Women Entrepreneurs in Mexico: Breaking Sectoral Segmentation and Increasing Profits

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Key Messages

- Female-owned businesses tend to exhibit lower productivity, fewer profits, and less growth potential than male-owned businesses. The differences may be explained by the nature of the sectors in which women operate.

- Mexican women who cross over to operate businesses in male-dominated sectors perform better than noncrossovers in a range of indicators, including sales and profits.

- Female entrepreneurs are more likely to cross over if male mentors or role models support them. Role models and mentors have a positive impact on the performance of female-owned businesses.

- Female entrepreneurs who tend to take advantage of opportunities are more likely to enter male-dominated sectors.

- Microentrepreneurship training, complemented by mentoring or exposure to role models, may unlock network and financial opportunities that help women cross over into more profitable sectors.

Context

Across the globe, women often face lower income opportunities relative to men. Women are less likely to participate in the labor market, and, if they do work, they usually earn less and are more likely to participate in less profitable activities. Similarly, female-owned businesses tend to show weaker economic performance. On average, they are smaller and less profitable and grow more slowly (Carranza, Dhakal, and Love 2018).

Many of the differences in economic outcomes can be explained by the sectors in which women tend to operate, typically retail (that is, small commerce) and a subset of services. Sectoral segregation is tied to differences in job quality, including wages, benefits, and opportunities for growth. Among businesses, female-dominated sectors tend to exhibit less productivity, fewer profits, and lower growth potential than male-dominated sectors (Bardasi, Sabarwal, and Terrell 2011; Goldstein, Gonzalez Martinez, and Papineni 2019; Hallward-Driemeier 2011; Rijkers and Costa 2012; Rosa and Sylla 2016; World Bank 2018).

Structural factors also contribute to the gender gap in economic opportunities. Women bear a disproportionate share of childcare and housework, have fewer choices in their movement and mobility, and face gender norms that limit their access to more profitable business opportunities (Babbitt, Brown, and Mazaheri 2015; Field et al. 2015; World Bank 2018). In some cases and depending on characteristics such as size, age, and sector, female-owned firms may have less access to credit, bank accounts, and collateral to grow their businesses (Aterido, Beck, and Iacovone 2013; Klapper and Parker 2011).

Preferences and aspirations can drive gender-specific constraints and labor market outcomes (Dalton, Ghosal, and Mani 2016). However, a large portion of the gender gap in income and productivity can be explained by labor market frictions or gender norms that dictate the types of jobs women and men pursue and are able to obtain. For example, between 20 percent and 40 percent of productivity growth in the United States over the last five decades can be attributed to improved talent allocation, especially among women and black men (Hsieh et al. 2019).

Gender Innovation Lab for Latin America and the Caribbean (LACGIL)

The LACGIL supports impact evaluations and inferential research to generate evidence on what works to close gender gaps in human capital, economic participation, social norms, and agency. Additionally, the lab disseminates findings to improve operations and policy making to design cost-effective interventions that tackle gender inequalities and drive change.

To do this, the LACGIL works in partnership with World Bank units, aid agencies and donors, governments, nongovernmental organizations, private sector firms, and researchers.
The Problem

At 44 percent, female labor force participation in Mexico is one of the lowest in the Latin America and the Caribbean region. Women are concentrated in less productive sectors and in specific occupations (Calónico and Nopo 2008). Nonetheless, Mexico’s ranking on entrepreneurial activities is high (Fairlie and Woodruff 2006). The early-stage entrepreneurial rate has seen steady growth in recent years, and it is currently at around 21 percent of the adult population. Women account for 51 percent of the entrepreneurs in Mexico, and over 70 percent of women's entrepreneurial activity is concentrated in wholesale or retail (Elam et al. 2019).2

While sectoral segregation is widespread, evidence suggests that some women succeed in crossing over to male-dominated businesses. Thus, a recent global study on sectoral segregation suggests that female-owned businesses in male-dominated sectors make significantly greater profits than those in traditionally female-dominated sectors (Goldstein, Gonzalez Martinez, and Papineni 2019). However, country-level evidence on factors that might encourage women to enter male-dominated sectors or prevent them from doing so is scarce.

Study Description

To uncover factors that enable women to cross over to more profitable, male-dominated sectors, the analysis used baseline survey data from a randomized controlled trial to evaluate the impact of a personal initiative and business skills training program in Mexico. The sample consisted of 3,907 formal and informal female entrepreneurs in Mexico City and the states of Aguascalientes, Guanajuato, Mexico, and Querétaro. Using the definition of a male-dominated sector in box 1, the analysis identified 368 cross-over and 3,539 noncrossover female entrepreneurs.

The analysis investigated the differences in firm characteristics and performance between crossover and noncrossover female entrepreneurs. It also looked for potential differences in household demographics, wealth status, cognitive and noncognitive skills, access to finance, and external influences to determine the drivers of gender segregation in Mexico. It focused on the effect of the presence of a role model or mentor, the effect of other features, such as cognitive and noncognitive skills, and the likelihood that women would cross over to male-dominated sectors. By investigating these characteristics, the analysis attempted to uncover factors that might help explain the ability of certain women entrepreneurs to cross over and succeed in male-dominated sectors. It appears that this is the first study of female crossovers in Latin America.

FIGURE B1.1. SECTORS CLASSIFIED AS MALE-DOMINATED (BUSINESSES OWNED BY WOMEN AND MEN, %)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share of male owners</th>
<th>Share of female owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair and maintenance of electronic equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet service providers, web search information services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale of pharmaceuticals, perfume, domestic electrical appliances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic and rubber industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial service activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing and reproduction of recorded media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of leather and fur products (except clothing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale of agricultural and forestry raw materials and waste product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale of textiles and footwear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services related to transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial, insurance and bond institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale of food, beverages and tobacco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freight transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land transportation (except railway)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive repair and maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
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</tbody>
</table>

Overall, male-dominated sectors in Mexico are capital intensive (automotive repair, land transportation, and mining), followed by sectors that require information and communication technology–type skills, finance, and stock market activities.

BOX 1: WHAT ARE MALE-DOMINATED SECTORS?

The classification of firms according to their activities in male- or female-dominated sectors is not well established. The literature often defines a male-dominated sector as one in which men own more than 50 percent of the firms or make up more than 50 percent of the employees in the sector. Some studies use a threshold of 75 percent and draw on the responses of entrepreneurs to questions about their perceptions of the sex of the owners of most enterprises in their sectors (Alibhai et al. 2017; Campos et al. 2015; Goldstein, Gonzalez Martinez, and Papineni 2019; IWPR 2013).

Unlike previous studies, this study does not rely on perceptions, but the actual distribution of self-reported ownership by sex to classify male- or female-dominated sectors. It uses the distribution of self-reported ownership by sex in a nationally representative survey of microenterprises to classify sectors into male-dominated or female-concentrated.3 If more than 70 percent of businesses in the survey sample are owned by men, this study defines the sector as male-dominated. This definition has been applied to the sample of women entrepreneurs in the experimental baseline survey. There, if more than 70 percent of businesses in the entire sample are owned by men, the study defines the sector as male dominated. Based on this definition, 17 sectors have been classified as male-dominated (figure B1.1).

**What is the evidence?**

Firms owned by women who cross over outperform firms owned by noncrossovers on a range of indicators. The firms of women who operate in male-dominated sectors are nearly twice as profitable as the firms of women who remain in female-dominated sectors. Similarly, the value of sales per day reported by female entrepreneurs in male-dominated sectors is more than double the value reported by female entrepreneurs in traditional sectors. Compared with noncrossovers, crossover firms are significantly larger according to average number of employees (0.7 vs. 1.3). These data show that supporting female entrepreneurs in entering male-dominated sectors fosters better firm performance.

Opportunity entrepreneurs are more likely to cross over. Some women start businesses because they see an opportunity, while other women start businesses out of necessity because they have no other options. According to data collected as part of a larger experimental study, opportunity entrepreneurs typically started businesses because they (1) wanted to become independent, (2) had money and found a good business opportunity, or (3) wanted to advance their careers. Less than one entrepreneur in three (27 percent) was classified in this category. The results indicate that starting a business to take advantage of an opportunity is associated with a higher probability of entering a male-dominated sector. Moreover, evidence from a large sample of women entrepreneurs in Mexico suggests that, on average, opportunity entrepreneurs show higher profits and sales as well as better management practices than necessity entrepreneurs (Calderón, Iacovone, and Juárez 2017).

Male role models encourage female entrepreneurs to cross over. A role model is a person who serves as an example. In the study sample, 63 percent of female entrepreneurs who had crossed over reported that they had role models, compared with 54 percent of noncrossovers. On average, 35 percent of the role models were men; fathers were the most common male role models. If women entrepreneurs have male role models who support them, they are 6.5 percent more likely to cross over, compared with women who have no male role models.

This is consistent with the results of the few studies on crossovers conducted to date that find that early exposure to male role models is important in encouraging female entrepreneurs to enter male-dominated sectors.2 Having a female role model does not seem to have any significant impact on the likelihood of crossing over.

Male mentors positively impact female entrepreneurs and increase the likelihood they will cross over. A mentor is a person who helps the entrepreneur to make important business decisions. In the study, 49 percent of crossovers and 46 percent of noncrossovers reported they had mentors. More than 60 percent of the entrepreneurs reported they had had mentors for at least four years. Nearly two-thirds of the mentors were men, and most were the husbands or domestic partners of the women. If male mentors support them, women are 5 percent more likely to cross over, relative to women not supported by male mentors.

There are various reasons why male mentors matter. The subset of crossover women who had male mentor reported that the mentors had helped them (1) improve their businesses or solve business problems (27 percent), (2) help them start or plan their businesses (25 percent), (3) find clients (20 percent), (4) find new ideas for products or services (12 percent), (5) find suppliers (10 percent), or (6) gain access to financing (7 percent) (figure 1).

### FIGURE 1. MENTORS HELPED WOMEN ENTREPRENEURS, BY AREA OF ASSISTANCE

<table>
<thead>
<tr>
<th>Area of Assistance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find new ideas of products or services</td>
<td>12%</td>
</tr>
<tr>
<td>Access finance</td>
<td>6%</td>
</tr>
<tr>
<td>Find clients or new markets</td>
<td>20%</td>
</tr>
<tr>
<td>Help improving or solving business-related problems</td>
<td>27%</td>
</tr>
<tr>
<td>Start or help planning business</td>
<td>25%</td>
</tr>
<tr>
<td>Find suppliers</td>
<td>10%</td>
</tr>
</tbody>
</table>

Male mentors can unlock networking and financial opportunities. Male mentors help female entrepreneurs expand their social networks and gain visibility within a sector. They can also help them gain access to financing opportunities to grow their businesses. Among female entrepreneurs who reported they had mentors, women with male mentors had obtained, on average, 36 percent more credit during the year before the survey.

Male role models and male mentors foster business growth. The availability of a role model has a positive effect on key business performance indicators, even after one controls for the effect of crossing over. Among female entrepreneurs who reported they had role models, the women with male role models showed, on average, 50 percent higher profits per week and 70 percent higher revenues per week. Male role models are also associated with higher levels of business activity (3.2 more working hours per week), even after one controls for crossing over.

Among female entrepreneurs who reported they had mentors, the women with male mentors showed, on average, 29 percent higher profits and 35 percent higher revenues per week. They also had an average of 3.4 more clients and sold 12 more products per day.

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3 The difference between crossovers and noncrossovers is not statistically significant in this case.
The educational attainment of their fathers matters in women crossing over. The study analyzed the effect of the educational level of the fathers and mothers of female entrepreneurs. It found that one additional year in a father’s educational attainment increases the probability that a female entrepreneur crosses over to a male-dominated sector by 0.3 percent, after controlling for the woman’s educational level, her mother’s educational level, and cognitive skills. The effect of a mother’s educational attainment is not statistically significant.

Cognitive skills have a substantial effect on the likelihood of crossing over. Women who cross over seem to differ from noncrossovers in various measures of cognitive skills. Thus, one additional year of education is associated with a 0.5 percent increase in the probability of crossing over. This implies that a female entrepreneur with secondary education will be 3 percentage points more likely than a female entrepreneur with only primary education to enter a male-dominated sector. Female entrepreneurs with substantial cognitive abilities, as measured through Raven’s Progressive Matrices (a nonverbal test of abstract reasoning typically given in educational settings), are also 0.8 percent more likely to cross over (Tang, Karunanithi, and Shyu 2018). Meanwhile, noncognitive skills do not seem to affect the probability of choosing a male-dominated sector.

Policy recommendations

• Understand the factors that allow women to cross over into more profitable male-dominated sectors, thereby helping in the design of interventions that enable women to develop businesses that reduce gender gaps in economic opportunities. Rigorous evidence on what works in assisting women to cross over into male-dominated sector is scarce, but promising.

• Complement microentrepreneurship programs by exposure to male role models. Standard microentrepreneurship programs that incorporate male role models can foster motivation and initiative. Exposure to a successful role model may provide information about the returns in male-dominated fields and help women gain market information (Field et al. 2016; Wilson 2012). Male role models could also affect behavior by incentivizing female entrepreneurs to apply the successful business practices of men or by encouraging women to make the decisions required for the business to succeed (Bursztyn et al. 2014).

• Evidence from a training program in Chile suggests that a role model intervention generates impacts similar to those of intensive technical assistance at a lower cost and may be more well suited for less highly experienced entrepreneurs (Lafortune, Riutort, and Tessada 2018). In Indonesia, an intervention combining information on local best practices with exposure to successful role models led to significant improvements in sales and profits (Dalton et al. 2019). Building on the literature on the returns to education, future research could explore the effectiveness of using role models to socialize the expected returns in male-dominated sectors (Jensen 2010; Nguyen 2008).

• Engage men in entrepreneurship training programs. Microentrepreneurship programs can engage husbands and other men relatives to offset gender norms or attitudes that might constrain women from successfully participating in the programs. Female entrepreneurs with male role models or male mentors (other than husbands) are more likely to cross over. Men could be encouraged to introduce female entrepreneurs to their business networks, pass on key technical skills, and help the women gain access to financing opportunities.

• Complement skills training programs with mentorship opportunities. Networks are often less widely available and less diverse among female entrepreneurs, which places the women at a disadvantage. If they become part of skills training, male peers can be valuable as business partners or in providing support, thereby increasing the likelihood that the women cross over to sectors with higher returns. Thus, programs designed to empower women through skills training or cash grants may be more successful if they are complemented with mentorship support (de Mel, McKenzie, and Woodruff 2009).

• Incorporate smart designs in skills training programs. Skills training programs might offer opportunities to improve outcomes among female entrepreneurs. However, because of family responsibilities, movement restrictions, and gender norms, it is often more difficult for women than men to access and complete such programs (Cho and Honorati 2013; Hicks et al. 2011). Although the precise skills needed is not yet clear, it is important that programs integrate smart design that helps women overcome constraints (World Bank 2020). Operational aspects include holding training in accessible and safe locations, arranging childcare options to help women participate as in the case of the Jóvenes en Acción Program in Colombia (Attanasio, Kugler, and Meghir 2009), and making transportation easy and safe as in the Peruvian Pro.joven jobs training program. These programs have shown long-term positive employment outcomes among both women and men.

• Provide information on sector-specific profitability. Providing information about higher return businesses in man-dominated sectors relative to female-concentrated sectors could change beliefs about profitability and encourage women to enter male-dominated fields. It may also motivate women to enroll in skills training in nontraditional trades. Information can be offered through career guidance in schools, informational sessions accompanying skills training programs, or edutainment (Bjornvatn et al. 2020). Efforts aimed at supplying female entrepreneurs information about the differential returns in male-dominated sectors may matter, but there are few rigorous studies available, and they are focused on lower-middle-income countries. For example, an intervention in Kenya used posters and handouts to display information on the returns to vocational education among women and men engaged in different fields of work. The information treatment encouraged women to prefer and ultimately enroll in traditionally male-dominated trades (Hicks et al. 2016).


