



DIGITAL FINANCIAL SOLUTIONS TO ADVANCE WOMEN'S ECONOMIC PARTICIPATION

How governments, private sector and development organizations can bring more women into the global economy through digital financial services



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A report by the World Bank Development Research Group, the Better Than Cash Alliance, the Bill & Melinda Gates Foundation and Women's World Banking to the G20 Global Partnership for Financial Inclusion.

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Executive Summary

G20 Leaders agreed in 2014 on the clear need to enable more women to participate in the global economy. Specifically, the 2014 G20 Leaders' Communique established the goal of "reducing the gap in participation rates between men and women in our countries by 25 percent by 2025, taking into account national circumstances, to bring more than 100 million women into the labor force, significantly increasing global growth and reducing poverty and inequality."

Digital financial services are instrumental to achieving this goal, because they increase women's financial autonomy, support women's participation in the labor force, and improve the performance of their businesses. Digital financial services also advance the third G20 Principle for Innovative Financial Inclusion, which advocates the use of technological and institutional innovations to expand access to financial services. Principles like this are crucial to boosting economic participation for more than 2 billion people worldwide who currently lack access to formal financial services. Most of whom are women¹.

This executive summary outlines the role of digital financial services in improving women's economic participation, the challenges of increasing women's access to digital financial services, and the opportunities governments and other sectors have to foster an inclusive global economy in which digital financial services are widely available to everyone, especially women.



Digital financial services accelerate financial inclusion, which is essential to women's economic empowerment.

Digital financial services offer a viable solution to bridge the gender gap in account ownership and increase formal financial activity in both the volume and value of transactions. Digitization can produce a favorable environment that promotes transparent, affordable, accessible, and high-quality financial products and services for women. The outcomes include providing women the ability to save formally, which could increase their formal participation in the economy.



Digital financial services can give women greater control over their finances and financial decision-making.

Women particularly value privacy and reducing the risk of family members confiscating funds. Digital financial services also reduce travel and waiting time to access banks or make payments for services such as utilities, and they lower the risks of traveling with cash.



Digital financial services can increase women's labor force participation.

This includes giving women greater opportunities to work remotely from their homes or communities.



Digital financial services can improve the performance of women-owned businesses.

Improving access to credit, increasing access to insurance, reducing the risks of theft, and lowering administrative and disbursement costs are all ways that digital financial services support women-owned businesses. The financial footprint made possible through digital payments also allows for alternative methods of assessing the creditworthiness of women who do not have traditional credit assets or a financial transaction history.



Demand-side, technology, supply-side, and infrastructure challenges are barriers to greater access to digital financial services among women.

DEMAND-SIDE Women face social, cultural, and systemic barriers that limit demand for – and use of – digital financial services. For example:

- To an even greater extent than men, women often lack the identification documents needed to open formal accounts. According to World Bank research, 2 billion people worldwide in 2014 did not have any formal identification document, disproportionately women.
- Women have low financial independence and financial autonomy in many economies. Women and girls often do not have equal access to education, and this continues to have a negative impact on their broader opportunities.
- Women, on average, are less financially literate.
- Women have lower technology adoption rates and greater risk aversion in many countries.
- Social and cultural sanctions prevent women from accessing financial services. For example, starting a business in a developing country often requires a visit to a major city center; but in many countries it is difficult or unacceptable for a woman to travel freely.

**DEMAND-SIDE, TECHNOLOGY, SUPPLY-SIDE, AND INFRASTRUCTURE CHALLENGES
ARE BARRIERS TO GREATER ACCESS TO DIGITAL FINANCIAL SERVICES AMONG WOMEN** CONTINUED

TECHNOLOGY While technology offers a viable solution to address physical access barriers, many women do not have access to or control of technology, including mobile phones and the Internet.

SUPPLY-SIDE Legal, social, and systemic barriers limit digital financial services from being offered or successfully marketed to women. For example:

- In some countries, women lack rights to own property and other physical assets, or are required to get a man's signature to access formal financial services.
- The design and marketing of digital financial applications usually are oriented toward men.
- Inadequate data privacy and data protection, as well as poor or non-existent recourse in digital financial services, can affect women disproportionately, given their typically lesser mobility and more limited technological and financial literacy.

INFRASTRUCTURE Broader infrastructure issues limit the use of digital financial services among both women and men who do not have access to the digital services. For example:

- Technology and network infrastructure is not always accessible or reliable, which can discourage women from adopting digital services. This often is due in part to poor connectivity, because most developing countries still use 2G/2.5G services and even those services are not universally and reliably available. Spectrum is a scarce public resource, and how governments allocate this resource has significant implications for affordability and access.
- The legal and regulatory environment does not enable mobile phone-based or other non-bank transaction services, and it does not encourage the development of a digital payments ecosystem.
- Many countries lack policy integration between the banking and telecommunications sectors, particularly in relation to the following: taxation, proportional risk-based Know Your Customer (KYC) rules, a digital identification system, and flexible agent requirements.

**The benefits of digital financial inclusion provide a powerful basis for governments to act. Governments will unlock an economy where digital payments are widely available to women if they take action to:**

- Digitize the payments and direct benefit transfers they make and receive. This presents governments with a powerful opportunity to expand women's financial inclusion, while also reducing economic leakage caused by corruption, fraud, and other inefficiencies. In so doing, governments help make the business case for private sector innovation and investment in commercial services to reach low-income women. For instance, 80 million unbanked women around the world receive government wages or transfers in cash.
- Adopt and promote a financial customer protection framework to ensure that new female customers are treated fairly and have sufficient financial skills so they know and trust digital financial services enough to adopt them. This should include adequate disclosure requirements and legally authorized redress mechanisms.
- Leverage new technologies, such as biometrics, to overcome the lower levels of technical adoption and literacy among women in some countries.
- Create a digital financial identification system.
- Provide a favorable regulatory environment that allows mobile financial services to be offered and aligns banking and telecom sector regulations.
- Reform discriminatory policies that, in practice, make it harder for women to access or adopt digital financial services. Examples include requiring property or physical assets as collateral where there are limitations to women's ownership or requiring the signature of a man's to open an account or to borrow.
- Digitize business registration procedures and license fee payments.



Large businesses, including retailers and technology companies, can expedite the creation of an economy where digital financial services are widely available to women if they take action to:

- Leverage their status as large payers and payees to increase access to – and adoption of – financial services by paying wages through digital financial channels, developing a digital supply chain, and increasing electronic payments by retailers.
- Invest in providing services through mobile phones or the Internet or other digital channels, which could contribute to bridging the gender gap in ownership and use of digital devices and services.
- Ensure interoperability to increase the convenience and ease of using digital financial services.
- Address issues related to low levels of technical and financial literacy, especially of women.
- Provide a robust and reliable network for financial transactions as well as strong customer support to help address questions and deal with complications in the process.



The financial services industry is in the unique position to address many of the challenges and barriers and make digital financial services more widely available to women if it takes action to:

- Collaborate with other companies and governments to increase women's use of services while lowering transaction costs by building an inclusive digital payments ecosystem.
- Leverage new technologies, such as biometrics, to overcome the lower levels of technical adoption and literacy among women in some countries.
- Develop alternative credit scoring models. This can be done by using data derived from mobile phone use or utilizing alternative methods designed for women who do not have access to traditional credit assets or a credit history.
- Design products and services to meet women's unique needs and preferences.
- Contribute to the adoption of a financial customer protection framework.



International donors and funders can play a significant role in supporting digital financial inclusion if they take action to:

- Support the policy and regulatory environment for digitization of financial services.
- Fund market infrastructure, particularly in partnership with digital financial service providers, to help product and service providers meet market demand.
- Support appropriate consumer protection frameworks at regulatory and industry level.

CONCLUSION Much greater participation by women in national economies can be an essential driver of macroeconomic growth and stability in the years ahead. Yet female participation in the labor force has remained stagnant. It has even declined in some countries. Turning the tide requires innovative and informed policies and strong leadership. As this paper explains, it will be vital to fully leverage the potential of digitizing payments. Greater use of digital financial services can accelerate the inclusion of hundreds of millions of unbanked women in formal financial systems, leading to better lives for women and their families and more robust and inclusive growth.

Digital Financial Solutions to Advance Women's Economic Participation

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Introduction

G20 Leaders agreed in 2014 on the clear need to enable more women to participate in the global economy. Specifically, the G20 Leaders' Communique that year established the goal of "reducing the gap in participation rates between men and women in our countries by 25 percent by 2025, taking into account national circumstances, to bring more than 100 million women into the labor force, significantly increasing global growth and reducing poverty and inequality."

According to a McKinsey Global Institute report, achieving gender parity between men and women could add \$12 trillion to global growth (McKinsey & Company, 2015). Digital financial services² are instrumental to achieving this goal, because they increase women's financial autonomy, support women's participation in the labor force, and improve the performance of their businesses. Digital financial services, which range from mobile phone-based bank accounts to debit cards and electronic financial transactions, also advance the third G20 Principle of Innovative Financial Inclusion, which advocates the use of technological and institutional innovations to expand access to financial services. Principles like this are crucial to boosting economic participation for more than 2 billion people worldwide who currently lack access to formal financial services. Most are women.

This paper builds on the paper prepared for the Australian G20 presidency in 2014 – "Opportunities for Digital Payments" – by collecting and analyzing the evidence to date about how digital financial services can advance women's economic participation. We already are beginning to see technology drive growth in financial inclusion: In sub-Saharan Africa, 12 percent of adults (64 million adults) have mobile money accounts, compared with just 2 percent worldwide; and more than a quarter of adults in Latin America and the Caribbean receive a wage or government transfer payment directly to an account (Gallup World Poll, 2014). The key is to ensure that women around the globe benefit from this digital transformation of financial services.

Overview

Financial inclusion of women is essential for gender equality. It empowers women and gives them greater control over their financial life (Aker, Boumnijel, McClelland, & Tierney, 2014; Ashraf Karlan & Yin, 2010). That, in turn, can have a positive impact on an entire family household. Digital financial services offered through mobile phone platforms and agency banking, for example, allow women to transact safely and conveniently from their own communities, businesses, and homes.










This can allow women to receive or transfer money – without travelling to deposit a check or pay a bill, such as a child's school fee. Digitization also can make it safer and more convenient for women to save for a child's education, a medical emergency, or an unexpected family job loss. Moreover, it can protect those savings from family members who may demand a share of the money. That's not all. Digital financial services can help women build a credit history, opening doors to bank loans that can help women buy a house or start a business. Digital financial services also can give women greater opportunities to work from their homes or local villages, and operate their own businesses. Finally, digitization can help existing women-owned businesses grow and succeed by increasing their access to financial markets and formal loans.

While the advantages are many, significant challenges and barriers remain to making digital financial services more available to women worldwide. This paper identifies the challenges that must be overcome to increase women's access to digital financial services. It concludes by outlining the opportunities that governments, the private sector, and the international development community have to foster an inclusive global economy – one where digital financial services are widely available to all, including women.

SECTION ONE

How Digital Financial Services Advance Women's Empowerment and Economic Participation

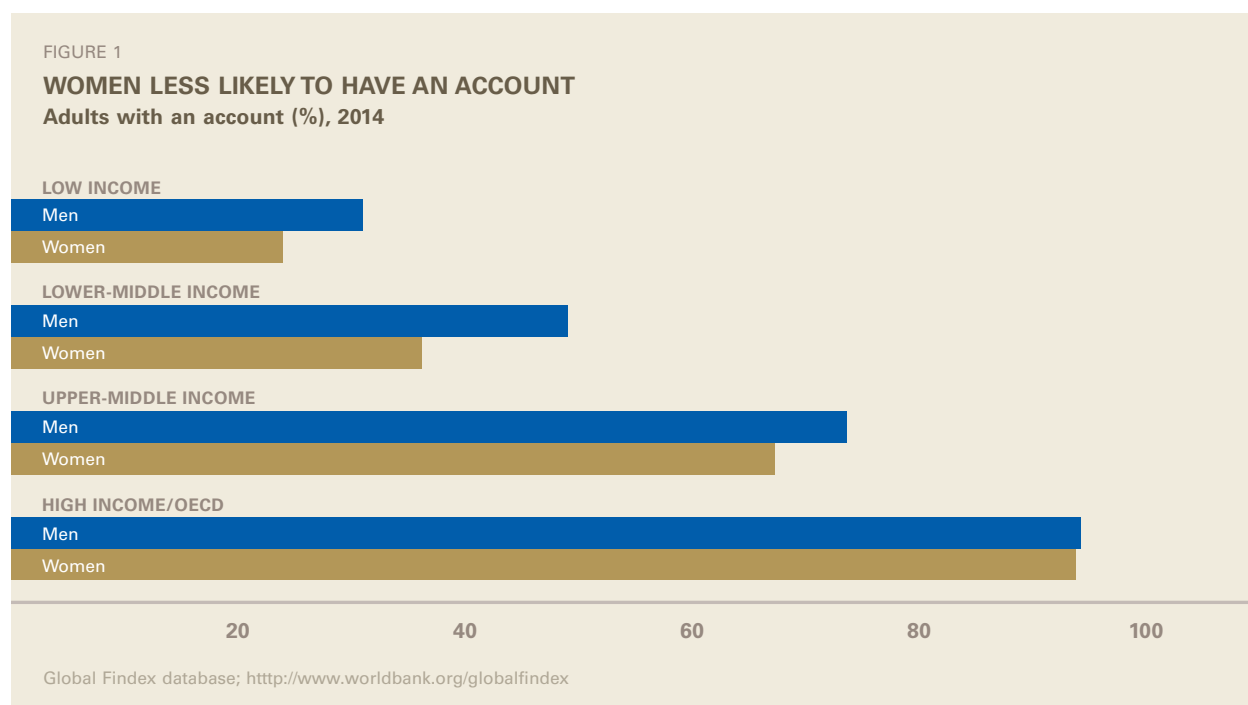
Digital financial inclusion for women advances their economic empowerment and participation, because digital financial services can:

-  **1.1 Help bridge the gender gap in account ownership and increase women's participation in the financial system - both in terms of the volume and value of transactions.**
-  **1.2 Provide women with greater privacy, confidentiality, and control over their finances.**
-  **1.3 Give women the opportunity to save formally, lowering or eliminating the high cost associated with saving informally.**
-  **1.4 Improve women's access to formal credit.**
-  **1.5 Reduce time spent on travelling to access banks or make utility payments.**
-  **1.6 Support risk management.**
-  **1.7 Improve women-owned businesses' ability to lower banking costs.**
-  **1.8 Help female entrepreneurs better manage their inventory stock and make more efficient procurement decisions.**
-  **1.9 Have a multiplier effect that drives adoption among more women.**

These nine benefits of digital financial inclusion provide a powerful basis for governments and businesses to act.

1.1 Digital financial solutions can make a significant difference in bridging the gender gap in account ownership; they also can increase women's participation in the financial system - both in terms of the volume and value of transactions.

Account ownership - at a bank or other financial institution, or through a mobile money or other type of e-money account - has increased among men and women across the globe. However, the 2014 Global Findex database shows that women in developing countries are less likely to have an account than men, even after controlling for income and other individual characteristics (Figure 1). Men worldwide are 7 percentage points more likely than women to own an account. The gender gap in developing economies is 9 percentage points. Both figures are unchanged from 2011 (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015). The gap is largest in South Asia, where only 37 percent of women have an account compared with 55 percent of men.

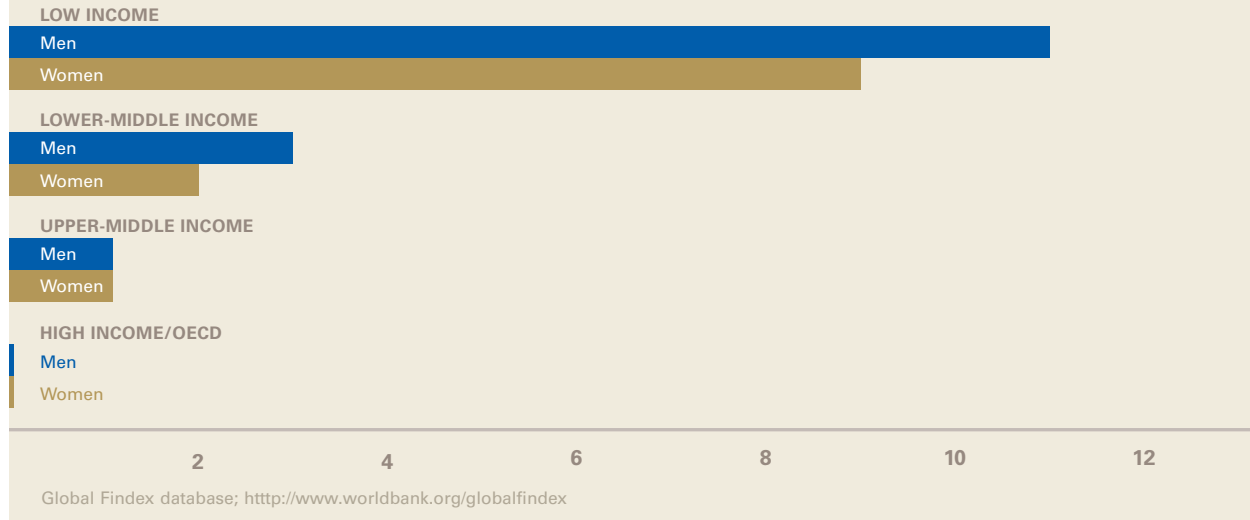


A growing body of rigorous randomized control trials shows consistently positive economic outcomes for women from access to personal savings through such means as their own account. These benefits include: increased productivity of rural women (Knowles, 2013); increased profits, leading to greater investment in their businesses (Gamberoni, Heath, & Nix, 2013; Dupas & Robinson, 2013); less need to sell assets to address health emergencies (Dupas & Robinson, 2013a, 2013b); improved “consumption smoothing” in the face of economic shock (Kast & Pomeranz, 2014; Jack & Suri, 2014); and greater legal and psychological control over their funds (Ashraf, Karlan, & Yin, 2006, 2010).³

FIGURE 2

WOMEN LAG IN MAKING MOBILE MONEY ACCOUNT PAYMENTS

Adults making mobile money account payments in the past year (%), 2014



Mobile money accounts already are playing an important role in financial inclusion in some regions. In sub-Saharan Africa, 12 percent of adults (64 million adults), including 10 percent of women, have mobile accounts compared with just 2 percent of adults worldwide (Figure 2). Forty-five percent of those with a mobile money account (28 million) use only that account, and no other. One study found that use of M-Pesa – a mobile phone-based service for sending and receiving money – increased the volume and frequency of remittances to family members and others in rural areas (Morawczynski O. , 2010). Another study found that in addition to increasing the frequency of transfers, the use of M-Pesa was noticeably associated with the likelihood that people were banked (Mbiti & Weil, 2011).

Empirical evidence supports the idea that the frequency and value of formal financial activity is positively associated with the use of mobile money accounts. However, the evidence is mixed on the role mobile money accounts play in reducing the gender gap in account ownership. So far, a gender gap exists in mobile account ownership; but it is less pronounced than the gender gap in formal account ownership. The accessibility and affordability of mobile money accounts might disproportionately benefit women, who – because of cultural norms, family responsibilities, or lower wages – may be less able to travel to the closest bank branch or meet minimum balance requirements. Indeed, Findex data show that in some countries, such as Kenya and Cote d'Ivoire, a gender gap exists in account ownership – but not in the use of mobile money service accounts. However, in other countries such as Tanzania and Uganda men are significantly more likely than women to have a mobile money account, as well as an account at a bank or financial institution (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015).

For example, designing mobile money accounts that both target female customers – like “BETA” savings accounts in Nigeria (see Box 2) or “Pafupi” accounts in Malawi – and cater to their demands for greater access can help overcome long-standing barriers to financial inclusion. These include long distances to bank branches, concerns

about privacy and security, and low literacy levels. Encouraging the active use of mobile money accounts and increasing the use of a wide menu of financial services – including formal savings accounts and loans, insurance, and payment products such as debit cards – can be an effective way to lower the digital gender gap.

1.2 Digital financial services can provide women with greater privacy, confidentiality, and control over their finances. Giving women more financial autonomy can have a positive impact on an entire household.

It is well documented that female-controlled finances are more likely spent on household expenditures, such as food and water, as well as child welfare including school fees and health care (Duflo, 2012).⁴ Globally, however, 80 million unbanked women receive government wages or transfers in cash; 210 million unbanked women receive cash payments for the sale of agricultural goods; 585 million women pay for utilities in cash; and 225 million women pay school fees in cash (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015). With digital transfers, money is sent directly into a woman's account, and the amount and timing are private information. Their savings, salary, or daily wages can be deposited directly into their digital wallets on a daily basis and stored digitally, too. It might become harder for demanding family members and friends to access information related to these financial transactions. This gives women greater control over how money that is received and/or stored digitally is spent – and they can reinvest that money based on their needs.

- In response to a drought in Niger, households in 96 villages were targeted to receive monthly unconditional cash payments, with women designated as the primary beneficiaries. In addition to the manual delivery channels, m-transfers were used as the second channel for distributing the cash along with m-money-enabled mobile phones. Research found that m-transfers improved these women's financial autonomy and decision-making capacity, because the m-transfers were less noticeable to other family members. The households which received m-transfers also were more likely to cultivate female-grown marginal cash crops, allowing these women to earn money and increasing women's overall participation in the labor force (Aker, Boumnijel, McClelland, & Tierney, 2014).

1.3 Digital financial services give women the opportunity to save formally, lowering or eliminating the high cost associated with saving informally.

The 2014 Global Findex data show that the most common savings method in developing countries is informal, such as gold, livestock, or in the home, or semi-formal – e.g., using informal savings clubs or a person outside their family (Figure 4). Savings clubs – including Rotating Savings and Credit Associations (ROSCA) and Accumulating Savings and Credit Associations (ASCA) – are popular for saving informally in many developing countries, especially among women. In the absence of formal saving accounts or because of a lack of trust in formal saving mechanisms, women often use semiformal and informal means to protect their household savings from misuse by family members.

BOX 1: THE DIGITAL PAYMENTS LANDSCAPE

An inclusive digital payments ecosystem is achieved when all participants are connected through an electronic payments network. This network is based on shared and open standards. Governments, businesses, and consumers use this network to buy and sell physical and digital goods and services; they also use it to transfer money. An inclusive digital payments ecosystem allows users to interact in a way that benefits everyone. At the same time, it allows businesses to create economic value and deliver useful financial services to end users. An inclusive digital payments ecosystem requires establishing payment systems that all major stakeholders use. It is based on open relationships between financial service providers and national banking and payment systems. It also requires suitable regulations, ease of use for customers, as well as trust and confidence in the institutions managing the platform and the underlying technology. Such systems must be able to communicate with existing products and services, and they must be open to connecting to new products and services: A robust environment of interoperability benefits all participants in the payments ecosystem.

Governments can play an important role in creating a digital payments ecosystem and furthering financial inclusion by making and receiving payments to and from businesses electronically. This can help build infrastructure, volume, and familiarity with digital financial transactions on which business-to-business and consumer-to-business payments can grow. Women, in particular, could benefit from various types of digital financial transactions.

**Government-to-Person**

Governments can digitize social transfer payments, providing women with a safer way to receive the money. Digital transfers ensure that women are the direct recipients of the intended payment. Digital transfers often come with an account that allows women to budget and save better versus a cash distribution. Governments also benefit because digitization reduces their costs and increases transparency.

**Person-to-Government**

Individuals can use digital financial services to pay taxes and fees such as license fees, registration fees, income taxes, and property taxes to government or government-owned agencies. E-filing and e-payment systems reduce travel time, face-to-face interaction with tax officers, and reliance on their subjective expertise on the returns filed (Doing Business, 2013).

**Government-to-Business**

Governments can use digital platforms to pay for goods and services, disburse loans and grants, and pay out funds for social programs, tax refunds, etc.

These platforms often offer financial tools for female entrepreneurs. For example, the U.S. government has partnered with American Express in their OPEN Program to provide female entrepreneurs with tools to manage their daily business activities, online support, and opportunities to network with vendors (IFC, 2011).

**Business-to-Government**

Companies can use digital platforms to register and pay fees as well as income and VAT taxes. They also can use these platforms to pay social security and other contributions. For example, Norway's Atlinn is an electronic reporting solution that businesses and individuals use to fulfill their financial obligations to the government.

**Business-to-Business**

Digital platforms facilitate payments to suppliers, payments for goods and services (e.g., wholesalers), and payments for the sale of agricultural goods. For example, Turkey's second largest private bank, Garanti, offers a large network of alternative channels of banking specifically targeting female entrepreneurs (McCartney & Tilyayev, 2014).

**Person-to-Business**

In addition to paying for goods and services, digital products such as debit and credit cards and mobile/Internet banking can help consumers keep track of their expenditures. Using these tools, consumers can set spending limits on certain items and control their household budgets by avoiding overspending.

**Business-to-Person**

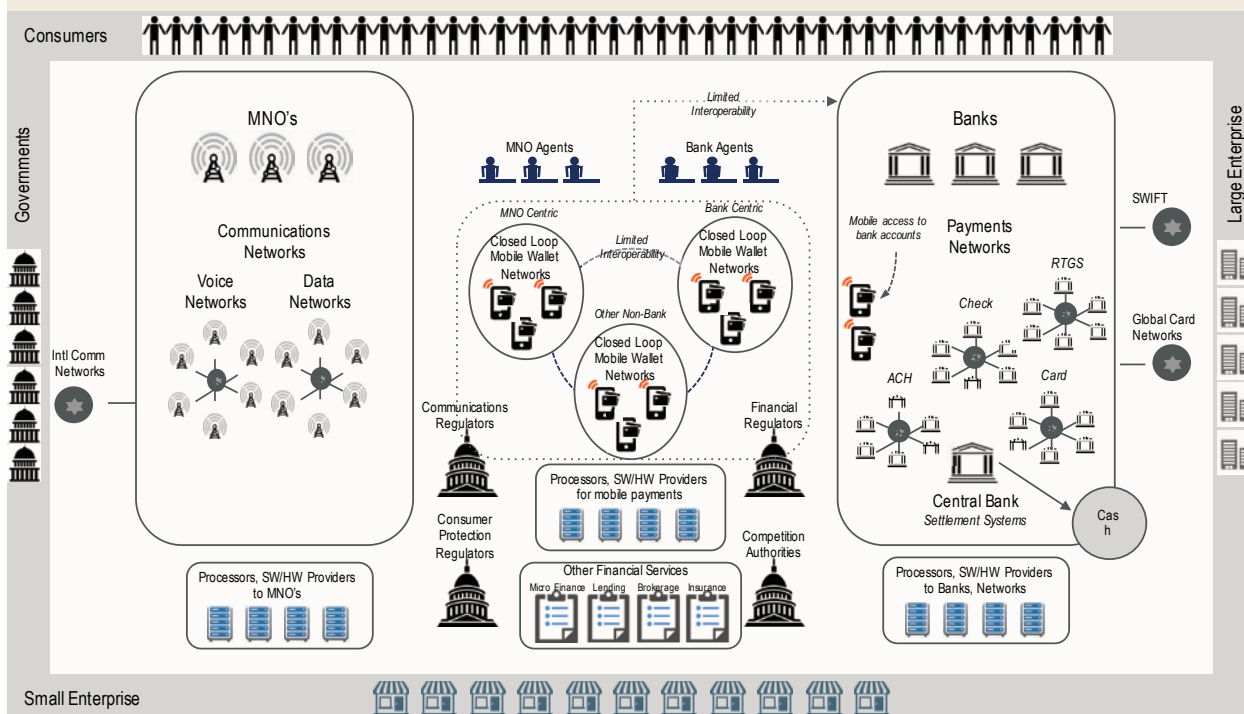
Businesses can use digital platforms to send e-receipts for purchases of goods and services, pay salaries and wages, transfer refunds on returned goods, and reach out to customers with business promotions. In a survey by GSMA, 67 percent of female business owners and 41 percent of women who did not own a business expressed interest in receiving services such as notifications of money transfers on their mobile phones (Cherie Blair Foundation for Women, GSMA and VitalWave Consulting, 2010).

**Person-to-Person**

Women can send or receive remittance payments to or from their family members without dealing with cash. In 2014, 875 million adults, including 435 million women, received a remittance payment from a family member living in a different part of the country or overseas (Gallup World Poll, 2014). The World Bank estimates that remittances totaled \$436 billion in 2014, an increase of 7.8 percent over the 2013 volume (World Bank, 2014). Typically, remittances are the largest source of external finance for developing countries.

FIGURE 3

DIGITAL PAYMENTS SYSTEMS OF BANKS AND MOBILE NETWORK OPERATORS



Glenbrook Partners

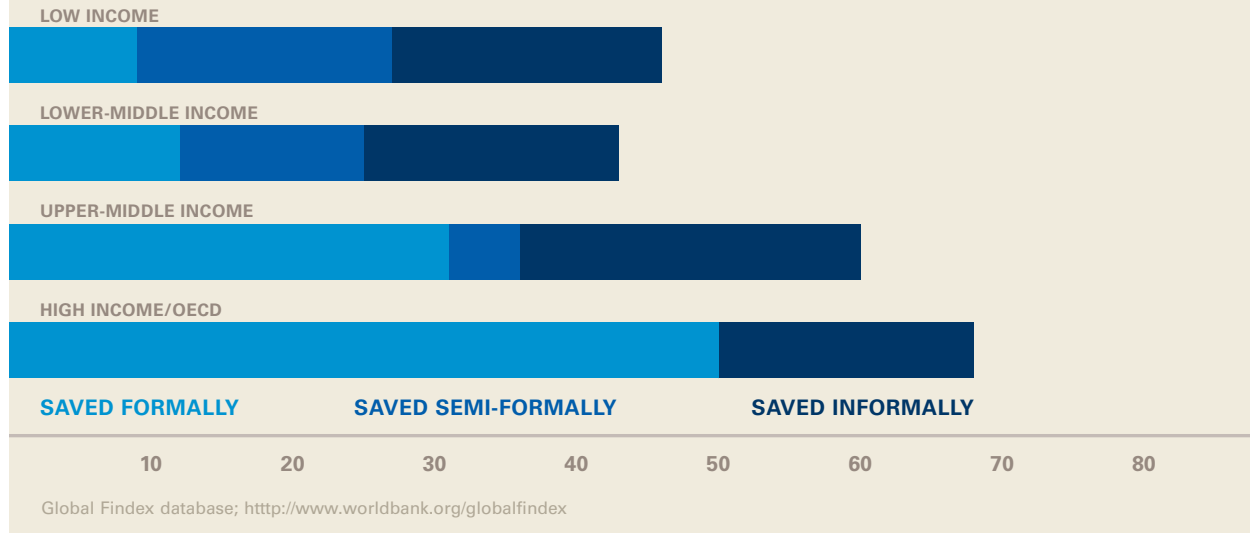
- A growing body of rigorous randomized control trials shows consistently positive economic outcomes for women from access to personal savings through such means as their own account. These benefits include: increased productivity of rural women (Knowles, 2013); increased profits, leading to greater investment in their businesses (Gamberoni, Heath, & Nix, 2013; Dupas & Robinson, 2013b); less need to sell assets to address health emergencies (Dupas & Robinson, 2013b); improved consumption smoothing in the face of economic shock (Kast & Pomeranz, 2014; Jack & Suri, 2014); and greater legal and psychological control over their funds (Ashraf, Karlan, & Yin, 2006, 2010). In Kibera, Kenya, working women living as a part of a couple tend to use informal savings accounts much more than women living alone; they do so to protect their savings from their husbands (Banerjee, 2013 and Anderson & Baland, 2002).
- In Ghana, many women who operate market stalls pay one month's deposit as a fee to Susu savings collectors for informal deposit collection services. This informal channel does not pay any interest on the deposits; but the 3.3 percent fee works out to a negative annual return of 54 percent if money is withdrawn at the end of every month. Despite the high negative interest, Susu services are very popular (Karlan & Morduch, 2010).

Compared with informal savings schemes, digital financial services can give women an alternative instrument for saving money – one that provides greater privacy from family members and others who might confiscate the entire sum when a woman returns home with the “pot” (Anderson & Baland, 2002). The U.S.-based eMoneyPool and the Kenyan-based Chama Pesa are examples of digital ROSCAs which enable online or mobile payments between group members (Noor & Faz, 2015).

FIGURE 4

WOMEN IN POORER COUNTRIES RELY ON LESS FORMAL SAVINGS

Women saving any money in the past year, by method (%), 2014



As noted above, the cost of saving informally has high negative returns. Yet these informal channels are very popular as instruments for savings, investments, and risk mitigation. At the same time, the popularity of informal savings clubs may also indicate a demand for more secure and less costly savings options.

- For example, in a randomized experiment researchers studied the impact of greater access to bank accounts among small informal business owners in Western Kenya. The researchers found that market vendors, most of whom were women, used their bank accounts actively and, on average, increased their total savings. Because these accounts did not pay any interest and charged substantial fees for withdrawals, the net interest rate was negative. The researchers concluded that female vendors voluntarily chose to save in these bank accounts because saving informally had even higher negative returns (Dupas & Robinson, 2013).

Digital channels can improve access to formal financial channels for saving and offer a safe and convenient solution for women without access to a traditional bank.

- Safaricom and Commercial Bank of Africa's banking product, M-Shwari, uses the M-Pesa infrastructure to provide interest-bearing savings products to its consumers, paying interest of 2 percent to 5 percent annually (Di Castri, 2013).

1.4 Digital financial services can improve women's access to formal credit.

Women are less likely to report having borrowed from family and friends in the past year (Figure 5). This form of social insurance and support often is less available to women than men, making access to formal financial services – including savings and credit – all the more important. For instance, 10 percent of men, on average, report borrowing to start or expand their businesses compared with 7 percent of women. In addition, 19 percent of men report saving for business purposes compared with 12 percent of women (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015).

Globally, more women report saving for their business than borrowing for it (Figure 5). This may be because the small size and informal nature of most women-owned

BOX 2: AGENT BANKING IN NIGERIA

Across Nigeria, lack of physical proximity to a bank branch is the most important barrier for women who want to open a bank account. However, in Balogun Market on Lagos Island in Lagos State – and in many urban areas across Nigeria – the distance is emotional instead of physical. Businessmen and women in the bustling Balogun Market do not see banks as relevant or accessible and prefer the more traditional and informal channels of saving money. Even those who have accounts at banks want a financial service that is more convenient, friendly on the pocketbook, and time-saving. As technology and the advent of mobile money drive down the cost of doing business with clients, Diamond Bank saw a tremendous opportunity to expand their client base by serving the underbanked and financially excluded.

Diamond Bank worked with Women's World Banking to develop BETA (meaning "good" in pidgin English), a savings account that can be opened in less than five minutes and has no minimum balance or fees. Agents, known as BETA Friends, visit a customer's business to open accounts and handle transactions – including deposits and withdrawals – using a mobile phone-based application. By offering this account conveniently through the BETA Friends, Diamond made its services accessible and relevant to these low-income women, who proved to be a valuable market segment for the bank (Slama, 2014). Although less than half of the country is covered by banking agents (FSPmaps, 2015), the BETA program has more than 700 agents that have opened more than 220,000 savings accounts as of 2015.

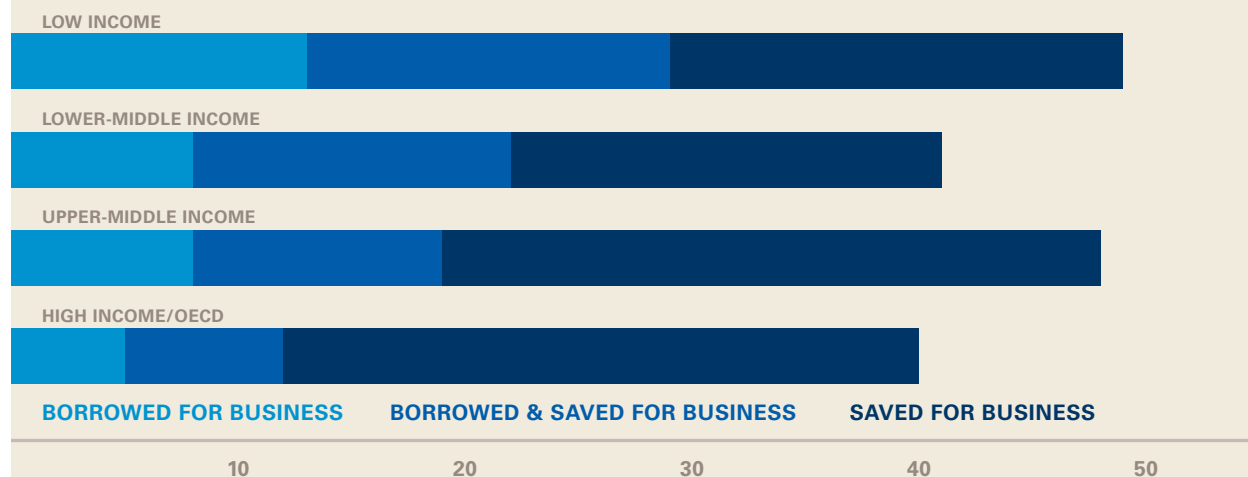
businesses make access to formal credit difficult. Limited access to formal credit hinders growth of small women-owned businesses, which also are more likely than a male-owned business to be denied a loan from a formal financial institution or bank. This may be because most banks consider credit history, collateral, and business experience as important factors in their evaluation of clients for credit.

- For instance, according to an IFC survey, women-owned small and medium-sized enterprises (SMEs) in the Middle East and North Africa (MENA) region reported being denied bank loans in higher numbers than men. Also, they often paid higher interest rates than men on formal bank loans (IFC, 2011).
- Globally, women comprise 43 percent of the agricultural labor force in developing countries (FAO, 2014). However, they have limited access to land and credit (FAO, 2011) compared with men, which affects their ability to invest, expand, and benefit from new economic opportunities (WDR, 2012).

FIGURE 5

IN DEVELOPING ECONOMIES, MOST FEMALE ENTREPRENEURS USE SAVINGS TO START AND EXPAND THEIR BUSINESS

Women saving and/or borrowing for their business in the past year (%), 2014



Global Findex database; <http://www.worldbank.org/globalfindex>

Evidence from rigorous randomized control trials is mixed about the impact access to credit has on female entrepreneurs. A series of studies showed no impact from small cash grants offered to subsistence-level businesses owned by women (Banerjee, Duflo, Glennerster, & Kinnan, 2015; de Mel, McKenzie, and Woodruff, 2008, 2009, 2012; Augsburg et al., 2012; Attanasio et al., 2011; Karlan and Zinman, 2010; Coleman, 2006). However, in some cases access to microfinance increased business ownership among women (Banerjee, Duflo, Glennerster, & Kinnan, 2015; Attanasio et al., 2011). The limited impact of microcredit on the growth of women-owned businesses may be because women own businesses in sectors that have a low probability of profitability and growth (Banerjee, Duflo, Glennerster, & Kinnan, 2015). They also may be forced to use a portion their business earnings on other household expenditures (Buvinic & Furst-Nichols, 2014). Yet a study in urban Ghana showed that larger women-owned firms increased their profits when given in-kind grants (e.g., inventory for business) (Fafchamps et al., 2014). For female entrepreneurs trying to start or expand their firms, digital transactions – such as utility and rent payments – are an increasingly important source of information for credit decisions, which might be especially important for female entrepreneurs who have no other credit or credit history in their name. Digital transactions can be used to build a credit history for women who want to raise capital from the formal financial market to start or expand a business. Digitization also can pave the way for new alternative methods of collateral for women who do not have access to traditional credit assets and do not have a credit history.

- New for-profit peer-to-peer credit platforms have emerged which extend access to financial services beyond social networks or family members. Examples include i-lend and Faircent in India, Afluenta in Latin America, and Kubo Financiero in Mexico (Noor & Faz, 2015). India's Faircent is one such digital credit platform that increasingly has been lending to women so they can expand their business or pay for personal events such as a wedding. As reported, most of the women seeking loans have been denied loans by traditional financial institutions (Gandhi, 2015).
- Users of mobile money services in India like those offered by Grameen Koota, a microfinance institution, report benefits such as convenience and security of savings that women lack with cash. Mobile money provided a safe harbor for their savings, which made them eligible for larger loans (GSMA, 2010).
- M-Shwari subscribers also have access to short-term credit. A customer's preliminary credit score upon enrollment is based on past use of a Safaricom product. The credit score is revised based on M-Shwari product use (Di Castri, 2013).

1.5 Digitization of financial services can reduce time spent on travelling to access banks or make utility payments.

Long travel distances, social norms, and family responsibilities often prevent women from traveling to faraway bank branches. Digital financial services can shorten this distance, offer easier access to money and the marketplace, and help women overcome restrictions on their mobility (Gatchalian, 2014).

- Research by Women's World Banking in rural Malawi showed that, like rural women in most developing countries, Malawian women fill many roles within their families. They lead domestic as well as economic activities at home, on the farm, and in the markets. Malawian women are unique in that they identify themselves as providers and have an expected role in saving for the family's future.

However, only 14 percent of Malawian women have an account with a formal financial institution (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015), mainly because of remote distances from bank branches. To increase financial access in rural areas, especially for women, Malawi's NBS Bank introduced a mobile-banking savings account in 2014 called Pafupi, which means "close" in Chichewa. Banks open Pafupi accounts in rural Malawi through a network of agents, including local shops, which can be used to make deposits and withdrawals using mobile phones (Women's World Banking, 2014). In Niger, a study of mobile cash transfers found a statistically significant reduction in time spent on travelling and waiting for cash transfers. This drop in travel time happened during the agricultural planting season, and the program recipients used the time savings for farming activities (Aker, Boumnijel, McClelland, & Tierney, 2014).

BOX 3: FEMALE LABOR FORCE PARTICIPATION

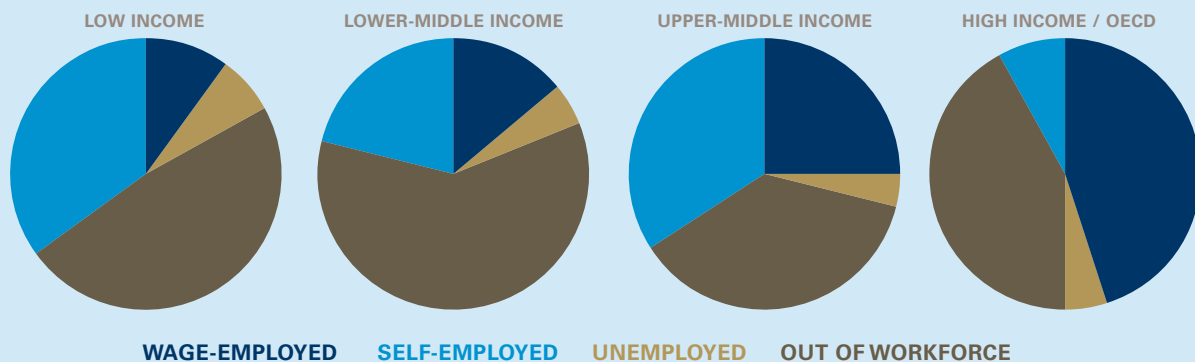
In most countries, formal female labor force participation is likely to be less than that of men. Several studies of economic development suggest that a U-shaped relationship exists between female labor force participation and a country's income. In lower-income countries, the rate of participation is higher; but women are mostly involved in unpaid subsistence agriculture. As a country's income rises, female participation in work outside the homes drops as their household income increases (WDR, 2012). High-income countries with formal institutions and social protections can provide more incentives for women to work, and therefore have a higher rate of female participation (IFC, World Bank, 2014).

Expanding economic opportunities have increased the global female labor force participation over the years. Much of the progress on gender equality over the last 10 years has come from more women entering

politics and the workforce. For instance, more women than men entered the labor force in 49 countries (World Economic Forum, 2014). However, household responsibilities continue to be perceived as a woman's responsibility, limiting their availability to work in a paying job. In addition, limited mobility and social and cultural barriers affect female labor force participation in developing countries. This is reflected in the slow growth in female labor force participation, which increased to 51.8 percent in 2008 from 50.2 percent in 1980 (WDR, 2012).

For a comprehensive look at the kind of economic activities women pursue in different regions, we refer to data from a recently concluded Gallup World Poll (2014). Figure 6 shows that lower middle income countries have the fewest women in the workforce. In India alone, 62 percent of women are neither wage- or self-employed nor looking for a job.

FIGURE 6
ECONOMIC PARTICIPATION OF WOMEN
Women (%), 2014



Gallup World Poll database; <http://www.gallup.com>

Moreover, women in developing countries perform a majority of the housework and, as a result, they are less involved than men in salaried employment (Duflo, 2012). In Algeria, women in rural areas perform 5.5 hours of unpaid care and domestic work a day compared with 5.1 hours for urban women. The amount increases to 7.3 hours a day for women with children younger than 4. Men's contribution to domestic work remains constant at less than one hour a day across all these categories. In Pakistan, rural women spend 4.9 hours on unpaid care and domestic work a day compared with 0.5 hours for rural men (UN Women, 2015a). Digitization can help women save time spent on household activities that require travelling – depositing checks or withdrawing money, for example, or paying electricity bills and school fees. The time saved increases their time available for gainful employment and greater earnings potential.

For instance, many women in Bangladesh reported using cash to pay their children's school fees. This costs them time and money, because they must often take time off from work to travel to the school to pay the fee (Klapper, 2015). By providing a digital platform to pay fees and conduct business-related activities, women can free up time to spend on paid work. That can improve their labor force participation. Digitization also can allow female entrepreneurs to connect with the marketplace virtually, and interact with customers and vendors from the safety of their homes or offices. In addition, women can join firms that allow them to work remotely and get paid through digital channels.

- According to GSMA, at least 64 percent of working women in 11 countries – Niger, India, the Democratic Republic of the Congo (DRC), Mexico, Indonesia, China, Turkey, Kenya, Colombia, Egypt, and Jordan – reported greater access to business and employment opportunities because of mobile phones (GSMA, 2015a).

1.6 Digital financial services support risk management.

Digital financial services can be an effective way to reduce various risks associated with women's work and business.

- **Agricultural Insurance:** Using a randomized controlled field experiment in Senegal and Burkina Faso, World Bank researchers found that female farm managers were less likely to buy agricultural insurance than male farmers, even after controlling for access to informal insurance and differences in crop choice. These women preferred to save for health risks associated with pregnancy and childcare rather than purchase agricultural insurance products. However, women who did invest in insurance had higher average yields and better managed food insecurity and income shocks (Delavallade, Dizon, Vargas Hill, & Petraud, 2015). Lack of information or poor access can be barriers to use of such insurance products. Female farmers could use digital platforms to secure agricultural insurance services. Moreover, women could use these services along with supplementary features like text messages about the advantages of risk management, etc. A mobile operator and an insurance company in Kenya jointly offer microinsurance to farmers to protect them against drought or excessive rains. The program protects more than 10,000 smallholder farmers in Kenya against extreme weather conditions. Weather stations automatically send data on rainfall to the insurance company, triggering payouts via mobile money payments when too little or too much rainfall is recorded. An estimated 46 percent of their clients are women (Manfre & Nordehn, 2013).

- **Quick and easy access to social networks during negative income shocks:**

Evidence suggests that digital payments, such as mobile money payments, can offer a “resiliency dividend,” especially among female-headed households, to protect vulnerable families against consumption losses in the face of economic shocks. Kenya’s M-Pesa has reduced risks like “leaky” money transfers, delays, and high transaction costs for its users who want to transfer money to family members and friends. In a study of M-Pesa’s role in reducing risk through lower transaction costs, the authors found that households in Kenya that did not use M-Pesa suffered a 7 percentage point drop in consumption after they experienced a negative income shock. The consumption of households that used M-Pesa was unaffected. This is because M-Pesa has been able to connect families and social networks in Kenya that are spread across the country by using SMS-based financial transactions. This means greater opportunities for women to find funds to keep a small business going, keep kids in school, and deal with medical and other emergencies (Jack & Suri, 2014).

Another study highlights the importance of mobile money accounts in the aftermath of natural disasters. The study looked at the entire universe of mobile phone-based communications over a four-year period in Rwanda, including millions of interpersonal transfers sent over the mobile phone network. The study found that people use the mobile network to make transfers to individuals affected by economic shocks. Unlike other documented forms of risk sharing, the mobile phone-based transfers are sent over broad geographic distances and are sent mainly between pairs of individuals with a strong history of reciprocal exchange (Blumenstock, Eagle, & Fafchamps, 2014).

During the 2014 Ebola crisis in sub-Saharan Africa, digital payments – first through mobile phones and later through bank transfers – allowed for quick, cost-effective, and accountable payments to more than 25,000 health workers in Sierra Leone (World Bank, 2015c).

- **Security from theft and harassment:** Compared with cash, digital transactions offer greater security from theft or harassment. In most developing countries, women often have to rely on informal channels for funding and running a business requiring cash. Smaller firms must dedicate a larger share of their sales to paying bribes to secure a contract or overcome local bureaucracy. Keeping cash on premises can make them vulnerable targets for theft, and often they cannot afford to pay for security against crimes (IFC, 2011). Digitization can lower these risks. Businesses receiving digital payments have less cash on premises and therefore face a lower risk of theft and harassment. Formal financial institutions also offer electronic records that help deter malpractices and can be used to identify bias/discrimination against women-owned firms. In the U.S. state of Missouri, the Electronic Benefits Transfer (EBT) program – a digital, debit card-based system mandated by the federal government – was associated with a significant decrease in the overall crime rate and incidences of robbery, burglary, assault, and larceny (Wright, et al., 2014).
- **Commitment products can prevent misuse and ensure timely action:** Digital financial services can be designed with varying levels of commitment – like a fixed deposit account – that women can use to keep money safe from not only their families, but themselves. Moreover, these services offer additional

“non-transactional” features including text messages and reminders. These services provide a cheap, fast, and effective way of marketing and managing digital financial products that is not available through conventional financial products. For instance, randomized control trials conducted in Bolivia, Peru, and the Philippines found that digital-based “goal-specific” savings reminders sent via text for school fees and housing increased savings by 16 percent (Karlan, McConnell, Mullainathan, & Zinam, 2012).

1.7 Digital financial services also promote women's empowerment by improving women-owned businesses' ability to lower banking costs.

Globally, 23 percent of women (and men) report the cost of opening and maintaining an account as a reason for being unbanked. But female entrepreneurs often experience lower profitability and sales because of smaller business size, sector of operation, and lower investments in business (WDR, 2012). Therefore, these costs – account opening fees, minimum balances, transaction fees, etc. – account for a larger proportion of earnings among women-owned businesses. Empirical evidence shows that subsidizing the cost of maintaining a traditional bank account has a significant positive impact on the adoption of savings accounts among women (Dupas & Robinson, 2013 & Prina, 2013). Digital payments to suppliers and the government can reduce businesses' administrative and disbursement costs, including high transaction fees (e.g., for bank wires) as well as travel time, lost productivity, and travel costs required to make payments in cash.

- The cost of maintaining a traditional bank account can be steep. In Africa, the average annual cost of maintaining a checking account is equal to 25 percent of gross domestic product per capita (Klapper & Singer, 2015). In the Philippines, it has been observed that a typical bank transaction through a conventional branch costs around US \$2.50. But this cost falls to US \$0.50 if the transaction occurs via mobile phone (Ivatury & Mas, 2008).

In developing countries, some 8 million to 10 million formal SMEs have at least one female owner (IFC, 2011). As the number of women-owned businesses grows worldwide, digital financial services can be designed to encourage more female entrepreneurs to adopt formal accounts. For instance:

- To encourage more customers to open mobile money accounts, Pakistan's Easypaisa – a branchless banking service – has eliminated all fees for account holders for person-to-person and cash-out transactions. Account holders can make unlimited P2P transfers, 15 cash-ins and five cash-out transactions a month. Since the launch of this scheme, the number of active account holders and the volume of P2P transactions have increased (Iqbal, 2015).

1.8 Digital records can help entrepreneurs better manage their inventory stock and make more efficient procurement decisions.

For example, small shop owners can track their sales by product type and day of the week and use this information to optimize inventory management. Digital records also can increase small businesses' productivity by lowering costs associated with inventory management. In addition, small businesses can make digital payments to suppliers more frequently, thus shortening the number of days of extended trade credit and lowering working capital expenses.

- The Cherie Blair Foundation for Women, Self Employed Women's Association (SEWA), and Vodafone Foundation have collaborated to launch a mobile application to help women associated with an agricultural cooperative called Rural Distribution Network (RUDI) in Gujarat, India. The application, called RUDI Sandesha Vyavhar (RSV), helps women manage and track their sales through a basic mobile handset. Using this application, women can buy agricultural products from the RUDI distribution center and sell them to households in their village. They save considerable time gathering information about the products their clients want, and they can confirm availability of the ordered items in real time (Simavi, 2014).

1.9 Adoption of digital financial services by female business owners can have a multiplier effect among other women.

Most women-owned SMEs tend to be consumer-oriented businesses that provide goods and services catering to women. They also tend to have more women in senior management (IFC, 2014a, 2014b). By using digital financial tools to collect customer payments and pay salaries, female entrepreneurs may increase the use of digital financial services more broadly among their female employees and consumers.

BOX 4: ALTERNATIVE DELIVERY CHANNELS FOR PAKISTANI WOMEN FROM LOW-INCOME HOUSEHOLDS

Kashf Foundation is a wealth management company serving women from low-income households in Pakistan. Kashf transitioned toward branchless banking through an agent network in 2011-12, and since then has opened 636 savings accounts for unbanked female clients. Fifty-five percent of its total clients use alternative delivery channels (ADC) to access their savings accounts. Also, 26 percent of Kashf's ADC-depositing clients report using these services after hours (after 7 pm) and on weekends. The foundation reports an increase in applications for direct loans among these women for their own businesses. The use of alternative channels has freed up their time considerably and given them more flexibility to manage the repayment time lines. According to Kashf, the number of women seeking loans increased 26 percent between 2012 and 2014. As of June 2015, the proportion of female clients seeking loans was 64 percent. Clients also have reported advantages such as flexibility, privacy, and security. However, Kashf foresees the following challenges as it transitions toward a completely digitized financial platform:

- Many clients are uneducated and find it difficult to adopt technology in financial transactions.
- Clients are hesitant about changing their conventional ways of savings, which are considered easy and more beneficial to them.
- Many female clients do not have mobile phones. Moreover, a large proportion of Kashf's female clients do not have SIM cards issued in their own names. They depend on their male family members for mobile numbers and mobile phone use. This not only hinders their access to financial transactions through technology, but also raises confidentiality issues in cases where women do not want to disclose their transactions to their family members.
- Clients find it difficult to use mobile phones for PIN generation and cash withdrawal. Uneducated female clients find it very difficult to talk to bank representatives for PIN generation and verification process. They are unable to comprehend the process or provide the required details for verification.
- Many women who have access to mobile phones do not know how to use them. They don't know how to type numbers on a mobile phone or how to type a message.
- Religious reservations sometimes hinder financial inclusion of women through technology. Clients who observe the veil are reluctant to get their photographs taken and find it unethical on religious grounds.

SECTION TWO

Challenges to Increasing Women's Access to Digital Financial Services

Technology, demand-side, supply-side, and infrastructure challenges are a barrier to greater access to digital financial services for women. Specifically:



2.1 CHALLENGES LIMITING THE DEMAND FOR DIGITAL FINANCIAL SERVICES

- 2.1.1 Women often lack the financial identification documents needed to open formal accounts.
- 2.1.2 Women have low financial independence and financial autonomy in many economies.
- 2.1.3 Women and girls do not typically have equal access to education, and this continues to have a negative impact on their broader opportunities.
- 2.1.4 Women, on average, are less financially literate.
- 2.1.5 Women have slower technology adoption rates than men and greater risk aversion in many countries.
- 2.1.6 Social and cultural barriers might prevent women from accessing financial services.



2.2 CHALLENGES IN ACCESS TO TECHNOLOGY

- 2.2.1 There is a gap in women's access to the Internet and use of online applications.
- 2.2.2 There is a gender gap in women's ownership of and access to mobile phones and mobile accounts.



2.3 CHALLENGES IN THE SUPPLY OF DIGITAL FINANCIAL SERVICES

- 2.3.1 Legal barriers can prevent financial services from being offered to women, including those who own a business.
- 2.3.2 The design and marketing of digital applications usually are geared toward men.
- 2.3.3 Financial service providers are not protecting consumers adequately, which means poor people in many cases are not treated fairly. This erodes trust in digital financial services.



2.4 INFRASTRUCTURE CHALLENGES

- 2.4.1 While technology and network infrastructure is reaching farther than ever, it is not always accessible or reliable.
- 2.4.2 Spectrum is a scarce public resource, and how governments allocate this resource has significant implications for affordability and access.
- 2.4.3 The legal and regulatory environment does not enable mobile or other non-bank transaction services or encourage the development of a digital payments ecosystem.
- 2.4.4 A lack of policy integration exists between the banking and telecom sectors.
- 2.4.5 Governments may not always be willing to invest in the digital financial ecosystem, given the delayed returns from investing in such projects.

These challenges present formidable barriers to increasing women's digital financial inclusion and achieving the benefits outlined in Section One. Section Three, below, therefore identifies the actions that can be taken by all stakeholders to overcome these challenges.

2.1 Challenges Limiting the Demand for Digital Financial Services

Many of the social and systemic barriers that women face in accessing traditional formal financial services are widely known realities for women around the world – e.g., low financial independence and autonomy and lower financial literacy. These barriers also contribute to the specific challenges that limit demand for and use of digital financial services.

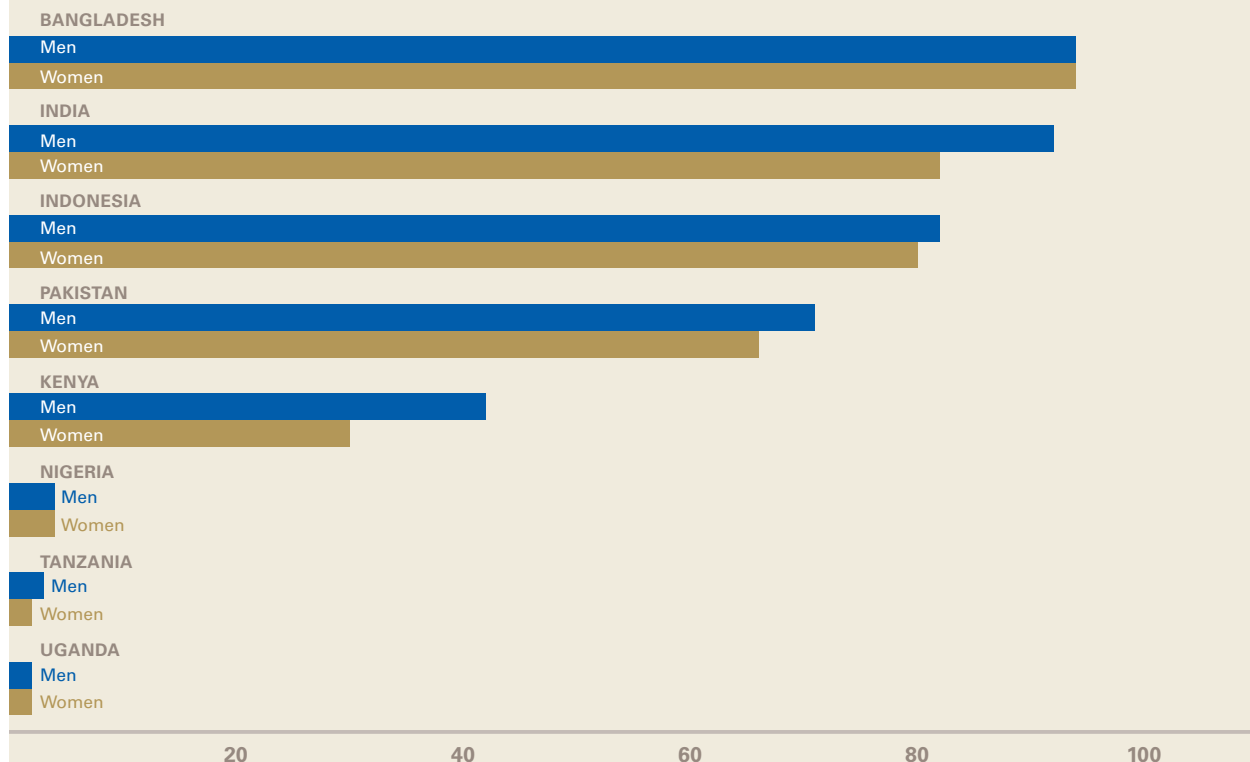
2.1.1 Women often lack the identification documents needed to open formal accounts.

In many developing countries, women do not have relevant documents, government-issued identity cards, or even birth certificates required for opening formal accounts. Without their own account, government benefits and wages often are deposited into a household account rather than a woman's own account, which compromises the payment's confidentiality and control over the payment.

- A Dhaka-based mobile financial services provider, bKash, reports that many women cannot open mobile accounts because they do not have the necessary government identity documents or birth certificates (Shrader, 2015).
- In India, one of the Know-Your-Customer (KYC) requirements for opening a bank account is submission of a government-issued identity card. A survey of Cashpor's savings schemes – which use mobile phones to facilitate microsavings operations in rural areas of India – found that many women do not have a formal government ID. While the accounts are operated and managed by the women, they usually are

FIGURE 7

GENDER GAP IN GOVERNMENT-ISSUED NATIONAL IDS National ID/government-issued ID holders (%), 2014



registered in the names of husbands or sons (Arnold, 2012). However, conditions have begun to improve, because the Reserve Bank of India – the country's central bank – now allows the use of the Aadhar ID card as a proof of identity to meet the regulatory KYC requirements for accessing virtual wallets (Ehrbeck, 2014).

In 2014, more than 2 billion people worldwide did not have any formal identification (World Bank, 2015a). This can limit their access to critical public services. Even though countries like India, Pakistan, and Kenya are working toward creating a database using a national identity card system, a gender gap still exists (Figure 7). The situation is worse in countries like Bangladesh, Nigeria, Uganda, and Tanzania, where a very small percentage of the population holds a government-issued national identity card. While it is common for adults in Uganda to hold some form of identity card, only specific cards – including a voter's ID, driver's license, passport, or national ID card – can be used to access financial services. The most common form of identity document in Uganda is a voter's card; but only 38 percent of Uganda's total population and 36 percent of women have one. Similarly, in Tanzania only 58 percent of the total population and 54 percent of women hold a voter's card, which can be used for accessing financial services (Financial Inclusion Insights, 2015).

2.1.2 Women have low financial independence and financial autonomy in many economies.

In developing economies, 75 percent of women's employment is informal and unprotected (UN Women, 2015a). According to the Gallup World Poll, the gender gap in business ownership is most pronounced among wealthy business owners (those in the highest income quintile): 14 percentage points in the Middle East, 9 percentage points in South Asia, and 8 percentage points in sub-Saharan Africa. The trend reverses among adults living in the poorest households: The business ownership gap in the lowest income quintile is 9 percentage points in favor of women in the Middle East, 16 percentage points in South Asia, and 3 percentage points in sub-Saharan Africa (Gallup World Poll, 2014). Moreover, in spite of performing similar economic activities, women's earnings lag behind men's. In most countries, the earnings ratio is between 0.60 to 0.75 in a year (World Bank Gender Equality Data and Statistics, 2015). Another common trait among households in developing countries is that even when women are working, they are unlikely to make their own financial decisions. Gender remains significantly related to use of financial services in countries where laws and customs stymie the ownership, management, control, and inheritance of assets and property by women; that, in turn, hinders a woman's access to – and demand for – financial services (Demirguc-Kunt, Klapper, & Singer, 2013). In addition to lower income-generating capabilities, social sanctions that are often codified in legislation limit a woman's financial independence and autonomy – even among those with adequate financial and technical knowledge (IFC, World Bank, 2014). For example, in countries such as Niger and India men played a larger decision-making role over household expenditures. In countries such as India, Indonesia, Jordan, Turkey, and Egypt, women who reported paying for mobile services from their own money or household budget more often required permission to spend the money versus men (GSMA, 2015a). In Uganda, for example, having a family nearby was found to be associated with a negative effect on married women's business investment decisions, because the husband or his family demanded cash (Fiala, 2014). However, education and financial independence may increase use of mobile accounts.

2.1.3 Women and girls do not typically have equal access to education, and this continues to have a negative impact on their broader opportunities.

Despite impressive improvements because of the Millennium Development Goal of educating girls, the gender gap in education remains a reality (UN Women, 2015a). Lack of formal education can hinder both financial and technical literacy, limiting women's ability to access digital financial services. In focus group discussions across several countries, for example, GSMA found that in rural areas very few women with low education levels used mobile Internet. However, the number of men with low education levels who reported using mobile phones was higher (GSMA, 2015a). In another study of information and communications technology (ICT) gender indicators in Africa, it was reported that women with lower education and income levels had less access to ICT among men and women from similar backgrounds (Deen-Swarray, Gillwald, & Morell, 2012).

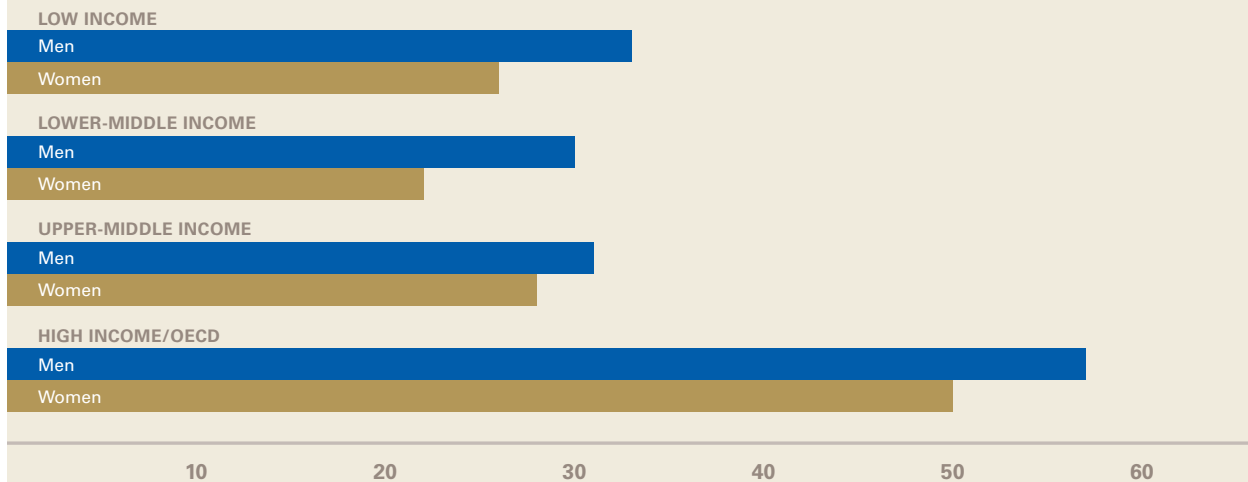
2.1.4 Women are, on average, less financially literate. Globally, men are likely to be more financially literate than women.

Meta-study reviews of empirical evidence around the world find gender differences in financial knowledge, showing that women have lower financial knowledge than men in both developed and developing countries, and women usually are less confident than men about their financial competences and skills (OECD, 2013 and Xu & Zia, 2012). According to the MHF Financial Literacy index, which surveys adults in more than 140 countries around the world on their understanding of concepts such as inflation, discounting, and interest compounding, 75 percent of women (equivalent to 1.5 billion women) in developing countries were identified as financially illiterate compared with 69 percent of men (1.4 billion men) (McGraw Hill Financial, 2015). When looking at concepts including inflation, risk diversification, simple interest,

FIGURE 8

WOMEN TRAIL MEN IN FINANCIAL LITERACY

Adults answering three out of four answers correctly (%), 2014



The Standard and Poor's Ratings Services Global FINLIT Survey

and compound interest, 35 percent of men answered three out of these four topics correctly versus 30 percent of women. The gender gap exists in both developing and high-income economies.

An empirical study in 12 upper-middle-income and high-income countries⁵ reported that women across all age groups, whether married or single, are less financially educated than men. Moreover, they are aware of their lack of financial knowledge. The gender difference in financial literacy also was observed among high school and college students (Lusardi & Mitchell, 2014). Women are not only less financially literate but also less confident about managing their money than men (Lusardi & Mitchell, 2008). However, according to another study, the gender gap in financial literacy and financial decision-making within a household was based on the spouses' level of education (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012). Results of the OECD Programme for International Students Assessment (PISA) financial literacy assessment, however, did not report gender gaps in financial literacy among young people, except in Italy (OECD PISA, 2014).

A meta-analysis of 188 papers on the impact of financial education concluded that financial education can influence some financial behaviors such as savings and record keeping (Miller, Reichelstein, Salas, & Zia, 2014). However, the evidence is mixed on how much general literacy and training changes actual behavior. Initial evidence suggests that financial literacy training for use of digital financial services has had a positive impact.

- USAID and GSMA partnered to give grants to Mumbai-based microfinance provider Swadhaar and Airtel Money – a mobile-based money transfer service – to promote the use of digital money services through financial literacy training for women. For this purpose, Accion – a nonprofit microlending organization – and Swadhaar developed training material using graphics, clear language, and peer educators. Early results show that the financial literacy training has helped women increase the use of Airtel's mobile money services for loan repayment, savings, airtime recharge, and bill payment (GSMA, 2015c).

2.1.5 Women have slower technology adoption rates and greater risk aversion.

Women tend to be more conservative about experimenting with new technology or financial products. This is why it is particularly important that services be consistently reliable. Their access to ICT tools through public Internet points, libraries, and Internet cafes also are often limited because of inconvenient hours of operation and unsafe environments (World Bank: Gender and Development, 2015). However, these trends vary across countries. For example, women more than men in the Philippines tend to teach themselves and rely on female peer networks to learn about mobile phone-based applications (Grameen Foundation, 2014).

- In a survey of urban working mothers in Kenya and India, participants reported that while they were aware of social media services and applications, they did not know about applications that could help them expand their businesses. Women from rural India who had not used digital technology in the past reported that they did not know what the Internet was or how it could be used (GSMA, 2015b).

BOX 5: BENAZIR INCOME SUPPORT PROGRAM: HURDLES TO G2P DIGITAL FINANCIAL SYSTEM

The Benazir Income Support Program (BISP) is Pakistan's largest social cash transfer program targeting women living below the poverty line. It provides them with supplemental income and supports them to graduate from their dependence on cash assistance. Introduced in 2008, the program started by using conventional government payment methods through the Pakistan Post Money Orders service to transfer USD 10 a month per family to nearly 5 million families. In 2010, the program introduced digital channels including customized smart cards known as Benazir smart cards, mobile phones, and debit cards called Benazir Debit Cards (CGAP, 2012a) for program recipients. It was expected that mobile phones would be a low-cost and convenient way to increase financial access for women in remote areas. However,

the digital services have not been as popular as anticipated, because many women do not own mobile handsets, do not know how to use a digital device, or simply do not trust BISP because of irregularities in payment. Most of these women were illiterate and disempowered. They also reported difficulty in using the ATM and punching the PIN codes while using the smart cards (West & Lehrer, 2014). However, the jury is still out on the program's impact. One preliminary study – which conducted an independent evaluation of the program – found that the beneficiaries felt more empowered and reported benefits including freedom to spend their money, increased importance in their family, more decision-making power, and greater confidence (Arshad, 2011).

- Because of low technical literacy, women often rely on village meetings or doorstep services for carrying out digital transactions. While men and women tend to have similar levels of trust toward agents, women tend to show less confidence than men when using digital platforms for financial transactions (GSMA, 2015a).
- Women in Kenya, Indonesia, and India reported that data costs discouraged them from using mobile Internet. This was linked to a lack of understanding about how data bundles were tied to usage (GSMA, 2015b). A survey of the microsavings clients of Cashpor in India suggested that female clients believed losing their mobile phones meant losing their money (Arnold, 2012).
- In another survey by Grameen Foundation, it was reported that an equal proportion of men and women from rural areas around the cities of Lucena and Calamba in the Philippines could use mobile phones and digital financial services. By contrast, very few Indian women from villages in eastern Uttar Pradesh were confident or able to use similar services. They reported lack of education and the fear of making a mistake as the most common reasons and, as a result, often relied on agents for such transactions. This trend was also true for Indian women who had been trained by an agent or another person. However, most Indian men could carry out the transactions themselves (Grameen Foundation, 2014).
- In developing countries, a measurable gender gap exists in the ownership of smart phones, use of data plans, and frequency of e-commerce activities. In select Arab countries, almost 70 percent of men reported purchasing and using these services versus only 30 percent of women (The Broadband Commission for Digital Development, 2010).

2.1.6 Social and cultural barriers prevent women from accessing financial services.

For example, entry procedures for starting a business in a developing country usually are centralized and registration requires a visit to the city center or capital. This can dissuade women in rural areas from formalizing their businesses because of time constraints or travel barriers. The transportation costs and time for setting up a business also can have an adverse impact on a business' finances. Consequently, most women-owned businesses tend to operate in the informal sector, especially in rural areas.

- In Botswana, almost two-thirds of microenterprises are in rural areas. They are owned mostly by women, lack registration, and operate from the home (Nsengiyumva et al, 2006). In Uganda, women work as unpaid laborers on family farms and also engage in small-scale informal, income-generating activities (Women's World Banking, 2009).
- In Bangladesh, only 2 percent of the women-owned firms engaged in non-farm activities are registered compared with 42 percent of those owned by men (IFC, 2011). Female entrepreneurs in Tanzania reported the registration process is more burdensome for them because they are susceptible to physical harassment from regulatory officers, have less sophisticated networks for obtaining the licenses and clearances, and have less access to information about the process. That is on top of being short on time because of additional family responsibilities (Ellis, Blackden, Cutura, MacCulloch, & Seebens, 2007). As a result, women may be less inclined to formalize their business or use formal financial services.

2.2 Challenges in Access to Technology

2.2.1 There is a gap in women's access to the Internet and use of online options.

In high-income OECD countries, 83 percent of households have access to the Internet within their homes. In developing regions, Internet access ranges from 50 percent in East Asia and Pacific and Europe and Central Asia to 10 percent in South Asia. Women in developing countries are significantly less likely than men to have Internet access in their home. In South Asia, for example, women are half as likely as men (Gallup World Poll, 2014).

2.2.2 There is a gap in women's ownership of and access to mobile phones and mobile accounts.

Ownership of or access to a device such as a computer or a mobile phone with Internet capability can encourage use of digital financial services. In a GSMA report, women from nine developing countries cited handset costs, airtime costs, and data charges as the main reasons for not owning or accessing mobile phones. The report stated that cost was a greater barrier for more women than men, because women in these countries were less likely to contribute to household income because they do not earn money, or earn enough money (GSMA, 2015a).

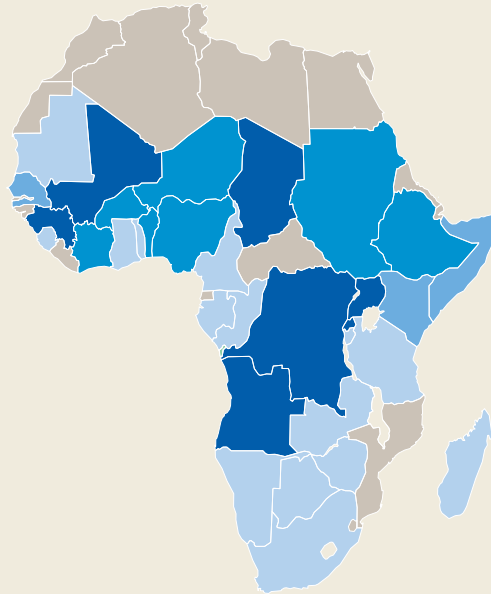
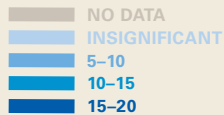
While 54 percent of adults in high-income OECD countries reported using the Internet to make online payments, only 10 percent of adults from developing economies reported doing so. By comparison, 16 percent of adults globally reported using their mobile phones to access an account with a financial institution and make a transaction. This may suggest that access to mobile phones can help overcome access barriers to financial inclusion (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015).

Yet some 1.7 billion women in low- and middle-income countries do not own mobile phones. And 200 million fewer women than men own mobile phones in low- and middle-income countries. In regions such as South Asia, a woman is 38 percent less likely to own a mobile phone than a man (GSMA, 2015a). The gap in mobile phone ownership also exists in sub-Saharan countries, where use of stand-alone mobile money accounts is becoming popular. For example, although 21 percent of adults in East Africa have a mobile money account, only 45 percent of women have their own mobile phone compared with 54 percent of men (Gallup World Poll, 2014).

FIGURE 9

MOBILE PHONE OWNERSHIP GAP, 2014

Gender Gap for mobile ownership
(percentage points)



Gallup World Poll, 2014; www.gallup.com

Women who do not own an individual handset or SIM card may still have access to a mobile phone within their household or their community (Lucini & Evans, 2015). However, even women who do have access to a mobile handset do not always use it to make digital financial transactions.

- Several reasons explain this. For example, a 2015 GSMA survey identified multiple reasons for the gender gap in mobile phone ownership in developing countries: the cost of mobile phones (especially the cost of handsets and credit); network quality and coverage; security and harassment on mobile phones; trust in agents and operators; and technical literacy and confidence. These are exacerbated by social and cultural norms that discourage access and use of mobile phones by women in many regions of the world (GSMA, 2015a).
- Another GSMA report on mobile Internet challenges in Asia noted that caregivers in Asian households, who are mostly women, usually are the last group to access or use a mobile phone. Even when they have access to a mobile phone, it is usually a feature phone with 2G Internet (Lucini & Evans, 2015).

2.3 Challenges in the Supply of Digital Financial Services

2.3.1 Legal barriers prevent financial services from being offered to women, including those who own a business.

Legal restrictions can have a negative impact on a woman's access to traditional financial products. For instance, laws can limit a woman's ability to own assets that can be sold or used as collateral to start a new business. In particular, laws in seven countries prohibit women from owning land. Forty-seven countries give women the right to own land, but some customary, traditional, or religious practices discriminate against women (OECD Statistics, 2014). Chile, Cameroon, Democratic Republic of Congo, Republic of Congo, and Cote D'Ivoire are five economies which grant husbands

the sole administrative rights to manage marital property. In a study of 143 countries, almost 90 percent of the countries reported at least one legal difference that restricts women's economic opportunities, and 79 of those economies have laws that restrict the types of jobs that women can do (IFC, World Bank, 2014). In some developing countries, women need male guarantors or a man's signature to access formal financial services. Moreover, limited or no use of formal bank accounts in the past often discounts their credit history and, as a result, female entrepreneurs may find it difficult to raise credit from banks (Bouffay & Shallal, 2013).

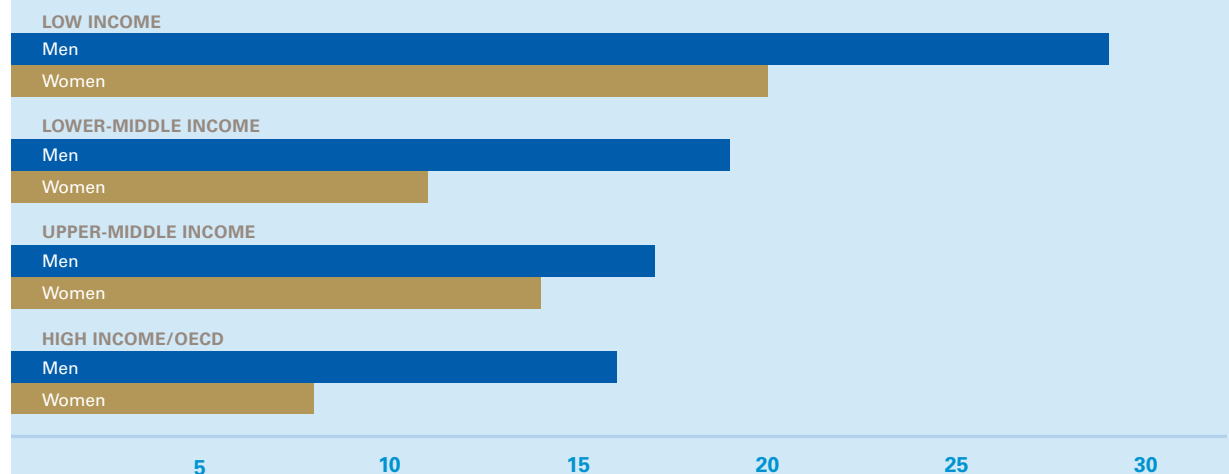
BOX 6: GENDER GAP IN BUSINESS OWNERSHIP

The Global Findex database (2014) reports on the gender gap in the self-reported business ownership of men and women in developing countries. The largest gender gap in self-reported business ownership is in the Middle East, where women are 19 percentage points less likely to report owning a business than men. The other region with a similar gender gap is South Asia (excluding India), with a gender gap of 18 percentage points. Even in the Europe and Central Asia region this gap is about 6 percentage points. One possible explanation could be the high wage employment rates in these countries, which may have replaced business ownership as the main employment category. Sub-Saharan Africa and East Asia Pacific record one of the lowest gender gaps in business ownership: About 24 percent of businesses are women-owned in sub-Saharan Africa and East Asia and the Pacific (excluding China), and 16 percent of businesses are women-owned in China. The gender gap in business ownership across all income groups is about 9 percentage points, except in upper-middle-income countries where the gap is

smaller at 3 percentage points (Figure 10).

The OECD collected gender disaggregated data for 14 member countries in 2009 and found that women, on average, owned 30 percent of registered sole proprietorships (OECD Statistics, 2015). Globally, the World Bank Enterprise Survey of more than 130,000 firms around the world confirms that in most countries only 30 percent to 35 percent of firms have female participation in ownership (Enterprise Surveys, 2015). However, in OECD countries, on average, women constitute only 18 percent of the board of directors in Forbes Global 500 companies. Their representation is much lower, less than 10 percent, in developing countries such as China, Brazil, India, and Russia (OECD Statistics, 2015). Globally, the percentage of firms with a female top manager is only 17 percent (Enterprise Surveys, 2015). This may suggest that while many women have ownership in businesses across the world, a very small percentage of women run businesses where they are exclusively in charge of the ownership and management.

FIGURE 10
WOMEN LESS LIKELY TO OWN A BUSINESS
Business owners (%), 2014



Global Findex database; <http://www.worldbank.org/globalindex>

- In Malawi, farmers clubs are one of the main sources of credit and extension services for small farmers. But they bar married women from full membership. Single women or women in polygamous marriages are not even considered for membership (WDR, 2012).
- In Pakistan, most microfinance institutions (MFIs) require women to obtain permission from their husbands or family to apply for a loan, and male guarantors are often required to accompany the borrower. To open an account, banks require two male guarantors who are not family members. Women guarantors are not allowed. Unmarried women are not considered creditworthy (Safavian & Haq, 2013).
- In some African countries such as South Africa, Democratic Republic of Congo, Namibia, Rwanda, Swaziland, and Uganda, a man's signature is required to open an account for a woman. In countries such as Sudan, Lesotho, and Uganda, a man's signature is necessary to authorize domestic money transactions (Scharwatt & Minischetti, 2014; and Narain, 2009).

2.3.2 The design and marketing of digital applications usually are geared toward men.

This may reflect a lack of awareness or willingness to act on the opportunity to serve women more effectively with a broader array of digital financial applications. The current digital market perceives women as receivers and men as senders of digital payments. Accordingly, the design and marketing of digital applications are usually focused on men sending money and women receiving money. Very few mobile operators target female business owners or workers (Scharwatt & Minischetti, 2014).

- Kenyan women with low household bargaining power did not use unsecured ATM cards for individual bank accounts – even though the cards lowered their transaction costs – because they feared they would be unable to resist their husbands' pressure to share some of those savings. By contrast, the frequency of use of these cards increased for men who found it cheaper to withdraw money using the card (Schaner, 2015).
- Between 2012 and 2014, the World Bank surveyed farmers and entrepreneurs in three counties in Kenya – Makueni, Kwale, and Gucha/Kisii – and three sites in Zambia – Mwomboshi, Lusitu, and Musakashi – to study the use of ICT tools in agriculture. In both countries, women produce most of the food and yet are among the poorest. The literacy level is higher in Kenya than in Zambia, but men have higher literacy levels than women in both countries. Mobile phone networks were found to be good in all six surveyed locations. Fewer women than men in Zambia owned a phone. But in Kenya 70 percent of survey participants owned a phone, and women had their own phones. The report observed that Kenya has several ICT tools in the agriculture sector while Zambia has very few. However, despite the differences in education levels and access to mobile phones between men and women in both countries, ICT tools designed specifically for female farmers have not been developed in either Kenya or Zambia. Moreover, the survey found high demand for ICT tools among female farmers for extension services, because limited access to information hampered their productivity. Mobile phones can be used to provide both financial and extension services for female farmers

through voice calls, because even those who cannot read or write know how to use mobile phones to talk. Moreover, a literate farmer can use her phone to send and receive messages to carry out financial transactions on behalf of those who cannot read or write. The report concluded that ICT tools are assumed to be gender neutral – but are not. Even among smallholder female farmers, ICT tools must be customized to meet specific needs, which vary by profession, business activity, region, and social practices (World Bank, 2015b).

The financial services industry in the past has changed its marketing and targeting strategies to suit the financial behavior of women, because they differ from men in the following areas: savings and investment habits; reasons for saving and investing; pattern of ownership of assets; and financial planning. A similar change in digital financial services can help reduce the gender gap in financial inclusion.

- For example, financial institutions in developed countries such as the United States and the United Kingdom began marketing insurance products in women's magazines. In the United States, ad campaigns were created to show that "modern" women make better financial decisions, eliciting positive responses from their consumer base (Burton, 1995).
- Similarly, microcredit offered by MFIs at lower interest rates is a successful market intervention which was introduced to lend money to people with no previous access to a formal financial system. Women often have been targeted for such programs. However, MFIs such as Spandan in India know that money is fungible, and giving a loan to a woman may also mean that part of the loan or the entire loan is being used for the husband's business. Therefore, they focus more on the borrower's ability to repay the loan (Banerjee, 2013 & Banerjee, Duflo, Glennerster, & Kinnan, 2015).

2.3.3 Financial service providers are not protecting consumers adequately, which means poor people are in many cases not treated fairly; this erodes trust in digital financial services.

The lack of proper consumer protections is reflected in a CGAP survey where a majority of respondents and financial service providers agreed that providers are not protecting consumers adequately (Zimmerman & Tyler, 2014). Better consumer protections for women include: financial literacy training; a legally authorized redress mechanism to dispute any unauthorized transactions; and policies to ensure financial service providers have clear and easily accessible information.

- M-Shwari has a simple pricing structure for loans that can be understood easily: Only one fee is charged for a loan that is payable in 30 days, and the same fee is charged again on the outstanding balance if the borrower does not repay on time. However, the terms and conditions of the loans cannot be accessed via the USSD session. Customers have to visit the Commercial Bank of Africa website for this information (Mazer & Fiorillo, 2015).

2.4 Infrastructure Challenges

Infrastructure challenges are a broader issue affecting both female and male clients. By addressing these challenges, government and industry can increase the use of digital financial services among all those who do not trust the digital financial platform or do not have access to digital services. Advances in these directions would benefit both men and women.

2.4.1 While technology and network infrastructure is reaching farther than ever, it is not always accessible or reliable.

Digital financial services have the potential to benefit the poor. But it is very important for service providers to meet their expectations and provide a reliable network for financial transactions. Unreliable networks and inadequate customer support can create problems, including denial to access funds stored in m-wallets and complicated customer interfaces. That is on top of diluting the trustworthiness of agents carrying out the financial transaction. Such problems can discourage low-income consumers from moving to digital platforms and curb a large-scale adoption of such services (CGAP, 2014).

- In GSMA's survey of women across 11 countries, poor network quality and coverage were reported as the second highest barrier to ownership and use of mobile phones among women (GSMA, 2015a).
- According to Financial Inclusion Tracker Survey (2014), 64 percent of Ugandan mobile money users, 52 percent of Tanzanian users, and 48 percent of Kenyan users could not complete money transactions because of network failure (Sanford, 2014).

Reliability also is often compromised because of poor connectivity. 3G markets in developing countries are not yet mature – for example, 3G use in countries such as India, Niger, Kenya, and Democratic Republic of Congo is low. Many rural areas of developing countries are still using 2/2.5G services, which limit the speed, performance, and quality of the network and use of mobile Internet. The rural access gap to fast and reliable services must be reduced to increase Internet and mobile market penetration and to provide ubiquitous connectivity.

2.4.2 Spectrum is a scarce public resource, and how governments allocate this resource has significant implications for affordability and access.

Spectrum is a public resource that is in short supply and governments may prefer to use it to maximize revenue when allocating it to service providers. Auctions can be an efficient means of price discovery when conducted in a transparent manner, and they can add credibility to the allocation process. But they often increase the cost of access to spectrum for operators. A high cost of access – combined with necessary capital expenditures for infrastructure – can increase costs for operators and, ultimately, subscribers. Moreover, the amount of spectrum available to mobile operators in emerging markets is less than in developed markets, limiting the availability of mobile broadband services. In addition to the high cost of owning a phone, for example, women also cited that the high cost associated with using a phone was one of the biggest barriers to owning a mobile phone (GSMA, 2015a). If developing economies expect to rely on digital channels for financial inclusion, they must develop solutions to make technology affordable and accessible for women.

- The Indian government has awarded spectrum licenses using auctions, and set very high reserve prices for the spectrum. In 2010, the government conducted auctions to allocate spectrum for 3G and broadband wireless access (BWA) services, raising USD 18 billion. This revenue was among the highest worldwide. The high reserve price – in addition to the artificial scarcity created by the limited amount of spectrum made available in the auction – drove up bidding costs. Consequently, 3G services are expensive in India, and service providers focus mostly on urban areas to maximize their profit potential. In the case of spectrum auctions, a government's preference for economic gain over inclusion may partly explain why mobile banking services and data use are concentrated in wealthier cohorts and urban areas of some developing countries.

2.4.3 In some countries, the legal and regulatory environment does not enable mobile financial services or encourage the development of a digital payments ecosystem.

In some of the most populated nations, regulatory barriers still do not allow mobile financial services to be offered, and the ecosystem has yet to be developed. Many banks in developing countries do not offer Internet/mobile banking facilities – especially in rural areas, where customers usually access financial services through agents or brick-and-mortar branches. Most mobile money services offer money transfer and bill payment options only. To provide credit and interest-earning features, mobile operators must hold specific licenses or operate through subsidiaries which are licensed to offer mobile money services. This is necessary to guarantee the security of consumers' deposits and to ensure that consumer protection guidelines are followed. Under its new Payment Bank guidelines of 2014, for example, the Reserve Bank of India allows mobile network operators (MNOs) and other associated companies to offer only deposit accounts and payment services. These companies are barred from directly offering any forms of credit. They can only distribute credit, insurance, and pension products on behalf of financial service providers (Financial Inclusion Insights, 2015).

Countries can expand financial inclusion in different ways by leveraging new technologies and retail networks of agents to distribute services and enroll customers. For instance:

- Countries such as Kenya, Tanzania, Uganda, and Rwanda filled their banking services gap with mobile money services, which typically are operated by mobile network providers (Faz & Moser, 2013).
- In China, the regulatory framework is evolving rapidly to both support the goal of financial inclusion through branchless banking and include active players such as banks, financial institutes, MFIs, MNOs, third-party companies, and innovative technology companies (Shrader & Duflos, 2014). For instance, to meet the demand for investment products, Alipay launched its money market fund, Yu'e Bao, in 2013. In a year's time, Yu'e Bao had around 100 million account holders and total accrued assets of RMB 570 billion. Because of the success of this product, many banks, Internet service providers, and mobile service operators have also launched similar investment products (Tang, Zhang, & He, 2014). Yet Yu'e Bao and its rivals remain effectively unregulated and there are liquidity and other concerns.

2.4.4 Lack of policy integration between the banking and telecom sectors is a significant challenge which, if left unaddressed, will make it difficult to provide the full range of formal digital financial services to women and men (World Bank, 2012).

There is a need for policy alignment between banking and telecom sectors relevant to:

- Taxation of financial products and transactions
- Proportional risk-based KYC rules
- A digital identification system that individuals can use to prove identity for a broad range of government and private sector purposes, including accessing financial and telecom services
- Flexible agent requirements

Among the most urgent challenges relates to providing safe and reliable remittance services to women through formal digital financial channels. International remittances are a small but significant source of money inflow in many countries. In 2014, personal remittances accounted for 30 percent of the GDP in Nepal, 26 percent in Moldova, 17 percent in El Salvador, and around 4 percent in all South Asian countries (WDI, 2014). Digital financial services can help migrants have more control over the remittances sent to their home country (Ashraf, Aycinena, Martinez, & Yang, 2015). However, international remittances are much more difficult than domestic remittances, because they often require partnerships between banks, international remitters, regulatory bodies, and governments to address risks related to money laundering or terrorist funding (Capal, 2014).

Recently, strict regulations to combat terrorist financing have closed some formal remittance channels, because banks have closed the accounts of money transfer businesses (Plaza, 2014). This has significant consequences for women in countries such as Somalia, where 40 percent of the population is estimated to rely on international remittances totaling around 1.3 billion dollars (Paul, Schryer-Roy, Murphy, Pomfret, 2015).

2.4.5 Governments may not always be willing to invest in the digital financial ecosystem, given the delayed returns from investing in such projects.

Governments generally avoid projects with long gestation periods, because the dividends from their success do not actually accrue to the government that implemented the project. Digitization is cost effective only after a minimum threshold level of user penetration is achieved (network effects) and service is streamlined. A long gestation period coupled with high initial capital investments in technology and infrastructure – as in the case of electricity – can make these projects particularly unattractive. Moreover, voters do not readily recognize the government's efforts or the eventual benefit. Even if the effort or the benefits are recognized, they are not easily attributable to the government. And while governments might not be opposed to the idea of empowering women through financial inclusion and digitization, it is important to address the related political and economic issues that can cause them to neglect providing such focused services.

- ICT is an invaluable tool for revenue authorities, because it can improve tax filing and compliance, increase transparency, help information dissemination, and bolster administration by supporting record keeping and tracking. However, moving to digital platforms increases government spending on electronic devices, staff training, and change management, which can be time consuming.
- Operators usually incur heavy losses in the early years because of spending on customer acquisition and the expansion of distribution networks. They need roughly three years to break even, and can expect to meet positive profit margins of 2 percent to 5 percent only after they have at least 15 percent of their GSM base as active mobile money subscribers. In the absence of a digital ecosystem, this business model may not prove to be a lucrative investment for many service providers (Almazan & Frydrych, 2015).
- Men and women who are well entrenched in the existing system – for example, direct beneficiaries who gain employment because of weak ICT support – would resist any change to digital systems. The government either will have to retrain these people, or endure the political cost of having people unemployed because their skills are obsolete owing to technological change.
- Digitization improves transparency. Consequently, many companies may prefer to continue using cash-based systems to take advantage of the cheaper costs of using underpaid workers and avoiding taxes.

SECTION THREE

Strategies for Governments, the Private Sector, and the International Development Community to Increase Women's Access to Digital Financial Services



3.1 ACTIONS GOVERNMENTS CAN TAKE

- 3.1.1 Lead by example in digitizing government payments.
- 3.1.2 Adopt and promote financial consumer protection.
- 3.1.3 Leverage new technologies such as biometrics to overcome low levels of financial literacy.
- 3.1.4 Create a digital financial identification system.
- 3.1.5 Provide regulatory policies that allow digital financial services to be offered.
- 3.1.6 Reform discriminatory policies that, in practice, make it harder for women to access or adopt digital financial services.
- 3.1.7 Digitize business registration procedures and license fee payment.



3.2 ACTIONS THE FINANCIAL SERVICES INDUSTRY CAN TAKE

- 3.2.1 Collaborate with other companies to increase the use of digital financial transactions while lowering the cost of these transactions.
- 3.2.2 Develop alternative credit scoring models to address the challenge that many women do not have a traditional credit history.
- 3.2.3 Design products to meet women's unique needs and preferences in order to increase adoption of digital financial services that already are available.
- 3.2.4 Contribute to the adoption of a financial customer protection framework to ensure that new female customers are treated fairly and therefore trust digital financial services enough to adopt them.

As outlined in Section One, there are compelling reasons to increase women's access to digital financial services. This section outlines the specific actions that governments, the private sector, non-governmental organizations, and the international development community can take to address the challenges and barriers described in Section Two.



3.3 ACTIONS LARGE BUSINESSES CAN TAKE

- 3.3.1 Leverage their status as large payers and payees to increase access to and adoption of financial services.
- 3.3.2 Invest in providing services through mobile phones or the Internet, which could contribute to bridging the gender gap in ownership of digital devices and services.
- 3.3.3 Ensure interoperability to increase the convenience and ease of using digital financial services for women.
- 3.3.4 Address issues related to women's lower levels of technical and financial literacy.
- 3.4.5 Provide a robust and reliable network for financial transactions.



3.4 ACTIONS INTERNATIONAL DONORS AND FUNDERS CAN TAKE

- 3.4.1 Support a policy environment that allows digitization of financial services.
- 3.4.2 Fund market infrastructure.
- 3.4.3 Support appropriate consumer protection frameworks at regulatory and industry level.

3.1 Governments can play a catalytic role in creating an economy where digital financial services are widely available to women, because many of the challenges and barriers outlined in Section Two can be addressed by governments through the following steps:

3.1.1 Lead by example by digitizing the payments governments make and receive, including social transfers.

As noted above, 80 million unbanked women globally receive government wages or transfers in cash; 210 million unbanked women receive cash payments for the sale of agricultural goods; 585 million women pay for utilities in cash; and 225 million women pay school fees in cash (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015). Many of the barriers to expanding access and adoption among women can be overcome when governments, as the largest payers in most economies, adopt digital payments. This step can create the policies, infrastructure, and technologies needed to jump-start market demand for – and supply of – digital financial services for women. It offers many women their first experience with a digital financial service, increasing their financial literacy, comfort, and adoption of broader financial services if done in a way that keeps these goals in mind.

The government also can digitize mechanisms for citizens paying the government, including registration and licensing fees, VAT and other tax payments, social security payments, etc. This also can help governments identify and target low-income households for tax returns, credits, and other benefits.

- For instance, introduction of electronic filings in U.S. states increased the number of federal returns that were filed electronically. It also increased the number of Earned Income Tax Credit (EITC) claims. EITC is a refundable tax credit offered to low- and moderate-income families in the United States to keep low-wage workers employed and offset social security taxes (Kopczuk & Pop-Eleches, 2007).
- In Malaysia, between 2006 and 2011, an increase in the share of electronically filed individual and corporate income taxes coincided with an increase in tax collections as a percentage of GDP (Doing Business, 2013).

This can help build infrastructure, volume, and familiarity with digital payments on which business-to-business and person-to-business payments can build. Importantly, this step also can lead to more immediate benefits that can make the large investments worthwhile, such as significant cost savings, reduced “leakage” from corruption or fraud, and increased transparency. In fact, while this is a major undertaking, governments increasingly recognize they must do this for modernization reasons.

- According to a Better Than Cash Alliance report, the Mexican government is saving an estimated US\$ 1.27 billion per annum on its total spending on wages, pensions, and social transfers after introducing reforms to support digital payments in 2007. By the end of 2012, half of the federal salary payments and most of the pension and supplier payments had been centralized and digitized (Babatz, 2013).
- The Chinese government now delivers subsidies to beneficiaries through bank accounts. Recipients can visit one of 900,000 bank agents, such as mom-and-pop shops, and use their card to collect their funds through an electronic point of sale device (Duflos & Klapper, 2015).

Governments have additional incentives to facilitate digitization. Firms that receive electronic payments from customers have incentives to use “digital money” to pay suppliers. That digital payment improves transparency, because digital financial transactions make firms and transacting parties visible. This visibility, in turn, can increase tax compliance and tax revenues by preventing leakages from the informal sector. Digitization also can encourage the private sector to follow the government’s lead. After the Pakistani government shifted to digital solutions for its welfare programs, several banks upgraded to branchless banking (CGAP, 2012a). Similarly, the hope is that a government’s shift to digital payments – and the development of a supportive digital payments infrastructure – will encourage private companies to pay wages and salaries digitally.

3.1.2 Adopt and promote a financial customer protection framework to ensure that new female customers are treated fairly and have sufficient financial skills so that they know and trust digital financial services enough to adopt them.

Responsible digital finance requires that consumers should receive sufficient information to make informed decisions, that there are adequate market conduct rules that prevent unfair practices by financial services providers, and that consumers have access to recourse mechanisms to resolve disputes (AFI, 2014). Government disclosure guidelines – particularly regarding plain language and pricing transparency – can ensure that consumers have the information they need to make sound decisions and choose between different products. Market conduct rules can ensure that consumers – particularly women who be less experienced in accessing financial services or who may otherwise be disadvantaged or discriminated against in the marketplace – are treated fairly, and have the opportunity to ensure that they understand the products they are accessing, for example, through cooling off periods. Finally, governments can ensure that consumers have access to recourse mechanisms to resolve disputes, whether related to incomplete or incorrect transactions, loss of funds due to agent fraud, stolen identity, etc. Female consumers in particular should be educated about using and remembering their PINs, knowing the correct amount of money to be received during transactions, and what to do if something goes wrong.

In 2012, the G20 endorsed a recommendation for governments to develop nationally coordinated approaches to provide financial education to their citizens,⁶ especially women. Yet, given that the rigorous empirical evidence on the impact of financial education is mixed (see Xu and Zia, 2012), it is also important to design digital financial products and communicate their use and functionality in a context that works for adults who are not financially educated or literate. For instance, the use of text-free computer interfaces – which use simple screen-shot pictures or drawings and a voice function to provide information normally provided via text – can teach illiterate adults to independently use an ATM.

3.1.3 Leverage new technologies to address the lower technical adoption and literacy levels among women in some countries.

For instance, biometrics can be used to overcome challenges that women face because of low literacy levels, such as using or remembering PINs. Pakistan’s National Database and Registration Authority (NADRA) project uses biometric technology to administer financial inclusion schemes for women such as the Benazir Income Support Program

(BISP) and other disaster relief programs covering the affected and poor. NADRA moved to biometrics once it realized that people often shared PIN numbers of smart cards and suffered losses as a result. Many people reportedly sold their cards and PIN numbers because they did not know how to use them properly (Malik, 2014).

3.1.4 Create a digital financial identification system to address the challenge that women often lack the identification documents needed to open formal accounts.

Low- and middle-income countries can use digital platforms to create a national identity database by improving the birth registration process. This is especially important for women who do not have a government-issued proof of identity, because they simply do not exist in any population count.

- India's Aadhaar program represents such an initiative, because it uses biometric authentication to create a central database of the nation's residents. Similarly, Estonia has "modernized" its national ID system (Dahan & Hanmer, 2015).

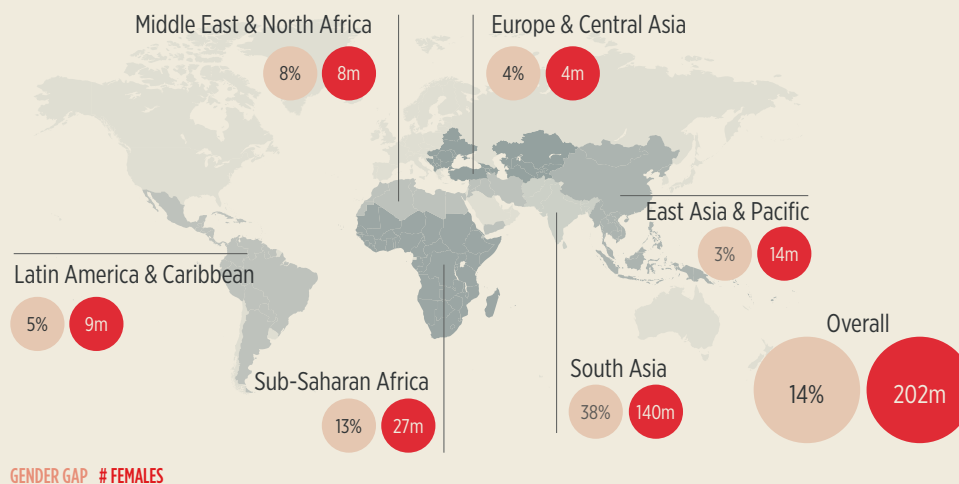
3.1.5 Provide a conducive regulatory environment that both allows electronic financial services, including mobile money services, to be offered by nonbanks, and aligns policies governing the banking and nonbank providers of transaction and e-money services (including the telecom sector).

When governments support an agnostic and inclusive approach to a digital financial system, it can encourage competition among various payment methods in order to reduce costs and increase access – all while still ensuring integrity, stability, and protection. The industry also benefits from significant efforts on the part of the authorities to facilitate the necessary collaborative efforts and interoperability of transaction processing and access networks.

- The regional African bank regulator based in Senegal, Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO), allows several stakeholders including banks, MNOs,

FIGURE 11

GENDER GAP IN MOBILE PHONE OWNERSHIP BY REGION (%, absolute number of females)



MFI, and other service providers to offer digital financial services. A relatively robust telecom infrastructure has supported government policy to increase competition for providing digital financial services and, as a result, several pilot programs have been introduced in the last few years (Denyes, 2014).

- In 2013, the Bank of Mexico introduced new regulations allowing mobile payment clearinghouses to participate in the central bank's real time gross settlement system, Sistema de Pagos Electrónicos Interbancarios (SPEI). Mobile payment postings are expected to be faster than other SPEI transfers, because these interbank mobile payments are expected to be processed in less than 15 seconds from the time of initiation. The Bank of Mexico also has reduced the SPEI originating fee for mobile payments from USD 0.04 to USD 0.01 to promote this channel of payments and increase financial inclusion (BIS, 2014).

Policymakers and the private sector have an opportunity to work hand-in-hand to close the gender gap in mobile phone access and use. Key areas for collaboration include: making mobile phones and services more affordable; increasing the availability of gender disaggregated data in the use of ICTs; identifying socially and culturally relevant and acceptable ways of promoting mobile phone ownership among women; and addressing security and harassment concerns among women when using mobile phones (GSMA, 2015a).

3.1.6 Lead the reform of discriminatory policies that, in practice, make it extremely difficult for women to access or adopt digital financial services. Specifically, governments can:

- **Eliminate legal barriers to improve access to financial institutions.** Empirical evidence suggests that in economies where women do not have the same property rights as men, 9 percentage point fewer women have secured loans. Economies that have a full community of property regime as a default provision – in which all assets and income brought into the marriage and acquired during the marriage become the joint property of the couple – have 10 percentage points more female-owned accounts at formal financial institutions than economies with a default separation of property regime. Under the latter marital property regime, all property acquired by the spouses before they marry, as well as all property acquired during the marriage, remain the separate property of the acquiring spouse (IFC, World Bank, 2014).⁷

3.1.7 Digitize business registration procedures and license fee payments.

This can make it easier to formalize a business by reducing bureaucratic hurdles and travel time while also increasing safety.

3.2 The financial services industry has a significant role to play in making digital financial services more widely available to women, because the industry is in the unique position to address many of the challenges and barriers outlined in Section Two.

In particular, the financial services industry can address cost and access issues, and it can take steps to design products and market those products in a way that is geared toward women. Importantly, the financial services industry can also create new solutions to assess women's creditworthiness. Finally, the financial services industry can be an engaged player in advancing responsible digital finance for women, including customer protection, and education policies.

Specifically, the following are actions the financial services industry can take:

3.2.1 Collaborate with other companies to increase the use of digital financial transactions while lowering the cost of these transactions.

To expand their services to low-income households, financial institutions can collaborate in a range of ways with other private companies to build an inclusive, interoperable digital finance ecosystem. In Peru, for example, the members of the Bankers Association (ASBANC) are collaborating to build a shared mobile platform and reduce their costs; they will then compete on offering products, which will further keep costs down for customers.

This also can extend to collaborating on solutions to reopen formal financial services and products. The challenges section of this report outlined how strict regulations to combat terrorist financing have closed many formal remittance channels, because banks have closed the accounts of money transfer businesses. Banks and telecom companies can work together to address this issue. Customers who use digital financial payments associated with a SIM card can create “digital financial identities.” In cases of suspicious or fraudulent financial transactions, it is possible to map the transaction flow to the cellular base station and agent location. With additional information from applications such as phone, data use, and geotagging, financial service providers can improve their network for identifying the source of such activities (Lyman & Noor, 2014).

To prevent the exclusion of poor people from financial services, the Financial Action Task Force (FATF) recommendations allow a tiered approach to customer due diligence in cases which present a lower risk of money laundering or terrorist financing. Some mobile money service providers already have introduced innovative solutions.

- Tangaza Pesa, a mobile money transfer service in Kenya, registers and authenticates customers using fingerprint biometrics solutions which are secure and low in cost; they also eliminate the need for paperwork (Parada & Bull, 2014).
- Commercial Bank of Africa (CBA) uses a tiered KYC model to complete KYC norms for its M-Shwari clients. All M-Pesa users can activate their M-Shwari accounts through the M-Pesa menu on their mobile phone. To allow customers to open an account, CBA uses Safaricom's customer due diligence information to verify users. To operate the account, CBA carries a second round of KYC verification through which the M-Pesa customer information is verified with the government's official database registry of individuals. For this purpose, official IDs can be submitted at Safaricom shops. As deposit levels increase, higher levels of KYC verification are required, which makes the process customer specific. These KYC norms are compliant with international standards laid out by the FATF (Di Castri, 2013).

3.2.2 Develop alternative credit scoring models to address the challenge that many women do not have a traditional credit history.

Using data derived from mobile phone use and digital payments can pave the way for innovative digital credit products (Kumar & Muhota, 2012). Digitization, for example, can lead to new methods of collateral for women who do not have access to traditional credit assets and lack a credit history.

- For example, Hong Kong-based AMP Credit Technologies provides a service that allows financial institutions to offer short-term loans to small business owners through the borrower's electronically verifiable cash flow – such as credit card payment activity – and other available data (<http://www.amp-creditech.com/>).

3.2.3 Design products to meet women's unique needs and preferences in order to increase adoption of digital financial services that already are available.

Many providers are waiting for women to adopt digital financial products without first questioning how these products can better meet women's needs. These providers also are not designing products to meet those needs in a way that would reach this untapped market. Financial institutions should conduct research to better understand the women's market, and design digital financial services to help women overcome barriers to access and become loyal and profitable clients.

- Mobile money services in English often can be a barrier for women who know only local languages. M-Pesa has overcome this challenge by providing services in Hindi, Bengali, Marathi, Gujarati, and English (McKee, Kaffenberger, & Zimmerman, 2015).
- UBL Bank in Pakistan has partnered with VoiceTrust to provide voice biometrics solutions for authentication of its retail clients. This feature will have interactive voice response authentication in Urdu, in addition to English, which will be useful for women who do not know English or find it difficult to remember PINs (Parada & Bull, 2014).
- In Malawi, Opportunity International Bank has a large number of female clients because the bank uses fingerprinting to authenticate transactions. Women find this feature attractive, because they can maintain control over their accounts after the death of their husband and prevent their assets from being seized by their male relatives – as is very common in Malawi (Dahan & Gelb, 2015). However, more time is required to determine the exact impact of biometrics, because social programs have just started shifting to this technology.

3.2.4 Contribute to the adoption of a financial customer protection framework to ensure that new female customers are treated fairly and therefore trust digital financial services enough to adopt them.

The financial services industry can be an engaged player, working with governments to adopt legally authorized redress mechanisms to dispute any unauthorized transactions and provide clear and accessible information for new female customers.

3.3 Large businesses, including retailers and technology companies, can play a crucial role in supporting the creation of an economy where digital financial services are widely available to women.

The specific challenges that nearly all companies can address include increasing access to – and use of – digital financial services among women who are employees, vendors, or clients. Companies can address this by paying wages and accepting payments digitally. Mobile network operators and technology companies are uniquely suited to address the challenges of access to technology, low financial literacy, and limited reliability and convenience.

Specifically, large businesses can take the following actions:

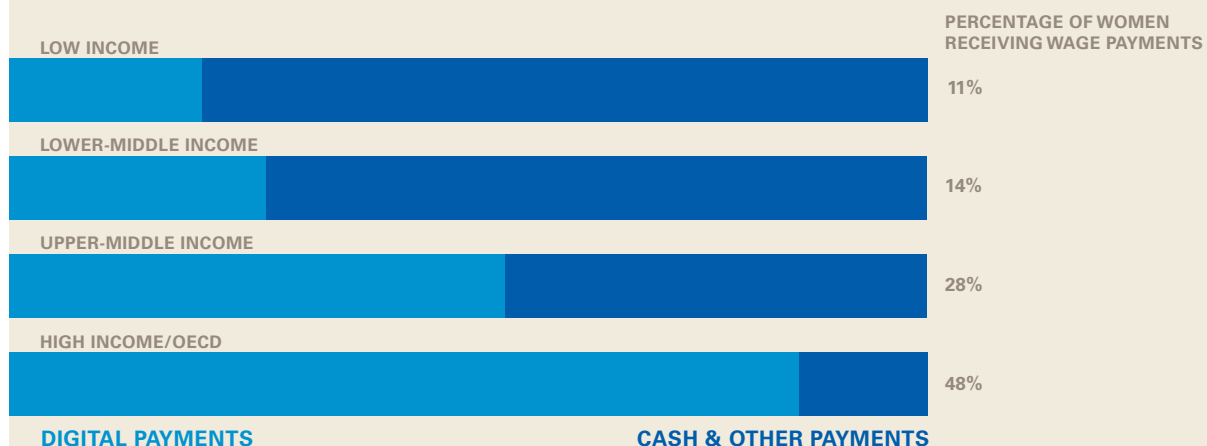
3.3.1 Leverage their status as large payers and payees to increase access to and adoption of financial services by:

- Paying wages through digital financial channels.** In total, 37 percent of female wage recipients worldwide receive their wages in cash. These recipients make up more than 110 million women, with the majority living in developing economies. Larger disparities exist between high- and low-income regions. Eighty-seven percent of female wage earners in high-income countries receive wages digitally, while 79 percent of female wage recipients in low-income countries receive wages in cash of through other modes (Figure 12). Across all developing regions, women who receive payments from the sale of agricultural goods almost exclusively receive them in cash. In fact, 210 million women in the developing economies report receiving such payments in cash (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015).
- Developing a digital supply chain.** This could be done by paying suppliers electronically for goods and services, and enabling female entrepreneurs to pay electronically for purchases of inventory and raw material. This can reduce costs and increase efficiency.
- Increasing electronic payments by retailers.** This could be done by enabling female entrepreneurs who own retail outlets to have a safer, more transparent and more flexible means of making and receiving payments. Businesses providing financial transaction services – such as telecom companies and social network websites – can reduce the amount and frequency of customer data sharing by allowing consumers to share their banking data with the service provider only. This eliminates the need for transacting parties to exchange financial information like credit or debit card numbers or bank account details with each other (BIS, 2014).

FIGURE 12

MOST WOMEN PAID IN CASH

Women receiving wages in the past month, by method (% of women wage earners), 2014



3.3.2 Invest in providing services through mobile phones or the Internet, which could contribute to bridging the gender gap in ownership of digital devices and services.

This would include investments in spectrum, fiber networks, and electronic equipment, moves that would benefit from collaboration between governments and the private sector.

3.3.3 Ensure interoperability to increase the convenience and ease of using digital financial services for women.

Interoperability should be expanded within and across all types of digital transaction service accounts, including card-based, mobile money, Internet, and bank accounts. MNOs can increase the use of mobile money services through interoperability. According to CGAP, new services and applications for depositing, transferring, and withdrawing money using mobile phones are emerging globally, particularly in sub-Saharan Africa and South Pacific countries. Account-to-account interoperability is now a reality, wherein subscribers can use different mobile network operators or digital platforms for financial transactions with mobile money accounts (CGAP, 2012b). Other countries which offer interoperability are Pakistan, Indonesia, Bangladesh, and Sri Lanka. In Tanzania and Indonesia, industry spearheaded the initiatives for interoperability. Experts from the payments and mobile industry guided Tanzania's transition: They put together a set of common business standards to govern person-to-person payments across countries. For this purpose, four mobile money operators – Tigo, Airtel, Zantel, and Vodacom – have agreed to operate through bilateral application programming interface (API) connections (Musa, Niehaus, & Warioba, 2015). Currently, M-Pesa and Tigo Pesa users can exchange mobile money in Tanzania (IT News Africa, 2015).

3.3.4 Address issues related to women's lower levels of technical and financial literacy.

Financial technology (FinTech) service providers and marketers can work on this revenue-generating issue in both developing and developed countries. For example, Alibaba in China has rolled out an application for its Alipay Wallet users that authenticates mobile payments through facial recognition technology (Tyler, 2015).

3.3.5 Provide a robust and reliable network for financial transactions.

Because women often are more risk averse, service providers must gain their trust to increase adoption on a large scale. They can do so by providing a robust network for financial transactions and strong customer support to help clear confusions and complications in the process.

3.4 International donors and funders can play a significant role in supporting the digital financial inclusion of women.

Market infrastructure and government policy often are considered the two biggest barriers to financial inclusion. Yet donors' commitment toward this purpose has been low. In 2013, international funders committed about USD 31 billion to support financial inclusion. Seventy-five percent of this amount came from public funding. Funding from private investors, which mostly comes from microfinance investment intermediaries, fell by almost 2 percent, with only 8 percent of the funds committed toward capacity building of the financial service providers, 3 percent on market

infrastructure building, and 2 percent on improving the policy environment (Lahaye, Dashi, Dolke, & Soursourian, 2015).

International donors and funders can play a key role in addressing the market infrastructure and government policy challenges by taking the following actions:

3.4.1 Support a policy environment that allows digitization of financial services.

The donor community can work toward influencing policies that promote digital financial services. For example, they can work with bank and nonbank service providers, including mobile network operators, to support solutions that can reduce transaction costs, improve access to points of service – including mobile phones, ATMs, point of sale (POS), and Internet networks – and support research such as Financial Diaries, which can provide the banking and nonbank sectors (including the telecom sector) with detailed information about how households manage their finances (Napier, 2013).

3.4.2 Fund market infrastructure.

Donors and international funders can partner with digital financial service providers and governments to support projects such as digitization of payment systems. For example, the Bangladesh-based nonprofit social enterprise Dnet partnered with the country's health ministry and every mobile network operator to launch its MAMA Bangladesh program called "Aponjon," which provides free health text messages to subscribers who are mostly pregnant women and new mothers. They achieved operational efficiency by digitizing incentive payments to their employees. Most of its community health workers are women, who reported feeling safer because they don't have to travel to conventional banks to collect cash. MAMA Bangladesh generates its revenues from multiple sources, including donor funding, corporate partnerships, mobile operator discounts, and user fees. USAID is working with developing nation governments to transition from cash to electronic payment platforms through its partnership with Better Than Cash Alliance. Ghana is one such country where they are supporting the expansion of the social protection program – Livelihood Empowerment Against Poverty (LEAP) – through digitization. LEAP provides support to vulnerable women through pregnancy and the first months of a newborn's life (Maldonado, 2015).

3.4.3 Support appropriate consumer protection frameworks at regulatory and industry level.

Donors and funders can help to fill the knowledge gaps in financial consumer protection and use this information to support the development of appropriate and balanced consumer protection frameworks. Such frameworks are most effective when regulators ensure that there is adequate disclosure, fair market conduct, and recourse mechanisms, and financial services providers have in place reasonable regimes to design products that meet consumer needs – including the particular needs of women, that put in place operational measures to treat consumers fairly and minimize fraud amongst other things, and to ensure appropriate privacy and data protection measures.⁸

Conclusion

Working together, governments, the private sector, and the international development community can take these steps to overcome barriers to women's digital financial inclusion and significantly increase women's economic participation. Digital financial services are instrumental to achieving this goal. And if the above actions are taken swiftly to increase women's access to these services, they will make an important contribution toward achieving the G20 Leaders' ambitious goal of bringing more than 100 million women into the labor force by 2025. That would benefit individuals and households around the world - and the global economy.

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Notes

- 1 According to the Global Findex (2014) database, 156 million more men than women have an account at a bank or other financial institution or mobile money provider.
- 2 For this paper we use the USAID definition of Digital Financial Services: "A broad category that encompasses Mobile Financial Services and all branchless banking services that are enabled via electronic channels. Services can be accessed using a variety of electronic instruments, including mobile phones, PoS devices, electronic cards (credit, debit, smart cards, and key fobs) and computers. Similarly, digital payments cover mobile payments and electronic payments, while digital money covers mobile money and electronic money. Mobile Financial Services refer to the use of a mobile phone to access financial services and execute financial transactions. This includes both transactional services (such as payments) and non-transactional services (such as viewing financial information on a user's mobile phone). Mobile financial services include both mobile banking (m-banking) and mobile payments (m-payments). In some cases, MFS is defined broadly to include other means of accessing financial services remotely, such as Internet-enabled devices (tablets, laptops, desktops, and smartphones) and PoS terminals." Source: Digital Finance for Development: A Handbook for USAID Staff
- 3 For a review of the literature, see Buvinic and Furst-Nichols, 2014.
- 4 Evidence on how men spend their earnings is mixed. One study suggests that men are more likely to spend their income on personal consumption of goods like alcohol and cigarettes than on child welfare (Anderson & Baland, 2002). The earliest evidence comes from the Temperance movement in the U.S. state of Massachusetts. On May 1, 1887, in a bid to curb chronic alcoholism, the city of Cambridge stopped granting licenses for the sale of intoxicating liquors. Testifying about the no-license policy's positive impact, a wife of a chronic drunkard claimed that her children no longer went barefoot. (Source: The Cambridge Idea in Temperance Reform and Massachusetts Laws For Dealing with Drunkenness by E A Whitman)
- 5 USA, Netherlands, Germany, Japan, Australia, New Zealand, Switzerland, Italy, Sweden, France, Russia, Romania
- 6 See in this respect the OECD/INFE High-Level Principles on National Strategies for Financial Education, endorsed by G20 Leaders in 2012 (OECD/INFE, 2012 - <http://www.oecd.org/daf/fin/financial-education/OECD-INFE-Principles-National-Strategies-Financial-Education.pdf>).
- 7 Separation of property. All property acquired by spouses before and during their marriage remains separate property. Each spouse has sole control of their assets. This regime is the default in 46 economies.
- 8 Examples of such efforts include the outcomes from the Responsible Finance Forum VI on "Evidence and Innovation for Scaling Inclusive Digital Finance" held in Antalya, Turkey on 7-9 September prior to the meeting of the GPFI of the G20, which underscored the importance of providers, regulators, and donors/funders/investors all supporting appropriate development of consumer protection principles, standards, or codes.

