

Public Disclosure Authorized

WHAT DO WE KNOW ABOUT INTERVENTIONS TO INCREASE WOMEN'S ECONOMIC PARTICIPATION AND EMPOWERMENT IN SOUTH ASIA? FINANCIAL PRODUCTS

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BACKGROUND

The World Bank's South Asia Region Gender Innovation Lab (SAR GIL) is conducting a systematic review and meta-analysis of interventions with direct or indirect effects on measures of women's economic empowerment. The review focuses on changes in labor market outcomes, income, and other empowerment indicators. The goal is to document what has and has not worked for women in the region (covering all countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka), understand the types of interventions implemented, and identify gaps in knowledge and action. Interventions are organized into five categories: Skills, Assets, Financial Products, Care, and Empowerment.¹ This brief summarizes the main findings from the **Financial Products** category.

WHAT IS INCLUDED?

Existing systematic reviews have evaluated the provision of financial products within multi-regional contexts but without distinguishing the effects for subgroups of women alone. This review includes experimental and quasi-experimental

evidence for policies and financial inclusion programs implemented in any South Asian country and which directly aimed to change women's economic outcomes or have indirectly done so. The study summarizes the effects of providing access to grants or loans, as well as varying features of credit contracts, such as repayment timelines. In addition, the brief distinguishes between programs targeting current business owners as well as programs that seek to encourage entrepreneurship and discusses why program impacts vary by gender within the South Asia region. The brief concludes by highlighting gaps in the literature and recommending areas for further research.

The review includes English-language studies published between January 1990 and March 2020 across white and gray literature (peer reviewed journals, working papers, program or agency reports, and academic theses, among others) identified via an extensive search of multiple databases.² Intervention inclusion was not limited by time, duration, frequency, or method of exposure. Figure 1 summarizes the three-stage identification process. The first stage filtered select papers relevant to the region and programs that were specifically for women or included female beneficiaries. The second stage filtered for intervention type and the third stage for methodology.³ Two

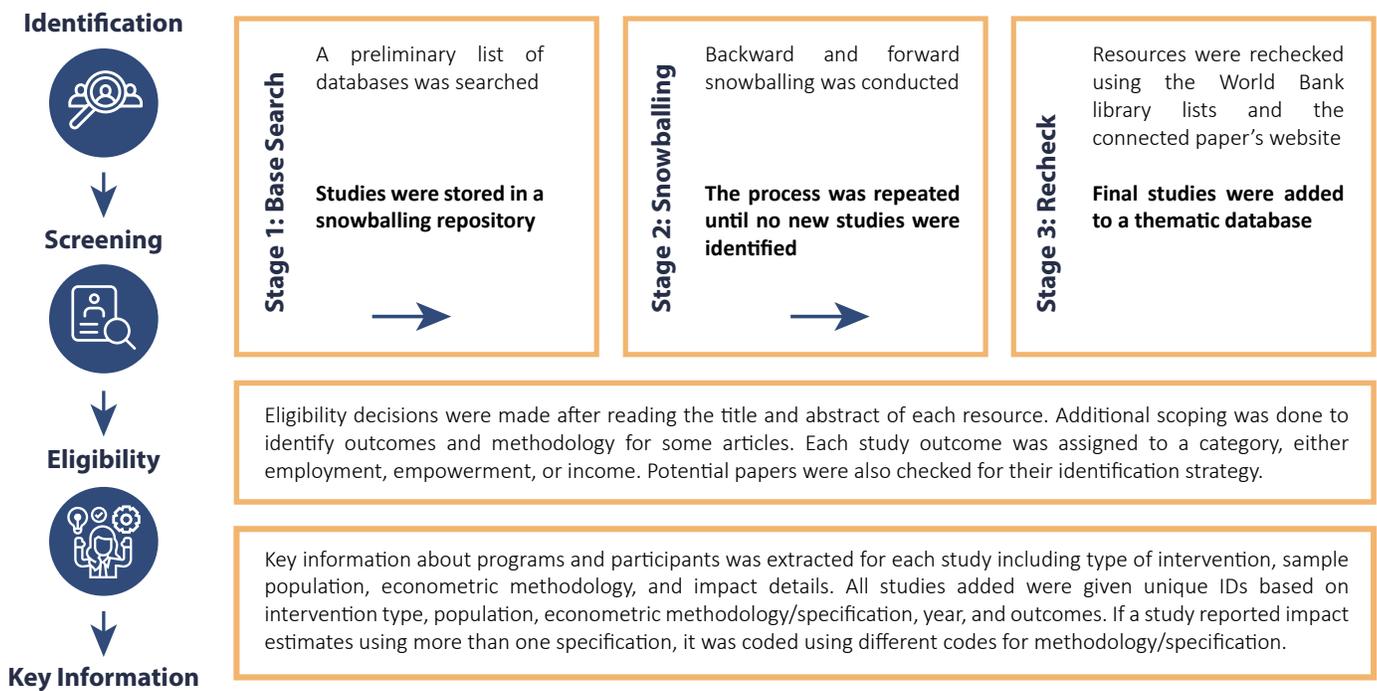
[‡]World Bank.

¹ Previously, the interventions were divided into six categories. However, the Credit and Entrepreneurship categories have been pooled into the Financial Products theme. This was done because the Entrepreneurship theme primarily included business training or business training plus credit programs. The Skills theme includes the business training interventions, while the Credit theme now includes the business training plus credit interventions. The Labor Markets theme has been replaced with a Care category, which covers any child or elder care interventions that may affect women's empowerment or labor market outcomes in the region. This replacement was made due to a lack of studies uniquely associated with the Labor Markets theme.

² The search included the following databases: Econlit, Web of Science, Science Direct, National Bureau of Economic Research (NBER), Google Scholar, World Bank e-Library, UNWider, Abdul Latif Jameel Poverty Action Lab (J-PAL), Institute of Labor Economics (IZA), Center for Global Development (CGD), International Growth Center (IGC), American Economic Association (AEA), AEA Registry, International Initiative for Impact Evaluation (3iE), Research Papers in Economics (RePEc), IDEAS database, and JSTOR.

³ Second stage search terms included entrepreneur, entrepreneurship, business, start-up or startup, vendor, training, microcredit, microfinance, loan, loans, microloans, cash transfer, credit transfer, credit, borrow, borrower, lottery, saving or savings, lending, group lending, finance, digital finance, transaction, interest rate, interest, banking, and digital banking. Third stage search terms included comparison group, counterfactual, counter-factual, evaluation, assessment, impact, rct, randomized control trial, impact evaluation, quasi experiment, quasi-experiment, propensity score matching, psm, regression discontinuity design, rdd, and discontinuous design.

Figure 1: Search Methodology



reviewers independently searched and extracted data from the list of finalized articles, including impact effects, design, and intervention components. Additional outcome-specific data, such as units of reporting, coefficient significance, and standard errors were also extracted. If a study reported impact estimates using more than one specification, all were recorded, but only the researchers' preferred specification is used in this brief.

Eligible studies were those that:

- Evaluated a financial product, specifically grants or credit (such as microfinance, individual or group-based loans).⁴
- Employed experimental or quasi-experimental evaluation methods.
- Reported outcomes for women, either as the direct target population or a subpopulation of interest.
- Reported required outcomes, including labor market outcomes (such as self-employment, participation, days

worked), income or profit, and empowerment (including, among others, agency, well-being, happiness, mobility, financial or political empowerment).

The selection criteria required the inclusion of those studies that evaluated programs with a rigorous methodology and included outcomes for women.⁵ Of the 29,332,410 papers identified in the first stage of the search process, approximately 6 percent (1,537,066) remained after filtration using the second stage search terms. Further refinement in the third stage, removal of repetitions and refinement by title and abstract led to 95 studies on relevant financial products being compiled in a preliminary list. These papers were read for methodology and relevance, then snowballed backward and forward, resulting in a final list of 19 articles meeting the predefined inclusion criteria. The final sample includes studies from Bangladesh (2), India (9), Pakistan (5) and Sri Lanka (4).⁶

⁴ Asset-based or savings programs are included in previously published Asset and Self-Help Group systematic reviews and are not included here (Javed et al., 2022; Zahra et al., 2022).

⁵ The brief focuses on studies employing methods to rigorously separate treatment effects from pre-trends, biases, or any confounding effects.

⁶ Bernhardt et al. (2019) include samples from both India and Sri Lanka.

PROGRAM DESIGN

The studies in the sample evaluate various financial products including grants, loans, and microfinance. Interventions may have multiple arms in addition to the financial product, such as the inclusion of business training or flexibility in loan contracts. Table A.1. in the Appendix provides program and sample descriptions in detail, while select intervention characteristics are summarized below.



TYPE OF INTERVENTION

In the sample, five articles evaluate microfinance interventions alone or jointly with training, four evaluate cash or capital grants alone or jointly with business training, four study credit alone or jointly with training provision, and six articles assess the impact of varying features of loan contracts.⁷ Loan sizes vary from 4,000 to 40,000 rupees, with the median loan between 10,000 and 15,000 rupees. Interest rates for loans vary between 12 and 24 percent. Standard loan contracts are characterized by repayments every week, every two weeks, or once a month depending on the loan size, the frequency of meetings, and the credit provider.



PROGRAMS TARGET URBAN AREAS

Most interventions in the sample target participants residing in urban or peri-urban areas. There are two exceptions. Montgomery and Weiss (2011) study a sample with only 25 percent of participants residing in urban areas. Similarly, Giné and Mansuri (2021) study respondents in the context of rural Pakistan.



PROGRAM SAMPLE

Programs usually sample poor and low-income households. Respondents tend to be married and between 18 and 50 years old with an average age of approximately 35 years. Female business owners usually operate in retail sales (street vendors, small grocery stores) and

small home-based manufacturing (handicrafts, bag or mat manufacturing, tailoring). For respondents with existing businesses, the age of the business varies between 6 and 10 years on average, where reported.



PROGRAM COST

Three studies in the sample provided program cost estimates. Giné and Mansuri (2021) offered business training and a loan lottery to a sample of rural microfinance clients and showed that the recurring costs (travel allowances, actual training session, salaries of staff) of training clients was \$20.44, while the total cost inclusive of fixed expenses (lodging, salaries for trainers, development of material) was \$126.32. The average loan amounted to approximately \$764 (45,095 Pakistani rupees). In comparison, Field et al. (2016) offered business counselling and provided a subsample with the option of inviting a friend to join the training. The authors calculated an average cost of 157 Indian rupees per person for their two-day business counseling intervention, including instructor fees, snacks, and transportation reimbursement. In Sri Lanka, women were offered a nine-day training while half of the sample were provided an additional cash grant of \$129 (or 15,000 Sri Lankan rupees). Apart from the cost of the grant, the authors calculated that the training provision amounted to \$126-131 per person for current business owners, and \$133-140 for potential business owners (de Mel et al., 2012).



IMPACT TIMELINE

Studies measure impacts after two years on average, with four months and six years being the shortest and longest interval between the intervention and follow-up, respectively. Most studies use randomized control trials to evaluate the intervention, while three studies use quasi-experimental methods to determine program impacts.

⁷ In this brief, we adopt the terminology used by the authors to describe the type of intervention as either a credit or microfinance program. Microfinance interventions are usually offered by microfinance institutions which can require members to participate in other activities such as savings, and which target women from low-income households with initially small credit lines. However, we note that in our sample, loan sizes and household income levels are similar for other credit interventions.

PROGRAM IMPACTS

For this review, program impacts are separated into business ownership (measured as a binary variable, or as the number of businesses owned), profit and other business outcomes (such as the number of employees or sales), broader labor market, and empowerment outcomes. For ease of interpretation, we present estimates in percent or percentage point changes wherever possible. In all cases, the results presented are estimated impacts for women, even where interventions have separate treatment arms for men.

A. BUSINESS OWNERSHIP

A question of particular interest to policy makers is whether the provision of financial products such as credit or grants is an effective mechanism in encouraging women to take up entrepreneurship.

Two studies in our sample provided financial products plus training to female participants who did not own an existing business at baseline but who were likely to enter self-employment, as measured by having developed a business plan or knowing the type of business to start. In particular, Said et al. (2017) provided a 12-month loan of 10,000-30,000 Pakistani rupees in addition to a two-hour training class on marketing, networking and capacity building to aspiring female entrepreneurs in urban and peri-urban areas in Pakistan.⁸ Similarly, aspiring female entrepreneurs in urban Sri Lanka were divided into two groups, with the first receiving a nine-day business training program, and the second group receiving the same training and a grant of \$130 (15,000 Sri Lankan rupees) which they could use for any purpose (de Mel et al., 2014).⁹ In both studies, the sample of women were on average 34 to 37 years of age and between 84 to 87 percent were married. However, the study in Pakistan sampled women with 2.5 years of schooling, on average, while the aspiring entrepreneurs sampled in Sri Lanka had approximately 10 years of education.

Interestingly, both studies found their interventions induced women to start their own businesses in the short run, but these effects were not sustained over time. Figure 2 visualizes the results for select outcomes. Specifically, Said et al. (2017) found that women who received the loan and training were five percent more likely to set up

a business in the next year, but this effect dissipated by the second year. In Sri Lanka, the authors found that both the provision of training alone and the grant plus training increased the likelihood of potential business owners operating a business four and eight months later (de Mel et al., 2014). However, these effects disappeared 16 months after the intervention. Those who received the grant plus training were 10 percentage points more likely to have opened a business since baseline but 9 percentage points more likely to have opened and then closed their business, leading to a net effect of zero on business ownership (de Mel et al., 2014). The provision of training alone led to a smaller increase in business ownership after four months, but this effect also lost significance in subsequent survey rounds. Thus, it appears that in these contexts, providing training plus a grant or loan speeds up entry into a business but has no long-term impact on ownership rates for aspiring business owners.

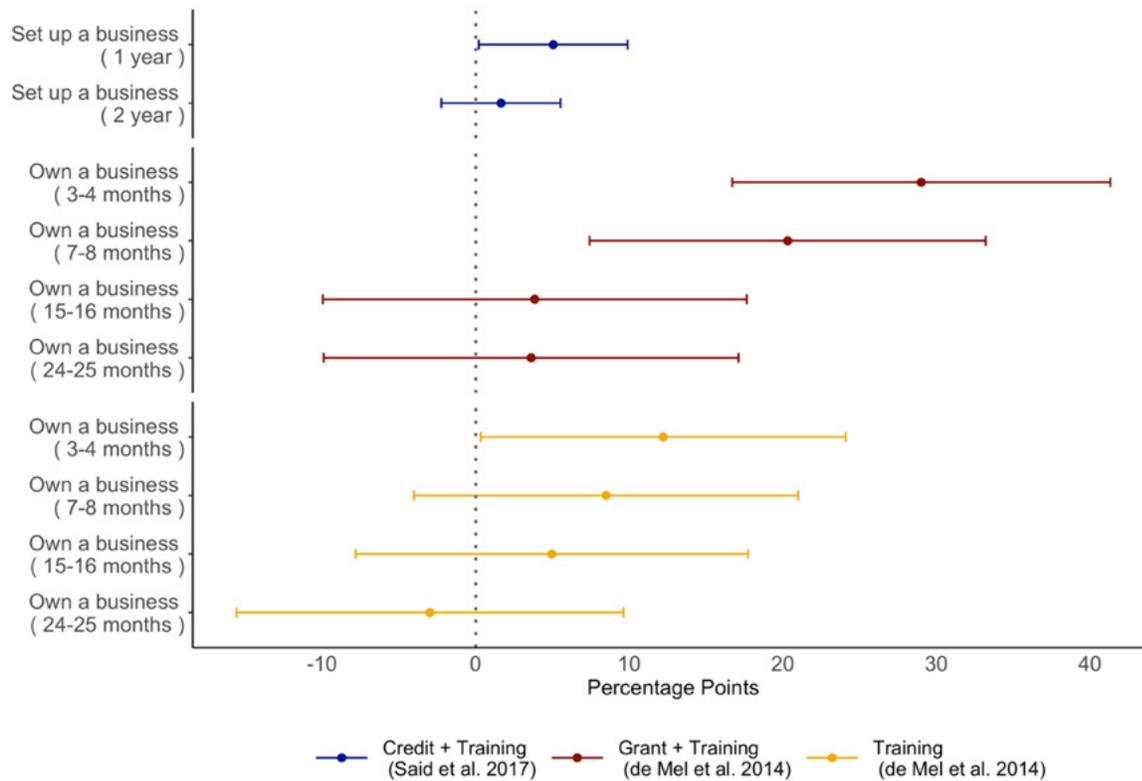
The impact of microfinance is similar. For example, households in India which received access to microfinance were not more likely to have a business and did not have a greater number of businesses on average, compared to households without access to microfinance (Banerjee et al., 2015). However, the provision of credit alongside repayment flexibility can have a positive effect on business ownership. Field et al. (2013) showed that groups who received a two-month grace period before their first loan repayment were three times more likely to start a new business within six months of the loan receipt, presumably because the grace period allowed them to make riskier investments.

Not all women were equally likely to be attracted to entrepreneurship or have their business survive. In Pakistan, younger women and women who saw their mothers manage a business were more likely to set up a business themselves; this result was not symmetrical for other relatives (Said et al., 2017). In Sri Lanka, training was more likely to induce women with lower measured analytical skills to run a business, while training plus a grant led to lower analytically skilled and poorer women to become entrepreneurs (de Mel et al., 2014). In India, almost all the businesses that were created after access to microfinance were female owned, though these marginal businesses tended to be smaller and less profitable compared to

⁸ The sample of aspiring business owners in this study includes skilled women from low-income households who have a practical business plan and require a line of credit.

⁹ Aspiring business owners in this study were women who planned to enter self-employment in the next year. The authors further restrict the sample to those women who were able to identify which type of business they planned to start, and those who had childcare available for children younger than five years of age.

Figure 2: Business Ownership, Select Outcomes



Note: The figure shows select business ownership outcomes. The labels indicate the outcome measurement and time since program implementation. The intervention and authorship details are provided in the legend. Coefficients have been converted to percentage point changes. 95 percent confidence intervals displayed.

the average business in the area (Banerjee et al., 2015). In Pakistan, Said et al. (2022) found that women who ran a business from home *and* obtained advice from their husband were more likely to see their business survive. In addition, women who lived in households with other members who ran a business were less likely to have shut down their business.

B. PROFIT AND BUSINESS OUTCOMES

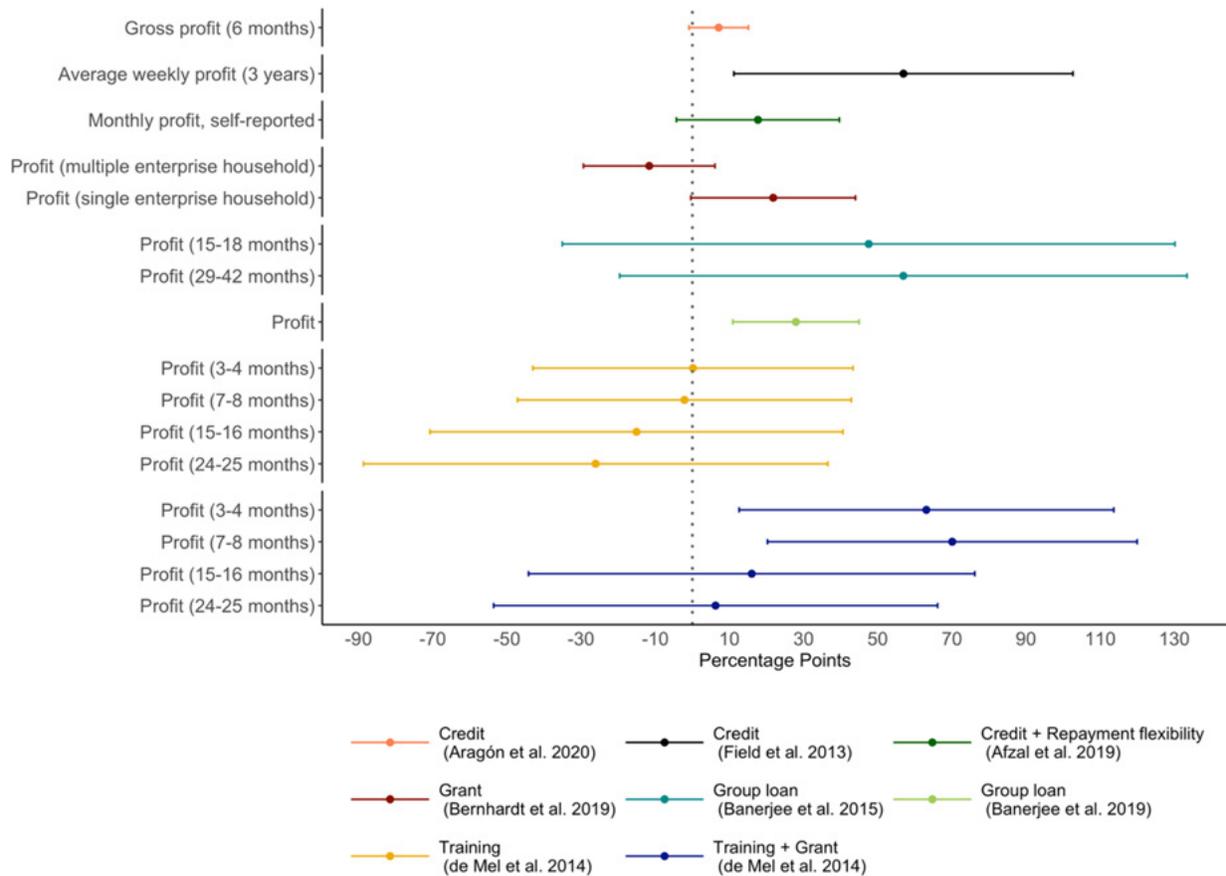
The impact of financial products on profit or business-related outcomes (such as capital stock or the number of employees) is mixed and any positive effects are not found consistently across program, intervention type, subgroup, or time.

Figure 3 displays select profit outcomes. In India, access to microfinance led to greater investments in existing businesses and profits increased for those enterprises that were already profitable (Banerjee et al. 2015). Field et al. (2016) found that while access to microfinance led to an increase in income generated by women by 9 percent, this effect faded in the long run. In Sri Lanka, business training combined with a cash grant of \$129 improved capital

stock by an amount similar to the grant, though profits only increased temporarily for the first eight months (de Mel et al., 2014). The provision of business training alone did not improve profits, sales, capital stock, or the number of hours that owners spent in their business four to 25 months after the program. These average effects often mask informative heterogeneity in impact. For example, Banerjee et al. (2019) found that six years after access to microfinance, business outcomes improved specifically for individuals who owned a business prior to receiving microfinance. Those who had a pre-existing business spent 83 percent more on business inputs, produced 104 percent more in business revenue, owned 3,000 Indian rupees more in business assets, and earned approximately 28 percent higher profits.

One reason for the variation in business profit impacts is that investment decisions can vary by empowerment levels and the size of the loan. In Sri Lanka, men who received a treatment of 10,000 Sri Lankan rupees invested 138 percent of it (by including complementary resources or reinvesting business profits), but those who received a 50 percent larger treatment of 20,000 Sri Lankan rupees

Figure 3: Profit, Select Outcomes



Note: The figure shows select profit outcomes. The labels indicate the outcome measurement and the time since program implementation. The intervention and authorship details are provided in the legend. Coefficients have been converted to percentage point changes. 95 percent confidence intervals displayed.

only invested 63 percent. In line with these investment decisions, profit increases were greater for those who invested more. In contrast, women did not invest the smaller treatment in their enterprise but invested about 85 percent of the larger amount (de Mel et al., 2009). However, real profits did not increase for women in either case. The authors suggest these differences are not explained by entrepreneurial ability, attitudes toward risk, or profit reporting behavior. Instead, they suggest that the types of investments female entrepreneurs make are constrained by their empowerment levels. Women who are more empowered invest in inventories while less empowered females invest in equipment that is difficult to decapitalize (de Mel et al., 2009). Suboptimal decisions for profit improvement ensue when business investment decisions are constrained by empowerment levels.

Another factor contributing to the varying profit results is whether the individual receiving credit resides in a single or multi-enterprise household. This is important because women may not always invest in their own business. Using

data from India and Sri Lanka, Bernhardt et al. (2019) found that while profits for female-owned enterprises did not increase with the provision of loans or grants, households of treated women earned significantly more in aggregate income. This is because women often invested in other household members' enterprises. In India, women in single-enterprise households who received credit increased their weekly profits by 81 percent, relative to the control group. In contrast, women who received credit in multi-enterprise households saw no impact on their profits, although other household members' enterprises had a 44 percent increase in weekly profits compared to the control group. In Sri Lanka, grants had no impact on business profits for women in multi-enterprise households, though monthly profits of female entrepreneurs in single enterprise households increased by 22 percent (Bernhardt et al., 2019).

The impact on profit of flexible repayment interventions, compared to standard credit contracts, is largely positive. For example, Aragón et al. (2020) provided a sample of female street vendors in Maharashtra, India, with a flexible credit

line which allowed them to obtain credit when they wanted, for the amount they needed, and to be repaid at their choosing. Six months after the intervention, women who were offered the flexible credit line had seven percent higher profits compared to clients receiving a standard credit line. Along similar lines, women in Kolkata, India, who were offered a two-month grace period before their first individual-liability loan repayment, reported 57 percent higher weekly profits after three years, compared to respondents who did not receive a grace period and made their first repayment two weeks after receiving the loan (Field et al., 2013).¹⁰

Flexible credit lines can increase profits by allowing business owners to better match their cash flow to their borrowing and repayments and therefore make more profitable investments (Aragón et al., 2020). Similarly, grace periods in loan repayments allow clients to invest in illiquid but high return investments, particularly benefiting women who are relatively risk averse and have more business experience and skills. In fact, profits increased by 92 percent for a risk averse subgroup of clients who received a two-month grace period before their first loan repayment (Field et al., 2013). In contrast, explicit commitment features, such as text reminders regarding repayments, do not significantly impact profit or business ownership, possibly because the demand for commitment is already met by regular repayment structures (Afzal et al., 2019).

C. LABOR MARKET

The impact on labor market outcomes is mixed, with some evidence for increased participation in household businesses. For example, Banerjee et al. (2015) found that the household head and spouse in households with access to microfinance increased their labor supply entirely in the household business by 3.2 hours. In India, Field et al. (2016) found significant increases in labor force participation after access to microfinance, driven by greater participation in businesses that were actively operated and managed by female respondents. In Bangladesh, access to microfinance was associated with a 2-percentage point increase in female labor force participation in traditional employment, defined as homestead farming and raising livestock, though there was no change in self-employment (Asadullah et al., 2021).

D. EMPOWERMENT

The evidence showed that financial product interventions did not have a significant effect on empowerment outcomes. For example, in Pakistan, women who set up their own business did not see an improvement in their household decision-making power or asset holdings within a one-year period (Said et al., 2017). Montgomery and Weiss (2011) also found no improved empowerment for female microfinance borrowers, though wives of male borrowers saw small improvements in certain measures of family decision making, such as whether to have another child. Similarly, Banerjee et al. (2015) did not find any significant effect on an index of 16 social empowerment outcomes a year or two years after receiving access to microfinance.¹¹ In India, Field et al. (2016) showed that access to microfinance does not change empowerment, as measured by managing financial resources or with respect to household expenditure decisions, though it did positively affect the probability of a respondent having separate savings from her husband and the likelihood that she had the major say with respect to investment in the household business. In Bangladesh, respondents with access to microfinance were more likely to be prevented from working by their husbands or other members of the household. The women were also likely to have more traditional beliefs toward gender and social norms after access to microfinance; they were 20 percentage points more likely to believe that women should not earn more than their husbands, and 14 percentage points more likely to believe that women should not take up employment outside the home if they have young children (Asadullah et al., 2021).

CONCLUSION

In conclusion, this review highlights several patterns from the literature.

First, the provision of financial products can induce women to enter entrepreneurship, but these effects are not sustained over time.

Second, evidence for improvements in profit, labor force participation, and empowerment is mixed. One

¹⁰ The literature also underlines the positive impacts of increased group meeting frequency. In West Bengal, India, women who met in weekly meetings with weekly repayments were 5 percent less likely to default on their loans and socialized 37 percent more often with their group members outside of the meetings, compared to the control group which met and repaid in monthly intervals (Feigenberg et al., 2013). The lower default rates are driven by increased social interactions rather than differences in repayment frequencies. In a later study, the authors show that the gains are greatest for women who have less developed social networks at baseline and social empowerment, as measured by having to ask their spouse for permission to go to a neighbor's house (Feigenberg et al., 2014).

¹¹ The authors include 16 social outcomes in their index: indicators for women making decisions on each of food, clothing, health, home purchase and repair, education, durable goods, gold and silver, investment; levels of spending on school tuition, fees, and other education expenses; medical expenditure; teenage girls' and teenage boys' school enrollment; and counts of female children under one year and one- to two-years-old.

explanation for these results is that women who are not suited for business ownership may be incentivized to opt for entrepreneurship when there is a lack of other suitable employment opportunities. In addition, female entrepreneurs face multiple constraints beyond the liquidity and financial limitations also faced by their male counterparts. Not only are their investment decisions bound by their empowerment and the threat of expropriation faced from within the household, but their business knowledge and skills may not translate into profitable enterprises if they lack control and decision-making power in their business. Moreover, mobility restrictions, child and elder care, household responsibilities, and a lack of empowerment can all contribute to women choosing smaller scale or home-based businesses in industries considered acceptable for female entrepreneurs, as opposed to pursuing the most profitable opportunities. In one example, women in Pakistan were willing to give up 3,000 Pakistani rupees in profits, amounting to 60 percent of the median profits in the sample, just to keep the business in the home (Said et al., 2022).

Third, the provision of flexibility in repayment schedules has a positive and large impact on women's business profits. Traditional microfinance and credit interventions have the potential to remove credit constraints. However, loan terms such as immediate repayments, inflexible terms, and high interest rates can make borrowing for entrepreneurship risky and unattractive. Providing flexibility in repayments by delaying the first reimbursement or allowing respondents to postpone repayment in income-constrained months can encourage women to make high-return investments even if they are riskier.

The current evidence highlights many new questions of interest and further areas for research:

- *Are the right women being targeted?* The lack of consistent improvement in business outcomes and profit in the medium- to long-run suggests that perhaps the "correct" group of women has not yet been introduced to entrepreneurship with credit and microfinance interventions. More research is required to understand both the combination of traits possessed by successful female entrepreneurs and the environment that enables them to thrive. Further, can interventions replicated to a sample of female non-business owners with these traits provide sustained and positive results?
- *What role do social and household constraints play?* The evaluations of combined training and credit interventions

suggest that the binding constraint for women may not always be capital and skills, but a lack of empowerment. Research designed to ease financial constraints jointly with empowerment interventions can improve our understanding of the interaction of a woman's baseline empowerment with her entrepreneurial success. The inclusion of treatment arms targeting male household members or partners to remove social barriers regarding female entrepreneurship can further our understanding of the importance of considering household constraints when implementing interventions to boost entrepreneurship.

- *Will one-on-one training make a difference?* There is a lack of research in South Asia on the effectiveness of providing credit jointly with more intensive one-on-one training for female entrepreneurs. Evidence from Peru suggests that general training cannot transfer the necessary management skills that are required to improve business success, but more intensive training can have a positive effect on business revenue (Valdivia 2015).
- *What is the long run impact of interventions?* There is a need to study the impact of financial product interventions over a longer period to trace the trajectory of profits, business survival, and investments beyond a three-year horizon.
- *What impact will scaled-up programs have?* More research is needed to understand the effects of providing financial product interventions at scale. Specifically, can scaled-up programs increase business ownership and local competition and thereby incentivize women to choose non-traditional or non-home-based enterprises?
- *Can financial products encourage women to cross over into male-dominated industries?* There remains a need to evaluate the effectiveness of financial product interventions that ease capital constraints while simultaneously encouraging female entrepreneurs to enter male-dominated industries that offer greater profitability. This encouragement may include providing women with skills-based training, industry-specific knowledge, and even networking or apprenticeship opportunities for industries typically dominated by men.
- *Will digital marketplace training benefit women business owners?* Certain internet-based marketplaces, such as Etsy, Instagram, or Facebook Marketplace, allow businesses to target a much wider consumer base while permitting women to remain home-based. Programs that provide women with capital and the necessary training to exploit and navigate these digital marketplaces should be tested for their success.

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APPENDIX

Table A.1: Included Studies and Program Details

| ID | Title and author(s) | Intervention | Region | Sample | Method and design | Program description |
|----|--|---|--|--|--|--|
| 1 | Money or management? A field experiment on constraints to entrepreneurship in rural Pakistan Giné, Mansuri (2021) | Business training and loan lottery. In collaboration with the Pakistan Poverty Alleviation Fund, the National Rural Support Program, and the World Bank. | Pakistan: Bahawalpur, Hyderabad, Attock | Rural microfinance clients who are part of a community organization. While women are primarily engaged in small home-based manufacturing, men are involved primarily in the agribusiness sector. Average sales for male businesses are 13,001 Pakistani rupees (\$217) but only 4,104 Pakistani rupees (\$68) among businesses run by female members. Women are 37 years on average, 94 percent are married, and 60 percent have a business at baseline. | Randomized Control Trial, Ordinary Least Squares | Clients of a microfinance institution were randomly assigned to receive an eight-day training course focused on business planning, marketing, and financial management. Clients from both training and non-training groups were also randomly assigned to a loan lottery if they had repaid one loan on time and had no overdue loans. Average approved loan size was 45,096 Pakistani rupees (\$764) among lottery winners. |
| 2 | Access to microfinance and female labor force participation Asadullah, Shreya, Wahhaj (2021) | Microfinance | Bangladesh | Average age of 29 years, average monthly income of 12,328 Bangladeshi takas (\$159), 5 years of schooling on average, 88 percent Muslim. 41 percent in paid employment, 10 percent self-employed. | Regression Discontinuity Design | Estimate impact of access to microfinance using the branch locations of major micro-finance institutions in the country. Treated households are within 4-5 kilometers of a branch. Control households are outside of the 4-5 kilometer radius. |
| 3 | Repayment flexibility and risk taking: Experimental evidence from credit contracts Marianna Battaglia, Selim Gulesci, Andreas Madestam (2021) | Credit with flexibility for two repayments. In collaboration with BRAC. | Bangladesh | The Dabi loan sample is restricted to female BRAC members with good credit histories. The average respondent is 38-39 years old, has 4.5 years of schooling, has a household labor income of \$7,000 per year, and 45 percent own a business at baseline. | ANCOVA | Dabi loans are offered to microenterprises, typically with no employees except for family workers. Average Dabi loan size is \$275 with a 22 percent annual interest rate, a 12-month repayment cycle, and monthly repayments of equal installments. The flexible contract allows borrowers to delay up to two monthly repayments at any point during the loan cycle using repayment vouchers. |
| 4 | Home-bias among female entrepreneurs: experimental evidence on preferences from Pakistan Said, Mahmud, d'Adda, Chaudhury (2022) | Microloan and training. In collaboration with Kashf Foundation. | Pakistan: Bahawalpur, Gujrat, Sialkot | Sample includes 630 respondents. Women are 37 years of age; 90 percent are married, and 50 percent are literate. Average household expenditure of 14,000 Pakistani rupees (low income). 20 percent of respondents have a business and 20 percent had a business in the past. | Randomized control trial, ANCOVA | Microenterprise loans are provided to women wanting to set up a new business. Treatment loans range from 10,000 Pakistani rupees to 40,000 Pakistani rupees (\$67-267), to be repaid over a year, with repayments starting one month after disbursement. Loans were complemented by three-hour training sessions on the importance of marketing, networking, and capacity building. Clients must provide business plans and use the loans as intended. |
| 5 | Credit lines in microcredit: short-term evidence from a randomized control trial in India Aragón, Karaivanov, Krishnaswamy (2020) | Credit line with flexible loan amount and repayments. In collaboration with Mann Deshi Mahila Bank. | India: Maharashtra | Sample consists of 360 female street vendors (entrepreneurs), with small to mid-sized business and daily sales around 3,000 Indian rupees (or \$50) and daily profits of 600 Indian rupees. 1/3 sold perishables (fruits, vegetables). 90 percent are married, in a household with average 4.7 members and 40 percent are literate. Businesses are 10 years old on average. | Randomized control trial | The treatment is the introduction of a credit line which allows borrowers to withdraw or repay at any time a flexible amount, up to a preapproved limit. Required minimum payment is the 24 percent interest accrued on the debt balance. Joint liability, weekly meetings, lending to female borrowers. Drawing limits set to 10,000 Indian rupees or 20,000 Indian rupees initially, based on characteristics of borrowers. Compare treated clients to control group which is offered a standard term loan with weekly repayments. Bank employee collects payments on fixed collection day. Loan period set to three years for credit line clients, and 1, 1.5, or 2 years for term loan clients. Two hours of training provided on basic financial education and prevention of over-indebtedness. |

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| 6 | Can microfinance unlock a poverty trap for some entrepreneurs? Banerjee, Breza, Duflo, Kinnan (2019) | Microfinance In collaboration with Spandana. | India: Hyderabad | The average household in the sample has 6.8 members and 31 percent have a business. The average business generates 25,240 Indian rupees in sales and 33.5 percent have more than one worker. | Randomized Control Trial | 52 of 104 poor neighborhoods were randomly selected for the opening of a Spandana branch. Groups of 6 to 10 women are formed and women are jointly responsible for the loans in their group. Loans start at 10,000 Indian rupees (\$200 at market exchange rate), and second loans are between 10,000 Indian rupees to 12,000 Indian rupees. The interest rate is 12 percent and reimbursements are made over 50 weeks. Clients must be female, between 18 to 59, have resided in the area for a year at least, have valid identification, and a minimum of 80 percent of women in a group must own their home. |
| 7 | Implicit and explicit commitment in credit and savings contracts: a field experiment Afzal, D'Adda, Fafchamps, Quinn, Said (2019) | Financial commitment products. In partnership with the National Rural Support Programme (NRSP). | Pakistan: Bhakkar, Chakwal, Jhelum, Rawalpindi, Khushab, Mandi Bahauddin | In first group, restrict to female clients of NRSP (past and current) whose household owns at least one business. 60 percent of this sample is self-employed. The second group includes clients whose households may or may not own a business. | ANCOVA | Individual financial product. The experiment varied the number of weeks, size of installments, the week of payment received. For first group of clients, set contract to 6 weeks, lumpsum can be 5,000/4,500/5,500 Pakistani rupees with installment amount of 1,000 Pakistani rupees. For second group of clients, set to 8-week contract, lumpsum can be 3,500/3,200/3,800 Pakistani rupees and installment amount is set to 800 Pakistani rupees. Four other treatments: 1. reduce flexibility (cancellation fee of 500 Pakistani rupees for defaulting on contract), 2. increase flexibility (participant can choose to delay one installment by a week only), 3. remind respondents to pay one day before a payment is due, text message sent directly to participant, 4. reminder sent to a family member of participant. |
| 8 | Household matters: revisiting the returns to capital among female microentrepreneurs Bernhardt, Field, Pande, Rigol (2019) | India sample provided with loans. Sri Lanka sample provided with cash and capital grants. | India: Kolkata. Sri Lanka: Colombo, Greater Kandy | India: 474 households, participants are 18 to 55 years old, reside in household with at least one entrepreneur. Sri Lanka: 202 firms run by males, 187 by females. Participants owned USD1,000 or less in business capital, had no paid employees and were between 20 to 65 years of age. | Ordinary Least Squares | India: individual liability loans ranging from 4,000 Indian rupees to 10,000 Indian rupees (\$90 to \$225). A random subset of participants made repayments every two weeks, beginning two weeks after the loan disbursement. The second group was given a two-month grace period before the first repayment. Sri Lanka: a random prize drawing which consists of one of four grants: 10,000 Sri Lankan rupees (\$100) in materials for business, 20,000 Sri Lankan rupees in materials, 10,000 Sri Lankan rupees in cash, or 20,000 Sri Lankan rupees in cash. Cash can be used for any purpose. |
| 9 | Assessment of loans to female run start-ups Said, Mahmud, Chaudhry (2017) | Loan plus training. In collaboration with Kashf Foundation (KF) and Pakistan Poverty Alleviation Fund (PPAF). | Pakistan: Bahawalpur, Gujrat, Sialkot, Multan | 899 clients in urban and peri-urban areas, 440 in treatment group. On average, female participants were 37 years old with 2.5 years of education and 2.8 children. 18 percent are self-employed. | Randomized Control Trial, Ordinary Least Squares | Clients of Kashf Foundation were provided loans between 10,000-30,000 Pakistani rupees for 12 months, allowing monthly installments. Service charges are 22% per annum of the loan balance. Female beneficiaries receive two-hour training on marketing, networking and capacity building. |

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| 10 | Does women's banking matter for women? Evidence from urban India Field, Martinez, Pande (2016) | Access to micro-finance through doorstep banking. In partnership with SEWA. | India: Ahmedabad | Women with savings accounts in SEWA Bank, who had taken a loan from SEWA and lived in a region where SEWA Bank had expanded. Sample comprises 3,676 respondents. | | The study exploits the expansion of doorstep banking executed by SEWA Bank from 1999 onwards, which involved an increase in loan officers who are literate, know basic math, have been with SEWA for at least 5 years, and receive a commission for enrolling new clients. |
| 11 | Friendship at work: can peer effects catalyze female entrepreneurship? Field, Jayachandran, Pande, Rigol (2016) | Credit. In collaboration with the Centre for Micro Finance and Spandana. | India: Hyderabad | The sample size is 6,863 households. Approximately 32 percent of households have an existing business | Randomized Control Trial, Ordinary Least Squares | The first loan is 10,000 Indian rupees (\$200), at an interest rate of 12 percent. Women are jointly responsible for loans of their group (groups of 6 to 10 women). Individual loans provided to females aged between 18 to 59, who have resided in the same area for at least one year and have valid identification. Loan usage is not restricted. |
| 12 | The miracle of micro-finance? Evidence from a randomized evaluation Banerjee, Duflo, Glennerster, Kinnan (2015) | Microfinance In collaboration with Spandana and the Centre for Micro Finance (CMF). | India: Hyderabad | The average household in the sample has 5 members, 0.32 self-employment activities, and 0.145 self-employment activities managed by women. The average business generates 15,991 Indian rupees in revenue and has 0.169 employees. | Randomized Control Trial | 52 of 104 poor neighborhoods were randomly selected for the opening of a Spandana branch. Groups of 6 to 10 women are formed and women are jointly responsible for the loans in their group. Loans start at 10,000 Indian rupees (\$200 at market exchange rate), and second loans are between 10,000 Indian rupees to 12,000 Indian rupees. The interest rate is 12 percent and reimbursements are made over 50 weeks. Clients must be female, between 18 to 59, have resided in the area for a year at least, have valid identification, and a minimum of 80 percent of women in a group must own their home. |
| 13 | Do group dynamics influence social capital gains among microfinance clients? Evidence from a randomized experiment in urban India Feigenberg, Field, Pande, Rigol, Sarkar (2014) | Meeting and repayment frequency for credit. In partnership with Village Financial Services Private, Ltd. (VFS). | India: Kolkata | Sample of 739 clients. Women are 35 years old on average, and households have some income generating activity in the form of a business. 29 percent are first time borrowers, 27.7 percent had previously taken out one VFS loan, 43.3 percent had taken out two VFS loans. Average have completed primary education, are predominantly Hindu, and 90 percent are married. 26 percent are housewives, others business owners or in casual labor. | Randomized Control Trial | The intervention randomized 148 five-member client groups into two repayment schedules, one with weekly group meetings and repayments and the other with monthly meetings and repayments. Loans range from 4,000 Indian rupees to 12,000 Indian rupees (\$66 to \$197), interest rates are 22 percent, and loan tenures are 10 months. |
| 14 | The economic returns to social interactions: experimental evidence from microfinance Feigenberg, Field, Pande (2013) | Meeting and repayment frequency for credit. In partnership with Village Financial Services. | India: West Bengal | 961 clients surveyed at baseline and endline. Respondents tend to be 33 years old on average. 86.5 percent are literate and 72 percent of households own a business. | Randomized Control Trial | Clients were offered individual liability loans of 4,000 Indian rupees and were assigned to either monthly group meetings and repayment (control), weekly group meetings and repayment (treatment 1), or weekly meetings with monthly repayments (treatment 2). |

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| 15 | Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India Field, Pande, Papp, Rigol (2013) | Loan repayment timing. In collaboration with Village Financial Services. | India: Kolkata | Sample of 845 clients. Low-income women from urban areas. | Randomized Control Trial, Ordinary Least Squares | Each client received an individual liability loan of 4,000 Indian rupees to 10,000 Indian rupees (\$90 to \$225). Clients formed groups of five. 85 groups assigned to regular loan repayments beginning two weeks are disbursal. 84 groups began repayment after two-month grace period. Both groups faced similar interest charges. |
| 16 | Business training and female enterprise start-up, growth, and dynamics: experimental evidence from Sri Lanka De Mel, McKenzie, Woodruff (2012) | Training and training plus a grant of \$130. | Sri Lanka: Colombo, Greater Kandy | Two separate samples considered. The current business owner sample includes 628 women who worked more than 20 hours per week in self-employment and had monthly profits of Rs. 5,000 or less. Women in this group were 36 years, married, had run their business for 6 years, and had 10 years of schooling, on average. The potential business owner sample includes 628 women who were out of the labor force but were likely to start working within the next year. Women who had identified the type of business they planned to start and had child care were included. 82 percent of women in this sample had worked before and were 34 years old on average. | Randomized Control Trial | 400 women from each sample were offered business training and half of this group were preselected to receive a grant of 15,000 Sri Lankan rupees (\$129) conditional on completing training. Funds could be used for any purpose. The ILO Start and Improve Your Business (SIYB) training program was used; the potential and current owners were offered 9 and 7 days of training with 7 hours of instruction every day, respectively. Training cost between \$126 to \$131 per current business owner and \$133 to \$140 per potential owner (this includes transportation and food allowance). |
| 17 | Can commercially-oriented microfinance help meet the millennium development goals? Evidence from Pakistan Montgomery, Weiss (2011) | Microfinance. In collaboration with Khushhali Bank. | Pakistan: 11 districts. | Sample of 2,881 households, 25 percent in urban areas. 40 percent of the sample is female, 64 percent of females were literate, 70 percent of households live below the poverty line. | Difference in Difference | Compare households who are members in old villages and have access to loans already, with households who are members in new villages and are eligible for loans but do not yet have access. Loan terms are between 3 and 12 months at 20 percent interest, loan size varies between 3,000 Pakistani rupees to 30,000 Pakistani rupees, to be used for business or agriculture but not for consumption. Loans are made individually but if an individual defaults the whole group (3 to 25 members) is ineligible for loans. |
| 18 | Are women more credit constrained? Experimental evidence on gender and microenterprise returns de Mel, McKenzie, Woodruff (2009) | Cash grant and capital stock grant. | Sri Lanka: Kalutara, Galle, Matara | 405 firms included in sample, 197 are run by males, 190 by females, 18 are run jointly. Most firms are in the retail sector (small grocery stores) or manufacturing sector (sewing, lace or bamboo products etc.) Females are about 42 years of age, with approximately 9 years of schooling. | Randomized Control Trial | Conducted a random prize drawing which consists of one of four grants: 10,000 Sri Lankan rupees (\$100) in materials for business, 20,000 Sri Lankan rupees in materials, 10,000 Sri Lankan rupees in cash, or 20,000 Sri Lankan rupees in cash. Cash can be used for any purpose. |
| 19 | Returns to capital in microenterprises: evidence from a field experiment de Mel, McKenzie, Woodruff (2008) | Cash grant and capital stock grant. | Sri Lanka: Kalutara, Galle, Matara | 405 firms included in sample, 197 are run by males, 190 by females, 18 are run jointly. Most firms are in the retail sector (small grocery stores) or manufacturing sector (sewing, lace or bamboo products etc.) | Randomized Control Trial | Conducted a random prize drawing which consists of one of four grants: 10,000 Sri Lankan rupees (\$100) in materials for business, 20,000 Sri Lankan rupees in materials, 10,000 Sri Lankan rupee in cash, or 20,000 Sri Lankan rupees in cash. Cash can be used for any purpose. |