



Case Study

April 2024

FROM COLLATERAL TO CASHFLOW: EXPANDING ACCESS TO FINANCE FOR NIGERIA'S FEMALE BUSINESS OWNERS

Authors: Ariel Gruver, Tricia Koroknay-Palicz, Sreelakshmi Papineni, Sarmad Shaikh, and Siegfried Zottel

SUMMARY

Women in Nigeria are starting and growing businesses at a remarkable rate offering a vast untapped market for business lending. The World Bank, through its Nigeria Women Entrepreneurs Finance Initiative (We-Fi)¹, partnered with the Development Bank of Nigeria (DBN) and two commercial banks in Nigeria – Access Bank and Sterling Bank – to develop innovative credit solutions that expand access to finance for women entrepreneurs. These credit solutions reduce reliance on collateral in lending decisions by leveraging data to assess credit-worthiness and manage risk. Gender inequality in ownership of assets that can serve as collateral is one of the main barriers faced by women entrepreneurs in accessing finance in Nigeria and beyond. Access Bank's cashflow-based lending product for small- and medium-enterprises (SMEs), for example, uses analysis of business bank account transaction data to determine loan eligibility and provide collateral free loans to business owners. Such approaches have the potential to unlock commercial finance for women entrepreneurs.²

This case study summarizes key lessons from this work, including an initial diagnostic; an assessment of demand for business loans; analysis of SMEs who applied to and/or received Access Bank cashflow loans; and administrative data from Access Bank's cashflow loan program. Our objective is to provide insights into the successes and challenges of disbursing loans to women-led SMEs (WSMEs) in Nigeria. This research is being conducted in partnership with the World Bank's Africa Gender Innovation Lab (GIL)³, which is also carrying out an impact evaluation that will capture how cashflow-based lending impacts male- vs female-led firms' access to credit and business performance.

¹ <https://we-fi.org/>

² *Details of the Nigeria We-Fi program.*

³ <https://www.worldbank.org/en/programs/africa-gender-innovation-lab>

This case study was produced by the World Bank's Africa Gender Innovation Lab (GIL) and Finance, Competitiveness, and Innovation (FCI) Global Practice. The case study provides insights from the Nigeria Women Entrepreneurs Finance Initiative (We-Fi) project previously led by Siegfried Zottel and now led by Hadija Kamayo (both World Bank, Senior Financial Sector Specialists). We thank Jana Malinska and the FCI Competitive Policy Evaluation Lab (ComPEL) for their expertise and insights, especially Ana Goicoechea; and the World Bank Umbrella Facility for Gender Equality (UFGE) for funding. We also thank the team at Access Bank, especially, Chioma Ogwo and Oluchi Samuel; and early support from Ayo Olojede and Olaitan Alao. The authors thank the contributions of Josephine Ijere and Nneka Okoh who provided excellent research management.

The Africa Gender Innovation Lab conducts impact evaluations and rigorous research to figure out what works and what does not to improve gender equality and uses this evidence to shape policy.



MOTIVATION: WHAT IS THE PROBLEM?

In Nigeria, roughly half (40%) of the micro-, small- and medium-enterprises (MSMEs) are owned by women.⁴ **Access to finance remains a challenge and ranks among Nigeria's entrepreneurs top concerns, particularly for women entrepreneurs.**⁵ More female-led than male-led firms identify access to finance as a major constraint (52% vs 30%), and 56% of female entrepreneurs indicated that their most recent loan application got rejected, as compared to 17% of male entrepreneurs.⁶

While women business leaders show significant interest in taking loans, they receive a smaller allocation of bank credit compared to men. A World Bank survey found that while up to 92% of WSMEs were interested in obtaining formal financing, only 11% of the surveyed banks' MSME loan portfolio was going to women-led businesses.⁷ The primary source of MSME funding in Nigeria is

personal savings, as formal channels meet only 18% of MSME's credit needs. Furthermore, less than 1% of commercial bank loans in Nigeria go to MSMEs, as compared to an average of 15% recorded in other developing countries. Roughly 46% of women-led SMEs (WSMEs) in Nigeria have no loan history with a financial institution. While 31.4% of women in Nigeria borrow in some capacity to finance their business, only 3.7% borrow from formal financial service providers.⁸ Gender gaps in access to credit play a central role in explaining the gender gap in business performance. Firms run by women have lower profits and sales, fewer employees, lower productivity, and slower growth relative to male-led firms.⁹

A major contributing factor to gender gaps in access to credit are gender inequalities in ownership of assets that can serve as collateral. For instance, only 11% of women versus 41% of

4 Kempis, Michelle; Timothy Ogden. *Small Firm Diaries Firm Profile Data from the Small Firm Diaries Nigeria*. 2023.

5 *Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), National Bureau of Statistics (NBS), 2017. National Survey of Micro Small & Medium Enterprises (MSMEs), 2017.*

6 *World Bank Enterprise Surveys, 2014. Nigeria 2015: Country Profile. World Bank.*

7 *World Bank, 2021. Supporting women entrepreneurs in Nigeria; Access to finance and market diagnostics.*

8 Demircuc-Kunt, Asli; Klapper, Leora; Singer, Dorothe; Ansar, Saniya; Hess, Jake Richard. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution (English)*. World Bank Group. 2018.

9 *World Bank. 2019. Profiting from Parity : Unlocking the Potential of Women's Businesses in Africa: Main Report (English).*

men in Nigeria own a house.¹⁰ Nigerian financial institutions (FIs) commonly use the value of the collateral that the prospective borrower can bring to the table both to decide whether to lend, and how much. Furthermore, most Nigerian financial institutions require collateral that is higher than the loan amount, as a risk management strategy. Enterprises unable to meet such requirements seek other informal sources of funding or go without.

New, innovative ways of assessing borrower credit-worthiness are allowing financial institutions to expand access to credit while also managing, and even reducing, risk. These innovative approaches make it possible for credit-worthy borrowers who lack collateral to access formal loans and larger loan amounts. There is a large unmet demand from creditworthy customers who are currently excluded from or limited in their access to credit from formal financial institutions due to lack of collateral. Serving this clientele offers growth opportunities and a good risk profile to lenders. Leveraging alternative data about the borrower and their business to inform lending decisions can help financial Institutions (FIs) manage and reduce lending risk while expanding access to credit – both increasing the pool of eligible borrowers and allowing FIs to offer larger loan sizes. Such lending practices put more emphasis on the other Cs of credit - Character, Capacity, Capital and Condition, when analyzing loan requests. These new ways of managing credit risk have the potential to benefit FIs and customers, increase FIs operational efficiency, contribute to Nigeria’s economic development by allocating credit towards growth-oriented entrepreneurs, and help close gender gaps in access to credit.

Importantly, evidence shows that by leveraging alternative data, banks can reduce (or even eliminate) collateral requirements with no impact on repayment rates or incidence of non-performing loans.¹¹ Women entrepreneurs have demonstrated high loan repayment rates and tend to be loyal banking customers, increasing the potential for cross-selling opportunities.¹²

WHAT WAS DONE?

The World Bank, through We-Fi¹³, has been working in partnership with the Development Bank of Nigeria, Access Bank, and Sterling Bank to develop innovative solutions to improve access to finance for women entrepreneurs in Nigeria. Since 2019, the Nigeria We-Fi project has been involved in several activities and outputs, including:

- **A diagnostic study and market assessment** of credit offerings available in Nigeria for women-led small and medium enterprises (WSMEs), and how WSMEs can learn about, adopt, and use them – including potential challenges [full report available on request].
- Providing technical support for the development of **innovative digital credit solutions for WSMEs**, including Access Bank’s cashflow lending product, and Sterling Bank’s Business Support Facility lending platform.
- **Designing gender sensitivity training materials** for loan officers and other bank staff to support increased lending to women [materials available on request].
- **Research** on messaging to prospective borrowers, and with applicants of Access Bank’s cashflow loan product.
- **Proof-of-concept** pilot study of Access Bank’s **cashflow loan product**

DIAGNOSTIC STUDY ON LENDING TO WOMEN ENTREPRENEURS IN NIGERIA

In 2021, Nigeria We-Fi conducted a diagnostic study and market assessment¹⁴ to provide insights on the current state of SME financing in Nigeria, as well as provide recommendations to assist women-led SMEs (WSMEs) better access finance in Nigeria. The study consisted of interviews with lending institutions comprising commercial banks, microfinance institutions (MFIs) and lending FinTechs, and women entrepreneurs. The report emphasized the **need for loan products that are designed to serve the needs of WSMEs**, beyond

¹⁰ World Bank Gender Data Portal. Accessed February 26, 2024. <https://genderdata.worldbank.org/>

¹¹ Alibhai, Salman, Rachel Cassidy, Markus Goldstein, and Sreelakshmi Papineni. 2022. *Evening the Credit Score? Impact of Psychometric Loan Appraisal for Women Entrepreneurs*. Working Paper. World Bank.

¹² Carranza, Eliana; Chandra, Dhakal; Inessa Love. 2018. *Female Entrepreneurs: How and Why Are They Different?*

¹³ Women Entrepreneurs Finance Initiative. <https://we-fi.org/>

¹⁴ World Bank. 2021 *Supporting women entrepreneurs in Nigeria: Access to finance and market diagnostics*.

WSME financing preferences and expectations from surveys



Loan Size by Sector

The average loan size in demand by WSMEs is between **N1m–N5m**:

- Agriculture: **N1m–N10m**
- Manufacturing: **N2.5m–N10m**
- Construction: **N2.5m–N20m**
- Hospitality: **N1m–N2.5m**
- Education: **N1m–N5m**
- Professional services: **N5m–N20m**
- Trade: **N1m–N5m**

Loan Pricing

- The preferred interest rate varies for WSMEs across sectors, with 87% of survey respondents seeking interest rates within a **10–15%** band.
- Some of the women also suggested the **removal of management and facility fees**

Loan Tenor

- The preferred tenor by WSMEs for an uncollateralized loan ranges between 6–36 months, with 77% of survey respondents seeking to repay loans between less than 6 months and 2 years depending on the amount.

Repayments

- About **60%** of survey respondents prefer **monthly repayments**, while **21%** prefer **quarterly repayments**.
- 66% of the WSMEs prefer moratorium of the loan, ranging between 1–6 months.

Turnaround time & Channels

- WSMEs prefer shorter turnaround time between 1 to 7 days.
- Majority of WSMEs prefer accessing loans via digital platforms - up to 82% of survey respondents.

Note: Surveys conducted in 2021 through Focus Group Discussions with women entrepreneurs.

simply offering a preferential interest rate for women. Credit products should be designed with the needs, preferences, and capabilities of WSMEs in mind, including around loan size, repayment, loan tenor, application, and assessment of creditworthiness. The report also highlights the **need to make banks and bank products more accessible to women**. Only 31% of Nigerian women have a formal account compared with 61% of men.¹⁵ Women are less experienced with and knowledgeable about bank products, and as compared to men are more reluctant to approach banks for funding. Many WSMEs in Nigeria face capacity and knowledge constraints. This includes a lack of knowledge on bank's loan offerings, and on how to properly position themselves to access credit from financial institutions. This contributes to WSMEs being less likely to apply for loans, and amongst those who do apply, a lower likelihood of approval. Both Access Bank's cashflow loan program and Sterling Bank's Business Support Facility (BSF) loan product for registered SMEs adopted recommendations aligned with the findings from the diagnostic study.

INNOVATIVE DIGITAL CREDIT SOLUTIONS: CASHFLOW LOANS

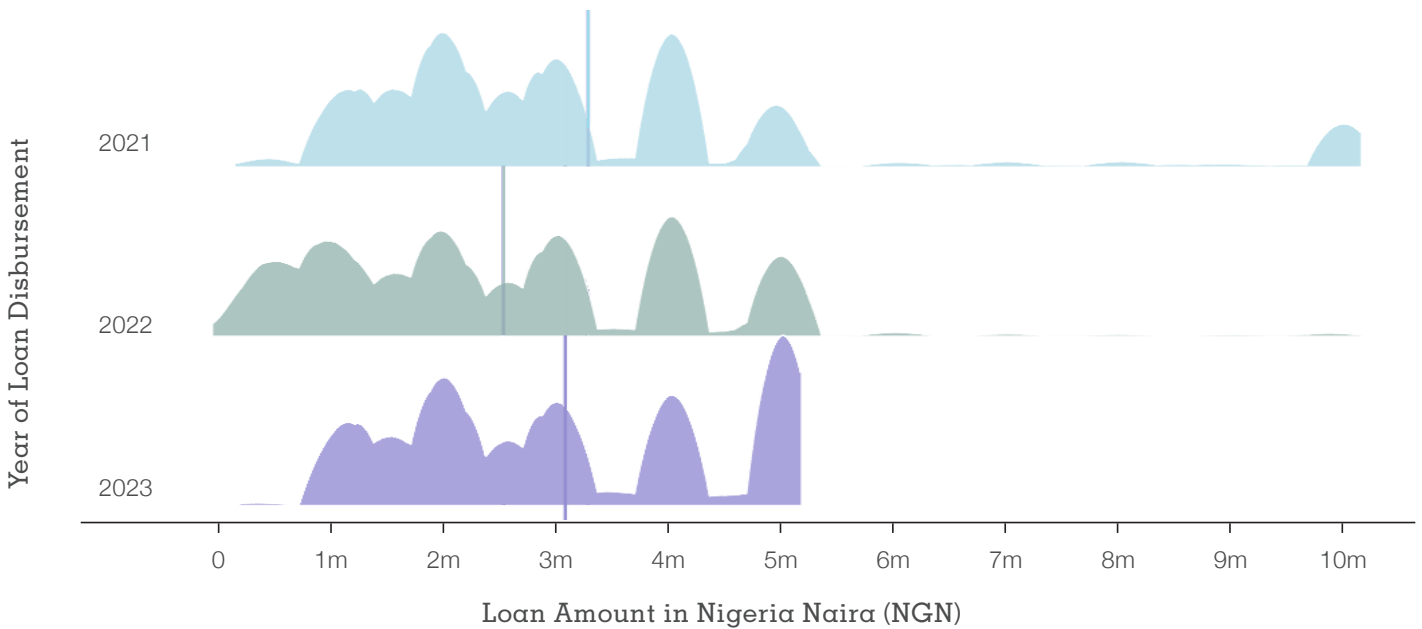
In cashflow-based lending, analysis of the prospective borrowers' business cash flow data is used to determine whether to offer the applicant a loan, and what size loan to offer. This data could come from customer bank account statements, self-reported data (ideally in combination with validation checks), or any other form of data on revenues or cashflow. In Nigeria, commercial banks (including Access Bank, Fidelity Bank, Standard Chartered Bank, Sterling Bank, Union Bank of Nigeria, and Zenith Bank) are providing large, collateral-free business loans.¹⁶ These have loan tenors of between 6 months and 24 months, and max loan sizes of between 2.5 million Naira and 20 million Naira, and utilize a cashflow-based lending approach. The fintech Lidya also offers a cashflow-based working capital loan with an average loan amount of 18 million Naira, and loan tenor up to 60 days.¹⁷

¹⁵ EFinA, 2019. <https://efina.org.ng/media-room/assessment-of-womens-financial-inclusion-in-nigeria/>

¹⁶ Nigeria We-Fi innovative credit approaches blog.

¹⁷ Lidya. "Lidya Is Unlocking Credit For Africans - Home." Accessed February 26, 2024. <https://www.lidya.info/>.

Figure 1: Distribution of Loan Sizes of Access Bank Cashflow Loan 2021-2023



Note: Loan disbursement data sourced from Access Bank Administrative Data. Data is presented for each year for any cashflow loans disbursed between January 2021 and August 2023. Amounts are not inflation adjusted. Vertical lines represent the mean cashflow loan size in Nigerian Naira within each year. Most loans were capped at Naira 5m but some larger loans were disbursed of up to Naira 10m in the earlier years.

Cashflow-based lending at Access Bank

The loan product

Access Bank's cashflow-based loan product¹⁸ is targeted at business owners who own registered small or medium enterprises (SMEs) and are seeking a loan of 1million to 5million Nigerian Naira to finance working capital or business equipment.¹⁹ Loan offers are based on the applicants' business cash flow (as per their business bank account transaction data), and the loan does not require the business owner to pledge any physical collateral to secure the loan.²⁰ Loan size is determined based on a 30% debt service ratio and the loan tenor is 12-24 months. Women-led SMEs are offered a preferential interest rate. To qualify for an Access Bank Cashflow Loan, the applicant must have a registered business that has been operational for at least one year, a bank account with any bank that has been open for at least 3 months, and no negative credit history. The cashflow loan product currently offered by Access Bank can be initiated through a digital or in-person application, but analysis of credit-worthiness is currently done using self-reported information from the borrower

to determine cashflow. The business information is entered into a spreadsheet and is validated by a credit officer during a business appraisal visit. Access Bank plans to make this loan product fully digital in 2024 – whereby customers request a loan, and a computer analyzes the customer's Access Bank business account transaction data to assess cashflow, determine creditworthiness, and what size loan to offer. This will allow for reduced transaction costs on the part of Access Bank; faster processing of loan applications; quicker turn-around time between application disbursement; and for the cashflow loan program to operate at a much larger scale, in terms of number of customers served. Given the success of the Nigeria pilot, We-Fi is now being scaled across the Africa region.²¹

Loan product performance

Between January 2021 and August 2023, Access Bank disbursed over 20,000 cashflow based loans to 15,583 business banking customers, of whom 30% were female. Throughout this period, the average loan size was approximately 3 million Naira. While more men received cashflow loans than

¹⁸ <https://cashflow.accessbankplc.com/home>

¹⁹ The max of 5 million Naira was set in 2021 and may be increased to 10 million in light of inflation.

²⁰ "Access Bank PLC | Business." Accessed February 26, 2024. <https://www.accessbankplc.com/business>.

²¹ Scale-up of digital cashflow lending blog.

women, those women who did receive cashflow loans received higher average loan sizes than men. Access Bank reports a 99% repayment rate for their cashflow based loan portfolio over the period; and nearly half (45%) of cashflow loan recipients are repeat cashflow-loan borrowers. Over these three years, average loan sizes stayed roughly the same in Naira terms.

Profile of cashflow loan borrowers

In 2021, the World Bank GIL surveyed 214 business owners (121 women and 93 men) who applied for and were internally approved for an Access Bank cashflow loan during 2021. These firms were drawn from four states –Abuja, Lagos, Oyo, and Rivers State. The business owners average age was 42. Nearly all are married with children, literate, and 40 percent had graduated from tertiary level education. Respondents are experienced business owners (with 70 percent owning a business for 10+ years). Businesses are primarily in the wholesale and retail sectors (77 percent). On average businesses are open 6 days per week and 10.6 hours per day, and respondents report spending 33 hours per week working for their business. 9 out of 10 respondents have separate bank accounts for their business. Average monthly profits averaged around 2 million Naira (in 2021) and firms have an average 4.8 employees. Nearly 72 percent of respondents report that they applied for business financing, 40 percent reported borrowing from a formal financial institution, 7 percent among friends and family; and 5% from informal loan sources in the past 12 months

prior to the baseline survey. Amongst those who had applied for loans within the past 12 months, the average amount requested was 2.27 million Naira.

In early 2024, the World Bank collected follow-up survey data from 70% of the 214 business owners. Among those that were surveyed we find 7 percent (5 percent of women-led and 8 percent of male-led) of firms permanently or temporarily closed their business which is lower than estimates of small firm death rates in low- and middle-income countries.²² Most of the firms were still operating the same business. Among men in the sample 96 percent attempted to borrow and 88 percent successfully borrowed, and among women 98 percent attempted and 85 percent were successful. The majority of firms (75 percent) had received at least one cashflow based loan from Access Bank by the time of the follow-up survey; and 45 percent were repeat borrowers. Women who borrowed to finance their business tend to borrow larger amounts than men. Among those who borrowed, 18 percent of women and 11 percent of men faced collateral requirements when borrowing. Most (60 percent) borrowers state the purpose of their loan was to purchase inputs, raw materials, and inventory stock. Indeed, we find some preliminary evidence that those women-led firms randomly assigned to receive a cashflow based loan as part of a pilot randomized controlled trial (RCT) impact evaluation had higher values of capital investment and inventory stock than the control group two years later. Women assigned to the treatment arm of the RCT had a 20-percentage point higher likelihood of borrowing from a formal source relative to a control group two years later, whereas we find no impact on the likelihood of formal borrowing among men. This suggests the cashflow loan helps alleviate a credit constraint for women.

Reflections and lessons learned

Cashflow lending draws on digital records of a customer's business bank account. **Ensuring women take-up and regularly use their bank accounts may require further effort** on the part of the financial Institutions to ensure that accounts are easy to use and may require special outreach by the banks. Knowing that greater usage can generate greater access to credit is also a good incentive for customers to increase usage.



Digitally enabled loan application and review processes can reduce bank transaction costs per loan, eliminate bias, can facilitate evidence-based lending, and can dramatically reduce the timespan between initial application and disbursement. This contrasts with traditional lending procedures, in which the application, review, and approval process for business loans can be lengthy and time consuming for both applicant and the loan officer. High transaction costs per loan (i.e., loan officer time per loan application approved) can incentivize FIs and loan officers to focus their efforts on the largest value loans, and most qualified borrowers.

To ensure that loan officers contribute to goals such as increasing the number of loans issued to women, percentage of loans issued to women, or number of loans issued through an innovative credit product, they should be held accountable to these through their key performance indicators (KPIs) or annual goals. Capacity building is also important so that staff of financial institutions gain a better understanding of WSMEs’ specific needs.

Digitizing is key to scale profitably but has challenges. Fully digitizing the loan application process for the Access Bank cashflow loan has taken longer than expected but is crucial for achieving impact at scale. Our findings show that most business banking customers would be interested in a loan, and that most prefer a digital application process. A fully digitized loan product can allow for a financial institution to dramatically increase the number of SME loans that can be approved. Automation also has the potential to positively serve every stage of a loan’s life cycle, from pre-screening of applicants to credit underwriting and customer onboarding, to portfolio monitoring and management, and to credit decisions.



Most Nigerian banks are yet to leverage the benefits of tapping into differentiated products and services that have proven to be successful (like cash flow lending) to serve unbanked and underbanked women. Given the massive customer base offered by WSMEs, financial Institutions could gain tremendously from offering women-focused cashflow lending products to women entrepreneurs.²³

ASSESSING THE DEMAND FOR CASHFLOW-BASED LOANS

In 2021, we conducted a campaign to advertise the Access Bank cashflow-based loan product to Access Bank business banking customers. During this campaign, 80,000 business banking customers (half male, half female) with working telephone numbers were sent a text message about the cashflow loan product. The goal was to understand how different messages affected interest in the cashflow loan, and to understand more about customers interest in and demand for loan products.

The information campaign involved sending a series of 7 text messages to customers. The initial message read “Access Bank invites you to take a short survey. The text messages will be of no cost to you, and you will get NGN 100 airtime if you answer all the questions. Continue? Yes/No”. The second message was about the cashflow loan product, and customers were randomized to receive one of the following messages as per Table 1 below:

Table 1: Messages tested during awareness campaign

Female 	Base: “To access a business loan, do you know that you can use your business cashflow statement? Access Bank cashflow loan product helps entrepreneurs like you to grow their business. Would you like to learn more?”
	Base + Gender Nudge: “As a female business owner... “
	Base + Gender Nudge + Interest Rate: “As a female business owner... at a preferential interest rate of just 15 percent”.
	Base + No Collateral: “... With no collateral”.
Male 	Base: “To access a business loan, do you know that you can use your business cashflow statement? Access Bank cashflow loan product helps entrepreneurs like you to grow their business. Would you like to learn more?”
	Base + Ease of Approval “... Quick and easy...”
	Base + Interest Rate: “...at an interest rate of ...”
	Base + No Collateral: “ ... with no collateral”



After receiving information about the cashflow loan, each customer was sent a short series of survey questions, followed by a final message that read “please click on the link to the Access Bank cashflow portal if you would like to learn more or to apply online.” Of the 80,000 Access Bank customers, 7,276 (9%) clicked into and replied to the first message. The findings below are based on responses from these customers.

Key findings from Information Campaign

- Overall, 73 percent of male entrepreneurs and 80 percent of female entrepreneurs were interested in visiting the Access Bank cash flow loan application online portal.
- Neither including a simple gender nudge (i.e., “this product is for women”) nor a “no collateral” nudge increased women’s interest in the product.
- Telling men that the product is “quick and easy” makes them less likely to want to learn more about the product.
- Explicitly mentioning the interest rate reduces appetite for the product [alternatives may be cheaper on the market, or perhaps mentioning the interest rate always dissuades people].
- Of those not interested in the loan, the most common reason was “I have no need for a business loan” (38 percent of women and 49 percent of men).
- Among all respondents, 65 percent had never previously received a business loan from a bank or financial institution. When asked why they had never received a loan, the most common answers were “I had no need” (37 percent), “did not know of a suitable opportunity” (29 percent), and “loan application process too complicated” (23 percent), with women more likely than men to report the last two. Our findings suggest that interventions that increase women’s awareness of suitable loan opportunities, and that make applying for loans easier may be helpful in closing gender gaps in access to finance. We are planning a qualitative study to explore this further.

FOR MORE INFORMATION,
PLEASE CONTACT

Sreelakshmi Papineni
spapineni@worldbank.org

Africa Gender Innovation Lab
afrgenderlab@worldbank.org

1818 H St NW
Washington, DC 20433 USA
www.worldbank.org/africa/gil

“Bank staff are more open to listening to men share their dreams and wary when women share the same dreams. There is already a bias that the woman is dreaming too big and does not have the capacity to actualize such dreams”

- A female agribusiness owner in Lagos operating for 10 years