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Supporting Growth-Oriented Women Entrepreneurs: A Review of the Evidence and Key Challenges

ABSTRACT

In recent years, support programs for women entrepreneurs have gained traction and prominence as a means to create jobs and boost productivity at the national and regional levels. However, disparities in initial resource endowments of male—and female-led firms, sector sorting into low productivity activities, social norms, and institutional arrangements, constrain the growth of female-led enterprises. This note reviews the outcomes of programs supporting female growth entrepreneurs and draws lessons from available evidence to inform the design of more effective programs. The review shows that most programs are primarily geared toward microenterprises, making it difficult to draw conclusions about program design for growth-oriented entrepreneurs, but some early findings point the way forward. Management practices appear to improve as a result of business education, but there is little robust evidence to prove that support programs lead to significant improvements in business performance outcomes. Furthermore, in programs with both male and female participants, firm performance improves in some cases for male-led firms only, not for female-led firms. The note concludes by suggesting the need for more experimentation in the design and delivery of services and a new focus on strengthening the engendering of support programs to more specifically address gender-specific constraints such as social norms, entrepreneurial preferences, and institutional arrangements, changing public discourse, and paying more attention to factors that induce female entrepreneurs to diversify into higher value-added activities. Offering mentoring, networking, and other consulting services, in addition to education on basic business practices and strengthening critical areas such as gender-specific content, can potentially increase the effectiveness of these programs.

Xavier Cirera
Innovation Technology and Entrepreneurship, Trade and Competitiveness Global Practice, the World Bank
E-mail: xcirera@worldbank.org

Qursum Qasim
Africa Region, Finance and Markets Global Practice, the World Bank
E-mail: qqasim@worldbank.org

1. INTRODUCTION

Poverty reduction and shared prosperity can only be achieved with the full economic participation of both men and women. Yet almost one billion women have the potential to contribute more fully to their economies but are unable to do so. Of these 812 million live in the developing world, where their contributions, as workers and job creators, is greatest.[1] Female entrepreneurial activity is concentrated in low-productivity sectors with limited potential for growth in income and employment and that often operate informally.[2] In many cases, female entrepreneurs are unable to grow their businesses from micro or small to medium or large productive enterprises with transformational economic impact. Therefore, empowering female entrepreneurs, especially those in high-growth sectors, has the potential to create jobs, increase incomes, lift millions out of poverty, and lead to greater economic and social transformation.

The last decade has seen a burgeoning of entrepreneurship support programs aimed at unleashing the potential of female entrepreneurs. Evidence on the impact of these programs is limited, and the few impact evaluations that have been conducted suggest that the impact of these programs on business growth outcomes is mixed at best. Thus, the question of how to effectively design support programs that facilitate female entrepreneurs to move into growth sectors with potential for job creation and productivity gains remains unresolved.

This note reviews the empirical literature analyzing the performance gaps between male and female entrepreneurs and the impact evaluations of programs that support female entrepreneurship. Its aim is to enhance the effectiveness of these programs by drawing lessons from current and past support programs, identifying gaps in knowledge, and proposing areas of focus for program design going forward. The note focuses on female growth entrepreneurs, that is, those with the potential to create new jobs and generate productivity gains[3] rather than "necessity" entrepreneurs, who are unlikely to generate substantial growth in terms of job creation and broad economic impact.[4] Female growth entrepreneurs are defined here as those who wish to grow their firms—not only "high-growth" firms, or gazelles, but also small firms and microenterprises with

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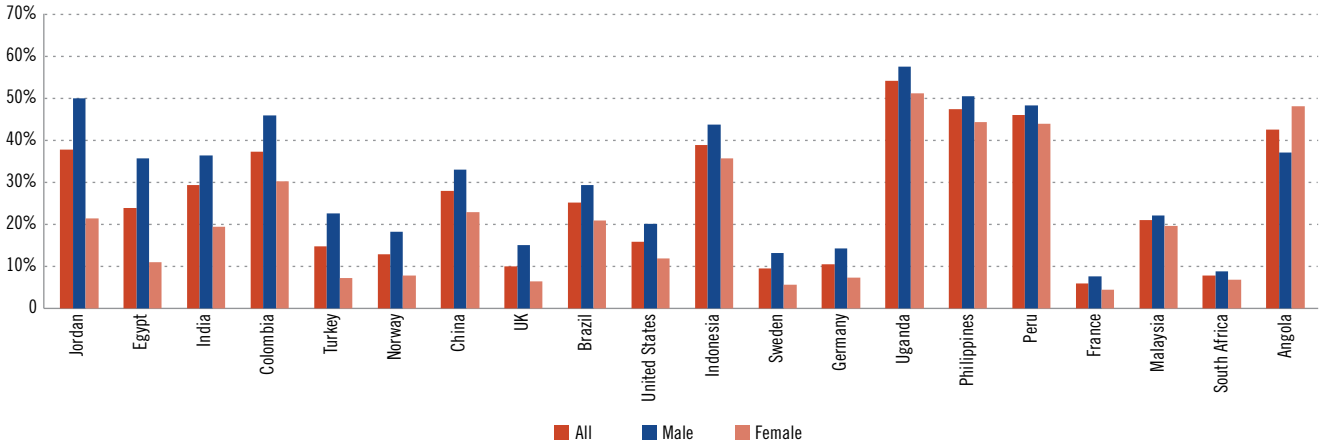
[1] Aguire et al. (2012).

[2] Bardasi et al. (2011).

[3] Antoinette Schoar (2010) "The Divide between Subsistence and Transformational Entrepreneurship," in Josh Lerner and Scott Stern *Innovation Policy and the Economy*, Volume 10 pages 57–81 NBER Books, National Bureau of Economic Research.

[4] It is also likely that the combination and intensity of skills and support that growth entrepreneurs require is different from necessity entrepreneurs, and as a result interventions supporting both groups should be differentiated.

FIGURE 1 Entrepreneurship Prevalence Rates by Gender in Selected Countries (gender gap declining from left to right)



Source: Authors' calculations from GEM data 2001–2008. Entrepreneurship rate is defined as the share of nascent, early-stage entrepreneurs and owner-managers in total population.

*Lowest gender gap: Angola.
*Uganda has a lower gender gap than USA, UK, and Germany.

growth potential. Little is known about the relative merits of using entrepreneurship programs to support "necessity" entrepreneurs, self-employed and other groups, especially vis-à-vis other support programs to facilitate integration into the labor market or social assistance. More evidence is needed to understand how better to support these groups in order to improve their incomes, and whether entrepreneurship programs are the best instrument to do so.

This note is structured as follows: Section 2 summarizes the main facts about the gender gap in business performance and the explanations that have been put forth. Section 3 reviews the impact of existing support programs and draws some lessons that could inform the design of programs to support female entrepreneurs. Section 4 suggests new areas of focus for these programs, and Section 5 concludes.

2. ENTREPRENEURSHIP AND THE GENDER GAP IN PERFORMANCE

Should there be entrepreneurship support programs targeted specifically at female entrepreneurs? The answer largely depends on the answers to two additional questions: how do female-led firms compare to male-led firms in terms of performance? And, if there is a performance gap, what explains it? The answer to the first question determines whether specific focus on female entrepreneurs is justified. The answer to the second question determines what type of intervention, if any, is required.

The emergence of gender-disaggregated cross-country entrepreneurship surveys, such as the Global Entrepreneurship Monitor (GEM),[5] several national firm-level surveys, and access to national business registries, has led to empirical studies characterizing female entrepreneurial activities. Most of this literature has focused on OECD countries, but an increasing number of studies analyze female entrepreneurship in developing countries. These datasets are not perfectly designed for studying entrepreneurship dynamics, since they capture neither the decision to become an entrepreneur nor firm dynamics for existing entrepreneurs. However, they provide a starting point

[5] GEM (2012) for example, provides a rich overview of female entrepreneurship in 67 countries, and several papers have summarized some of the evidence regarding the gender gap in developing countries (See Minnitti and Naude, 2010 or Klapper and Parker, 2010). One weakness of the dataset, however, is the reliance on self-reported measures of entrepreneurship. Thus, interviewees self-report whether they are entrepreneurs without verification of the enterprise.

for studying entrepreneurial activity in developing countries.

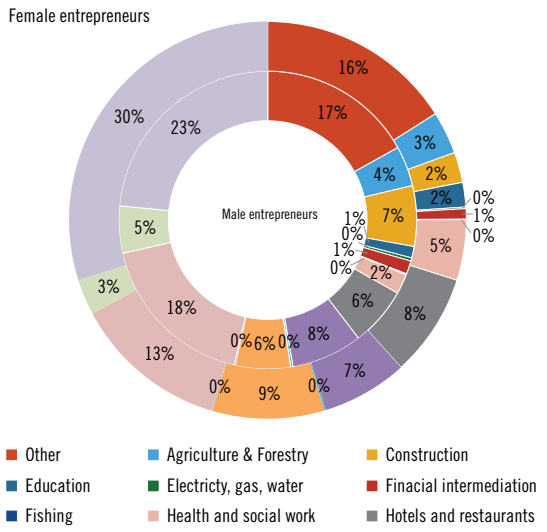
2.1 *Performance of Female-led Firms vs. Male-led Firms*

Lower Entrepreneurship Prevalence Rates among Women

Across the world, entrepreneurship prevalence rates tend to be lower among women than men, but this gap is reduced in regions with lower income per capita income (see Figure 1).[6] Sub-Saharan Africa (SSA) has the lowest gender gap as well as the highest rate of entrepreneurial activity among women, and in some countries, female entrepreneurs are more prevalent than male entrepreneurs. These high entrepreneurial rates in SSA are likely explained by the large entry costs, especially for women, into labor markets.[7]

Entrepreneurship prevalence rates, however, are only part of the story; a deeper look at the data reveals that a larger share of female than male entrepreneurs tend to be "necessity" entrepreneurs. That is, more women are driven to entrepreneurship out of necessity (for example, due to lack of employment opportunities)[8] rather than in pursuit of profit and growth opportunities.

FIGURE 2 Gender Distribution of Early-stage Entrepreneurs across Sectors



Source: Authors' calculations from GEM data, 2001–2008.

Women-led Firms are Concentrated in Low-productivity, Low-technology, Low-growth Sectors

Women not only lead fewer businesses; they also tend to concentrate in less profitable sectors. In developed countries, women entrepreneurs are concentrated in the sales, retail, and service sectors (Klapper and Johnson, 2012), with little participation in high-growth or high-technology sectors (Menzies, Diochon, and Gasse 2004). A similar sectoral distribution is observed in developing countries. For the SSA region, Hallward-Driemeier (2013) shows that women are more likely to operate in traditional, informal and lower value-added sectors. Global Entrepreneurship Monitor (GEM) data reveal two interesting results. First, women entrepreneurs tend to have higher levels of sector concentration than men, although the concentration gap varies greatly by country. Second, as Figure 2 shows, there are male-dominated sectors where male entrepreneurs have larger shares, such as real estate or construction, and others that are clearly female-dominated, mainly services such as wholesale and retail or personal and other services. These female-dominated sectors are traditionally lower-productivity sectors.

Women-owned Firms are Significantly Smaller

Closely associated with the higher incidence of necessity entrepreneurship among women and their concentration in lower productivity sectors is the fact that women-owned firms are significantly smaller than male-owned firms, in terms of employment and sales. Data from World Bank enterprise surveys show that women-owned enterprises have lower overall sales volumes than male-owned firms in Europe and Central

[6] The Middle East and North Africa region seems to be an exception and female entrepreneurship rates are much lower than male, likely due to a stronger effect of social norms.

[7] Hallward-Driemeier (2013)

[8] It is of course entirely possible that necessity entrepreneurs graduate to opportunity entrepreneurship—but this transition in itself requires certain characteristics which necessity entrepreneurs may or may not have.

Asia, Latin America, and SSA.[9] They also suggest that the number of both "gazelles" [10] and high-growth firms is larger among male-owned firms.[11]

Women-led firms Experience Lower Returns to Capital and Lower Profitability

Studies of microenterprises in Sri Lanka[12] and Madagascar[13] find that women-owned firms experience lower returns to capital and lower profitability.[14] For example, Fafchamps et al. (2014) find that although returns to capital for female-led microenterprises in Ghana were high, they were not as high as those for male-led enterprises. Interestingly, Ghanian female-led enterprises that have sales above the mean (for all firms) are found to have returns to capital similar to male-led counterparts—which suggests that the gender gap in capital returns may be smaller for women-owned enterprises with initial high profits.

Performance Gaps are Likely to be Larger at Lower Income per capita Levels

The evidence on the gender performance gap in developed countries tends to be more mixed than in developing countries. For example, Watson (2002) shows that Australian women business owners earn similar rates of return on equity and assets as their male counterparts, but they have less startup capital, which explains their lower incomes and profits compared to male business owners. Kepler and Shane (2007) find no significant gender differences in terms of performance outcomes in nascent entrepreneurs in the United States. Other studies suggest that women-owned enterprises perform as well as male peers in terms of employment creation in OECD countries (Fischer et al. 1993; Chaganti and Parasuraman, 1996).

No Gender Differences in some Performance Indicators

The outlook for women-led enterprises is not uniformly gloomy and not all performance outcomes are significantly different by gender. The evidence on the differences in firm survival between male and female entrepreneurs, for example, is mixed. Fairlie and Robb (2009) document higher exit rates for women-owned firms in the United States, but Koellinger et al. (2013) find similar ratios for men and women in 17 OECD and emerging countries.[15] Kalleberg and Leicht (1991) and Bruderl and Preisendorfer (1998) also find evidence for the idea that firm survival rates are not different between male and female entrepreneurs in developed economies.

In Similar Sectors, Women-led Firms Perform as Well as Peer Firms Led by Men

While female-led enterprises tend to be less productive on average than male-led enterprises, these differences disappear in some countries when comparing male—and female-led enterprises within the same sector. A review of firms in Central and Eastern Europe[16] and Madagascar[17] finds that female-owned businesses tend to be less productive than male-owned firms in the same sector. Other studies present contrasting findings. Bardasi et al. (2007) find that women-owned firms in Africa tend to be as productive in terms of value added per worker and total factor productivity (TFP) as male-owned firms. Comparing labor productivity between male and female businesses in SSA for the same industry, size, and capital intensity, Hallward-Driemeir (2013) finds no gender gap in productivity.

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9 Bardasi et al. (2011)

10 Gazelles are defined here as young firms of less than 6 years old that grow at a rate of 20% per year for two consecutive years, since the enterprise surveys only provide sales information for a three year period. High growth firms on the other hand are defined as firms that also grow at 20% for two years but from a size of at least 10 workers or more, to correct for the large growth bias of very small firms and that are of any age.

11 Looking across all the countries with data available, the weighted average number of high growth firms is 99.83 for male firms and 66.45 for female firms, and for gazelles this is 25.37 and 14.07 respectively.

12 De Mel, McKenzie, and Woodruff (2008)

13 Normand and Vaillant (2013)

14 Aterido and Hallward-Driemeier (2011); Bardasi et al. (2011); De Mel et al. (2009); Nichter and Goldmark (2009)

15 Analyze the difference between male and female exit rates by looking at the ratios between nascent and established entrepreneurs in the GEM dataset.

16 Bardasi and Terrell (2008)

17 Normand and Vaillant (2013)

Using data from the harmonized enterprise surveys (ES), this study estimates the gender gap premium on TFP[18] for firms in 82 countries, that is, whether there are systematic differences in productivity between male—and female-led enterprises, controlling for sector participation. There are no statistically significant differences in productivity between female and male firms in 90 percent of the countries in the sample.[19] This suggests that, conditional on entry into entrepreneurship and sector sorting, there are no significant productivity differences between female and male entrepreneurs in most countries.

Women-led Businesses Have a Higher Share of Female Employment

Another interesting trend that emerges from the analysis of the ES is that female-led firms tend to employ more female workers as a share of the total workforce, after controlling for sector, age, and type of firm.[20] In 49 percent of the countries in the sample, there are no significant differences in the share of female employment between male—and female-led firms. However, in the remaining 51 percent of countries, the average difference is statistically significant and positive, indicating that female-led firms tend to have a larger share of female workers than firms led by men.

Female-led Firms Do Underperform!

Summing up and answering the question about whether female-led firms underperform, posed at the beginning of the section, the evidence points to a gender performance gap between female and male entrepreneurs. This is manifested primarily as lower entry into entrepreneurship and sorting of existing female entrepreneurs into lower-productivity business sectors and activities. As a result, some of these differences disappear once performance is compared within the same sector.

2.2 *What Explains the Performance Gap?*

If performance gaps are significantly reduced or even disappear entirely when controlling for initial conditions and sectors of operation, the critical question becomes, What motivates women to operate in certain sectors over others? Understanding the reasons will help inform the design of programs and enhance their impact.

Traditionally, the literature has differentiated between two sets of potential explanations (Bardasi et al., 2011): constraint-driven factors, that is, external barriers stemming from institutions, the regulatory environment, and social norms, and preference-driven factors arising from internal motivations such as risk tolerance and subjective preferences. In practice, however, it is difficult to disentangle the two types of determinants, since cultural norms also shape preferences, and preferences inform social attitudes.

Constraint-driven Factors

Regarding constraint-driven factors, initial conditions are the first important consideration. Female entrepreneurs often start businesses with less startup capital and less access to credit, less experience, and less schooling, and

[18] We calculate TFP for each country as the residual of the following Cobb-Douglas production function, where Y is the logarithm of sales or value added, K is the log of capital, L is the log of employment and M log of material inputs. Only 8.5% of the countries in the sample have a statistically significant gender gap.

$$\log(TFP_i) = \log(Y_i) - \alpha\log(K_i) - \beta\log(M_i) - \sum S_k$$

Then, we estimate the gender gap in productivity by regressing for each country separately firm TFP on a dummy for firms that have at least one female owner and controlling for sector and firm size. One caveat of the analysis is the fact that our measure of female ownership is imperfect, since we do not know the extent of female owners' control over the firm.

[19] The countries with negative productivity gap, firms with at least one women owner less productive, are Botswana, Indonesia, Jamaica and Argentina. The countries with a positive gender gap are China, Iraq and Bulgaria. As a further check and to control for the fact that female owned firms may not be able to grow and therefore may have smaller size and productivity levels, we match male and female owned firms according to age, sector and type of firm (part of a group or limited liability company) and look at differences in productivity between matched firms for each country. We find that in most countries (84.4% of cases) there are no statistically differences in productivity between male and female owned firms, once firms are matched by sector and firm size.

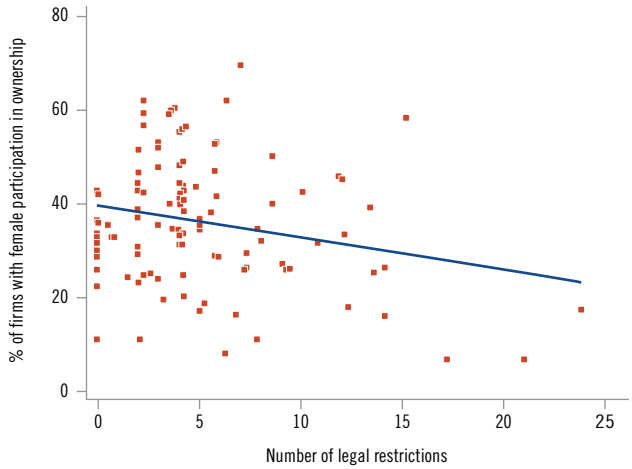
[20] We use propensity matching techniques and for each country we match male and female led firms based on sector, age of the firm and type of firm (public,..). Then we compute the average difference in female employment shares analogously to the average treatment effect.

lower level of management skills, which constrains their growth and chances of success. Fairlei and Robb (2008), for example, find that women-owned businesses in the United States are less successful than male-owned businesses because they have less startup capital, less business experience, and less human capital. This is confirmed by Cohoon et al. (2010) in their study of a selective cohort of 540 successful entrepreneurs in high-tech companies, which finds no differences in education and access to capital between male and female entrepreneurs. Thus, when initial conditions are similar, outcomes are also similar, regardless of gender.

A far more complex barrier to female entrepreneurship are social norms, which induce female entrepreneurs to choose socially acceptable sectors and can impact their perceptions about what they are capable of achieving.[21] Social norms also limit educational opportunities and access to finance, affecting initial conditions for female-led enterprises, and influencing intra-household choices that constrain entrepreneurial decisions. Normand and Vaillant (2013) find that informal female entrepreneurs in Madagascar self-select into industries in which they can combine market-oriented and domestic activities. Comparing male and female entrepreneurs in India in households where one or both members may have an enterprise, Field, Pande, and Rigol (2014) find much weaker performance in terms of profits and higher concentration in low-profitability sectors for female entrepreneurs in households where both men and women have businesses. They attribute this to the fact that the household is the unit of decision for female entrepreneurs when making economic choices. It is consistent with findings that female entrepreneurs may invest loans or grants in male-led enterprises if they are the more profitable enterprise in the household. Although these female enterprise decisions might be optimal for the household, they can substantially limit the potential for enterprise growth and in some cases women's empowerment. More research on these complex interactions within the household is needed in order to help design support programs.

Barriers to female entrepreneurship are also embedded in legal frameworks and institutions, especially in developing countries (Bardasi et al., 2007). The World Bank's *Women, Business and the Law* (WBL) measures the extent to which women and men have equal access to economic opportunities. Research shows that the higher the number of gender-based legal restrictions, the lower the female participation in firm ownership (Figure 3). For example, the rights of married and unmarried women affect women entrepreneurs' capacity to register businesses, sign contracts, open bank accounts, as well as their mobility, measured by their ability to choose a residence or obtain a passport. According to WBL, 200 million women live in countries which legally require formal permission from the husband or a male relative to start a business. There has been some progress in introducing reforms aimed at reducing gender-based economic restrictions. In Ethiopia, for example, reforms in family law that allowed women to pursue economic opportunities without requiring the husband's permission and joint administration of marital property led to increases in women's participation in work outside the home, full-time work, and higher-skilled work.[22] Most countries, however, are still lagging behind in addressing legal constraints to female entrepreneurship.

FIGURE 3 Gender-based Legal Restrictions and Female Participation in Business Ownership



Sources: Women, Business and the Law database, Enterprise Surveys database, World Development Indicators database.

[21] Field et al. (2012)

[22] Hallward-Driemeier (2010)

Preference-driven Factors

A second set of interlinked elements that determine entrepreneurial choices are subjective preferences and personal traits. The psychology literature suggests that there is a set of subjective traits that are important predictors of entrepreneurial activity, such as perceptions of opportunity, self-confidence, and fear of failure (Koellinger et al., 2007). In many cases, women rank lower than men in these perceptions. For example, GEM data show that across countries, early-stage female entrepreneurs tend to exhibit significantly higher fear of failure than male entrepreneurs. Minniti (2010b), also using the GEM dataset, estimates that subjective perceptions about one's own skills, likelihood of failure, and the existence of opportunities explain a significant portion of the gender gap in entrepreneurial activity. In a review of the experimental literature on gender differences in risk, social, and competitive preferences, Croson and Gneezy (2009) find that the bulk of the evidence highlights fundamental differences between male and female preferences in relation to entrepreneurial activity. They also find that women are more risk averse than men and less likely to engage in competitive situations.[23]

Gender differences have also been found when examining motivations for business ownership. Fairlei and Robb (2008) find evidence that women entrepreneurs in the United States work fewer hours and have different goals for their businesses. In their study of successful high-tech entrepreneurs in the United States, Cohoon et al. (2010) find gender differences in motivation for starting a business. For female entrepreneurs, encouragement from peers is the most important motivation in starting a business, and networks are cited as critical for success. Knowing other entrepreneurs and access to networks are especially important for women entrepreneurs in poorer countries.[24]

Is nature or nurture the source of these differences? Croson and Gneezy's (2009) review supports both explanations and suggests that the critical element is to understand the relative weight that should be given to each determinant. The fact that social norms and institutions limiting female entrepreneurial activity are stronger in developing countries might suggest greater influence of nurture on these preferences in these countries.

3. TAKING STOCK: LESSONS FROM EXISTING WOMEN ENTREPRENEURSHIP SUPPORT PROGRAMS

The trends and facts outlined above combined with the growth imperative in developing countries have led to an increasing number of support programs aimed at facilitating the growth of female-led enterprises. The following section reviews the lessons from these programs.

A review of entrepreneurship programs is complicated by the dearth of impact evaluations of programs supporting growth entrepreneurs in developing countries. Most evaluations focus on the microenterprise sector, which includes both micro-entrepreneurs with a desire to grow their business and "necessity" entrepreneurs. Therefore, it is difficult to extract concrete lessons for the design of support programs targeted primarily at growth entrepreneurs.

Impact of Support Programs is Mixed at Best

A meta-analysis of impact evaluations of entrepreneurship programs for SMEs and microenterprises in developing countries (Cho and Honorati 2013) finds an overall positive impact on the business knowledge and management practices of entrepreneurs in the programs. But impact on business growth is limited (for example, positive business performance outcomes were observed for youth and entrepreneurs with higher education). More specifically for female entrepreneurs, the authors find improvements in business attitudes but no significant impacts on business growth outcomes. McKenzie and Woodruff (2012), focusing on business education in their analysis, find weak evidence of positive effects of these programs on male-owned businesses and zero or negative impact on women-owned firms.

The lack of impact of support programs on business outcomes of female-led enterprises, even as intermediate outcomes improve, also appears to be a common finding

[23] Croson and Gneezy (2009)

[24] Minniti (2010)

in the empirical literature on microenterprises. Berge et al. (2012) find positive effects of business training and financing conditional on gender for micro firms in Tanzania. Although women entrepreneurs gained business knowledge, it failed to translate into improved business performance. De Mel et al. (2014) evaluate a program combining standard business training with cash grants and find that business training alone results in improved business practices but has no significant impact on business profits. However, when business training is combined with a grant, there is a positive impact on profits, which dissipates after the first eight months.

Not all studies, however, find a lack of impact of support programs on female business outcomes. For example, Valdivia (2011) finds a positive impact of business education on sales among women-owned microenterprises in Peru when the educational package is combined with technical assistance. This impact, however, was measured only once, at the four-month mark, with no measurement of the medium-to-long-term impact.

Three main themes emerge from the evaluations of these programs. First, these programs appear to be successful in improving the management skills of beneficiaries—both men and women. Second, there appears to be little to no impact on firm growth among female entrepreneurs. Third, there is a gender differential in attrition rates, business outcomes, and overall program efficacy.

Two reasons may account for the lack of effectiveness of entrepreneurship programs for women. First, beneficiaries of such programs may be primarily necessity entrepreneurs, who are less likely to grow their businesses or be motivated to do so. There is some evidence that impact is enhanced when larger enterprises are targeted.[25] Second, the programs evaluated may not be designed to address the main binding constraints to female enterprise growth.

3.1 *Selection*

Having determined that not all potential or existing entrepreneurs have either the desire or the entrepreneurial traits to grow their businesses, there is a strong argument to be made for programs targeted specifically at growth entrepreneurs. Depending on the local context, programs could opt to focus exclusively on women-led small and medium-size firms with high growth potential. In environments where women entrepreneurs are highly constrained, there may be a concurrent focus on female-led microenterprises that can be scaled up to SMEs.

Therefore, it is necessary to carefully delineate the target segment for a proposed support program and then develop a selection process to identify members of the segment from among the applicants to a program.

Selecting Growth-oriented Entrepreneurs is Complex

Selecting growth-oriented entrepreneurs running microenterprises and/or SMEs is a highly complex task with few templates for success. One critical principle when designing selection is the need to accept some degree of failure, since it is impossible *ex ante* to determine firm success with certainty.[26] However, there are several distinct personality traits that are correlated with entrepreneurial ability,[27] including high need for achievement, calculated risk-taking, internal locus of control, a problem-solving orientation, interpersonal reactivity, and assertiveness. A study of rural entrepreneurs in India[28] finds that personal characteristics like self-efficacy and need for achievement explained a significant part of the variation in sales. Entrepreneurial orientation can be identified through questionnaires and panel interviews.

In addition to these non-cognitive skills, cognitive skills may also be good predictors of entrepreneurial success. A study in Sri Lanka[29] finds that "higher-ability SME owners are more likely to add employees," with ability proxied by scores on multiple cognitive tests[30]

[25] Valdivia (2011)

[26] According to National venture capital association (http://www.nvca.org/index.php?Itemid=147), only 40% of VC backed firms experience high growth, or even as low as 20% in some cases (Mulcahy et al, 2012).

[27] Croson and Gneezy (2009)

[28] Acharya et al. (2007)

[29] De Mel et al. (2010)

[30] Digit span, Raven, and cognitive reflection.

and years of schooling. Also, the authors find that owners with a greater need for achievement and who are more willing to give up control (power motivation) were more likely to generate employment. A survey of entrepreneurs in Brazil found that school achievement (i.e., cognitive ability) and father's higher education (i.e., family characteristics) were significant predictors of entrepreneurial success (proxied by sales growth).[31]

Programs that support growth entrepreneurs have mainly used panel interviews with experts, sometimes in combination with specific questions on the application form to identify growth potential. In a review of support programs for growth-potential women entrepreneurs in developing countries, Drexler (2014) suggests that panel opinions tend to have the most influence in selection.[32] In a recent impact evaluation of a program supporting growth entrepreneurs in Ghana, Fafchamps and Woodruff (2014) test the predicted value of expert panel opinions in forecasting firm growth. They find that cognitive skills are a good predictor of firm growth, but this prediction can be enhanced by considering the scores from expert panels, especially on bad performers. Experts' opinion did not add much explanatory power in predicting best performers.

Predictive Models can be Helpful but Require Further Experimentation

Some predictive models using information about the personality traits of applicants are gathering momentum. For example, several psychometric tests[33] and statistical models[34] have been developed to capture entrepreneurship capabilities. But much work remains to be done to determine the range of applicability of these methods.

Considering that the evidence on selection is still too narrow to make generalizations, it is important to recognize the inherent uncertainty in identifying growth entrepreneurs. One cautious but more resource-intensive approach to selection that minimizes exclusive reliance on information from the application process is to have a higher proportion of applicants automatically selected for a "light training" and base acceptance on reviewing their commitment to pursuing growth and reviewing their growth plans developed during the training.

In general, more experimentation with different methods of selecting female growth entrepreneurs is needed, especially given the limitations of the models to take into account particular cultural contexts. As a result, combining model predictions based on ability (cognitive and non-cognitive skills) and expert panels may be desirable, especially with a focus on identifying entrepreneurs with no desire to grow their business, rather than predicting success.

3.2 *Business Education*

Business Practices Are Positively Impacted but Business Growth is Not

General business education or training[35] is the most popular component of entrepreneurship support programs. Most evidence shows that business training programs yield positive changes in business practices (most notably in record keeping) but are largely ineffective in terms of actual business growth (measured in sales, profits, and employment growth) for women entrepreneurs.[36] Some limited effects on profits and sales were, however, found in a broader

[31] Djankov et al. (2007)

[32] The use of questionnaires that identify entrepreneurial traits during selection is still not widespread, and it is commonly restricted to baseline data collection for impact evaluations.

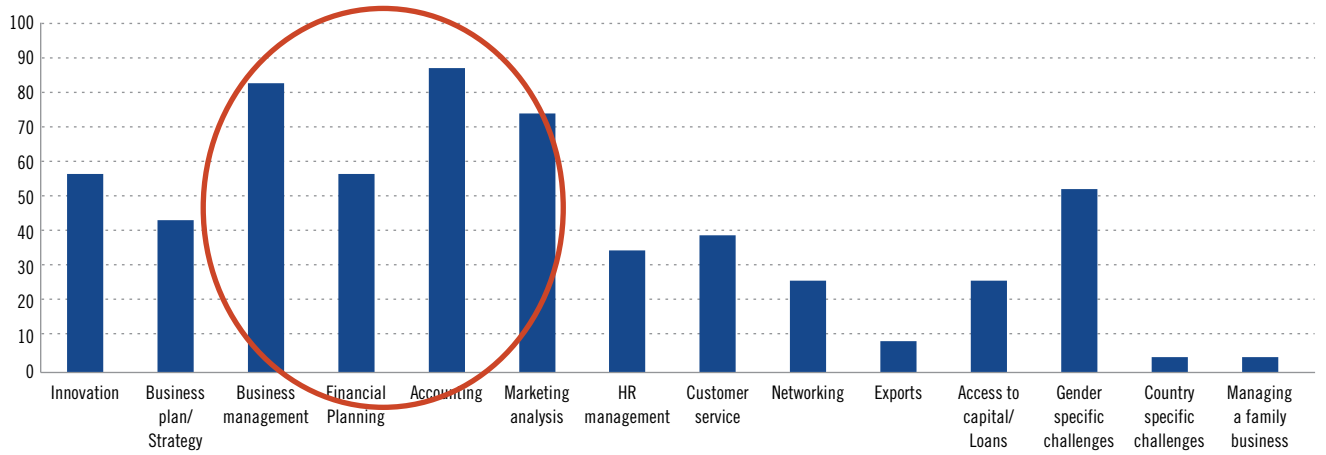
[33] See for example the Entrepreneurial Finance Lab http://www.hks.harvard.edu/centers/cid/programs/entrepreneurial-finance-lab-research-initiative or psychometrictest.org.uk

[34] De Mel et al. (2012); Grimm et al. (2012)

[35] here we take training to mean less intense interactions of shorter duration than academically grounded, more MBA like business education .

[36] One exception is the evidence from a randomized controlled trial in rural Mexico, (Calderon et al., 2013). The program provided a six week long training to women entrepreneurs including modules on costing and pricing, formalizing a business, business management, marketing and sales. Medium term results (1 and 2.5 years after the program) showed a 23% increase in daily profits and 29% increase in revenues. The use of formal accounting practices rose by 4.7 percentage points and formal business registration (a theme specifically addressed during the training) increased by 8.6 percentage points while there were suggestions that participants changes the product mix in their enterprises to add low cost goods with higher revenues. Results also showed that lower quality entrepreneurs—proxied by below-median pre-intervention profits—were more likely to close down their businesses after the training.

FIGURE 4 Percentage of Entrepreneurship Programs* with Selected Components



*programs included in analysis by Mckenzie and Woodruff (2012) and Drexler (2014). Categories pooled together by authors.

study of entrepreneurship education and training programs conducted by the World Bank (2013).[37]

Programs are Highly Heterogeneous

An analysis of more than 80 entrepreneurship training and education programs by Robb et al. (2014) illustrates the content of these programs. Broadly speaking, general business skills, including financial skills, are most common, followed by marketing and sales training. Only three programs (for both men and women) have industry-specific content and a mere eight incorporate content that takes into account the specific context of the participants. The duration of programs varies greatly—from less than two weeks to more than a year. A more limited sample of 20 women-only programs adds nuance to the analysis.[38] Most of these are aimed at existing entrepreneurs and only four are specifically oriented toward stimulating gains in confidence and communication in combination with general business skills. Similarly, McKenzie and Woodruff (2012)[39] note heterogeneity in terms of length of training, course content, and delivery mechanisms (through professional trainers in some instances, microfinance staff in others, and practicing entrepreneurs).

Drexler's (2014) review of programs aimed specifically at women entrepreneurs with growth potential[40] also confirms this heterogeneity. Most programs are grounded in similar approaches that combine business education and entrepreneurial skills.[41] Some have actually been standardized for delivery across several countries.[42] However, as Figure 4 illustrates, the specific topics covered—accounting, financial planning, marketing, and business management—vary greatly even though the context of their implementation (i.e. low-income countries) is fairly similar. Topics such as human resources or customer service are less frequently offered, and an even smaller number of programs cover topics specifically relevant for female entrepreneurs, such as business networking or managing family businesses, reflecting the absence of gender-specific content in programs ostensibly catering to women entrepreneurs.

[37] Framing the Global Landscape of Entrepreneurship Education and Training Programs, World Bank (2013)

[38] Robb et al. (2014)

[39] McKenzie et al. (2012)

[40] Drexler (2014)

[41] Some of these approaches include Babson College, EMPRETEC methodology developed by David McClelland at Harvard University and others.

[42] UNCTAD EMPRETEC, ILO's Start and Improve Your Business, IFC's Business Edge

Robb et al. (2014) suggest that the design of the business education component matters. They find that programs combining both general business education and soft skills such as leadership and teamwork, yield significant positive impacts in both management practices and firm performance outcomes. In South Africa, for example, where the program also provided mentoring services, participants were able to generate significant increases in annual sales/turnover, success of the business, number of employees, and number of customers, according to a rigorous impact evaluation. Another program in Nicaragua observed a significant increase in revenues and number of employees hired in addition to improved business skills and increased confidence. Indeed, the program also increased mentoring among businesswomen and the formation of personal and professional networks using social networking tools.

Very few programs include strategic planning in their curriculum, and not many programs seek to influence entrepreneurial mindsets. Networking was an explicit focus in only two programs, in India and Mexico. Both programs also offered soft skills in the curriculum, and both resulted in increased revenues for participants.[43] These programs also offered industry-specific content. It is not possible to know which of these add-ons—networking, soft skills, or industry-specific content—had the most to do with positive business outcomes. This gap in knowledge merits further investigation.

In the absence of conclusive evidence about a business education approach that works best for growth-oriented women entrepreneurs, heterogeneity of business education content and approaches allows also for useful experimentation and calibration of topics that are most pertinent for a specific segment of women entrepreneurs. New approaches in engendering the curricula, topics on market expansion, and technical training are likely to be important but require further experimentation in order to better understand how best to incorporate these elements in support programs.

3.3 *Networking and Mentoring*

Networking and mentoring play a critical role in improving women's entrepreneurial decisions and performance. Yet, as the GEM 2010 Women's Report found, female entrepreneurs across a range of countries have smaller and less diverse networks and tend to rely more heavily on personal sources of advice than male entrepreneurs.

Networking and Mentoring are Important Resources for Female Entrepreneurs

A study based on surveys in Nigeria and Argentina suggests that mentors and networks provide invaluable market information to female entrepreneurs, facilitate access to finance, and provide intangible benefits in terms of support and increased confidence. More than 80 percent of women in Argentina and more than 90 percent in Nigeria reported significant benefits from networking, including mentoring, access to information, and professional visibility. Half of the women surveyed depended on personal contacts for access to finance, and more than 35 percent in both countries received advice regularly from other women in the network.[44]

Networking and mentoring have also been found to be critical in motivating women entrepreneurs to lead crossover enterprises, that is, firms operating in more productive, male-dominated sectors. Campos et al. (2013) investigate the attributes of women who successfully cross over in Uganda. While human capital does not appear to be a significant determinant, access to a role model, in addition to initial capital, is a critical determinant of crossovers. Women who had male role models were between 55 and 74 percent more likely to cross over into higher-productivity sectors than women who had no such access. Fifty-four percent interacted with other business owners at least once a month, while only 39 percent of non-crossovers did. These results

[43] However the evaluations of these programs did not have an appropriate counterfactual.

[44] The Benefits of Women's Business Networks (Vital Voices in Buvinić et al., 2012)

stress the importance of including in support programs regular productive interactions with role models and inductions into industry networks, while also providing access to finance to reduce the gap in initial capital.[45]

Effective Provision of These Services Requires Further Experimentation

There is significant anecdotal evidence pointing towards the positive impact of mentoring and networking on women's entrepreneurship activities, and many entrepreneurship programs have incorporated the provision of these services. For example, 70 percent of growth entrepreneur programs reviewed by Drexler include mentoring components. Several approaches have been tested in existing programs. High-impact entrepreneurship programs, such as Endeavor, typically rely on experienced and successful volunteer mentors who operate within guidelines to prevent potential conflicts of interest. Other programs focusing on micro and small-scale entrepreneurs in developing countries encounter difficulties recruiting appropriate mentors. Some use consultants, while others find faculty or entrepreneurs who need to be paid in order to keep them engaged in the program. The relative merits of these approaches have yet to be directly compared, and further experimentation is needed to structure the delivery of networking and mentoring services for impact.

Anecdotal evidence also indicates that networking events with other female entrepreneurs can be inspiring. However, access to male networks can probably help women access valuable market information and facilitate crossover to a greater degree.

3.4 *Other Services*

Additional Business Services can have Positive Impact

Other services, such as the availability of consultancy or technology extension services, can enhance the impact of entrepreneurship support programs. In a mixed program for both male and female-managed SMEs, Bruhn et al. (2012), using a randomized controlled trial in Mexico,[46] find that entrepreneurs who received customized consulting services[47] over a period of one year not only improved business practices but were also able to raise sales by 80 percent and monthly profits by 120 percent.

In a study of microenterprises, Valdivia (2011) finds positive impacts of additional services in Peru. Female owners of microenterprises were randomly assigned to two treatment groups.[48] One received general business training (over four weeks) and the other received both the general training and customized technical assistance (an additional three months). The latter recorded sales 19 percent higher than their peers in the general training group and improvements in business practices (formality of the business and management of the business/household account). In contrast, the group that received only general business training was more likely to close loss-making businesses rather than make improvements in enterprise management.

Focusing on larger textile firms in India (with only one woman-owned enterprise in the cohort), Bloom et al. (2013) find that adopting management practices learned through consulting services increased the productivity of treated firms by 17 percent in the first year, in line with the growing literature emphasizing the importance of management quality for firm productivity (Bloom and Van Reenen, 2007).[49] This evidence for

[45] Breaking the metal ceiling: Female entrepreneurs who succeed in male-dominated sectors in Uganda (Campos et al. in Buvinić et al., 2012)

[46] The Impact of consulting Services on Small and Medium Enterprises: Evidence from a Randomized Controlled Trial in Mexico, Bruhn et al. (2012)

[47] Consulting services included a diagnosis of the growth constraints for individual enterprises, suggested solutions to overcome the constraints, and implementation of the solutions.

[48] Training or technical assistance for female entrepreneurship? Evidence from a field experiment in Peru, Valdivia (2011)

[49] Bloom, Nicholas, and John Van Reenen, "Measuring and Explaining Management Practices across Firms and Countries," Quarterly Journal of Economics, 122, no. 4 (2007), 1341–1408.

larger firms, however, contrasts with the evidence for microenterprises presented above. While support programs for microenterprises appear to improve management, this does not translate into enterprise growth. The findings of Bruhn et al. (2012) for SMEs in Mexico suggest that customized business services may be more effective in improving management quality. More evidence is needed in this case, especially for female entrepreneurs.

There are Important Supply-side Constraints in the Quality of these Services

Despite the potential enabling impact of these complementary services, Drexler's (2014) review suggests that most programs for women-owned businesses with growth potential do not offer these services, mainly because of the cost. Consultancy costs in some programs are four times the cost of the business education component, and high-quality consultants in developing countries are in short supply. This suggests that programs seeking to offer such services need to consider aspects related to the demand as well as addressing supply-side constraints.

3.5 *Access to Finance*

Female entrepreneurs experience more difficulties in accessing finance than male entrepreneurs, and thus tend to start their businesses undercapitalized. It may therefore be critical to incorporate access to finance to female entrepreneurs into support programs.

Access to Finance has Mixed Impact, Depending on Firm Characteristics

A significant amount of evidence has been produced in the microfinance literature that analyzes the integration of business education with access to finance for some female-led microenterprises. Outcomes have been mixed. In a study on Peru, Karlan and Valdivia (2011), for example, find no evidence of impact on key outcomes such as business revenue, profits, and employment.[50] Fafchamps et al. (2011) compare the effects of cash and in-kind grants for male and female-led microenterprises in Ghana, with in-kind grants (equipment) producing significantly higher monthly profits for both groups and cash grants producing higher profits only for male-led enterprises.[51] Furthermore, the equipment transfers were significant only for women-led firms that were larger in size (in terms of capital stock) at the baseline, even for firms in similar sectors. This appears to bolster the idea that the returns to capital of female enterprises are lower, although female enterprises of larger size could benefit substantially from greater access to finance.

Not all of the evidence on access to finance for women entrepreneurs is discouraging. For example, Klinger and Schündeln (2011) analyze the impact of TechnoServe's mixed-gender business plan training program in Guatemala, El Salvador, and Nicaragua and show that the effect on starting/expanding a business is stronger as a result of receiving a cash grant, although the effect is smaller for women.[52] Attanasio et al. (2011b) find that financing through group borrowing has a positive impact on the creation and survivability of women-led microenterprises in Mongolia.[53]

While it is clear from the assessment of constraints faced by female entrepreneurs that some form of access to finance is necessary for female-led enterprises to achieve growth, the evidence on the impact of exclusively finance-oriented support programs is limited and mostly focused on microenterprises. Studies on microenterprises suggest that access to finance alone has a limited impact on productivity and that, when combined with other training programs, outcomes are stronger when provided in the form of in-kind assistance rather than cash grants or group borrowing.

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[50] Other studies finding no impact of combining access to microfinance and business education are Gine and Mansouri (2012) for Pakistan or Berge et al. (2011) for Tanzania.

[51] When is capital enough to get female microenterprises growing? Evidence from a randomized experiment in Ghana, Fafchamps (2011)

[52] Can Entrepreneurial Activity be Taught? Quasi-Experimental Evidence from Central America (2007)

[53] Group lending or individual lending? Evidence from a randomized field experiment in Mongolia, Attanasio et al. (2011)

There is some evidence that larger female enterprises are more likely to benefit from access to finance. More research on how to best structure the provision of finance for growth-oriented women entrepreneurs is also needed.

3.6 *Monitoring and Evaluation*

Underlying this entire discussion is the glaring absence of a critical mass of robust evidence on what works for growth-oriented women entrepreneurs. Considering the importance of support programs for women entrepreneurs to the global agenda for economic growth and shared prosperity, there is an urgent need to incorporate robust evaluation mechanisms, specifically to invest in impact evaluations, in order to determine what types of support are most effective, which women entrepreneurs benefit the most, and to what extent.

Better Impact Evaluations and Longer Term Measurement of Outcomes is Needed

Establishing key performance indicators that monitor ongoing changes in both business practices (i.e., record keeping and business accounts) and business outcomes (i.e., sales, profit, and job creation) is an integral part of an effective evaluation. Additionally, measuring participant satisfaction with the various components can increase the responsiveness of program design. However, more evaluations using the appropriate counterfactual methodologies are needed.

Currently, most impact evaluations stop collecting data one year after implementation of the program. However, firm growth is not a short-term phenomenon, nor is there necessarily a linear relationship between accumulating business knowledge and improved performance outcomes. The evidence regarding the positive impact of these programs on business practices is quite robust. Ideally, program evaluations should attempt to measure both the longevity of these changes and the medium-term impact of these positive changes on business performance and firm growth.

4. LOOKING FORWARD: AREAS OF FOCUS FOR FEMALE ENTREPRENEURSHIP SUPPORT PROGRAMS

The preceding review sheds light on some of the constraints faced by women entrepreneurs and suggests some potential solutions. These constraints include initial conditions (at the startup stage), such as access to finance, education, information, and networks, which lead to sorting into low-productivity and low growth-potential sectors. Subjective preferences and the overall business environment, including institutional and legal frameworks, also influence managerial choices and firm decisions, which has a direct bearing on business performance outcomes. Further experimenting and robust evaluations are necessary to enrich program design grounded in evidence.

One potential explanation of why support programs for women entrepreneurs have weaker outcomes than those for their male peers is that the programs tend to focus on improving initial resource conditions but rarely address the remaining binding constraints to female enterprise growth, such as concentration in low-productivity and low-growth activities, intra-household choices, and the role of institutions and legal frameworks in shaping the overall business environment for women entrepreneurs. Addressing these constraints requires designing programs more holistically and combining instruments and services oriented to addressing these barriers. There are three areas that can potentially increase the effectiveness of these programs and where more evidence and experimentation is required to calibrate programs to specific segments of female growth entrepreneurs.

4.1 *Engendering Programs*

How can programs be engendered so that most of the constraints faced specifically by female growth entrepreneurs are addressed? Existing support programs tend to engender programs by limiting participation to women only. Some programs also emphasize specific cognitive and non-cognitive skills

where female entrepreneurs are constrained, such as negotiation, leadership, and communication skills. However, this does not seem to address all constraints. For example, mobility and opportunity cost constraints are rarely addressed. The delivery mechanism also needs to take into account gender-specific constraints. Peer learning from other female (or male) peers and linkages with mentors and relatable role models who can be inspirational for women are also potential engendering mechanisms that can be adopted. More evidence is needed on how to engender the content of business education. Using women-centered case studies, employing instructors and trainers qualified to address gender constraints, and emphasizing practical soft skills like negotiating in male-dominated markets. might make the support more effective.

In addition, support programs should better integrate household constraints. Only a few programs provide specific wraparound services that support women entrepreneurs by providing support for childcare or joint sessions with spouses to discuss the woman's enterprise and household responsibilities. Some of the self-evaluations of these programs suggest that such wraparound services could have a positive impact on empowering women and their business decisions, although more research is needed to understand how to better design these wraparound services.

4.2 *Supporting Crossovers*

Stimulating female entrepreneurs' entry into higher-productivity and growth activities, often male-dominated, is critical to narrow the performance gap between male and female entrepreneurs. In cases of large concentration of female entrepreneurs in low-productivity and low-growth sectors, supporting crossovers is likely to be the only way to generate significant growth in female-led enterprises. Crossing over in this context refers to both entry into different sectors that have higher productivity and within-sector diversification into higher value-added activities. This type of intervention needs to be integrated into support programs for women entrepreneurs.

As Campos et al. (2013) suggest in the Uganda case study, supporting crossovers requires programs to increase exposure of women entrepreneurs to these sectors by using appropriate mentors and facilitating access to information. One example of a successful crossover program in Bangladesh supported women entrepreneurs' entry into the clean cook stoves value chain by providing access to credit and incorporating other organizations, such as business associations, into the program.[54] Reaching out to community leaders was also an important strategy for increasing the acceptance of women entrepreneurs in society (Buvinić, et al., 2012).[55]

Although there is scant literature in this area, Penrose's (1959) theory of the firm showed that firm capability is critical for firm growth and diversification. Female entrepreneurs will succeed in crossovers if they acquire the capability to do so. This implies that entry in similar activities of higher value added within the same sector requiring similar capabilities may yield larger returns. Two types of programs may be useful in building crossover capabilities: (i) entrepreneurship programs that incorporate more technical training and other customized services to facilitate this process of activity crossover, and; (ii) project-oriented programs that target specific sectors and activities and support links to particular supply chains with business and technical training and access to markets. Given the large potential impact of these crossover interventions, it is critical to experiment with these approaches.

4.3 *Changing the Narrative and Reforming Legal Institutions*

The final piece of the puzzle is the overall environment for women entrepreneurs, including public perceptions and the legal and institutional framework. Traditional

[54] One additional benefit of the program was that women-led firms employed more women; almost 80% of their employees were women compared to 10–15% female employment in male-led firms.

[55] Dey in Buvinić et al. (2012)

narratives, for the most part, confine women to specific business categories, usually microenterprises, with little room for growth. Often this does not reflect the complex reality of women-led enterprises, which operate in all sectors and come in all sizes. Part of the challenge of changing the self-perceptions of women entrepreneurs is their limited access to successful peers and role models in high-growth sectors. It is critical for programs to try to change these narratives with public campaigns, events, and discussions with community leaders. Access to networks and mentoring is a crucial part of this, especially to overcome the lack of information that constrains women entrepreneurs' decisions to enter into specific sectors and subsequent growth ambitions.

Along with these efforts, support programs also need to engage with government institutions and chambers of commerce to reform legal frameworks that constrain female entrepreneurial activity. This requires robust assessment of existing legal constraints and the creation of forums for dialogue between sectors, government, and civil society on female entrepreneurship to encourage reforms.

5. CONCLUSION

Women entrepreneurs are now widely recognized as critical engines of national, regional, and global growth. It is therefore important to design appropriate support programs to facilitate their move into higher-growth and higher-productivity and activities.

A review of the evidence on the entrepreneurial gender gap and of the impact evaluations of female entrepreneurship programs revealed that support programs have yielded positive outcomes in improving management practices but do not seem to be producing similar results in firm performance in terms of sales, profits, or employment. The review found that women-led enterprises underperform under certain conditions which have to do with social norms, perceptions about abilities and opportunities, and entrepreneurial preferences.

These findings suggest that there is significant room for improving entrepreneurship support programs, by offering mentoring, networking, and other consulting services, in addition to education on basic business practices and by strengthening critical areas that can potentially increase the effectiveness of these programs. More experimentation is required in the areas of: (i) engendering programs more effectively in order to overcome some of the constraints stemming from social norms and subjective preferences, (ii) supporting women entrepreneurs to cross over into higher value-added and more productive activities, and (iii) addressing legal and institutional constraints.

Given the significant growth of female entrepreneurship programs targeting various groups such as the self-employed, it is important to better understand whether entrepreneurship support is likely to be more effective in increasing incomes for these groups than alternative programs to engage them in labor market activities. Relatedly, there are some aspects of delivering services to women entrepreneurs that the note has not touched upon due to an exclusive focus on program design. Primary among these is the question of scaling up of these programs in order to have a real and sustainable impact on the lives of millions of potential and practicing entrepreneurs. Some of the components that appear essential in the success of women entrepreneurs cannot uniformly be delivered to millions of women as they are currently implemented. For this, technology offers an immensely valuable tool to scale up these programs—now the task is to understand how that might happen and test innovative ideas around it.

Existing approaches to supporting growth-oriented women entrepreneurs are heterogeneous in their design and delivery, and yield indicative evidence that points the way forward. There is evidence to suggest several areas of focus which can facilitate the growth and expansion of female-led enterprises, creating jobs and boosting shared prosperity. Further experimentation and

evaluation are critical to developing a cohesive, holistic approach toward supporting growth-oriented women entrepreneurs and realizing their immense potential in stimulating economic transformation.

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