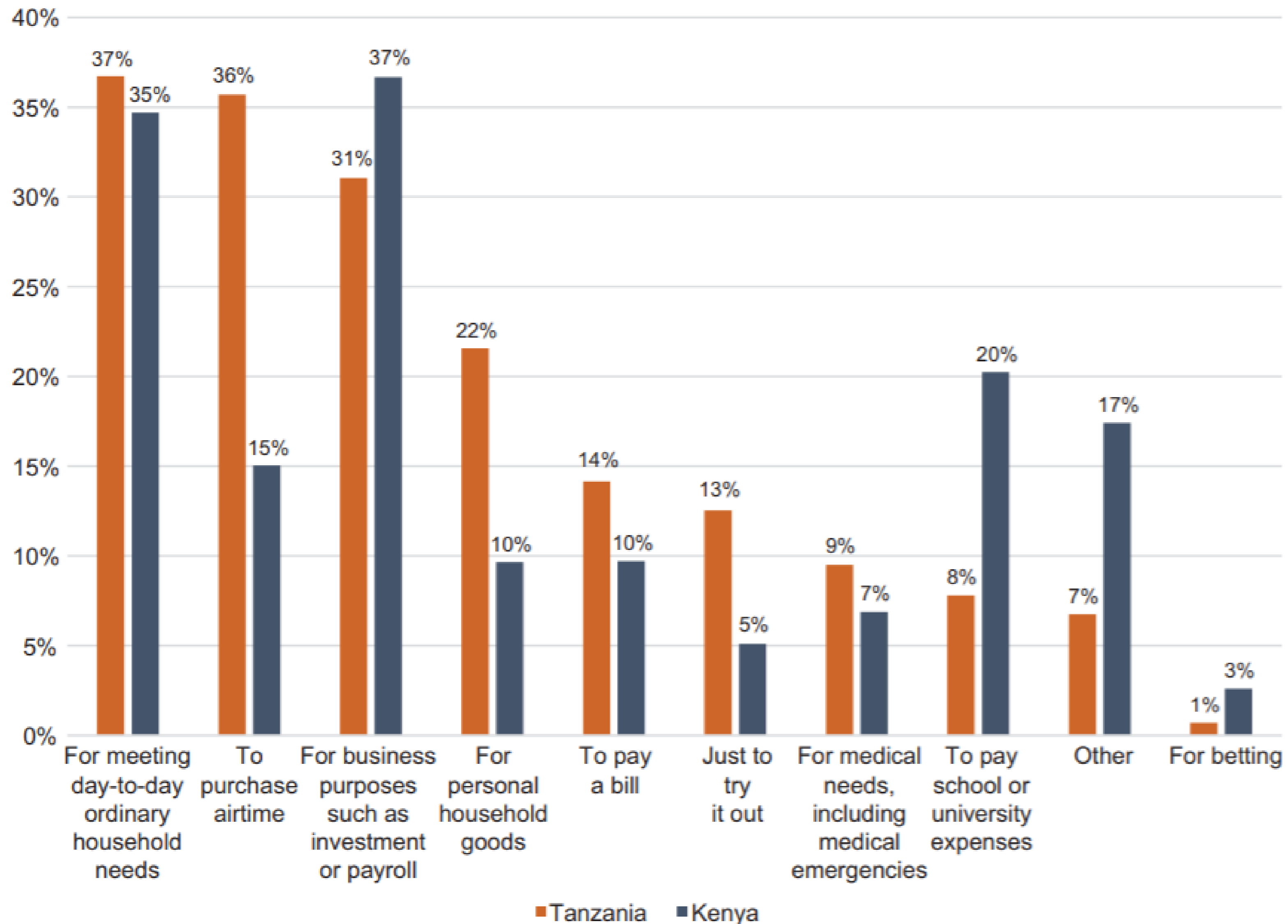
■ Tanzania  ■ Kenya

# Digital credit in Kenya & Tanzania (2018)



**FIGURE 9.** Uses of digital credit, by gender, Kenya

| Use | Women | Men |
|---|---|---|
| For betting | 1% | 4% |
| To pay school or university expenses | 23% | 18% |
| For medical needs, including medical emergencies | 7% | 7% |
| Just to try it out | 6% | 4% |
| To pay a bill | 6% | 13% |
| For personal household goods | 9% | 10% |
| For business purposes such as investment or payroll | 37% | 37% |
| To purchase airtime | 13% | 17% |
| For meeting day-to-day ordinary household needs | 32% | 37% |

■ Women ■ Men
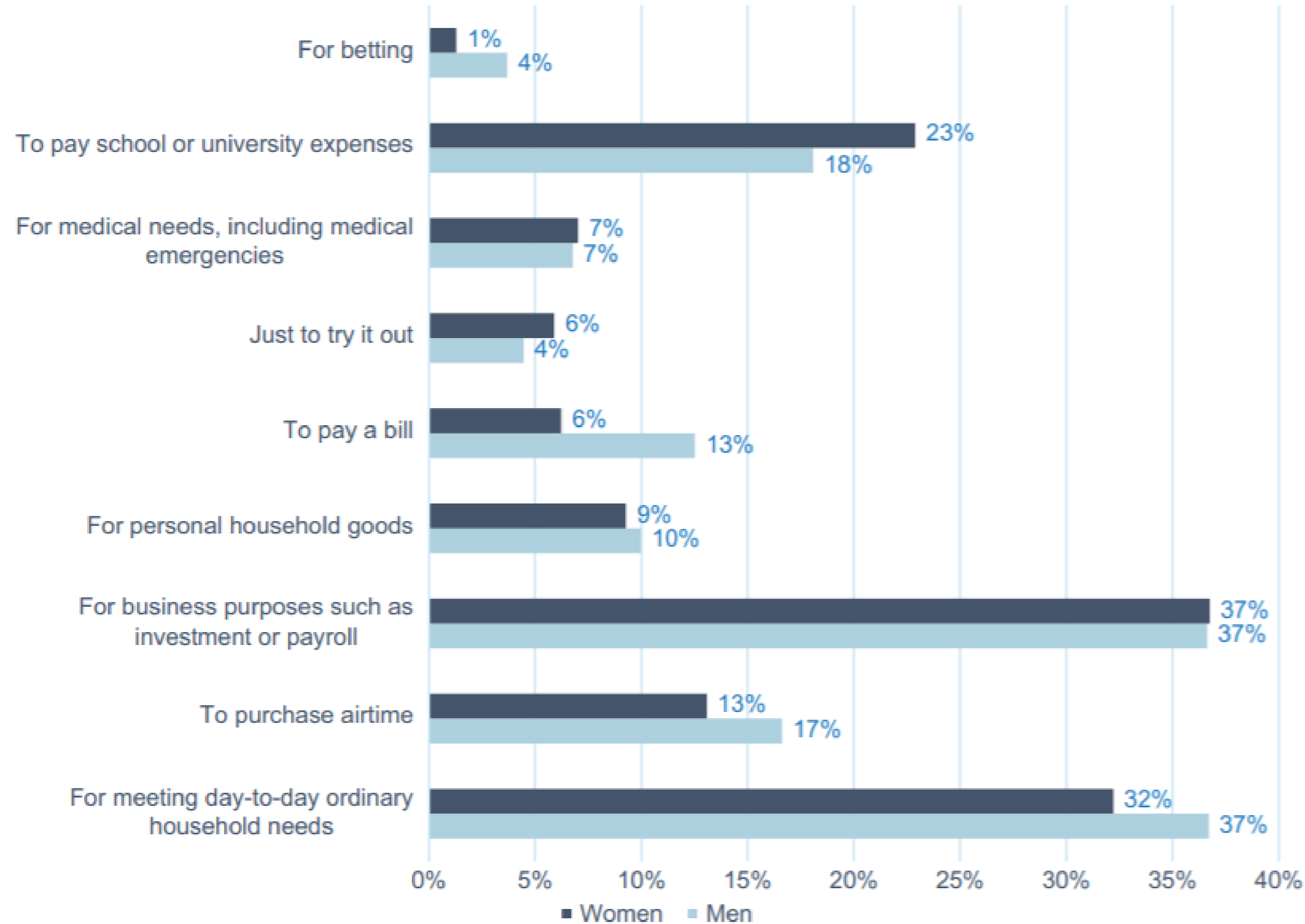
**FIGURE B2-1.** Use of mobile betting by users and nonusers of digital credit

**Digital borrowers**
- 31% Has tried mobile betting
- 69% Never tried mobile betting

**NOT digital borrowers**
- 16% Has tried mobile betting
- 84% Never tried mobile betting

■ Has tried mobile betting   ■ Never tried mobile betting

19
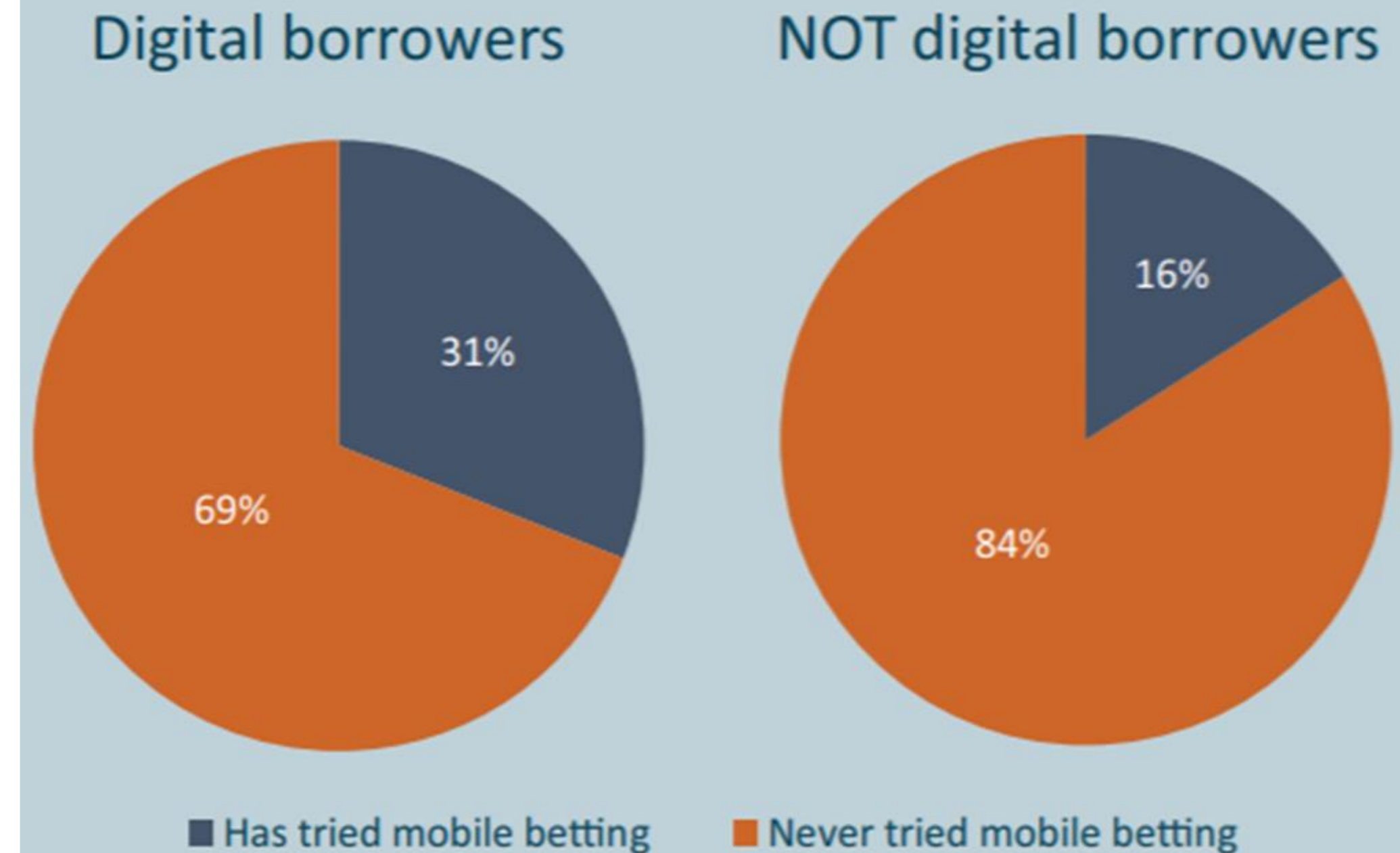
# Digital credit in Kenya & Tanzania (2018)



**FIGURE 6.** Uses of digital credit, by primary income source, Kenya

| | Self-Employment | Transfers from Others | Wage Employment | Farming | Casual Work |
|---|---|---|---|---|---|
| For betting | 3% | 2% | 3% | 2% | 2% |
| To pay school or university expenses | 15% | 27% | 21% | 24% | 19% |
| For medical needs, including medical emergencies | 6% | 9% | 8% | 7% | 6% |
| Just to try it out | 5% | 5% | 7% | 6% | 3% |
| To pay a bill | 12% | 6% | 12% | 6% | 10% |
| For personal/household goods | 4% | 5% | 18% | 9% | 14% |
| For business purposes such as investment or payroll | 59% | 20% | 17% | 40% | 23% |
| To purchase airtime | 15% | 8% | 14% | 19% | 14% |
| For meeting day-to-day ordinary household needs | 31% | 34% | 40% | 31% | 41% |

# Digital credit audit report

## Evaluating the conduct and practice of digital lending in Kenya

September 2019

fsd Kenya

Creating value through **inclusive finance**

fsd Kenya

# Digital credit audit (2019)

**Figure 1: Percentage of adults (18+) borrowing from formal, informal and digital sources**

Informal borrowing: 31, 33, 22, 23, 39

Formal borrowing: 7, 7, 8, 16, 22

Digital borrowing: 0, 0, 0, 6, 8

2006 2009 2013 2016 2019
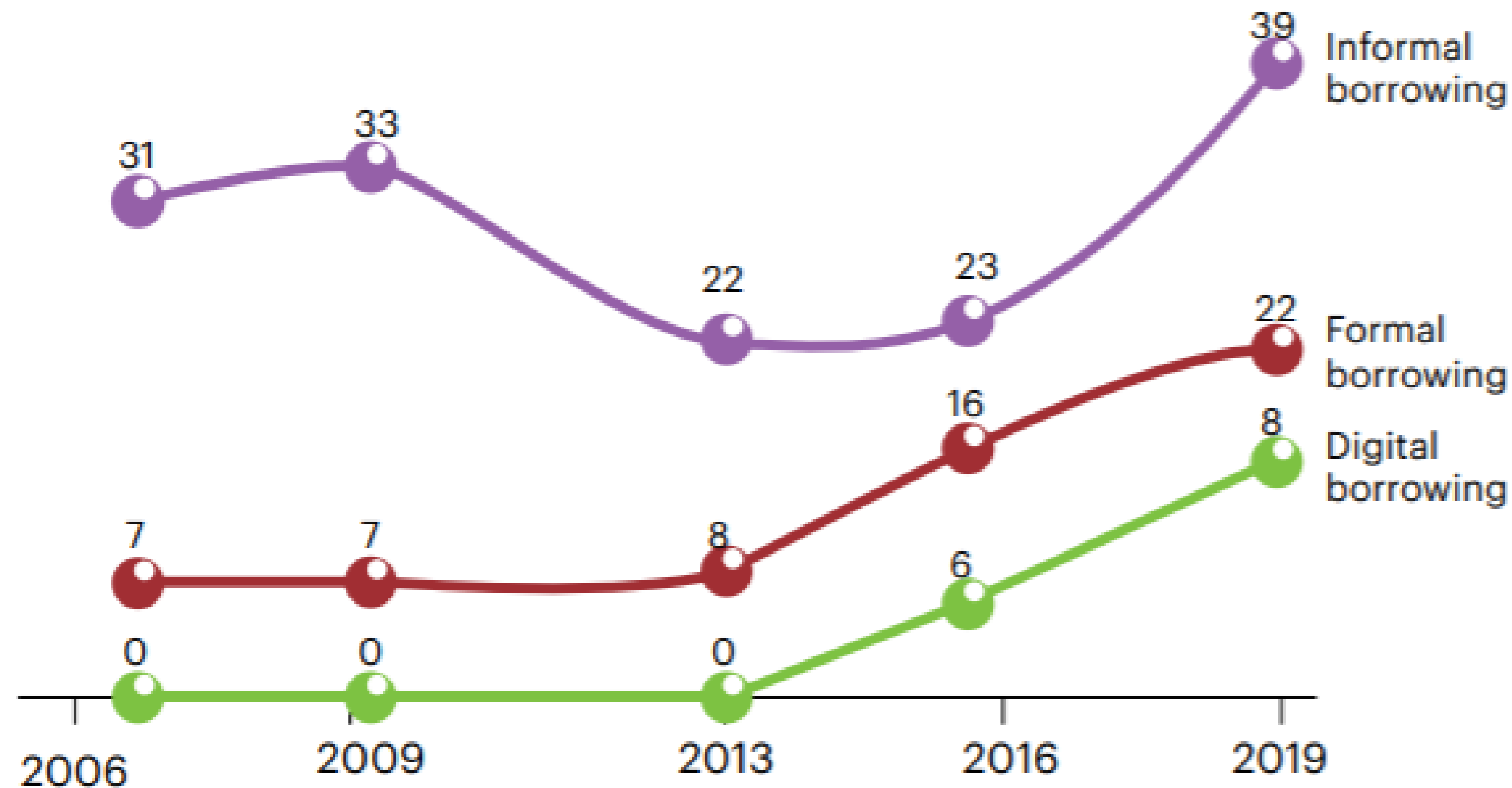
" **Digital loans are mainly used for everyday consumption and are the most used source of credit for emergencies due to their ease of access**
– FinAccess 2019

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# Digital credit audit (2019)

LOAN    SAVE    FRIENDS    YOU

## Save Now, Borrow Tomorrow!

Save for at least 1 week and get a loan of between 1 times and 3 times the amount you save. e.g. save Ksh 500 to borrow upto Ksh 1500

Your savings will also grow at a rate of 1% per month.

If you start today, we will deposit Ksh 250.0 to get started you started. Press the Learn More button below to hear more

☐ I agree to Terms & Conditions

LEARN MORE    OPEN ACCOUNT

## Table 1: Registration fees vs loan disbursed

| Lender | Fee (KShs) | Purpose | Loan amount (KShs) |
|---|---|---|---|
| Utunzi | 200 | Registration and CRB check | 700 |
| Kano | 350 | Membership | 700 |
| Dolax | 250 | Registration | 150 |
| Craft | 250 | Registration | 300 |
| Upazi | 250 | Registration | 150 |
| Usawa | 400 | Registration | 700 |

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# Digital credit audit (2019)

## 2016 vs 2019 APR for select products

| Lender | 2016 APR[24] | 2019 APR |
|---|---|---|
| Branch | 12% - 170% | **182%** |
| Eazzy loan | 27% | **110%** |
| Kopa Cash | 183% | **442%** |
| KCB M Pesa | 49% - 73% | **49%** |
| M-Shwari | 91% | **91%** |
| Get Saida | + 91% | **286%** |
| Tala | 61%-243% | **180%** |

**Figure 5: Types of fees charged**



| | |
|---|---|
| 17 | Repayment Interest fees charged |
| 9 | Facility/ arrangement fees charged |
| 4 | Upfront Interest fees charged |
| 3 | Transfer from wallet to primary account charges |
| 1 | Mobile operator charge |
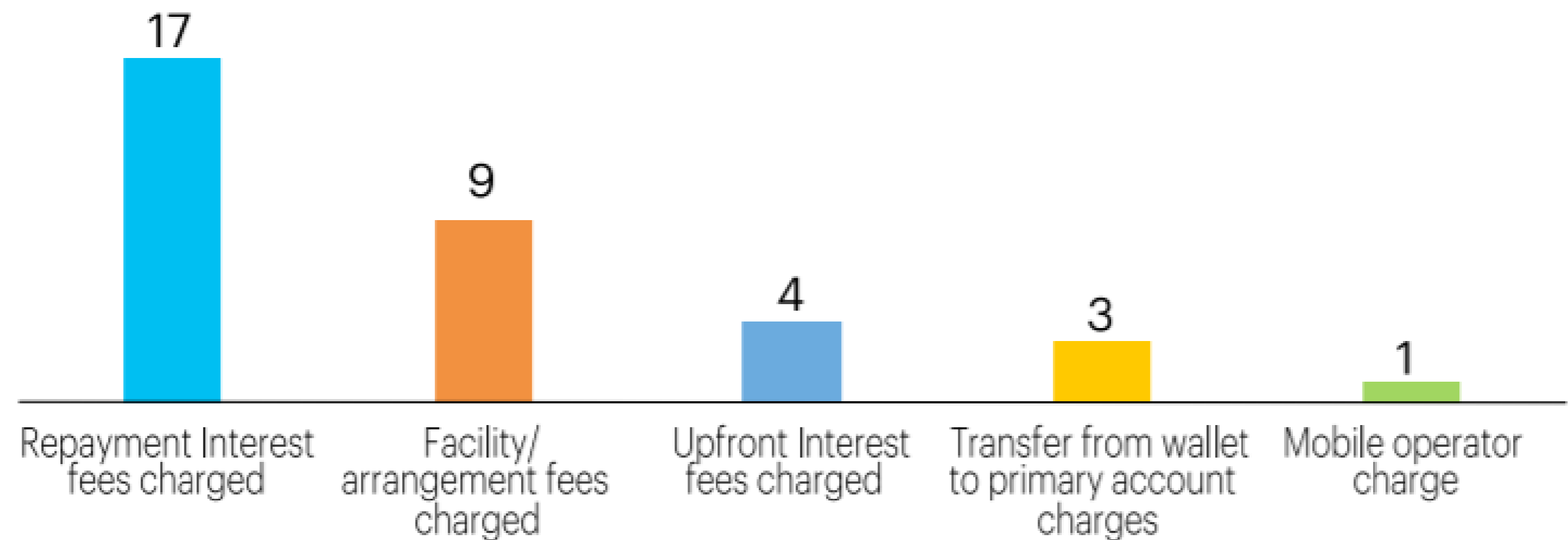
# Digital credit audit (2019)

**Figure 7: Implications for late repayments**



Number of lenders

# Digital credit audit (2019)

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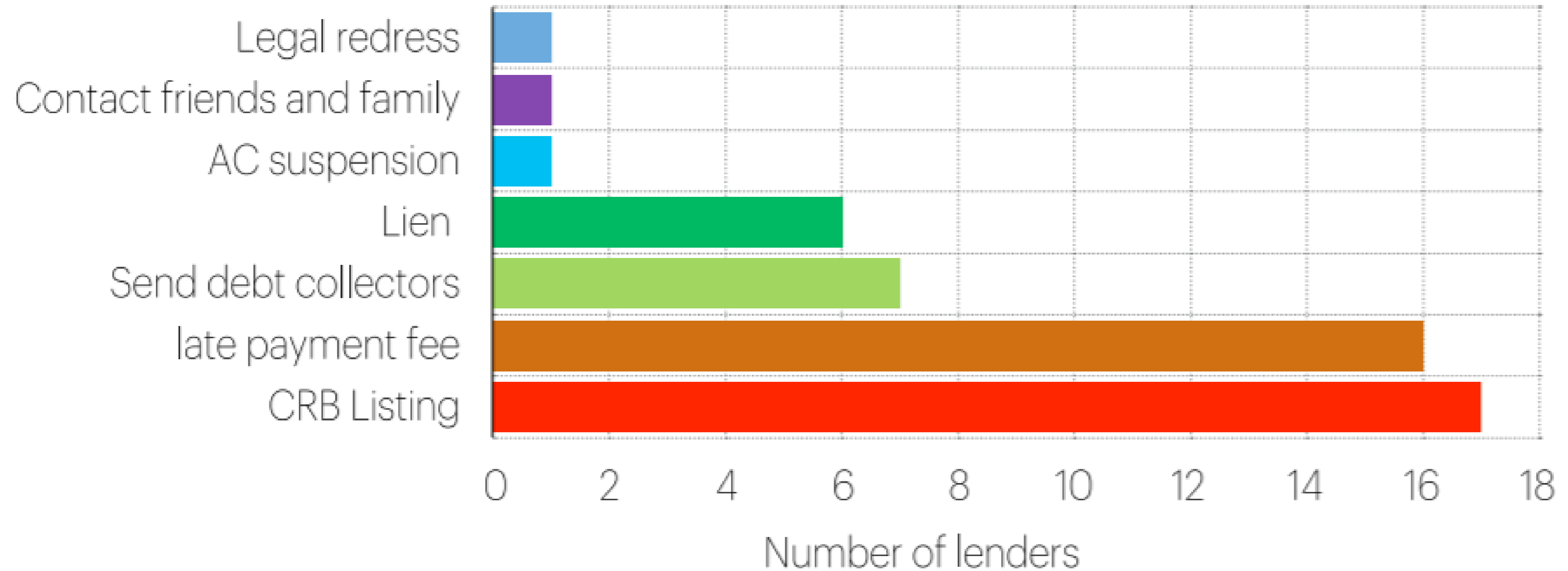
**Figure 2: Loan defaulters from key credit types (%)**

| Credit type | % |
|---|---|
| Bank loan | 2 |
| Digital loan Apps | 9 |
| Loans from friends and family | 13 |
| Mobile bank loan | 18 |
| Goods/services from shopkeeper | 45 |
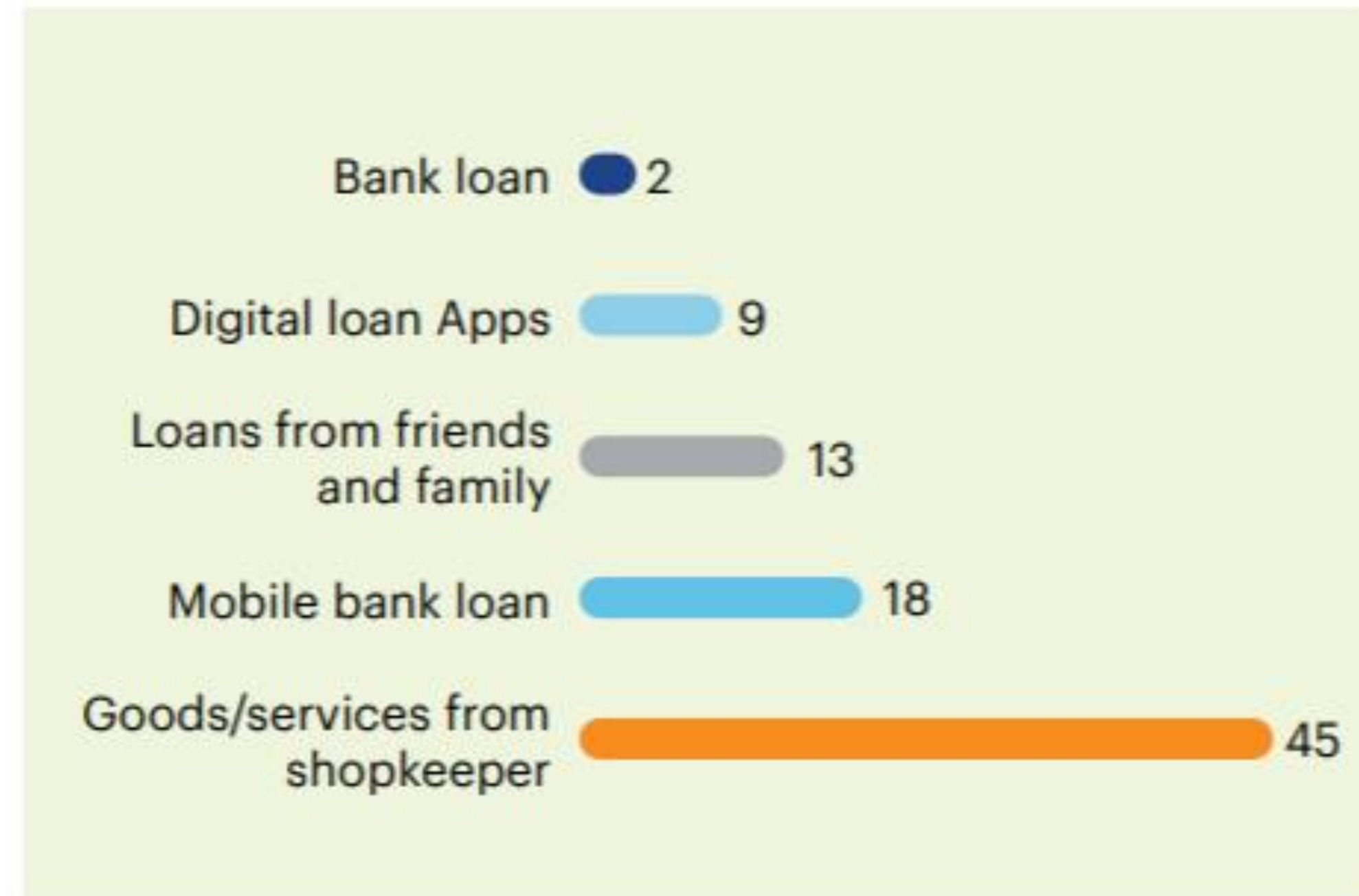
**Figure 3 : Levels of debt stress (%)**

| | % |
|---|---|
| Default on a loan | 18 |
| Debt repayments >50% monthli expnditure | 24 |
| Sell assets, borrow, reduce food expenditure | 51 |
| Any two signs of debt stress | 67 |

Source: 2019 FinAccess data.

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# Digital Credit Market Inquiry
## Stakeholder Validation Workshop

**Competition Authority of Kenya &
Innovations for Poverty Action**

May 11, 2021

# Digital credit market inquiry of the Competition Authority of Kenya

*"To identify and address potential consumer protection concerns in the regulated and unregulated digital credit markets."*

Government of Kenya Gazettement Vol. CXXII
February 21, 2020

**Market Inquiry Objectives**

1. Provide evidence regarding size and nature of DFS and digital credit markets

2. Identify potential consumer protection risks within Kenya's digital credit sector

3. Increase transparency and comprehensiveness of product information and terms and conditions

4. Address probable fraud in DFS

5. Improve consumer redress for digital credit

6. Increase consumer control over personal information to expand choice and competition

7. Inform development of policies to ensure adequate consumer protection across regulated and unregulated lenders and equal protection of all Kenya consumers

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# Digital Credit Market Inquiry



**Consumer protection survey data**

## Mobile loan use is concentrated in a few lenders

Providers ever used

Top 3 loan products all linked with M-Pesa

M-Shwari | Fuliza | KCB M-Pesa | Tala | Branch | All others

Providers used most often in last 90 days

Fuliza | M-Shwari | All others | KCB M-Pesa
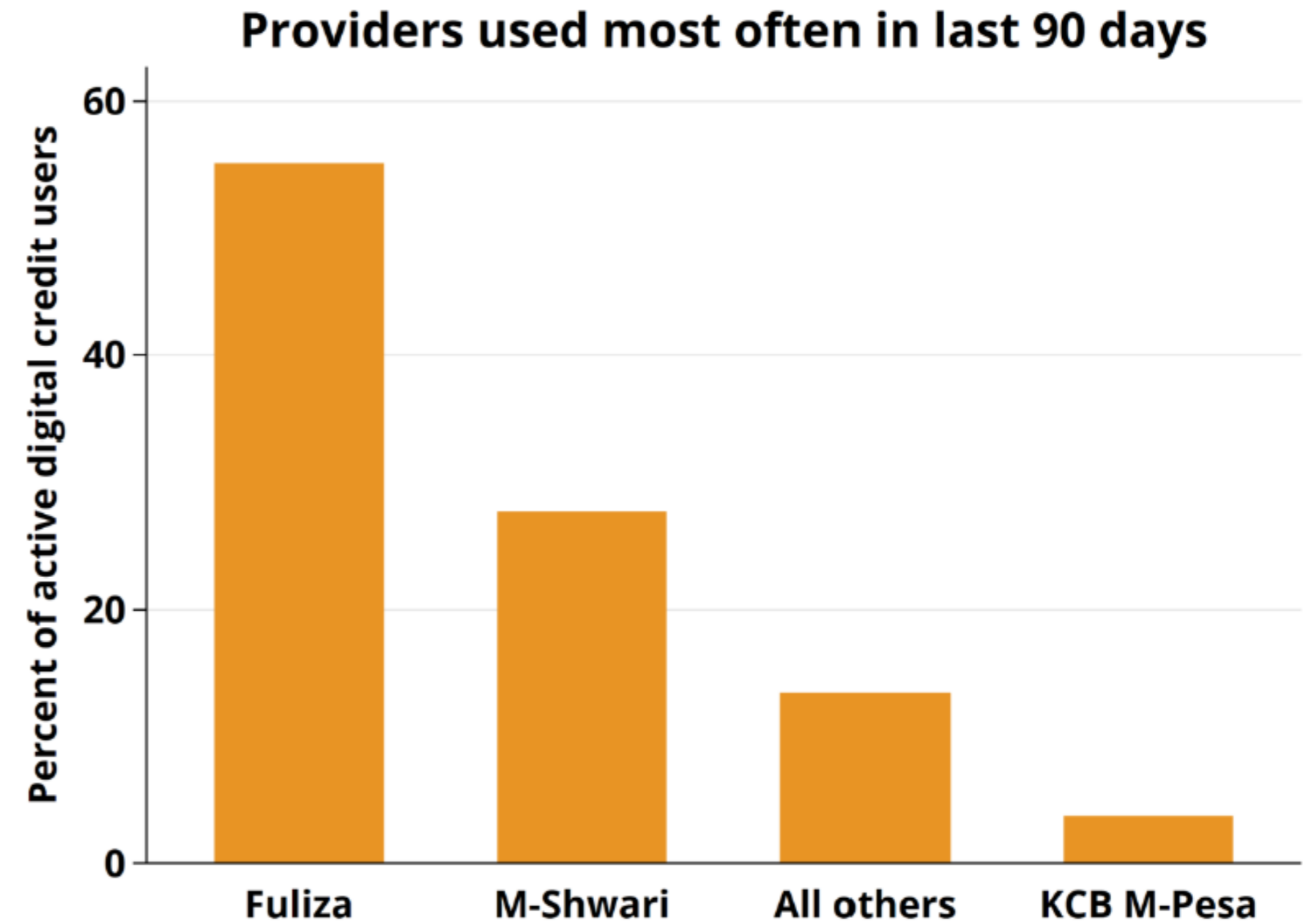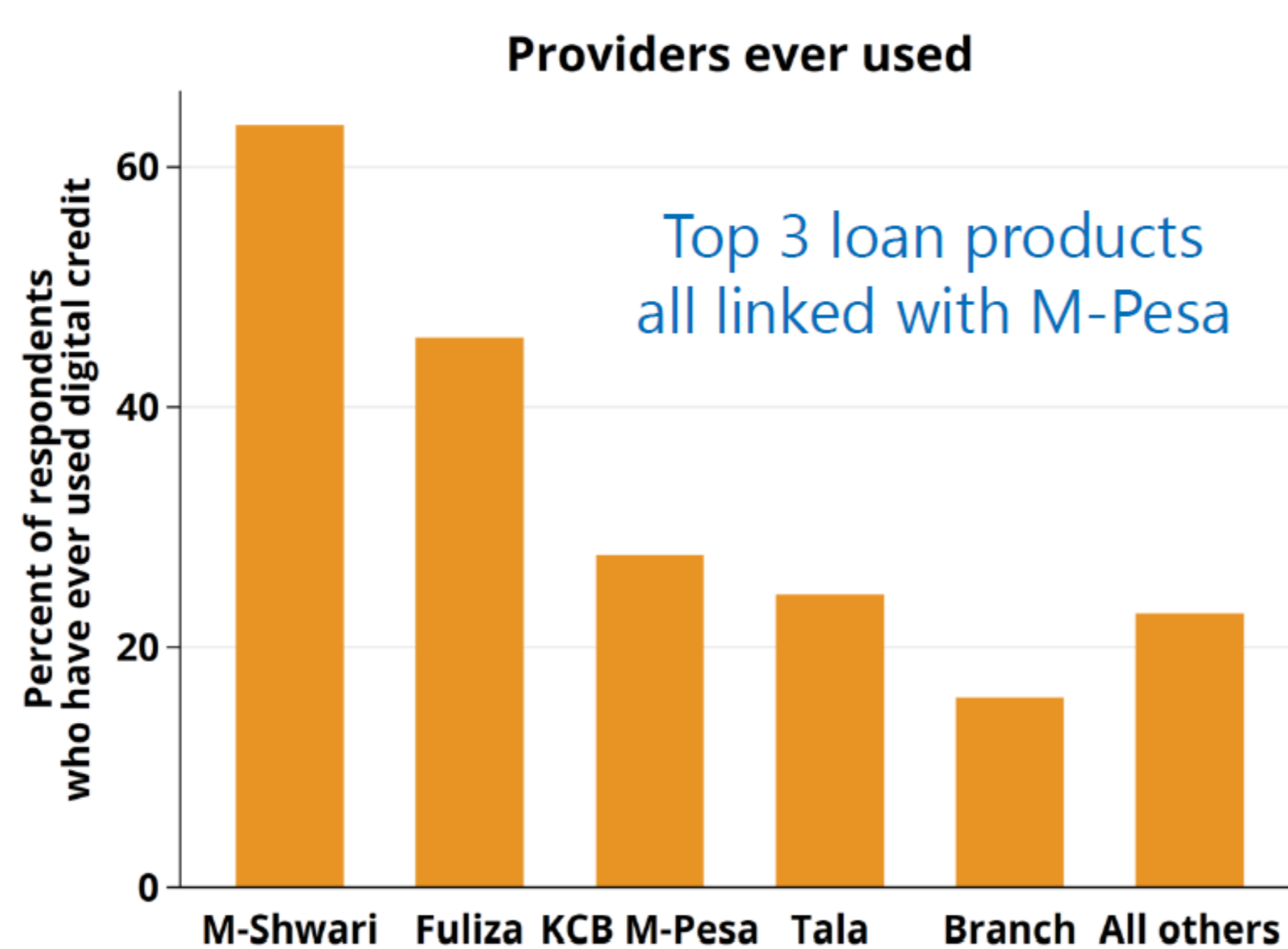
793 DFS users were surveyed from September 14 – October 18, 2020, via random digit dial method

13

# Digital Credit Market Inquiry



**Consumer protection survey data**

## Mobile loan uses

N=216

18
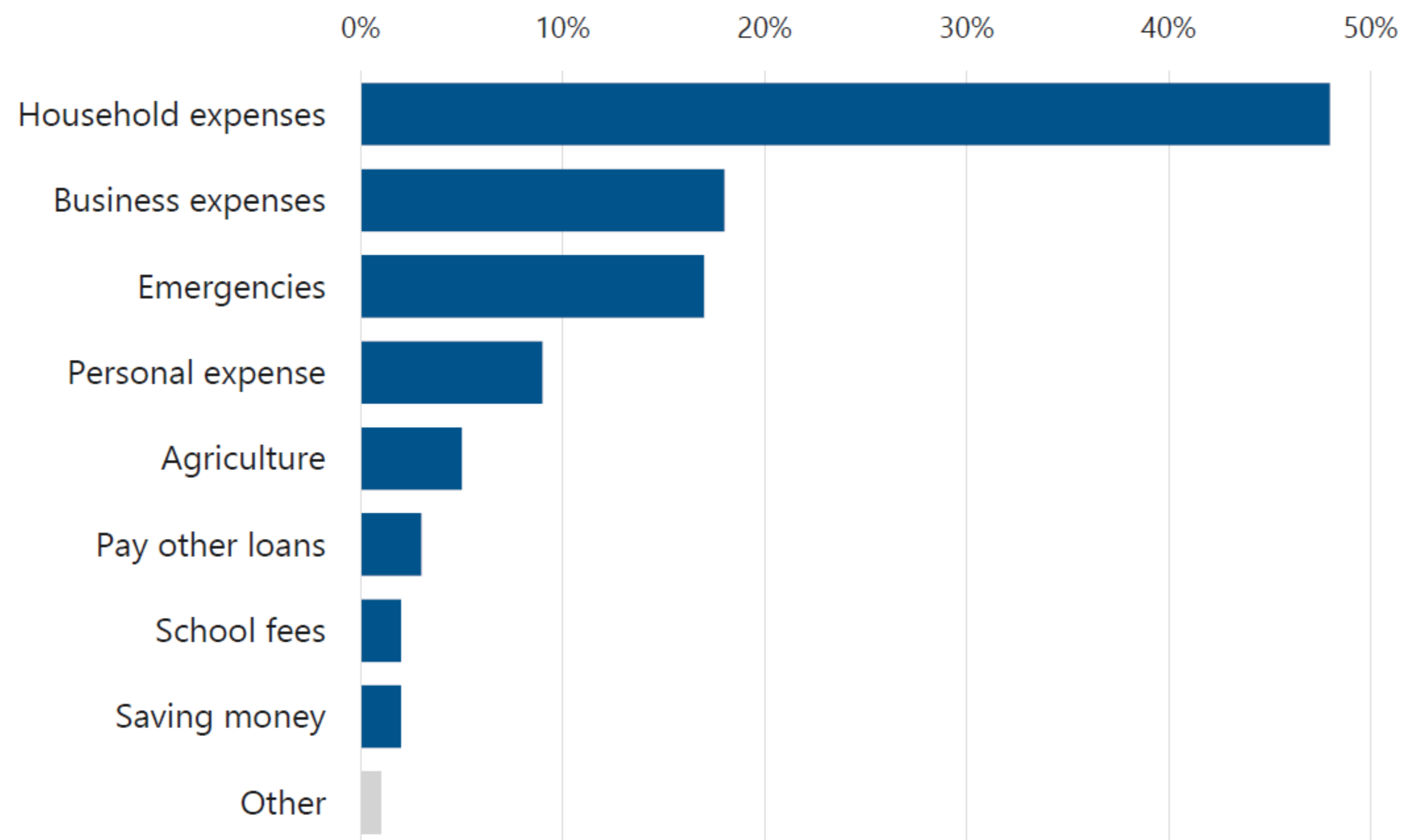
**57%** Percentage of respondents who use mobile loans for household or personal expenses

**23%** use mobile loans for business or agriculture expenses

**17%** use mobile loans for emergencies

# Digital Credit Market Inquiry

**Consumer protection survey data**

## Mobile loan uses are primarily consistent across providers
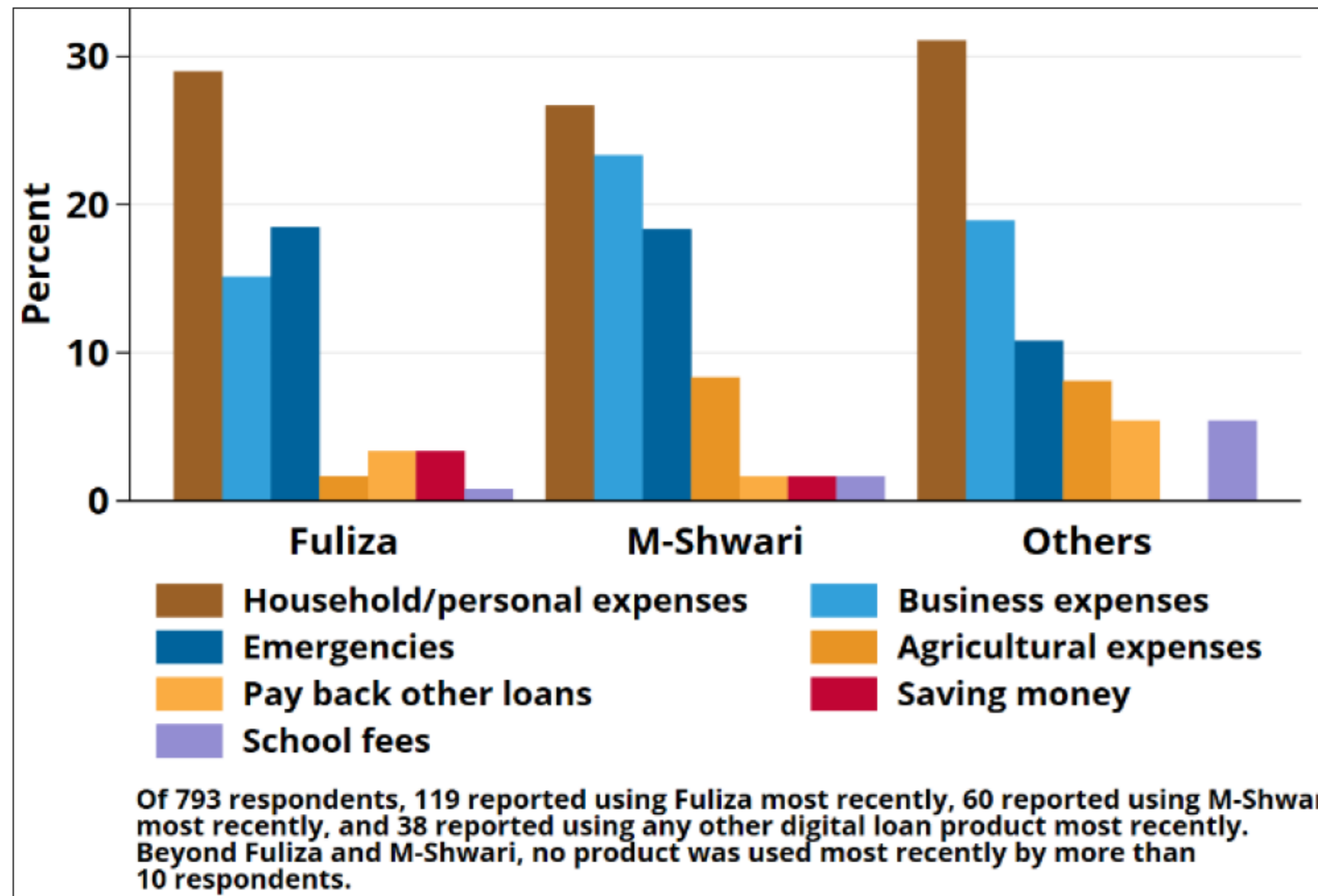
Main variation is higher relative use of Fuliza for emergencies.

Legend:
- Household/personal expenses
- Business expenses
- Emergencies
- Agricultural expenses
- Pay back other loans
- Saving money
- School fees

Of 793 respondents, 119 reported using Fuliza most recently, 60 reported using M-Shwari most recently, and 38 reported using any other digital loan product most recently. Beyond Fuliza and M-Shwari, no product was used most recently by more than 10 respondents.

19

N=216

*Digital credit provider administrative data*

# Market dynamics shifted significantly in 2019 with a new overdraft product

Product H2 became the largest lender by value by Q3 2019



Disbursements by Month

Total Value Disbursed by Month

Provider: A — F — H1 — B — G — H2

14

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33
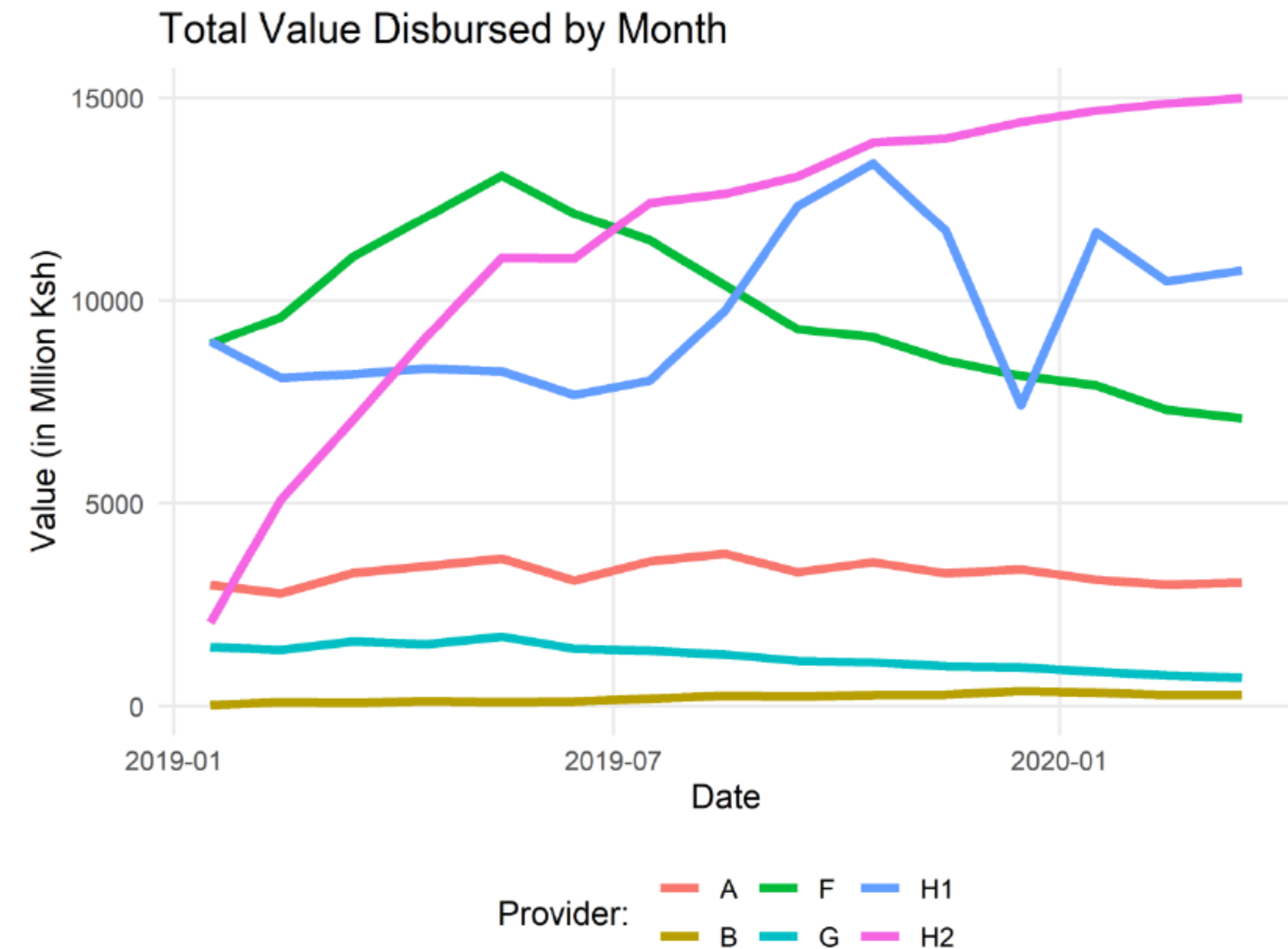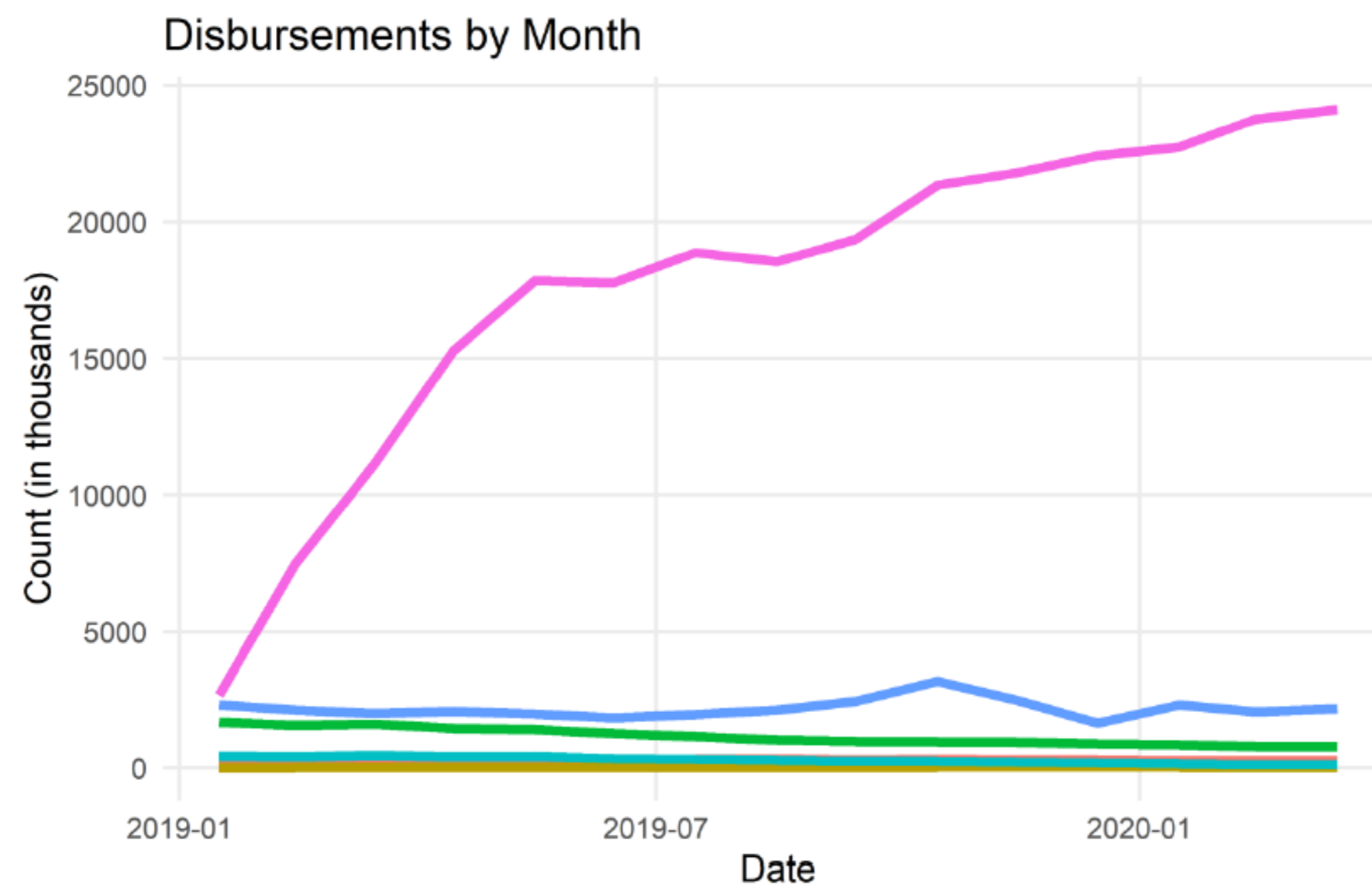
## Digital credit provider administrative data

# Volumes and values shifted significantly in 2019

Most providers increased their average loan size, yet average loan size reduced overall—due to large volume of tiny loans disbursed by H2.



Average Disbursement Size by Month
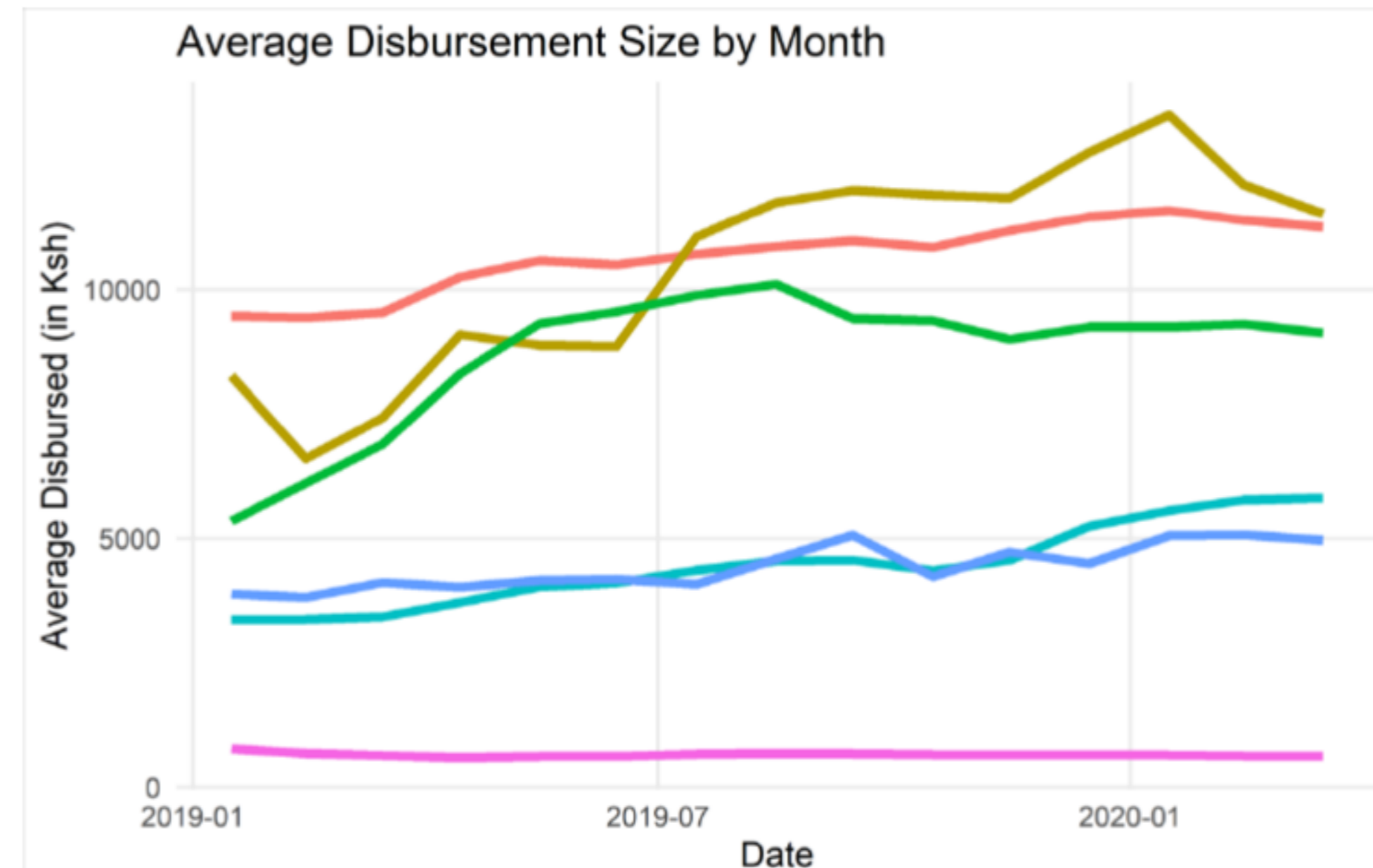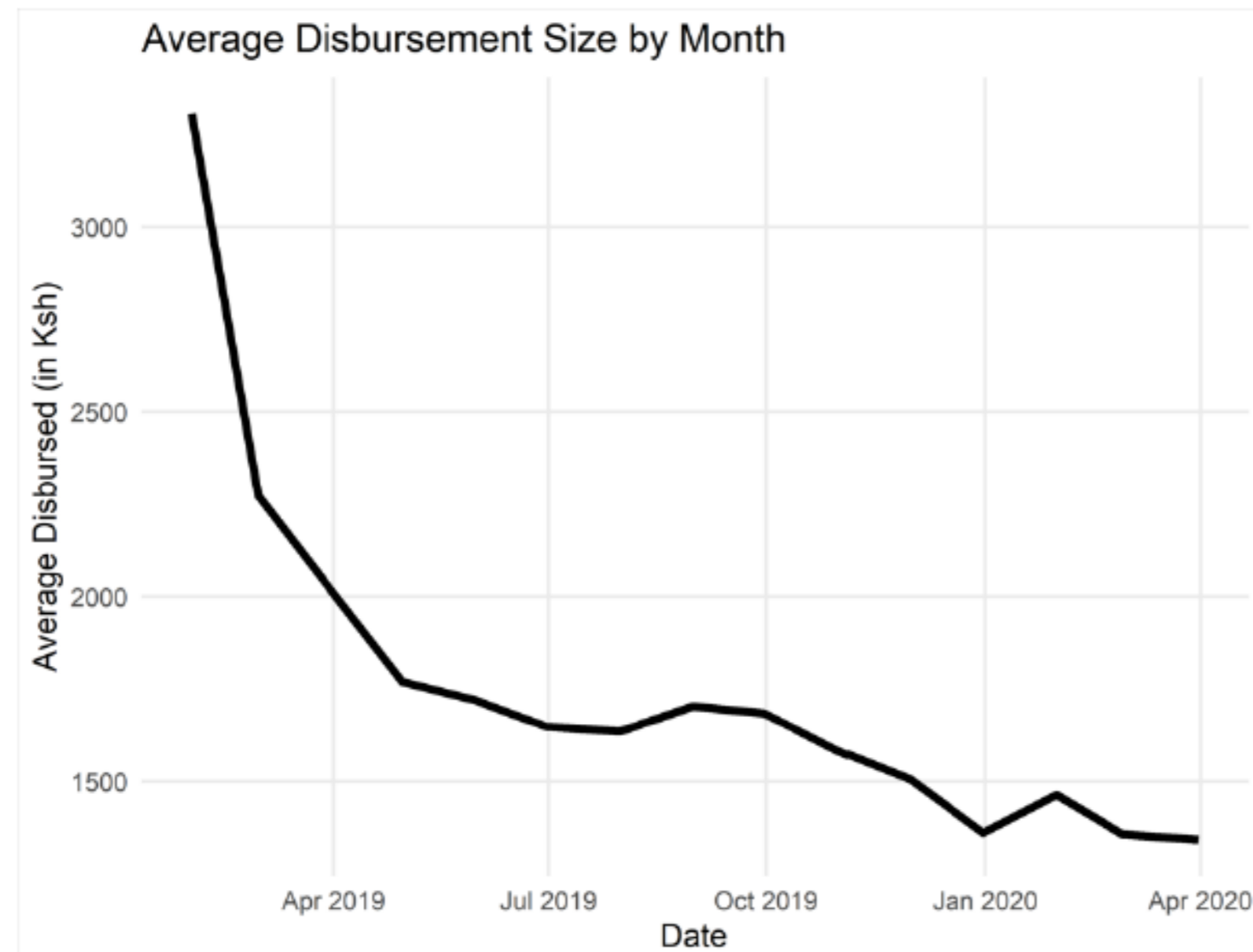
*Did providers offer larger loans to differentiate themselves or did "small" borrowers substitute into H2 from other sources?*

Provider:  A  F  H1
           B  G  H2

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Digital credit provider administrative data

Many loans are repaid early—even in 1 day—raising the "effective APR"
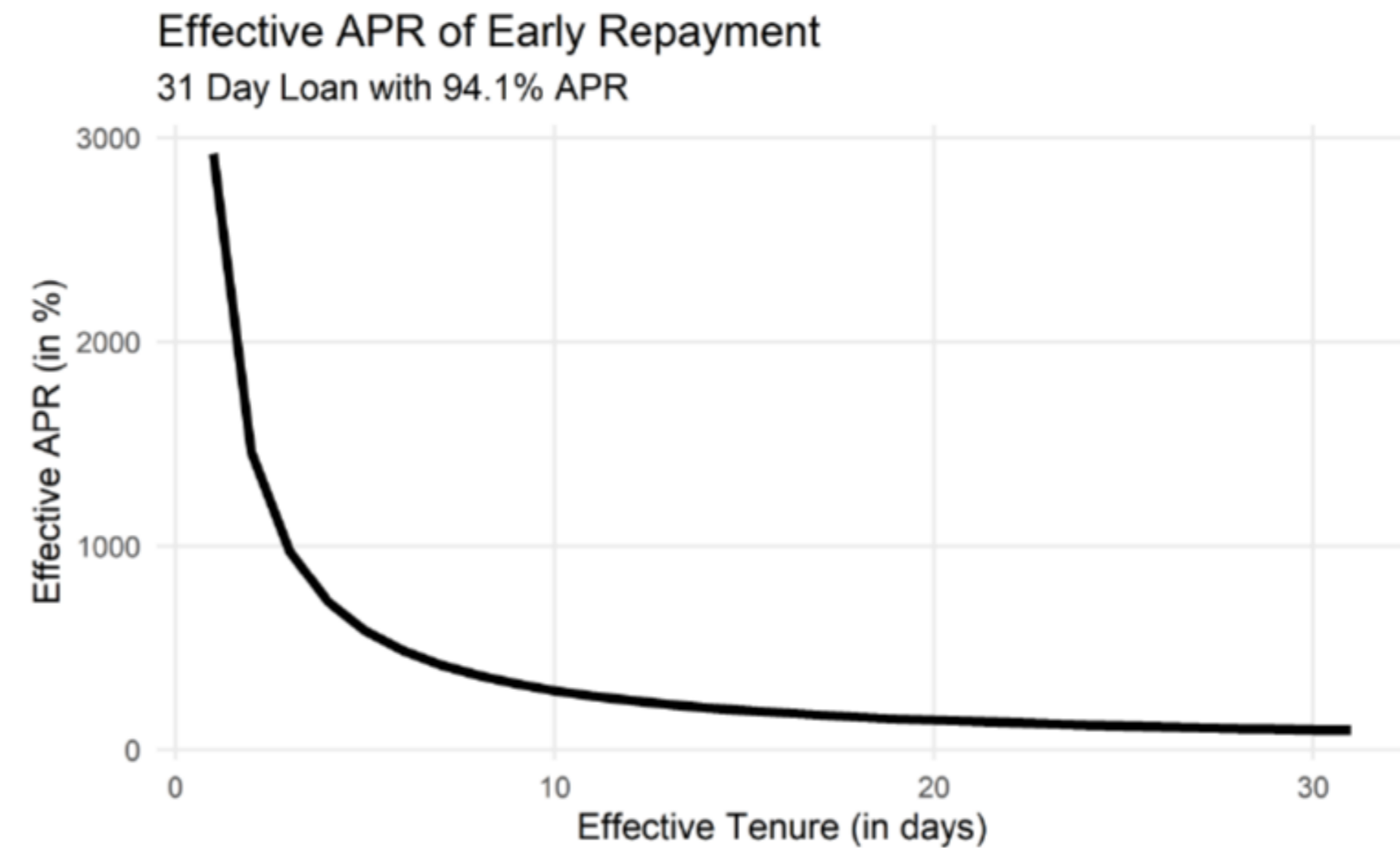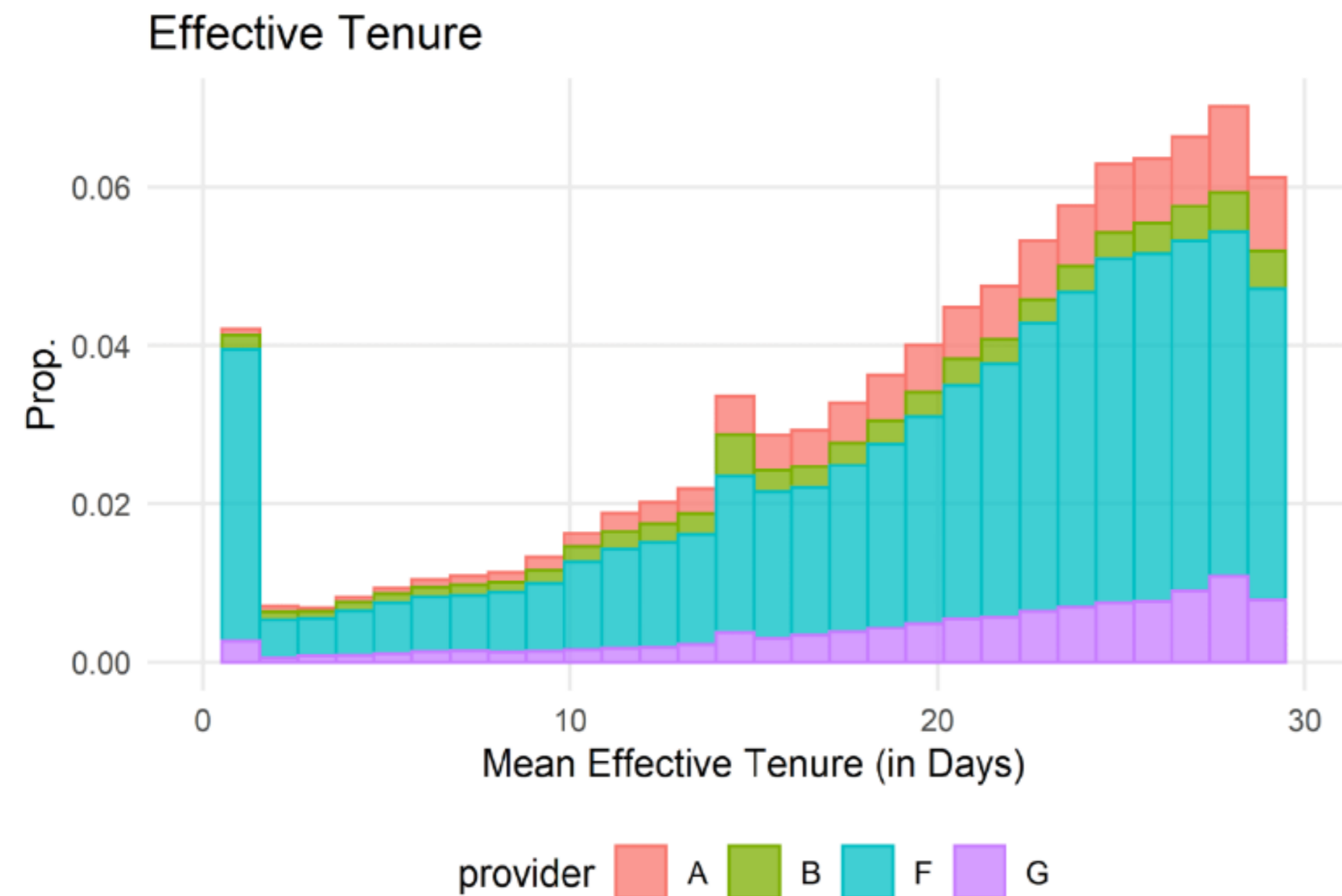
## Late repayment is very common in digital credit

**Survey data:**

**77% of mobile loan users** reported having not been able to pay a loan on time at least once.

**Administrative data**:

- Evidence of **habitual late repayment by some borrowers** and rolling over/extension of loans when they pass due date
- From one Provider: Borrowers ages 18-24 are most likely to be late and to default.

| Gender | Proportion late | Proportion defaulted |
|---|---|---|
| Female | 19.6% | 6.5% |
| Male | 20% | 7.9% |
| No data | 19% | 7.1% |
| Age Group | | |

| Age group | Proportion late | Proportion defaulted |
|---|---|---|
| 18-24 | 27% | 10.9% |
| 25-44 | 19.6% | 6.8% |
| 45-64 | 16.6% | 5.6% |
| 65+ | 18.9% | 7.2% |
| No data | 19.2% | 7.4% |
| **ALL** | **19.4%** | **7.2%** |

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**Consumer protection survey data**

## Reduced expenditures are the most common sacrifices made to repay mobile loans

**Percentage of mobile loan users who reported making sacrifices to repay mobile loan (n=430)**

| | 0% | 10% | 20% | 30% | 40% | 50% | 60% |
|---|---|---|---|---|---|---|---|
| Reduce non-food expenditure | | | | | | | |
| Reduce food expenditure | | | | | | | |
| Nonpayment of another debt | | | | | | | |
| Second loan to pay for first loan | | | | | | | |
| Nonpayment of school fees | | | | | | | |
| Sold personal/household assets | | | | | | | |
| None | | | | | | | |
| Other | | | | | | | |
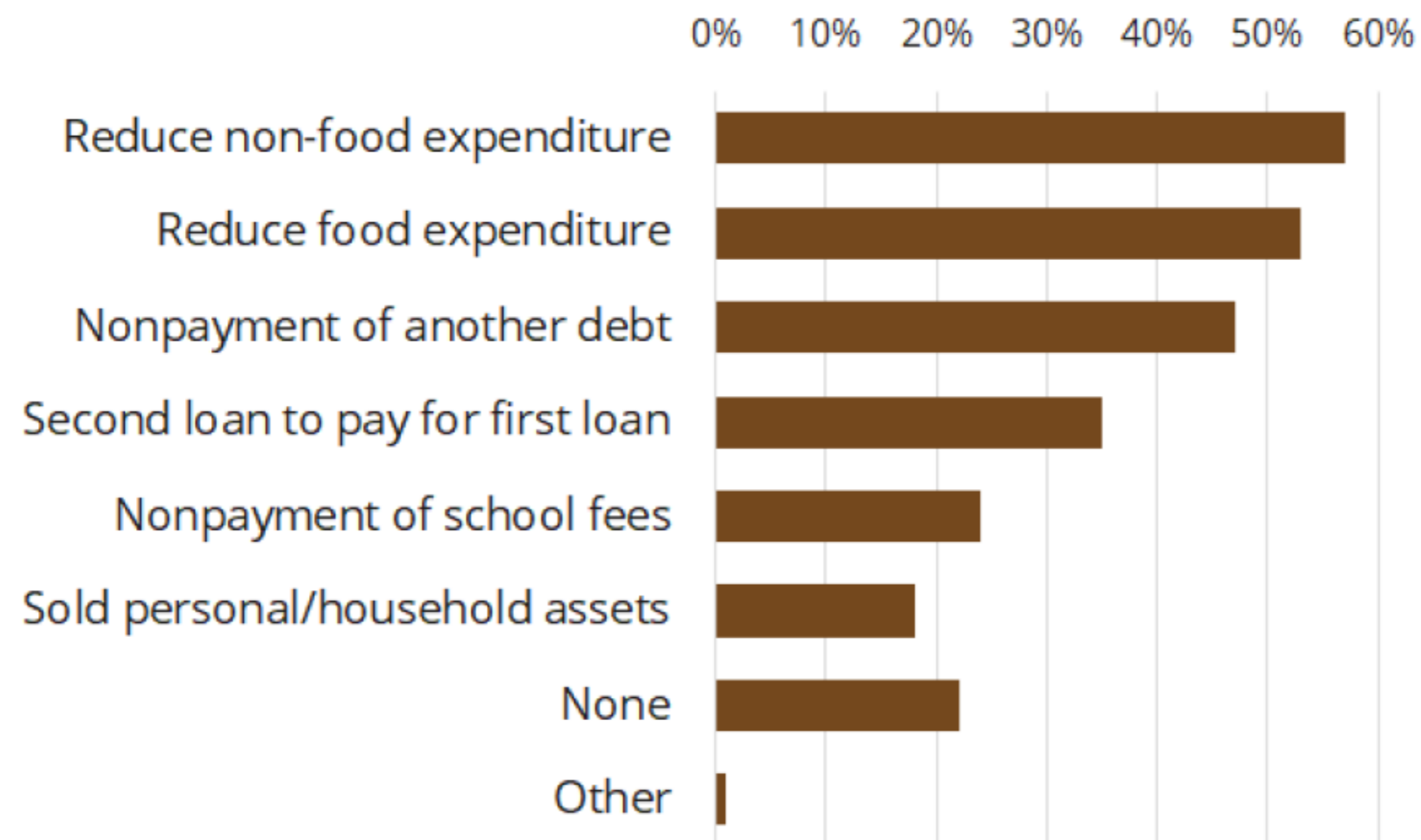
- This makes sense given many loans are taken for consumption purposes, according to survey respondents
- Some evidence mobile loan debts impact debt service of other loans

**Consumer protection survey data**

# Multiple borrowing is mainly due to emergencies

## Reasons for taking multiple mobile loans at same time
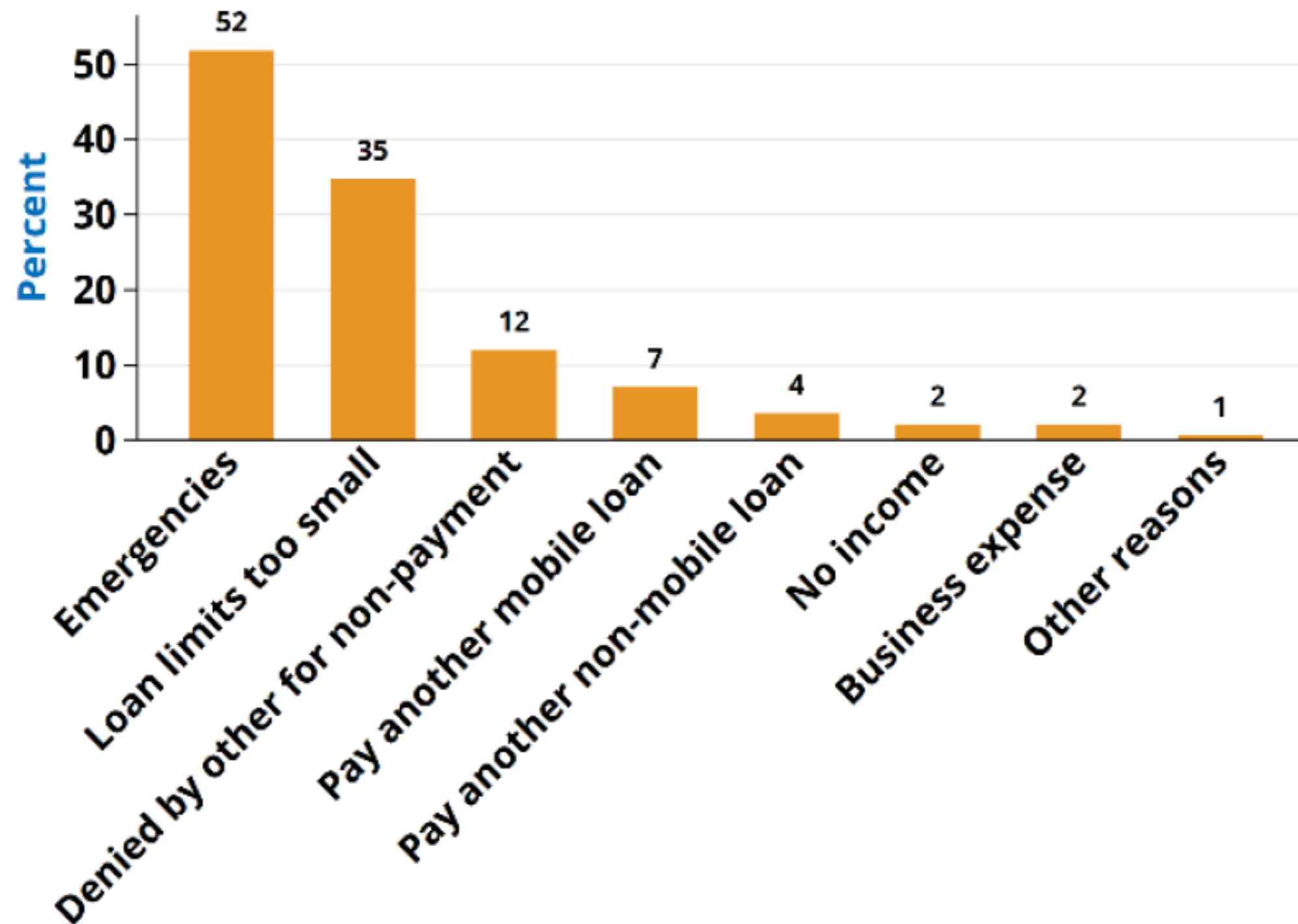


**Increase in multiple borrowing during the pandemic**

- 33% of mobile loan users reported they had multiple mobile loans active at the same time before March 16th, when much of Kenya shut down due to the pandemic.
- These borrowers were then asked if they had multiple active loans at any point after March 16th, and 44% of these borrowers reported also having multiple active loans at some point before the pandemic.

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## Digital credit provider administrative data

# Multiple account holding
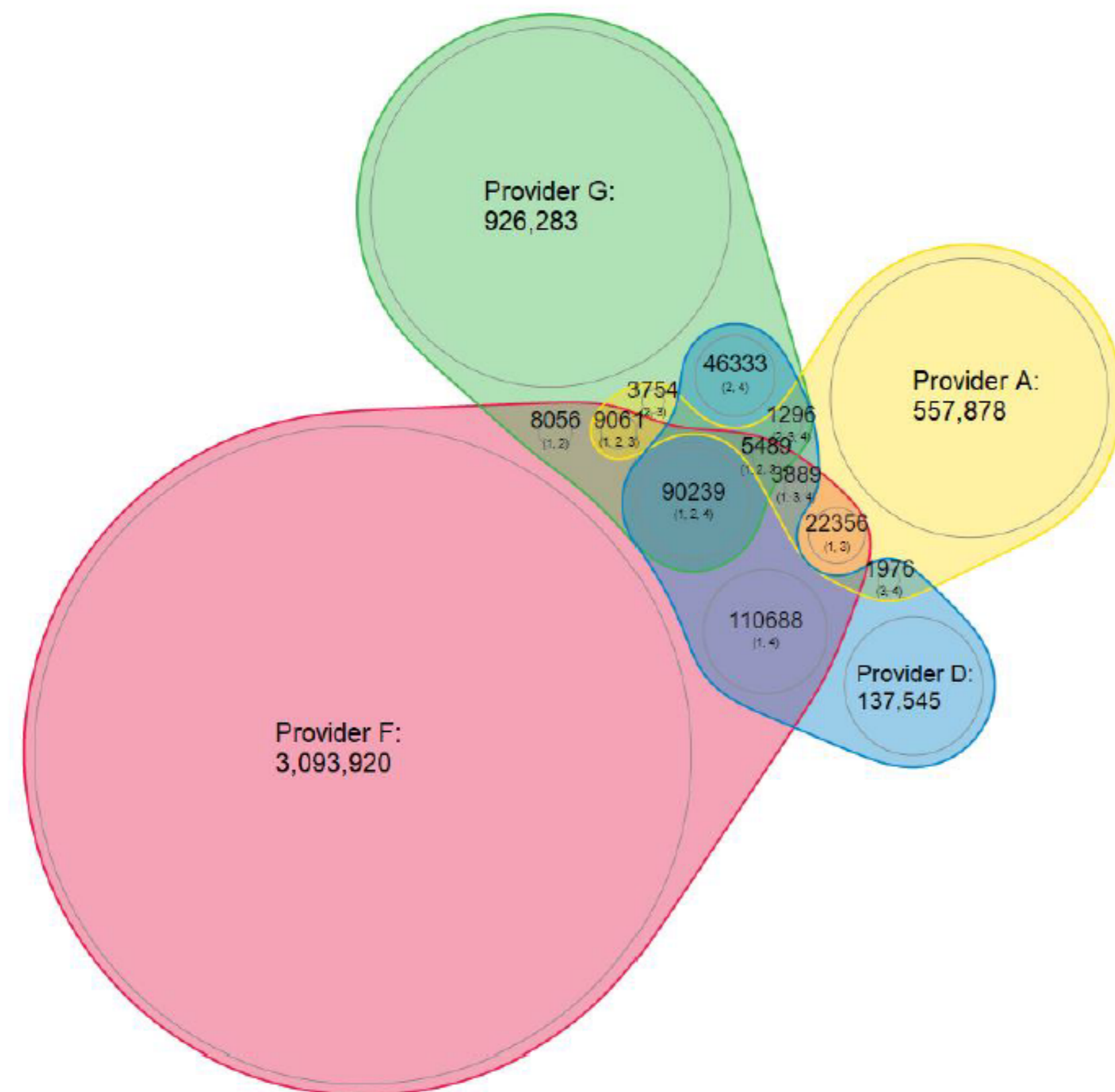


Sufficient information to match some borrowers at four providers in data submissions

6% of borrowers have multiple accounts
- Not the full extent of multiple account holding
- More prevalent among men than women
- More common among those 25-64 years old than among younger than 25 or older than 65

Wide variation in overlap across providers as shown in the Venn diagram

Need for more complete industry data to fully map out this issue as it has important implications for information-sharing systems

**Consumer protection survey data**

# Price is not a top three factor in choice of provider

### Reasons for choosing mobile loan provider (n=217)



Consumers express some barriers to choice and switching
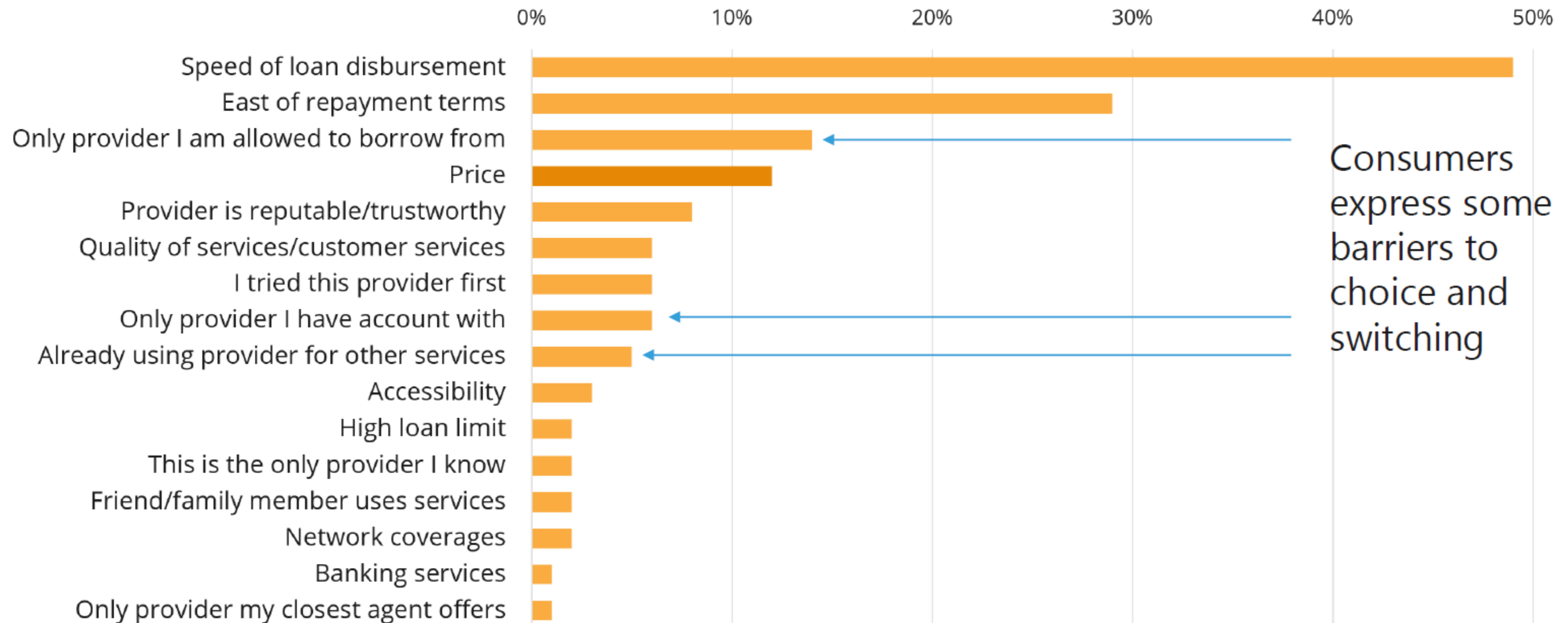
# Digital Credit Market Inquiry

## Digital credit provider administrative data
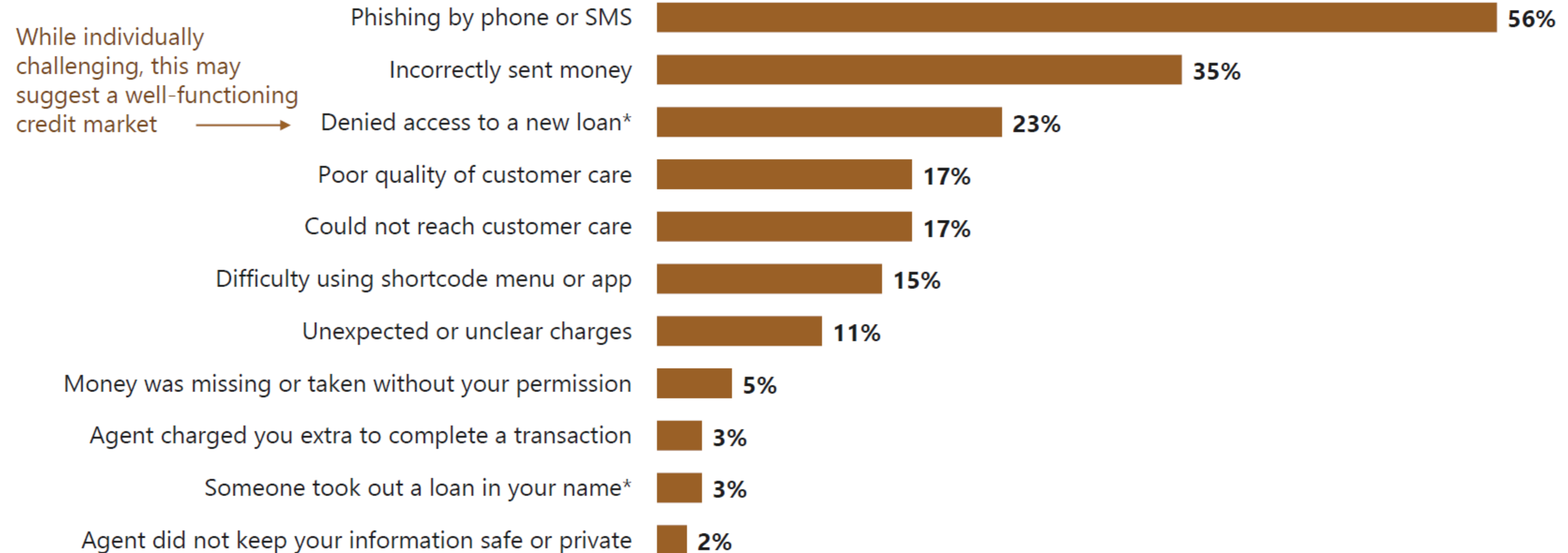


Effective APR varies by age and gender
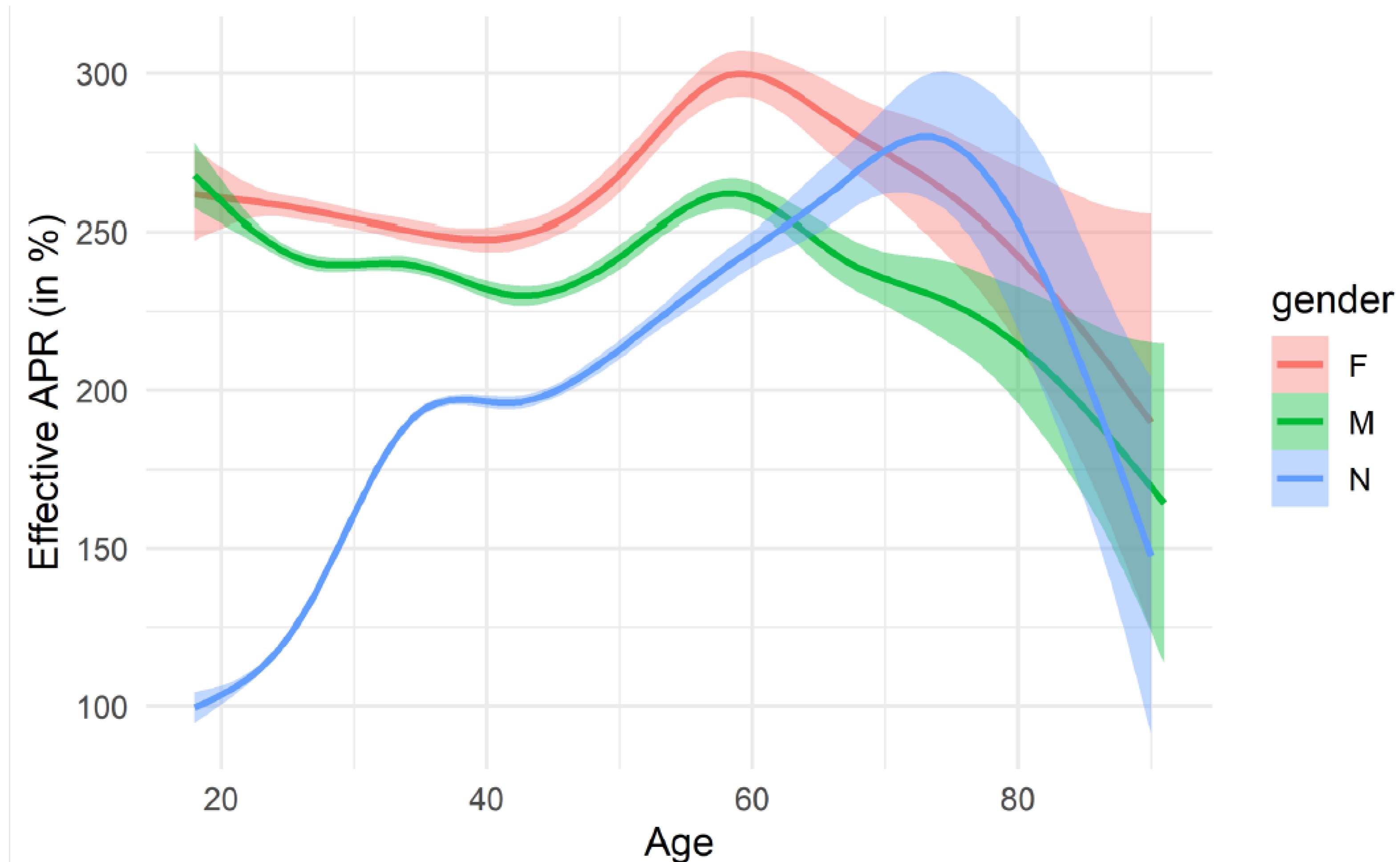
# Digital Credit Market Inquiry



**Consumer protection survey data**

## Scam attempts are most common challenge in DFS

Percent of respondents, reporting consumer protection challenges:

While individually challenging, this may suggest a well-functioning credit market →

| Challenge | Percent |
|---|---|
| Phishing by phone or SMS | 56% |
| Incorrectly sent money | 35% |
| Denied access to a new loan* | 23% |
| Poor quality of customer care | 17% |
| Could not reach customer care | 17% |
| Difficulty using shortcode menu or app | 15% |
| Unexpected or unclear charges | 11% |
| Money was missing or taken without your permission | 5% |
| Agent charged you extra to complete a transaction | 3% |
| Someone took out a loan in your name* | 3% |
| Agent did not keep your information safe or private | 2% |

* Loan-specific challenges reflect percent of mobile loan users, not all respondents

49   Notes: n=769–793 except for "Denied access to a new loan (n=430) and "Someone took out a loan in your name" (n=426); January – October 2020

FSD Kenya Creating value through inclusive finance

Impact of COVID-19

# Unregulated Digital Credit Only Apps

Credit offered by members of DLAK dropped by 50% to KShs 2 billion a month after COVID-19 was detected in the country
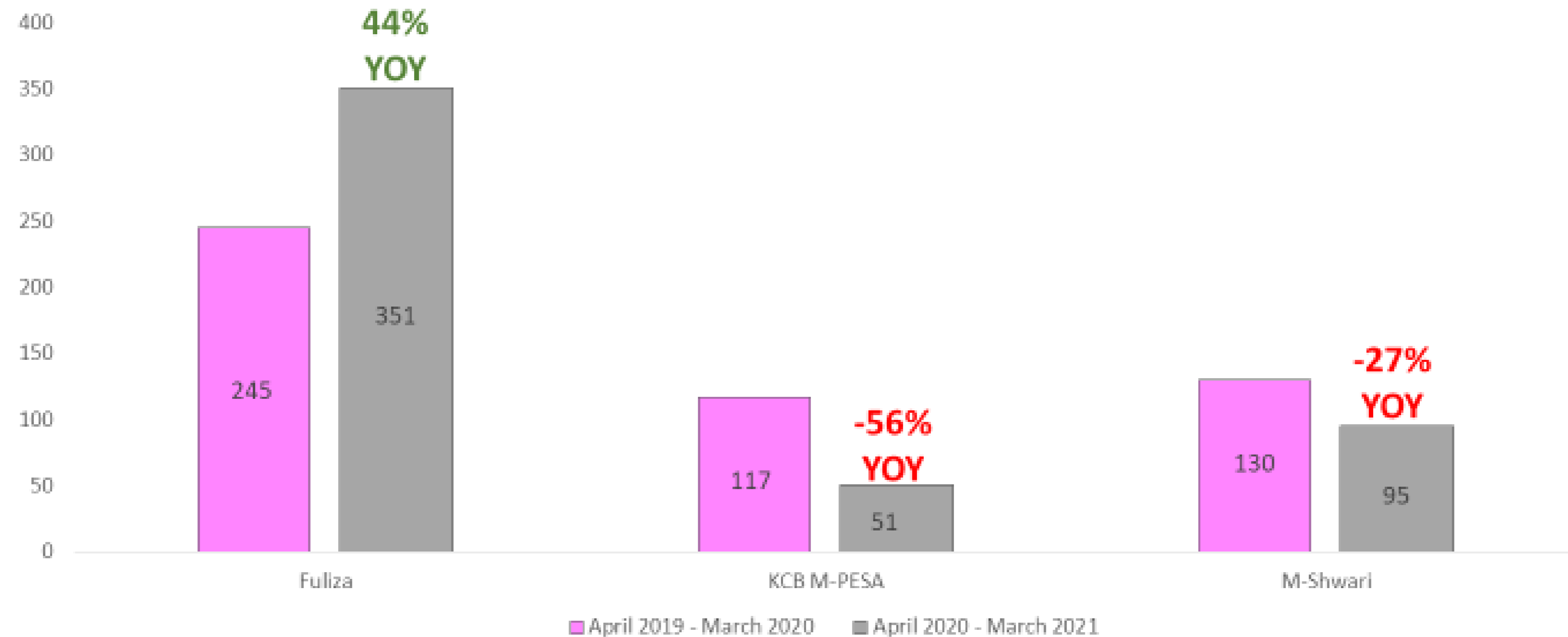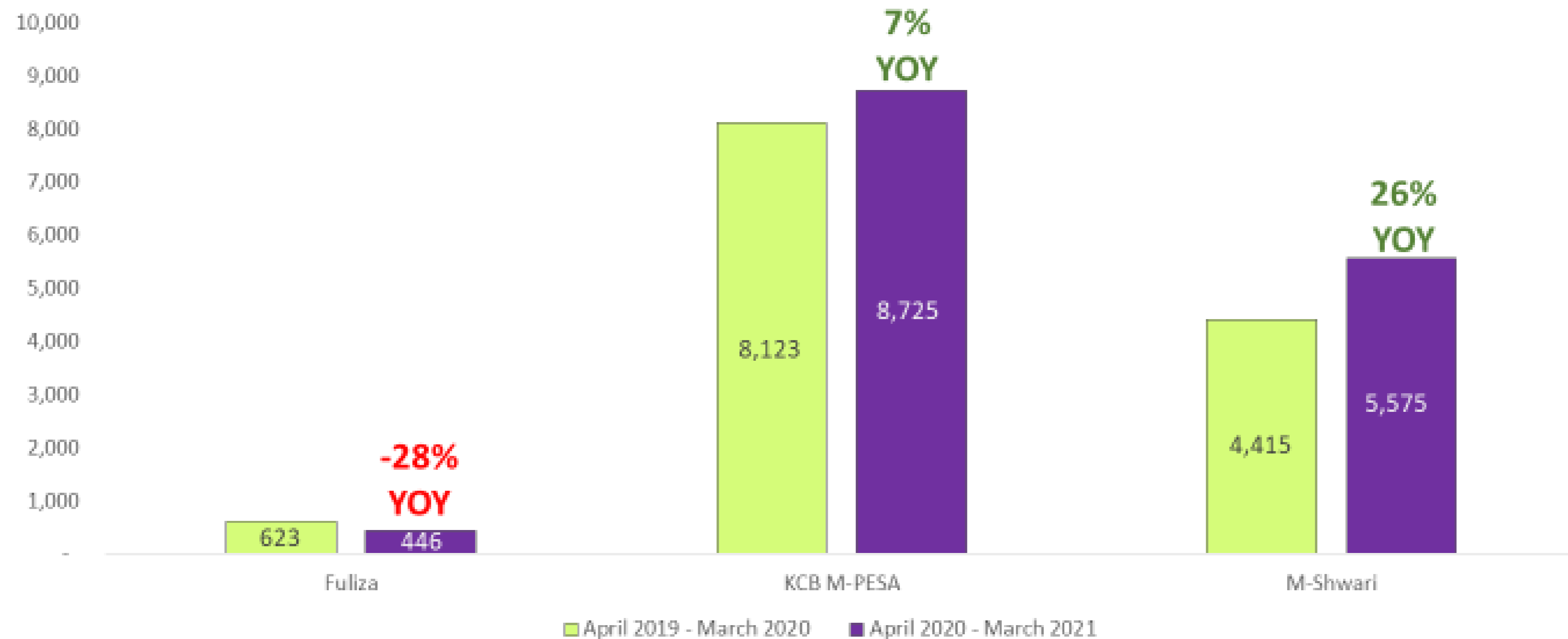
# Safaricom financial results



Million active users
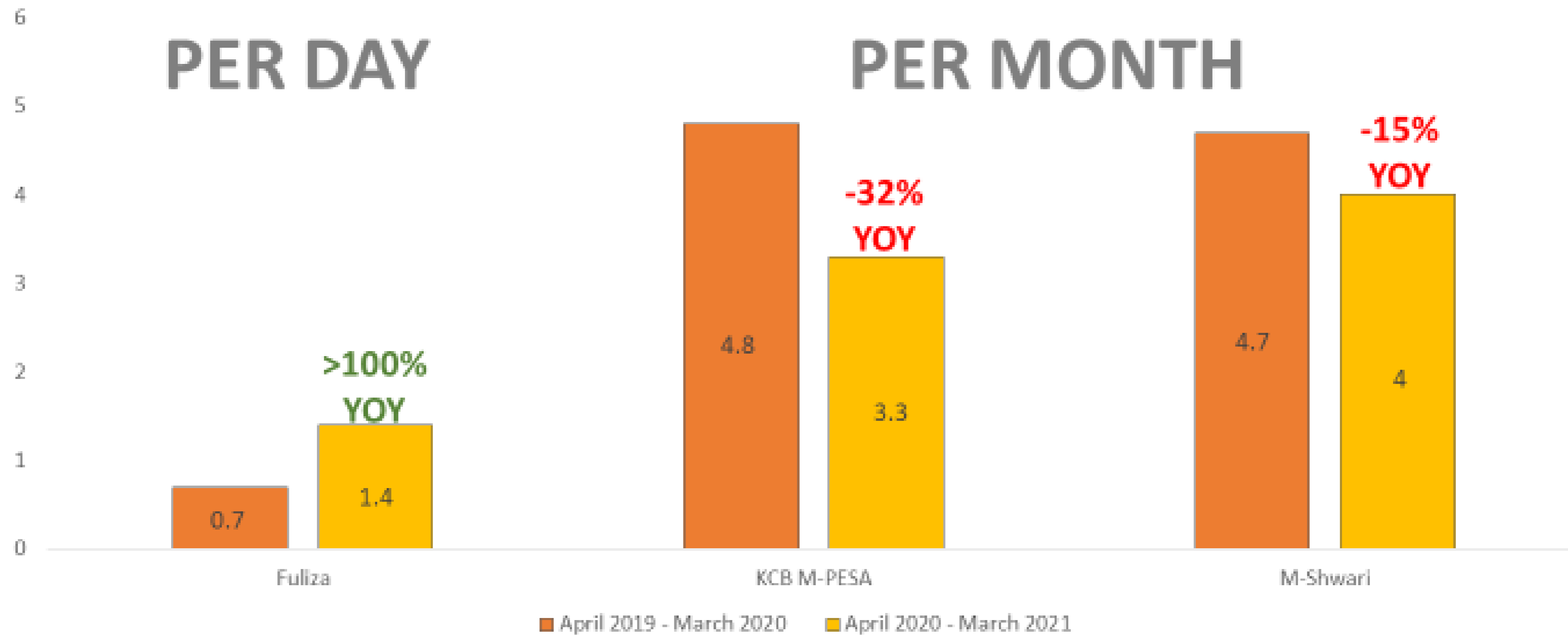
PER DAY — PER MONTH

Fuliza: 0.7, 1.4 — >100% YOY
KCB M-PESA: 4.8, 3.3 — -32% YOY
M-Shwari: 4.7, 4 — -15% YOY

Legend: April 2019 - March 2020, April 2020 - March 2021

# Safaricom financial results

## Average loan size



Chart: Average loan size comparing April 2019 – March 2020 (green) and April 2020 – March 2021 (purple)

- **Fuliza:** 623 → 446, **-28% YOY**
- **KCB M-PESA:** 8,123 → 8,725, **7% YOY**
- **M-Shwari:** 4,415 → 5,575, **26% YOY**

Legend: ■ April 2019 - March 2020  ■ April 2020 - March 2021

# Kantar 2020 -2021

Mobile bank loans
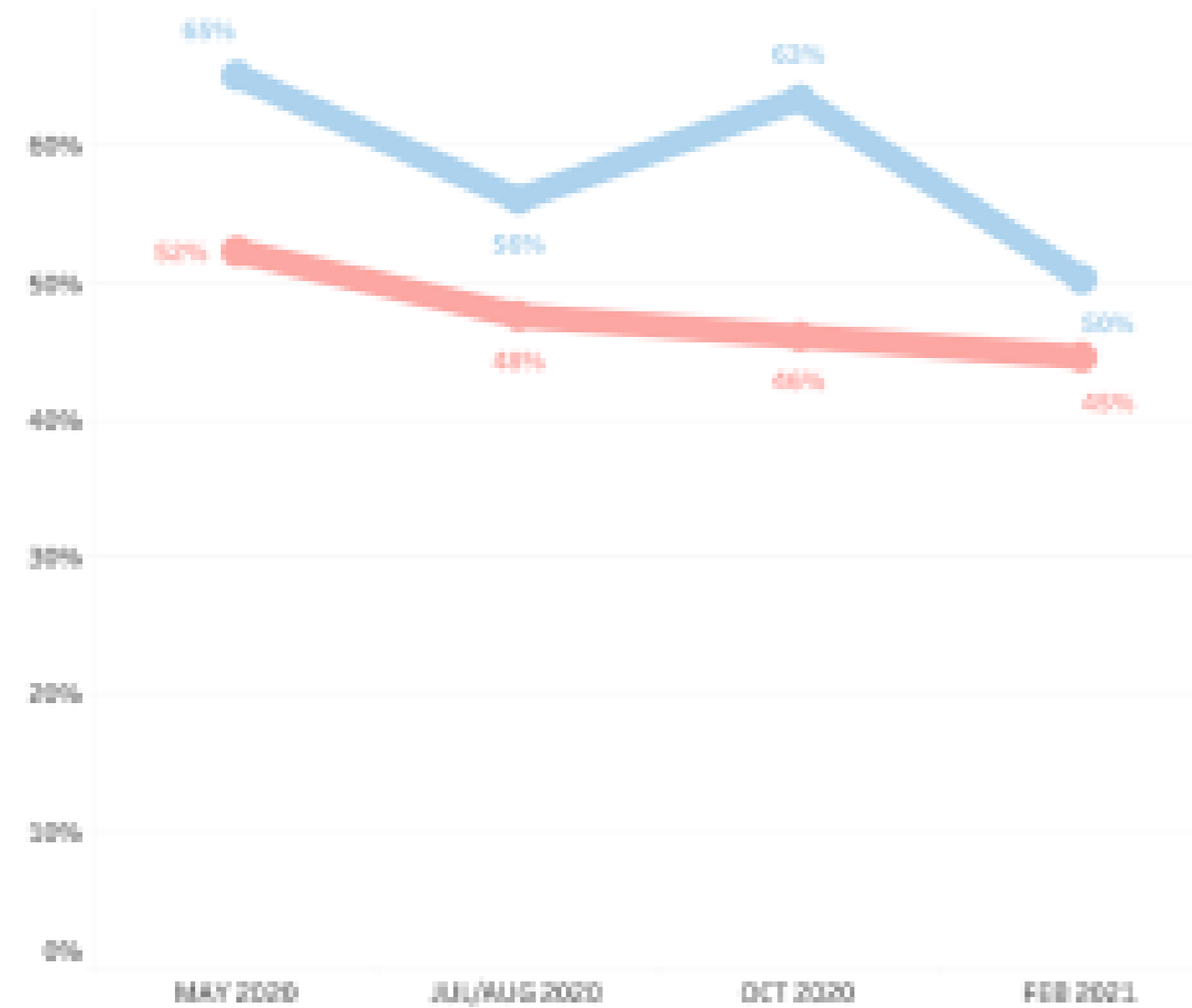
Mobile money credit (Fuliza)

Credit only apps

FEMALE
MALE

# Kantar 2020 -2021

# Digital Credit
# &
# Financial Inclusion

Tamara Cook
FSD Kenya

ICPAK 37th Annual Seminar
May 2021

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