

Empowering women micro-entrepreneurs through mobile

A landscape report on how women
micro-entrepreneurs use mobile
for business in low- and middle-
income countries





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GSMA Connected Women

The GSMA Connected Women programme works with mobile operators and their partners to address the barriers to women accessing and using mobile internet and mobile money services. Connected Women aims to reduce the gender gap in mobile internet and mobile money services and unlock significant commercial opportunities for the mobile industry and socio-economic benefits for women.

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For more information, please visit:
www.gsma.com/connectedwomen

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Introduction



Introduction

Micro-enterprises contribute significantly to economies and societies and are the dominant form of employment in low- and middle-income countries (LMICs). It is estimated that there are more than 400 million micro-enterprises in emerging markets,¹ up to 345 million of which are informal.^{2,3} The vast majority of micro-enterprises in LMICs are very small, have no employees other than the owner and generate only subsistence-level incomes.

In low-income countries, 88% of working-age women earn income through self-employment, yet they are more likely than men to be disadvantaged when it comes to accessing the resources they need to start, run and grow a business.⁴ Social norms and structural inequalities tend to shape women's access to finance, markets, business information, training and peer networks. Women are more likely to have lower literacy and education levels compared to men, and to pursue jobs and skill sets that are deemed socially appropriate, which often limits them to lower income-earning opportunities. They are also more likely to bear the burden of domestic and care responsibilities, which reduces their capacity to engage in productive economic activities. For example, in Africa, 58% of micro, small & medium Enterprises (MSMEs) are owned by women, yet they are 34% less profitable than those owned by men.⁵ Research by the International Finance Corporation (IFC) suggests

that there is a \$173 billion financing gap for female micro-enterprises in LMICs.⁶

Empowering women micro-entrepreneurs not only benefits them, but also generates a multiplier effect on economies, communities and households. According to Citibank, achieving gender parity in business growth could boost global GDP by 2% to 3% and generate up to 433 million jobs.⁷ In LMICs, many studies show that women entrepreneurs spend a greater share of their income on household well-being than male entrepreneurs, particularly on health, nutrition and education.⁸ Furthermore, women entrepreneurs are more likely to employ other women and work with women suppliers, creating a ripple effect of economic empowerment throughout their communities and the supply chain.⁹

Mobile phones can provide a gateway to business services, resources and information that women would not otherwise be able to access easily. Mobile phones are the primary way people in LMICs access the internet, especially women.¹⁰ Using a mobile phone for business can enable women micro-entrepreneurs to combine family and work life, as they can connect with customers and business contacts and conduct marketing, sales and financial transactions more conveniently. For women whose time and mobility are limited due to family responsibilities or other social norms, this can be a game changer.

<p>It is estimated that there are more than</p> <h1>400M</h1> <p>micro-enterprises in emerging markets,</p>	<p>UP TO</p> <h1>345M</h1> <p>of which are informal</p>	<p>According to Citibank, achieving GENDER PARITY in business growth could BOOST GLOBAL GDP BY</p>  <p>2% TO 3%</p> <p>and generate up to 433 million jobs</p>
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1. CGAP and Dalberg. (2019). [Bridging the credit gap for Micro and Small Enterprises through digitally enabled financing models](#).
2. UN-DESA. (2020). [Micro-, Small and Medium-sized Enterprises \(MSMEs\) and their role in achieving the Sustainable Development Goals](#).
3. According to the World Bank, micro-enterprises are defined as businesses with one to nine employees. See: World Bank Group. (2018). [Access to Finance for Female-led Micro, Small & Medium-sized Enterprises in Bosnia and Herzegovina](#).
4. ILO. (2022). [World Employment and Social Outlook: Trends 2022](#).
5. Ahigbede, J. and Darko, S.K. (8 April 2021). "Supporting women-led Micro-Enterprises in Africa: Smart economics for SDGs 1, 2, 5 & 8". The B&FT Online.
6. IFC. (2017). [MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets](#).
7. Business Wire. (7 March 2022). "[Citi GPS Report: Closing the Gender Gap in Entrepreneurship, to Add \\$1.6-2.3 Trillion to Global GDP \(c.2-3%\) - Catalysing Growth, Innovation, and Equality](#)".
8. Nichter, S. and Goldmark, L. (September 2009). "[Small Firm Growth in Developing Countries](#)". World Development, Elsevier, 37(9), pp. 1453-1464.
9. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".
10. GSMA. (2022). [The Mobile Gender Gap Report 2022](#).

The use of mobile phones can also contribute to increased incomes, business resiliency and household consumption.¹¹ In Tanzania, women who used smartphones and feature phones for their business and mobile money transactions experienced a 16% to 24% increase in household consumption.¹² In Malawi, using mobile money services allowed women entrepreneurs to expand their business and save on transport costs.¹³ In Uganda, women entrepreneurs reported that using mobile made their business more profitable.¹⁴ Selling online also helped women entrepreneurs be more resilient during the COVID-19 pandemic, for example, by enabling many to keep their businesses open, cover their business costs and sustain or increase profits.¹⁵

Restrictions on movement during the pandemic accelerated the pace of digitalisation and uptake of certain digital tools by women micro-entrepreneurs, such as digital marketing. However, there are still gender gaps in access to mobile phones and mobile internet, as well as the frequency and variety of mobile products and services used for business.

There is limited research on women micro-entrepreneurs specifically and much of the existing evidence refers to MSMEs. This landscaping report seeks to bring together existing evidence on how women micro-entrepreneurs in LMICs are currently using mobile phones for their business, the barriers they encounter and the opportunities to reach them. The findings are based on an analysis of existing literature and interviews with subject matter experts.



11. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).
12. Roessler, P. et al. (2018). [Mobile Phone Ownership Increases Poor Women's Household Consumption: A Field Experiment in Tanzania](#).
13. Malanga, D. and Banda, M. (2021). [ICT Use and Livelihoods of Women Micro-enterprises in Malawi](#).
14. Komunte, M. (2015). "Usage of Mobile Technology in Women Entrepreneurs: A Case Study of Uganda". The African Journal of Information Systems. 7(3), Article 3.
15. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

2. Profile of women micro-entrepreneurs



Women’s micro-enterprises in LMICs share many common characteristics. They are mostly informal, small-scale with few employees, have lower levels of productivity and income and are concentrated predominantly in labour-intensive and low-value sectors, such as clothing, beauty and other retail services. Many women micro-entrepreneurs start a business out of necessity in the absence of suitable wage employment. Often they do not want to grow their business, or lack the time, skills or resources to do so. Part-time or full-time entrepreneurship in sectors with low barriers to entry enables many women to earn an income while still fulfilling their household responsibilities. Many work from home and have a flexible working schedule that can fit around their care and domestic duties. Working from home can also be more convenient and appropriate for women in contexts where their mobility is limited by social norms. In some contexts, social norms also affect women’s freedom to make decisions or even start a business: *“Men may be a gateway (providing initial capital or labour) or a gatekeeper (limiting a woman owner’s financial decision-making).”*¹⁶

Compared to men, women micro-entrepreneurs face greater barriers to starting, running and growing a business. They are less likely than men to have access to resources, including capital, markets, business information, training and business and peer networks. Women also tend to face additional structural challenges, such as lower education and literacy levels. This results in less business knowledge and skills, lower confidence and awareness, and less ability to access training and benefit from business and financial opportunities.

Access to capital is often a key challenge for micro- and small businesses in LMICs.¹⁷ This barrier is particularly acute for women, as most do not have the collateral required to access a loan from a financial institution. In many societies it is customary for fixed assets, such as a house or land, to be owned by men and passed down to sons. Women who want to start a business are left with few options for accessible and affordable finance, and tend to rely on their families for start-up capital. Beyond the family, women often access finance through informal micro-savings groups, Savings and Credit Co-Operative Societies (SACCOs) and microfinance institutions (MFIs).¹⁸

While women micro-entrepreneurs share some common characteristics, challenges and needs, they are not a homogeneous group.¹⁹ Understanding these differences is important to inform appropriate product design, marketing and distribution approaches and other interventions to reach this segment. An entrepreneur’s motivation for starting a business, as well as their objectives and ambitions, can significantly influence their use of mobile, financial behaviour and business decisions. Business size, sector, type of operation (physical location, online or hybrid), stage of growth, entrepreneurial mindset and other factors, all have an impact on the needs and business choices of micro-entrepreneurs. A nuanced understanding of their situation, activities and aspirations is, therefore, important to offer fit-for purpose and culturally appropriate mobile products and services to reach them.

16. CGAP. (July 2022). [“No Small Business: A Segmented Approach to Better Finance for Micro and Small Enterprises”](#).

17. UNDESA. (n.d.). [Micro-, Small and Medium-sized Enterprises \(MSMEs\) and their role in achieving the Sustainable Development Goals](#).

18. IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).

19. CGAP. (July 2022). [“No Small Business: A Segmented Approach to Better Finance for Micro and Small Enterprises”](#).

Three frameworks are particularly helpful for segmenting women micro-entrepreneurs based on their circumstances, behaviours and decision-making patterns (see Appendix for more details):

Business orientation framework	Stage of growth framework	Entrepreneurial mindset framework
<p>Women micro-entrepreneurs are divided into those who are “Necessity-driven” (starting enterprises to supplement household income only), “Stable” and “Growth-oriented”²⁰</p>	<p>Women micro-entrepreneurs are segmented by the life cycle of their business, divided into “Start-ups”, “Stable operation stage” and “Growth stage”²¹</p>	<p>Women micro-entrepreneurs are segmented based on their behaviours and attitudes, either “Cautious entrepreneurs” or “Determined aspirants”²²</p>

It is important to note that stages in these frameworks are not necessarily linear progressions, nor are they mutually exclusive. The boundaries between these categories are not always clear cut, and women micro-entrepreneurs may transition from one to another as their business grows or circumstances change.²³ Still, these frameworks highlight important differences between women micro-entrepreneurs based on their circumstances, behaviours, motivations, risk appetites and needs, all of which influence their choices and desire for mobile products and services. Using one or more of these frameworks can help to inform and tailor approaches to reaching women micro-entrepreneurs.



20. Women's World Banking. (March 2022). [Economic Resilience and Digital Adoption among Ultra Micro Entrepreneurs in Indonesia](#).

21. CGAP. (July 2022). “No Small Business: A Segmented Approach to Better Finance for Micro and Small Enterprises”.

22. Ibid.

23. Ibid.

Table 1 shows what typical mobile use looks like when women micro-entrepreneurs are classified by business orientation (see the Appendix for other examples):

TABLE 1

Classification of women micro-entrepreneurs by business orientation

NECESSITY-DRIVEN	
Growth orientation	Financial behaviour
<ul style="list-style-type: none"> Not seeking opportunities to grow Focused on meeting household's immediate financial needs 	<ul style="list-style-type: none"> Transact in cash Do not keep track of business transactions
Educational and business background	Use of mobile for business
<ul style="list-style-type: none"> Usually have lower education levels and no experience with other paid work Usually take traditional approaches to running a business 	<ul style="list-style-type: none"> Limited to basic functions – calling and messaging Less engaged with technology and may find new and innovative solutions less relevant or more difficult to adopt
STABLE	
Growth orientation	Financial behaviour
<ul style="list-style-type: none"> Have established businesses Open to the idea of growing but are not able to pursue growth due to a lack of capital and support Typically interested in following market trends and seek ways to improve their value proposition to customers 	<ul style="list-style-type: none"> Often transact in cash, but are also likely to use ATMs Tend to keep temporary records of business transactions, such as credited sales to customers or stock purchases
Educational and business background	Use of mobile for business
<ul style="list-style-type: none"> Likely to have at least a secondary education and some business-related skills 	<ul style="list-style-type: none"> Tend to be comfortable using a wider range of mobile services for business (e.g. using social media to market goods; offering customers a choice of digital or cash payments; and using mobile money and mobile banking services for business and personal life)
GROWTH-ORIENTED	
Growth orientation	Financial behaviour
<ul style="list-style-type: none"> Intend to grow their businesses beyond what they are today and are seeking opportunities to access resources to support this growth 	<ul style="list-style-type: none"> Tend to be regular ATM users and can access formal sources of business capital Typically keep track of business transactions Tend to save some of their income to grow their business or invest in a new opportunity
Educational and business background	Use of mobile for business
<ul style="list-style-type: none"> Likely to be educated and started a business with some knowledge of the business/sector Likely to be registered owners 	<ul style="list-style-type: none"> Comfortable using a broader range of tech or mobile solutions for business, from advertising and selling goods on social media to e-commerce platforms Tend to be regular users of mobile money or mobile banking for personal and business purposes Likely to use the internet to learn skills, get new ideas for product improvement and connect to business or social networks Keen adopters of new tech solutions

Source: CGAP²⁴

24. CGAP. (July 2022). "No Small Business: A Segmented Approach to Better Finance for Micro and Small Enterprises".

3. How women micro-entrepreneurs are using mobile products and services for business



Many women micro-entrepreneurs are already taking advantage of mobile products and services to run their business. This section outlines evidence from the literature that shows how mobile phones are currently being used by women micro-entrepreneurs.

Micro-entrepreneurs use digital tools to gain better access to resources and opportunities to start, operate and grow a business. Mobile technology is allowing micro-entrepreneurs to meet a broad range of business needs, from obtaining start-up capital to keeping track of daily business transactions and growing customer networks (Table 2). Using mobile products and services for business is also helping women overcome gender barriers (e.g. access to resources like finance, markets and business information) and gives them more flexibility to balance work and family commitments. Women micro-entrepreneurs use mobile money and digital financial services (DFS) to conduct more convenient, efficient and safe business transactions, while also building a credit

history and gaining control of their income. Transitioning from cash to digital payments can boost profitability by reducing operational costs, streamlining inventory management and, importantly, eliminating long travel times and costs to visit suppliers or bank branches.

Women micro-entrepreneurs are more likely to primarily use basic mobile services than their male counterparts. There is limited research on the use of mobile services for business by micro-entrepreneurs, but available data suggests that women usually use “low-stakes” tools for business that are simple, low cost or free, such as WhatsApp for communication or social media for marketing. The use of “high-stakes” digital tools – those that involve higher costs or require formal business registration, such as e-commerce platforms – is relatively low, particularly among women business owners.²⁵ In Ghana, for example, women micro-entrepreneurs primarily use social media on their mobile phones for marketing and connecting with customers, followed by calling and messaging.²⁶

TABLE 2

How mobile phones support the business activities of women micro-entrepreneurs

 <p>1. Access to markets</p>	<ul style="list-style-type: none"> • Connect remotely with customers, suppliers, resellers, peers and partners to take orders, agree sales, organise delivery, order supplies and schedule appointments • Market products via social communication platforms • Find new customers, suppliers and resellers
 <p>2. Access to financial services</p>	<ul style="list-style-type: none"> • Mobile financial services: sending/receiving payments from customers and suppliers, bill payments, salary payments • Access to business finance • Access to savings products • Access to insurance and other financial products
 <p>3. Business management</p>	<ul style="list-style-type: none"> • Financial management and book-keeping • Store business/customer information • Stock/inventory management • Source business-related information on trends, competition, pricing and regulations • New ideas and inspiration for product improvement
 <p>4. Access to training</p>	<ul style="list-style-type: none"> • Business management • Financial literacy • Digital skills

25. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

26. GSMA. (2022). [Exploring Women's Use of Mobile Money in Ghana: The User Journey, Entrepreneurs and the Impact of COVID-19](#).

1. Access to markets

Mobile is being used by micro-entrepreneurs to communicate with customers, suppliers and business contacts remotely. Women reap the greatest benefits because they are more likely to be constrained by domestic responsibilities and social norms. Using mobile phones allows women micro-entrepreneurs to communicate quickly and easily with customers, suppliers, resellers and other business contacts. In some contexts, this may also help them interact with male contacts in a culturally acceptable way. Mobile tends to be the primary means of business communication since most micro-entrepreneurs do not have a landline. In a survey of micro-entrepreneurs in Indonesia,²⁷ all respondents indicated that since they began using a mobile phone, their customer base had increased and existing clients were connecting them with new clients by passing on their mobile number. They used the GPS functionality to locate customer addresses more easily, which facilitated a smoother delivery process. Women micro-entrepreneurs in particular benefitted from ordering business supplies and communicating with customers via mobile, especially when travelling and face-to-face contact were not feasible due to restrictive social norms and household duties. Communication with male suppliers and customers was facilitated through SMS rather than calling, which allowed women to conduct business more comfortably within cultural boundaries.

Women micro-entrepreneurs also use mobile phones to communicate with peers and informal networks, such as local savings groups or business clubs. Staying connected is allowing them to share their workload with peers, borrow supplies, consult each other on business matters, share news and information and define collective fees.²⁸ In Malawi, for instance, women micro-entrepreneurs used social media to connect to village banks and women's business clubs.²⁹

Compared to their male counterparts, women micro-entrepreneurs are more likely to market and sell products and services informally through social communication platforms than e-commerce platforms.³⁰ Using social communication platforms such as Facebook, Instagram or WhatsApp (which are primarily designed for communication and information sharing), to market and sell products and services is common among informal micro-businesses in LMICs, particularly among women. Men's businesses, meanwhile, are more likely to rely on formal e-commerce platforms. In ASEAN, for example, these platforms are favoured by women business owners much more than e-commerce platforms, such as Alibaba.³¹ In Kenya, nine out of 10 businesses with a digital presence use personal consumer apps, such as WhatsApp and Facebook, for their business.³²



27. Anwar, M. (2015). "Mobile Phones and the Livelihoods of Indonesian Micro-Entrepreneurs: Evidence of Capability Expansion". PACIS 2015 Proceedings.

28. Ibid.

29. Malanga, D. and Banda, M. (2021). [ICT Use and Livelihoods of Women Microenterprises in Malawi](#).

30. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

31. Nathan Associates Inc. for USAID. (July 2018). [Women's Economic Empowerment in the Digital Economy](#).

32. Partnership for Finance in a Digital Africa and Caribou Data. (2020). "[Digital Behaviors of Kenyan Microentrepreneurs: Doing Business in the Age of Social Commerce](#)". Caribou Digital Publishing.

Informal online commerce (IOC) channels are vital for connecting women micro-entrepreneurs to customers and markets. According to CGAP, IOC channels have several advantages and disadvantages relative to e-commerce platforms:³³

Pros	Cons
<p> Lower barriers to entry: No formal registration or bank account required.</p>	<p> Lack of seller protection: A study in Myanmar shows that a quarter of deliveries from online entrepreneurs were turned down by buyers at the doorstep, leading to losses of income.</p>
<p> Familiarity: For those already using social media for personal use it is a relatively easy step.</p>	<p> No insurance: If goods are damaged during transportation, the seller is liable.</p>
<p> Greater flexibility: Ability to customise the sales process and delivery based on seller and customer needs and preferences. For example, marketing the product on Instagram and using WhatsApp to schedule a pick-up.</p>	<p> Greater susceptibility to online harassment: Social media may reveal the appearance, gender, location and personal contact of the seller, leaving them at risk of harassment.³⁴</p>
<p> Choice of communication channels: Sellers can switch to communicating outside the social media platform, for example, via WhatsApp or SMS. In-platform communication is not mandatory.</p>	<p> IOC may formalise over time: Attempts by social media channels to formalise online sales may lead to increased costs and registration barriers for women, thus reducing seller incomes and the overall appeal of IOC for women micro-entrepreneurs.</p>
<p> Payment flexibility: Sellers and customers can choose between cash, mobile money or digital payments depending on their needs and circumstances. E-commerce platforms favour electronic payment methods.</p>	

The advantages of IOC usually make these channels a better fit with the needs and circumstances of many women micro-entrepreneurs. They can also be a first step towards formal e-commerce platforms. As women's businesses expand, customer demand increases and they build their financial capacity and digital skills, women micro-entrepreneurs may choose to transition to e-commerce services, which would open access to larger markets and formal seller protections.³⁵

33. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

34. Caribou Digital. (2022). [Women and the Platform Economy](#).

35. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

Social media is the most widespread digital marketing channel among women micro-entrepreneurs and is associated with business growth. For example, in Nigeria, the use of social media marketing for business by women's micro- and small enterprises was associated with higher enterprise performance compared to women entrepreneurs who did not use social media.³⁶ Social media played an important role in not only sustaining business activity, but also helping businesses reach customers in new geographies and increase revenues. In societies where face-to-face communication and sales are widely favoured, social media allows sellers to share photos or videos of their goods to appeal to customers. While social media platforms were already prevalent in LMICs before the pandemic, there was a significant increase in use of social media platforms to communicate with customers and market new products during COVID-19-related lockdowns, including through paid advertising.³⁷ This upward trend is expected to continue.

2. Access to and use of financial services

In LMICs, most financial transactions by micro-entrepreneurs are cash based, especially among women. Women micro-entrepreneurs are more likely than men to use cash and informal financial services for business. This is despite, as some studies suggest,³⁸ a demonstrated appetite for more formal financial services among some women micro-entrepreneurs. However, this preference often does not translate into access and usage. Most micro-businesses, particularly those run by women, either do not qualify or would struggle to access formal loans and banking services due to, for example, a lack of collateral, awareness, confidence or freedom of movement. Most credit officers also tend to be men, which in many contexts may make women feel uncomfortable or intimidated, especially those with low or no literacy. These female micro-entrepreneurs are much more likely to seek

informal financial services. For goods sold online, cash-on-delivery (COD) is the predominant form of payment, but the use of e-wallets, including mobile money, is also on the rise.³⁹

The use of mobile money is increasing in many countries, but women micro-entrepreneurs primarily use only core services, such as sending and receiving payments.^{40, 41} In Ghana, for instance, women micro-entrepreneurs who own a mobile money account tend to use a narrower range of services than their male counterparts.⁴² Micro-entrepreneurs who rely on family members or agents to conduct their transactions are also significantly more likely to be women. This may be due to lower digital literacy and confidence using DFS, or issues and concerns related to accessing agents. As a result, women micro-entrepreneurs were less likely to perceive mobile money as convenient compared to men. Furthermore, women micro-entrepreneurs in Ghana tend to be less aware of the full range of mobile money service options available and have less access to information. More research is needed to understand mobile money and other DFS usage among micro-entrepreneurs specifically, including differences between women and men.

Customer demand plays a role in driving uptake of digital payments among micro-entrepreneurs. Although micro-entrepreneurs may be less inclined to start using digital payments, there is evidence that the rising adoption of digital finance by micro-entrepreneurs, especially payment platforms, is to a large extent driven by external factors, such as growing demand from customers or suppliers.⁴³

The registration status of a business influences the owner's choice of mobile financial services. Women micro-entrepreneurs with unregistered businesses are more likely to use mobile money than formal banking services. In part, this is due to the convenience of using mobile money compared to formal banking services and less stringent documentation requirements.⁴⁴

36. Kolawole, R.J. (2022). "[Does digital marketing adoption enhance the performance of micro and small enterprises? Evidence from women entrepreneurs in Ado-Odo Ota Local Government Area, Ogun State, Nigeria](#)". International Journal of Development and Management Review, 17(1).

37. Ibid.

38. IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).

39. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

40. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

41. GSMA. (2022). [State of the Industry Report on Mobile Money](#).

42. GSMA. (2022). [Exploring Women's Use of Mobile Money in Ghana: The User Journey, Entrepreneurs and the Impact of COVID-19](#).

43. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

44. IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).

In some contexts, using mobile services for business, such as DFS and social media, enables women micro-entrepreneurs to transact with male customers more comfortably.⁴⁵ Face-to-face contact between buyers and sellers is not necessary with digital payments, as goods can be purchased and delivered, either through a digital payment or COD, without the buyer ever seeing the seller. This can provide women micro-entrepreneurs a greater sense of safety and security when interacting with male buyers and suppliers, and may help to legitimise female entrepreneurship in more conservative households and communities. More research is needed to better understand these dynamics.

Mobile agents play a critical role in driving uptake of mobile services among women micro-entrepreneurs. Women rely on convenient, safe and culturally appropriate access to agent networks to perform financial transactions or purchase data. Both female and male customers transact more with agents of the same gender, especially women, although more research is needed to understand the role of mobile agents in supporting micro-entrepreneurs specifically.^{46, 47} In the Democratic Republic of Congo, for instance, women were on average 7.5 percentage points more likely to transact with a female agent than a male agent.⁴⁸ In the same study, the average value of women's transactions with female agents was 66% higher than with male agents (\$133 with male agents vs \$221 with female agents).⁴⁹ This could be due to the fact that a customer's balance is visible during transactions and women are more likely to feel safe with another woman accessing sensitive personal data.

3. Business management

There is limited research on the use of mobile phones for business management, such as book-keeping and inventory management, especially among women micro-entrepreneurs.

Existing research on mobile adoption for business primarily focuses on access to markets and financial services, with limited information on the use of mobile phones for other purposes, such as book-keeping, storing customer information or stock management. However, uptake of these services is likely very limited among women micro-entrepreneurs for several reasons, including low awareness and skills, few products and services that align with their needs (e.g. book-keeping apps in their local language), as well as the affordability of paid-for services.

4. Access to training

There is limited research on the use of mobile phones for self-development and training among women and men micro-entrepreneurs, including digital, business management or financial skills, as well as how they can improve these skills. However, it is likely that many women micro-entrepreneurs would value digital training due to the greater flexibility it provides to learn from anywhere, particularly if they have sufficient level of confidence to access digital training materials.

45. CGAP. (September 2021). "[Business Her Own Way: Creating Livelihoods through Informal Online Commerce](#)".

46. GSMA mWomen, Visa and Bankable Frontier Associates (BFA). (2013). [Unlocking the Potential: Women and Mobile Financial Services in Emerging Markets](#).

47. GSMA. (2020). [Reaching 50 Million Women with Mobile: A Practical Guide](#).

48. Reitzug, F. et al. (9 November 2020). "[Does agent gender matter for women's financial inclusion?](#)". World Bank Blogs.

49. Ibid.

The impact of the COVID-19 pandemic on uptake of mobile technology for business

The COVID-19 pandemic accelerated the pace of digitalisation and adoption of digital tools by micro-entrepreneurs, especially women. The recent mobile usage patterns of women micro-entrepreneurs have been shaped by the economic and social conditions of the pandemic, with lockdowns and social distancing an important driver of digitalisation. The adoption of digital tools was critical for many businesses to continue operating when physical shops had to close and physical contact was reduced. During this time, many MSMEs used some type of digital tool for business, such as receiving digital payments or marketing products on social media.⁵⁰

During the pandemic, female micro-entrepreneurs in several countries adopted digital tools at a slightly higher rate than male micro-entrepreneurs, but were less likely to invest in more costly tools. Among MSME owners, 25% of women and 23% of men adopted new digital tools, narrowing the gender gap in use of mobile for business.⁵¹ The magnitude of the gap varied by the size of the business. Among those with 20 or more employees, the adoption rate by women-owned businesses was 2.9 percentage points lower than businesses owned by men, but among micro-entrepreneurs, women were 10.4 percentage points more likely than men to adopt digital tools.⁵² However, women micro-entrepreneurs were 3.2 percentage points less likely to invest in technology for digital solutions, either hardware or software.

During the pandemic, there was an increase in the range of digital solutions used for business, including among micro-entrepreneurs. For example, more women used the internet to search for and secure gig work (both physical and online/remote). Familiar digital tools also began to be used in new ways. For example, in addition to being popular personal communication channels, WhatsApp and Facebook became prominent marketing and communication tools for business.

Some micro-entrepreneurs who sold on digital platforms during the social distancing phase of the pandemic have reverted to their old ways of running their business, according to the Center for Financial Inclusion. These businesses cited reasons such as: *“difficulty competing with low online prices, concerns about intellectual property, unsuitability of the platforms for their business, unreliable mobile coverage, and lack of knowledge to effectively use the platforms”*.⁵³ Furthermore, in some countries, such as India, informal entrepreneurs assumed that digitalisation would require them to formalise their business, which would have tax and compliance implications. More research is needed to understand how these dynamics varied by gender.

The pandemic provided an extraordinary context for digitalisation to accelerate among micro-entrepreneurs, especially women. However, the reversal to traditional business tools in some contexts indicates that available tools did not sufficiently meet the needs of micro-entrepreneurs, or they may have lacked the digital and financial skills or understanding to reap the long-term benefits of these tools. More research is needed to understand the extent of this reversal in various markets, how it varied by different segments of entrepreneurs, as well as gender-specific variances in different contexts to guide the design and distribution of mobile products and services for women micro-entrepreneurs.⁵⁴

50. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

51. IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).

52. World Bank Group. (2021). [The Impact of the COVID-19 Pandemic on Women-led Businesses](#).

53. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

54. Ibid.

4. Barriers to using mobile products and services for business



The barriers to adopting mobile services for business appear to be similar for micro-entrepreneurs regardless of gender, but in many instances, women experience these challenges more acutely than men due to structural inequalities, social norms and policy environments that inadvertently favour men. This section outlines the barriers preventing women micro-entrepreneurs from accessing and using mobile products and services in their businesses and reaping the benefits and opportunities they provide. These barriers include lack of awareness; affordability; literacy, knowledge and skills; relevance; safety and security; and access. Social norms and enabling policy environments are two cross-cutting factors that also impact these barriers for women. These are examined in more detail at the end of this section.

Key barriers to accessing and using mobile services

While all micro-entrepreneurs face multiple barriers to adopting and using mobile services for business, these barriers tend to be more acute for women due to structural inequalities and underlying social norms as well as policy environments which inadvertently negatively impact women.

Awareness

Women are less likely to be aware of mobile products and services, including mobile internet and mobile money. For example, across eight GSMA survey countries, women's awareness of mobile internet ranges from a high of 96% in Mexico to a low of 51% in India, compared to 97% and 70% of men, respectively.⁵⁵ Women micro-entrepreneurs are often less aware of relevant mobile products and services for their business and how they could benefit from them.⁵⁶ This is due to more limited access to business information and networks, as well as mobile-related marketing campaigns that are not sufficiently tailored to reach or resonate with women micro-entrepreneurs. There are also few marketing campaigns aimed at raising awareness among women micro-entrepreneurs of relevant mobile solutions for their business. More research

is needed to understand why women micro-entrepreneurs are less aware of mobile products and services than their male counterparts, as well as the opportunities to reach them.

Affordability

Across LMICs, the affordability of an internet-enabled mobile phone is a key barrier to using mobile internet, especially for women. In Egypt, Kenya, Senegal, Nigeria, Indonesia, Guatemala and Mexico, at least 50% of female mobile users who were aware of mobile internet but had not yet used it cited handset cost as a reason why.⁵⁷ In 2021 in South Asia, for instance, the cost of an internet-enabled handset was as high as 56% of women's average monthly income, compared to 19% of men's.⁵⁸ Women are also less likely than men to be able to afford to pay for a handset upfront or have the credit history required for device financing options. As a result, women are less likely to own a smartphone, and when they do it is usually a lower end device or does not have internet capability.⁵⁹ This means they are unable to download business and financial apps or take high-quality photos of goods for marketing on social media or digital marketplaces. Those using a lower end smartphone may be limited by low memory space and camera quality and slower internet browsing capacity, all of which limit the effective use of a device for business. Conversely, when a woman owns a smartphone, she is almost as likely as a man to adopt mobile internet and have a similar range of use cases.⁶⁰

Many people in LMICs, especially women, are unable to afford a suitable data package. This is despite data costs continuing to decline and more than half of LMICs meeting the UN Broadband Commission's target of an entry-level data package that costs less than 2% of average monthly income.⁶¹ For certain groups, data affordability remains a barrier. Women are disproportionately affected given their lower levels of employment, the gender pay gap and, in many countries, less financial autonomy than men. Data affordability is a particular issue in Sub-Saharan Africa where the cost of 1GB of data in 2021 was equivalent to 3.8% of women's and 3% of men's monthly income.⁶² Data affordability

55. GSMA. (2022). [The Mobile Gender Gap Report 2022](#).

56. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

57. GSMA. (2022). [The Mobile Gender Gap Report 2022](#).

58. GSMA. (2022). [The State of Mobile Internet Connectivity Report 2022](#).

59. GSMA. (2022). [The Mobile Gender Gap Report 2022](#).

60. Ibid.

61. GSMA. (2022). [The State of Mobile Internet Connectivity Report 2022](#).

62. Ibid.

will likely influence women's choice of digital tools for their business. For example, women micro-entrepreneurs may forego value-adding apps (or updating them), watching online training videos or uploading photos to market their goods and services. More research is needed on the extent to which data affordability is a particular issue for women micro-entrepreneurs and how this impacts mobile usage.

Literacy, knowledge and skills

A lack of literacy and digital skills has a disproportionate impact on women's use of mobile phones and mobile services. Women micro-entrepreneurs are less likely to be familiar with or confident using mobile services, including mobile internet and mobile money. Even when women micro-entrepreneurs are aware of these services, they may not necessarily understand how these products and services can meet their business needs and lack the confidence or skills to try them without assistance. For example, among mobile users who are aware of mobile internet but do not use it, not knowing how to access the internet on a mobile phone was cited as an important barrier by 30% of women in Indonesia and 28% in Senegal.⁶³ Among mobile owners who have heard of mobile money but do not have an account, 41% of women in Senegal mentioned having difficulties using a handset or not wanting to make a mistake as a reason for not having an account.⁶⁴ More research is needed on how women micro-entrepreneurs experience these issues and how it impacts their everyday business activities and potential.

Women business owners are less likely to understand mobile money services and how they work. Research in India, Indonesia, Colombia and Nigeria shows that women MSME owners are more likely than their male counterparts to avoid using mobile money. This is because they do not know what to do if they have a question or encounter a problem with a transaction. In this survey, 42% of MSME owners with a mobile money account did not know about the various fees involved in using their account, with women reporting less awareness than men, and redress policies were also not well understood among women MSME owners.

As many as 65% of MSME owners did not feel confident using their account and were concerned about making a mistake when performing financial transactions with their mobile phone.⁶⁵

Women micro-entrepreneurs are more likely to seek assistance when learning about mobile services, including mobile money. Research shows that women are more reliant on support from their social circles (including family and friends) to get set up and learn how to use mobile products and services.^{66, 67} Further research is needed to understand the extent to which this is true for women micro-entrepreneurs specifically. However, there is evidence that women micro-entrepreneurs are more reliant on support from family and mobile agents to perform mobile money transactions for them, which puts them at risk of financial abuse. In Ghana, women entrepreneurs are 7 percentage points more likely to get help from family members and 5 percentage points more likely to use an agent's help compared to their male peers.⁶⁸ Overall, women mobile money users across LMICs are 5 percentage points more likely than men to need help using their mobile money account.⁶⁹

Relevance

Mobile products and services are typically developed and designed without sufficient attention to the circumstances, needs, capabilities and preferences of women micro-entrepreneurs. As a result, they do not necessarily perceive them as relevant. For instance, marketing and promotion of mobile products and services, even when aimed at micro-entrepreneurs, often feature men or male-dominated sectors. Women micro-entrepreneurs are often not considered in the design, testing, marketing and distribution of mobile products and services, and gender-disaggregated data is rarely used. For example, in an IFC survey in Sub-Saharan Africa, 60% of financial institutions indicated that they collect gender-disaggregated data, but only 14% use it for decision-making.⁷⁰

63. GSMA. (2022). [The Mobile Gender Gap Report 2022](#).

64. GSMA. (2022). [State of the Industry Report on Mobile Money 2022](#).

65. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

66. GSMA. (2015). [Accelerating Digital Literacy: Empowering Women to use the Mobile Internet](#).

67. GSMA. (2021). [The Mobile Gender Gap Report 2021](#).

68. GSMA. (2022). [Exploring Women's Use of Mobile Money in Ghana: The User Journey, Entrepreneurs and the Impact of COVID-19](#).

69. World Bank. (2021). [Global Findex Database 2021](#).

70. IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).

Safety and security

Safety and security concerns, both actual and perceived, are an impediment to the use of mobile services by micro-entrepreneurs.

These concerns include fraud, transparency, data protection and identity theft, as well as unclear redress mechanisms and customer awareness of fraud identification and reporting. Male gatekeepers may also seek to “protect” women by limiting their online activities and engagements. Safety and security concerns are likely to be more acute for women entrepreneurs than men due to several contributing factors, including lower education and awareness that makes women more susceptible to, and cautious about, fraud or identity theft online. More research is needed into how safety and security concerns manifest specifically for women micro-entrepreneurs.

Trust can be a major concern among entrepreneurs who use digital financial services. In Colombia, India, Indonesia and Nigeria, some entrepreneurs consider lower regulation of DFS providers compared to banks a risk factor and were not confident that service fees, interest rates and loan terms and conditions are transparent. Some entrepreneurs worried that DFS providers may cease operations unexpectedly.⁷¹ Among mobile owners who have heard of mobile money but do not own an account, lack of trust in agents was cited as a reason by around a quarter of women in Egypt, Senegal and Indonesia, and 38% in India.⁷² However, there is insufficient research on how lack of trust impacts women micro-entrepreneurs specifically.

Data collection practices, privacy protection and potential loss of customer data are common concerns of micro-entrepreneurs and may be more so for women. Small businesses, especially those in the early stage of digitalisation, are most worried about data privacy and lack of transparency about how customer data is being used (loan borrower’s data in particular). There is a perception that DFS providers may track the personal contacts

of clients and contact them if payments are overdue, causing reputational damage. In one study, Kenyan entrepreneurs shared stories of DFS credit providers calling their friends and close relatives after they had missed payments. In India, entrepreneurs are often worried about dishonest providers or scammers posing as DFS providers, neither of which are uncommon.⁷³ These issues are likely especially relevant to women micro-entrepreneurs, who tend to have lower digital skills and awareness of digital safety. However, more research is needed to understand the specific challenges they face.

Access

Lack of access to safe, culturally-sensitive and convenient agent networks limits women’s access to mobile services and the value and volume of their financial transactions.^{74, 75} In Indonesia, 34% of female mobile owners who have heard of mobile money but do not have an account cited lack of access to agents as a barrier.⁷⁶ The share of female mobile agents is significantly lower than male agents and are therefore less accessible to many female customers. This includes women micro-entrepreneurs, who may prefer to transact with a woman. In India, for example, only 14% of mobile money agents are women.⁷⁷

In certain locations, a lack of electricity or little or no mobile coverage impacts mobile and mobile internet use. Although only 5% of the world’s population live in an area not covered by a mobile broadband network, this amounts to around 400 million people, half of whom live in Sub-Saharan Africa.⁷⁸ However, there is little data available on the quality of network coverage and how this impacts the ability of micro-entrepreneurs to benefit from mobile and mobile internet services. One such study in Ghana noted that 80% of entrepreneurs said they would be willing to pay a higher price for a more reliable mobile voice service and faster internet.⁷⁹ These barriers can have a disproportionate impact on women micro-entrepreneurs, whose ability to travel to locations with better access is more constrained due to lack of time or other social norms.

71. Center for Financial Inclusion/ACCION. (2022). [Digital Adoption of MSMEs during COVID-19](#).

72. GSMA. (2022). [State of the Industry Report on Mobile Money 2022](#).

73. CGAP. (September 2021). [“Business Her Own Way: Creating Livelihoods through Informal Online Commerce”](#).

74. GSMA. (2020). [Reaching 50 Million Women with Mobile: A Practical Guide](#).

75. Gray, B. and Singh, P. (29 September 2022). [“Coming Forward: The Role of Mobile Money Agents in Driving Women’s Financial Inclusion”](#). European Microfinance Platform Blog.

76. GSMA. (2022). [State of the Industry Report on Mobile Money 2022](#).

77. Gray, B. and Singh, P. (29 September 2022). [“Coming Forward: The Role of Mobile Money Agents in Driving Women’s Financial Inclusion”](#). European Microfinance Platform Blog.

78. GSMA. (2022). [The State of Mobile Internet Connectivity Report 2022](#).

79. Boateng, R. (n.d.). [Smartphones and micro-entrepreneurship](#). The Policy Paper Series, Number 16. Vodafone.



Cross-cutting factors

Social norms

Women usually experience barriers to mobile access and use more acutely than men due to structural inequalities and underlying social norms, including disparities in education and income. For instance:

- In more conservative contexts, women micro-entrepreneurs' mobile access and use is often restricted by male gatekeepers.** On the one hand, using a mobile phone can help reduce the challenges women face related to freedom of movement, and allow them to transact more easily with male buyers or sellers in line with social norms. However, social norms can also severely limit women's digital and online presence. For example, in parts of South Asia, it is common for male household members to restrict women's access to a device, the time of day they can use it or their use of certain apps or actions (e.g. uploading photos), as it is seen as a form of external exposure that could impact the woman's and her family's reputation.⁸⁰ More research is needed on how these barriers manifest for women micro-entrepreneurs specifically.
- In more conservative contexts, women micro-entrepreneurs are expected to consult or seek approval from their husbands on business decisions and how this income is spent.** This lower level of autonomy limits women's access and use of mobile technology, such as smartphones. In these contexts, women are expected to limit their movement or engagement with mobile agents, resulting in lower access to mobile services for business, including mobile internet and DFS.
- Women micro-entrepreneurs' knowledge and skills development may be hindered by social norms.** Business or digital skills training may require time away from home, making it difficult for women to fit it around domestic responsibilities. Training sessions may also be held in public venues and involve interacting with males outside the family. For example, in Sri Lanka, only a third of female mobile agents invited to a training actually attended (versus half of men), and approximately half of the women invited were replaced by their husbands or another male relative from the same shop.⁸¹ Lack of access to training also makes it more difficult for women to build a peer network and access business information. All these factors contribute to lower digital and financial literacy, lack of awareness of mobile products and

80. GSMA. (2017). [Triggering Mobile Internet Use Among Men and Women in South Asia](#).

81. GSMA mWomen and Dialog. (2014). [Case Study: Dialog's 5 Star Partner Programme - Integrating Women into the Rural Retail Chain](#).

services that could add value and less confidence using mobile phones and mobile services, including mobile money and other DFS.

- **Women micro-entrepreneurs' mobile access and use is further limited by lower income from their businesses compared to their male counterparts.** Due to structural inequalities and social norms, women's micro-businesses are concentrated in low-income and low-growth sectors, yielding modest incomes.

Policy environment

In many countries, policies regulating women's participation in the economy and society either do not recognise women's circumstances or specifically exclude women. For example, in 120 countries, there is at least one law restricting women's employment and in 76 countries there are laws constraining women's right to own property.⁸² In some countries, women are also legally required to obtain their husband's (or a male family member's) approval to access financial services. Gender equality is not sufficiently integrated as a target area in many governments' ICT policies, strategies and budgets.⁸³ Additionally, governments often do not have the awareness or institutional capacity to mainstream gender into policymaking. Where

policies and action plans are in place, there is often limited data collection and monitoring and evaluation of these interventions with a gender lens. Examples of where policies can exacerbate barriers for women micro-entrepreneurs and limit their use of mobile services include:^{84, 85}

- **Registration for mobile and financial services often requires identification documents (ID), which women are less likely to have than men.** In developing countries, 44% of women lack adequate ID, compared to 28% of men.⁸⁶ Yet, ID is critical to access mobile connectivity and a range of other mobile services, as 155 countries have mandatory SIM registration policies.⁸⁷
- **High tax burdens, increasingly driven by sector-specific taxes on mobile devices, data plans and mobile money transactions, have a disproportionate impact on women micro-entrepreneurs.** Women tend to be more price sensitive than men due to lower incomes, lower access to external sources of finance and less financial independence. Policies that make data and mobile services less affordable are therefore likely to have a disproportionately negative impact on women.⁸⁸ Recent decisions by some governments in Sub-Saharan Africa to tax mobile money transactions may further impact the use of these services by women micro-entrepreneurs.



82. World Bank. (2022). [Women, Business and the Law 2022](#).

83. See also: GSMA. (2022). [Policy Considerations to Accelerate Digital Inclusion for Women in Low- and Middle-Income Countries](#).

84. Broadband Commission Working Group on Digital Gender Divide. (2017). [Recommendations for action: bridging the gender gap in internet and broadband access and use](#).

85. GSMA. (2022). [Policy Considerations to Accelerate Digital Inclusion for Women in Low- and Middle-Income Countries](#).

86. World Bank Group. (2019). [Global ID Coverage, Barriers, and Use by the Numbers: Insights from the ID4D-Findex Survey](#).

87. GSMA. (2020). [Access to Mobile Services and Proof of Identity 2020: The Undisputed Linkages](#).

88. GSMA. (2022). [Policy Considerations to Accelerate Digital Inclusion for Women in Low- and Middle-Income Countries](#).

5. Emerging opportunities to increase women micro-entrepreneurs' use of mobile products and services for business



Our landscaping research has revealed that informed and targeted action is required from all stakeholders, including mobile ecosystem providers, policymakers and the development community to increase the digital and financial inclusion of women micro-entrepreneurs through mobile. Here are some recommendations for mobile ecosystem providers (e.g. MNOs and FinTechs).

- **Collect, analyse and use gender-disaggregated data** on the needs, perceptions, preferences and usage of mobile products and services for business among women micro-entrepreneurs. Providers can improve collection of gender data (e.g. during registration for mobile services) and review existing data that could be analysed with a gender lens (e.g. in customer data management systems or customer surveys).⁸⁹ This can inform the design of products and services for this customer segment, as well as marketing, distribution and other initiatives to better serve them. Data should consider the different segments of women micro-entrepreneurs to identify more tailored and targeted approaches to reach them with digital and mobile services.
- **Ensure the needs, circumstances and challenges of women micro-entrepreneurs are considered in the design and delivery of mobile products and services.** This includes both existing “mainstream” products and services that are relevant for this segment, as well as those targeted specifically at micro-entrepreneurs (e.g. custom DFS). It is also important to consider the needs and circumstances of the different segments of micro-entrepreneurs being targeted (e.g. their appetite to grow their business, willingness to try new technology or whether they operate informally). For example, providers can ensure that DFS are designed to also be used by low-literate users who run their businesses more informally (e.g. use of intuitive icons, less text and clear and transparent pricing).

There is a small but growing number of mobile and digital financial tools and approaches that are tailored to meet the challenges of women micro-entrepreneurs and enable them to improve their business practices and access resources.

KOTRA Riel is a digital book-keeping app in Cambodia that allows users to track business income, expenses, inventory and cash flow, as well as create data visualisations and generate business transaction reports. The ability to document business records is extremely valuable as it enables women micro-entrepreneurs without collateral to apply for loans by presenting these records instead.⁹⁰ In Vietnam, VPBank is using e-KYC (electronic Know Your Customer technology) to verify customer identity. This allows eligible women micro- and small entrepreneurs to access loans of up to \$20,000 digitally while they carry on with their daily business and household responsibilities.⁹¹

In Kenya, Fuliza is a short-term overdraft facility that allows customers to make M-PESA transactions even when a user does not have enough balance on their account. A further product, M-Shwari is a combined savings and loan product that can be accessed through an M-PESA account. Used by one in five Kenyans, it offers easy-to-access, short-term credit without requiring a credit history. Instead, a Safaricom mobile phone and M-PESA usage history are used to issue a credit score.⁹²

89. GSMA. (2020). [Reaching 50 Million Women with Mobile: A Practical Guide](#).

90. Jiang, H. (n.d.). [“How a novel digital bookkeeping app is helping women entrepreneurs in Cambodia”](#). UNCDF.

91. Mani-Kandt, R. and Langbridge, E. (19 October 2022). [“Designing for Mixed Realities: How tailoring support for women entrepreneurs on their digital journeys is critical”](#). CARE.

92. Cook, T. and McKay, C. (2 April 2015). [“Top 10 Things to Know About M-Shwari”](#). CGAP Blog.

- **Raise awareness of mobile products and services that are relevant to different segments of women micro-entrepreneurs.**

This includes promoting the business use of mobile platforms, products and services that women micro-entrepreneurs already use for non-business needs (e.g. use of social media channels for marketing and advertising goods and services, reaching customers and expanding into new markets). This also includes using marketing channels that reach women micro-entrepreneurs most effectively, showcasing relatable use cases and ensuring that women are featured in more broadcast advertising campaigns as active users of the service.

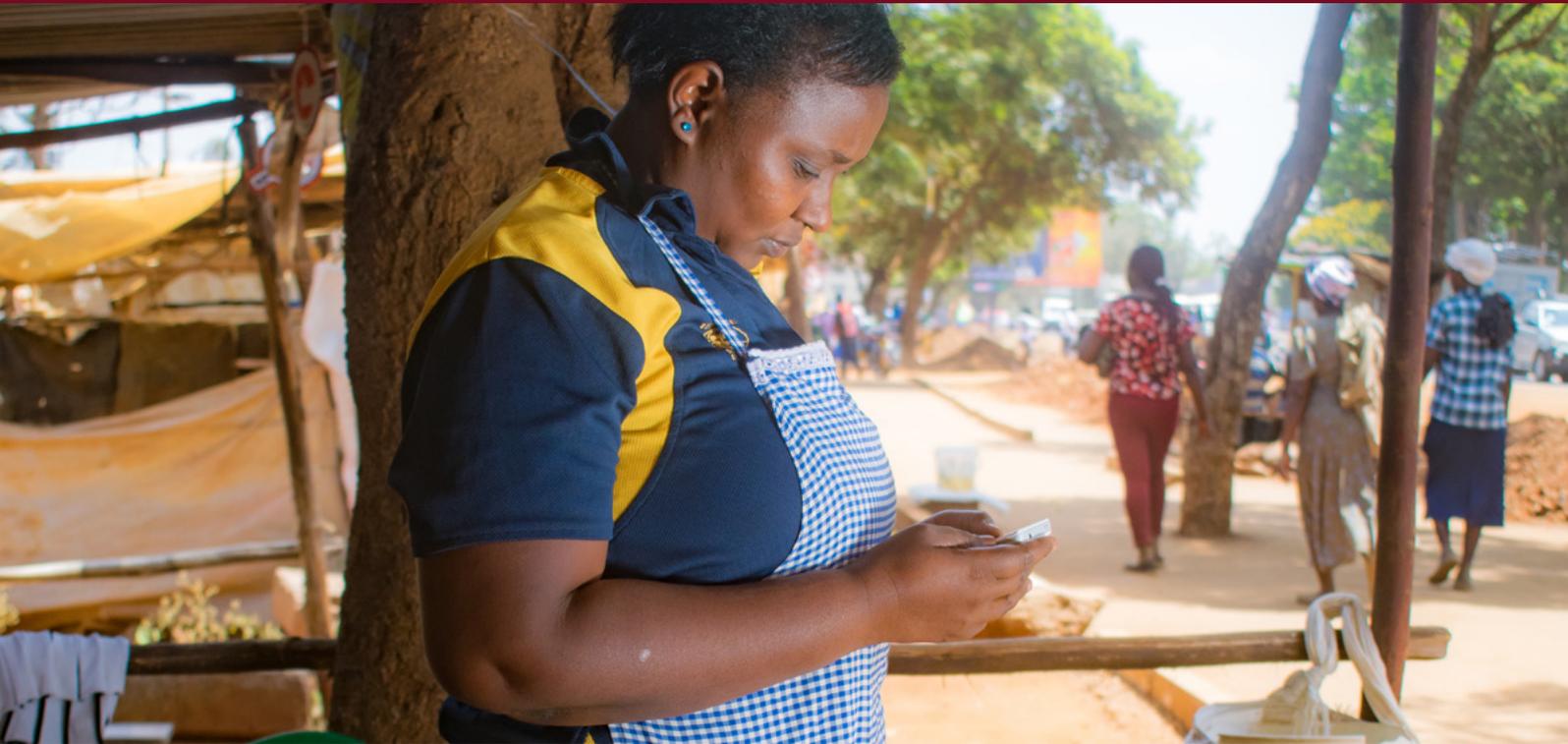
- **Design solutions to make mobile devices and data more affordable,** for example, micro-loans or instalment repayment plans that recognise the income cycles of different segments of women micro-entrepreneurs.
- **Build the knowledge and skills of women micro-entrepreneurs to use mobile services** through tailored training and support based on business size, sector and gender considerations (e.g. convenience and familiarity of locations, time, physical safety of commute and venue). This includes forming partnerships with organisations that offer tailored capacity building and training on

topics such as mobile internet use, financial literacy (e.g. separating business and personal finance), digital marketing and e-commerce, online safety and security and identifying and reporting fraud.

- **Ensure access to a quality network and enablers** such as electricity, mobile agents and formal ID.
- **Encourage gender-intentional agent networks** that can build trust and serve women micro-entrepreneurs in a culturally-sensitive manner by considering locations, opening hours, culturally-appropriate set-up of shops, as well as increasing the share of women agents and building the skills of male agents to provide gender-sensitive customer service.
- **Boost customer trust in DFS** by providing greater transparency about fees, repayment terms, and consequences of default and penalties, as well as developing clear redress mechanisms with human touchpoints. Increase customer confidence and provider credibility by adopting effective marketing and communication campaigns and using simple and clear messaging for users with lower literacy.



Conclusion



Women micro-entrepreneurs in LMICs are important contributors to poverty reduction, family well-being, household resilience and sustainable development and growth. When women have better access to mobile services and can use them for their business, they can make more meaningful contributions to building prosperous communities, societies and economies, while also fulfilling their own dreams and ambitions. Women micro-entrepreneurs face nuanced challenges in accessing and using business resources, such as finance, markets, business information and networks, as well as training opportunities. These challenges are rooted in social norms and structural inequalities that perpetuate the financial and digital exclusion of women.

This report has highlighted a need for all stakeholders to understand the challenges, needs and opportunities involved in reaching women micro-entrepreneurs and take targeted action. A small but growing number of mobile products and services are bridging the gender gap, but more effort is needed from mobile ecosystem providers. This includes more gender-disaggregated data collection and use, gender-intentional product and service design and delivery, awareness raising, building digital, financial and business skills, expanding culturally-sensitive and accessible agent networks and improving access to, and fostering trust in, DFS including mobile money.

Appendix: Frameworks for segmenting women micro-entrepreneurs

TABLE 3

Segmentation of women micro-entrepreneurs by stage of growth



Start-up stage: In the start-up stage, micro-entrepreneurs are likely to use a narrow range of business and financial tools to manage data, customer relationships and business analytics to guide their business and financing decisions. At this stage, entrepreneurs primarily use family or personal funding, followed by other informal funding sources. Informal networks play an important role in learning business practices and improving business processes. They predominantly sell products and services to known local networks or immediate community members.



Stable operations stage: In the stable operations stage, micro-entrepreneurs have been operating for some time, but without substantial growth or expansion. At this stage, they are more likely to show interest in formal financing and adopting digital tools, including digital payments, in response to customer preferences. In markets with developed mobile and digital payment systems, such as Kenya and India, these businesses might use services like M-PESA, GooglePay or PayTM. Businesses are more likely to be interested in bundled services (e.g. savings-backed credit, or payments and credit) or products that meet both financial and non-financial needs. While there is an increase in the development of similar innovative products, there remains a tremendous gap in financing to meet the needs of this segment in LMICs.



Growth stage: Micro-entrepreneurs in the growth stage are in the process of increasing profits or expanding operations. They aim to boost sales, employee numbers, expand into new locations or launch new products. For these businesses, accessing formal capital can be a slow and daunting process, as financial service providers often do not provide necessary services and guidance to help navigate growth-stage financing. In the absence of formal financing, entrepreneurs often resort to savings and cash flow. Growth-stage businesses present an attractive opportunity for digital financial service providers and mobile operators. There is an opportunity to offer even more tailored products and support to meet their growth needs.

Source: CGAP⁹³

93. CGAP. (July 2022). "No Small Business: A segmented Approach to Better Finance for Micro and Small Enterprises".

TABLE 4

Segmentation of women micro-entrepreneurs by entrepreneurial mindset		
	Cautious entrepreneur	Determined aspirant
Business orientation	Enterprise stability	Enterprise growth
Motivation	Alternative to low-income employment to improve livelihoods	Build safety net, transition from waged employment, meet entrepreneurial ambition
Business decisions	Focused on essential livelihoods needs (e.g. children's education, nutrition, house improvements)	Improving family's economic standing, creating jobs, contributing to community, etc.
Attitude towards growth	Prioritise resilience over growth, low risk appetite	Patient and often do not take out income from the business at start-up, actively seeking growth opportunities, high risk appetite
Attitude towards finance	Favour informal sources, low interest in using credit products	Willing to gradually adopt formal sources, limited but responsible use of credit
Attitude towards technology	<ul style="list-style-type: none"> • Less likely to want to adopt technology • May view digitalisation as challenging but recognises the value of using social media platforms and digital payments • Cautiously open to digital financial services • Often sells through online informal commerce channels and is unlikely to use e-commerce • Tend to use digital payments to accommodate customer demand • Guided by younger members of the family or community 	<ul style="list-style-type: none"> • More likely to want to adopt technology and formalise business • Considers digitalisation as an opportunity but needs support in choice of more appropriate products • Likely to embrace technology to meet tax and reporting requirements, but follows a very manual process for some time • Significantly increased digital presence, including use of social commerce and e-commerce channels during COVID-19 lockdowns

Source: CGAP⁹⁴

Bibliography

- Ahiagbede, J. and Darko, S.K. (8 April 2021). [“Supporting women-led Micro-Enterprises in Africa: Smart economics for SDGs 1, 2, 5 & 8”](#). *The B&FT Online*.
- Alton, L. (12 March 2019). [“How Technology Is Helping Women-Owned Businesses Around the Globe Grow”](#). *Connected*.
- Ameen, N., Madichie, N.O. and Anand, A. (15 September 2021). [“Between Handholding and Hand-held Devices: Marketing Through Smartphone Innovation and Women’s Entrepreneurship in Post Conflict Economies in Times of Crisis”](#). *Information Systems Frontiers*.
- Anwar, M. (2015). [“Mobile Phones and the Livelihoods of Indonesian Micro-Entrepreneurs: Evidence of Capability Expansion”](#). *PACIS 2015 Proceedings*.
- Bastian, G. et al. (2018). [“Are Mobile Savings the Silver Bullet to Help Women Grow their Businesses?”](#) Policy Brief Issue 29. Gender Innovation Lab.
- Batista, C., Sequeira, S. and Vicente, P. (1 March 2022). [“Closing the gender profit gap through savings and training: Evidence from Mozambique”](#). *International Growth Centre Blog*.
- Better Than Cash Alliance. (20 July 2022). [“Global Hub Launched to Eradicate Women’s Digital Financial Exclusion and Accelerate Women’s Business Ownership”](#).
- Better Than Cash Alliance, Women’s World Banking and the World Bank Group. (July 2020). [“Advancing Women’s Digital Financial Inclusion”](#). G20 Global Partnership for Financial Inclusion (GPGFI).
- Boateng, R. (n.d.). [“Smartphones and micro-entrepreneurship”](#). The Policy Paper Series, Number 16. Vodafone.
- Broadband Commission Working Group on Digital Gender Divide. (2017). [“Recommendations for action: bridging the gender gap in internet and broadband access and use”](#).
- Brookings Institution. (2020). [“What works for women microentrepreneurs?”](#)
- Busiello, F. and Calder, R. (3 August 2022). [“Agent Gender Matters”](#). *FinDev Blog*.
- Business Wire. (7 March 2022). [“Citi GPS Report: Closing the Gender Gap in Entrepreneurship, to Add \\$1.6-2.3 Trillion to Global GDP \(c.2-3%\) – Catalysing Growth, Innovation, and Equality”](#).
- Calderon, G., Iacovone, L. and Juarez, L. (March 2017). [“Opportunity versus Necessity: Understanding the Heterogeneity of Female Micro-Entrepreneurs”](#). *The World Bank Economic Review*, 30(1).
- Caribou Digital. (2022). [“Women in the Platform Economy: Women’s experiences of platform livelihoods in Ghana, Kenya, and Nigeria”](#).
- CGAP. (September 2021). [“Business Her Own Way: Creating Livelihoods through Informal Online Commerce”](#).
- CGAP. (13 June 2022). Webinar: [“Digitizing Micro & Small Enterprises for Financial Inclusion: Opportunities & Challenges”](#).
- CGAP. (July 2022). [“No Small Business: A Segmented Approach to Better Finance for Micro and Small Enterprises”](#).
- CGAP and Dalberg. (2019). [“Bridging the credit gap for Micro and Small Enterprises through digitally enabled financing models”](#).
- Center for Financial Inclusion/ACCION. (2022). [“Digital Adoption of MSMEs during COVID-19”](#).
- Cherie Blair Foundation for Women. (2021). [“Mobile Value Added Services: A Business Growth Opportunity for Women Entrepreneurs”](#).
- Cook, T. and McKay, C. (2 April 2015). [“Top 10 Things to Know About M-Shwari”](#). *CGAP Blog*.

- GSMA. (2017). [Triggering Mobile Internet Use Among Men and Women in South Asia](#).
- Digest Africa. (29 June 2017). [“Can a Smartphone Transform the Life of a Woman Micro-Entrepreneur?”](#).
- Ebabu Engidaw, A. (January 2022). [“Small businesses and their challenges during COVID-19 pandemic in developing countries: in the case of Ethiopia”](#). *Journal of Innovation and Entrepreneurship*, 11, Article 1.
- FinEquity and CGAP. (21 April 2022). Webinar: [“Tackling the Root Causes of Women’s Financial Exclusion”](#).
- Gray, B. and Singh, P. (29 September 2022). [“Coming Forward: The Role of Mobile Money Agents in Driving Women’s Financial Inclusion”](#). *European Microfinance Platform Blog*.
- GSMA. (2020). [Reaching 50 Million Women with Mobile: A Practical Guide](#).
- GSMA. (2021). [The Mobile Gender Gap Report 2021](#).
- GSMA. (2022). [Exploring Women’s Use of Mobile Money in Ghana: The User Journey, Entrepreneurs and the Impact of COVID-19](#).
- GSMA. (2022). [Policy Considerations to Accelerate Digital Inclusion for Women in Low- and Middle-Income Countries](#).
- GSMA. (2022). [State of the Industry Report on Mobile Money 2022](#).
- GSMA. (2022). [The Mobile Gender Gap Report 2022](#).
- GSMA. (2022). [The State of Mobile Internet Connectivity Report 2022](#).
- GSMA and Dalberg. (2015). [Accelerating Digital Literacy: Empowering Women to use the Mobile Internet](#).
- GSMA mWomen and Dialog. (2014). [Case Study: Dialog’s 5 Star Partner Programme – Integrating Women into the Rural Retail Chain](#).
- GSMA mWomen, Visa and Bankable Frontier Associates (BFA). (2013). [Unlocking the Potential: Women and Mobile Financial Services in Emerging Markets](#).
- IFC. (2017). [MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets](#).
- IFC. (2020). [Non-Financial Services: The Key to Unlocking the Growth Potential of Women-led Small and Medium Enterprises for Banks](#).
- IFC. (2021). [COVID-19 and Women-led MSMEs in sub-Saharan Africa: Examining the Impact, Responses, and Solutions](#).
- ILO. (2022). [World Employment and Social Outlook: Trends 2022](#).
- Iskenderian, M. and Sinha, P. (6 September 2022). [“Opinion: The gender gap won’t close without digital financial equity”](#). *Devex*.
- Jiang, H. (n.d.). [“How a novel digital bookkeeping app is helping women entrepreneurs in Cambodia”](#). UNCDF.
- Kankanhalli, S. (12 April 2022). [“Incentives for Small Retailers to Climb the Modernization and Digitization Ladder”](#). *FinDev Blog*.
- Katica, M. (1 June 2022). [“Four Ways to Design Agent Networks That Work for Women”](#). *FinDev Blog*.
- Kendall, J. and Johnson, C. (12 August 2022). [“Announcing: The DFS Lab Retail Digitization Tracker”](#). DFS Lab.
- Klingen, N., Hammond, A. and Srinivasan, S. (1 December 2021). [“Putting women and girls at the center of digital development”](#). *World Bank Blogs*.
- Kolawole, R.J. (2022). [“Does digital marketing adoption enhance the performance of micro and small enterprises? Evidence from women entrepreneurs in Ado-Odo Ota Local Government Area, Ogun State, Nigeria”](#). *International Journal of Development and Management Review*, 17(1).
- Komunte, M. (2015). [“Usage of Mobile Technology in Women Entrepreneurs: A Case Study of Uganda”](#). *The African Journal of Information Systems*, 7(3), Article 3.
- Malanga, D. and Banda, M. (2021). [ICT Use and Livelihoods of Women Microenterprises in Malawi](#).
- Mani-Kandt, R. and Langbridge, E. (19 October 2022). [“Designing for Mixed Realities: How tailoring support for women entrepreneurs on their digital journeys is critical”](#). CARE.
- Maugeri, N. (12 March 2018). [“Women’s Financial Inclusion: 5 Reasons Why It Matters for Mozambique”](#). *LSE Blogs*.
- Nathan Associates Inc. for USAID. (July 2018). [Women’s Economic Empowerment in the Digital Economy](#).
- NetHope. (n.d.). [“5 learnings for connecting women to smartphones”](#).
- Nichter, S. and Goldmark, L. (September 2009). [“Small Firm Growth in Developing Countries”](#). *World Development*, Elsevier, 37(9), pp. 1453-1464.
- NSBC Editorial Team. (16 September 2020). [“VodaLend works to close the funding gap for women-owned businesses”](#). *The Small Business Site*.

- Ogunjuyigbe, O. (26 July 2022). [“Kenya and Ghana are Front-lining the Global Mobile Money Market”](#). *Ventures Africa*.
- GSMA. (2022). [Digitalising rural MSMEs: Thailand’s agriculture and tourism sectors](#).
- Partnership for Finance in a Digital Africa and Caribou Data. (2020). [“Digital Behaviors of Kenyan Microentrepreneurs: Doing Business in the Age of Social Commerce”](#). Caribou Digital Publishing.
- Pearce, D. (23 September 2022). [“Boosting small businesses through E-Commerce and integration into value chains”](#). *World Bank Blogs*.
- Pulse Lab Jakarta. (27 April 2021). [“Pulse Stories: Beyond ‘Sticky Floors’”](#). *Medium*.
- Rahman, M. (n.d.). [“Women Micro-Merchants in Bangladesh: Can digital tech break barriers?”](#). Microentrepreneurs Asia.
- Reitzug, F. et al. (9 November 2020). [“Does agent gender matter for women’s financial inclusion?”](#). *World Bank Blogs*.
- Roessler, P. et al. (2018). [Mobile Phone Ownership Increases Poor Women’s Household Consumption: A Field Experiment in Tanzania](#).
- Roest, J. and Bin-Humam, Y. (7 September 2021). [“Forging Her Own Path: Women and Informal Online Commerce”](#). *CGAP Blogs*.
- Sirtaine, S., Zimmerman, J. and Prochaska, K. (7 March 2022). [“How Can We Build on COVID-19 Progress in Women’s Financial Inclusion”](#). *CGAP Blog*.
- Smertnik, H. and Bailur, S. (21 December 2020). [“Top Five Digital Financial Service Features That Impact Women’s Access and Use”](#). *FinDev Blog*.
- Star Business Report. (30 March 2022). [“Meta launches #SheMeansBusiness to empower Bangladeshi women entrepreneurs”](#). *The Daily Star*.
- The Nation. (16 April 2022). [“MMBL, IWCCI to promote access to digital financial solutions for women micro-entrepreneurs”](#).
- UN DESA. (n.d.). [Micro-, Small and Medium-sized Enterprises \(MSMEs\) and their role in achieving the Sustainable Development Goals](#).
- UN ESCAP. (12 February 2021). [“United Nations and SHE Investments launch a mobile bookkeeping app for women entrepreneurs”](#). Press release.
- UN Sustainable Development Group. (4 May 2022). [“Leaving no smallholder farmer or micro entrepreneur behind: Cell phones come to the rescue and boost jobs in post-COVID Benin”](#).
- UNCTAD. (2022). [The COVID-19 Impact on Micro, Small and Medium Sized Enterprises: Market Access Challenges and Competition Policy](#).
- UNESCO and Africa Women’s Forum. (2021). [Challenges and opportunities for women entrepreneurs in Africa: a survey of science and technology usage](#).
- Unilever. (n.d.). [“Helping SME retailers grow”](#).
- Visa. (23 September 2021). [“Visa expands She’s Next initiative in Africa, empowering women entrepreneurs with digital capabilities”](#).
- Women’s World Banking. (March 2022). [Economic Resilience and Digital Adoption among Ultra Micro Entrepreneurs in Indonesia](#).
- World Bank. (n.d.). [“Small and Medium Enterprises \(SMEs\) Finance”](#).
- World Bank. (n.d.). [“Using Digital Solutions to Address Barriers to Female Entrepreneurship”](#).
- World Bank. (2021). [Global Findex Database 2021](#).
- World Bank. (2022). [Women, Business and the Law 2022](#).
- World Bank and BBVA Microfinance Foundation. (10 June 2021). [“Deconstructing the Monolith: Segmentation of Women Clients - In Conversation with BBVAMF”](#). FinEquity webinar.
- World Bank Group. (2018). [Access to Finance for Female-led Micro, Small & Medium-sized Enterprises in Bosnia and Herzegovina](#).
- World Bank Group. (2019). [Global ID Coverage, Barriers, and Use by the Numbers: Insights from the ID4D-Findex Survey](#).
- World Bank Group. (2019). [Profiting from Parity: Unlocking the Potential of Women’s Businesses in Africa](#).
- World Bank Group. (2021). [The Impact of the COVID-19 Pandemic on Women-led Businesses](#).
- World Bank Group. (2022). [Informal Sector Enterprise Surveys: Profiles of Cities in India, 2022](#).
- Yee, A. (7 March 2022). [“Closing Gender Gap Among Entrepreneurs May Add 2% to Global GDP”](#). *Bloomberg*.
- GSMA. (2020). [Access to Mobile Services and Proof of Identity 2020: The Undisputed Linkages](#).

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