Gender and Informality in Latin America (Short Note)

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Recently collected data on informal or unregistered firms in Argentina and Peru show significant differences between male and female-owned firms in certain firm characteristics and performance measures. Compared with male-owned firms, female-owned firms are smaller in size as measured by total monthly sales and also less efficient as measured by the average productivity of labor. Female-owned firms are less likely to use equipments such as machines and vehicles, although this is not the reason for their lower efficiency. Some of the commonly held views including lower education among women entrepreneurs, fewer numbers of owners among firms that have a female as the largest owner 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 household premises in order to avail 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 the unregistered economy. This is especially true of the developing countries. For example, a recent study estimates that for the world as a whole, between 22.5 and 34.5 percent of all economic activity occurs in the informal economy; for countries in the lowest quartile of GDP per capita, the estimates range between 29 and 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. Another strand of the literature focuses on gender based differences between male and female owned or managed firms. However, most of this literature focuses on formal or registered firms. For example, Sabarwal and Terrell (2008) find that women-owned businesses in the formal sector in 26 transition countries are significantly less profitable than male-owned businesses. Focusing on the formal sector in the U.S., Brush et al. (2006) find that the average revenue of female-owned firms equaled USD 151,130, about one-fourth the amount for male owned businesses. Greater difficulty faced by women in accessing finance is also reported by a number of studies for the registered sector (see for example, 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 and the fact that women face greater difficulty in getting credit, flexibility of working hours and the opportunity of working from home. All this makes the informal economy particularly attractive for studies that aim to highlight how female-run or female-owned businesses compare with male-owned businesses in their structure, conduct and performance.

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. The data cover 384 firms in Argentina and 480 firms in Peru. 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 informality 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 the results discussed below to the broader informal economy requires due caution.

Throughout the note, a female-owned firm is defined as one that has a female as the largest owner. 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, with the figure varying between 52.2 percent in Argentina, 55.6 percent in Peru, 48.2 percent within the sample of manufacturing firms and 60 percent for 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 USD 411 in the full sample, varying between USD 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 what a worker in a male-owned business produces. The data also show that firm-size as measured by monthly sales in a regular month is smaller for female-owned compared with 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 sub-samples such as manufacturing and service firms and relatively young and old firms.

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

The survey provides information on three types of equipments: machinery, vehicles and cell phone. With the exception of cell phones, male-owned businesses are more likely to use equipments than female-owned firms. About 42 percent of the firms in the full sample use machinery. Among female-owned businesses, the figure is much lower at 33 percent compared with 54 percent for male-owned businesses. The lower proclivity among female-owned businesses to use machinery holds within various sub-samples including manufacturing and service firms (figure 1).

**Figure 1: Male-owned businesses are more likely to use machinery than female-owned businesses**

![Figure 1: Male-owned businesses are more likely to use machinery than female-owned businesses](image)

Source: Enterprise Surveys

Percentage of firms that use own vehicles or other means of transport for business activity is also significantly higher among male-owned than female-owned businesses (15.7 vs. 6.5 percent). This difference remains large and significant within various subsamples including the ones shown in figure 1. In the case of cell phones, 51 percent of male-owned 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 phone is marginally higher among female than male-owned firms (52.4 vs. 51.6 percent).

**Female-owned businesses show less inclination to registering than male-owned business**

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In the full sample, 51.8 percent for male-owned 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 vs. 41.7 percent of female-owned firms wanted to register. The corresponding figures for the service sector show a much smaller and statistically insignificant difference (47.3 and 40 percent, respectively).

The survey reports on how the firms perceive some 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. Similarly, firms’ perceptions are also reported on the potential reasons for not registering such as the time, fees and paper work it takes to register, taxes and bribes that registered businesses have to pay, inspections and meeting with government officials that follow registration. The proportion of firms that report the various benefits and costs as important does not vary much between female and male-owned firms either in the full sample or within the sub-samples of manufacturing and service firms. Hence, it is difficult to say much on why a larger proportion of female-owned compared with male-owned businesses in the manufacturing sector want to register.

Female-owners are more likely than male-owners to operate from home than outside, in part due to the convenience of working hours and location
Anecdotal evidence suggests that the flexibility of working hours and the comfort of working from inside as opposed to outside household premises is an attractive feature of the informal economy, especially for women who bear bulk of the household responsibility in most countries. Consistent with this, 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 household premises, the percentage that do so 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 predictions with the exception that in Peru, the percentage of male and female-owned firms that operate from inside household premises is roughly same. Briefly, in Argentina, 63 percent of female-owned firms but only 39 percent of male-owned firms operate from inside household premises. In contrast, the corresponding figures for Peru equal 21.7 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, this is much higher for female-owned than male-owned firms in both, Argentina (24.7 vs. 15.3 percent) and Peru (34.5 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 the current business, about 81 percent of the business owners in the sample were employed. For these 81 percent of the owners, about 55 percent were employed in an activity that is different from their current business activity. That is, 55 percent of the owners switched business activity when they started the current business. The figure is significantly higher among female-owned firms than male-owned firms (58.5 vs. 51.1 percent), although this 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-owned firms that switched reported doing so for better hours or better location. The corresponding figure for male-owned firms equals a much lower 18.5 percent. This difference holds equally within the sample of service and manufacturing firms.

Women 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 women-owner than a male-owner, but this holds only in Peru and not in Argentina. There is some hint 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 differences across the owners 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 vs. 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 the education level in the full sample: location of business inside vs. 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; female managers are less experienced than male managers; female-owned firms are likely to hire more female than male workers compared with male-owned firms; and women face greater difficulty than men in getting credit.

The data confirm significant differences along gender lines in the number of years of experience that the manager has, but not in the remaining variables listed in the previous paragraph. On average, a female manager of a firm has 10.3 years of experience in the business compared with a much higher figure of 14.1 years for male managers. This difference survives various checks for differences in firm characteristics such as sector of activity, age of the manager, firm-size and age of the firm. The difference also holds individually within various sub-samples (figure 2).

Figure 2: Managers of female-owned businesses have less experience in running a business

![Graph showing number of years of managerial experience for female-owned and male-owned businesses across different sub-samples.](Source: Enterprise Surveys)
The percentage of firms that use external sources to finance their day-to-day operations equals 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 and 4.1 percent, respectively), report access to finance as severe obstacle to doing business (32.2 vs. 31.9 percent) and the percentage that report internal funds as the most common source for financing the day-to-day operations (71.5 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 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, quality of the business environment that are specific to a country can have significant impact on the structure and conduct of the informal firms. Hence, some gender based differences specific to Argentina and Peru can be expected. 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 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 for their case or not. For three of these five costs, the percentage of male-owned firms in Argentina reporting them as relevant was much higher than female-owned firms. In contrast, no such difference was observed among Peruvian firms (figure 3). For the remaining two reasons (shown in figure 3), there is no gender based difference either in Argentina or Peru.

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

![Figure 3: Some costs of registering vary by gender, but only in Argentina](image)

Source: *Enterprise Surveys*

Informal firms in Argentina and Peru show significant differences between male and female-owned firms in for example, labor productivity, total monthly sales, location of businesses inside and outside household premises, years of managerial experience and the desirability to get 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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1 The percentage figure drops somewhat to 72 percent if we exclude 4 observations that show extremely high or low levels of labor productivity.
2 More details on these differences are discussed in two separate companion notes.