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Women and Credit

A NARRATIVE REVIEW IN LOW- AND MIDDLE-INCOME COUNTRIES

 Mayra Buvinic and Shubhangi Gokhroo

Abstract

This is a narrative review of interventions that provide stand-alone credit or with savings and complementary programming to women or to women and men in LMICs, spanning studies between 2012–2022 and benefitting from recent systematic reviews and meta-analyses in relevant topics. The review finds that women’s credit constraints are related to gender differentials at the levels of the individual, the household, or the community/context. While constraints at the individual level tend to erode as women increase their wealth and business experience to match those of men, constraints that emerge from women’s traditional family roles in the household as well as constraints that arise from biases or discrimination that women face in the financial ecosystem cannot be reduced to differences in magnitude of wealth or business experience with men and require gender-informed solutions. The review identifies possible solutions for five different categories of women it can identify according to income and occupation and discusses both the strength of the evidence and the gaps in knowledge about what works for whom.

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1. Introduction

This narrative review of research on the effects of providing women with access to credit (and complementary programming) examines constraints that prevent women from accessing credit and possible solutions to address these constraints. It asks the question whether solutions need to be gender-informed, or does addressing segmentation by income or occupation suffice to increase women's access to credit? The review builds on an earlier review of what works to empower women economically by Buvinic and O'Donnell (2019).

Rich evidence from experimental and observational studies and systematic reviews have added much more texture and nuance to what until recently was a black or white story on the impact of credit—either a simple answer to women's poverty or a dim view of the limited effects of giving women access to credit. Beginning in the late 1970s, microcredit was the one thing that seemed to work to increase women's income and reduce their poverty, and globally was recognized in the Nobel Peace Prize awarded to Muhammad Yunus and the Grameen Bank in 2006. But the bulk of the experimental evidence in the next decade or so showed at most very small, non-transformative effects of microcredit on the poor, and especially on poor women. While microcredit grew into microfinance, expanded the services it offered and became profit-making, the emerging consensus was that it had not and would not end women's poverty or empower them. Some feminist scholars went further and argued that microcredit trapped women into debt and continued oppression “one tiny loan at a time” (Meyerowitz 2021). But the most recent and richer evidence redeems credit as an intervention that can provide significant benefits to women, depending on the client, the features of the credit offer and how they address women's specific constraints, the surrounding context, and the gender-related mechanisms that shape financial outcomes.

The review first presents a theory of change that traces the impact of financial services on women's economic empowerment and then describes the characteristics of the studies that were reviewed. The next section summarizes the results of the review. Results are grouped following three levels of resources that in the theory of change mediate the effect of credit and related interventions on women's economic empowerment outcomes. The results section ends raising some cross-cutting issues; conclusions follow.

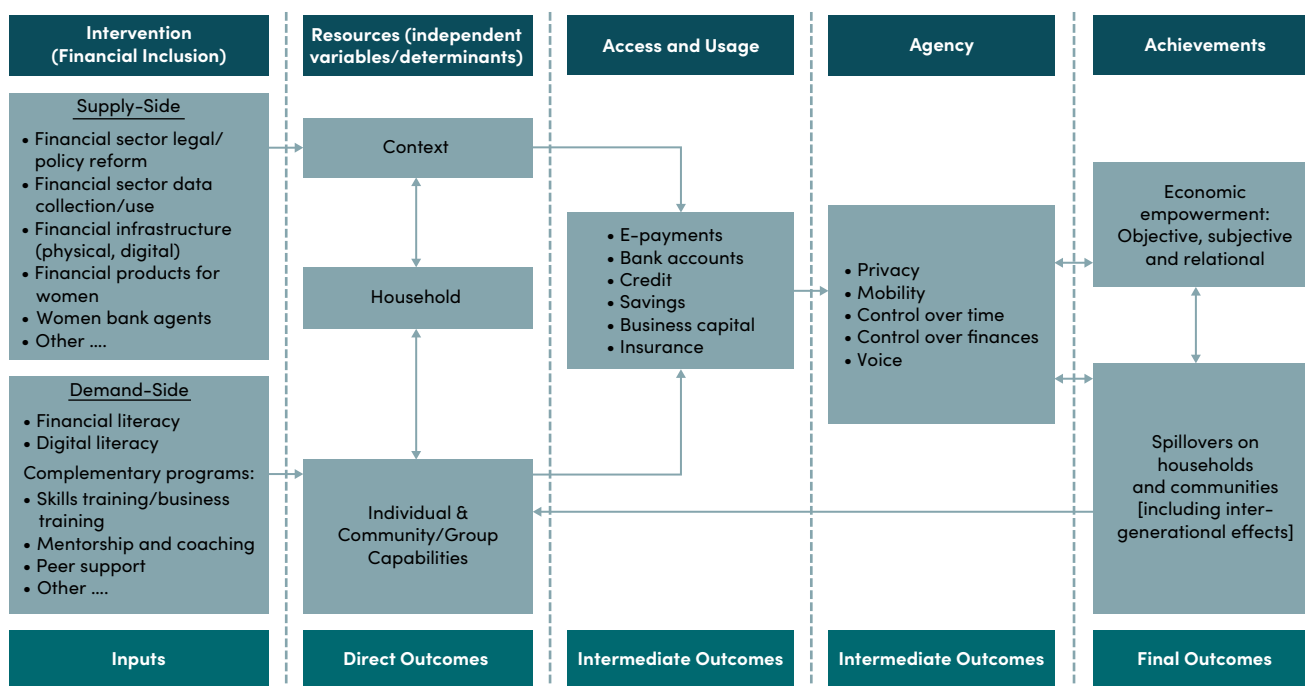
2. Theory of change

A theory of change that outlines the impact of financial services on women's economic empowerment guides the review. Interventions are considered successful (potential solutions) when they increase women's economic achievements, empowerment, and agency as final outcomes. Measures of economic empowerment include increase in women's income, assets, profits or revenues, or proxy measures such as growth in business size, upgrade in women's occupations

(from subsistence agriculture to self-employment), increase in household income when the design directly links it to increased women's income, and proxy measures of empowerment such as greater self-confidence, improvement in human capital, and better mental health. Measures of agency include positive changes in women's household decision making, control over money or other productive resources, as well as indicators of increased individual privacy and mobility. Direct outcomes include financial inclusion related measures such as opening bank accounts, evidence of borrowing and saving.

The theory of change (Figure 1), based on a measurement framework by J. Morgan and colleagues (2023), draws on the three elements that most commonly define the concept of women's economic empowerment: resources, agency, and achievements. It considers both supply-side and demand-side interventions specific to the provision and use of financial services, such as financial infrastructure and women bank agents on the supply-side and financial literacy and digital literacy on the demand-side, as well as complementary programs, such as soft skills training and peer support.

FIGURE 1. Theory of change on the impact of financial service interventions on women's economic empowerment



Supply-side and demand-side interventions, and complementary programs, affect women's access and use of financial services through changes in three levels of resources: the community or context (in this review focused on the financial services ecosystem), the household, and individual or group endowments. The use of financial services increases women's agency, which is instrumental in

increasing women's economic empowerment, with potential spillover effects in the community and across generations. There are feedback loops between the final outcomes and the prior stages (direct and intermediate outcomes)—women's economic empowerment boosts women's agency, access and use of financial services, household well-being and the enabling environment in virtuous cycles, while women's economic disempowerment triggers vicious cycles in access and usage, agency and resources.

The theory of change applies equally to digital and non-digital financial services. Digital financial services may have stronger or weaker effects on certain variables listed, but the variables should not change.

3. The studies reviewed

The narrative review includes interventions that provide stand-alone credit or with savings or complementary programming to women or to women and men (with women about half of the sample) in LMICs, and benefits from recent systematic reviews and meta-analyses in relevant topics. It covers interventions, mostly RCTs, that provide credit, or credit and savings, or finance 'plus' interventions that include financial literacy or short-term business management training, or 'bundled' interventions for the very poor ('graduation' programs) that include credit, savings, cash stipends and other complementary programming. The review spans the years 2012–2022. Recent reviews, including about women's financial decisions (Chetty et al. 2018), the evidence on microfinance (Cai et al. 2021; 2023), and what works to support women entrepreneurs in developing countries (Siegrist 2022), in addition to several meta-analyses, enriched the findings presented here.

This narrative review is a broad, more descriptive overview of the effects of credit and complementary programming on women's economic empowerment. It benefits from the insights from systematic reviews of more narrowly defined interventions but lacks the rigor of these systematic reviews. The breadth of the review, including a more varied set of interventions, expands the categories of women receiving credit, including very poor women, and helps to understand the underlying mechanisms shaping women's outcomes.

Most of the samples are of poor women micro entrepreneurs in South Asia and East Africa. The studies reviewed cover samples in 54 countries. They are contained in 48 reports (with some reports presenting results for more than one country) that were selected from a systematic search of credit and savings interventions by M. Duvendack and colleagues (2023) and complemented with additional reports from interventions which include non-financial components. Bangladesh and India are overrepresented, reflecting the vibrancy of the microfinance movement in these countries. Next with most studies are Ethiopia and Uganda, while there is only one South East Asian country

in the list (Annex 1). Most samples cover population groups that are rural, qualify for credit under alternative eligibility criteria rather than the use of physical collateral, access a product that is designed for poor women customers and has some commitment design feature, access credit as part of a credit and savings group, and about half of the time access credit alongside complementary programming, including training and savings (Annex 2).

Past evidence suggests that ‘for whom’ matters greatly in terms of ‘what works.’ Unfortunately, it was difficult to distinguish clear categories of women in terms of occupations and income levels—studies usually do not publish detailed information on these variables. We were able to classify the samples into 5 broad groups by income and occupation: the very poor, subsistence-level self-employed women, home-based or street vendors, or subsistence-level women farmers farming on kitchen gardens, family or community plots (9 samples); poor women microentrepreneurs with potentially one or two employees or family workers operating from home or in a rented or owned market stall (29 samples) or farming a family or own plot or rented plot (10 samples); wage and salary workers (4 samples); and non-poor women SME owners with five or more employees or working in commercial agriculture (6 samples).¹

Across studies reviewed, a tally of outcomes suggests that the effects of different types of credit interventions on women’s economic empowerment are mixed. Results for about more than half of the outcomes measured are positive and they are non-significant or negative for less than half (Table 1). More outcomes for women’s agency are positive, but agency findings are reported in only 17 studies. It is important to underscore, however, that this is a simple counting of outcomes to characterize the studies reviewed and not an analysis of findings across studies.

TABLE 1. Studies reviewed by type of outcome and population group

| Population | Total Studies | Agency Outcomes | | Economic Outcomes | |
|---------------------------|---------------|-----------------|---------------------------------------|-------------------|---------------------------------------|
| | | Positive | No Significant Impact/Negative Impact | Positive | No Significant Impact/Negative Impact |
| Very poor | 9 | 6 | 1 | 17 | 5 |
| Poor—microentrepreneurs | 29 | 10 | 2 | 50 | 19 |
| Poor—agriculture | 10 | 1 | 2 | 11 | 12 |
| Wage and Salary Workers | 4 | 1 | 0 | 5 | 3 |
| Non-poor (ag., SMEs etc.) | 6 | 5 | 0 | 8 | 3 |

1 The number of population groups (58) is greater than the number of samples (54) because some samples covered more than one population group.

4. Results

This section summarizes the main findings from the narrative review, including what works for whom, based on the studies detailed in Table 1 and supporting evidence from related studies. The findings are grouped following the three levels of resources (individual, household and community/context) in the theory of change that mediate the effect of credit interventions on women's economic empowerment. Gender differentials that constrain women's access to credit and possible solutions are identified for each level. The section ends mentioning overarching issues that are common across studies and possible solutions.

Women are more credit constrained than men. Men are the majority customers in bank lending portfolios throughout the world.² The World Bank estimates that the global gender credit gap stands at USD\$ 1.5 trillion for women-owned businesses; this is in addition to a gender glass ceiling in the executive suites of financial institutions globally—with women accounting for less than a quarter (23%) of senior executives in public and private sector banks and only 14 % in the top executive suite.³ It is unknown how many credit officers and mobile money operators are men, but a safe assumption is that they are the majority. All this, however, does not necessarily indicate that women are constrained in having access to credit when compared to men. Women may not need or want the credit offerings that are available, especially those from traditional microfinance with high interest rates and limited flexibility of contracts. But there is well documented evidence that businesswomen in LMICs, across the business-size spectrum, from nano and micro to small and medium size, need credit but face constraints in access; many women turn to informal credit but want formal (Siegrist 2022; World Bank 2019).

Women's credit constraints are related to gender differentials at the individual, household, and community/context levels. Tables 2, 3 and 4 summarize the evidence on gender differentials at these three levels that constrain women's access to credit, possible solutions and for 'whom' or for which populations or groups of women by income and occupation these solutions work, whenever there is sufficient evidence to make this attribution. Differentials cross levels and feed into each other. Possible solutions are targeted to the different levels (and different categories of women) and often address more than one constraint. There is stronger evidence, mostly based on RCT designs, for some solutions than for others. The text clarifies the strength of the evidence and specifies if this evidence is observational, or the citation is a meta-analysis or review paper.

2 The gender gap on credit stands in contrast to savings, where women tend to predominate as bank customers.

3 Data compiled by Official Monetary and Financial Institutions Forum, April 2022.

Individual-level constraints and possible solutions

TABLE 2. Individual-level gender differentials constraining women's access to credit and possible solutions by population group

| Differentials (women borrowers' features) | Possible Solutions | Who |
|---|--|---|
| Less individual income/wealth | Screen for higher individual income since wealthier women face fewer constraints to access, use and repay credit | Non-poor (ag., SMEs) Microentrepreneurs (poor) Wage, salary workers |
| Less business/farm experience | Screen for more years of business/farm experience as proxy for high potential businesswomen or farmer | Non-poor (ag., SMEs) Microentrepreneurs (poor) Small farmers (poor) |
| Less access to financial information and literacy, business knowledge, other information | Finance 'plus' interventions with a gender lens | Microentrepreneurs (poor) Small farmers (poor) |
| Fewer assets to use as collateral across income groups | Use non-traditional collateral: psychometric testing, digital collateral, cashflow-based lending, asset-based lending, dynamic incentives | All women except for very poor—dynamic incentives should work for very poor women |
| Own smaller firms or farms in lower growth, less profitable, sex-segregated sectors, with heterogeneity among women in firm/farm size, with increasing obstacles to access credit depending on business/farm size: subsistence, nano, micro, SMEs | Credit innovations (larger, riskier digital loans) backed by non-traditional collateral plus complementary programming addressing increasing constraints with increasing poverty. Screening or self-selection of 'opportunity' businesswomen into these programs | Microentrepreneurs (poor and very poor) Small farmers (poor) |
| Less access to digital tools | Close gender gaps in access to digital tools through government and private sector actions, including increasing affordability (through subsidies) and digital skills. Ensure safety and security | All women |
| More lack ID | Government universal ID programs with gender lens through civil registration or stand-alone digitization | Very poor and poor in all categories |

Addressing customer heterogeneity: screening for individual income, business experience

At the outset, women are less wealthy and more disadvantaged when compared to men as potential customers of credit and other financial services. Women globally are less wealthy than men, have fewer assets they can offer as collateral, own or manage smaller firms and farms, have less business experience and knowledge and less exposure to financial information and networks, while lenders overall prefer asset wealthy clients who can take larger, more profitable loans (Bardasi et al. 2011; World Bank 2019). In segmented labor markets, women prevail in traditionally female,

lower growth-oriented sectors of the economy such as retail commerce, restaurants, and other consumer-facing services (which were hit hard by the covid pandemic), with little access to business capital and new technologies, and few or no paid workers (Buvinic et al. 2021; Goldstein et al. 2019).

These differentials tend to erase as women increase their wealth and business experience to match those of men. A relevant question is if these are differentials only in degree or magnitude between men and women that disappear once women increase their income and business experience or if they are differentials in category (gender) that remain. A partial answer comes from evidence in this review that shows that customer heterogeneity drives outcomes and that wealthier women and women with greater business knowledge, networks and experience face significantly fewer constraints to access and use credit (six country study—Benerjee, Karlan and Zinman 2015; follow-up in Hyderabad, India—Banerjee et al. 2019; meta-analysis where differences in business experience explained results in 5 out of 6 studies—Meager 2019; Cai et al. narrative review 2021; rural Egypt—Crépon et al. 2022).

Further, this evidence is unambiguous in suggesting that these wealthier women will be less subject to both family pressures to share cash and the use of liquidity as implicit insurance, reducing limitations on the productive use of credit (see below under the heading ‘household’).

A solution that addresses the evidence on customer heterogeneity is to implement effective credit screening mechanisms that screen for women’s business income or experience. Women with pre-existing businesses perform better because this experience helps them overcome gender-related norm constraints, because they have chosen business opportunities with higher returns, or because start-ups have higher costs. Whatever the main reason, screening for women’s individual income or years of business experience (or years borrowing as a proxy) should identify women facing fewer constraints. In addition, screening mechanisms should consider if there is more than one business in poor households (since in poor households, women will tend to divert funds to the larger business, usually not theirs, as noted below under ‘household’).⁴

Adverse selection effects are reduced by self-selection of high potential farmers or businesswomen to credit. Returns to capital are higher for women farmers in Mali who self-select into borrowing compared to those who do not borrow, emphasizing the importance of self-selection and customer heterogeneity (Mali—Beaman et al. 2021). Similarly, women who are high-potential or ‘opportunity’ entrepreneurs (who report starting a business because they see a market versus those who say they needed to earn money) are more likely than others to self-select themselves to apply for credit and participate in complementary training programs which have opportunity costs that should screen out less motivated or able women (survey with women entrepreneurs urban Mexico—Calderón et al. 2016).

4 This diversion of liquidity to the priority business in the household should happen less or not happen in non-poor households, but there is yet no evidence of the presence or absence of this effect for women-owned SMEs in non-poor households.

Finance ‘plus’ interventions to address financial or business knowledge gaps

A solution for lower income women (who do not meet income or business experience screening standards) is to overcome their disadvantage partly through complementary programming.

A parallel line of evidence shows that complementary or ‘finance-plus’ interventions that increase women’s human capital (financial and digital literacy, business knowledge and practice, health information) work to reduce the many constraints faced by poor women in accessing credit, suggesting once again that the supply disadvantages that women experience are partly one of magnitude and can be addressed with complementary programming that reduces (demand-side) gender differentials benefitting men (rural Rwanda—Sayinzoga et al. 2016; northern Vietnam—Huis et al. 2019; Kenya, McKenzie and Puerto 2021; Tanzania—Bastian et al. 2018 urban Mozambique—Batista et al. 2022; Indonesia—Buvinic et al. 2022).

Importantly, a gender lens in the design of financial literacy and business training interventions increases their success (meta-analysis—McKenzie 2021). And a conducive social environment, with social support and few family pressures for cash helps (India, SEWA study—Field et al. 2016; Uganda—Fiala et al. 2013).

Non-traditional collateral to overcome lack of asset ownership

Innovative collateral that is not built on asset ownership should expand women’s access to credit across income groups. Collateral mitigates adverse selection and moral hazard in LMICs lending markets with substantial asymmetric information, expanding the supply of credit and reducing costs. But women more so than men, across income categories, lack traditional forms of collateral based on asset ownership which restrict their access to credit. And they often do not have formal financial transaction histories which credit bureaus use to reduce information asymmetry and lower the cost of lending. Recent evidence suggests that psychometric testing, in addition to regular checking of documents and business appraisal, offers a viable solution to the problem of asymmetric information for non-poor women, increasing their access to formal credit with good repayment rates (Ethiopia, Alibhai et al. 2022). Further testing is needed on the use of these tools in different settings, the requirement of additional screening, and their cost-effectiveness.⁵

Options are expanding with digital alternatives to collateral. Other possible solutions include digital collateral (“pay as you go” without the need to physically repossess assets) combined with down payment; asset-based financing, which enables making larger loans and using the asset as collateral; and digital cashflow-based lending, where alternative data from mobile phone usage, purchase habits or historical transactional behavior are used to make credit decisions (Gertler et al. 2021 for digital collateral in Uganda; Cai et al. reviews 2021, 2023; and Siegrist review 2022, for asset-based and cashflow-based lending). In the case of digital credit in Haiti, the potential costs of changing

5 The World Bank Africa Gender Innovation Lab is testing psychometric tools.

phone numbers and disruption of social networks can be extremely steep, thus, customer's phone number was used as an effective collateral (Barriga-Cabanillas et al. 2021).

Digital collateral needs testing. These solutions are in theory attractive for women owned MSMEs, since they overcome the lack of historical records or physical assets but need further testing. Digital collateral could raise ethical issues if the digital service used as collateral (e.g., mobile phone, solar home energy) has welfare benefits and must be cut in case of default (Cai et al. reviews 2021, 2023). Collateralized assets should be in women's names and avoid family conflicts. These innovations should also work better for SMEs and more established microenterprises than for the lower end of microenterprises and the very poor. For poorer microentrepreneurs, dynamic incentives (future loans conditioned on previous loan repayment), can work as well as or instead of the traditional joint liability provided by group lending (Cai et al. reviews 2021; 2023).

Credit innovations and complementary programming for the poor and very poor

Innovations in credit offerings, including digital credit and larger loan sizes or incremental lending, are needed to boost the effects of complementary programming for low-income women. The evidence makes a compelling case for the need to revise standard criteria in credit offerings to reach and benefit poor women who seek credit for business purposes. Solutions include digital delivery channels which reduce transaction costs to access financial services which rise with women's increased poverty (review—Aron 2018). This necessitates ramping up women's access to digital tools which has slowed down in recent years (a main issue is affordability) and training (digital skills) in the use of these tools (review—GSMA 2023). In addition, and contrary to the traditional credit model, where the borrower's capacity to pay determines the loan amount, and where poor borrowers get very small loans with fixed, frequent repayments, a solution is to provide women with larger loans that allow more business choices (can be invested in fixed capital) or incremental lending that adds dynamic incentives which reduce adverse selection and moral hazard (Pakistan—Weber and Ahmad 2014; Bangladesh—Khandker and Samad 2014).

An intersectional lens is important when implementing innovations in credit offerings. This is to ensure access to women who may be hardest to reach because of the combined disadvantage of gender and another exclusionary group attribute (race, ethnicity, disability, migratory status, sexual orientation, or gender identity).

Very poor women, as the evidence shows, will need a package of complementary interventions (from graduation programs) and, importantly, a comparatively large sized loan (or grant) that can move them above the poverty threshold. The more women face constraints related to increased poverty, the more they will require a 'push' from innovative loan and grant offerings as well as complementary trainings and cash stipends to relax these constraints, set virtuous cycles, transform their occupations, and overcome poverty traps (ultra-poor in 6 countries—Banerjee et al. 2015; large

asset transfer to ultra-poor Bangladesh—Balboni et al. 2021; ultra-poor Bangladesh—Rahman et al. 2021; systematic review of agri-food systems 39 RCTs—Villanueva, forthcoming).

Jobs and social safety-nets are an important alternative

Solutions need to redirect women who seek these programs out of need but do not have the requirements to succeed in enterprises or farming and instead could use a wage job or cash transfers. Other poor and very poor women are micro-entrepreneurs only out of necessity; they would rather work for wages but encounter many more obstacles than similar men in landing unskilled, low-paying jobs (Mexico survey—Calderón et al. 2016). Screening these self-employed women ‘by necessity only’ through self-selection to high quality training programs, non-traditional collateral, or other screening mechanisms (checking for years of business experience, having an established business, being an experienced borrower, or having an active bank account) and redirecting them to access wage employment or social protection should increase the likelihood that those women receiving credit will have the skills needed to maximize business or farm performance and outcomes (review—Buvinic and O’Donnell 2019).

Government cash transfers and other social protection measures are needed to support women who face recurring economic or social obstacles. Women who may be too poor and/or face binding constraints from living in marginal urban neighborhoods, isolated rural areas or difficult post-conflict environments with lack of access to functioning markets, or under restrictive gender norms to succeed when having access to financial services instead require government cash transfers or other social protection measures (India—SEWA study with Muslim women—Field et al. 2016; Chile, Malawi and Uganda—Dupas et al. 2016; Nairobi slums, young women—Brudevold-Newman et al. 2017; rural, polygamous households (50%) Burkina Faso—Leight et al. 2022).

Close gender gaps in access to digital tools and IDs

Access to digital tools and government ID programs with a gender lens are basic prerequisites for women’s access to formal credit. Digital tools are at the frontier of credit and collateral innovations that should address gender gaps in access and use (see above). Government and private sector action are needed to close gender gaps in access to these tools, including making them more affordable and providing training to women in digital skills. Having an ID is a basic screening mechanism to access bank loans and other financial services. Women in some countries lack IDs more so than men, so government programs to increase birth registration and IDs through civil registration or stand-alone digital ID initiatives (ID4D) need to incorporate a gender and an intersectional lens to reach all women, especially women who belong to excluded groups in marginal urban neighborhoods or rural communities and are hardest to reach.

Household-level constraints and possible solutions

TABLE 3. Household-level gender differentials constraining women's access to credit and possible solutions by population groups

| Differentials | Possible Solutions | Who |
|--|---|---|
| More cash, time and mobility constraints increasing transaction costs to access credit because of family roles, gender norms | Digital delivery channels that reduce transaction costs (transport costs, travel and wait time, mobility constraints) and create digital cash records | All women |
| Lack of agency, autonomy in decision making over cash because of women's subordinate family position | Individual private credit accounts, preferably digital credit, to increase agency, financial autonomy; soft-skills training to increase agency, self-confidence | All women except for wealthier, non-poor (ag., SMEs) |
| Sharing family norms affecting women only | Digital credit that ensures privacy, hides cash; credit in-kind or as physical assets | All women except for wealthier, non-poor (ag., SMEs) |
| Primacy of larger, (male) owned businesses in households with more than one business | Screening to identify households with more than one business; commitment features or training added to credit in multi-business households to ensure loan is not diverted | All businesswomen across income groups |
| Lower tolerance to financial risk due to being poorer than men and having to manage larger set of (family) risks | In short-term, access to savings as well as credit and loan repayment flexibility to provide implicit insurance. Group lending linked to self-help savings groups to share risk. In long-term, expanding insurance markets in LDCs and women's access to these markets. | Very poor women Microentrepreneurs (poor) Small farmers (poor) Wage and salary workers |

Household structures and dynamics, and women's position within the family, influence women's financial decisions in ways that are uniquely gendered and require gender-informed solutions.

They affect women's ability to access credit through transport costs, time and mobility constraints, their use of and control over cash, and their tolerance of financial risks. While wealthier women face fewer of these disadvantages, household structures and dynamics shape constraints in women accessing and using credit that cannot be reduced to differences in magnitude with men. They require gender-informed solutions.

Reduce transaction costs with digital delivery

Women have higher transaction costs to access credit and other financial services than men, which digital financial channels address. Women have higher transaction costs since they are poorer than men and have more time and mobility constraints because of their traditional household caring roles and gender norms. Digital credit or mobile money reduces transaction costs, creates a digital cash

record (which can be used instead of traditional collateral), and can provide privacy and safe storage of money (review—Aron 2018). Mobile money leapfrogs the provision of formal banking services and the evidence shows that it is preferred by women across regions and income groups (review of 8 studies—Robinson et al. 2023; World Bank enterprise survey 16 countries—Islam and Muzi, 2020; very poor young women in rural Ghana—Unnikrishnan et al. 2022). These positive features of digital channels should help to build trust between mobile money operators (MMO) and women customers.

Increase women's agency with smart loan design

Women do not have full control over cash from loan or grant because of their subordinate position in the family and family sharing norms. Traditionally, women have been subordinated to men in the family but also have had and continue to have primary responsibility for caring for children and other family members. Women's primary caring responsibilities and roles in the family are invariant across most cultures and contexts. Women's subordination and lack of family decision making power means that they do not have full control over the cash from a loan or a grant. They are subject to family pressures to share this cash (kin taxes) unless the privacy of an individual mobile bank account or a soft-skills empowerment training or other incentives increase their agency to invest the full loan in their own activities (Western Kenya—Jakiela and Ozier 2016; Uganda—Fiala 2018).

Solutions include financial products and complementary interventions that are designed to maximize women's agency or autonomy in economic decision making. Fortunately, the evidence shows that well-designed digital credit can increase women's privacy and autonomy while complementary quality soft-skills or related psychological training can boost women's self-confidence and an autonomous mindset (Kenya—Suri and Jack 2016; urban Mozambique—Batista et al. 2022; Niger—Bossuroy et al. 2021 for soft skills training). The evidence shows that a positive mindset fosters financial autonomy (rural Pakistan—Baranov et al. 2020), and that digital credit has transformative effects when poor women control its use. Providing physical or in-kind assets rather than liquid loans can help fight family pressures to share cash (Inner Mongolia, China—Gu and Nie 2021).

Address women's family and financial risk pressures with gender-informed financial services (digital credit, savings and insurance)

Women's financial decisions are uniquely (negatively) influenced by the number of other enterprises in the household and a lower tolerance to financial risk. If there is more than one business in the family, women will first allocate liquidity to the larger business, which most often is owned by the men in the family, reducing the amount invested in their own economic activity (reanalysis of RCT data from Ghana, India, and Sri Lanka—Bernhardt et al. 2019). Compounding these family pressures on loan use, women's financial decisions are influenced by a lower tolerance to financial risk than men

because of having to manage a larger set of perceived risks (that is, family risks) which leads them to avoid high risk financial options and seek to use liquidity from loans and savings as implicit insurance ('risk aversion' review—Croson and Gneezy, 2009; urban Mexico—Angelucci et al. 2015; rural Senegal and Burkina Faso—Delavallade et al. 2015; Ghana survey—Hillesland 2019; systematic review—Chetty et al. 2018; India- Demont 2022). Lenders need to take intra-household dynamics into account and be warned that offering credit to individual women in multiple enterprise households may result in the loan being diverted to support the larger enterprises in the household (most of them owned by men). Making these loans less visible (digital credit) is a potential solution to have women in multiple enterprise households invest their money in their businesses (Bernhardt et al. 2019).

Increasing women's access to insurance options should improve their financial (credit) and business outcomes. Solutions to women's using liquidity as insurance because of their need to manage family as well as business risks include, in the long-term, strengthening insurance markets in LICs, including for microinsurance, and making sure that women have access to these markets. Building women's knowledge about and trust in these insurance markets will be important. In the short-term, solutions include offering savings alongside credit instruments or providing credit to groups that can help spread risk (Nepal—Prina 2015; India- Demont 2022). Group lending linked to self-help savings groups has modest effects on business growth but helps with risk management and acts as implicit insurance (review—Cai et al. 2021). Digital loans that are not subject to the same sharing norms as cash can be kept as savings until spent, also helping women manage risks (urban Uganda—Riley 2022).

The importance of basic credit screening

Basic screening is especially important when offering digital credit or flexible lending with few conditions. Women's easy access to digital credit can result in over-indebtedness if they lack financial experience and especially when loan terms from MMO are opaque (Bharadwaj et al. 2019; Brailovskaya 2021). And if access to digital credit (ATM cards) is not secure, women will not use the service (Kenya—Schaner 2015). Loan repayment flexibility can act as implicit insurance for poor businesswomen, increasing their risk-taking and improving their business outcomes (Kolkata, India—Field, 2013; Bangladesh, BRAC—Battaglia et al. 2023). But the evidence also suggests that along with flexible lending some screening mechanism for high-potential entrepreneurs is needed, such as borrowers with good credit histories (the case of BRAC), to ensure low default rates.

Community/context-level constraints and possible solutions⁶

TABLE 4. Community/context-level gender differentials constraining women’s access to credit and possible solutions by population groups

| Differentials (supply-side lenders’ features) | Possible Solutions | Who |
|--|--|-----------|
| Men lenders prefer men clients: Similar attributes in clients breed trust and compensate for limited information on client’s repayment capacity | Supply-side gender data that is used to examine the performance and repayment record of women clients Increasing the diversity of bank agents and MMO; increasing diversity in bank management Gender champions in financial sector Supply-side incentives (monetary and non-monetary) for women’s financial inclusion ⁷ | All women |
| Women potential clients may exclude themselves from applying for loans anticipating they will be rejected. Intersecting attributes of excluded groups may compound problem (e.g., gender and race) | Targeted programmatic interventions backed by robust financial inclusion national policies and anti-discriminatory frameworks | All women |
| Gender biases are hardwired and replicated in credit scoring algorithms that use historical financial data | Awareness of gender bias and use of alternative data for building credit scoring models | All women |

Increase trust in women as potential low-risk credit customers

Gender preferences are used by lenders partly to compensate for limited information on the client’s capacity to repay the loan. Selection biases occur both on the demand side (potential borrowers are different than non-borrowers and successful borrowers have features, such as prior experience, that lead to success) and the supply side—lenders choose certain markets versus others, mobile money operators chose certain regions versus others, and bank (and mobile money) agents prefer certain clients over others, partly to compensate for limited information on the client’s repayment capacity. It is well known that lenders want to avoid high-risk customers and that most of these lenders are men, which leads them to prefer wealthy clients and men clients, since similar group attributes breed trust (review of literature—Bellucci et al. 2010).

There is growing experimental evidence on implicit or explicit biases affecting women loan applicants in male-dominated financial services in LMICs. While the bulk of the evidence on implicit biases or discrimination (statistical or taste based) leading to credit rationing for women is from developed financial markets (looking at consumer as well as business loans) or observational studies,

6 Community/context here is restricted to examining constraints and possible solutions in the financial services ecosystem.

7 Recent global initiatives that address these gender data-based solutions include: Data2X and Financial Alliance for Women (2023) “The Gender Data Playbook for Women’s Financial Inclusion;” Secretariat We-Fi (2023) “WE Finance Code;” and Dimova, M. (2023) “Revolutionizing Product Design in Financial Services: Women’s World Banking Women-Centered Design Methodology.”

experimental studies in Bolivia, Chile and Turkey (2 studies) show that credit officers reject similar loan applications from indigenous women more often in Bolivia (compared to non-indigenous women), from women significantly more than from men in Chile's consumer credit market, and, in Turkey, grant lower loan amounts to women or require a guarantor more often for women who present the same loan application as men (Bolivia—Martínez et al. 2020; Chile—Montoya et al. 2020; Turkey—Alibhai et al. 2019; Turkey—Brock and De Hass 2023).

Address gender biases to contain the entrenchment of gender segregation in financial services; use gender data

While biases against women loan applicants can be seen as a rational response from lenders to the asymmetric information problem, they perpetuate gender segregation across sectors and can become self-fulfilling for individuals, leading to vicious cycles of exclusion. The anticipation of rejection can become self-fulfilling, and those with different attributes, including poor women and ethnic/racial minorities, may exclude themselves from applying for financial services, triggering a vicious cycle of low income, low savings, poor access to credit either because of lenders' biases or own exclusion, and low returns on low income.

Compounding the information problem, financial sector providers do not regularly disaggregate their portfolio information by sex.⁸ They, therefore, do not have readily available supply-side performance metrics that can serve to correct the notion that women are bad or unreliable customers. In fact, the data from countries that have sex disaggregated supply-side data, mostly at the insistence of financial regulators, show that women have lower default and higher savings rates than men, information that should help to overcome implicit biases against lending to women customers (case studies in 6 countries—Buvinic and Ruf 2022). Further, gender biases are in-bred and replicated in credit score cards and models from banks and fintech that use historical (gender-biased) financial data to build algorithms.

Potential solutions to supply-side gender biases in financial services need testing

Supply-side selection biases by gender or other attributes that exclude categories of people from accessing credit need gender-informed solutions, most of which are yet to be tested. Potential solutions include expanding the information base of loan managers and officers by requiring sex disaggregated supply-side portfolio performance data showing that women are good credit risks as well as increasing loan officers' experience, since some evidence shows that experienced loan officers are less biased (Alibhai et al. 2019; Brock and De Hass 2023). Credit algorithms can use alternative sources of data, including from digital platforms that better capture women's credit history, formal and informal (Financial Alliance for Women 2023). Other potential solutions include

⁸ Or do not use available sex-disaggregated information for management reporting (Buvinic, M. and Ruf, R. 2022).

organizational incentives for bank agents and MMOs to expand their customer base to women clients and, more generally, having bank managers or financial regulators align the incentives of financial sector providers with the twin goals of efficiency and gender equity, as well as increasing diversity of staff in financial services.

Cross-cutting issues

Gauging the impact of access to credit on women's economic empowerment in the studies reviewed is limited by a lack of good measures of economic empowerment. Measuring both agency and economic achievements is not easy, but they are both essential dimensions of empowerment (see theory of change), and while most studies measured some form of economic gains only 17 of the studies reviewed reported measures of agency. Fortunately, there are several ongoing research efforts to identify and test robust indicators of economic empowerment that hopefully will be widely adopted once they are available.⁹

There is little data on cost-effectiveness of the different solutions and almost no data that assesses the cost-effectiveness of demand-side versus supply-side solutions. The evidence, including cost-effectiveness evidence, on the existence of and solutions to gender biases affecting potential customers of financial services is less well documented than evidence that looks at constraints and solutions at the individual and household levels. There is data on the cost-effectiveness of transferring capital and skills to very poor women showing that these 'bundled' programs are worth their costs (cost-effectiveness of 5 RCTs—Bandiera et al. 2013; cost-effectiveness of 6 RCTs—Banerjee et al. 2015) and there is suggestive positive evidence on the cost-benefit of short-business training programs (McKenzie 2021). There is much less or almost no information on the cost-effectiveness or investment returns of more streamlined credit interventions. We found reported cost-effectiveness information in only one study we reviewed: in rural Uganda, delegated credit, where a formal bank lends to savings groups, did not lead to increase in profits and was not-cost effective (Burlando et al. 2020). In Indonesia, Buvinic et al. (2020) found that it was more cost-effective to give financial incentives to bank agents to provide mobile financial services (branchless banking) than to provide financial literacy training and mentoring to businesswomen. This is the only study we are aware of that compares the cost-effectiveness of supply-side versus demand-side solutions.

Structural constraints women face beyond credit need to be overcome to fully reap the potential benefits of having equal access to credit and other financial services. Women face more restricted economic opportunities than men, have more time constraints and more limited access to information, networks, and markets, and the poorer they are the more severe are these constraints. Policies that reduce women's unpaid care burdens and expand their access to markets and economic

⁹ A particularly pertinent one is a collaboration led by FinEquity that is testing women's economic empowerment indicators for financial inclusion projects (see background paper by J. Morgan et al. 2023 cited in this report).

resources need to go hand in hand with expanding the provision of credit and other financial services to maximize the benefits of these services.

5. Conclusion

Credit has evolved from being flaunted as a universal solution to women's poverty to being acknowledged as a potential tool to support some women under some conditions. The most recent and nuanced evidence indicates that credit can provide significant benefits to women, depending on the client, the features of the credit offer and how they address women's specific constraints, the surrounding context, and the gender-related mechanisms that shape financial outcomes.

While the evidence-base has grown substantially, there remain many promising but untested innovations for women. We need better, more granular evidence to segment different groups of women by income and occupation to identify more clearly what works for whom. There is need to design credit innovations to reach and benefit most women farmers in smallholder agriculture who are not served well by the traditional microfinance model with small recurring payments. There is comparatively little evidence on which supply-side interventions work to level the playing field for women in the financial services ecosystem as well as limited data on the relative cost-effectiveness of alternative solutions to persistent gender-biases constraining women's access, use and repayment of credit, opening potentially fruitful areas of inquiry.

Despite these gaps in knowledge on what works, the existing evidence we reviewed suggests that gender differentials in access to credit and other financial services indeed matter, and that this is especially the case for constraints at the levels of the household and the community. While individual wealth or business experience or entrepreneurial drive seem to overcome constraints women face in accessing and using credit, traditional gender family roles shape constraints that cannot be reduced to differences in magnitude of wealth or business experience with men. This is also the case with implicit biases or discrimination against potential women customers in the financial services ecosystem which can perpetuate gender segregation across sectors and become self-fulfilling for individual women, leading to vicious cycles of exclusion. Gender-informed solutions that address the specific constraints women face and build on the mechanisms that empower women economically, some of which we have discussed in this summary review, should work best.

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Annex 1: Studies reviewed by country¹⁰

| Country | Count |
|------------------------|-----------|
| Bangladesh | 7 |
| Benin | 1 |
| Bosnia and Herzegovina | 3 |
| Burkina Faso | 1 |
| Egypt | 1 |
| Ethiopia | 5 |
| Ghana | 1 |
| Haiti | 1 |
| India | 11 |
| Kenya | 1 |
| Malawi | 1 |
| Mali | 1 |
| Mexico | 3 |
| Mongolia | 1 |
| Morocco | 2 |
| Niger | 1 |
| Nigeria | 2 |
| Pakistan | 1 |
| Rwanda | 1 |
| Sierra Leone | 1 |
| Sri Lanka | 1 |
| Tanzania | 1 |
| Turkey | 1 |
| Uganda | 4 |
| Vietnam | 1 |
| Total | 54 |

¹⁰ The table shows the number of countries the 48 reports covered. Some studies reported results from more than one country.

Annex 2: Characteristics of the interventions in the studies reviewed by sample type

| Population | Number of Studies Reviewed by Sample Type ¹¹ | Population Features | | Institutional and Regulatory Policies | | Product Design | | Commitment Features | |
|---------------------------|---|---------------------|-------|---|---|---|------------------------------------|--------------------------|------------------------|
| | | Rural | Urban | Assessing Creditworthiness: Physical Collateral | Assessing Creditworthiness: Alternatives and other Eligibility Criteria | Supply-side Incentives (e.g. fees & interest rates) | Women Specific/ Intentional Design | Repayment/ Grace Periods | Specific Purpose Loans |
| Very poor | 9 | 9 | 0 | 0 | 3 | 4 | 7 | 4 | 4 |
| Poor—microentrepreneurs | 29 | 22 | 7 | 6 | 10 | 13 | 15 | 11 | 9 |
| Poor—agriculture | 10 | 10 | 1 | 1 | 3 | 5 | 5 | 5 | 3 |
| Wage and Salary Workers | 4 | 4 | 0 | 1 | 1 | 2 | 2 | 1 | 1 |
| Non-poor (ag., SMEs etc.) | 6 | 2 | 2 | 1 | 1 | 1 | 5 | 2 | 1 |

| Population | Pathway for Provision | | Other Complementary Features | | | Results ¹² | | |
|---------------------------|-----------------------|-------------|------------------------------|---------|-------|---------------------------|------------------------------|--|
| | Digital Platform | Group Model | Trainings | Savings | Other | Positive Effects on Usage | Positive Effects on Outcomes | No Significant Effects/ Negative Effects on Outcomes |
| Very poor | 1 | 3 | 6 | 3 | 8 | 4 | 8 | 3 |
| Poor—microentrepreneurs | 4 | 13 | 8 | 5 | 5 | 19 | 23 | 20 |
| Poor—agriculture | 2 | 7 | 4 | 4 | 6 | 6 | 6 | 8 |
| Wage and Salary Workers | 0 | 2 | 2 | 0 | 3 | 1 | 3 | 3 |
| Non-poor (ag., SMEs etc.) | 0 | 2 | 6 | 1 | 2 | 1 | 6 | 3 |

11 Some interventions targeted more than one sample type. Therefore, the number of studies by sample type adds to more than 54, the total number of country samples.

12 The same study may have more than one type of result, with positive effects on certain outcome variables and no effect or a negative effect on other outcome variables.