Field Note 14

GENDER-DIVERSE AGENT NETWORKS FOSTER CHANNEL ACTIVITY AND FINANCIAL INCLUSION FOR WOMEN

INSIGHTS FROM GENDER-LENSED DATA ANALYTICS IN THE DEMOCRATIC REPUBLIC OF CONGO

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Digital Financial Services (DFS) have expanded financial access to underserved populations and enabled broader inclusion and participation in the economy. Yet, despite significant overall progress, the gains have been uneven. Women’s access to mobile money in Sub-Saharan Africa jumped from 10 percent in 2014 to 21 percent in 2017, but men’s access increased by even more, from 13 percent to 28 percent, highlighting a significant gender gap in mobile money account ownership in the region.¹ There are 980 million women globally who have no account with a formal financial institution. They accounted for 56 percent of the world’s unbanked in 2017.²

Closing the gender gap in DFS requires identifying and removing obstacles to women’s financial inclusion. Eighty-one percent of women globally own a mobile phone and an even higher share of women have access to one, which raises the possibility of inclusion through a digital channel.³ Yet, women still face numerous impediments – including real or perceived lack of funds, low literacy rates, inadequate education, and social and cultural norms – to accessing DFS and other financial services. And even when women have registered for DFS they are less likely to actively use the service.

IFC applied gender-lensed data analytics to study whether the presence of female agents increases DFS usage for female customers (and if the absence of female agents poses a barrier for female customers to use these services).

Previous research has shown that women clients prefer to transact with women agents but often have low access to them because women are underrepresented in agent networks.⁴ Consequently, a scarcity of female agents may be impeding women’s access and usage of DFS. In a collaboration with FINCA DRC, a microfinance institution (MFI) in the Democratic Republic of Congo (DRC), IFC quantitatively assessed the salience of gender in agent banking transactions.⁵

Results from the analysis of more than 1 million financial transactions completed by the MFI’s 100,000 clients in 2017 and 2018 show that gender matters for financial service usage. Women are seven percentage points more likely to transact with female agents than with male agents. They are also significantly more likely to conduct larger transactions when their agent is also a woman. The analysis shows that the value of transactions that women conduct when dealing with a female agent is similar to the value of transactions made by men. Conversely, when dealing with male agents, female clients tend to make smaller transactions. What’s more, women may be more likely to visit female agents when they have high balances, possibly to avoid passing on financial information to men. These results have clear business implications for scaling financial access to women; and for providers, these results underscore the importance of gender-diversified agency banking networks to reach all customers and deliver services effectively.

¹ Global Findex, 2017.
² Ibid.
⁵ The full research study on which this field note is based is available in the World Bank Policy Research Working Paper Series.
The findings suggest that women would participate more fully in the financial economy if there were more opportunities to conduct transactions with women agents. The data support inclusive business strategies: recruiting more women to become agents, as well as addressing unique concerns that women have about DFS transactions could have a measurable, positive impact on women’s financial inclusion and also increase overall activity levels on digital finance channels for providers.
INTRODUCTION

Women’s financial inclusion is critical for advancing equity, reducing poverty and providing economic opportunities. Beyond the social benefits, there is a business case for providers to focus on women, who account for half of the world’s population but are underrepresented at many financial institutions. In Africa, women are more likely than men to be entrepreneurs and need financial services, but often face a raft of legal, social and educational challenges that inhibit their ability to borrow money and access formal savings mechanisms.\(^6\) Overcoming these constraints can strengthen the ability for women to participate and contribute to the development of the continent. Accelerating progress towards gender equality may add up to 10 percent to the GDP of African economies by 2025.\(^7\)

Digital Financial Services enable innovative approaches to addressing poverty as well as social and economic exclusion. DFS can help women gain access to banks and accelerates the expansion of financial opportunities in high-poverty and remote areas. DFS enables women to participate in the digital economy with tools to better manage their finances and harness business opportunities.

Research from Kenya highlights that DFS expansion particularly benefitted female-headed households by improving financial resilience, enabling savings and increasing occupational choice as some women transitioned from agriculture jobs into business employment.\(^8\)

Notwithstanding the promise of financial inclusion to unlock positive change for women, progress has recently been stalling. The gender gap in financial inclusion in developing countries is still at nine percent, virtually unchanged since 2011 while overall inclusion continues to improve.\(^9\) This raises the possibility that the gender gap may not just vanish over time as financial inclusion grows—or at least not in the short- or medium-term. The private and public sectors need to increase their efforts in addressing the barriers to uptake and usage of financial services in order to make progress on women’s financial inclusion.

Gender-lensed data analytics

The research presented in this report, which was conducted as part of the Mastercard Foundation-IFC Partnership for Financial Inclusion, contributes to a better understanding of the unique challenges women face in financial service usage. Its results suggest multiple avenues for advancing women’s financial inclusion through changes in agent networks, products and service delivery. The starting point for the study were two observations: First, women customers differ from male customers in terms of their transaction behavior, with respect to frequencies, transaction volumes, and preferred transaction locations. Second, IFC research found that performance of women agents in DRC is different to that of male agents.\(^10\) These observations raised suggested that gender may influence client behavior and business results at agents.

This study analyzed customer interactions with agents by conducting a gender-disaggregated data analysis of approximately 1 million financial transaction records to understand whether the gender of an agent influences customers’ transaction behavior in DRC.

In a collaboration with FINCA, the team analyzed data from more than 100,000 clients in 2017 and 2018 to quantitatively study differences in transaction patterns between male and female clients. The key result: women are more likely to conduct transactions with female agents, suggesting the agent’s gender is a significant factor for women in DRC when making financial choices.

The study’s findings contribute to the financial inclusion of women through a better understanding of behavior patterns. Insights can be leveraged to improve the value proposition of agent banking to women, make changes to product design, and remove other barriers to active usage.

\(^8\) Teveet Suri and William Jack. 2016. The Long-Run Poverty and Gender Impacts of Mobile Money.
\(^10\) IFC, 2016. Women Make the Best DFS Agents.
BOX 1: OVERCOMING BARRIERS TO WOMEN’S DFS UPTAKE AND USAGE

Providing relevant services that can be easily embraced and actively used by women and underserved customer segments is key to accelerating and expanding financial inclusion. This requires understanding the barriers to DFS adoption as well as usage patterns and factors that contribute to customer retention.

**Barriers to uptake**
In African societies, many of which are among the world’s most gender unequal, women and marginalized groups may become more economically autonomous as a result of access to financial tools. At present, however, women are at a disadvantage for a number of reasons:

- **Legal barriers:** Gender-based legal restrictions exist in nearly 90 percent of countries. In five African countries, women are not allowed to open bank accounts in the same way as men. DRC, the focus country of the study, abolished a restrictive law in 2017. DFS often has lower KYC (Know Your Customer) requirements than traditional financial services, which makes it easier to open an account. Still, a legacy of unequal access, lack of identification (there is a nine percentage-point gender gap in ID card ownership) and other obstacles can put women at a disadvantage when registering for financial services.

- **Socio-economic barriers:** Women in Sub-Saharan Africa earn six to 30 percent less than men and often are not socially empowered to independently decide how to use financial resources. DFS promises to provide more financial autonomy, yet women more often than men don’t register for DFS due to perceived or real lack of resources. Three in four unbanked women report they have too little money to open an account.

- **Knowledge and skills:** Throughout Sub-Saharan Africa, women on average have lower literacy levels and lower levels of education. This has direct consequences for financial literacy and the capacity to understand and use financial services.

- **Technological barriers.** Less access and familiarity with technology makes it more difficult to use financial services. Fifty-eight percent of women and 71 percent of men own a phone in Sub-Saharan Africa, a gender gap of 13 percentage points.

- **Cultural barriers.** By tradition, many African societies do not encourage women to seek financial autonomy and strive for business success, impeding the adoption of DFS and other services.

**Barriers to usage**
Failure to address women’s specific needs may lead to gender gaps in activity:

- **Products:** Products that are not designed with women in mind may be less useful to women. For instance, in societies where it is not acceptable for a woman to give a phone number to men, women may not use products where such an interaction is required.

- **Cost:** Affordability is an important barrier for women who are resource poor and time-constrained. Women frequently prefer services with a high level of price transparency.

- **Use-cases:** Women often save informally and are on average less active on DFS. Catering to their needs is key for fostering an active female customer base.

- **Customer experience:** Interactions between the agent and the customer affect usage. For instance, concerns about security, fears or experience of harassment and lack of product support have an impact on how women use DFS.
THE IMPORTANCE OF GENDER IN AGENT BANKING TRANSACTIONS IN DRC

DRC is a challenging environment for advancing financial inclusion. As of 2015, 71 percent of women and 64 percent of men in DRC did not have access to any formal financial services account.23 FINCA DRC, the microfinance institution (MFI) that IFC collaborated with for this study, has a strong mission to reduce poverty and to grow women’s financial inclusion. The institution launched its agent network in 2011. The network grew rapidly from 322 agents in 2014 to over 1,200 agents in 2018 and has become a backbone of FINCA’s service delivery.24 Women play an important role in FINCA’s agent network. While only eight percent of all formal businesses in DRC are owned by women, they represent over 20 percent of all agents. Female agents often contribute in important ways to financial inclusion. According to IFC research from 2017, they are 12 percent more likely than male agents to be present in low-income areas, 50 percent more likely to be present in commercially underdeveloped areas and have a higher presence in areas not served by traditional banking services.25

Gender dynamics within FINCA’s agent network

IFC analyzed transaction data to understand representation of women agents and customers in FINCA’s network. Female clients are underrepresented at each of the different steps from service uptake to active usage (see Figure 1). While women account for 51 percent of DRC’s population,26 39 percent of the FINCA DFS customers are women, and they account for 28 percent of all transactions within the agent network based on 2017-2018 data. By contrast, transactions by male clients with male agents alone account for over half (56 percent) of all transactions within the network. In terms of transaction value, the differences are even larger: women account for 22 percent of transaction volume whereas transactions by men at male agents account for 66 percent of the entire volume.

Figure 1. Gender composition of the customer base of FINCA DRC (Data: 2017-2018)

Twenty-three percent of all agents are women in the transaction data that FINCA DRC shared. Grouping the share of female agents by markets (where each market represents the area around a FINCA branch) provides two insights. First, Figure 2 shows that the representation of women differs substantially between markets. While women account for 34 percent of agents in Matete, merely seven percent of agents in Boma are female. Second, women agents are present in all markets, providing a choice for customers. At the same time, women are always in the minority and their share can be quite low. Hence, women agents tend to be less accessible to customers than male agents.

Figure 2. Share of women agents within FINCA's network by market (Data: 2017-2018)

Average across all markets: 23% women agents

Figure 3. Type of transactions of FINCA clients segmented by gender (Data: 2017-2018)

<table>
<thead>
<tr>
<th>Percent of transactions</th>
<th>Male</th>
<th>Female</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Deposit</td>
<td>96.1%</td>
<td>97.5%</td>
<td>96.5%</td>
</tr>
<tr>
<td>Cash Withdrawal</td>
<td>3.6%</td>
<td>1.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Fund Transfer</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>School Fees Payment</td>
<td>0.2%</td>
<td>0.6%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
Deposits represent 97 percent of all transactions among DFS customers, whereas withdrawals represent three percent. As Figure 3 shows, other types of transactions play a very minor role. Women are slightly more likely than men to deposit into their account (98 percent versus 96 percent) while a higher share of men's transaction value is accounted for by withdrawals (four percent versus two percent).

Women make fewer transactions than men and the value of their transactions is lower on average. Women’s transaction numbers over the one-year study period 2017-2018 were 39 percent lower than those of males (7.7 versus 12.8 transactions) while the average transaction amount per client was 22 percent lower ($155 versus $198).

**Positive relationship between the share of women agents and transaction at women agents**

Notwithstanding lower accessibility, women are more likely to seek out women agents as indicated by the orange bars in Figure 4. These show that in almost all markets, the share of women’s transactions at women agents exceeds those of men at women agents.

**Figure 4. Gender gap in the percentage of transactions at women agents by market (Data: 2017-2018)**
The research results in Figure 5 show that in markets where there is greater representation of women agents, a greater share of transactions of both males and females is conducted at women agents. Importantly, the parallel lines indicate that women have a consistently stronger preference for female agents even in markets with few female agents. This suggests that women's financial inclusion and participation seems more advanced in markets where women have more of an opportunity to conduct transactions with other women.

**Figure 5. Relationship between share of women agents and share of transactions at women agents by market (Data: 2017-2018)**

Women’s greater propensity to transact with women agents (Figure 4) and a positive relation between the share of women agents and transactions at these agents (Figure 5) are the starting point for a more detailed statistical investigation of the role gender plays in DFS transactions.
INSIGHTS FROM GENDER-LENSED DATA ANALYTICS

IFC used regression modelling to unpack the effect of gender on transaction behavior, accounting for the agent location, customer age, agent age, transaction type, transaction amount and currency (i.e. whether US dollars or Congolese Francs were used, as FINCA agents may transact in either currency). Based on over 1 million transactions conducted by 100,000 clients between 2017 and 2018, three key insights emerged:

• **Women are seven percentage points more likely to seek out women agents.** After accounting for a variety of relevant influencing factors, women are found to be seven percentage points more likely to visit women agents, independent of how easy women agents are to access. Interestingly, when clients are outside their usual transaction location, especially men become more likely to transact with women agents compared to when in their home market.

• **Women’s transaction amounts are similar to men’s at women agents.** At male agents, the value of female customer’s transactions is only half (53%, USD$133) of what males transact on average at male agents (USD$250, see Figure 6 below). By contrast, females’ transactions are on average 66% larger at female agents than at male agents (USD$221 on average) and the difference in transaction values becomes small at female agents (female customers transact USD$221 and males USD$207). Thus, male and female clients transact similar amounts at female agents whereas male transaction values at male agents are higher.

• **Women are more likely to go to women agents when they have higher balances.** Analysis of more limited data including customer balances suggests that female clients may be more likely to transact at a female agent when their balance is higher. Importantly, this effect persists after controlling for the amount transacted. Put differently, women with a high balance are more likely to go to a woman agent even when they transact small amounts. A potential explanation is that an agent can see a customer’s balance during the transaction. This may lead women to seek out women agents when they are particularly concerned about passing on financial information to men (i.e. when their account balances are large). The finding is in line with other research on the impacts of male access to financial information on service usage by women. In Kenya, for instance, providing husbands with access to women’s bank accounts through ATM cards led some women to stop using the accounts, most likely because the cards increased husbands potential control over women’s resources.²⁸

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### Figure 6. Average value of transactions by agent and customer gender (Data: 2017-2018)

- **At male agents:**
  - Male customers: USD 250
  - Female customers: USD 133

- **At female agents:**
  - Male customers: USD 207
  - Female customers: USD 221

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²⁷ We note that due to more limited data, the statistical significance of this finding is lower than for our other findings.
Research implications

The application of gender-lensed data analytics in FINCA DRC provides a granular understanding of the dynamics within the network and actionable insights to improve women’s participation within DFS. Three key implications from IFC research with FINCA DRC are:

• **Provide women with the option to visit a women agent.** IFC research shows that FINCA’s women clients have a robust preference to transact with women agents. But because there are more male agents than female agents in every market (Figure 2), it is often less convenient (and sometimes more expensive) to visit a female agent to conduct business. Future research should aim at understanding in more detail on how convenience impacts women’s use of DFS.29

• **Make gender part of agent rollout strategies.** A key building block for improving access to female agents is to ensure gender diversity at the agent rollout stage. Without an explicit focus on gender equality, women often need to overcome significant obstacles to become agents. FINCA women agents have higher working capital and sales than the average male agent. These agents outperform the average male FINCA agent,30 but their outlets are not representative of female businesses in DRC where the average shop had 49 percent lower profits than the average male business.31 Creating opportunities for women to become agents in light of these challenges requires an explicit focus on the gender dimension. Formulating goals and measures to achieve more gender equity will yield results and promote inclusive norms that encourage women to become agents.

• **Redesign products to accommodate women’s needs and challenges.** Products and procedures that are designed to meet gender-specific needs taking into account social norms are crucial for empowering women with DFS. IFC’s analysis shows, for example, that the disclosure of account balances during a transaction, leads women to seek out women agents when their balances are higher. In societies where women are more likely to be pressured to share or have their resources appropriated by male relatives, this can be a considerable concern. Hence, procedures which safeguard women’s financial information may foster trust and usage.32

**Gender-lensed data analytics in DFS**

The FINCA DRC project showcases how gender-lensed analytics can provide insights into customer behavior at scale and identify effective actions to improve women’s participation. Sometimes, a seemingly small feature such as disclosing an account balance can have substantial impact on behavior. With regard to gender dynamics, financial institutions – which have more stringent Know Your Customer requirements – may have an edge over mobile network operators (MNO) offering DFS. For example, SIM card registrations with MNOs may not accurately represent the user given that cards are often registered under someone else’s name and phone are often shared within a household.

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29 IFC research provides indirect evidence that women need to travel further to access a woman agent given their lower accessibility. Future research projects should validate this conjecture through an analysis of customer GPS location (not available in our data) and distance to the nearest male and female agent.

30 IFC, 2016. Women Make the Best DFS Agents.


CONCLUSION

DFS has greatly contributed to providing financial access to underserved populations. Amid this overall positive trend, the gender gap in financial inclusion has stood at nine percent in developing countries in 2017, virtually unchanged since the 2011 Findex. This calls for innovative solutions and bold ideas to advance women's participation in DFS.

IFC’s research collaboration with FINCA DRC demonstrates the salience of gender, based on the analysis of over 1 million agent banking transactions of 100,000 clients in 2017 and 2018. The results indicate that gender matters for how customers interact with agents. Women clients are 16 percent more likely than men to transact with women agents after accounting for relevant factors such as demographic, transaction, and location variables. Women clients transact lower amounts when at male agents while women's transactions are similar in value to those of men when at women agents. When they have high balances, women are more likely to transact at women agents, even after accounting for the amounts transacted.

IFC insights suggest potential pathways to make DFS more amenable to women: This includes supply-side interventions that increase the availability and accessibility of women agents. For instance, a gender-lensed redesign of agent recruitment strategies can put women on more equal footing when it comes to becoming agents. Strategies to increase service accessibility need to be grounded in an understanding of where specifically women customers lack access and would particularly benefit from the availability of women agents.

On the demand side, registration procedures and service design which are not adapted to cultural norms and women’s specific needs are impediments to uptake and usage. Gender-lensed data analytics can pinpoint some of these features and suggests pathways for improving services, procedures and products. For instance, rethinking whether women’s privacy can be better safeguarded during transactions may alleviate women’s barriers to usage and benefits other customer groups who share this concern as well. Thus, a gender inclusive approach which incorporates women’s and men’s needs, is important.

The results from DRC may not speak for the gender dynamics of all African countries. But the implications are not exclusive to DRC. Using data from a randomized field experiment in Senegal, IFC shows that the results from DRC apply to Senegal as well. Senegalese female customers also exhibit a preference to transact with female agents. Conducting similar analyses across different contexts will contribute to a comprehensive picture of the needs, challenges and opportunities for women in DFS.

Understanding women customers is necessary for advancing women’s financial inclusion and closing the gender gap in financial access. Gender-lensed data analytics should be part of the toolkit used in tackling the problem. Strong, data-driven research supports providers to home in on effective strategies that bridge that gap between intention and successful action on advancing women’s financial inclusion.

33 Global Findex, 2017.
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AUTHOR

Fabian Reitzug is a research consultant supporting the work of the Applied Research and Learning team. His focus is on data analytics and the impacts of gender and culture on the take-up and usage of DFS in Sub-Saharan Africa.

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