



# Gender, Entry Regulations, and Small Firm Informality: What Do the Micro Data Tell Us?

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Informality is pervasive in many developing countries, where the majority of businesses do not register. One view, linked strongly with Hernando de Soto<sup>1</sup> and the IFC's *Doing Business* project, is that the informal sector consists of potential entrepreneurs who remain small as the administrative and financial costs of becoming formal prevent firms from formalizing, but that formalization is needed to obtain access to finance, and have the incentive to grow without fear of government inspectors.

Moreover, it is often argued further that the burden of regulation is even larger for female business owners, because they have less time and money to overcome expensive and time-consuming barriers to registration.<sup>2</sup> As a result, *Doing Business 2008* claims that the benefits of business regulation reform are especially high for women, and shows that across countries there is a positive association between the percentage of entrepreneurs who are women and the ease of doing business.<sup>3</sup>

However, there are several reasons one might question this correlation:

- Cross-country associations provide very weak evidence. Countries with better or worse regulatory environments differ in many other ways (governance, culture, institutions, openness to trade, and so forth), and these other factors may drive levels of female entrepreneurship.
- *Doing Business* may not be measuring the right regulations for most businesswomen.<sup>4</sup> For example, entry regulations are measured by *Doing Business* for a hypothetical firm with 5 owners, with limited liability, with start-up capital of 10 times per capita income, 10 to 50 employees, and turnover of at least 100 times income per capita. In contrast, most female (and male) business owners are sole proprietors, with much lower turnover and a few employees. In a recent, large, nationally representative survey in Sri Lanka, 93 percent of urban female-owned businesses had 2 or fewer employees (compared to 83 percent of male business owners), and only 0.5 percent of female-owned businesses had 10 or more employees (compared to 1.5 percent of male business owners).

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- A contrasting view of the reason for informality is that firms see formality as a normal good and register when it increases productivity. For some firms at the margin, cheaper and easier registration would make formalizing profitable, but many small and informal firms would still not benefit or register. Therefore, regulatory reform might not have the strong effect on female business ownership suggested by the cross-country association.

In this note we therefore turn to several recent surveys of small and informal business owners to explore gender differences in informality, report what small business owners themselves view as the barriers to and benefits of formalization, and discuss the implications for policy efforts to advance the growth of female businesses. We argue that although reforming regulations is important, policies to overcome nonregulatory barriers are equally or more important.

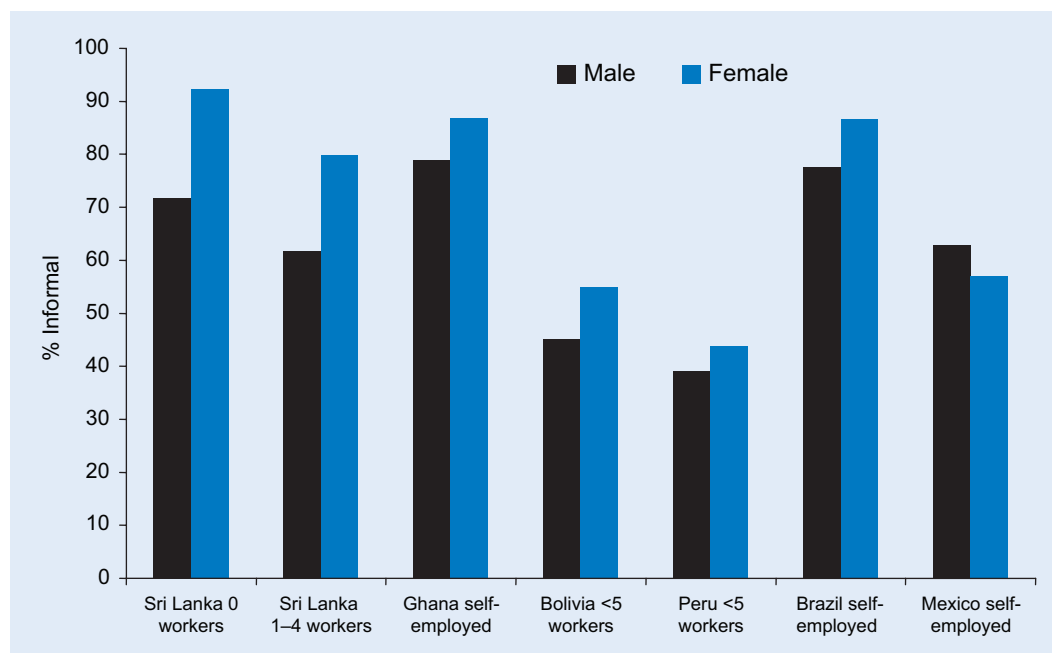
This note largely focuses on the implications for micro- and very small enterprises in urban areas, which comprise most businesses in developing countries. Almost all rural firms are informal.

### Are Female-Owned Businesses More Likely to be Informal?

We use six datasets of microenterprises and small business owners from Bolivia, Brazil, Ghana, Mexico, Peru, and Sri Lanka.<sup>5</sup> The surveys are focused on small, urban businesses, both formal and informal.

Figure 1 shows the percentage of informal small businesses in each country, defined as not having registered with a municipal authority or not having a tax license. In five out of six countries more female-owned businesses are informal than male-owned, with the exception of Mexico. However, with the exception of Sri Lanka, the gender differences are not large. More striking is that the majority of self-employed workers and almost half of businesses with up to five workers are informal.

**Figure 1: Percentage of Small Business Owners Who Are Informal**



Source: Author.

Although a higher percentage of female business owners than of male business owners are informal, this does not imply that females make up the majority of the informal sector. This depends also on labor force participation rates, and among those who work, the share who run businesses. In countries where female labor force participation lags that of males, women could still be a minority of the informal sector even though the women-owned businesses are more likely to be informal.

For example, in Sri Lanka, the urban labor force participation rate of men aged 30–39 is 96.4 percent, compared to 34.4 percent for women in the same age group. Furthermore, only 22.7 percent of female workers are self-employed, compared to 30.8 percent of male workers. Thus, self-employed individuals are only 7.8 percent of females aged 30–39, compared to 29.7 percent males.<sup>6</sup> Therefore, although 92 percent of self-employed women are informal compared to 72 percent of self-employed men, women still only constitute 25 percent of the informal sector.

At the other extreme is Ghana, where urban labor force participation rates for adult women only slightly lag those of adult men (70 percent versus 74 percent). Women aged 15–60 are much more likely to be self-employed than men (33 percent versus 45), so that women constitute at least 60 percent of the informal sector.<sup>7</sup>

When considering employment rather than ownership, women are generally a minority in the informal sector, with the highest presence in sub-Saharan Africa. Again data are limited, but the International Labour Organization (ILO) estimates that women account for 15 percent of nonagricultural employment in informal enterprises in Tunisia, 20 percent in India, 40 percent in Mexico, 42 percent in Kenya, and 45 percent in South Africa.<sup>8</sup>

### Do Gender Differences in Informality Disappear After Controlling for Observable Characteristics?

The broad pattern that female-owned firms are more likely to be informal becomes less consistent when we attempt to control for observable characteristics about firm owners and their firms. Table 1 shows the raw percentage difference in informality rates by gender, and how this difference changes after controlling progressively for the age, education, and marital status of the owner, then adding controls for industry, and finally for capital stock. This allows us to ask, for example, whether a married 40 year business owner with secondary education who works in retail trade and has \$1,000 in capital stock is more likely to be informal if they are female than if they are male.<sup>9</sup>

Industry and capital stock may themselves be the consequence rather than the

**Table 1: How Much More Likely Are Female Business Owners To Be Informal than Male Business Owners after Controlling for Observable Characteristics?**

	Sri Lanka 0 workers	Sri Lanka 1–4 workers	Ghana self- employed	Bolivia <5 workers	Peru <5 workers	Brazil self- employed	Mexico self- employed
Raw Difference	+24.5***	+16.7***	+7.2***	+6.3	+15.9*	+11.1***	–9.3***
<i>Controlling for</i>							
Age, Education, Marital Status	+24.9***	+17.6***	+4.3	+4.3	+18.8**	+12.3***	–12.8***
+ Industry	+13.3***	+14.5***	+6.8*	–7.4	+30.7***	+8.3***	–6.0***
+ Log Capital Stock	+15.0***	+14.0***	+0.0	–13.6	+30.4***	–5.8***	–14.3***
Sample Size	989	798	809	299	153	54,739	19,576

Source: Author.

cause of differences in informality, so it is not clear that one would wish to control for them. But they do allow us to see if the gender difference disappears once we consider firms of the same size in the same industry. In most countries we see that controlling for observable characteristics reduces the greater tendency of female-owned businesses to be informal. That is, part of the reason why females are more likely to run informal businesses, as they run smaller businesses in industries where informality is more pervasive. After controlling for these characteristics, females are actually more likely to be formal than males in Mexico, Brazil and perhaps in Bolivia, equally likely in Ghana, and still less likely in Peru and Sri Lanka.

### **Do Men and Women Differ in the Reasons for Formalizing?**

Three of the surveys asked informal small business owners why they had not registered, and ask those who have registered what they see are the main benefits of registering. Generally the results show few gender differences.

In both Sri Lanka and Bolivia, the number one reason given by both men and women for being informal is that they view their business as too small to formalize, and that they see no benefits to formalizing. In contrast, the most common response among both male and female small business owners in Peru is that it is difficult and costly to register. Lack of knowledge of the registration process is also a problem in some countries, with female business owners perhaps somewhat more likely to say so. For example, 42 percent of informal female business owners in Bolivia say that a reason for not registering is that they do not know what a tax identification number is, while only 34 percent of informal male business owners say so.<sup>10</sup>

In all three countries, formal small businesses say that the main reasons for registration are obeying the law, and avoiding fines. Few small businesses (male or female) see benefits such as better access to credit, better enforcement of contracts, or new customers.

For some business owners the motive for formalizing might be to avoid harassment by officials, while others may fail to register because the process of registering through complex start-up regulations in itself leads to harassment and requests for bribes. *Doing Business 2008* reports the latter to be the case in Uganda, where female entrepreneurs are more likely to report harassment from government officials than male entrepreneurs. However, this is far from a generalizable phenomenon. In both Sri Lanka and Ghana fewer than 2 percent of informal business owners report having paid fines or bribes for operating without a license, and trivial numbers reported needing to pay bribes during the registration process itself. In both cases women are no more likely to be reporting bribes than men. In Peru enforcement is stronger; 6 percent of women and 13 percent of men paid a fine in the past year for operating without a license. From these numbers it does not seem that female-owned businesses are being unduly targeted by officials.

### **Do Regulatory Barriers Matter More for Women?**

In a few countries there are blatantly discriminatory laws that make it harder for women to start and operate businesses than men. For example, *Doing Business 2008* notes that in the Democratic Republic of Congo married women need their husband's consent to start a business. The new Gender Law Library of the World Bank ([www.doing-business.org/Gender](http://www.doing-business.org/Gender)) aims to identify these cases, which hopefully will lead to gender-

neutral regulations. Nonetheless, it is not clear that changing regulations will promote female entrepreneurship, particularly if broader institutional and cultural constraints on female participation remain.

For example, in the Middle East and North Africa, a recent regional report found that in most cases business and economic laws were actually gender neutral. Gender differences mainly were present in other laws that had significant impacts on the ability of women to operate businesses, and on how those laws were interpreted by judges. For example, obedience laws, which are outside of business legislation, obligate women to obey their husbands or require the husband's permission to work or travel. And even though banking laws do not require a husband's permission, many banks ask for the husband as a co-signer. As well as these legal gender differences that persist, there appears to be an important role for societal norms towards the role of women in work, which are strongly correlated with women's labor force participation.<sup>11</sup>

In most countries the regulations for starting and operating a business do not discriminate by gender. The key question is then whether gender-neutral laws differentially affect the incentives for male and female entrepreneurs to run formal businesses. Theoretically the answer is unclear—there are reasons to think burdensome regulations affect females more, but also reasons to think they would affect males more.

Complex start-up regulations arguably affect more women if they have less time to spend undertaking numerous steps and less capital available for paying hefty registration fees.<sup>12</sup> However, these factors only matter if female-owned firms are at the cusp of becoming formal, with only regulations holding them back. As we have argued above, most informal firms do not cite complex

regulations as the reason for being informal, but rather that their firms are too small to benefit from formalizing. Therefore, male-owned firms may be more affected by complex regulations because they have access to more capital and work in industries with greater scope for growth.

To the empirical question of whether simplifying business regulations will benefit male- or female-owned businesses more, *Doing Business 2008* offers one answer. In Uganda, when business start-up was simplified, the increase in first-time business owners was 33 percent higher for women than men. However, such before-and-after analysis is unsatisfactory for identifying the effect of changing regulations. Even in a pilot program there probably were other changes in the economy at the same time, and there is no way to ascribe the gender difference in registration to regulatory reform.

More credible evidence comes from cases where there can be an explicit comparison made between business owners subject to the improvement in regulations and those not yet subject to the same improvements. An example of this comes from Miriam Bruhn's work in Mexico, where simplification of registration was phased in at the municipal level.<sup>13</sup> By comparing businesses where the reform was introduced earlier to those in which it was introduced later, one can estimate the impact of the reform. Bruhn finds that while the reform increased the number of registered firms, the new registrations came from individual wage workers who were registering new firms, not from informal firms registering. This is consistent with the view that most informal firms don't register because they are too small to see any benefits, rather than that they don't register because of complex regulations. Moreover, breaking down the effect by gender, Bruhn finds that only the number of male-owned registered firms increased after the reform,

while there was no effect on the number of female-owned businesses. Nevertheless, women still benefit from the reform through increased employment in new businesses started by men.

We would expect the results of regulatory reform to vary by country and by the types of existing barriers that regulations present. The point is that only firms at the margin of becoming formal will be induced to register by such reforms, and the majority of informal female (and male) businesses in many countries do not appear to be right at this margin.

### Nonregulatory Barriers to Female Enterprise Growth and Formalization

Studies of microfinance clients in several countries suggest that female-owned enterprises grow more slowly and generate lower profits than male-owned enterprises.<sup>14</sup> A recent randomized experiment in Sri Lanka found very high returns to capital for male-owned enterprises but zero return for female-owned enterprises. One reason for these gender differences appears to be that many women tend to work in occupations with low optimal scales, in which the prospects for growth are small. If this is the case in other countries as well, it would suggest again that most female-owned businesses are too small to benefit from registration.<sup>15</sup>

Therefore, policy makers probably should place as much emphasis on identifying non-regulatory barriers to female enterprise growth as regulatory barriers. Many non-regulatory barriers could explain why women enter into occupations with little prospect for sustained growth, including the need to balance family and business responsibilities, cultural constraints, differences in business skills and networks, and differences in access to capital. Empirically little is known about the relative roles of each of these barriers, or of the ability of policy

interventions to overcome them. This should therefore be a focus of ongoing policy efforts to help female business owners.

### Policy Recommendations

This note has argued that the evidence that regulatory reform by itself will disproportionately benefit women is much less compelling than suggested by *Doing Business*. So what should policy makers do to encourage the development of formal business operation by female entrepreneurs?

- **Reforming burdensome laws is still a good starting point.** Regulations for starting and operating a business are in fact much more burdensome and costly in many countries than can be justified by concerns such as consumer protection. Simplifying such laws will help all current and potential business owners on the cusp of becoming formal, and can improve employment prospects for workers in businesses owned by men and women.
- **Removing discriminatory laws should be a first step.** While there are reasons to doubt that discriminatory laws per se are the cause of low formal female business ownership, they certainly do not help. Removing them and doing nothing else might not succeed in boosting female entrepreneurship, but the ability of other policies to boost female enterprise growth will be hampered by such restrictions.
- **Policies removing non-regulatory barriers are likely as important or more so for fostering female enterprise growth.** Business owners typically want to become formal once they reach a certain size at which they start seeing benefits from formalizing, or are large enough that they can no longer escape detection. But most female-owned businesses are far below this size and will likely remain so without complementary policy interven-

tions. Although evidence of what helps female businesses grow and formalize is weak, the following are some promising areas for policy intervention:

- o **Provide more registration information to firms on the cusp of formalizing.** In some countries businesses struggle to understand the steps required to formalize. Simplification of procedures can help, but so can information about how to register. Women appear to suffer from information problems as much as men, if not more so. Evidence from Bolivia shows that firms with two to five workers have much to gain from registering, but do not register because of lack of information.<sup>16</sup> Nevertheless, information alone won't help female-owned businesses that are too small to benefit from formalization.
- o **Provide training and information to help women get into more remunerative sectors.** Many poor women go into business in occupations with little scope for growth because this is all they know how to do. Business training and information on returns to different occupations may help in this regard. An ongoing randomized experiment in Sri Lanka supported by the Gender Action Plan aims to test this idea.
- o **Experiment with other policies to overcome cultural and other nonregulatory barriers.** A number of innovative approaches are being used to encourage greater female entrepreneurship. Examples include mentoring by successful women, training women to enter traditionally male-dominated occupations, and efforts to increase empowerment through microfinance groups. Unfortunately, few if any of these efforts have been rigorously evaluated. World Bank and IFC operational projects and government

and NGO efforts to foster female entrepreneurship need to employ rigorous impact evaluation methods from their inception, so that we can learn what works and why.

These non-regulatory areas for action are likely to ultimately be complementary to efforts for regulatory reform. As I have argued above, few female-owned businesses are large enough to be at the cusp of formalizing, the point at which regulatory reform matters. Policies that help female-owned businesses grow will enable many more to reach the stage where they want to formalize, and then regulatory reform can help them do so more easily.

## Notes

1. De Soto, Hernando (1989) *The Other Path: The Economic Answer to Terrorism*. Perseus Books, New York, NY.

2. See for example pp. 52–53 of Ellis, Amanda, Jozefina Cutura, Nouma Dione, Ian Gillson, Clare Manuel and Judy Thongori (2007) *Gender and Economic Growth in Kenya: Unleashing the Power of Women*. World Bank, Washington D.C.

3. *Doing Business* 2008, p. 7. [www.doing-business.org](http://www.doing-business.org).

4. There is also considerable measurement error in the share of businesses owned by women. The definition of female entrepreneurship in the *Doing Business* 2008 report is also murky. The report itself does not say how it is defined, but notes that the World Bank Enterprise Surveys are the source. These surveys typically do not collect data on microenterprises or informal firms, so miss the majority of female-owned businesses. Moreover, the questions in most Enterprise Surveys make it difficult to ascertain which firms have female owners. They ask whether one or more of the owners is female, which can also overinflate the number of female-run businesses if family-owned businesses contain one female owner without decision-making power.

5. The surveys are the (i) Bolivian Encuesta de Productividad de Empresas undertaken in 2007 as part of a World Bank Economic and Sector Work (ESW) study on informality; (ii) the Brazilian Economia Informal Urbano survey of 2003; (iii) the Ghanaian Microenterprise Panel Survey of 2008 (conducted by the author); (iv) a pooling of data from the Mexican 1992, 1994, 1996, and 1998 National Survey of Microenterprises (ENAMIN) surveys; (v) the 2007–08 Encuesta de Productividad de Empresas in Peru (part of a World Bank project on informality); and (vi) the Sri Lanka Longitudinal Survey of Enterprises of 2008 (conducted by the author). We focus here on firms with sole proprietors, and those with less than 5 workers.

6. *Source:* Department of Census and Statistics (DCS) (2007) *Sri Lanka Labor Force Survey: Final Report—2006*. Department of Census and Statistics, Colombo, Sri Lanka.

7. *Source:* Own calculations from Ghana Census 2000.

8. See Table 2.4 in ILO (2002), *Women and Men in the Informal Economy: A Statistical Picture*. International Labour Organization, Geneva.

9. Of course the decision of which industry to enter and the level of capital stock could themselves be affected by both gender and informality, so conditioning on these factors only allows us to explore associations within size-industry groupings.

10. A t-test for equality by gender has a p-value of 0.12, so we can not reject that males and females equally experience lack

of information as a problem at conventional significance levels.

11. See World Bank (2007), *The Environment for Women's Entrepreneurship in the Middle East and North Africa Region*. World Bank, Washington D.C.

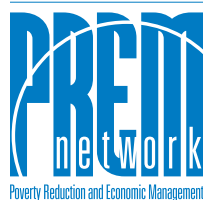
12. See Ellis et al. (2007), cited above, and *Doing Business 2008*.

13. See Bruhn, Miriam (2009), "Does Business Registration Increase Entrepreneurial Activity?" *Finance and PSD Impact Note No. 2*. <http://econ.worldbank.org/finance/impact>.

14. For a review of several studies in this literature and for more information on the Sri Lanka study see de Mel, Suresh, David McKenzie, and Christopher Woodruff (2009), "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns?" *American Economic Journal: Applied Economics*, forthcoming.

15. Of course one might argue that informality is the cause rather than the consequence of small firm size. While this reverse direction of causation may also operate, I know of no persuasive evidence that shows a strong effect of formalizing on business growth, and models of firm size determination would argue that entrepreneurial ability, wealth, and risk aversion should be the main determinants of firm size in an environment with incomplete credit and insurance markets.

16. See McKenzie, David, and Yaye Seynabou Sakho (2009), "Does it Pay Firms to Pay their Taxes? Evidence from Bolivia," *Journal of Development Economics*, forthcoming.



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