

## Gender and Informality in Latin America

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**R**ecently collected data on informal or unregistered firms in Argentina and Peru show significant differences between male- and female-owned firms. Compared with male-owned firms, female-owned firms are smaller in size, have lower labor productivity and are less likely to use equipment such as machinery and vehicles. Some of the commonly held perceptions, such as lower education among women entrepreneurs, fewer numbers of owners among firms that have a female as the largest shareholder and greater difficulty faced by women in accessing credit, are only weakly supported in the data. However, as documented in the literature, women managers have fewer years of experience in running a business and they are also more likely to operate from inside than outside the household premises in order to take advantage of better working hours and location. Some gender-based differences in the willingness to register and the potential costs of registering are also observed in the data.

A substantial proportion of economic activity occurs within the informal or unregistered economy. This is especially true of developing countries. For example, a recent study estimates that globally between 22.5 percent and 34.5 percent of all economic activity occurs in the informal economy; for countries in the lowest quartile of GDP per capita, however, the estimates range from 29 percent to 57 percent (La Porta and Shleifer (2008)). Despite the large size of the informal economy, not much is known about it, in large part due to lack of reliable data. Similarly, most of the literature devoted to gender-based differences in firm characteristics and performance focuses on formal or registered firms. See for example, Sabarwal and Terrell (2008), Brush et al. (2006) and Carter and Shaw (2006).

Anecdotal evidence suggests that compared with men, women are more heavily concentrated in the informal than the formal (registered) economy. This could be due to lower entry and exit barriers in the informal economy, the fact that women face greater difficulty in obtaining credit, the flexibility of working hours and the opportunity of working from home. These factors make the informal economy particularly suitable for studies that aim to highlight differences in female-run or female-owned businesses compared with their male counterparts.

This note uses recently collected data on informal or unregistered firms in Argentina and Peru to highlight important differences between male- and female-owned businesses. These data were collected by the World Bank's

Enterprise Analysis Unit in 2010 and cover 384 firms in Argentina and 480 firms in Peru.<sup>1</sup> Firms were randomly selected from two cities in Argentina (Buenos Aires and Rosario) and two cities in Peru (Lima and Arequipa). It is important to note that due to lack of proper sampling frames, these surveys are not necessarily representative of the informal economy at the country or even the city level. Hence, the results presented below pertain to the structure of the informal firms surveyed rather than the informal economy per se. Extension of these results to the broader informal economy requires due caution.

Throughout this note, a female-owned firm is defined as one that has a female as the largest shareholder. The rest are male-owned firms. For about 99 percent of the firms in the sample, the largest owner is also the main decision maker (manager). Hence, there is almost no difference in the sample between female-owned and female-run firms, and the same holds for male-owned and male-run firms. About 54.1 percent of the firms in the full sample are female-owned, including 52.2 percent of those surveyed in Argentina and 55.6 percent in Peru. By sector, female-owned firms represent 48.2 percent of manufacturing firms and 60 percent of service firms.

### Labor productivity and firm-size is lower for female-owned businesses

On average, output per worker (monthly sales in a regular month divided by total number of workers) equals U.S. \$411 in the full sample—U.S. \$358 for female-owned

businesses and \$473 for male-owned businesses. This implies that a typical worker in a female-owned business produces only 76 percent of the output of a worker in a male-owned business.<sup>2</sup> The data also show that firm-size as measured by monthly sales in a regular month is smaller for female-owned than male-owned firms. That is, the median-sized female-owned business is about 61 percent of a median-sized male-owned business. These gender-based differences are robust and hold within various subsamples such as manufacturing and service firms and relatively young and old firms.<sup>3</sup>

### Female-owned businesses are less likely to use machinery and vehicles than male-owned businesses

The survey provides information on three types of equipment: machinery, vehicles and cell phones. With the exception of cell phones, male-owned businesses are more likely to use equipment than female-owned firms. Figure 1 shows gender based difference in the use of machinery.

The percentage of firms that use their own vehicles or other means of transport for business activity is also significantly higher among male-owned than female-owned businesses (15.7 percent vs. 6.5 percent). This difference remains large and significant within various subsamples including those shown in figure 1. In the case of cell phones, 51 percent of male-owned firms in the full sample compared with a much lower 42.7 percent of female-owned firms use them. However, this difference

is entirely driven by the firms in Argentina. In Peru, use of cell phones is marginally higher among female-owned firms (52.4 percent vs. 51.6 percent).

### Female-owned businesses are less inclined to register than male-owned business

In the full sample, 51.8 percent of male-owned firms compared with a significantly lower 40.8 percent of female-owned firms wanted to get their business registered. However, this gender-based difference is largely driven by firms in the manufacturing sector where 55.4 percent of male-owned versus 41.7 percent of female-owned firms wanted to register. In the service sector a much smaller and statistically insignificant difference (47.3 percent and 40 percent, respectively) was reported.

The survey reports on firms' perceptions of the potential benefits from registering—such as better access to finance, better access to markets and government facilities, less bribes to pay and being able to issue receipts—as well as the perceived disadvantages—such as the time, fees and paper work it takes to register, taxes and bribes that registered businesses have to pay and inspections and meetings with government officials that follow registration. The proportion of firms that report the various benefits and costs as important does not vary

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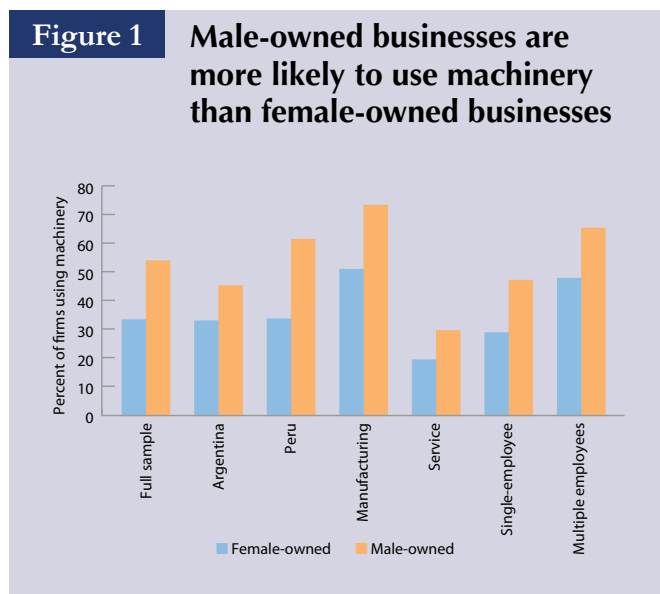
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much between female- and male-owned firms, either in the full sample or within the subsamples of manufacturing and service firms. Hence, it is difficult to conclude why a larger proportion of female-owned compared with male-owned businesses in the manufacturing sector wanted to register.

### Female owners are more likely than male owners to operate from home, in part due to the convenience of working hours and location

As mentioned above, one might expect that compared with male-owned firms, female-owned firms are more likely operate from inside than outside household premises. Further, for the set of firms that do operate from inside the household premises, the percentage that do so in order to have more convenient working hours or location is likely to be higher for female-owned than male-owned firms.

The data confirm both these assumptions with the exception that in Peru, the percentage of male- and female-owned firms that operate from inside the household premises is roughly equal. Briefly, in Argentina, 63 percent of female-owned firms but only 39 percent of male-



Source: Enterprise Surveys.

owned firms operate from inside household premises. In contrast, in Peru these figures are 21.7 percent and 24.4 percent, respectively. Looking at the percentage of firms that choose to operate from inside household premises because doing so offers better hours or location, however, the number is much higher for female-owned than male-owned firms in both Argentina (24.7 percent vs. 15.3 percent) and Peru (34.5 percent vs. 22.5 percent).

### Convenient hours and location are more important reasons for switching business activity for female than male entrepreneurs

Switching from one line of business activity to another can involve substantial loss of expertise and networks, lowering managerial efficiency. There is not much discussion in the literature on informality on the extent of switching, if any, and the reasons for it. Prior to starting their current business, about 81 percent of the business owners in the sample were employed. Of these, about 55 percent were employed in an activity that was different from their current business activity. That is, 55 percent of the owners switched business activity when they started their current business. The figure is significantly higher among female-owned firms than male-owned firms (58.5 percent vs. 51.1 percent), although the gap is almost entirely due to firms in the service sector. The survey also provides information on the reasons for switching. One of the reasons for switching—better hours or better location—shows significant variation along gender lines. That is, 30.2 percent of female entrepreneurs who switched reported doing so for better hours or better location while males reported a much lower 18.5 percent. This difference holds equally within the samples of service and manufacturing firms.

### Female owners of informal businesses are less educated than their male counterparts, but only in Peru

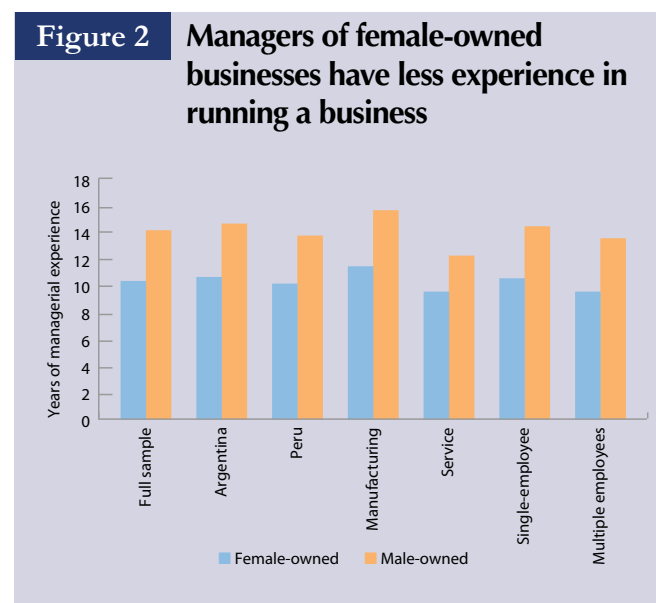
One of the key findings in the literature is that relative to men, women tend to have lower education levels and this holds for firm-owners, managers and workers (Carter and Shaw (2006)). The data under study show that the level of education (no education, primary education, secondary education, vocational training and university education) is lower for an average female owner than a male owner, but this holds only in Peru—not in Argentina. There is some suggestion in the literature that the education level of the parents has a stronger effect on the education level of daughters than sons. The data under study show no evidence of this. One might speculate that the difference in education level between male and female owners of businesses may be larger if one could account for gender differences in how imperative it is for them to work.

For example, in most counties, women are the primary caregivers in the family and this could affect how the relatively less educated (less than secondary education) women compared with the less educated men choose self-employment versus wage work. Results show that accounting for differences across gender in the following variables makes no difference to the weak relationship between the gender of the owner and education level in the full sample: location of business inside versus outside of household premises (a measure of how serious the owner is about doing business), age of the owner, firm-size measured by sales in a regular month, number of hours of operation in a given week, sector of activity (manufacturing or service) and the marital status of the owner (single vs. married).

### Women managers have less experience than male managers but other commonly held gender-based differences are not supported by the data

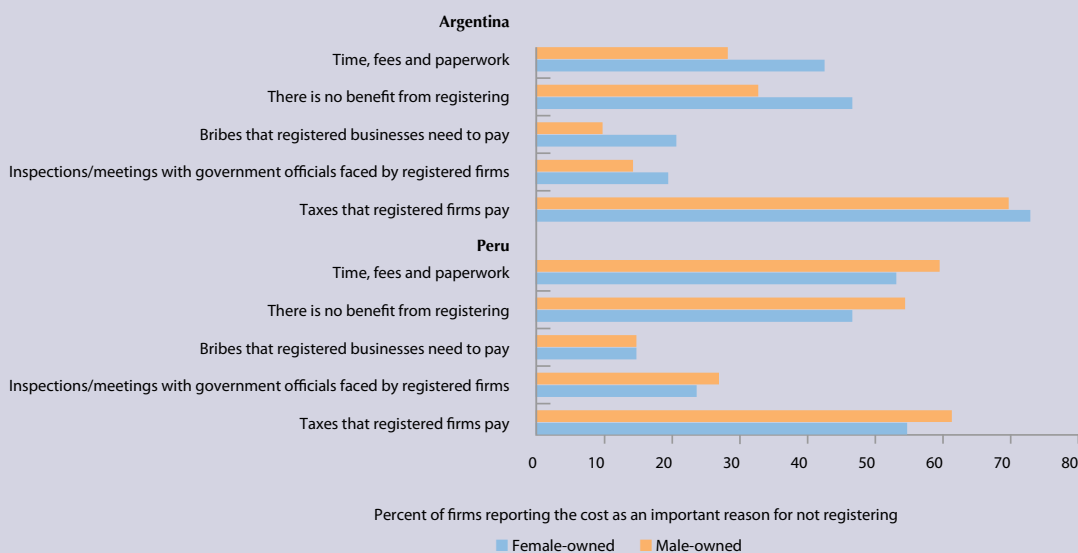
Some studies find that relative to male-owned businesses, female-owned businesses have fewer numbers of owners and are likely to hire more female than male workers, and that female managers are less experienced than male managers. Furthermore, they often find that women face greater difficulty than men in getting credit.

The data confirm significant differences along gender lines only in the number of years of experience that the manager has—not in the remaining variables listed. On average, a female manager of a firm has 10.3 years of experience in the sector compared with a much higher 14.1 years for male managers. This difference remains after various checks for differences in firm characteristics



Source: Enterprise Surveys.

**Figure 3** Some perceived costs of registering vary by gender, but only in Argentina



Source: Enterprise Surveys.

such as sector of activity, age of the manager, firm-size and age of the firm. The difference also holds individually within various subsamples (figure 2).

The percentage of firms that use external sources to finance their day-to-day operations is 24.6 percent for male-owned firms and a roughly similar 22 percent for female-owned firms. Male- and female-owned firms are also roughly similar in the percentage that have a bank account (6.6 percent and 4.1 percent, respectively), report access to finance as a severe obstacle to doing business (32.2 percent vs. 31.9 percent) and that report internal funds as the most common source for financing their day-to-day operations (71.5 percent vs. 74.5 percent). Similarly, male- and female-owned businesses are similar in the number of owners of the business (on average, 1.1 owners for both) and a roughly similar percentage of workers that are female (47.7 percent vs. 49.9 percent).

### Some gender-based differences are specific to the individual countries

The level of economic development of a country and other factors such as the level of regulation and quality of the business environment that are specific to a country can have significant impacts on the structure and conduct of informal firms. The data confirm that this is indeed the case with at least some of the firm-characteristics. For example, the percentage of firms in Peru that use family

labor equals 21.7 percent among female-owned firms and a much higher 30 percent among male-owned firms. In contrast, in Argentina the corresponding figures hardly differ from one another, equaling 31.6 percent and 32 percent, respectively.

The survey asked firms about the main reason why they are not registered. Five different types of costs were listed and the firms were asked if these were important in their case or not. For three of these five costs (top three costs in figure 3), the percentage of male-owned firms in Argentina reporting them as relevant was much higher than for female-owned firms. In contrast, no such difference was observed among Peruvian firms for these costs. For the remaining two costs, there is no gender-based difference in either country.

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Informal firms in Argentina and Peru show significant gender differences in, for example, labor productivity, total monthly sales, location of the business inside or outside the household premises, years of managerial experience and the desirability of getting the business registered. However, gender-based differences in firm-characteristics cannot be taken for granted since not all firm-characteristics vary along the gender dimension. A detailed analysis on a country-by-country basis is required to ascertain the gender-specific differences among informal firms.

## References

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## Notes

1. The Enterprise and Informal Surveys implemented in Latin America and Caribbean countries, are jointly conducted by the World Bank and the Inter-American Development Bank for this geographic region.
2. The percentage figure drops somewhat to 72 percent if we exclude four observations that show extremely high or low levels of labor productivity.
3. More details on these differences are discussed in two separate companion notes.

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