



# NIGERIA 2011

## An Assessment of the Investment Climate in 26 States

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THE WORLD BANK

## CHAPTER 5

# Women Entrepreneurs, Women Workers: Opportunities and Constraints

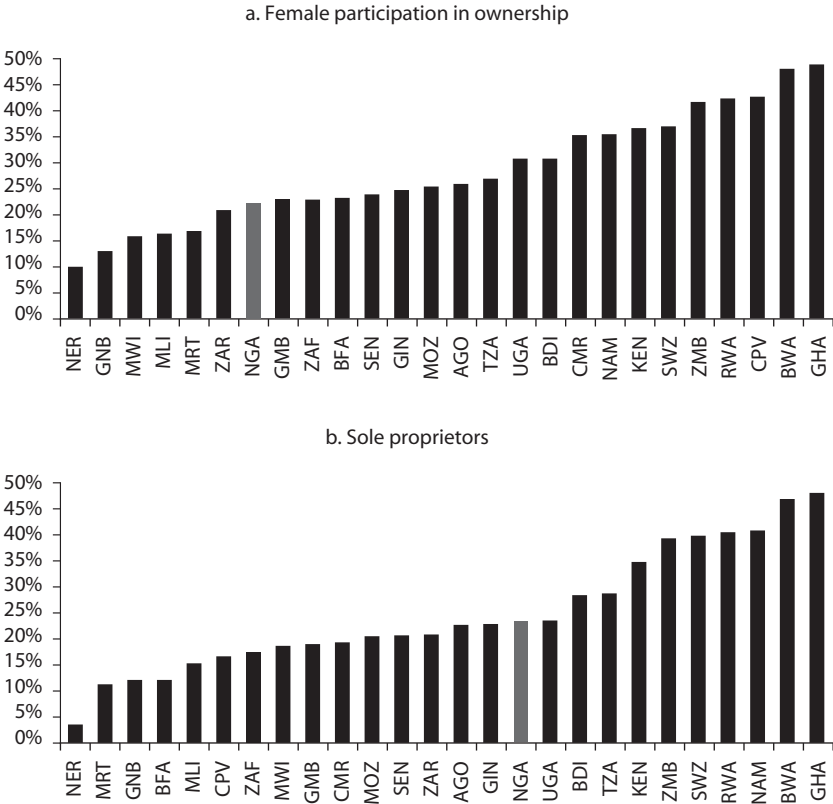
The full participation of women as entrepreneurs and workers in the Nigerian economy is crucial to ensure gender equality and women's economic empowerment, as well as to utilize all of Nigeria's human resources to the benefit of households and the country as a whole. When obstacles exist that impede the access of women to entrepreneurship or paid employment—or place them in a disadvantaged position, removing those obstacles is not only essential to move towards greater gender equality, but also makes economic sense to achieve poverty reduction and support economic growth. This chapter seeks therefore to identify constraints that should be addressed and opportunities that need to be created in order to advance women as entrepreneurs and workers and enhance overall development.

This chapter analyzes the relative position of men and women entrepreneurs in the formal manufacturing and service sector and in the micro informal sector. The second part of the chapter analyzes the position of women workers in the formal manufacturing sector, as well as the gender wage differential.

### Women Entrepreneurs

Only 14 percent of Nigeria’s formal entrepreneurs in manufacturing and services are women, according to the 2010 Enterprise Survey. The 2007 Enterprise Survey (in 11 different states) found a share of 20 percent. Even using the higher 2007 figure, Nigeria has one of the lowest shares of female entrepreneurs in Sub-Saharan Africa, as shown in Figure 5.1. The share of female entrepreneurs among sole proprietors—a narrower definition of entrepreneurship connoting full control/management over the firm—is just 25 percent—far from the almost gender-balanced rates of Ghana and Botswana shown in Figure 5.1.

**Figure 5.1 Share of Female Entrepreneurs in Sub-Saharan African Countries (Percentage of All Entrepreneurs Who are Women)**



Source: Enterprise Surveys, World Bank uses pre-crisis data dating 2006–2008, and for Nigeria shows there-fore the higher statistics for 2007).

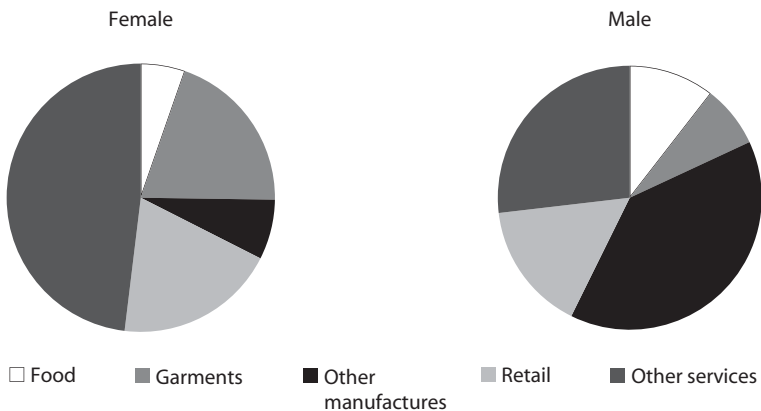
Note: The sample in Figure 1 (a) is represented by all formal firms for which it is possible to determine the sex of the entrepreneur; the sample in Figure 1 (b) is limited to formal sole proprietorship enterprises.

The share of female entrepreneurs is higher in the informal sector than in the formal sector—about 29 percent (Table 5.1, fourth column). However, this is still a relatively low rate, considering that women typically concentrate in micro/informal businesses. Table 5.1 shows that the prevalence of female entrepreneurship is very uneven across states and it is not possible to identify spatial regularities in the distribution of women entrepreneurs across states.

Women entrepreneurs are mostly found in garments, retail, and other services (which includes hotel and restaurants). Men entrepreneurs, on the other hand, are more evenly distributed across sectors (Figure 5.2). Interestingly, garments, retail, and other services are the same sectors where women are overrepresented in all Sub-Saharan Africa.<sup>7</sup>

Women entrepreneurs may concentrate in these particular sectors because they involve traditional female activities like fashion and food preparation. These types of businesses also require lower start-up capital. They may also be smaller and/or less efficient, because of constraints they face in both the business environment and other domains (for example,

**Figure 5.2 Prevalence of Female Entrepreneurship, by Industry**  
Distribution of Female and Male Entrepreneurs across Industries



Note: The index of concentration in 7.2. (b) is the ratio between the percentage of entrepreneurs in each industry who are female and the percentage of all entrepreneurs in the country who are female. An index of 1 would mean that a particular industry has the same share of women entrepreneurs as the average for all industries.

<sup>7</sup> Bardasi, Elena, Shwetlena Sabarwal, and Katherine Terrell. 2010. How do Female Entrepreneurs Perform? Evidence from Three Developing Regions. Paper presented at the 5th IZA/World Bank Conference: Employment and Development, May 3–5, 2010, Cape Town, South Africa.

**Table 5.1 Percentage of Female-Owned Firms, by State**

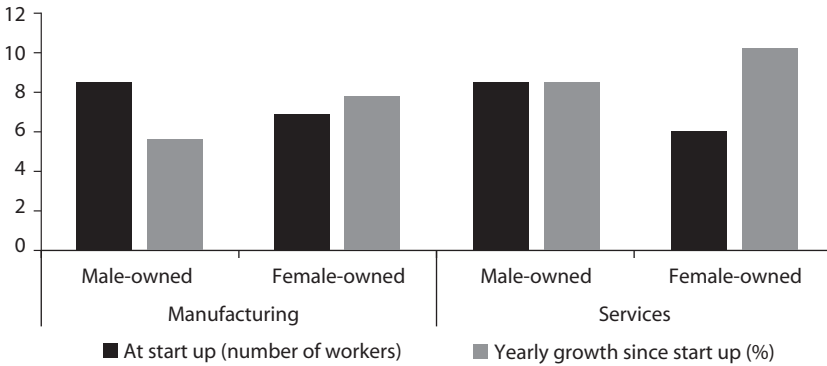
<i>State</i>	<i>Manufacturing</i>	<i>Services</i>	<i>All formal (manuf+services)</i>	<i>Micro</i>
Adamawa	11	24	20	20
Akwa Ibom	10	22	17	80
Bayelsa	0	23	18	30
Benue	6	31	20	10
Borno	18	25	22	0
Delta	14	2	8	50
Ebonyi	24	27	26	33
Edo	4	5	4	56
Ekiti	0	18	6	10
Gombe	9	11	10	20
Imo	13	20	17	50
Jigawa	9	11	9	10
Katsina	0	22	8	10
Kebbi	0	32	11	10
Kogi	5	24	15	10
Kwara	0	32	20	30
Nasarawa	2	27	12	29
Niger	3	18	10	50
Ondo	1	29	18	10
Osun	5	32	17	30
Oyo	27	11	25	44
Plateau	10	17	13	20
Rivers	10	9	9	11
Taraba	0	20	9	50
Yobe	5	24	19	50
Zamfara	0	20	11	30
All Enterp. Survey 2009	8	21	14	29
Abia	22	24	23	19
Abuja	14	43	31	36
Anambra	12	26	21	23
Bauchi	10	16	14	17
Cross River	13	21	18	20
Enugu	22	28	26	31
Kaduna	10	22	16	49
Kano	13	19	16	24
Lagos	14	26	20	25
Ogun	15	23	20	50
Sokoto	9	25	21	36
All Enterp. Survey 2007	14	25	20	29

constraints in accessing capital, credit, information networks, but also because of competing demand on their time due to family responsibilities).

Enterprises owned by women have on average about 20–30 percent fewer employees than those owned by men, in both manufacturing and services, as shown in Figure 5.3. Not only do female-owned enterprises tend to be smaller, but they also tend to be smaller at start-up (Figure 5.3). Micro firms are the only ones that are equally small for both men and women and that do not grow over time.

Female-owned firms, while smaller, have on average higher employment growth than male-owned firms. In manufacturing, the average employment growth<sup>8</sup> since start-up was about 6 percent a year in male-owned firms and 8 percent a year in female-owned firms. (Figure 5.3).

**Figure 5.3 Female-Owned Firms are Smaller than Male-Owned Firms**  
(Average Number of Employees and Yearly Growth, by Gender of the Business Owner and Sector)



Note: Yearly growth rates are weighted for manufacturing and services and unweighted for micro informal firms. No weights are used to calculate employment averages. Bolded numbers indicate values statistically significant.

<sup>8</sup>Using the employment growth definition by Davis, Haltiwanger and Schuh (1996), Davis, Steven J., John Haltiwanger and Scott Schuh, 1996, *Job Creation and Destruction*, MIT Press. The DHS growth rate is defined as

$$g = \frac{X_t - X_{t-1}}{\frac{X_t + X_{t-1}}{2}}$$

where  $t$  and  $t-1$  define the current and initial period. Defining the growth rate in this way allows for the inclusion of entrants (those firms for which  $X_{t-1}=0$ ); moreover, it “compresses” the very large growth rates that may be easily associated with small firms (because they typically start from a very low amount of sales).

The gender gaps are also evident in total revenue. However such gaps are sector specific and there is some evidence that women entrepreneurs tend to concentrate in sectors where total revenue is lower. In garments, both men and women entrepreneurs obtain lower revenue than in other sectors, but women are highly overrepresented in this sector. The sectors where revenue is higher—for example machinery and equipment—are not those where women tend to operate. Even within the sectors where women are concentrated, such as hotel and restaurants, food, and textiles, there are statistically significant gender gaps. Women operate businesses that produce less revenue.

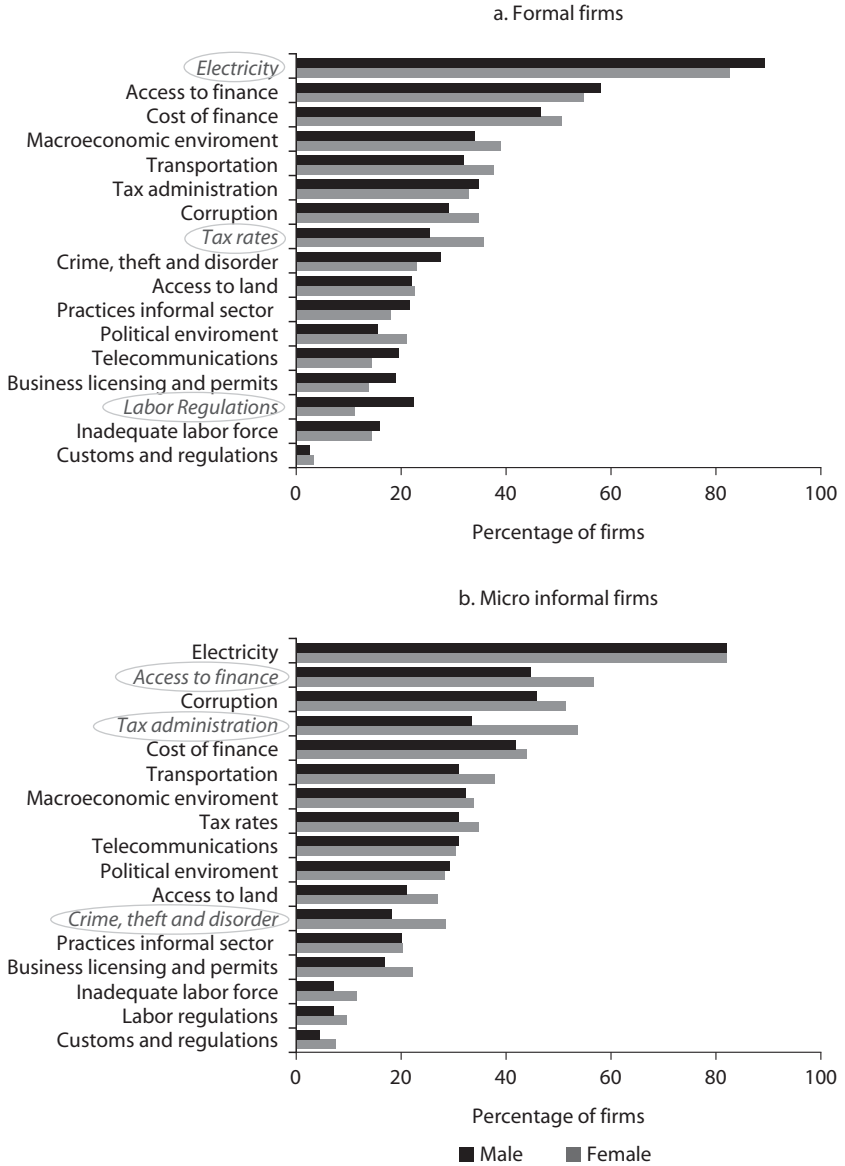
When considering value added per worker—a more direct measure of efficiency—a gender gap is observed, but again this depends on the sector and is not necessarily associated with gender per se. As a matter of fact when firm's characteristics (age, location, gender of owner, and sector of operation) are taken into account the gender effect disappears, but a negative coefficient is estimated for garments, a sector where women are highly concentrated. Moreover, a premium is found in machinery and equipment—typically a male sector. These results indicate that women entrepreneurs are not necessarily less efficient than male entrepreneurs, but operate in sectors where revenue and value added tend to be smaller.

### **Do Male and Women Entrepreneurs Face the Same Constraints?**

Men and women entrepreneurs tend to agree that electricity and access to finance are the most important constraints, as shown in Figure 5.4. Indeed, for all entrepreneurs—formal and informal, men and women—these are the two main obstacles that firms face: 86 percent of formal firms and 82 of informal firms consider electricity and obstacle for current operations, and 57 percent of formal firms and 51 of informal ones have that same perception regarding access to finance.

There are only a few significant differences in male and female entrepreneurs' perceptions of the severity of constraints, and these are circled in Figure 5.5. Among formal entrepreneurs, slightly more males than females consider electricity and labor regulations a “major” or “very severe” obstacle, while female entrepreneurs are more concerned than men with tax rates. Among informal entrepreneurs, women are slightly more likely to perceive all obstacles as “major” or “very severe” than men. For three constraints—access to finance, tax administration, and crime, theft, and disorder—the difference is significantly larger. This result is consistent with the common finding that female entrepreneurs are more likely than men to be informal as opposed to formal and, especially as

**Figure 5.4 Female and Male Entrepreneurs' Mentions of Major Constraints on Business**



Note: Constraints for which perceptions differ in a statistically significant way between men and women are circled.

informal entrepreneurs, face more obstacles than men in managing their business.

The gender differences in the perception of constraints are small and in any case might be the result of differences in personal characteristics of the entrepreneurs, the characteristics of the firm, or the sector in which they work. Moreover, these gender differences, where they exist, do not necessarily reflect the objective constraints that entrepreneurs face in running their business. To investigate the first possibility—that is, that it is differences in characteristics rather than gender-specific attitudes and biases driving differences in perceptions—we estimate the probability of a constraint being perceived as “major” or “very severe” controlling for gender of the owner, the firm’s size, the firm’s age, industry dummies, and regional dummies.

Contrary to what was observed before, once we control for other characteristics we observe female entrepreneurs complaining more than male entrepreneurs about electricity and competition from the informal sector, while male entrepreneurs complain more than female entrepreneurs about access to finance (Figure 5.5). Albeit statistically significant, the difference is however small in economic terms. For the remaining constraints, the estimated probabilities are not significantly different for male and female entrepreneurs.

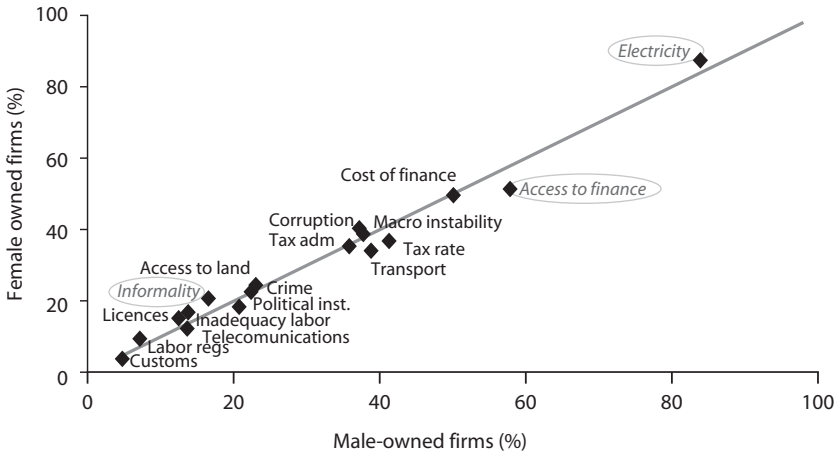
Regarding electricity, male and female entrepreneurs report virtually the same experiences of objective measures of access and use. Both men and women report that almost every day of the month they experience a power outage, each lasting around 8 hours on average (see Table 5.2). There is no statistically significant difference in the length of outages, nor the share of firms having (or sharing) a generator. However, women report a higher percentage of sales lost compared to men, 6.8 vs. 8.2 respectively.

There is little difference between men and women entrepreneurs in the amount of time they spend dealing with state and federal taxes, with the only statistically significant difference being that women spend 10 hours, and men spend only 8, dealing with federal taxes.<sup>9</sup>

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<sup>9</sup> On average men owners spend almost 8 hours in procedures related to state taxes and another 8 hours for federal taxes, while women owners report 11 and 10 hours respectively. However, this difference is only significant for federal taxes at the 10 percent level. At the same time, managers in female-owned enterprises spend a higher percentage of their time dealing with taxes and regulations compared to the managers of male owned firms, but these differences are very small and not significantly different from zero. The manager corresponds to the owner in 89% of female-owned enterprises and 77% of male-owned enterprises.

**Figure 5.5** Estimated Probability that an Entrepreneur Perceives a Constraint as “Major” or “Very Severe,” by Gender of the Business Owner



Note: Regression includes as controls: gender of the owner, firm’s size (categorical), firm’s age (categorical), industry dummies, and regional dummies. Values evaluated at the mean of all remaining control variables.

A higher percentage of female entrepreneurs consider tax rates (in the case of formal firms) and tax administration (in the case of informal firms) a “major” or “very severe” obstacle. Furthermore, men declare that about 6 percent of sales are spent to deal with regulation vs. 4 percent of female owners (and this difference is statistically significant at a 10 percent level).

We also observe statistically significant gender differences in objective measures associated to corruption: the percentage of sales lost to “get things done” and the percentage of sales the typical firm reports for tax purposes. Contrary to a-priori expectations, the first variable suggests that male owners face a more corrupt environment and are forced to pay larger briberies than women. At the same time, tax evasion also appears more widespread among male owners.

As for crime, women owners report a larger percentage of sales lost due to thefts or because of the need to pay for security. However, this finding should be interpreted with caution because of the large number of missing values and, therefore, the likely presence of selection issues for the sample of those who replied. The same caveat applies to the percentage of sales lost due to theft and breakages during transportation.

Access to finance is also considered by a large percentage of entrepreneurs as a “major” or “very severe” obstacle to their business. Access to credit has several dimensions—an entrepreneur may need credit but not

**Table 5.2 Constraints Suffered by Male and Female Business Owners in Manufacturing**

<i>Electricity</i>	<i>Male</i>	<i>Female</i>
Average length of power outage (hrs)	8.3	7.9
Average number of power outages per month	29.8	26.9
<i>Taxes</i>		
Percentage of time spent by managers in federal and state taxes and regulations	4.6	4.9
Percentage of time spent by managers in federal taxes and regulations	1.7	1.8
Percentage of time spent by managers in state taxes and regulations	2.9	3.2
Hours spent dealing with requirements of federal and state taxes	15.4	20.9
Hours spent dealing with requirements of federal taxes	7.6	10.9
Hours spent dealing with requirements of state taxes	7.7	10.0
<i>Corruption</i>		
Percentage of sales the typical establishment reports for tax purposes	<b>71.3</b>	<b>75.8</b>
Percentage of sales lost to "get things done"	<b>3.5</b>	<b>2.7</b>
<i>Percentage of sales lost due to</i>		
power outage	6.8	8.2
dealing with federal and state taxes and regulations	5.8	4.2
dealing with state taxes and regulations	3.5	2.6
dealing with federal taxes and regulations	1.7	1.5
thefts	5.5	9.0
paying for security	3.9	4.5
breakages during transportation	1.8	2.5
thefts during transportation	0.6	0.5

Notes: numbers in bold are statistically significant differences at 5% level, and in italics at 10% level. All averages are weighted.

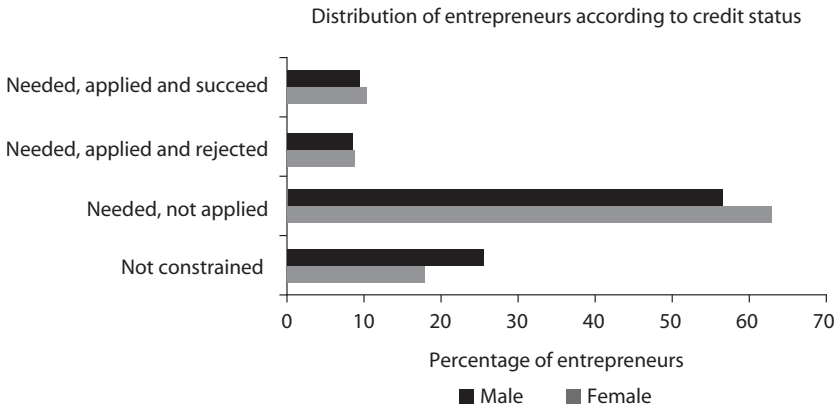
(a) This difference is conditional on having reported a theft. Although more women than men report they experienced a theft (21.5 vs. 19.9 percent), the difference is not statistically significant. (b) This difference is conditional on using own transportation to make shipments to its customers. More men than women entrepreneurs use own transportation (46.5 vs. 22.1 percent), and this difference is statistically significant.

apply for it, or may apply but be rejected. Figure 5.6 shows that male owners are less likely than female owners to need a loan. Women might have less available capital in the form of savings, accumulated assets, etc. or may face higher obstacles in running their enterprise that result in higher need for credit. Female owners—although they need credit more—are less likely to apply for a loan.

When entrepreneurs did not apply for a loan, women were more likely to say<sup>10</sup> that this was because of problems with collateral or because

<sup>10</sup> 29% of women vs. 21% of men.

**Figure 5.6 Male and Female Entrepreneurs' Access to Credit**



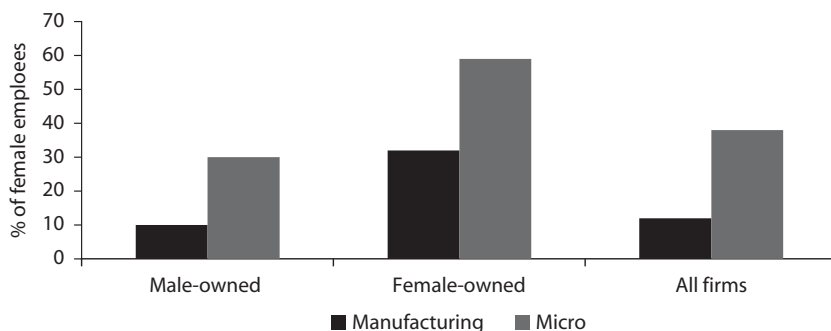
they thought they would not be approved, while men explained that the interest rates were not favorable.

Women who did apply for credit were equally (or slightly more) likely than men to obtain the loan. Among male and female entrepreneurs who applied for credit but were rejected, there was no difference associated with the gender of the business owner. Most entrepreneurs report that their collateral was unacceptable (34 percent of the firms), or that they were not deemed profitable enough (23 percent), or that their credit history was considered too weak (14 percent).

### Women Entrepreneurs as Employers

Only an exceptionally low 12 percent of full-time permanent workers in the formal manufacturing sector are women. Men and women entrepreneurs operating in the formal manufacturing sector are more likely to hire male than female employees. But in female-owned manufacturing firms, 32 percent of workers are women, compared to only 10 percent in male-owned manufacturing firms (Figure 5.7).

The micro informal sector offers more job opportunities to women than the formal sector, because it is larger and employs a higher proportion of female workers (38 percent of all informal workers are women). And in female-owned micro firms, about 60 percent of employees are women, compared to 30 percent in male-owned firms (Figure 5.7). In Nigeria, like most developing countries, the micro informal sector appears thus to be the most likely employer of women. This finding has a dual implication—on the one hand, the micro informal sector is confirmed

**Figure 5.7 Female-Owned Firms Employ more Women than do Male-Owned Firms** (Female Workforce Composition, by Sector and Gender of the Business Owner)

to be an important source of paid employment for women; on the other hand wages, benefits, and working conditions are usually worse in the micro informal than in the formal sector, reinforcing women's disadvantage in the labor market.

A full 57 percent of male-owned firms and 46 percent of female-owned manufacturing firms do not count any woman among their full-time permanent workforce, as shown in Table 5.3. Small firms are much more likely than medium and large firms to hire no women, suggesting that there are costs of hiring women that fall disproportionately on small firms.

Although in the micro informal sector the percentage of firms without women employees is lower, it is still high with respect to what one would have expected. Among female-owned enterprises the percentage of firms without women is substantially lower, especially in the micro

**Table 5.3 Percentage of Firms with No Female Employees, by Gender of Owner and Size of Firm**

Gender of owner	Share of firms with no female employee				
	Micro	Small	Medium	Large	All
Male-owned	51	61	28	0	57
Female-owned	22	49	16	0	46
All	42	60	27	0	56

Notes: All percentages for manufacturing firms are weighted averages (1424 firm-level observations). No weights are used for micro firms (259 firm-level firms). Information based on the labor module of the enterprise questionnaire. Micro firms are informal firms, with less than 4 employees, small firms have between 5 and 19 employees; medium firms have between 20 and 99 employees; and large firms have 100 or more employees.

informal sector. This finding suggests that female workers tend to be highly concentrated in a few firms.

Nigerian legislation requires employers to provide maternity leave, job protection during pregnancy, and child-care facilities, as detailed in Box 5.1. These provisions aim to help women combine family obligations with paid employment. Since the legislation assigns the employer—rather than the social security or social insurance system—the costs of those provisions, it creates a disincentive for employers to hire women, other things equal. This disincentive is probably stronger for small firms, which have less room for financial maneuver and face proportionately bigger fixed costs (for example, of setting up child-care facilities, etc.).

Why are female entrepreneurs more likely to hire women? After accounting for size and sector distribution, women entrepreneurs are still much more likely to hire women. Survey evidence shows that female entrepreneurs are 23 percent more likely to hire female workers compared to men entrepreneurs. Moreover, some sectors are less likely to hire women (retail and other manufacturing much less than garments); small firms are on average 30 percent less likely to hire women than large and medium firms.

Although women entrepreneurs have a much higher propensity to hire women, the average woman looking for a job in the Nigerian

### Box 5.1

#### Nigerian legislation on maternity leave and child care

The Nigeria Labor Act (1971) requires employers to provide 12 weeks of paid maternity leave at 50 percent of wages. The Abolition of All Forms of Discrimination Against Women in Nigeria and Other Related Matters Act (2006) reiterates the right of every woman to maternity leave “with pay or with comparable social benefit without loss of former employment, seniority or social allowances”<sup>a</sup> in compliance of the Labor Act, and establishes that “any employers who [dismiss women from employment on the grounds of pregnancy, maternity leave, or on the basis of marital status] commits an offence and shall be liable on conviction to a fine of 300,000 Naira or to a term of imprisonment for three years or to both such fine and imprisonment.”<sup>b</sup> This Act also requires that the employer provides “the necessary supporting social services to enable women to combine family obligations with work responsibilities and participation in public life, in particular through the establishment and development of a network of child-care facilities.”<sup>c</sup>

<sup>a</sup> Abolition of All Forms of Discrimination Against Women in Nigeria and Other Related Matters Act (2006), Part II, Art. (4).

<sup>b</sup> *Ibid.*, Part II, Art. (7).

<sup>c</sup> *Ibid.*, Part II, Art (8).

formal sector is three times more likely to find it in a male-owned than in a female-owned enterprise, because women entrepreneurs are so few. Because female-owned formal manufacturing firms are a small minority of all firms, even if in female-owned enterprises one third of the workforce is female (as opposed to one tenth in male-owned enterprises) the probability of a woman to be employed by a female-owned firm is only 3 percent<sup>11</sup> (Table 5.4), while the chances to find a job in a male-owned enterprise are three times as high—9 percent (column II). In the micro-sector the chances that a female-owned firm chooses a woman employee are also much bigger than for a male-owned enterprise, but still women have an overall probability to find a job that is slightly larger in a male-owned (21 percent) than in a female-owned enterprise (17 percent).

### Wages and Firm Characteristics

Female workers are paid about 10 to 15 percent less than male workers with similar skills. This differential is lower than the 30 percent<sup>12</sup> observed in most developing countries. But since it applies only to workers employed full-time in formal firms, who (especially in the case of women) tend to have above average skills and above average wages, the gender wage gap for all workers is likely to be higher than 15 percent.

The gender wage gap remains as high as 13–14 percent after controlling for firm characteristics. When including firm and entrepreneur characteristics in the wage regression, the gender wage gap barely changes,

**Table 5.4 Women's Probability of Finding Paid Employment in Formal Manufacturing and Micro Sector (%)**

	Probability of being hired ...	
	by a female-owned firm (I)	by a male-owned firm (II)
<i>Women</i>		
Manufacturing	3	9
Micro	17	21

Notes: own calculation based on Table 1 and Table 7.

<sup>11</sup> Note that these probabilities are not adjusted for the worker's characteristics or of the firms that hire them, so they have to be considered as 'gross' probabilities for the typical man and the typical woman who are currently employed in the manufacturing and micro sector.

<sup>12</sup> Blau, Francine, Marianne Ferber, and Anne Winkler "The Economics of Women, Men, and Work. Upper Saddle River, NJ: Prentice-Hall, 5th ed. 2006.

suggesting that the reason why women are paid less is not due to women being disproportionately employed by firms that pay less (for example because they are less productive, or are exposed to higher competition).

The gender wage gap remains as high as 8–10 percent even after controlling for unobservable firm characteristics, by including firm fixed effects in the regression. The close-to-10 percent wage gap that remains at this stage can be interpreted as the part of the gap that is not explained/justified by productivity differential between men and women workers.

Female and male entrepreneurs pay comparable wages. The coefficient of the dummy variable for a female-owned firm is not statistically significant and is small in magnitude. The inclusion of several interactions between female ownership and firm and entrepreneur characteristics does not capture any additional wage effect specific to female-owned firms (there is a couple of notable exceptions that will be discussed below). What does this imply for women entrepreneurs as buyers of labor? The regression results suggest that women entrepreneurs do not pay a premium or can impose a lower wage.

There is no gender wage gap in female-owned firms—women entrepreneurs pay similar wages to their male and female employees. And women working for women earn the same wage as men working in either female- or male-owned firms. However, on average, women working for women entrepreneurs tend to work fewer hours per month than male workers, and therefore still earn less than men on a daily or monthly basis.

Women entrepreneurs who operate a small business (5 to 20 employees) pay considerably lower wages than men entrepreneurs, to all their employees—men and women. In general, small firms pay lower wages than medium and large firms irrespective of the ownership—on average about 12 percent less. However, this ‘wage penalty’ is larger in small firms owned by women, an additional 60 percentage points. This is an extremely large penalty, which disproportionately affects young workers, who are more likely to find a job in small firms.