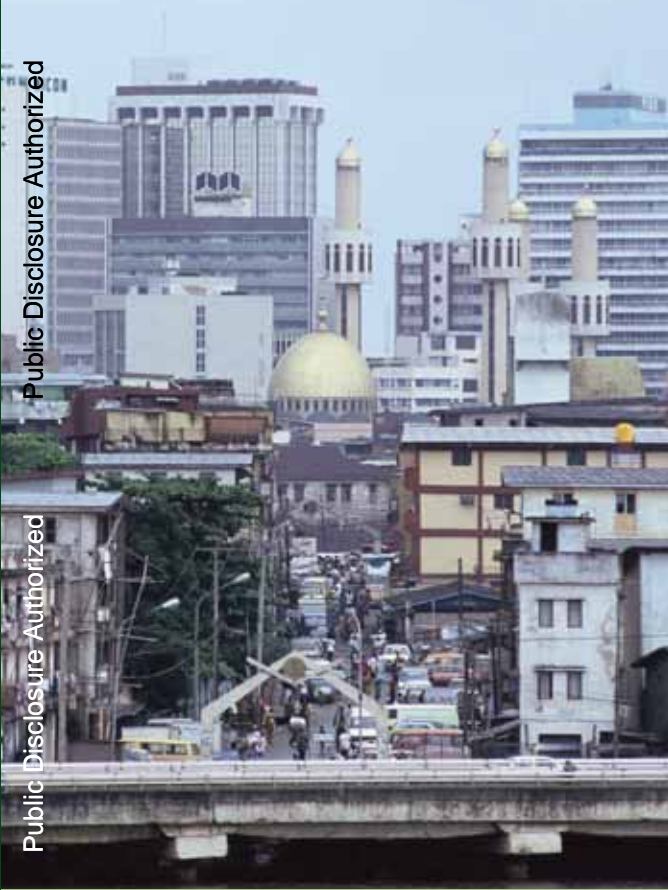


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# NIGERIA 2011

## An Assessment of the Investment Climate in 26 States

Giuseppe Iarossi and George R. G. Clarke, eds.



THE WORLD BANK

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# Executive Summary

This Investment Climate Analysis reviews the experiences of over 3000 surveyed business owners in 26 states of Nigeria about the aspects of the business climate that affect their businesses. It complements a similar study in 2007 that covered 11 other Nigerian states. The survey asks business owners about both their perceptions and the actual costs of selected constraints. The analysis benchmarks Nigeria against comparator countries, and provides detailed data for each state.

## **Productivity of Nigerian Firms**

Nigerian firms have low productivity, as measured by their output in relation to their labor and capital inputs. Firms in Kenya are about 40 percent more efficient, firms in Russia almost twice as productive, and firms in South Africa almost four times as productive. Nigerian firms that export are about 90 percent more productive than non-exporters. Although labor in Nigeria is inexpensive, it is not inexpensive enough to compensate for this low productivity.

The poor performance of Nigerian firms reflects many factors. This study focuses on constraints in the business climate and the serious costs they impose on Nigerian firms. Taken together, the total indirect costs of poor quality infrastructure, crime and security, and corruption amount to over 10% of sales for Nigerian firms. This is twice as high as in South Africa, Brazil, Russia and Indonesia.

### Unreliable Power

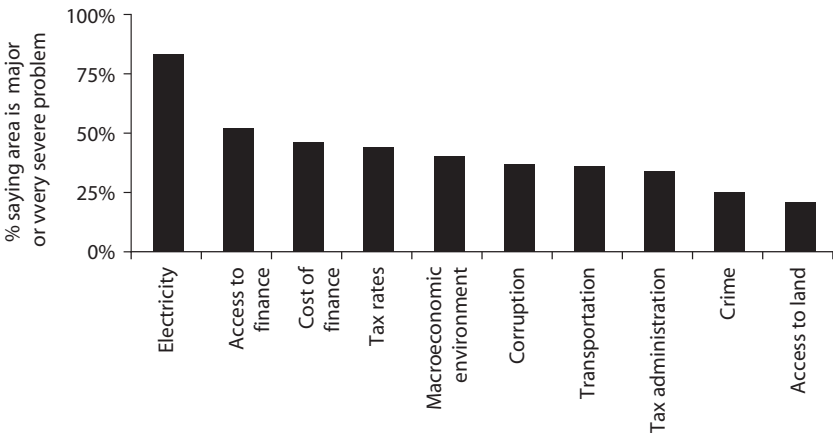
Nigerian businesses' biggest reported problem is the unreliable power supply. About 83 percent of all managers surveyed considered electricity outages to be a serious problem—more than any other constraint. Firms of all sizes, in all states and sectors, report average power outages equivalent to 8 hours per day. The average firm reported that outages lost them money equivalent to more than 4 percent of sales. No comparator country experiences such severe business losses related to the power supply.

### Access to Finance

Business owners' second biggest obstacle is financing. About half of all firms reported that access to finance and its high cost constitute a serious problem. Only about 12 percent of surveyed firms have an overdraft facility and only about 14 percent have a line of credit or loan—about one-half or one-third the shares in comparator countries like Kenya and South Africa. About 60 percent of firms that applied for loans in the previous year had their applications rejected—far more than in most of the comparator countries.

Collateral requirements are high in Nigeria: fully 89% of loans required collateral, and the average collateral amount was 160% of the loan, compared to say, 100 % in South Africa. Loan duration is relatively short, as well. This suggests that even firms that have loans might not be able to get as much credit as they want and may not be able to finance

### Top Ten Constraints



### **Top 10 Facts You Probably Don't Know about the Investment Climate in Nigeria...**

1. Only 15% of Nigerian entrepreneurs are women—one of the lowest shares in all Sub-Saharan Africa
  2. Almost 70% of firms in Akwa Ibom train their employees while just 1% of firms in Zamfara do so. And workers that receive training earn up to a quarter more than non-trained workers.
  3. Female entrepreneurs need credit more than men, but they are less likely to apply for and less likely to obtain a loan.
  4. Unreliable power supply obliges almost 90% of firms to have a generator, and 70% of the energy used by manufacturers comes from their own generators.
  5. Nearly 70% of small firms with loans had to pledge their personal assets—usually their house—as collateral.
  6. Over half of the manufacturing firms in Nigeria do not employ any woman.
  7. Losses due to unreliable power, transportation disruption, bribes, crime, and security amount to 10 percent of sales. Twice as high as in South Africa.
  8. Nigerian firms that apply for bank loans are almost three times as likely to be rejected as firms in Brazil and Kenya.
  9. Half of the small firms that today are registered started as unregistered firms.
  10. Female entrepreneurs are 20% more likely to hire a female worker compared to male entrepreneurs. However, a women looking for a job in Nigeria is three times more likely to find it in male-owned than in a female owned company.
- 

long-term investment. Consistent with this, most firms still depend on their own savings to grow their business, and this especially disadvantages small and microenterprises and female-owned business. Thus—despite recent advances that have made the Nigerian banking sector more stable and better capitalized—banks are not yet supplying Nigerian firms with all the access to credit they require.

### **Other Important Constraints**

Five other areas of the investment climate were rated as serious problems by at least one-third of firms—tax rates and tax administration, the macroeconomic environment, corruption, and transportation.

Manufacturing firms reported paying an average of 3.2 percent of their sales in bribes—second only to electricity outages among the costs measured by the study. Large and foreign-owned firms were more likely than others to rate corruption an important constraint, although as many as one-third of microenterprises also affirm that informal payments/gifts are commonplace. Losses of goods during transit emerged as an important cost, especially for exporters and larger firms.

### **Spotlight: Microenterprises**

Microenterprises—firms with fewer than five workers—face similar constraints as larger firms—unreliable power, limited access to finance, corruption, and transportation bottlenecks. But the consequences for their businesses are far more severe. For instance, most microenterprises cannot afford generators, so power outages are more likely to shut down their operation. Lacking collateral, almost no microenterprises have access to formal external financing.

### **Spotlight: Women in Business**

The entrepreneurial potential of Nigerian women isn't yet being fulfilled. Fewer than one in five entrepreneurs is a woman. Women business owners are concentrated in sectors with low revenues and wages, like garments and catering. Women's businesses are severely hampered by electricity shortages to the same degree as men's businesses. Women are more likely than men to need credit. Yet they are less likely to apply for loans—most commonly because they fear they lack enough collateral. When they do apply, though, they are equally likely as men to obtain the loan.

Female entrepreneurs create employment at the same rate as male entrepreneurs, especially for female and young workers, so removing barriers to women entrepreneurs could unlock big economic gains. And yet, although women entrepreneurs have a much higher propensity to hire women, the average woman looking for a job in the Nigerian formal sector is three times more likely to find it in a male-owned than in a female-owned enterprise, simply because women entrepreneurs are so few.

### **Spotlight: Free Zones**

There has been substantial investment in establishing new free zones across Nigeria, but overall the free zones program has failed to deliver catalytic change. Firms in Nigeria's free zones do enjoy better business conditions than firms outside the zones—for example, lower taxes, lighter regulation, fewer losses due to crime and 'unofficial payments', and speedier customs procedures. These advantages should translate into better performance from firms based in the zones.

But unreliable power and transportation bottlenecks are still big constraints for them—much more than in other countries' free zones. Firms in Calabar Free Zone, for instance, without a dredged, deepwater port and many hours on poor roads from Lagos, consider transport their

second biggest constraint after unreliable power. Moreover, Nigeria has failed to establish a stable, predictable policy environment for its free zones. As a result, the zones have not attracted many firms aiming to export globally. Firms surveyed in Nigerian free zones have actually been growing slower, as a group, than firms outside the free zones.

Taken together, the 2010 and the 2009 ICAs demonstrate that unreliable energy and inadequate access to finance are the most important impediments to private sector development throughout Nigeria. The impact of secondary constraints, like transport, taxes, and corruption, depends on the industry and geographical location in which the firm operates.

Federal, state, and municipal governments can use the richness of this diagnostic work and data to engage relevant stakeholders and frame the appropriate policy design to enhance Nigeria's competitiveness.



# Preface and Acknowledgements

This book is the second of a series of reports analyzing Nigeria's business environment. It was produced in March 2011 by the Finance and Private Sector Development Group of the World Bank's Africa Region and the African Development Bank under the Joint World Bank Group-DFID Nigeria Investment Climate Program. Those interested in more details should read the full ICA report available at [www.worldbank.org/afr/aftps](http://www.worldbank.org/afr/aftps).

Although this report was prepared by Giuseppe Iarossi (World Bank) and George Clarke (Texas A&M International University), the full Investment Climate Assessment 2011 study was produced by a larger team, which also included Elena Bardasi (World Bank), Thomas Farole (World Bank), James Habyarimana (Georgetown Public Policy Institute), Fares Khoury (Etude Economique Conseil, Canada), Peter Ondiege and his team (African Development Bank), Josefina Posadas (World Bank), and Colin Xu (World Bank)—each having responsibility for different chapters. Numerous other people participated in the completion of the report, and their names are listed in the ICA's acknowledgments section.

While the first report was based on survey data from 11 states, the analysis of this volume is based on a survey of 3,157 establishments across the other 26 states : Adamawa, Akwa Ibom, Bayelsa, Benue, Borno, Delta, Ebonyi, Edo, Ekiti, Gombe, Imo, Jigawa, Katsina, Kebbi, Kogi, Kwara, Nasarawa, Niger, Ondo, Osun, Oyo, Plateau, Rivers, Taraba, Yobe, and Zamfara. The overall management of the survey and quality control were overseen by Giuseppe Iarossi and Giovanni Tanzillo. The design of the survey and the data collection field work was managed by



Etude Economique Conseil (EEC Canada) during the June 2009 through January 2010 period.

Particular acknowledgments are due to the Federal Ministry of Finance and the DFID Country Office in Nigeria. The former for its leadership in promoting a state-level approach to investment climate analysis; the latter for its sustained commitment and financial support to the Investment Climate Program. Without these champions, this major survey work and report would not have been possible.

## CHAPTER 1

# Productivity in the Manufacturing Sector

This chapter outlines how well Nigerian firms perform compared to firms in other low and middle income countries in Sub-Saharan Africa and other regions. The different measures of firm performance help to indicate how competitive Nigerian firms are in both international and domestic markets.<sup>1</sup>

### Labor Productivity

Value-added per worker is a basic measure of labor productivity. It is calculated as the value of the goods and services that the firm produces less the cost of the raw materials and intermediate inputs used to produce the output divided by the number of workers in the firm.<sup>2</sup> Firms

---

<sup>1</sup> For the most part, because many of the measures of performance are more easily compared across firms in the same sectors of the economy and because many of the most important measures of productivity are collected only for manufacturing firms and are not collected for microenterprises, this chapter focuses on manufacturing firms with over 5 employees. Another reason to restrict the analysis to firms with more than 5 employees (i.e., no microenterprises) is that data on microenterprises has not been collected for many of the comparator countries.

<sup>2</sup> The number of workers is the number of permanent and temporary full-time workers. Data on part-time workers is not collected in most countries outside of Sub-Saharan Africa and so these workers are omitted to allow for reasons of comparability. In practice, for countries with data on part-time workers, including these workers does not have a large impact on relative rankings.

that produce more output with less raw material and fewer workers have higher labor productivity. Differences in labor productivity can be the result of differences in technology, organizational structure, worker skills, management ability, or capital use. Labor productivity is generally higher in firms that are capital intensive.

Value-added per worker is lower in Nigeria than in most of the comparator countries with available data, as shown in Figure 1.1. Whereas the median manufacturing firm reports producing about \$2,100 of value-added per worker, the median firms in Kenya, Russia, and South Africa report producing about \$7700, \$9100, and \$18700 of value-added per worker.<sup>3</sup> The inter-country differences are all statistically significant.

Since Nigeria is poorer than Russia and South Africa, with correspondingly lower human capital, it is also useful to compare labor productivity in Nigeria with other countries in Sub-Saharan Africa, as illustrated in Figure 1.2. Labor productivity in the median manufacturing firm in Nigeria (at about \$2,100) is similar to that in Uganda, Mali, Mozambique and Rwanda, but significantly lower than in Cape Verde, Cameroon, Angola, Botswana, and

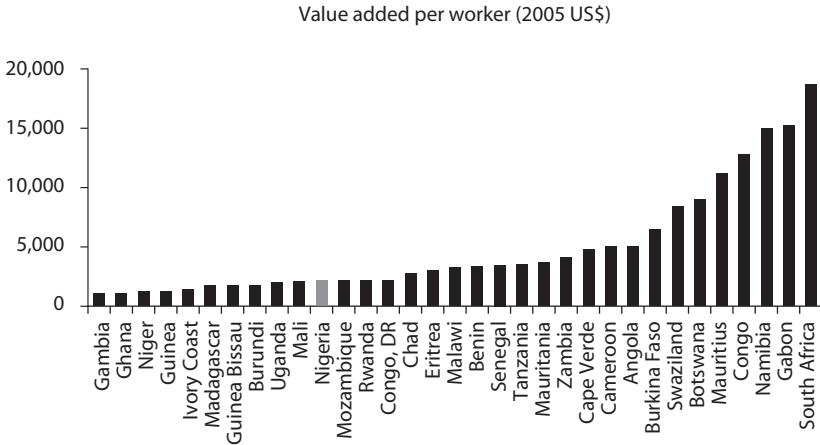
**Figure 1.1 Labor Productivity is Lower in Nigeria than in Comparator Countries**



Source: World Bank Enterprise Surveys.  
Note: See Table 1 for notes. Data are for various years and are converted to US dollars after deflating values to 2005 values using the GDP deflator and 2005 exchange rates to convert to US dollars. Weights are used when available.

<sup>3</sup> The chapter focuses on the median firms in terms of the different measures of performance, because medians are less vulnerable to outliers than means. For the purpose of brevity, the term ‘median firm’ is used to refer to the median firm on that particular measure of firm performance. For example, in this section on labor productivity, the ‘median firm’ will refer to the median firm in terms of labor productivity (value added per worker).

**Figure 1.2 Labor Productivity is Similar to Other Low-Income Countries in Sub-Saharan Africa**



Source: World Bank Enterprise Surveys.

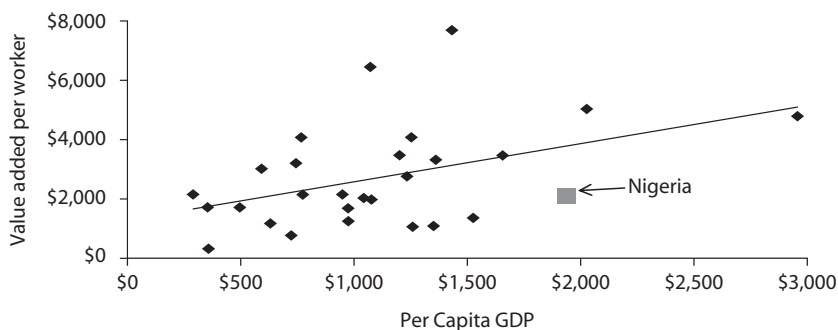
Note: See Table 1 for notes. Data are for various years and are converted to US dollars after deflating values to 2005 values using the GDP deflator and 2005 exchange rates to convert to US dollars.

South Africa. There are also significant differences between Nigeria and the best-performing low-income countries such as Kenya, Zambia, and Senegal.

Although the median firm in Nigeria is significantly more productive than the median firms in the countries with the lowest measured labor productivity such as Sierra Leone and Gambia, firms in Nigeria appear about as productive as firms in most other low-income countries in Sub-Saharan Africa.<sup>4</sup> So although labor productivity is higher in Nigeria than in the worst and best performing low-income countries in Sub-Saharan Africa, it appears similar to labor productivity in the majority of low income countries in the region.

Since Nigeria's per capita GDP is higher than that of many of the low-income countries in the region, its labor productivity might be expected to be higher, but this is not the case. Value added per worker is lower than in many poorer countries, as shown in Figure 1.3. This could reflect Nigeria's dependence upon natural resources, which drive its per capita income higher than would be expected based upon value-added per worker in the manufacturing sector.

<sup>4</sup> That is, the differences between median firms in Nigeria in terms of labor productivity and other low-income countries in Sub-Saharan Africa are small and statistically insignificant in most cases.

**Figure 1.3 Value Added Per Worker in Nigeria is Low, Even Accounting for Higher Per Capita Income**

Large manufacturing firms are more productive than smaller manufacturing firms, as shown in Table 1.1. Value added per worker is about \$7,200 for the median large firm, about \$2,500 for the median medium-sized firm and about \$2,000 for the median small firm,<sup>5</sup> and the differences are statistically significant. This could reflect large firms' higher capital intensity, and/or differences in worker education, technology, or managerial efficiency.

**Table 1.1 Exporters and Large Firms have Higher Labor Product**

	No of observations	Value added per worker \$	Unit labor costs %	Labor costs per worker \$	Average monthly wage \$
All	1548	2,141	42	882	67
Small	1078	2,040	41	853	66
Medium-Sized	402	2,495 ***	49 **	1,120 ***	84 ***
Large	67	7,232 ***	29 **	2,397 ***	154 ***
Non-exporter	1509	2,084	42	872	66
Exporter	39	9,586 ***	38 **	3,642 ***	158 ***

Source: World Bank Enterprise Survey.

Notes: All values are (weighted) median values for enterprises with available data. Value added is calculated by subtracting intermediate inputs and energy costs from sales from manufacturing. Workers include permanent and temporary full-time workers. Labor cost is the total cost of wages, salaries, allowances, bonuses and other benefits for both production and non-production workers. Unit labor costs are labor costs divided by value-added. \*\*\* \*\*, \* means that the weighted median is statistically significantly different from the value for the base group at a 5 percent significance level. The base groups, indicated by bold italics for each category, are: small firms; non-exporters; slow growth; and no youth employment.

<sup>5</sup> As noted above, the 'median' firm refers the median firm in that class for each of the individual measures. For example, the 'median' large firm for value added per worker refers to the median level of value-added per worker for large firms.

Exporters appear more than four times as productive as non-exporters. The median exporter in reports value added per worker of about \$9,600 compared to \$2,100 of the non exporter. Although there are only a few exporters in the sample, the difference is statistically significant. Exporters tend to be more capital intensive and larger than non-exporters, potentially explaining their higher labor productivity.

Table 1.2 shows that labor productivity is roughly similar across sectors. The garment sector, with its low median levels of about \$1,700 per worker, is significantly different from the other two groups.

As discussed in more detail in Chapter 5, female-owned firms are slightly less productive than male-owned firms—on average, labor productivity is about \$187 dollars lower for female-owned firms. But this appears to be because female-owned firms are sectors such as garment production where productivity is lower. After taking this into account, the difference becomes much smaller (about \$74 on average) and not significant.

## Wages and Unit Labor Costs

Wages are relatively low in Nigeria. The median firm reported annual wages of about \$882 per worker (see Table 1.1), far lower than in most of the comparator countries. For example, annual wages were about \$1,800 in Kenya, about \$4,400 in Russia and about \$7,600 in South Africa. Differences in wages can reflect differences in worker education and skills. Because wages and productivity are both relatively low in Nigeria, firms could potentially remain competitive despite low labor productivity.

In order to account for differences in productivity, wages can be calculated as a percentage of value added. This measure, the unit labor cost is a measure that make it easier to assess the net impact of labor costs

**Table 1.2 Labor Productivity by Sector**

	No of Observations	Value added per Worker \$	Unit Labor Costs	Labor costs per worker	Average monthly wage \$
Manufacturing—Food	231	1,961	37%	778	66
Manufacturing—Garments	161	1,716	53%	822	62
Manufacturing—Other	1156	2,332	40%	920	71
Retail trade	449	2,170	23%	504	—
Other	899	—	—	730	—

Source: World Bank Enterprise Survey.

Notes: See Table 2 for notes.

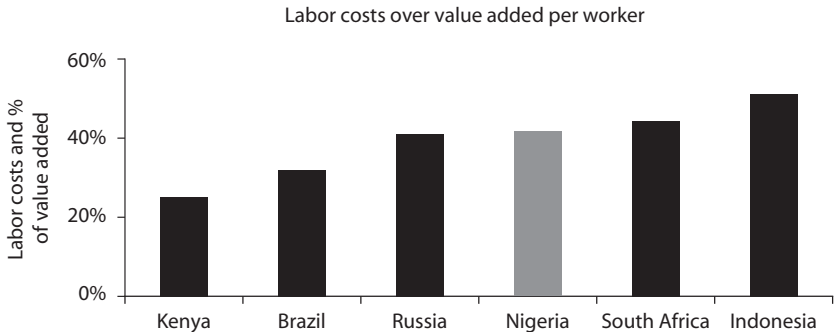
on competitiveness by taking differences in productivity into account. Unit labor costs are higher when higher wages labor costs are not fully reflected in higher productivity. In this situation, firms will find it more difficult to compete on international markets. Although unit labor costs are not the only factor that affect competitiveness—for example, they do not take the cost of capital or capital intensity into account—they are a better measure of competitiveness than labor costs alone.

In terms of unit labor cost the median firm in Nigeria reports that labor costs are equal to about 42 percent of value-added—about the same as in Russia (41 percent) and South Africa (45 percent). Unit labor costs are higher than in Brazil (32 percent) and Kenya (25 percent) and lower than in Indonesia (51 percent), and these differences are statistically significant. (Figure 1.4)

Compared to other countries in Sub-Saharan Africa, Nigeria’s unit labor costs are relatively high, as shown in Figure 1.5. The median firm in Nigeria reports unit labor costs of about 42 percent—in the top third of countries in Sub-Saharan Africa. Overall, this suggests that unit labor costs in Nigeria are among the most expensive in Sub-Saharan Africa.

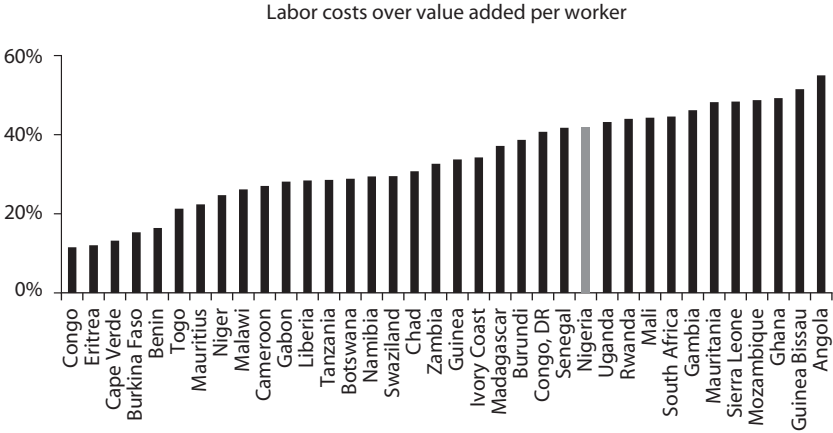
Larger firms tend to be both more productive and to pay higher wages than small firms (see Table 1.1). The difference in terms of labor productivity, however, is greater than the difference in terms of labor costs. As a result, large firms tend to have significantly lower unit labor costs than small firms—about 29 percent of value added for the median large manufacturing firm compared to 41 percent for small firms.

**Figure 1.4 Nigeria’s Unit Labor Costs are Similar to the Comparator Countries**



Source: World Bank Enterprise Surveys.  
 Note: See Table 1 for notes. Data are for various years between 2006 and 2009. Unit labor costs are labor costs divided by value-added per worker.

**Figure 1.5 Unit Labor Costs are Higher than in Many other Countries in Sub-Saharan Africa**



Source: World Bank Enterprise Surveys.

Note: See Table 1 for notes. Data are for various years between 2006 and 2009. Unit labor costs are labor costs divided by value-added per worker.

A similar pattern can be observed for exporters—although exporters have higher labor costs, labor productivity is also higher. As a result, the median exporter reports lower unit labor costs than the median non-exporter. The difference, however, is more modest than for large and small firms—about 38 percent for exporters compared to 42 percent for non-exporters.

### Total Factor Productivity

When considered in isolation, labor productivity and unit labor costs can be misleading. Firms can have high labor productivity and low unit labor costs but still remain uncompetitive if, for instance, they are highly capital intensive. Total factor productivity (TFP) or technical efficiency (TE) takes into account both capital and labor use. Differences in TFP between groups of firms are due to differences in things other than capital or labor. For example, differences might be due to differences in firm organization, differences in management efficiency, or differences in worker skills or education. When looking at the results however it is important to keep in mind the advantages and limitations of the TFP approach (Box 1).



**Box 1****Advantages and Limitations of the TFP Approach**

TFP has some advantages over the partial methodologies (e.g., labor or capital productivity), such as:

1. Because TFP is calculated in a regression framework, it is possible to control for multiple things when calculating it. For example, when comparing average TFP across countries it is possible to control for differences in sector composition.
2. The regression framework also makes it possible to estimate an augmented production function. This makes it possible to estimate differences between different types of firms while controlling for other factors. For example, foreign-owned firms tend to be more productive than other firms. However, if there are more foreign-owned firms in some sectors than others—and there are sectoral differences in productivity—then it is difficult to know whether it is the sectoral differences or other differences between foreign and domestic firms that are causing the differences in productivity. Within a regression framework it is possible to control for multiple factors (e.g., sector, ownership, or export status) simultaneously.

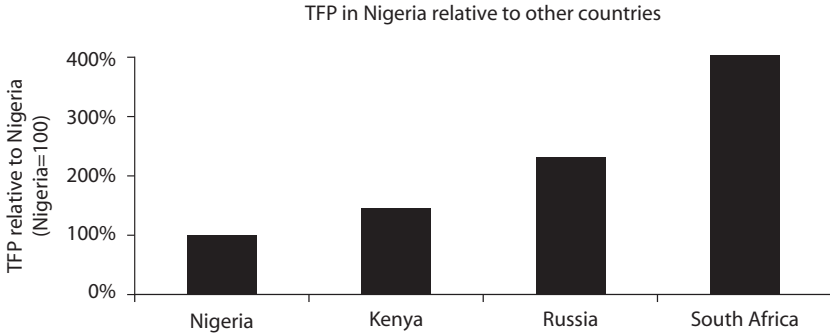
At the same time TFP approach has the following limitations:

1. For cross-country comparisons, value-added and capital must be denominated in a common currency. Because these two variables are denominated in local currency in the survey, cross-country comparisons of TE are vulnerable to exchange rate fluctuations: if the exchange rate is overvalued relative to its long-run equilibrium then TE might look artificially low in that country. Although this can make it difficult to interpret differences in TE between countries, this shouldn't have a significant impact on the coefficients on the firm-level variables
2. For cross-firm comparisons, there are potential endogeneity issues. For example, the observation that ISO certification is associated with higher levels of productivity could reflect that firms that become ISO certified were already more productive than other firms or that the process of certification encourages firms to become more productive. In the absence of panel data or more sophisticated econometric techniques to establish causality, it is not possible to establish causality with data from the Enterprise surveys.

For the most part, firms in Nigeria are less productive than similar firms in the comparator countries. Firms in Kenya are about 40 percent more efficient, firms in Russia are close to twice as productive, and firms in South Africa are almost four times as productive. (Figure 1.6)

Nigerian exporters are about 90 percent more productive than non-exporters after controlling for difference in sector of operations, size of the firms, and capital intensity. This does not necessarily imply that

**Figure 1.6 Total Factor Productivity is Lower in Nigeria than in the Comparator Countries**



Source: World Bank Enterprise Surveys.

Note: See Table 1 for notes. Data are for various years between 2006 and 2009. Unit labor costs are labor costs divided by value-added per worker.

exporting improves efficiency—rather, it may be that only the most productive firms enter export markets.

Although value-added per worker is higher for larger firms than for small firms, there is no evidence that technical efficiency is higher for large firms. This suggests that the difference in labor productivity is due to differences in sector of operations or capital intensity.

### Worker Earnings

Given Nigeria's high labor cost to productivity ratio, we examine the extent to which worker wages are associated with firm size, training and firm activity.

Survey evidence shows that very large firms pay median wages for production workers that are nearly 60 percent higher than firms with less than 20 employees. Regression analysis with controls for additional characteristics shows wage-firm size gap estimates even higher for both skilled and unskilled production workers and managers. Controlling for other factors such as the firm's age, export and ownership status and the skill ratio of production workers, firms with more than 100 employees pay production workers and managers nearly 70% more than firms with less than 20 workers. The firm size gap narrows slightly for non-production workers with a 60% wedge between small and large firms.

An important limitation of this analysis is that it does not control for differences in worker quality across small and large firms. To address this

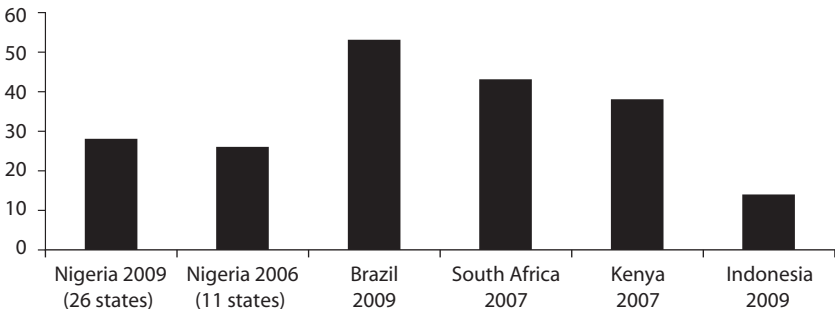
limitation we use the employee data to control for worker characteristics such as schooling, experience, gender and training history. All other things equal, a worker in a firm with more than 100 employees earns about 30% more than an otherwise similar worker in a firm with less than 20 employees. This confirms the presence of compositional differences in worker characteristics between very large and small firms.

With the exception of managers who earn 50% more if they work for an exporting firm, skilled production workers in exporting firms enjoy only a 20% wage premium over their non-exporting counterparts.

Consistent with human capital theory, firms that provide training to workers pay higher wages to both skilled production workers and managers. For production workers, firms that train pay about 10% higher wages while managers in firms that train enjoy a 20% premium. Using the matched firm-employee data to control for differences in worker characteristics, we find similar results. Workers that receive training earn about 15–25% more than non-trained workers, holding firm and worker attributes constant. At the same time manufacturing firms in Nigeria lag behind comparator countries with respect to the provision of on-the-job training, as shown in Figure 1.7 below. Just over a quarter of firms provide training in Nigeria, compared to more than half of the firms in Brazil, 43% in South Africa and nearly 40 percent in Kenya. Firms in Nigeria that do provide training, though, compare favorably with comparator countries with respect to the proportion of the skilled workforce that is trained.

Worker characteristics have a strong effect on individual wages. An extra year of schooling increases earnings by about 2 to 4.5 percent—in the middle of the distribution of returns to schooling found in other developing countries. We also document a high return to worker experience.

**Figure 1.7 Percentage of Firms Offering Training**



Consistent with evidence from elsewhere, returns to an extra year in the labor market are positive at the beginning of a worker's career and negative towards the end of the career. An additional year of experience increases wages by about 4 percent at the beginning of the career. There is also a moderate gender gap in earnings: a female worker earns less than an otherwise similar male worker—about 10 to 15 percent lower. As discussed in Chapter 5, this is lower than in most developing countries.

Workers who have received any training earn between 20–30 percent more than otherwise similar workers. However, workers who obtained their job through an informal network earn significantly less than workers hired through more formal channels.



## CHAPTER 2

# The Business Environment in Nigeria

As discussed in the previous chapter, value-added per worker in Nigeria is lower than in the middle-income comparator countries and is lower than in most middle-income countries in Sub-Saharan Africa. While it is comparable to labor productivity in many poorer countries in the region, Nigeria's productivity should be higher.

Measures of firm performance alone do not tell us why Nigerian firms are struggling. The next two chapters give an overview of the areas of the investment climate that firm managers say are the greatest constraints, and focuses on their main concerns, namely the poor quality of infrastructure and access to finance.

Since firm managers know most about the immediate problems facing their businesses, a useful starting point for analysis of the investment climate is to identify what they consider their biggest obstacles. Managers' perceptions do not, however, provide a complete measure of investment climate constraints. Perceptions of managers of existing enterprises might not reflect the perceptions of potential new entrants, other taxpayers, workers and consumers. Moreover, managers might not know the underlying problems that cause the constraints that they perceive. In this sense, managers' perceptions provide a useful starting point for the analysis but should not be the only information considered.

With these caveats in mind, this section looks at what managers in Nigeria say are the most serious constraints upon their firms' operations.

They were asked to rate the degree to which various areas of the investment climate affected their firm’s operations on a 5-point scale ranging from “no obstacle” to “very severe obstacle,” with “minor,” “moderate” and “major obstacle” in between.

Figure 2.1 shows the share of firms that rated each constraint as either “major” or “very severe”—referred to as a serious obstacle.

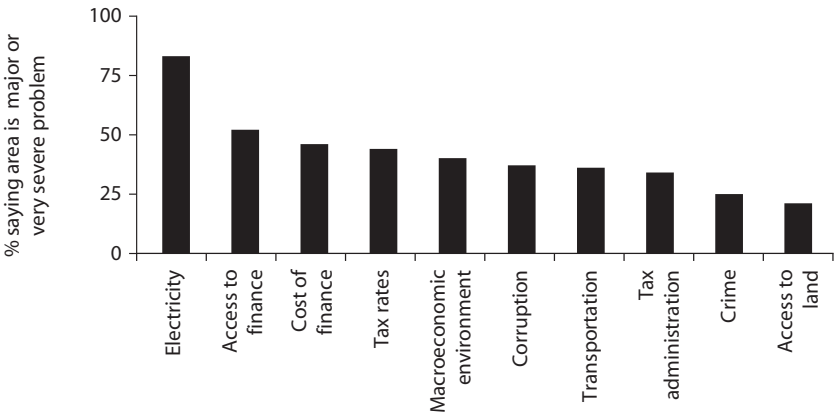
More firm managers said that electricity was a serious constraint than any other area of the investment climate. About 83 percent of Nigerian firms said that electricity was a serious obstacle—far higher than the 52 percent that said the same that access to finance, the second greatest concern, was a serious problem.

Moreover, as shown in Table 2.1, electricity problems appear to affect firms regardless of size, ownership, gender of the owner, or sectors. Although concern was slightly more pronounced among domestic firms and among manufacturing firms, it still ranked as the top constraint for each sub-category of firms.

After electricity, the next greatest constraints were related to finance. Close to half of respondents said access to finance and the cost of financing were serious obstacles. As in most countries, small and medium-sized firms were more likely to say access to finance was a problem than large firms. Because informational asymmetries between borrower and lender are less severe for large firms, lenders find it easier and cheaper to extend credit to them (Beck, Demirgüç-Kunt, and Maksimovic, 2008).

As discussed in Chapter 5, although male and female entrepreneurs rated access to finance as the second greatest constraint, male entrepreneurs

**Figure 2.1 Top Ten ‘Serious’ Constraints**



**Table 2.1 Percentage of Firms Reporting Major or Very Severe Constraints (All Formal Sectors Top 10 Constraints) (% of Firms)**

Constraint	Total	Size			Ownership		Sector		
		Small	Medium	Large	Foreign	Dom	Manuf.	Retail	Other services
Electricity	83	82	85	78	74	83	88	76	81
Access to finance (e.g. collateral)	52	56	50	44	36	53	58	42	49
Cost of finance (e.g. interest rates)	46	50	41	42	24	46	43	54	45
Tax rates	44	34	52	59	46	44	46	39	44
Macroeconomic environment	40	36	44	40	25	40	38	49	37
Corruption	37	34	40	42	40	37	36	40	38
Transportation	35	38	32	38	34	35	41	41	23
Tax administration	34	35	31	44	24	34	33	31	36
Crime, theft and disorder	25	24	28	14	27	25	18	32	32
Access to land	21	27	17	7	11	22	20	30	17

Source: ICA survey.

were slightly more likely to say that access to credit was a problem after taking into account differences between male and female firms in terms of size, age and industry. Although this might suggest that access to credit is a lesser problem for female entrepreneurs, it is important to note that objective data are not consistent with perceptions. The difference in perceptions might, therefore, reflect differences in expectations between male and female entrepreneurs rather than differences in access.

As in most countries, domestic firms were more likely to say that finance was a constraint than foreign firms. Because foreign firms can often tap into financing sources that Nigerian firms cannot access—including internal funds from foreign owners—this is not surprising. It also reflects foreign firms' better ability to provide adequate guarantees or collateral. Access to finance is discussed in greater detail in the following chapter.

After electricity and finance, the next most common concern were tax rates, with 44 percent of firms saying it was a serious problem. In contrast to financing, large firms were more concerned about taxation than small firms. This could reflect that large firms are less able to avoid or evade taxation than small firms.



## Perceptions of Managers in Nigeria and the Comparator Countries

Cross-country comparisons of perceptions should be treated cautiously because of cultural differences or persistent differences in expectations about the investment climate. For example, expectations about political freedom and freedom of speech might affect whether managers are willing to complain to interviewers about the investment climate more than it affects their willingness to answer objective questions.<sup>6</sup>

With these provisos in mind, it is useful to compare perceptions in Nigeria with perceptions in other countries. Compared to other countries, firms in Nigeria were far more likely to say that electricity was a serious problem, as shown in Table 2.2. In South Africa and Kenya, for instance, as few as 20% of firms reported that electricity was a major or very severe problem. Of all the countries taken into consideration Nigeria is the only country in which electricity outages are the dominant problem reported by managers.

Electricity outages were also rated as a serious constraint in an earlier (2006) survey in Nigeria covering the other 11 states. About three-quarters of firms said it was a serious problem in the earlier survey.

## The Indirect Costs of Key Constraints

Managers' perceptions about the investment climate can be validated using actual measures of cost. Firm managers provided information about their indirect costs due to four factors: power outages, bribes; production lost in transit, and crime. Table 2.3 displays the findings for manufacturing firms because the question on production lost during transit was asked only of manufacturing firms.

Consistent with managers' perceptions, firms reported greater losses due to power outages—4.3% of sales—than to any other area of the investment climate. Foreign and large firms report higher losses than domestic and small firms, and exporters report higher losses than non-exporters. This could be because these firms' production processes are more reliant on power than those of small firms.

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<sup>6</sup> See, for example, Hallward-Driemeier and Alterido (2009), Gelb and others (2006) and Kaplan and Pathania (2010) for comparisons of perceptions and objective measures of the investment climate. Jensen et al (2008) show that non-response patterns and lying reduce measured corruption in politically repressive environments. But similar patterns also appear for less sensitive questions. In particular, Clarke et al (2006) show that firms appear to complain more about access to finance in countries that are more free politically than in other countries after controlling for other country and firm characteristics.

**Table 2.2 Percentage of Firms Reporting Major or Very Severe Constraints – International Comparison**

	<i>Nigeria 2009</i>	<i>Nigeria 2006</i>	<i>South Africa 2007</i>	<i>Brazil 2009</i>	<i>Russia 2009</i>	<i>Indonesia 2009</i>	<i>Kenya 2007</i>
Electricity	83	76	21	42	46	14	28
Access to finance (e.g. collateral)	52	53	16	56	35	14	42
Cost of finance (e.g. interest rates)	46	45	N/A	N/A	N/A	N/A	N/A
Tax rates	44	21	5	83	49	4	58
Macroeconomic environment	40	29	N/A	N/A	N/A	N/A	N/A
Corruption	37	25	17	70	50	14	38
Transportation	35	28	4	40	32	10	31
Tax administration	34	14	2	75	20	5	32
Crime, theft and disorder	25	23	38	57	38	13	33
Access to land	21	25	10	39	48	12	7

Source: ICA survey.

**Table 2.3 For Manufacturing Firms, Electricity Outages and Bribes Imposed the Highest Costs**

<i>Indirect costs as % sales</i>	<i>Total</i>	<i>Exporter</i>		<i>Firm size</i>			<i>Ownership</i>	
		<i>Yes</i>	<i>No</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Foreign</i>	<i>Dom</i>
Electricity	4.3	5.8	4.2	3.6	5.1	5.6	7.1	4.2
Bribes	3.2	4.5	3.1	3.3	2.8	4.4	3.6	3.1
Production lost in transit	2.4	4.3	2.3	2.0	2.7	3.5	5.3	2.3
Theft Robbery	0.7	2.4	0.6	0.5	0.9	1.0	2.3	0.7
<b>Total</b>	<b>10.5</b>	<b>16.9</b>	<b>10.3</b>	<b>9.4</b>	<b>11.5</b>	<b>14.5</b>	<b>18.3</b>	<b>10.3</b>

Source: ICA survey.

Firms reported paying an average of 3.2 percent of their sales in bribes, and 2.4 percent in losing goods during transit. Losses due to theft and robbery were much lower.

As discussed in chapter 5, female entrepreneurs report higher losses than male entrepreneurs along some dimensions—power outages, theft, security costs, and transportation but lower bribe payments. Other than for bribes, however, the differences are statistically insignificant,

suggesting that for the most part, male and female entrepreneurs face similar indirect costs.

Table 2.4 displays the costs for surveyed firms of all types, not just manufacturing. Losses due to power outages are even higher for retail and other service firms than for manufacturers. Smaller retailers and other firms are affected more than their larger counterparts. Losses were higher for foreign firms than for domestic firms, for exporters than non-exporters, and for large than small firms.

Not surprisingly, retail firms report higher losses due to theft than manufacturers or other service firms.

The measures of indirect costs confirm cross-country comparisons regarding electricity presented earlier, and highlight the costs that the poor performance of the power sector imposes on firms in Nigeria. Losses due to outages are far higher in Nigeria than in any of the comparator countries other than Kenya, as shown in Figure 2.2.

The same is true for aggregate measures of indirect costs. Only in Kenya are the indirect costs for firms in the manufacturing sector comparable to costs in Nigeria. Indirect costs are at least twice as high for firms in Nigeria as they are for firms in South Africa, Brazil, Russia, and Indonesia. Indirect costs are, however, lower than in the 11 states covered by the earlier 2006 survey in Nigeria. To the extent that 11 states covered the earlier survey is representative of the business environment in the 26 states covered in 2010, this could suggest that indirect costs in Nigeria have decreased in recent years.

## The High Cost of Power Outages

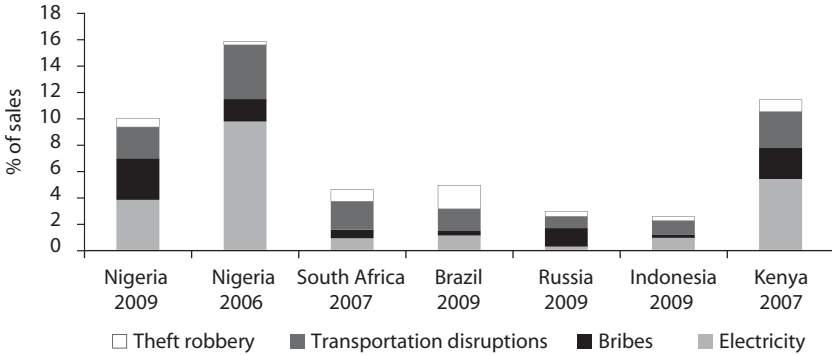
The high level of concern about electricity and the high indirect costs associated with power outages suggests that it is important to look at this issue in more depth.

**Table 2.4 Retail Firms and Small Firms are Most Affected by Electricity Losses**

<i>Indirect costs as % sales</i>	<i>Total</i>	<i>Firm size</i>			<i>Ownership</i>		<i>Industry</i>		
		<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Foreign</i>	<i>Dom</i>	<i>Manuf.</i>	<i>Retail</i>	<i>Other services</i>
Electricity	5.3	6.1	4.6	4.2	5.9	5.3	4.3	7.0	5.9
Bribes	3.2	3.1	3.3	3.5	5.0	3.2	3.2	3.9	2.9
Theft, robbery	1.0	0.8	1.2	1.0	1.8	1.0	0.7	2.0	1.0
<b>Total</b>	<b>9.5</b>	<b>10.1</b>	<b>9.1</b>	<b>8.7</b>	<b>12.7</b>	<b>9.5</b>	<b>8.1</b>	<b>12.9</b>	<b>9.8</b>

Source: ICA survey.

**Figure 2.2 Indirect Costs of the Manufacturing Sector: Comparison across Countries**



Source: ICA survey.

As shown in Table 2.5, about 95 percent of surveyed firms reported having experienced power outages in the previous year, and they were experienced by all types of firms, irrespective of firm size, industry, and nationality of ownership. The average firm reported power outages equivalent to eight hours per calendar day. Large firms reported more outages than small firms and foreign firms reported more outages than domestic firms.

**Table 2.5 Indicators of Power Usage and Access**

Indicator	Firm size			Ownership		Industry			
	Total	Small	Medium	Large	Foreign	Dom	Manuf.	Retail	Other services
% firms experienced power outages	95	94	96	94	92	95	96	97	93
Average duration of outages per month (hours)	239	209	266	277	313	238	248	233	229
% firms with generator**	88	83	92	100	87	88	88	87	N/A
% electricity coming from generator***	69	68	69	75	85	68	69	N/A	N/A

Source: ICA survey.

\*\* only manufacturing and retail sector.

\*\*\* only manufacturing sector.

Given the frequency and duration of power outages, Nigerian firms really must own generators in order to conduct business, and 88 percent of surveyed firms do so. Manufacturing firms reported that approximately 69 percent of their total electrical utilization comes not from the public grid, but from their own generators, with large manufacturers more dependent than small ones on generator power.

The burden that power outages impose on Nigerian firms can be appreciated by comparing Nigeria with the comparator countries, as shown in Table 2.6. Whereas 95 percent of Nigerian firms suffered from power failures from the public grid, only half as many firms in South Africa, Brazil, and Indonesia did so. A mere 29 percent of Russian firms reported experiencing power outages. Only in Kenya were outages reported at levels close to Nigeria.

There were few differences between firms owned by male and female entrepreneurs with respect to power outages. In particular, after taking into account differences related to size, sector and location, there were no differences between firms owned by male and female entrepreneurs with respect to the frequency or duration of outages. Although female entrepreneurs reported higher losses, the difference was not statistically significant (see Chapter 5).

## Tax Rates

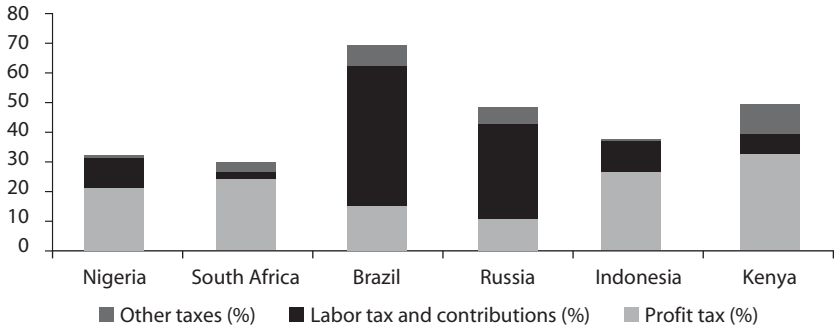
After electricity, the next greatest concern was financing (access and cost), the focus of Chapter 3. The next greatest concern was tax rates. Although firm managers were very concerned about tax rates, there is less evidence that taxes in Nigeria are high in comparison with other countries. In fact, data from the 2010 Doing Business Report reveals that Nigerian firms, along with those located in South Africa, face lower tax rates (combined rates include profit, labor and other taxes) than any other country of the comparator group (see Figure 2.3). Nigerian and South African firms pay

**Table 2.6 Electricity Outages and Usage in Comparator Countries**

	<i>Nigeria</i> 2009	<i>Nigeria</i> 2006	<i>South Africa</i> 2007	<i>Brazil</i> 2009	<i>Russia</i> 2009	<i>Indonesia</i> 2009	<i>Kenya</i> 2007
% firms experienced power outages	95	96	45	49	29	45	84
% of firms with own generator	88	86	18	9	8	6	66

Source: ICA survey.

**Figure 2.3 Various Tax Rates: Cross-Country Comparison**



Source: DOING BUSINESS 2010.

approximately 30.2 percent in taxes, compared to 69.2 percent in Brazil, and close to 50 percent in both Kenya and Russia.



## CHAPTER 3

# Access to Finance

Finance is vitally important for firm expansion and entrepreneurship. An efficient financial system directs household and firm savings to producers who can most efficiently produce various goods, and therefore facilitates entrepreneurship, firm growth, economies of scale, and ultimately economic growth.

Firms in Nigeria are concerned about their access to finance and the cost of finance—after electricity outages, it was their second and third rated problems. About 52 percent of firm managers said that access to finance was a serious constraint and 46 percent the same about the cost of financing. Manager of small firms and domestically owned firms were particularly concerned about access to finance. Managers in Nigeria were more likely to say that access to finance is a serious problem than managers in most of the comparator countries.

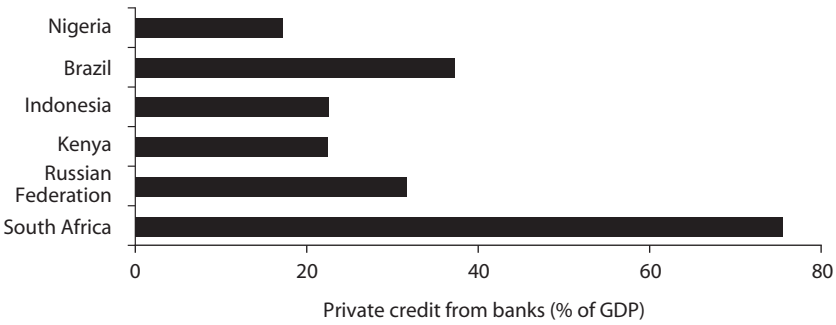
This chapter will supplement the analysis of perceptions with a detailed look at objective data on access to finance.

### **Access to Finance: Objective Indicators**

Nigeria's financial sector is significantly less developed than those of the comparator countries. As Figure 3.1 illustrates, the ratio of domestic credit to GDP is lower in than in all the comparator countries. It is thus not surprising that firms in Nigeria were more concerned about access to finance than in most of the comparator countries.



**Figure 3.1 Domestic Credit Over GDP**

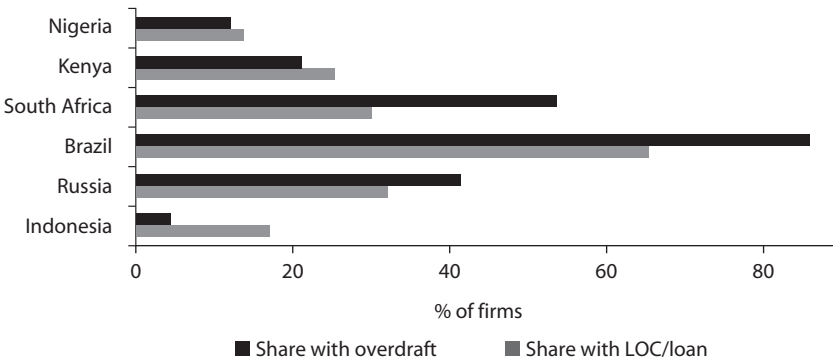


Source: World Bank Financial structure database.

Besides their perceptions about access to and the cost of financing, firms provided information about the financial products they use, and firms not using financial products are asked why not.

Only about 12 percent of Nigerian firms have an overdraft facility and only about 14 percent have an overdraft or loan. This is lower than in any of the comparator countries, as shown in Figure 3.2. For example 54 percent and 30 percent of firms in South Africa have access to overdraft and loans, respectively. The limited use of financial products appears consistent with the macroeconomic observation that domestic credit is lower in Nigeria than in most of the comparator country. It suggests that—despite the advances that have made the Nigerian banking sector more stable and better capitalized—the benefits have not made it easier for firms to get finance.

**Figure 3.2 Firms’ Access to Finance: International Comparison**



Source: ICA Survey.

Access to finance is particularly difficult for small and medium-sized firms, as shown in Table 3.1. Only 9.5 percent of small firms have overdrafts and 13.4 percent have lines of credit and loans, compared to about 71.8 percent and 46.6 percent of large firms. This is consistent with the results in Chapter 2 that suggest that small firms are more concerned than larger firms about access to finance.

There are several reasons why small firms might have more limited access to finance. Many studies have found that it is difficult for banks to obtain enough information about small and medium-sized enterprises' finances. Or, it could reflect large firms' market power or better performance. As discussed in chapter 1, labor productivity, although not technical efficiency, is higher for large firms. Finally, it is possible that banks allocate loans in ways that are not based upon economic criteria.

As seen in chapter 2, foreign-owned firms were far less likely than domestic firms to consider access to finance a serious problem. This could be because they have access to internal financing from parent firms, or because they have better access to external financing—perhaps because they find it easier to post collateral or have more transparent accounts. Objective indicators confirm that they have better access to external financing. Whereas only 12 percent of domestic firms have overdrafts and 14 percent have loans, 45 and 26 percent of foreign firms do. Exporters were also more likely to have loans than non-exporters, suggesting that these firms might also be advantaged in this respect.

## Characteristics of Loans

Firms having loans provided information about conditions under which the loans were given, to help shed light on barriers to expanding access

**Table 3.1 Nigerian Firms' Access to Finance**

		<i>% with overdraft</i>	<i>% with line of credit or loans</i>
<b>Size</b>	Small (5–19)	9.5	13.4
	Medium (20–99)	24.7	11.9
	Large (100+)	71.8	46.6
	Total	12.2	13.7
<b>Ownership</b>	Domestic	11.9	13.6
	Foreign	45.2	25.9
<b>Export</b>	Non-Exporter	11.2	13.6
	Exporter	78.8	19.3

and the availability of long-term financing for investment. As Table 3.2 shows, close to 89 percent of Nigerian firms report that their most recent loan required collateral—more than in any comparator country.

Small firms were especially likely to have been required to post collateral—91 percent of them did so for their most recent loan, as shown in Table 3.3. In comparison, only about 77 percent of medium-sized firms and 82 percent of large firms posted collateral. Foreign firms are less likely than domestic firms to have posted collateral.

Collateral requirement is common in advanced banking sectors and does not necessarily constitute a problem. The type and amount of

**Table 3.2 More Loans in Nigeria Require Collateral than in Comparator Countries**

	% requires collateral	<i>Requiring the following types of assets as collateral</i>				
		<i>Land, building</i>	<i>Machinery, equipment</i>	<i>Accounts receivable and inventories</i>	<i>Personal wealth of owners such as houses</i>	<i>Others</i>
Nigeria	88.6	45.1	63.2	42.8	62.5	66.2
Kenya	86.1	51.5	58.2	46.4	28.2	1.2
South Africa	71.2	44.2	50.6	38.2	59.0	1.9
Brazil	31.5	30.4	42.8	50.5	26.7	18.9
Indonesia	87.5	57.0	15.4	1.7	38.1	18.3

**Table 3.3 Collateral is Most Often Required from Small and Domestic Firms**

	% of firms requiring collateral for overdraft or LOC or loan	<i>Requiring the following types of assets as collateral?</i>				
		<i>Land, building</i>	<i>Machinery, equipment</i>	<i>Accounts receivable &amp; inventories</i>	<i>Personal assets of owner such as houses</i>	<i>Others</i>
<b>Total</b>	<b>88.6</b>	<b>45.1</b>	<b>63.2</b>	<b>42.8</b>	<b>62.5</b>	<b>66.2</b>
Small (5–19)	90.5	40.7	64.2	44.3	68.6	63.9
Medium (20–99)	76.5	68.1	45.2	31.4	27.2	78.9
Large (100–100+)	82.2	84.7	83.1	38.6	14.4	82.8
Domestic	88.7	44.7	63.2	42.6	63.3	66.3
Foreign	82.2	74.8	62.9	57.8	8.7	63.2
Non-Exporter	89.2	44.4	63.3	43.0	63.3	65.9
Exporter	61.4	91.4	59.4	32.9	4.5	91.4

collateral is important, though, because excessive collateral requirements can make it difficult for firm owners to get loans. And the inability to use certain types of assets—notably movable machinery and equipment and accounts receivable—can suggest an underdeveloped banking sector.

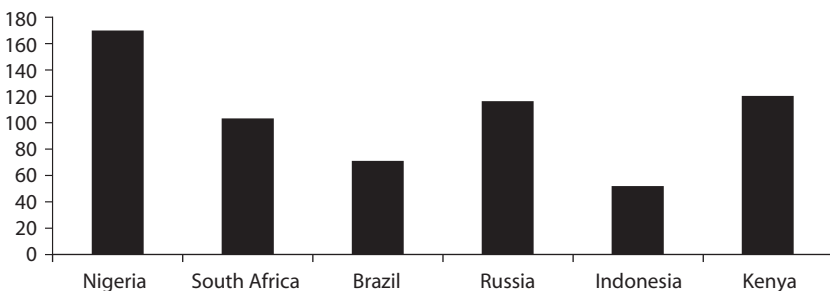
Firms in Nigeria often use machinery and equipment and accounts receivable for collateral. About 63 percent of firms reported using machinery and equipment and about 43 percent reported using accounts receivable as collateral, as shown in Table 3.3. For both types of collateral, this is higher than in most of the comparator countries. This is consistent with the idea that Nigeria's banking sector is relatively developed given its level of income. Firms were also slightly less likely to use land as collateral than firms in other countries.

Firms in Nigeria were, however, far more likely to use the owner's personal assets as collateral. Close to two-thirds of firms reported that they used the personal assets, usually the home, of the owners as collateral. This is higher than in any of the comparator countries. Small firms in Nigeria were far more likely than larger firms to use the owner's personal assets as collateral (see Table 3.3) Domestic firms were more likely than foreign-owned firms to use the owner's assets as collateral.

Collateral amounts were also far higher in Nigeria than in several comparator countries, as shown in Figure 3.3. Average requirements in Nigeria were 160 to 170 percent of the value of the loan or line of credit—compared to 70 percent in Brazil and 115 percent in Russia. There were not substantial differences across firm types with respect to amount of collateral relative to loan size.

Long-term investment is easier to support when long-term loans are available, but most loans reported by Nigerian firms are of short duration. The average loan was for about 3 years—significantly lower than South Africa (around 5–6 years), China (4 years), and India (4 years).

**Figure 3.3 The Ratio of Collateral to the Size of Loan or Line of Credit**



Although small firms are considerably less likely to have loans than larger firms, they do not appear to be disadvantaged with respect to loan duration. In fact, the average loan length for a small firms was longer than the average length for medium and large firms, small firms tend to have longer duration (3 years compared to 2 years) (see Table 3.4). Loan periods were also shorter for foreign-owned firms and exporters than for domestic firms and non-exporters.

### Long-Term Finance

Consistent with the finding that average loan duration was relatively short, firms in Nigeria also rely heavily on internal sources and retained earnings to finance long-term investment in fixed assets (86 percent of long-term financing). Borrowing from formal sources (banks, non-bank financial institutions) accounts for only 6 percent of long-term financing. The rest comes from the state owned banks (3 percent), trade credit (2 percent), and other sources (2 percent).

This heavy dependence on internal financing is clearer when comparing long-term financing with the comparator countries. Nigerian firms depend more on internal finance or retained earnings than most other countries. Although firms in Indonesia rely on internal funds to a similar degree (87 percent of long-term financing), firms in the other countries do to a much lesser extent (see Table 3.5). This confirms that Nigerian firms are severely constrained in access to long-term finance by international standards.

### Reasons for Not Having Loans

It is important to understand why firms without loans do not have them. Some firms may be unable to get them, while others simply prefer to

**Table 3.4 Loan Durations for Nigerian Firms**

		<i>Duration of loans in months</i>
Size	Small (5–19)	40.1
	Medium (20–99)	24.8
	Large (100–100+)	24.0
	Total	37.4
Ownership	Domestic	37.7
	Foreign	23.4
Export	Non-Exporter	37.7
	Exporter	28.4

**Table 3.5 Source of Long-Term Financing (%)**

	<i>Internal source, retained earnings</i>	<i>Banks, non-bank financial institutions</i>	<i>Trade credit</i>
Nigeria 2009	86.1	6.0	2.1
Kenya 2009	76.9	14.5	3.7
South Africa 2007	68.5	26.4	3.9
Brazil 2009	44.5	35.6	16.4
Indonesia 2009	87.0	5.9	0.3

Note: Other sources are not included.

rely on internal funds, if they can, because they are cheaper and easier to access. Although not all firms without loans were asked why not, firms were asked whether they had applied for new loans within the past year, whether any such application was successful and, if not, why not. If they had not applied for a loan, they were asked why not.

Only 19.4 percent of firms had applied for a loan in the year before the survey, and 60 per cent of these were rejected. In comparison, about 20 percent of firms in Brazil, 17 percent of firms in Russia and 19 percent in Kenya said that they had had an application rejected in the previous year. This strongly suggests—especially when considered jointly with the information on perceptions—that many large firms in Nigeria desiring access to external financing cannot obtain it.

What accounts for the high share of rejections? The most common reasons—as shown in Table 3.6—were that collateral or cosigners were unacceptable (34 percent), the firm was insufficiently profitable (23 percent), that the firm’s credit history or report was not good enough (14 percent), and that the application was incomplete (13 percent).

Large firms were much more likely to apply for loans and their rejection rates are lower. For large firms, the most common reasons for rejection are incomplete application (29 percent) and concern about debt levels (25 percent). The second concern, in particular, suggests that many large firms do have access to some external financing at least.

For small and medium firms, application rates were much lower (around 18 percent) and rejection rates are much higher (44–62 percent). They are much more likely to report being rejected due to unacceptable collateral or cosigners (34–42 percent) and insufficient profitability (16–24 percent).

Foreign-owned firms have relatively favorable access to financing. Their application rate is higher than domestic firms and their loan rejection rates are lower (38 versus 60 percent). For domestic firms, the most common

**Table 3.6 Applying for Loans and Reasons for Loan Rejection**

	% of firms applying for loans	Rejection rate for loans	Why were loan applications rejected? Share of reasons (%)						Others
			Collateral or cosigners unacceptable	Insufficient profitability	Credit history/ report	Incomplete application	Concern for debt level		
All	19	60	34	23	14	13	5	12	
Small (5–19)	19	62	34	24	14	13	3	12	
Medium (20–99)	17	44	42	16	13	9	12	9	
Large (100–100+)	40	34	10	11	13	29	25	12	
Domestic	19	60	34	23	14	13	5	12	
Foreign	28	38	27	9	38	16	11	0	

reasons for loan rejections are unacceptable collateral and cosigners (34 percent), insufficient profitability (23 percent), and poor credit history or credit report (14 percent). For foreign firms, the top reasons are credit history or report (38 percent) and that collateral and cosigners unacceptable (27 percent).

It is important to understand why 80 per cent of firms do not apply for loans. As shown in Table 3.7, the most common reason in Nigeria was that the firm did not need external financing (28 percent of firms). In most of the comparator countries a higher share of firms had enough capital. Nigerian firms were much more likely to blame high interest rates (22 percent), collateral requirements (21 percent), and complex procedures (17 percent) for their failure to apply for loans.

The reasons for not applying for loans differ by firm size (Table 3.8). For large firms, the most important considerations are sufficient capital (50 percent), high interest rate (23 percent). For small and medium firms, the two reasons above are also important, but they also add two more important reasons: complex procedures (15–18 percent) and collateral requirements (15–22 percent). Small firms also worry that their applications will not be approved (10 percent). As discussed in Chapter 5, female entrepreneurs were less likely to say that they had sufficient capital—suggesting that they are more credit constrained. Female entrepreneurs were more likely say that collateral requirements were unattainable and they did not think they would be approved than male entrepreneurs.

Relative to foreign firms, domestic firms are less likely to cite sufficient capital as the reasons for not applying for loans (28 versus 54 percent), more likely to cite collateral or cosigner issues (21 versus 10 percent), much more likely to think procedure too complex (17 versus

**Table 3.7 Reasons for Not Applying for Loans: International Comparison**  
Share of Reasons (%)

	<i>No need for loan, sufficient capital</i>	<i>Procedure too complex</i>	<i>Interest rate too high</i>	<i>Collateral requirement unattainable</i>	<i>Did not think it would be approved</i>	<i>Others</i>
Kenya	40.7	9.8	25.8	11.8	4.5	4.3
Nigeria	28.0	17.1	21.7	21.1	8.5	2.2
South Africa	63.9	9.8	14.4	3.3	4.6	3.3
Brazil	71.4	8.3	7.2	4.4	0.0	8.7
Russia	67.5	5.1	12.2	6.6	0.1	7.2
Indonesia	28.9	12.1	15.9	18.0	12.7	6.0



4 percent), and regard loan approval as mission impossible (9 percent versus no such complaint).

**Table 3.8 Why Don't Some Nigerian Firms Apply for Loans?**

Share of Reasons (%)

	<i>No need for loan, sufficient capital</i>	<i>Procedure too complex</i>	<i>Interest rate too high</i>	<i>Collateral requirement unattainable</i>	<i>Size of loan or maturity insufficient</i>	<i>Did not think it would be approved</i>	<i>Others</i>
<b>Total</b>	28.0	17.1	21.7	21.1	1.4	8.5	2.2
Small (5–19)	26.4	17.6	20.9	22.2	1.3	9.5	2.2
Medium (20–99)	37.4	15.0	26.6	15.0	1.5	2.9	1.8
Large (100+)	50.3	5.0	22.9	6.7	4.6	1.6	8.9
Domestic	27.8	17.2	21.7	21.2	1.3	8.6	2.2
Foreign	54.0	3.8	23.5	9.7	3.6	0.0	5.5

## CHAPTER 4

# The Investment Climate for Microenterprise

This chapter spotlights the survey findings from the 260 firms classed as microenterprises—that is, firms with fewer than five employees—and benchmarks them against findings about the 1185 surveyed small firms, those that have 5 to 9 employees.

### Top Perceived Constraints

Enterprises were asked to rate the severity of 18 potential issues' impact on their business operations, using a 5-point scale ranging from “no obstacle” to “very severe obstacle”. The percentage of firms rating the obstacle as either “major” or “very severe” is presented in Table 4.1. Fully 82% of the respondents reported the provision of electricity as a major or severe constraint. This constraint was perceived equally by registered and unregistered firms, and in the manufacturing and services sectors.

The second most important obstacles for microenterprises relate to financial considerations. Access to finance (e.g. collateral), corruption, dealing with tax administrations, the cost of finance (e.g. interest rates), and tax rates all represented either a major or a severe concern for approximately half of the microenterprises. Microenterprises reported corruption and dealing with tax administrations as considerably more constraining than did small firms.

**Table 4.1 Constraints Rated 'Major' or 'Very Severe' (%)**

<i>Constraint</i>	<i>Microenterprises</i>					<i>Small firms</i>
	<i>Total</i>	<i>Registered</i>		<i>Sector</i>		<i>(5 to 9 employees)</i>
		<i>Yes</i>	<i>No</i>	<i>Manuf.</i>	<i>Services</i>	
Electricity	82	83	79	83	81	81
Access to finance (e.g. collateral)	54	48	63	56	53	56
Corruption	50	54	45	37	53	34
Tax administration	47	57	33	49	47	33
Cost of finance (e.g. interest rates)	43	41	48	46	43	51
Transportation	37	38	36	39	37	39
Tax rates	34	39	27	39	33	34
Macroeconomic environment	34	41	23	37	33	34
Telecommunications	30	38	20	22	32	16
Policy uncertainty	29	36	20	34	28	26
Political environment	29	34	21	17	31	20
Crime, theft and disorder	27	30	22	20	28	24
<b>Number of observations</b>	260	153	107	41	219	1185

Source: ICA survey.

Registered and unregistered firms perceive these constraints differently. Whereas registered firms reported more difficulties than non-registered firms with corruption, tax administration, and tax rates, the reverse was true regarding access to and the cost of financing. Microenterprise firms may thus face a trade-off: either register and have to deal with the public administration, or not register and have more difficulty obtaining financing. Constraints such as the macroeconomic environment, telecommunications, policy uncertainty, political environment, and crime, theft and disorder were reported as major or severe constraints by approximately 30% of firms. Registered firms reported this difficulty more often than unregistered firms.

### Indirect Costs

In addition to their perceptions of important constraints, respondents provided data about the actual costs to their businesses of different problems.

Consistent with firms' perceptions of constraints, the highest indirect cost reported was unreliable electricity, as shown in Table 4.2.

**Table 4.2 Indirect Costs: Micro Versus Small Firms (% of Sales)**

	<i>Microenterprises</i>					<i>Small firms</i>		
	<i>Registered</i>		<i>Sector</i>			<i>Registered</i>		
	<i>Total</i>	<i>Yes</i>	<i>No</i>	<i>Manuf.</i>	<i>Services</i>	<i>Total</i>	<i>Yes</i>	<i>No</i>
Electricity outages	8.0	9.4	6.1	8.5	8.0	6.2	6.1	6.8
Bribes	1.2	1.4	0.9	2.3	1.0	3.0	3.1	2.9
Production lost while in transit	2.5	3.2	1.6	1.2	2.8	1.8	1.5	4.0
Theft robbery	1.2	1.4	0.9	0.9	1.2	0.7	0.7	0.8
<b>Total indirect costs</b>	<b>13.0</b>	<b>15.4</b>	<b>9.5</b>	<b>12.8</b>	<b>13.0</b>	<b>11.8</b>	<b>11.3</b>	<b>14.5</b>

Source: ICA survey.

Microenterprises reported that power outages cost them approximately 8% of their annual sales. Outages tended to affect registered firms (9.4% of sales) more than unregistered firms (6.1%).

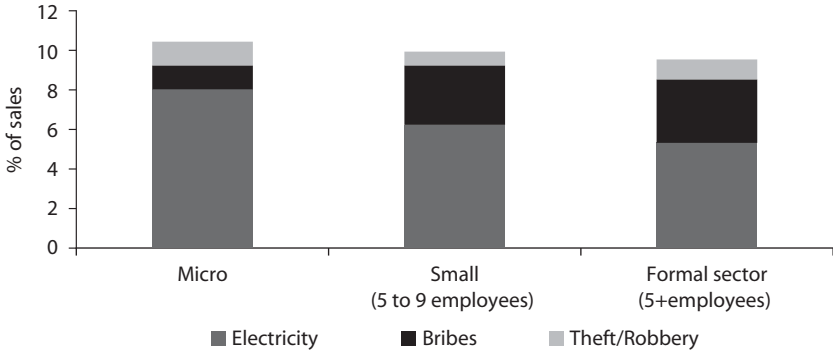
Losing a part of production in transit cost microenterprise firms 2.5% of total sales. This indirect cost was higher for registered firms (3.2% of sales) than for unregistered firms (1.6%). The costs of bribes and theft/robbery each amounted to approximately 1.2% of total sales. It is also worth noting that total indirect costs had a significantly greater effect on registered firms (15.4% of sales) than unregistered firms (9.5%). Data seems to reveal a disincentive to migrate from unregistered to registered status within the microenterprises category.

As shown in figure 4.1, the indirect costs associated with power failures are greater as firm size decreases. Since, as noted above, small firms are less likely to own costly generators than larger firms, a power shortage would thus translate to a real interruption in their business operations. On the other hand, the likelihood of bribe payments to officials in order to “get things done” increases with firm size, which seems reasonable in that larger firms likely require more services from public officials. Finally, firm size does not appear to influence the financial impact of theft and robbery.

### **Electricity**

The provision of electricity is fraught with problems, but access to the public grid does not appear to be the main issue, as 94% of microenterprises report having a connection as shown in Table 4.3.

**Figure 4.1 Indirect Costs: Comparison between Microenterprises, Small Firms and the Entire Formal Sector**



Source: ICA Survey.

The real problem is that 98% of microenterprises reported having experienced power outages, lasting on average 9 days. The average duration of power outages was consistent regardless of firms’ registration status and sector.

About half of microenterprises own a generator, using them to meet approximately 57% of their electricity requirements. Small firms are more likely to own generators, and they rely upon them more.

**Table 4.3 Electricity Infrastructure Indicators – Micro and Small Firms have Electricity Connections, but Suffer Frequent Outages**

Indicator	Total	Registered		Sector		Small firms (5 to 9 employees)
		Yes	No	Manuf.	Services	
% of firms with electrical connection	94	98	89	95	94	N/A
% of firms experienced power outages	98	98	99	97	99	95
Average duration of outages per month (hours)	218	223	210	213	219	209
% of firms with generator	58	59	57	54	59	81
% of electricity coming from generator	57	56	58	60	56	67

Source: ICA survey.

## Access to Finance

Access to credit varies distinctly by firm size. Only 2 of the 260 (less than one percent) surveyed microenterprises had a line of credit, a loan or both from a financial institution. The shares were 13% for small firms, and 16% for bigger firms. The cost of credit, by contrast, is independent of firm size, since risk to lenders is more or less the same for firms in this size range. (Table 4.4)

Microenterprises—like all other small firms—rely almost exclusively on their internal funds to finance any fixed asset needed (67%), and on cash flow funded by customers' advances and suppliers' credit (29%). Those numbers confirm that access to finance is a material obstacle to growth and significantly hinders day-to-day business operations.

## Corruption

In Nigeria, only 28% of the surveyed microenterprises considered that the officials' interpretation of laws were consistent and predictable. One-third of microenterprises reported that informal payments/gifts to government officials were commonplace. Twice as many registered as unregistered firms took this view, suggesting that registered firms confront more requests for such bribes. (Table 4.5)

**Table 4.4 Access to Finance Indicators for Micro, Small and Larger Establishments**

	<i>Micro firms (less than 5 employees)</i>	<i>Small firms (5 to 9 employees)</i>	<i>Larger firms (10 to 19 employees)</i>
% of firms with overdraft	3.5	8.7	10.7
Average interest rate of overdraft (%)	13.1	14.4	13.8
% of firms with line of credit, loans or both from a financial institution	0.8	13.1	16.0
% of working capital financed by internal funds/retain earning	67.2	67.3	65.6
% of working capital financed by credit from suppliers and advance from customers	29.2	27.5	28.5
% of working capital financed by borrowing from family/friends	2.9	2.4	2.1
% of working capital financed by other sources	0.7	2.8	3.8

Source: ICA survey.

**Table 4.5 Perception of Government and Regulations from Micro and Small Firms**

% firms who agree with statement	Total	Registered		Industry		Small firms (5 to 9 employees)
		Yes	No	Manuf.	Services	
Consistent and predictable interpretation of law	28	30	26	37	27	33
Informal payment/gifts commonplace	33	42	21	41	32	42
Advance knowledge of informal payment/gift	20	24	14	27	18	35
Percentage of annual sales spent on informal payments gifts	1.2	1.4	0.9	2.3	1.0	2.9
Percentage of contract value paid to secure contract	4.3	4.6	4.0	6.7	3.9	7.2

Source: ICA survey.

Only 20% of microenterprise firms reported having advance knowledge of the amount of the payment required to “get things done”. Such uncertainty adds to the challenge posed by informal payments, since the amount to be set aside cannot even be planned for. Informal payments/gifts represented approximately 1.2% of annual sales for all microenterprises. Microenterprises dealing in government contracts expected to pay approximately 4.3% of the contract value in order to secure it. The bribes required to obtain contracts appear much small for services (3.9%) than for manufactured goods (6.7%).

Microenterprises have a greater mistrust of institutions than formal firms. Indeed, 63% of formal sector firms reported that the application of laws was not consistent and predictable, compared to 72% of microenterprises. But formal sector firms may have to pay more for corruption: 47% of formal firms claimed that informal gifts/payments were commonplace, compared to 33% of microenterprises. Finally, 41% of formal firms reported that they had advanced knowledge of informal payments/gifts, compared to 20% of microenterprises. As for the costs, informal payments/gifts represented 3.2% of annual sales and the cost of securing a government contract reached approximately 8.4% of its total value for formal firms; these proportions were much lower, 1.2% and 4.3%, respectively, for microenterprises. (Table 4.6)

## Registration

Almost 60% of the surveyed microenterprises were registered—a smaller share than for small firms, as shown in Table 4.7. Why do firms choose

**Table 4.6 Perceptions of Government Regulations: Comparison of Microenterprises, Small Firms and the Entire Formal Sector**

<i>% of firms who agree with statement</i>	<i>Micro (less than 5 employees)</i>	<i>Small firms (5 to 9 employees)</i>	<i>Formal sector (5 and more employees)</i>
Consistent and predictable interpretation of law	28	33	37
Informal payment/gifts commonplace	33	42	47
Advance knowledge of informal payment/gift	20	35	41
% of annual sales spent on informal payments gifts	1.2	2.9	3.2
% of contract value paid to secure contract	4.3	7.2	8.4

Source: ICA survey.

to register? Many unregistered firms, both small and micro, believe that registration gives better access to credit, yet registered firms themselves are much less likely to believe this. They perhaps come to realize that accessing credit is difficult in spite of their registered status.

**Table 4.7 Top Reasons to Register a Business**

<i>% of firms</i>	<b>Micro firms</b>		<b>Small firms</b>	
	<i>Registered</i>		<i>Registered</i>	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<b><i>Benefit of registration:</i></b>				
to have better access to credit	<b>63</b>	<b>87</b>	28	<b>45</b>
to avoid paying bribes	<b>61</b>	<b>86</b>	39	<b>55</b>
to use the courts to enforce contracts	<b>52</b>	7	27	44
to avoid paying penalties	42	<b>49</b>	<b>46</b>	<b>55</b>
to gain access to new customers or suppliers	29	0	32	17
to benefit from government incentive programs	26	37	<b>43</b>	31
to operate on a visible scale or with visible hours of business	12	7	<b>40</b>	38
to be able to advertise	9	5	34	12
to export	3	0	10	4

Source: ICA survey.



Avoiding paying bribes and penalties is an important reason to register, in the view of microenterprise owners—both registered and unregistered—as well as for unregistered small firms. Only 28% of registered small firms agreed that being registered increased access to credit, whereas 45% of small unregistered firms did believe this to be the case. Registered small firms, though, tend to value more the access to government incentive programs, and the ability to operate on a visible and larger scale that registration affords.

In order to better understand why firms do not register we collected data on micro and small firms that moved from informal to being registered at some point in the past.

Of the 59% of microenterprises in our sample that are currently registered (table 4.8), nearly half had previously operated without being registered. This means that at one time in the history of their operations, the firm chose to register. With respect to small firms, the percentage is quite similar (54%). That is to say, of the 84% of larger firms that are currently registered, slightly more than half have operated in the past without being registered.

All micro firms, both registered and unregistered, considered the top reasons for not registering were: (i) to avoid paying taxes, (ii) the process of registering was too time consuming, and (iii) the costs of operating as a registered business were too high. The only significant difference is in the cost of registration. While firms that were never informal consider this process very expensive, those that actually moved from informal to being registered do not share such a concern.

Small firms add to this list the notion that registering does not provide any particular tangible benefit.

Table 4.8 Top Reasons to NOT Register a Business

	Micro		Small	
	Currently Registered	Not currently registered	Currently registered	Not currently registered
% of firms	59	41	84	16
	49	51	46	54
	And have always been registered	But which operated in the past without being registered	And have always been registered	But which operated in the past without being registered
% of firms	49	51	46	54
Categories:	a	b	a	b
	a	b	a	c
% of firms considering those arguments as disadvantages of registration				
to avoid paying taxes	72	56	47	29
process of registering too time consuming	76	55	42	40
costs of operating as a registered business too high	69	50	32	45
not sure how or where to register	14	37	25	29
process of registration too expensive	50	33	50	31
no benefits from being registered	8	24	43	41
businesses like mine are not registered	3	19	9	35
business too small	4	14	31	28
not aware of any requirement to register	5	6	21	22

Source: ICA survey



## CHAPTER 5

# Women Entrepreneurs, Women Workers: Opportunities and Constraints

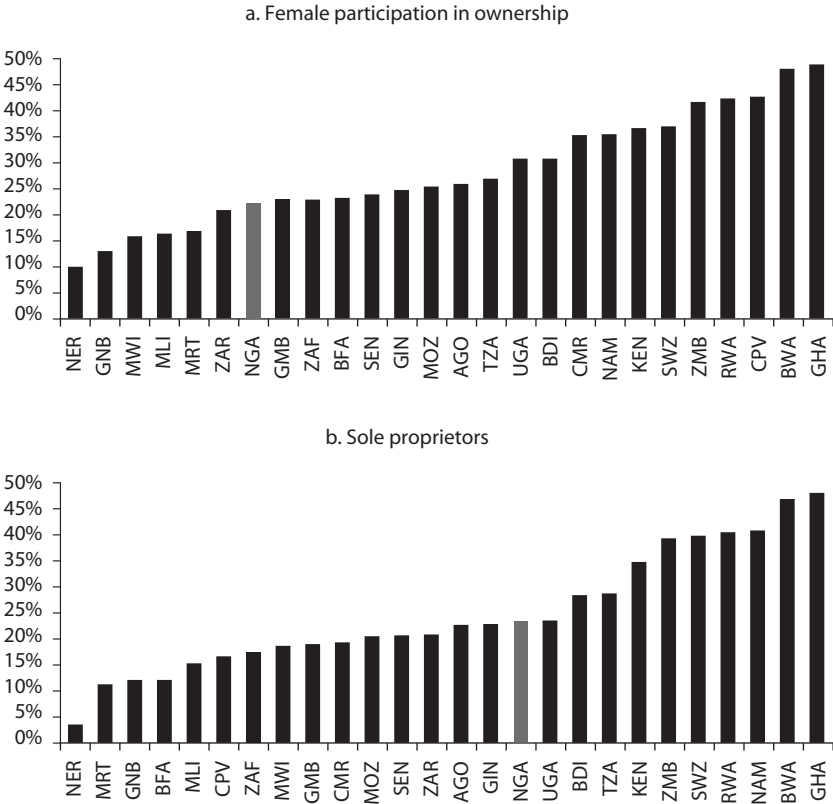
The full participation of women as entrepreneurs and workers in the Nigerian economy is crucial to ensure gender equality and women's economic empowerment, as well as to utilize all of Nigeria's human resources to the benefit of households and the country as a whole. When obstacles exist that impede 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).

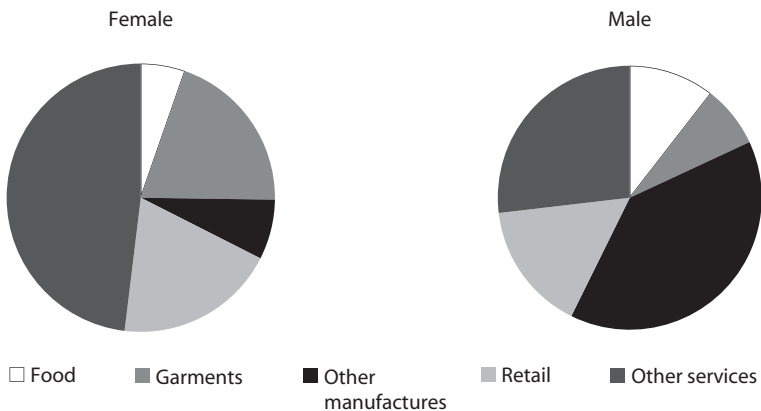
Note: The sample in Figure 1 (a) is represented by all formal firms for which it is possible to determine the sex of the entrepreneur; the sample in Figure 1 (b) is limited to formal sole proprietorship enterprises.

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**

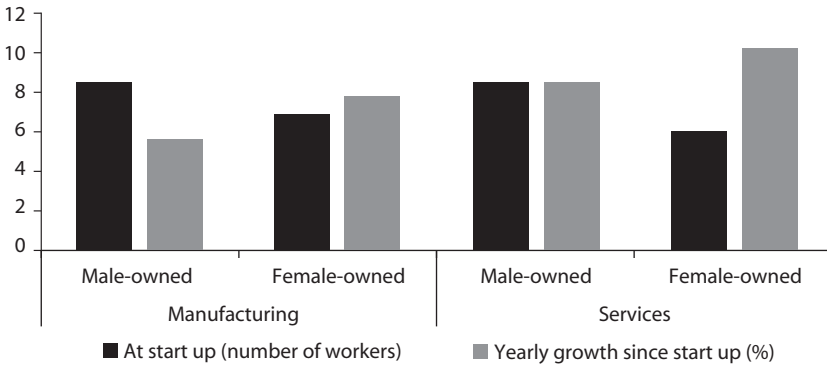
<i>State</i>	<i>Manufacturing</i>	<i>Services</i>	<i>All formal (manuf+services)</i>	<i>Micro</i>
Adamawa	11	24	20	20
Akwa Ibom	10	22	17	80
Bayelsa	0	23	18	30
Benue	6	31	20	10
Borno	18	25	22	0
Delta	14	2	8	50
Ebonyi	24	27	26	33
Edo	4	5	4	56
Ekiti	0	18	6	10
Gombe	9	11	10	20
Imo	13	20	17	50
Jigawa	9	11	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.

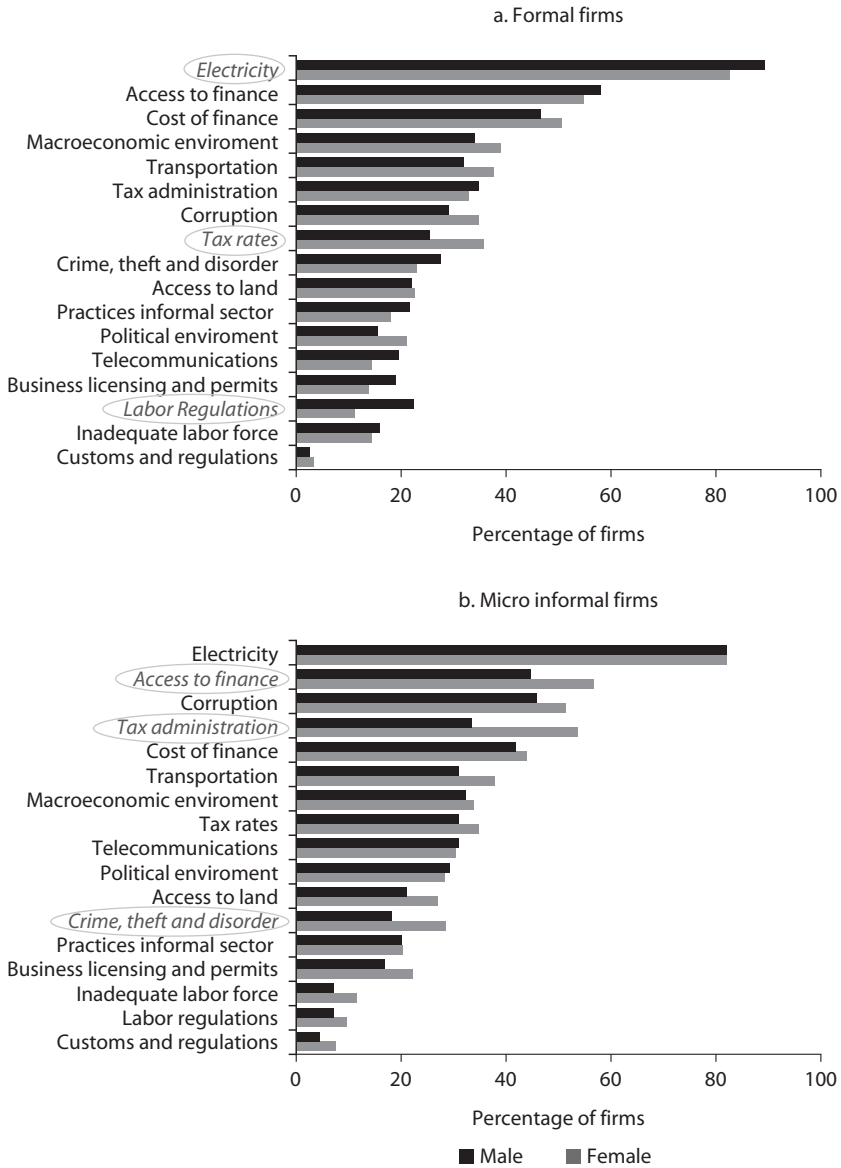
When considering value added per worker—a more direct measure of efficiency—a gender gap is observed, but again this depends on the sector and is not necessarily associated with gender per se. As a matter of fact when firm's characteristics (age, location, gender of owner, and sector of operation) are 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.

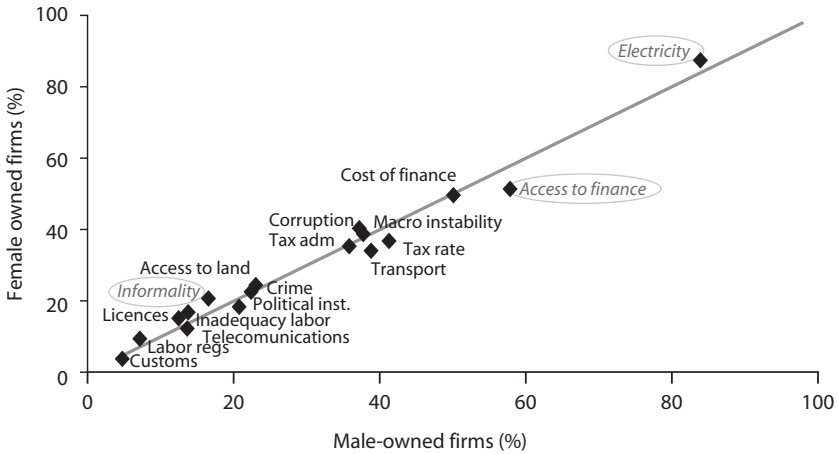
Regarding electricity, male and female entrepreneurs report virtually the same experiences of objective measures of access and use. Both men and women report that almost every day of the month they experience a power outage, each lasting around 8 hours on average (see Table 5.2). There is no statistically 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

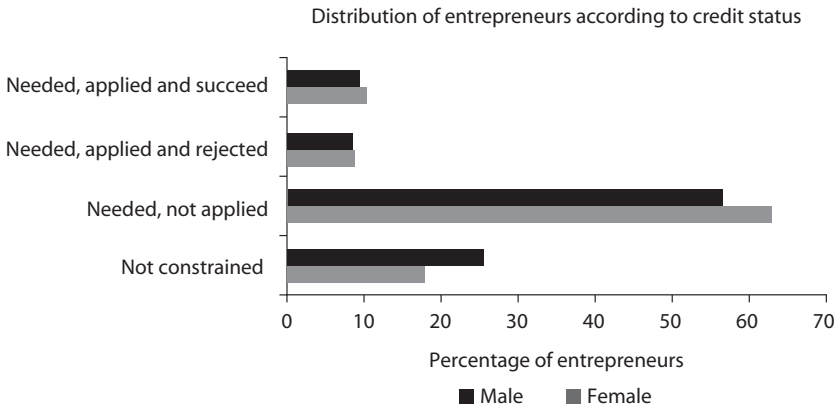
Notes: numbers in bold are statistically significant differences at 5% level, and in italics at 10% level. All averages are weighted.

(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**

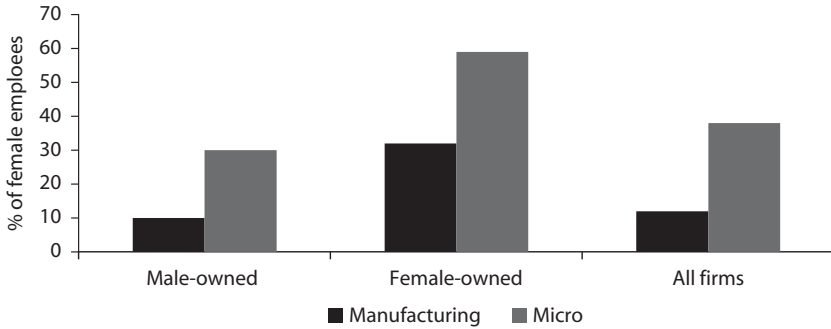
they thought they would not be approved, while men explained that the interest rates were not favorable.

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.



## CHAPTER 6

# The Investment Climate in Nigeria's Free Zones

### Introduction

By overcoming the barriers that contribute to a poor investment climate in the wider economy, free zones (FZs), export processing zones (EPZs) and other forms of special economic zones (SEZs) can play an important role in attracting export-oriented investment and supporting diversification of a country's industry—in the case of Nigeria, these objectives are of critical importance. Evidence from around the world shows that for free zone programs to attract and retain investment they must look beyond simple financial incentives and provide an investment climate in the zones that greatly facilitates firm-level competitiveness.

How successful have Nigeria's free zones been in establishing an improved investment climate? This chapter will assess the experience of investors in Nigeria's free zones and the factors which contribute to its investment climate performance. We find that across most of the most critical constraints identified by Nigerian firms, the free zones appear to offer a somewhat improved investment climate. The cumulative benefits that result from this are significant—ranging from a one-third to a two-thirds decrease in sales losses resulting from five main business constraints. Yet, there is no evidence that this translates into significantly improved performance from free-zone based firms, in terms

of productivity and growth. We stress three primary reasons why this may be the case: 1) the investment climate in the free zones still falls short of “threshold levels” required for international competitiveness; 2) the regulatory structure under which the free zones program operates fails to establish the right incentive environment to promote firm competitiveness; and 3) the free zone environment fails to shield investors from an uncertain macroeconomic and political environment—indeed, firms in the free zones face even greater policy uncertainty than those outside the program.

### Free Zones in Nigeria

Nigeria’s free zones program was established in 1992 and actual operations in the first zone began only in 2001. Since then, there has been a substantial expansion of the program—at least 24 zones are now registered in the country of which nine are operational (most in their early stages), twelve are under construction and another three are in planning or design phases. The main stated objectives of the program were to: (a) Increase employment; (b) Increase access to foreign exchange; (c) Increase the level of processing of exportable products; and (d) Encourage technology transfer from foreign direct investment.

This chapter is based on surveys conducted in Nigeria’s two main zones: 12 firms in the Calabar Free Zone (FZ) and 57 in the Onne Oil & Gas Free Zone.

### Key Differences in the Firm Profile

The profile of the 69 free zone companies differs from that of those in the overall survey sample. These aggregate differences may affect the survey findings, as they will shape the requirements, capabilities, and constraints faced by the different categories of investors.

These differences are summarized as follows (see Table 6.1):

- *Firm size*: The average firm size in the free zones is significantly higher than for the overall sample of Nigerian firms, with firms in Calabar more than twice as large as in the overall sample, and firms in Onne on average six times larger than firms in the overall sample.
- *Sector focus*: Firms in Calabar are heavily concentrated in the manufacturing sector, while only 50% of firms in the overall sample are manufacturing-oriented, with many in retail and services. Firms in the Onne FZ, by contrast, are mainly in the services sector.

**Table 6.1 Key Differences between Free Zone and other Firms**

	<i>Nigeria overall</i> (n=3,157)	<i>Exporters</i> (n=41)	<i>Calabar FZ</i> (n=12)	<i>Onne FZ</i> (n=53)
Avg firm size	31	276	78	189
Manufacturing sector share	49	95	83	25
Share foreign-controlled*	1	22	50	53
Export intensity reported (actual for manufacturing sample)	1	37	74 (17)	96 (12)
Local input share	94	76	29	14

\*"Foreign-controlled" defined as at least 50% foreign-owned

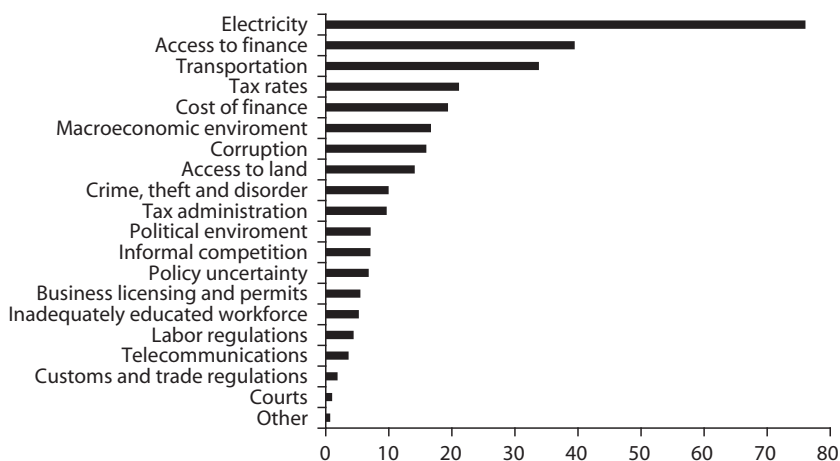
- *Ownership*: Only 1% of Nigerian firms in the overall sample are foreign-controlled versus more than half of the FZ firms.
- *Market focus*: While firms in the overall sample sell almost exclusively in the domestic market, firms in the free zones report a substantial share of exports.<sup>13</sup>
- *Supply sources*: Free zone firms source a small share of inputs from the local markets; in contrast firms outside the free zones rely heavily on locally-produced inputs.

## Do Nigeria's Free Zones Improve the Investment Climate?

Nigerian firms face an array of constraints that restrict their competitiveness. Figure 6.1 illustrates the constraints identified as most severe by firms in the survey. Electricity stands out clearly as the most important constraint. The other main constraints include: finance (access and cost); transportation, taxes (rates and administration); corruption; and the macro-economic environment.

<sup>13</sup> However, on more detailed examination, it appears that true exports from the free zone based firms is actually much smaller than is reported. For manufacturing firms only, the survey asks direct exporters to indicate the specific countries to which it exports. In the case of Calabar FZ, it turns out that a large share of the respondents indicate "Nigeria" as their main market—so for these manufacturers only 17% of exports are actually outside the domestic customs territory. Firms in the free zone may consider Nigeria to be an export market because the free zone technically sits outside the national customs territory. The same situation exists in Onne, although it is important to caution that manufacturing firms are only a minority of the sample there. In this case, only 12% of manufacturing firms output is exported beyond the Nigerian customs territory.

**Figure 6.1 Percentage of Free Zone Firms Ranking Constraint as among their “Top 3” Obstacles**



Free zones are designed to overcome the deficiencies that may exist in the national investment environment. So to what degree are Nigeria’s free zones overcoming the constraints identified in Figure 6.1. The remainder of this section will assess this question across the most important obstacles identified by firms in Nigeria. We focus on the five most prominent constraints identified by firms, in some cases combining related aspects—these include:<sup>14</sup>

- Electricity
- Access to finance, *along with cost of finance*
- Transportation, *along with customs and trade regulations*<sup>15</sup>
- Tax rates, *along with administration*
- Corruption, *along with crime, theft, and disorder*

<sup>14</sup> This section does not address the sixth most important constraint identified by firms in Nigeria—the macroeconomic environment—as the free zone firms will face the same macroeconomic environment as all other firms in Nigeria. This issue is, however, discussed later in this Chapter.

<sup>15</sup> While customs and trade regulations are not reported as a major constraint by the overall sample of Nigerian firms, it is a prominent constraint rated by exports and so is included in the discussion, along with transportation.

## Electricity

Firms in Nigeria face a severe problem in accessing reliable utilities infrastructure, most importantly electricity. Fully 90% of exporters identified electricity as a major or very severe constraint, and 80% identified it as the single most important constraint they face. Firms in Calabar and Onne also identify electricity as the largest single barrier they face. Yet as Figure 6.2 shows, the two free zones appear to offer a somewhat improved utilities environment. Firms based in Calabar FZ report 50% less downtime resulting from power outages than exporters based outside the free zone. In the Onne zone, the provision of shared generators has eliminated the problem of electricity downtime.<sup>16</sup> However, although firms in Calabar report less hours lost to power outages per month than the average firm in Nigeria, the percentage of sales lost to electricity downtime is significantly higher. This is because firms in Calabar are more heavily concentrated in the manufacturing sector—and include many firms in process-intensive activities like the chemicals and machinery & equipment sectors—which tends to be more dependent on power.

## Access and Cost of Finance

Both free zone firms and non-FZ exporters make only limited use of external financing, instead financing working capital mainly through retained earnings and supplier credit. However, as Figure 6.3 shows, a much greater share of firms based inside the free zones report having access to lines of credit or bank loans. This is most likely not a function of the free zone environment per se, but rather the size and nature of the firms operating within them—i.e. larger and with much greater foreign ownership than the average Nigerian firm. Indeed, selecting only exporters from the sample of non-FZ based firms returns an even higher share (49%) accessing credit.

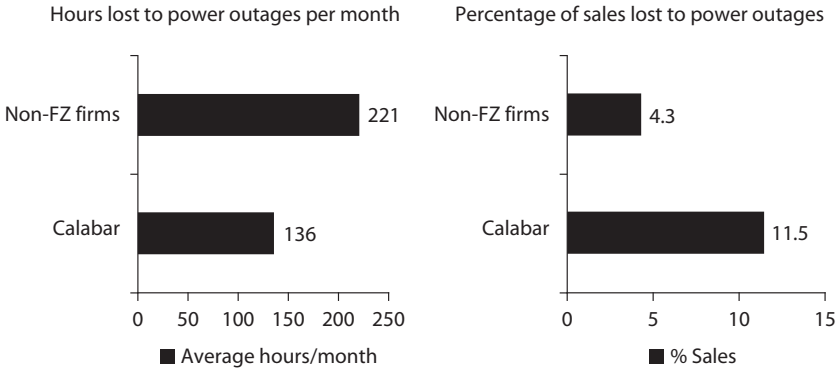
The results shown in Figure 6.4 suggest there is no evidence from the survey that free zone based firms access loans at more attractive interest rates than is available to firms outside the zones. This is perhaps surprising, given the larger foreign ownership of free zone firms and the possibility of these firms to access bank loans from outside the domestic market.

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<sup>16</sup> Although this of course comes at a cost, which is normally at least twice as high for diesel-generated power versus power accessed through the mains. For this reason, electricity is still rated as the single biggest constraint, with 74% of firms reporting it as one of their top three obstacles (versus 92% in Calabar).

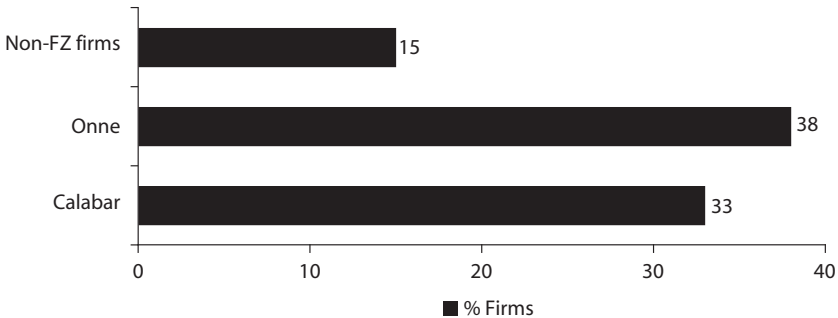


**Figure 6.2 The Effect of Unreliable Power Supply\***



\* Firms in Onne FZ reported zero hours lost to power outages per month.

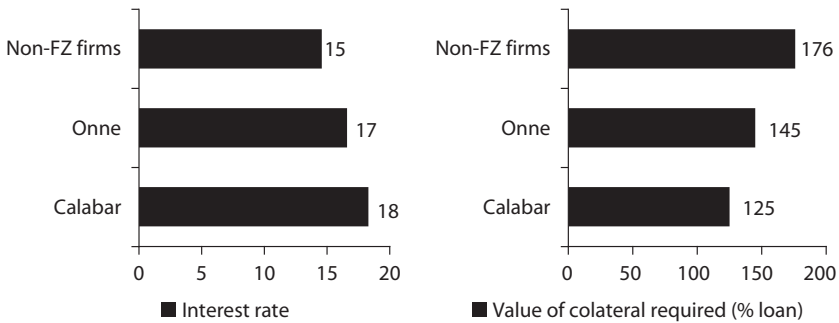
**Figure 6.3 Percentage of Firms with Access to Line of Credit/Loans**



However, free zone companies do appear to benefit from slightly lower collateral requirements.

**Transportation and Trade Facilitation**

With respect to transportation and trade facilitation, the investment climate benefit of the free zones appears to be mixed. Firms in Onne, based at Port Harcourt, consider transport to be only their eighth most important constraint. In contrast, firms in Calabar, without a dredged, deepwater port and many hours on poor roads from Lagos, consider transport their second biggest constraint—indeed, half of firms in Calabar FZ consider transportation to be one of their three biggest obstacles, compared with only one-third of all surveyed firms in Nigeria.

**Figure 6.4 Cost of Finance and Collateral Requirements**

The poor road network in Nigeria is a severe constraint for most firms in the country, especially in states located far from the main economic centers. In this respect, the Calabar and Onne free zones—and the access to port facilities they provide—allow firms to bypass the problem of poor road connectivity and quality to a certain extent. However, there are significant differences in the degree of “insulation” the two zones offer—these arise mainly from differences in the infrastructure and connectivity of the ports located next to these zones.<sup>17</sup>

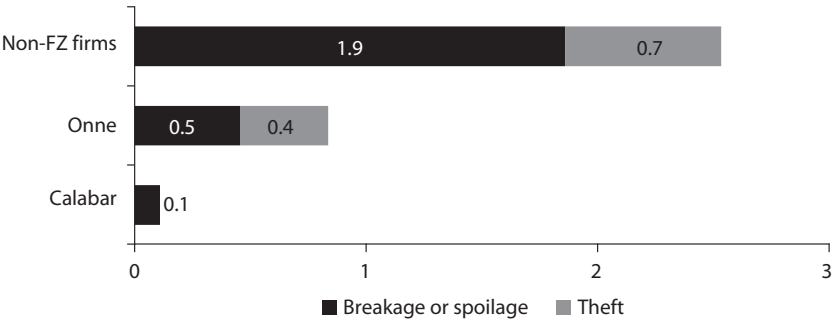
In Onne, having access to the better infrastructure and connectivity of Port Harcourt, almost all firms rely on that port to receive supplies and ship products to clients (only 2 firms have inputs delivered by road and one firm uses roads to deliver products to clients). The situation is slightly different in Calabar, mainly because the port is not as efficient as Port Harcourt. All firms in the Calabar zone have at least some of their inputs delivered by road, mostly from Port Harcourt and from other cities in the Cross River state. On the other hand, firms that target the domestic market use the Calabar port instead of roads when delivering products to clients, as do firms that export to neighbor countries (Benin and Equatorial Guinea). However, firms that export to more distant countries (China and Italy, but also Ghana and Liberia) must make use of Port Harcourt (180km) or Apapa (700km).

<sup>17</sup> Firms in the free zones also have greater control over the delivery of their inputs. In Calabar, 71% of inputs/supplies are of foreign origin and 66% of firms import at least some of their inputs directly. In Onne, 86% of inputs are of foreign origin and 100% of firms import some of their inputs directly. In contrast, only 6% of inputs are of foreign origin for the average non-FZ based firm.

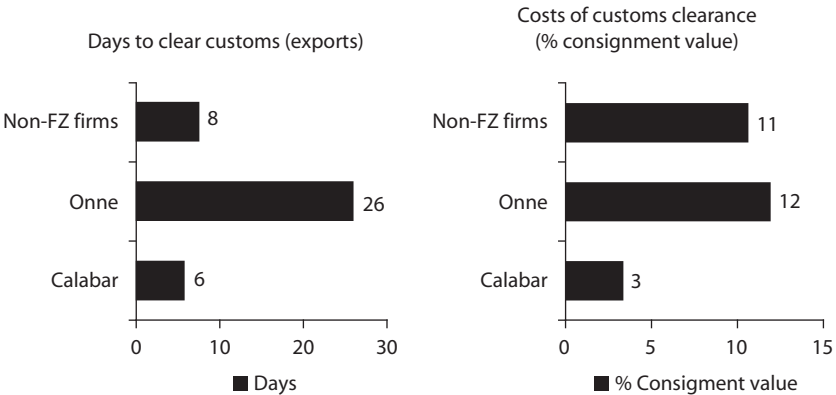
The option that the Calabar and Onne zones provide to bypass road connectivity and quality issues translates into at least a two-thirds reduction in the percentage of sales lost in transit, both because products do not spoil or break on long trips to clients and because they are less exposed to theft (see Figure 6.5).

In trade facilitation, the picture is reversed, as can be seen in Figure 6.6. Here, firms in Calabar face a much-improved environment relative to non-FZ based exporters, while the environment in Onne appears to be poor. That said, firms in Onne do not appear to consider customs and trade regulations to be any more of a barrier to their business than do firms in Calabar or outside the free zone system. This could be the result of the different type of products exported in Onne, which include oil pipe coatings, casings and oil industry specific goods that take more time to clear customs than more traditional products (between 25 and 60 days).

**Figure 6.5 Percentage of Sales Lost Due to Transport Disruptions**



**Figure 6.6 Efficiency of Customs Clearance**



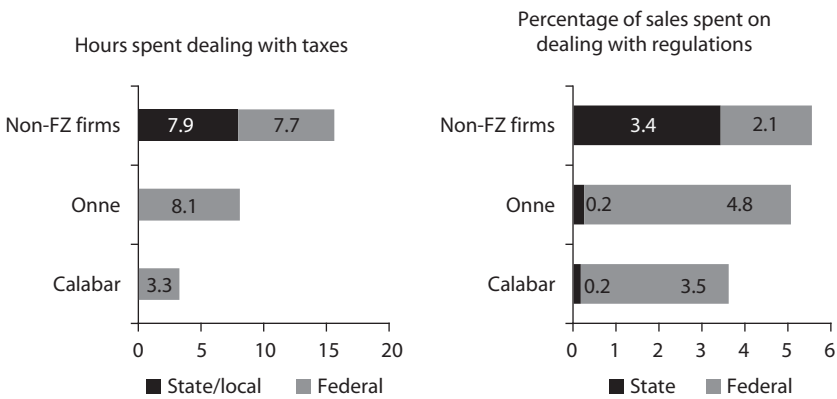
### Tax Rates and Administration

Clearly, firms in the free zones face a much more attractive tax environment than those based outside the zones. Free zone companies receive a complete and indefinite tax holiday on all federal, state, and local taxes, including corporation tax and VAT; they are also exempt from any local rates, customs duties, and levies. As a result, no firms in the free zones identify tax rates as a severe constraint.

Similarly, taxes impose a low administrative burden for firms located inside the zones, given the exemptions they receive: they have a lower probability of being visited by tax officials, receive half the number of annual visits, and spend about half the time fulfilling requirements to file taxes.

Only 17% of firms inside the FZs reported being visited by tax officials in the last year, versus 82% of all Nigerian firms in the survey.<sup>18</sup> Furthermore, free-zone based firms that received visits from tax officials reported an average of two visits per year, while firms outside the free zones report an average of nearly 3.5 visits. Finally, firms in Calabar and Onne report significantly lower times required to fill in forms and pay taxes (3.3 and 8.1 hours respectively) than non-FZ firms (15.7 hours) (Figure 6.7).

**Figure 6.7 Complying with Taxes and Regulations in Free Zones**



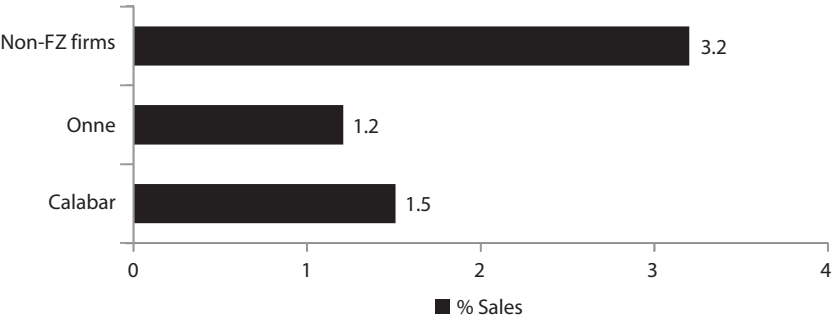
<sup>18</sup> Note that being exempt from taxes does not preclude free zone firms from being visited by tax officials. Tax officials may still review the records of free zone based firms to ensure that they are complying with tax rules and to assess if there are any activities being undertaken that should incur taxes.

Although incentives are available to both FZ and non-FZ exporters for purchasing inputs, firms in Calabar and especially in Onne, make much greater use of duty exemptions than non-free zone firms. Firms in Calabar also make much greater use of the VAT reimbursement.<sup>19</sup> Operating in the free zone makes many of these incentives schemes automatic, whereas the non-FZ available exporter must go through processes of application to become eligible and then further administrative hurdles to claim the incentive.

**Corruption, Crime, and Security**

The lower regulatory burden faced by firms in the free zones may also explain why they report facing less corruption than firms outside the zones. No FZ firm declared that informal payments were expected when applying for basic services, nor as a result of a visit from tax officials.<sup>20</sup> In contrast, 19% of non-FZ exporters report informal payments were expected to get an electricity connection and 25% as a result of a visit from tax officials. The impact that this less corrupt environment has on the bottom line is reflected in the significantly lower burden that informal payments pose on free zone based firms: they report informal payments of less than 1.5% of sales compared to 3.5% for the average Nigerian firm. (Figure 6.8)

**Figure 6.8 Unofficial Payments Inside and Outside Free Zones**



<sup>19</sup>Note that most firms in Onne purchase virtually all inputs from foreign markets and so are unlikely to make use of the VAT reimbursement.

<sup>20</sup>The response rate for FZ-based firms was 100% on these questions. The test for “reticent respondents” to the corruption questions found no reticent respondents among the FZ survey respondents.

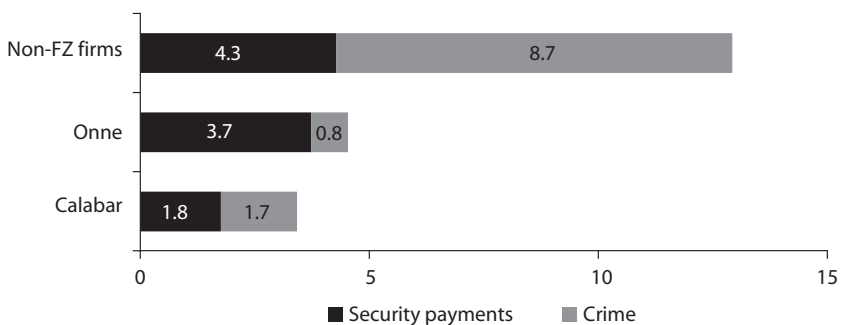
Similarly, FZ firms may also be shielded from the problems non-FZ firms face with respect to the costs of crime and security (see Figure 6.9). Although a similar share of firms inside and outside the zones has experienced losses as a result of crime (theft, robbery, vandalism or arson), the average loss as a percentage of sales is significantly lower in the zones (0.8% in Onne and 1.7% in Calabar) compared with the average Nigerian firm (8.7%). Additionally, the more secure environment translates to lower security payments inside the zones, with the benefits (in terms of less money spent on security) ranging from 0.6% to 2.5% of total sales compared to the average firm in Nigeria. These results seem to confirm the expectation of free zone firms, 57% of which cited crime and civil unrest as a major concern in the country and a reason why they decided to invest inside a free zone.

### The Missing Links Between Investment Climate and Firm Performance

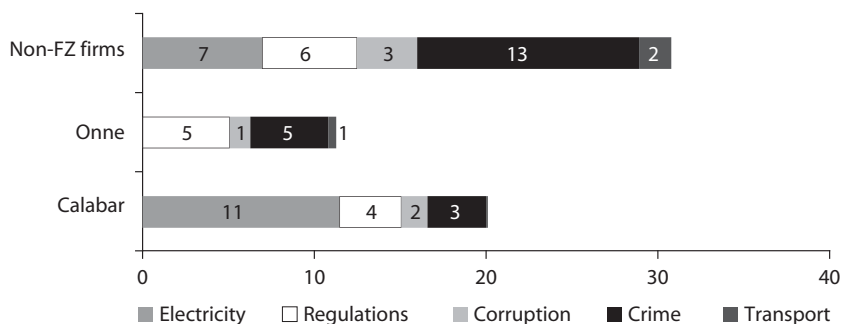
Firms in Nigeria's free zones operate in a substantially more attractive environment than that faced by firms outside the free zones, substantially lowering their indirect costs resulting from the poor investment climate (see Figure 6.10). Firms in Onne can expect almost a two-thirds decrease (equivalent to 20 percentage points), and firms in Calabar a one-third decrease (10 percentage points) in sales losses due to five main business constraints examined here.

This should translate into improved performance for FZ firms relative to those outside them. However, evidence from the survey suggests this may not be the case.

**Figure 6.9 Crime and Security Expenses in Free Zones**



**Figure 6.10 Impact of Indirect Costs Inside the FZs vs. Outside**  
(% of Sales Lost Due to Selected Factors)



Robust comparisons of productivity performance inside and outside the free zones are not possible, due to the very small sample size inside the zones<sup>21</sup> and significant differences in industry composition inside and outside the zones. Value-added per worker and labor costs are much higher inside the zones than outside. Median sales volumes are greater in the zones due to the nature of the firms: US\$16 million in Onne and US\$2.2 million in Calabar versus US\$ 79,000 outside the zones. But growth rates are much higher *outside* the zones—firms outside the free zones reported sales growth of 45% between 2005 and 2008, while firms in Calabar and Onne reported only 25% and 21% respectively. And while firms in Onne reported slightly higher levels of production intensity (as measured by hours of weekly operation) than non FZ-based firms, the reverse was true for the Calabar FZ. (Table 6.2)

Given the more attractive investment environment and the incentives in the free zones, what explains the failure to observe more systematic

**Table 6.2 Firm Performance in FZ and Non-FZ Firms**

	<i>Calabar</i>	<i>Onne</i>	<i>Non-FZ firms</i>
Value added per worker (US\$ )	13,238	146,835	2,141
Capacity utilization (%)	37.5	50	75
Hours of weekly operation	50	84	60
Sales growth (2005–2008)	28.3	8.2	30.0

<sup>21</sup> e.g. TFP can be calculated on only 10 firms from Onne FZ and none from Calabar).

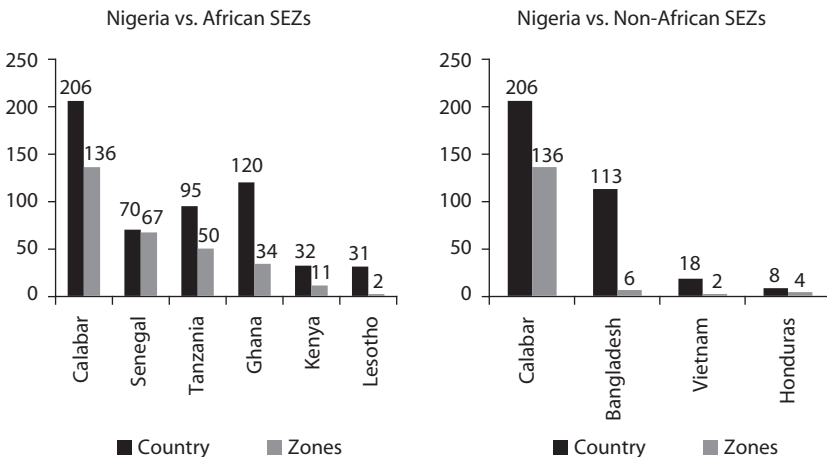
performance improvements in zone-based firms? Several hypotheses are explored in this section.

Firms in Nigeria's free zones face an investment climate that—while better than outside the free zone—is still full of constraints. Electricity, downtime, for instance, is much lower for firms based in the zones, but is still cited as by far their biggest constraint. As shown in figure 6.11, firms in Calabar face more downtime than firms in all other countries surveyed, whether inside or outside free zones. The impact is significant—in Calabar, for example, investors note that the cost of diesel for the generators on which they must rely outweighs any fiscal incentives they get from operating in the zone.

It may also be that the truly binding constraints are not addressed by the free zone's improvements. For example, improved customs clearance in Calabar may save exporters a few days. But the original plan for the Calabar FZ also envisaged a deep-water port which, twenty years on, has still not been dredged. As a result, firms exporting from Calabar are forced to truck goods to Lagos, incurring high costs due to distance and poor road conditions. Thus, the improvements in customs inside the zones may well be in vain for most firms. (Figure 6.12)

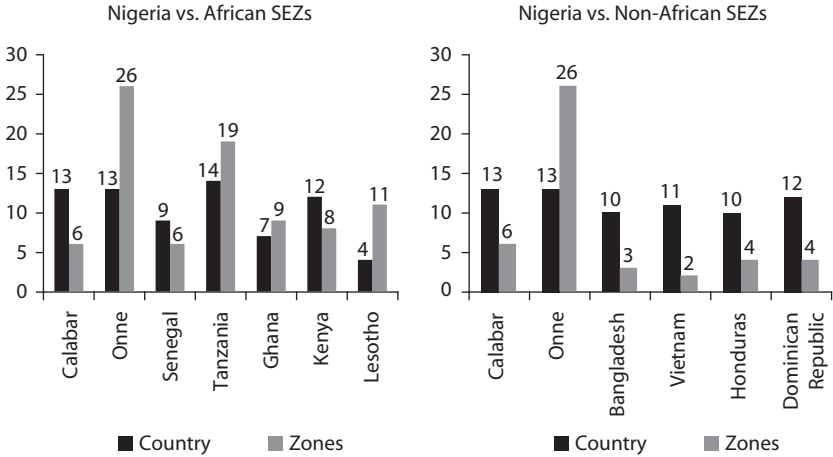
A second possible factor is that the incentives available in the free zones, in relation to incentive programs available outside the free zones, do not attract “world-class” foreign investors. Nigeria's free zone program, for instance, allows 100% sales to the local market, which helps attract firms selling into to the local market rather than those seeking to use the FZ as a global export platform. Indeed, more than 80% of sales from

**Figure 6.11 Zone Investment Climate Improvements: Electricity Downtime (days)**





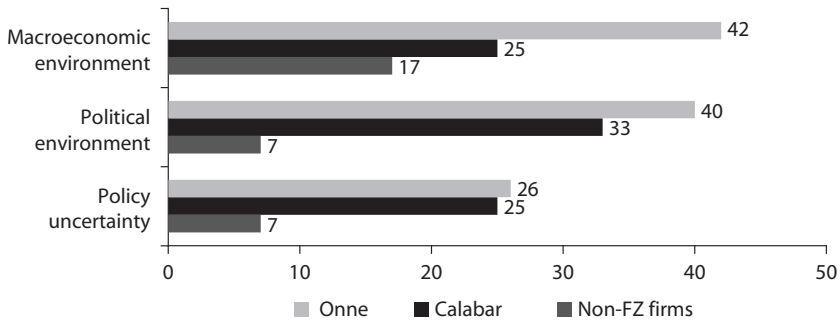
**Figure 6.12 Zone Investment Climate Improvements: Export Customs Clearance (Days)**



Onne-based firms are sold to the Nigerian customs territory, as are almost 90% of sales from firms in the Calabar FZ.

Moreover, a raft of incentive regimes (EEG, manufacturing-in-bond, Pioneer Investor Status) is available to exporters based in the domestic market, and this package is often more favorable than what is available inside the zones. Thus, the policy environment does not create any selection bias toward export-oriented, globally competitive firms, as might normally exist in a free zone program. Indeed, the firm survey indicates that nearly half the firms based in Calabar and Onne already operated in Nigeria and shifted into the zones, rather than representing new investment. Moreover, most of them focus primarily on the domestic market—more than 80% of sales from Onne-based firms are sold to the Nigerian customs territory, as are almost 90% of sales from firms in the Calabar FZ. With such a strong orientation toward the local Nigerian market, it is little surprise that firms in the free zones do not exhibit levels of competitiveness significantly greater than that of their competitors in the domestic market.

Finally, the macroeconomic environment is considered a major constraint by virtually all firms in Nigeria, ranking as the fifth most significant obstacle. For free zone firms it was considered even more important, ranking second in Onne and fourth in Calabar. But what is most striking is the FZ firms’ much higher concerns than non-FZ firms about the political environment, and policy uncertainty, as shown in Figure 6.13.

**Figure 6.13 Percentage of Respondents Indicating Factor as One of Their Top 3 Constraints**

Why the greater concern over the political environment and policy uncertainty? One possible reason is that because the zones improve other aspects of the investment environment, broader issues come to loom larger in importance. A second reason may be related to the greater concentration of foreign-owned firms in the free zones. The evidence from surveys conducted in other free zone programs around the world suggests that these two factors are at least partial explanations. In the case of Nigeria, the history of policy uncertainty in the free zone programs is likely to be another important factor, and one which may well have had a substantial impact on the competitiveness of free zone based firms. Examples of this uncertainty are outlined in Box 6.1.

The impact of policy inconsistency goes beyond simply those issues related directly to the free zone program. For example, in 2005, among the companies operating in Calabar FTZ were a furniture manufacturer, a detergent manufacturer, and three garment manufacturers. All of these companies relied in part on selling into the Nigerian domestic market. However, in 2005, the Nigerian government banned the import of these three products—this ban included production from the free zones as these were considered to be outside the national territory. It took another three years to get the legislation amended to allow such products manufactured in free zones to be sold into the local market again (with a 35% tariff added). By this time, the detergents company left Nigeria and all three garments companies shut down—only the furniture manufacturer survived.

**Box 6.1****Uncertainty about Institutional Responsibilities for Free Zones**

The creation of the Oil & Gas Free Zone Authority (OGFZA) in 1996 created significant confusion over where its roles and responsibilities ended and where those of NEPZA, as the export processing zones authority, took over. For firms in the zones this created significant uncertainty over the legal and regulatory framework under which they were expected to operate. Finally in 2008, the attorney general issued a ruling declaring OGFZA responsible for all oil and gas related activities in the country. This meant that NEPZA not only did not have any authority over the oil and gas free zones, but that oil and gas activities within NEPZA-regulated zones are technically the responsibility of OGFZA. This could lead to further confusion and overlapping regulation for oil and gas related companies that may want to invest in zones under the NEPZA remit.

A second example of the impact of policy uncertainty derived from institutional conflict between Customs and NEPZA. Taking the side of Customs, the government reversed its policy on the establishment of Export Processing Factories after such status had already been granted to 23 investors. This action undermined the business model of the Tinapa Business and Leisure resort\* after US\$400m in investment had already been sunk into the project.

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\* The Tinapa Business and Leisure Resort in the Cross River State was intended primarily to offer duty free shopping to the residents of the State capital Calabar (2.3 million inhabitants) and more widely wealthy Nigerians and Africans – essentially as an alternative to Dubai and London.

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# **Annexes**

## **State Snapshots**





## ANNEX 1

# State of Adamawa

The most important obstacles perceived by firms located in the State of Adamawa include electricity, reported by 74% of firms, access to finance, cited by 55% of firms, and tax rates cited by 37% of firm, as illustrated in Figure A.1.1.

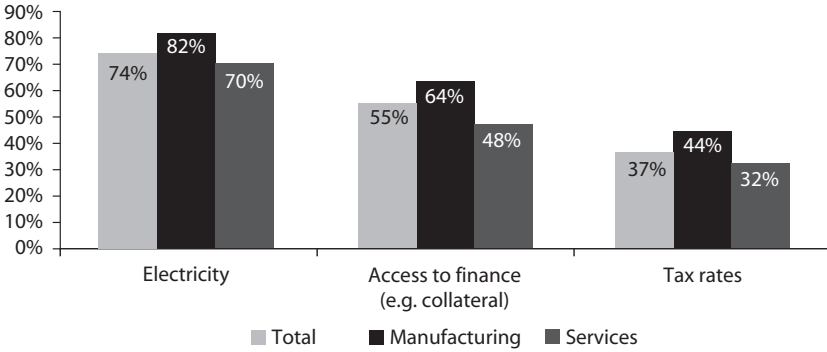
These constraints were perceived more intensely in the manufacturing sector than the services sector. Also of interest, the top three ranked constraints were perceived more acutely by negative and slow employment growth firms over high employment growth firms.

Electricity was not only perceived as the greatest obstacle for businesses in the State of Adamawa, it was also the source of high indirect costs; indeed, losses due to power outages represent 6.6% of total sales. These losses were greater than the national average, which amounted to 5.3% of total sales.

The firms operating in the State of Adamawa had greater access to overdraft facilities than did the average firm in Nigeria (23% vs. 19%). In contrast, Adamawa firms had less access to lines of credit and loan facilities.

Tax officials visited 94% of firms (100% of manufacturing firms) an average of 4 times a year. About 38% of firms declared that informal payments/gifts were expected/required during these visits.

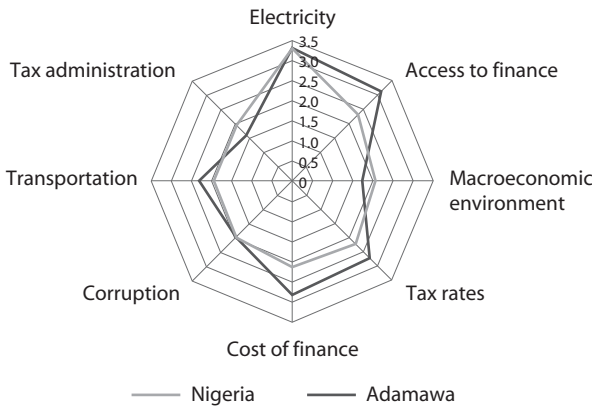
**Figure A.1.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.1.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Sector			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	74	82	70	74	79	67
Access to finance (e.g. collateral)	55	64	48	61	60	51
Tax rates	37	44	32	37	49	29

**Figure A.1.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.1.2 Selected Indicators – All Formal Sectors**

	<i>Adamawa</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.6	5.0	7.5	5.3	4.3	6.3
Average duration of power outage (hrs)	237	319	187	239	248	230
% of firms with gen	96	98	88	88	88	87
% of electricity from gen		79	N/A		69	N/A
Average duration to obtain an electric connection (days)	6	3	6	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	71	74	69	69	70	68
% of firms with overdraft	23	25	22	19	16	21
% of firms currently have either line of credit, loans or both	12	2	18	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		100	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		10	N/A		8	N/A
% of firms using own transport		60	N/A		53	N/A
% of shipment value transported by own transportation		80	N/A		69	N/A
Losses due to transportation (% of sales)		1.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	82	97	74	72	70	74
% of firms visited by tax officials	94	100	90	82	82	82
Average number of visits	4	3	4	3	3	3
% of visits with informal payments expected/required	38	43	34	34	33	34
Corruption % annual sales on bribes	3.9	2.9	4.4	3.2	3.2	3.3
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.8	0.0	1.2	1.0	0.7	1.3
% of firms paying for security	75	68	79	78	75	80
Cost of security in % of sales	1.2	0.7	1.5	1.5	1.3	1.8



## ANNEX 2

# State of Akwa Ibom

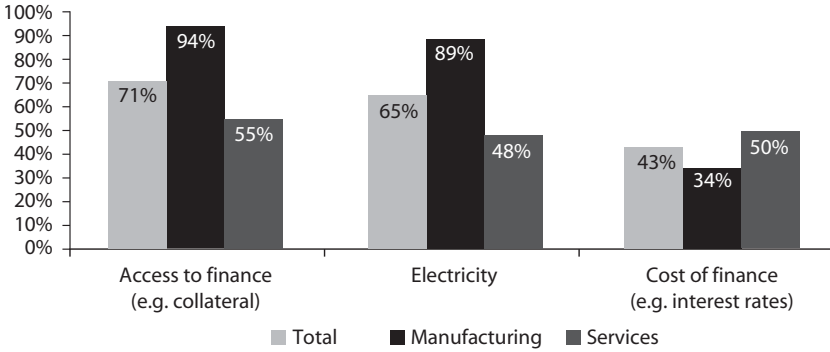
The most important obstacles perceived by firms located in the State of Akwa Ibom include access to finance, reported by 71% of firms, followed closely by electricity, cited by 65% of firms, and the cost of finance, cited by 43%, as illustrated in Figure A.2.1.

Problems with the provision of electricity and access to finance were perceived more severely by manufacturing firms than by firms operating in the service sector, 89% vs 48% and 94% vs. 55%, respectively. In contrast, the cost of finance was ranked as major obstacle by a greater number of service sector firms than by manufacturing sector firms.

Electricity was the source of high indirect costs in the State of Akwa Ibom, with losses due to power failures representing a total of 6.4% of sales. Service sector firms lost an average of 10% of their sales due to failures in the supply of electricity while manufacturing firms lost only 2.7%. Nine manufacturers out of ten had a generator, which supplied about 79% of these firms' power.

On average, firms in the state of Akwa Ibom had more access to lines of credit and loan facilities than the average firm in Nigeria (22% vs. 15%). Service sector firms had greater access to such facilities than the manufacturing sector. On the other hand, the latter had less access to overdraft facilities.

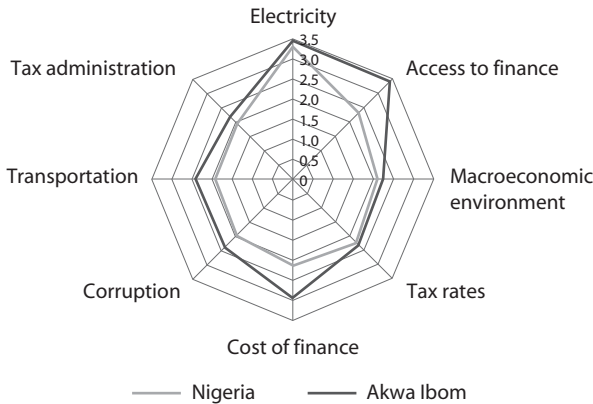
**Figure A.2.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.2.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Sector			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Access to finance (e.g. collateral)	71	94	55	70	80	71
Electricity	65	89	48	56	75	65
Cost of finance (e.g. interest rates)	43	34	50	51	31	46

**Figure A.2.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.2.2 Selected Indicators – All Formal Sectors**

	<i>Akwa Ibom</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.4	2.7	9.1	5.3	4.3	6.3
Average duration of power outage (hrs)	286	427	185	239	248	230
% of firms with gen	90	90	90	88	88	87
% of electricity from gen		79	N/A		69	N/A
Average duration to obtain an electric connection (days)	28	7	30	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	70	78	64	69	70	68
% of firms with overdraft	17	5	25	19	16	21
% of firms currently have either line of credit, loans or both	22	13	29	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		100	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		5	N/A		8	N/A
% of firms using own transport		35	N/A		53	N/A
% of shipment value transported by own transportation		71	N/A		69	N/A
Losses due to transportation (% of sales)		0.5	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	88	85	90	72	70	74
% of firms visited by tax officials	84	94	77	82	82	82
Average number of visits	3	2	3	3	3	3
% of visits with informal payments expected/required	27	24	30	34	33	34
Corruption % annual sales on bribes	3.9	2.9	4.4	3.2	3.2	3.3
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.5	0.1	0.8	1.0	0.7	1.3
% of firms paying for security	73	66	79	78	75	80
Cost of security in % of sales	1.4	0.9	1.7	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.1	2.4	3.6	3.2	3.2	3.3





## ANNEX 3

# State of Bayelsa

The most important obstacles perceived by firms located in the State of Bayelsa include electricity, reported by 84% of firms, with constraints such as access to finance and transportation a distant second and third, cited by 43% and 28% of firms, respectively, as illustrated in Figure A.3.1.

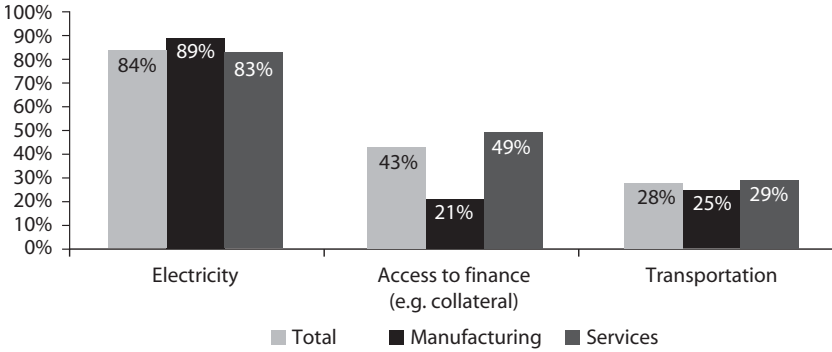
A glance at Table A.3.1 reveals a manufacturing sector that does not appear to have much to complain about except for electricity. Indeed, the other most significant constraints perceived by the group were access to finance and transportation, cited by 21% and 25% of firms, respectively. Service sector firms in the State of Bayelsa appear to perceive the provision of electric power more on par with the rest of the country, with 83% of firms citing it as a constraint.

Electricity was a source of high indirect costs in the State of Bayelsa and the losses due to power outages represented 6.5% of the total sales. Service sector firms lost 7.7% of their sales due to power failures while manufacturing sector firms lost only 2%. All service sector firms had a generator and in the manufacturing sector, almost nine out of every ten firms possessed one, which supplied about 85% of their total power.

On average, firms in the state of Bayelsa had less access to lines of credit or loan and overdraft facilities. The case of service sector firms was more problematic. In effect, only 2% of service firms had a line of credit or a loan facility and only 4% had an overdraft facility.

Transportation was also a significant source of indirect costs, with losses due to goods lost in transportation representing 4% of total sales. These losses were greater than the national average, which amounted to 2.4% of total sales.

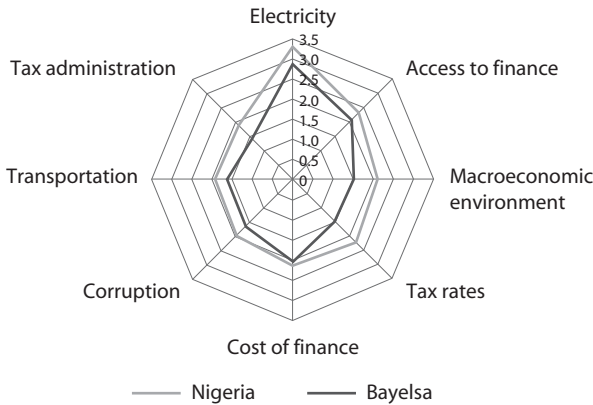
**Figure A.3.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.3.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	84	89	83	86	76	89
Access to finance (e.g. collateral)	43	21	49	36	37	46
Transportation	28	25	29	7	32	28

**Figure A.3.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.3.2 Selected Indicators – All Formal Sectors**

	<i>Bayelsa</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.5	2.0	7.7	5.3	4.3	6.3
Average duration of power outage (hrs)	230	319	206	239	248	230
% of firms with gen	95	89	100	88	88	87
% of electricity from gen		85	N/A		69	N/A
Average duration to obtain an electric connection (days)	11	33	6	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	76	66	78	69	70	68
% of firms with overdraft	5	11	4	19	16	21
% of firms currently have either line of credit, loans or both	5	16	2	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		46	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		3	N/A		8	N/A
% of firms using own transport		35	N/A		53	N/A
% of shipment value transported by own transportation		65	N/A		69	N/A
Losses due to transportation (% of sales)		4.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	74	70	76	72	70	74
% of firms visited by tax officials	27	90	17	82	82	82
Average number of visits	3	2	3	3	3	3
% of visits with informal payments expected/required	27	90	17	34	33	34
Corruption % annual sales on bribes	3.9	2.9	4.4	3.2	3.2	3.3
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.1	0.8	1.2	1.0	0.7	1.3
% of firms paying for security	72	46	79	78	75	80
Cost of security in % of sales				1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.8	5.2	2.1	3.2	3.2	3.3



## ANNEX 4

# State of Benue

The most important obstacles perceived by firms located in the State of Benue include electricity, reported by 81% of firms, followed by the access to finance, cited by 46% of firms, and transportation, cited by 45%, as illustrated in Figure A.4.1.

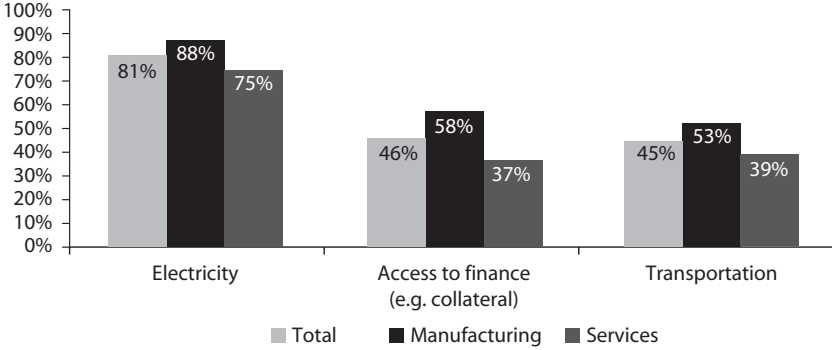
Problems with the provision of electricity was perceived more acutely by manufacturing firms than by service sector firms, cited by 88%, and 75% of firms, respectively. It is worthwhile to note that transportation was cited as a top obstacle by 45% of firms, well above the national average of 30%.

Although electricity was perceived as a top constraint by 81% of firms in the state of Benue, the average duration of power outages was equal to 184 hours, well below the national level of 239 hours. Besides, 81% of firms owned a generator, compared to 88% at national level, and losses due to power outages represented 5.4% of total sales.

Access to finance seems limited in Benue compared to the Nigerian average. 78% of Benue firms financed their working capital through internal funds (versus 69% on average for Nigeria). Moreover, the percentage of firms that had either a line of credit or loans or both was only 6% for Benue, compared to 15% for Nigeria.

Although transportation was perceived as the third most significant constraint, losses due to transportation are evaluated at only 0.9% of sales, compared to the national average of 2.4% of sales.

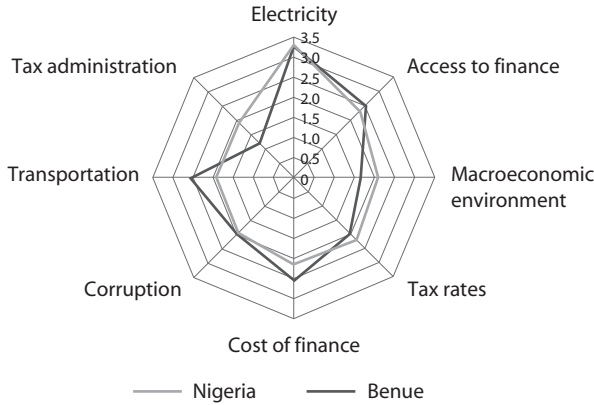
**Figure A.4.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.4.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	81	88	75	87	77	83
Access to finance (e.g. collateral)	46	58	37	58	49	38
Transportation	45	53	39	15	28	69

**Figure A.4.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.4.2 Selected Indicators – All Formal Sectors**

	<i>Benue</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.4	3.1	7.2	5.3	4.3	6.3
Average duration of power outage (hrs)	184	245	135	239	248	230
% of firms with gen	81	80	83	88	88	87
% of electricity from gen		68	N/A		69	N/A
Average duration to obtain an electric connection (days)	16	16	15	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	78	82	75	69	70	68
% of firms with overdraft	21	7	32	19	16	21
% of firms currently have either line of credit, loans or both	6	10	3	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		100	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		6	N/A		8	N/A
% of firms using own transport		37	N/A		53	N/A
% of shipment value transported by own transportation		74	N/A		69	N/A
Losses due to transportation (% of sales)		0.9	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	83	92	77	72	70	74
% of firms visited by tax officials	93	99	89	82	82	82
Average number of visits	7	7	6	3	3	3
% of visits with informal payments expected/required	50	45	55	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.7	0.7	0.7	1.0	0.7	1.3
% of firms paying for security	80	80	80	78	75	80
Cost of security in % of sales	0.9	0.7	1.1	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.9	4.8	3.1	3.2	3.2	3.3





## ANNEX 5

# State of Borno

The most important obstacles perceived by firms located in the State of Borno include electricity, reported by 71% of firms, followed by tax rates, cited by 41% of firms, and the access to finance, cited by 34% of firms, as illustrated in Figure A.5.1.

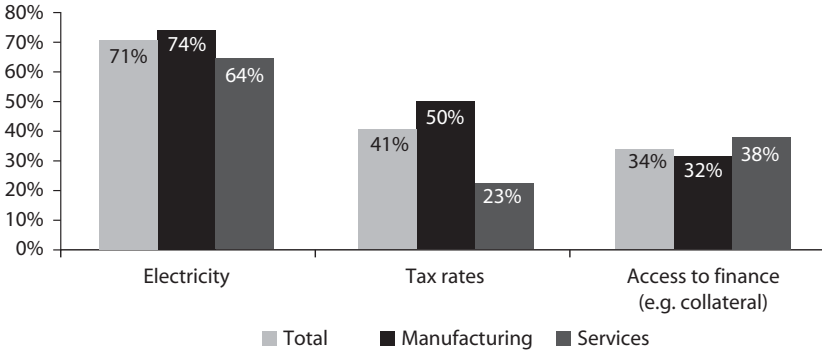
Furthermore, service sector firms expressed problems with the access to finance in greater proportion than manufacturers. It is worthwhile to note that tax rates were cited as a top obstacle by 41% of firms, well above the national average of 30%.

Electricity was not only perceived as the top constraint in the State of Borno, but it was also a great source of indirect costs, with losses due to power failures representing up to 7.2% of total sales. Furthermore, the average duration of power outages was longer than the national average (257 hours vs. 239 hours). Meanwhile, the average delay required for obtaining an electrical connection in Borno was 37 days, compared to 15 days at the national level. Consequently, 94% of firms reported owning a generator.

88% percent of firms in the state reported receiving visits from tax officials about 4 times a year. However, only 22% of firms reported that these officials expected informal payments or gifts.

Access to finance is ranked as the third top constraint in the State of Borno. However, Borno seemed to have better access to finance than the national average, as 29% of firms had either a line of credit, or loans or both (15% for the national average) and only 61% of firms financed their working capital exclusively through internal funds (69% for the national average).

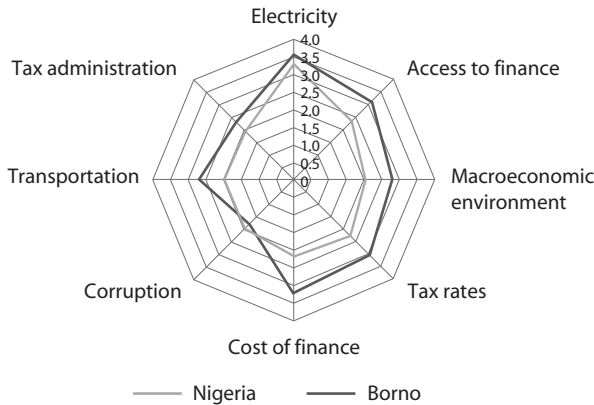
**Figure A.5.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.5.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	71	74	64	86	72	55
Tax rates	41	50	23	54	38	32
Access to finance (e.g. collateral)	34	32	38	42	35	25

**Figure A.5.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.5.2 Selected Indicators – All Formal Sectors**

	<i>Borno</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	7.2	7.3	7.0	5.3	4.3	6.3
Average duration of power outage (hrs)	257	287	196	239	248	230
% of firms with gen	94	94	91	88	88	87
% of electricity from gen		69	N/A		69	N/A
Average duration to obtain an electric connection (days)	37	53	29	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	61	67	49	69	70	68
% of firms with overdraft	34	37	29	19	16	21
% of firms currently have either line of credit, loans or both	29	26	34	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		91	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		14	N/A		8	N/A
% of firms using own transport		72	N/A		53	N/A
% of shipment value transported by own transportation		79	N/A		69	N/A
Losses due to transportation (% of sales)		1.6	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	83	85	80	72	70	74
% of firms visited by tax officials	88	93	78	82	82	82
Average number of visits	4	3	5	3	3	3
% of visits with informal payments expected/required	22	21	24	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.3	0.2	0.3	1.0	0.7	1.3
% of firms paying for security	80	88	65	78	75	80
Cost of security in % of sales	1.4	1.2	1.6	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes						



## ANNEX 6

# State of Delta

The most important obstacles perceived by firms located in the State of Delta include electricity, reported by 87% of firms, followed by the access to and cost of finance cited by 52%, and 40% of firms, respectively, as illustrated in Figure A.6.1.

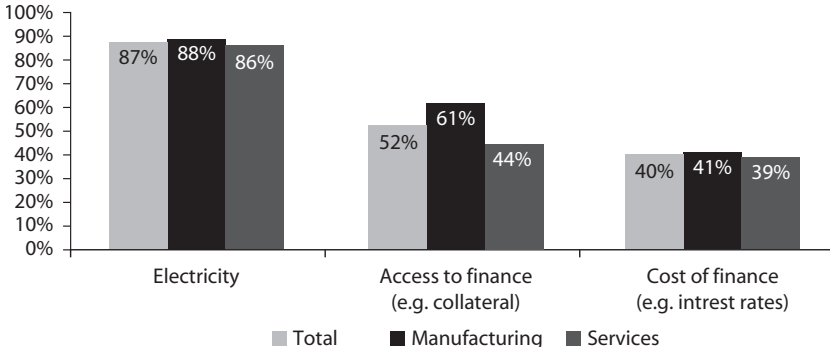
The ranking was consistent across manufacturing and service sector firms.

Problems associated with electricity were acute in the State of Delta, with losses due to power failures reported to represent approximately 5.6% of total sales. Moreover, the average duration of power outages was longer on average in Delta than globally in Nigeria, with an average duration of 297 hours vs. 239 hours nationwide. Otherwise, the average delay experienced to obtain an electrical connection was 28 days, compared to 15 days nationally.

Quantitative information appears to support the claim that access to finance was difficult, as 72% of firms financed their working capital through internal funds alone. On the other hand, on average, firms in the state of Delta had better access to lines of credit and loan facilities than the average firm in Nigeria (18% vs. 15%). Service sector firms had greater access than manufacturers.

Almost all firms in the state of Delta (94%) reported receiving visits from tax officials, on average 3 times a year, with 30% of firms reporting that the officials expected to receive informal payments and gifts. Firms on average only reported 61% of sales for tax purposes.

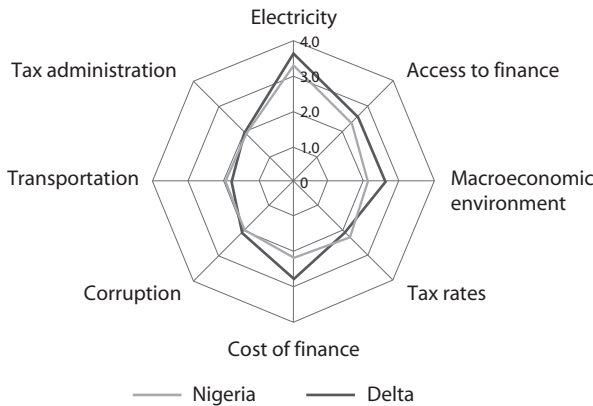
**Figure A.6.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.6.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	87	88	86	67	86	92
Access to finance (e.g. collateral)	52	61	44	54	50	53
Cost of finance (e.g. interest rates)	40	41	39	51	43	34

**Figure A.6.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.6.2 Selected Indicators – All Formal Sectors**

	<i>Delta</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.6	5.8	5.4	5.3	4.3	6.3
Average duration of power outage (hrs)	297	284	308	239	248	230
% of firms with gen	87	86	94	88	88	87
% of electricity from gen		66	N/A		69	N/A
Average duration to obtain an electric connection (days)	28	67	6	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	72	74	70	69	70	68
% of firms with overdraft	16	13	18	19	16	21
% of firms currently have either line of credit, loans or both	18	16	19	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		93	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		37	N/A		8	N/A
% of firms using own transport		35	N/A		53	N/A
% of shipment value transported by own transportation		56	N/A		69	N/A
Losses due to transportation (% of sales)		1.5	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	61	61	60	72	70	74
% of firms visited by tax officials	94	96	93	82	82	82
Average number of visits	3	3	3	3	3	3
% of visits with informal payments expected/required	30	31	29	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.6	0.4	0.7	1.0	0.7	1.3
% of firms paying for security	82	75	88	78	75	80
Cost of security in % of sales	1.3	0.9	1.7	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	0.2	0.2	0.1	3.2	3.2	3.3





## ANNEX 7

# State of Ebonyi

The most important obstacles perceived by firms located in the State of Ebonyi include electricity, reported by 81% of firms, the access to finance, and transportation, cited by 52%, and 35% of firms, respectively, as illustrated in Figure A.7.1.

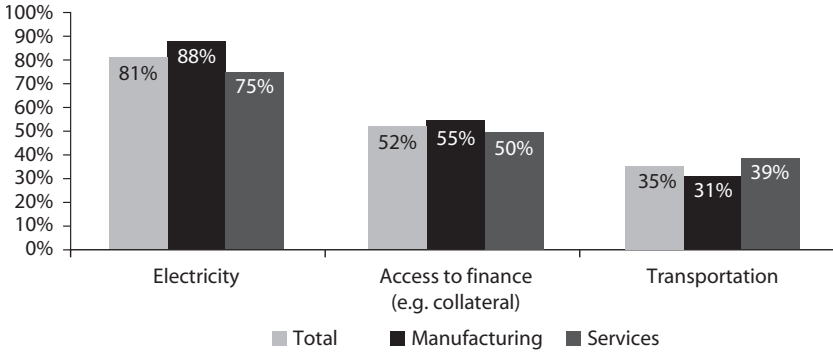
The constraints identified are consistent with those identified for the full sample of Nigerian firms.

Electricity was perceived as a highly constraining obstacle in the State of Ebonyi, but the losses due to power outages were lower there than the national average (4.3% of total sales vs. 5.3%). Although the average duration of power outages was longer than the national average (279 hours vs. 239 hours), only 75% of firms owned a generator.

Only 6% of firms reported having an overdraft facility in the state, and only 5% reported having a line of credit or a loan facility. Manufacturing companies reported using these financial instruments the least, with only 3% of them having an overdraft facility and 4% having a line of credit or a loan facility.

Losses due to transportation in the manufacturing sector were comparable (2.3% of sales) to the national average (2.4%).

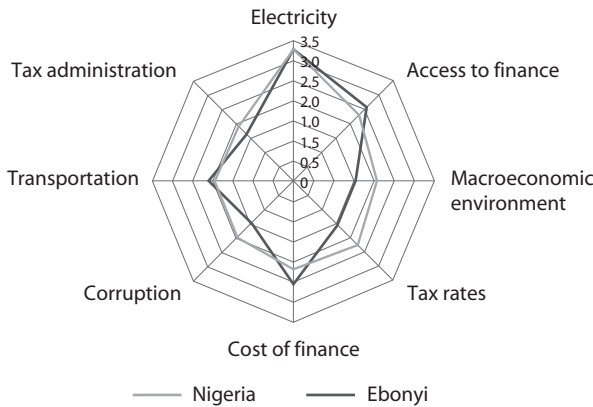
**Figure A.7.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.7.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	81	88	75	88	87	74
Access to finance (e.g. collateral)	52	55	50	43	50	57
Transportation	35	31	39	36	35	35

**Figure A.7.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.7.2 Selected Indicators – All Formal Sectors**

	<i>Ebonyi</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	4.3	1.7	6.7	5.3	4.3	6.3
Average duration of power outage (hrs)	279	377	188	239	248	230
% of firms with gen	75	69	88	88	88	87
% of electricity from gen		58	N/A		69	N/A
Average duration to obtain an electric connection (days)	8	11	5	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	69	71	67	69	70	68
% of firms with overdraft	6	3	8	19	16	21
% of firms currently have either line of credit, loans or both	5	4	6	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		82	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		10	N/A		8	N/A
% of firms using own transport		6	N/A		53	N/A
% of shipment value transported by own transportation		53	N/A		69	N/A
Losses due to transportation (% of sales)		2.3	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	74	77	71	72	70	74
% of firms visited by tax officials	76	79	72	82	82	82
Average number of visits	3	2	3	3	3	3
% of visits with informal payments expected/required	37	43	31	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.4	0.4	0.4	1.0	0.7	1.3
% of firms paying for security	72	65	78	78	75	80
Cost of security in % of sales	1.7	1.6	1.8	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.7	3.5	2.0	3.2	3.2	3.3



## ANNEX 8

# State of Edo

The most important obstacles perceived by firms located in the State of Edo are electricity, reported by 80% of firms, followed by tax rates and transportation, cited by 45%, and 35% of firms, respectively, as illustrated in Figure A.8.1.

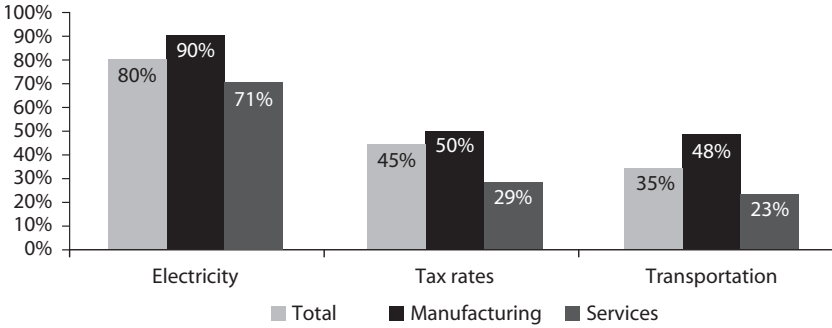
It is somewhat surprising to see that access to and the cost of finance do not appear in the most important constraints to doing business in Edo state. On the other hand, tax rates were considered as a larger burden in Edo state; compared to the national average (45% vs 30%).

Electricity was not only perceived as a severe constraint in the State of Edo, but it represented also significant indirect costs. In fact, losses due to power outages represented 6.8% of total sales. However, the average duration of power outages in Edo, 212 hours, was lower than the national average of 239 hours and the average delay experienced when attempting to obtain an electrical connection was 9 days, compared to 15 days at national level. Approximately three manufacturing firms out of four (74%) owned a generator.

Losses due to transportation represented 4.2% for manufacturing firms in the State of Edo, almost twice the national average (2.4%). In order to deal with transportation problems, manufacturing firms tend to have their own transportation system: 78% of the shipment value was transported by firms' own transportation in the State of Edo compared a national average of 69%.

Although crime, theft and disorder was not mentioned as a major issue, the losses due to theft accounted for 2.8% of indirect costs (compared to 1% on average in Nigeria). Approximately 69% of firms paid for security, the average cost of which represented 2.0% of total sales.

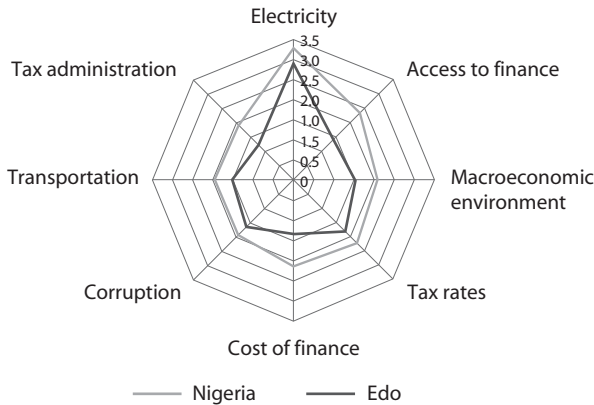
**Figure A.8.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.8.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	80	90	71	61	87	81
Tax rates	45	50	29	13	45	54
Transportation	35	48	23	39	38	31

**Figure A.8.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.8.2 Selected Indicators – All Formal Sectors**

	<i>Edo</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.8	8.0	5.8	5.3	4.3	6.3
Average duration of power outage (hrs)	212	235	193	239	248	230
% of firms with gen	87	90	80	88	88	87
% of electricity from gen		74	N/A		69	N/A
Average duration to obtain an electric connection (days)	9	6	11	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	66	72	60	69	70	68
% of firms with overdraft	18	8	26	19	16	21
% of firms currently have either line of credit, loans or both	22	6	36	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		31	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		16	N/A		8	N/A
% of firms using own transport		52	N/A		53	N/A
% of shipment value transported by own transportation		77.9	N/A		69	N/A
Losses due to transportation (% of sales)		4.2	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	73	77	70	72	70	74
% of firms visited by tax officials	79	69	87	82	82	82
Average number of visits	3	1	3	3	3	3
% of visits with informal payments expected/required	28	20	33	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	2.8	1.0	4.3	1.0	0.7	1.3
% of firms paying for security	69	53	82	78	75	80
Cost of security in % of sales	2.0	0.9	2.9	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.5	1.0	5.6	3.2	3.2	3.3





## ANNEX 9

# State of Ekiti

The most important obstacles perceived by firms located in the State of Ekiti include electricity, reported by 77% of firms, followed by transportation and tax rates in a distant second and third position, cited by 53%, and 36% of firms, respectively, as illustrated in Figure A.9.1.

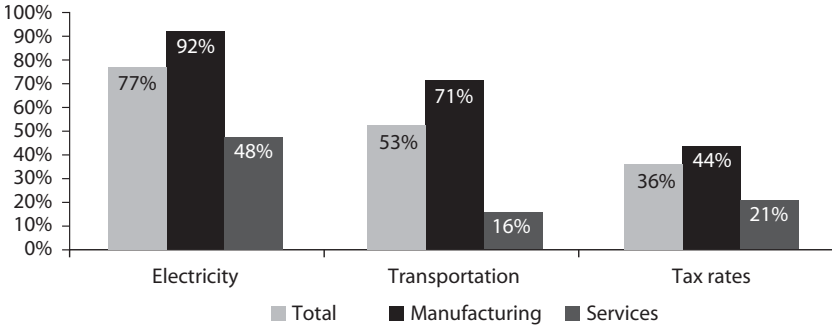
The intensity of these obstacles varied considerably according to the sector of activity. Transportation seemed to affect Ekiti manufacturing firms particularly strongly. While only 16% of service sector firms ranked the constraint as one of the most important, 71% of manufacturing firms did so. Moreover, manufacturing firms are much more concerned with electricity provision and tax rates than service sector firms.

Indirect costs relative to electricity were not as significant in the State of Ekiti as in Nigeria as a whole (3.3% vs 5.3% of sales). However, firms operating in the State of Ekiti had on average 427 hrs of power outages during a typical month, almost twice more than the Nigerian average (239 hours). Despite this, only 68% of firms reported complementing the public grid with owned generators.

Losses due to transportation represented 9.3% of sales for manufacturing firms in the State of Ekiti, almost four times the national average (2.4%). That is consistent with respondents' perception that transportation is as significant an obstacle for manufacturers' business.

Over one third of firms (36%) declared that informal payments and gifts were expected during visits from tax officials, to whom only 63% of sales were declared for tax purposes.

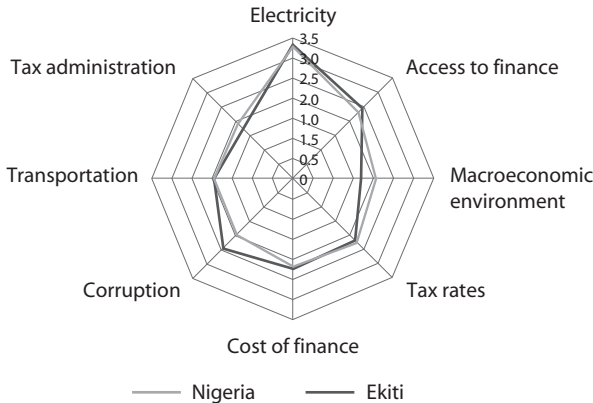
**Figure A.9.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.9.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	77	92	48	72	69	85
Transportation	53	71	16	48	51	52
Tax rates	36	44	21	25	43	39

**Figure A.9.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.9.2 Selected Indicators – All Formal Sectors**

	<i>Ekiti</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	3.3	2.2	5.5	5.3	4.3	6.3
Average duration of power outage (hrs)	427	513	234	239	248	230
% of firms with gen	68	65	88	88	88	87
% of electricity from gen		90	N/A		69	N/A
Average duration to obtain an electric connection (days)	17	10	35	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	69	78	52	69	70	68
% of firms with overdraft	11	7	20	19	16	21
% of firms currently have either line of credit, loans or both	15	1	43	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		38	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		21	N/A		8	N/A
% of firms using own transport		47	N/A		53	N/A
% of shipment value transported by own transportation		53	N/A		69	N/A
Losses due to transportation (% of sales)		9.3	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	63	53	84	72	70	74
% of firms visited by tax officials	61	53	77	82	82	82
Average number of visits	4	3	5	3	3	3
% of visits with informal payments expected/required	36	25	51	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.8	1.1	0.2	1.0	0.7	1.3
% of firms paying for security	77	81	69	78	75	80
Cost of security in % of sales	1.8	2.1	1.3	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.5	2.5	2.5	3.2	3.2	3.3



## ANNEX 10

# State of Gombe

The most important obstacles perceived by firms located in the State of Gombe include electricity, reported by 52% of firms, followed by the access to finance and corruption, cited by 39%, and 20% of firms, respectively, as illustrated in Figure A.10.1.

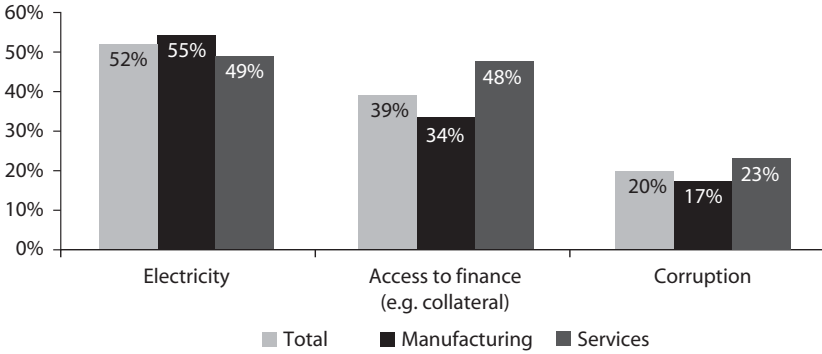
Service sector firms perceived access to finance and corruption as major constraints in a greater proportion than manufacturing sector firms. It is somewhat alarming to note that 23% of service sector considered corruption in Gombe as one of the top obstacles, while the national average is 17%.

Electricity was perceived as one of the top constraints in the State of Gombe; this is echoed in data on indirect costs. Losses due to power failures for establishments operating in the state represented 8.0% of total sales and the average delay experienced to obtain an electrical connection was of 45 days. Approximately 90% of firms owned a generator to compensate for power outages, the average duration of which was 199 hours, lower than the national average of 239 hours.

On average, firms in the state of Gombe had better access to credit and loan facilities than the average firm in Nigeria (23% vs. 15%). Manufacturing sector firms had greater access than the service sector. On the other hand, manufacturing firms reported having less access to overdraft facilities.

Corruption was identified as one of the top constraint by managers in the state. This is echoed by quantitative data on the value of bribes paid in the state. Firms in Gombe appear to pay more than globally in Nigeria (4.2% of annual sales on bribes compared to 3.2%). 69% of sales were reported for tax purposes and tax officials visited 92% of firms, on average 4 times a year.

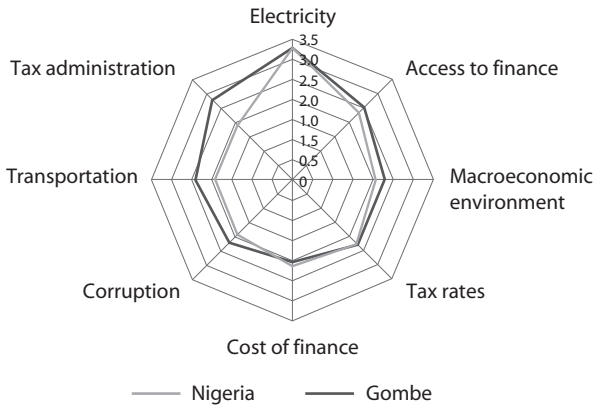
**Figure A.10.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.10.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	52	55	49	44	66	45
Access to finance (e.g. collateral)	39	34	48	20	50	41
Corruption	20	17	23	50	8	10

**Figure A.10.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.10.2 Selected Indicators – All Formal Sectors**

	<i>Gombe</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	8.0	8.1	7.7	5.3	4.3	6.3
Average duration of power outage (hrs)	199	218	169	239	248	230
% of firms with gen	90	91	90	88	88	87
% of electricity from gen		67	N/A		69	N/A
Average duration to obtain an electric connection (days)	45	68	11	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	61	56	67	69	70	68
% of firms with overdraft	27	26	30	19	16	21
% of firms currently have either line of credit, loans or both	23	25	20	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		1	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		2	N/A		8	N/A
% of firms using own transport		63	N/A		53	N/A
% of shipment value transported by own transportation		33	N/A		69	N/A
Losses due to transportation (% of sales)		3.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	69	68	70	72	70	74
% of firms visited by tax officials	92	90	96	82	82	82
Average number of visits	4	5	2	3	3	3
% of visits with informal payments expected/required	30	37	21	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.1	0.2	0.1	1.0	0.7	1.3
% of firms paying for security	74	69	81	78	75	80
Cost of security in % of sales	1.9	1.9	1.9	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	4.2	4.1	4.5	3.2	3.2	3.3





## ANNEX 11

# State of Imo

The most important obstacles perceived by firms located in the State of Imo include electricity, reported by 70% of firms, followed by access to finance, and transportation, cited by 42% and 27% of firms, respectively, as illustrated in Figure A.11.1.

Firms reporting negative employment growth were more likely to identify difficulties in accessing finance than their slow and high employment growth counterparts. Manufacturing' respondents cited transportation as a problem more often than service sector managers (42% vs 17%).

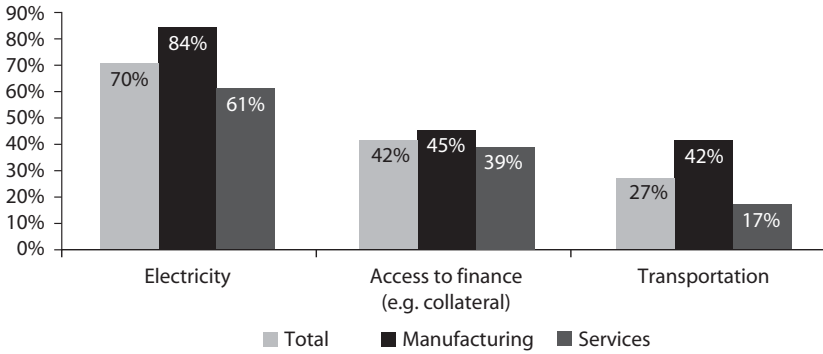
Electricity was perceived as a very severe constraint in the State of Imo. On average, losses due to power outages represent 5.0% of total sales, which was slightly lower than the national average. The average delay experienced when obtaining an electrical connection was 16 days and 92% of firms reported owning a generator. The average duration of power outages was 206 hours, which was lower than the national average of 239 hours.

On average, when comparing with firms across Nigeria, firms in the state of Imo had better access to lines of credit or loans and equal access to overdraft facilities. Nonetheless, more than three quarter of Imo firms finance their working capital by internal funds.

Manufacturing firms operating in the State of Imo lost merchandise worth 3.0% of their sales while in transit, slightly more than the national average (2.4%).

84% of sales were reported for tax purposes and tax officials had visited about three firms out of four (74%), on average 3 times a year.

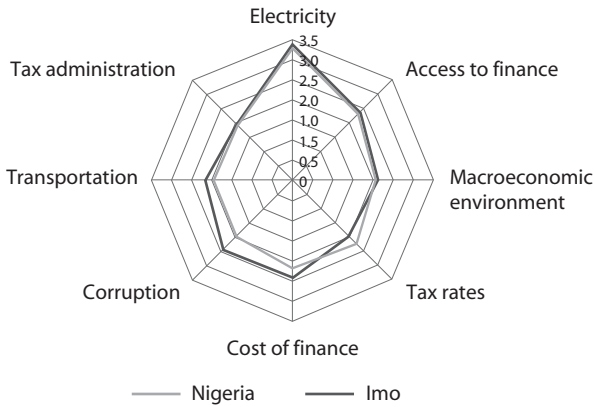
**Figure A.11.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.11.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	70	84	61	81	68	67
Access to finance (e.g. collateral)	42	45	39	50	35	42
Transportation	27	42	17	14	26	36

**Figure A.11.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.11.2 Selected Indicators – All Formal Sectors**

	<i>Imo</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.0	3.2	6.2	5.3	4.3	6.3
Average duration of power outage (hrs)	206	172	230	239	248	230
% of firms with gen	92	90	96	88	88	87
% of electricity from gen		67	N/A		69	N/A
Average duration to obtain an electric connection (days)	16	9	20	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	74	77	72	69	70	68
% of firms with overdraft	19	21	17	19	16	21
% of firms currently have either line of credit, loans or both	21	15	25	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		87	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		11	N/A		8	N/A
% of firms using own transport		53	N/A		53	N/A
% of shipment value transported by own transportation		74	N/A		69	N/A
Losses due to transportation (% of sales)		3.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	84	86	82	72	70	74
% of firms visited by tax officials	74	75	73	82	82	82
Average number of visits	3	2	4	3	3	3
% of visits with informal payments expected/required	34	33	35	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.5	1.5	1.4	1.0	0.7	1.3
% of firms paying for security	88	92	85	78	75	80
Cost of security in % of sales	2.0	2.0	1.9	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.8	2.1	3.3	3.2	3.2	3.3



## ANNEX 12

# State of Jigawa

The most important obstacles perceived by firms located in the State of Jigawa include electricity, reported by 58% of firms, followed by the access to finance and tax administration, cited by 32% and 29% of firms, respectively, as illustrated in Figure A.12.1.

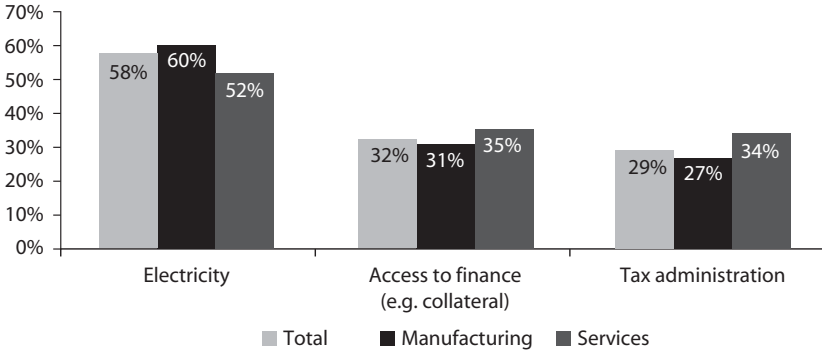
Service sector firms of Jigawa expressed more difficulties in accessing finance and dealing with tax administration than manufacturing firms.

Firms in the State of Jigawa reported electricity shortages as a great source of indirect costs. Losses due to power outages were reported to represent 8.4% of total sales. Obtaining an electrical connection required an average of 65 days (15 days nationwide). Power outages lasted an average of 183 hours; to compensate, 85% of firms reported owning a generator.

Although access to finance was reported as a major constraint, firms operating in the state had better access to financing than the national average. Indeed, 28% of firms had an overdraft facility and 32% of firms were able to benefit from a line of credit or a loan facility.

Firms operating in the State of Jigawa spent an average of 3.7% of their total sales on bribes and 67% of total sales was reported for tax purposes.

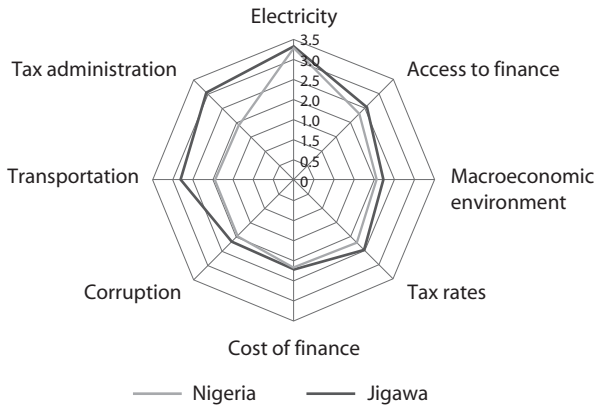
**Figure A.12.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.12.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	58	60	52	43	60	57
Access to finance (e.g. collateral)	32	31	35	43	52	9
Tax administration	29	27	34	30	23	34

**Figure A.12.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.12.2 Selected Indicators – All Formal Sectors**

	<i>Jigawa</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	8.4	8.4	8.4	5.3	4.3	6.3
Average duration of power outage (hrs)	183	193	153	239	248	230
% of firms with gen	85	87	67	88	88	87
% of electricity from gen		55	N/A		69	N/A
Average duration to obtain an electric connection (days)	65	85	19	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	60	64	47	69	70	68
% of firms with overdraft	28	22	46	19	16	21
% of firms currently have either line of credit, loans or both	32	38	12	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		75	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		2	N/A		8	N/A
% of firms using own transport		62	N/A		53	N/A
% of shipment value transported by own transportation		45	N/A		69	N/A
Losses due to transportation (% of sales)		2.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	67	65	74	72	70	74
% of firms visited by tax officials	90	90	90	82	82	82
Average number of visits	5	5	4	3	3	3
% of visits with informal payments expected/required	28	28	29	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.5	0.2	1.6	1.0	0.7	1.3
% of firms paying for security	70	74	56	78	75	80
Cost of security in % of sales	1.7	1.6	2.0	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.7	3.3	4.9	3.2	3.2	3.3





## ANNEX 13

# State of Katsina

The most important obstacles perceived by firms located in the State of Katsina include electricity, reported by 72% of firms, followed by access to finance, and tax rates cited by 48% and 34% of firms, respectively, as illustrated in Figure A.13.1.

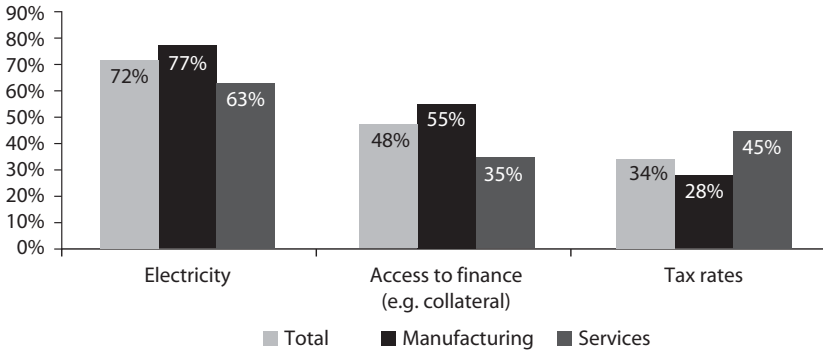
Problems with tax rates, tax administration and corruption were more frequently expressed by service sector firms than by manufacturing firms.

Although electricity was perceived as a severe constraint in the State of Katsina, losses due to power outages for establishments (1.9% of the total sales) were lower than the national average (5.3%). The average delay to obtain an electrical connection was 13 days and 84% of firms owned a generator. The average duration of power outages was 106 hours, which was lower than the national average of 239 hours.

Access to finance is indeed a problem in the State of Katsina. Only 10% of firms had a line of credit or loans or both, and on average, Katsina firms financed more than 70% of their working capital through internal funds; that ratio is larger for service sector firms).

Firms reported approximately 67% of their sales for tax purposes and tax officials visited 88% of firms; firms further reported being visited by tax officials on average 3 times a year.

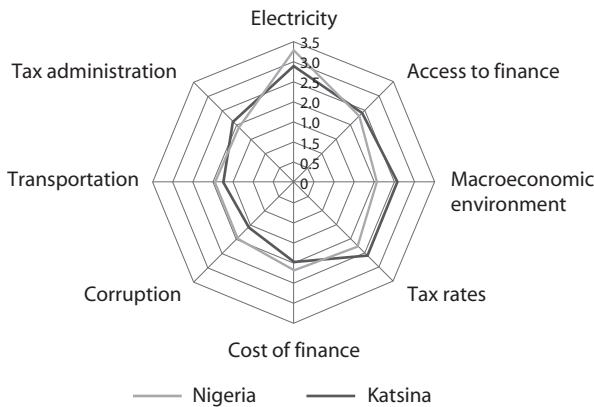
**Figure A.13.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.13.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	72	77	63	78	73	63
Access to finance (e.g. collateral)	48	55	35	56	57	26
Tax rates	34	28	45	44	31	31

**Figure A.13.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.13.2 Selected Indicators – All Formal Sectors**

	<i>Katsina</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	1.9	1.4	2.7	5.3	4.3	6.3
Average duration of power outage (hrs)	106	100	116	239	248	230
% of firms with gen	84	84	84	88	88	87
% of electricity from gen		50	N/A		69	N/A
Average duration to obtain an electric connection (days)	13	12	14	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	73	70	79	69	70	68
% of firms with overdraft	22	23	20	19	16	21
% of firms currently have either line of credit, loans or both	10	8	13	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		1	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		2	N/A		8	N/A
% of firms using own transport		48	N/A		53	N/A
% of shipment value transported by own transportation		81	N/A		69	N/A
Losses due to transportation (% of sales)		1.1	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	67	64	72	72	70	74
% of firms visited by tax officials	88	86	92	82	82	82
Average number of visits	3	2	4	3	3	3
% of visits with informal payments expected/required	21	17	26	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.2	0.3	0.2	1.0	0.7	1.3
% of firms paying for security	88	89	87	78	75	80
Cost of security in % of sales	1.1	1.3	0.8	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.3	1.9	2.9	3.2	3.2	3.3



## ANNEX 14

# State of Kebbi

The most important obstacles perceived by firms located in the State of Kebbi include electricity, reported by 84% of firms, followed by access to finance and tax rates, reported by 54% and 46% of firms respectively, as illustrated in Figure A.14.1.

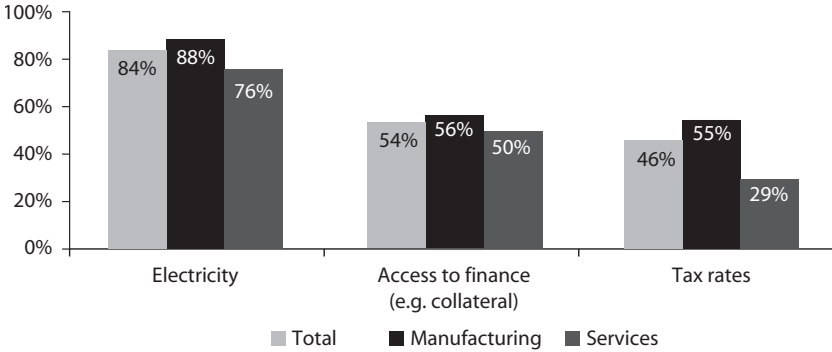
Access to finance and tax rates were perceived as more constraining by manufacturing firms than service sector firms.

Although the average duration of power outages was 128 hours in Kebbi, which was significantly lower than the national average, electricity was perceived as a top constraint by a great number of respondents. This can be explained by the level of losses due to outages, which represented 6.3% of total sales which is greater than the national average. It required an average of 16 days to obtain an electrical connection and 78% of firms owned their own generator.

Access to credit was especially scarce in the State of Kebbi, where only 5% of firms had a line of credit or loans or both, and only 5% had an overdraft facility.

Only 60% of total sales were reported for tax purposes and tax officials visited 87% of firms, on average 3 times a year. Finally, the amount spent on bribes represented 4.5% of total annual sales.

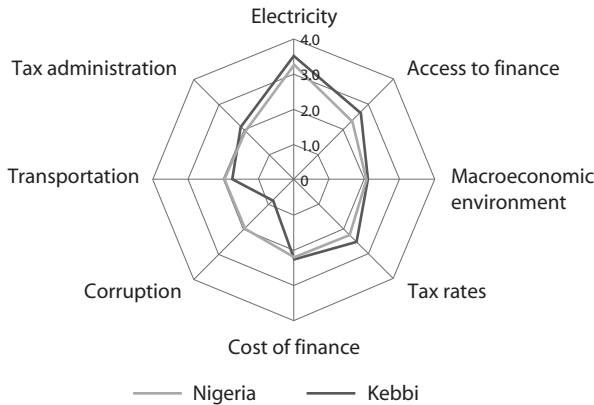
**Figure A.14.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.14.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	84	88	76	97	80	80
Access to finance (e.g. collateral)	54	56	50	57	64	37
Tax rates	46	55	29	75	35	42

**Figure A.14.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.14.2 Selected Indicators – All Formal Sectors**

	<i>Kebbi</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.3	2.0	13.5	5.3	4.3	6.3
Average duration of power outage (hrs)	128	87	194	239	248	230
% of firms with gen	78	77	80	88	88	87
% of electricity from gen		56	N/A		69	N/A
Average duration to obtain an electric connection (days)	16	24	10	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	72	70	76	69	70	68
% of firms with overdraft	6	5	7	19	16	21
% of firms currently have either line of credit, loans or both	5	1	12	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		100	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		3	N/A		8	N/A
% of firms using own transport		49	N/A		53	N/A
% of shipment value transported by own transportation		74	N/A		69	N/A
Losses due to transportation (% of sales)		0.6	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	60	55	69	72	70	74
% of firms visited by tax officials	87	91	79	82	82	82
Average number of visits	3	2	5	3	3	3
% of visits with informal payments expected/required	14	2	37	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.6	0.1	1.4	1.0	0.7	1.3
% of firms paying for security	63	61	67	78	75	80
Cost of security in % of sales	1.4	1.1	2.0	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	4.5	4.9	3.8	3.2	3.2	3.3





## ANNEX 15

# State of Kogi

The most important obstacles perceived by firms located in the State of Kogi include electricity, reported by 80% of firms, followed by corruption and tax rates, cited by 49%, and 36% of firms, respectively, as illustrated in Figure A.15.1.

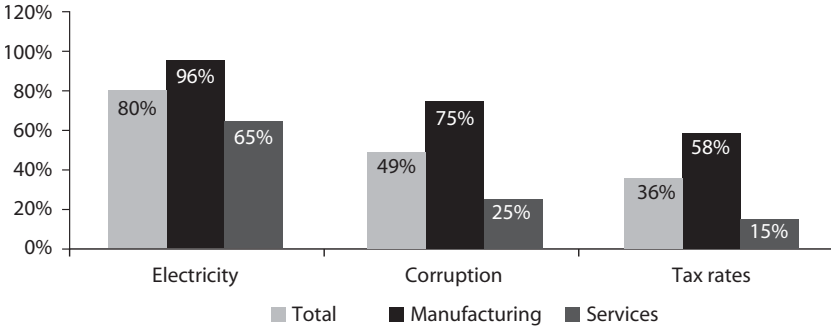
Aside from the close to unanimous agreement with regards to problems with electricity, more than half of manufacturing firm in Kogi reported problems with corruption and tax rates. Corruption was cited by only 25% of service sector firms, tax rates by only 15% of service sector firms. It is somewhat surprising to observe such differences in perceived obstacles in the state of Kogi between manufacturing and service sector firms.

Electricity was perceived as a top constraint in the State of Kogi; it is therefore not surprising that it also represents a significant source of indirect costs. Losses due to power outages represented 7.0% of total sales. Moreover, obtaining an electrical connection required 33 days on average (compared to 15 days across Nigeria). The power outages lasted on average 269 hours. Consequently, almost all (97%) firms possessed their own generator.

Corruption appears to be a problem in Kogi. Firms operating in the State of Kogi spent an average of 6.1% of their total sales on bribes. Moreover, close to one firm out of two (47%) declared that informal payments/gifts were expected/required during visits from tax officials.

Three quarters of sales were reported for tax purposes and tax officials visited 52% of the firms, on average 5 times a year.

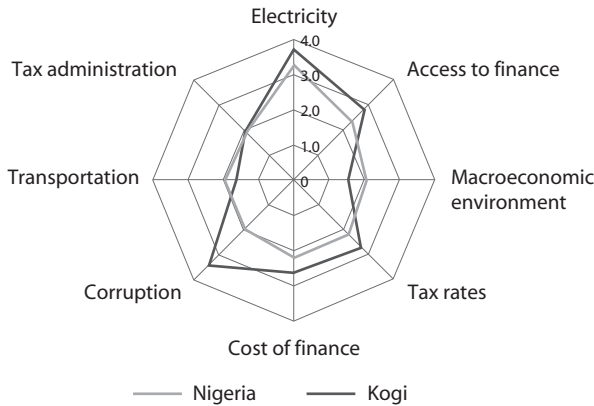
**Figure A.15.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.15.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	80	96	65	77	83	78
Corruption	49	75	25	47	49	29
Tax rates	36	58	15	49	35	29

**Figure A.15.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.15.2 Selected Indicators – All Formal Sectors**

	<i>Kogi</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	7.0	3.7	10.1	5.3	4.3	6.3
Average duration of power outage (hrs)	269	309	229	239	248	230
% of firms with gen	97	100	82	88	88	87
% of electricity from gen		82	N/A		69	N/A
Average duration to obtain an electric connection (days)	33	18	34	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	63	74	52	69	70	68
% of firms with overdraft	24	15	33	19	16	21
% of firms currently have either line of credit, loans or both	16	0	31	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		0	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		N/A	N/A		8	N/A
% of firms using own transport		63	N/A		53	N/A
% of shipment value transported by own transportation		36	N/A		69	N/A
Losses due to transportation (% of sales)		2.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	75	69	80	72	70	74
% of firms visited by tax officials	52	33	71	82	82	82
Average number of visits	5	4	5	3	3	3
% of visits with informal payments expected/required	47	58	42	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.0	0.0	1.9	1.0	0.7	1.3
% of firms paying for security	53	35	70	78	75	80
Cost of security in % of sales	0.9	0.2	1.5	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	6.1	6.9	5.4	3.2	3.2	3.3



## ANNEX 16

# State of Kwara

The most important obstacles perceived by firms located in the State of Kwara include electricity, reported by 89% of firms, followed by tax rates and access to finance, cited by 48% and 39% of firms, respectively, as illustrated in Figure A.16.1.

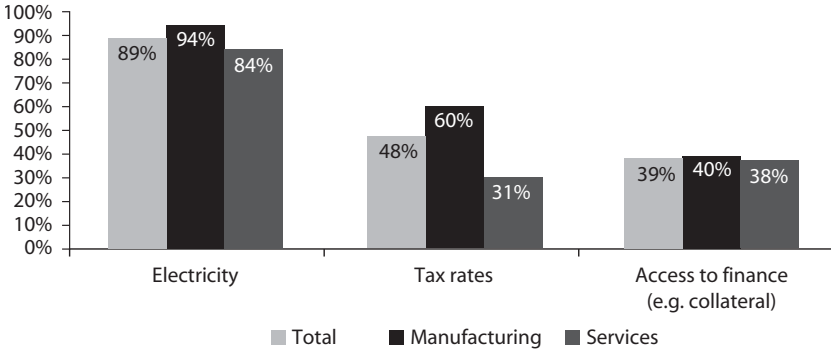
All those constraints appeared to pose more of an obstacle to manufacturing firms than to service sector firms. Although close to two-thirds (60%) of manufacturing firms had major issues with tax rates, only 31% of service sector firms shared this point of view.

Although electricity was perceived as a severe constraint in the State of Kwara, losses due to power outages were lower in the state than the national average, representing 4.6% of total sales. The average delay to obtain an electrical connection was only 9 days. The average duration of power outages was 128 hours, which was much lower than the national average of 239 hours. Despite this, 92% of firms owned their own generator

71% of sales were reported for tax purposes and tax officials visited 85% of firms, on average of 3 times a year. Moreover, close to one firm out of two (47%) declared that informal payments/gifts were expected/required during visits from tax officials.

Access to finance was reported as representing a major issue in the state. In fact, among the firms operating there, only 12% were able to obtain an overdraft facility and 11% benefited from a line of credit or a loan facility.

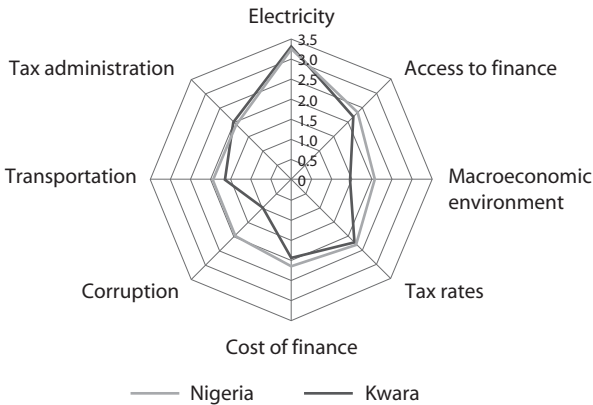
**Figure A.16.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.16.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	89	94	84	88	87	93
Tax rates	48	60	31	56	54	33
Access to finance (e.g. collateral)	39	40	38	52	29	38

**Figure A.16.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.16.2 Selected Indicators – All Formal Sectors**

	<i>Kwara</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	4.6	2.1	6.7	5.3	4.3	6.3
Average duration of power outage (hrs)	128	130	126	239	248	230
% of firms with gen	92	93	86	88	88	87
% of electricity from gen		68	N/A		69	N/A
Average duration to obtain an electric connection (days)	9	13	9	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	74	74	74	69	70	68
% of firms with overdraft	12	19	7	19	16	21
% of firms currently have either line of credit, loans or both	11	9	13	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		73	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		7	N/A		8	N/A
% of firms using own transport		57	N/A		53	N/A
% of shipment value transported by own transportation		82	N/A		69	N/A
Losses due to transportation (% of sales)		1.6	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	71	63	77	72	70	74
% of firms visited by tax officials	85	96	76	82	82	82
Average number of visits	3	2	3	3	3	3
% of visits with informal payments expected/required	11	1	22	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.8	0.3	1.2	1.0	0.7	1.3
% of firms paying for security	77	84	71	78	75	80
Cost of security in % of sales	1.7	0.8	2.4	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.4	2.9	3.8	3.2	3.2	3.3





## ANNEX 17

# State of Nassarawa

The most important obstacles perceived by firms located in the State of Nassarawa include electricity, reported by 81% of firms, followed by corruption and transportation, cited by 48% and 41% of firms, respectively, as illustrated in Figure A.17.1.

These obstacles appeared to pose more of an obstacle to manufacturing firms than to service sector firms. Twice as many manufacturing firms had difficulties with corruption. Over half of negative employment growth firms cited transportation as a top constraint to their business operations.

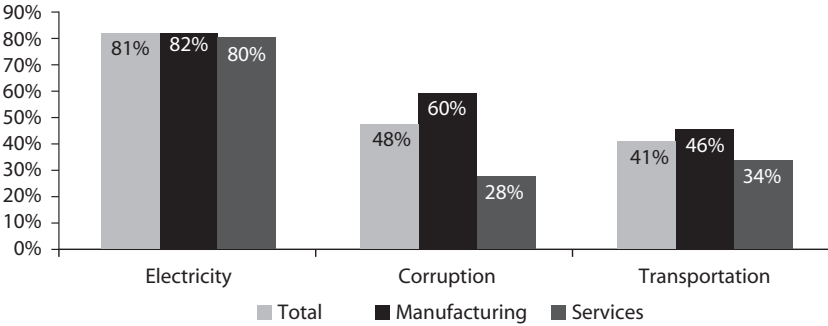
Electricity was perceived as a severe constraint to business operations in Nassarawa. However, other indicators appear more positive. At 3.5% of sales, losses due to power outages were lower than the national average. The average delay experienced to obtain an electrical connection was 10 days and 94% of firms owned their own generator. The average duration of power outages in the state was 180 hours, which was lower than the national average of 239 hrs.

Access to finance was not reported as a major issue in the State of Nassarawa. However, among the firms operating there, only 4 % were able to benefit from a line of credit or a loan facility. On the other hand, 21% of firms had an overdraft facility.

On average, firms operating in Nassarawa spent 4.5% of their total sales on bribes. Sixty-five percent of total sales were reported for tax purposes and tax officials visited 64% of firms, on average 3 times a year. Moreover, about one quarter of firms (24%) declared that informal payments/gifts were expected/required during visits from tax officials.

Although transportation is cited as a big obstacle, losses due to transportation for manufacturing firms represented only 0.8% of sales, compare to 2.4% for the national average. This misperception may found an explanation in the fact that this state is central and locked.

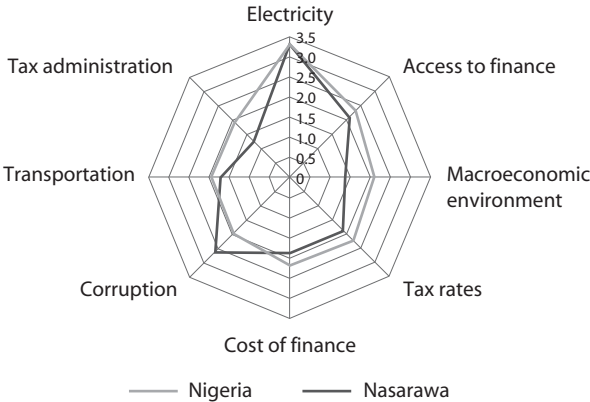
**Figure A.17.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.17.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	81	82	80	92	85	64
Corruption	48	60	28	17	61	45
Transportation	41	46	34	67	26	39

**Figure A.17.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.17.2 Selected Indicators – All Formal Sectors**

	<i>Nassarawa</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	3.5	2.0	5.9	5.3	4.3	6.3
Average duration of power outage (hrs)	180	190	159	239	248	230
% of firms with gen	94	97	78	88	88	87
% of electricity from gen		75	N/A		69	N/A
Average duration to obtain an electric connection (days)	10	8	10	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	69	71	66	69	70	68
% of firms with overdraft	21	24	15	19	16	21
% of firms currently have either line of credit, loans or both	4	1	10	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		0	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		N/A	N/A		8	N/A
% of firms using own transport		19	N/A		53	N/A
% of shipment value transported by own transportation		51	N/A		69	N/A
Losses due to transportation (% of sales)		0.8	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	65	60	74	72	70	74
% of firms visited by tax officials	64	65	61	82	82	82
Average number of visits	3	4	3	3	3	3
% of visits with informal payments expected/required	24	33	7	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.1	0.0	0.2	1.0	0.7	1.3
% of firms paying for security	40	27	62	78	75	80
Cost of security in % of sales	0.5	0.2	1.2	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	4.5	5.9	2.1	3.2	3.2	3.3



## ANNEX 18

# State of Niger

The most important obstacles perceived by firms located in the State of Niger include electricity, reported by 71% of firms, followed by the access to finance and transportation, cited by 68%, and 42% of firms, respectively, as illustrated in Figure A.18.1.

Transportation was a substantially greater problem for manufacturers.

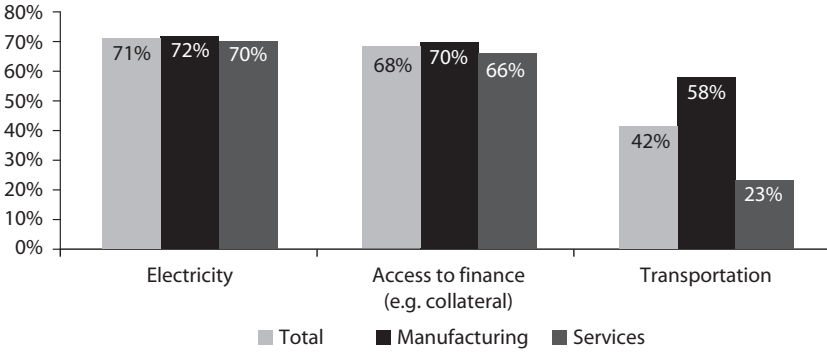
Although electricity was perceived as a severe constraint in the State of Niger, losses due to power outages were lower than the national average, representing 3.5% of the total sales. The average delay to obtain an electrical connection was 8 days and 74% of firms owned their own generator. The average duration of power outages was 95 hours, significantly lower than the national average of 239 hours.

Transportation was cited as one of the top constraints in the state, but the losses due to transportation for manufacturing firms were lower than the Nigerian average (1.2% vs. 2.4%). Niger is a very large central state close by Benin and transportation must be an issue for that.

Access to finance was perceived as a significant obstacle, but firms in the State of Niger had better access to credit than the national average: 20% of firms currently had a line of credit or loans and 24% of firms had overdraft facilities.

Almost all manufacturing establishments (93%) operating in the State of Niger were visited by tax officials while 78% of service sector firms were visited. The proportion of firms visited by tax officials in the state was greater than the national average. On a positive note, only 7% declared that informal payments/gifts were expected/required during visits from tax officials. Finally, firms reported that about 4.2% of total sales were spent on bribes.

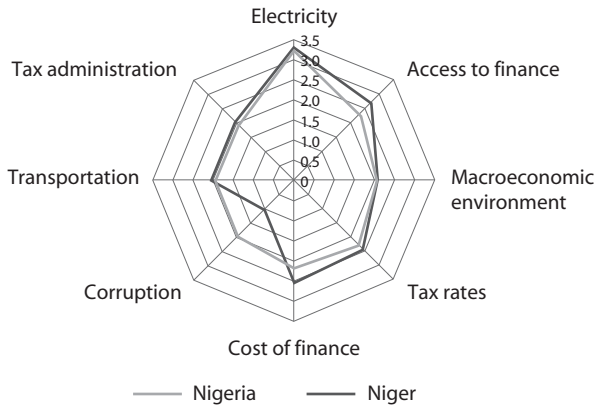
**Figure A.18.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.18.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	71	72	70	65	75	66
Access to finance (e.g. collateral)	68	70	66	68	67	83
Transportation	42	58	23	55	36	46

**Figure A.18.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.18.2 Selected Indicators – All Formal Sectors**

	<i>Niger</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	3.5	1.9	5.3	5.3	4.3	6.3
Average duration of power outage (hrs)	95	85	107	239	248	230
% of firms with gen	74	70	83	88	88	87
% of electricity from gen		65	N/A		69	N/A
Average duration to obtain an electric connection (days)	8	10	7	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	68	67	69	69	70	68
% of firms with overdraft	24	30	17	19	16	21
% of firms currently have either line of credit, loans or both	20	23	16	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		93	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		4	N/A		8	N/A
% of firms using own transport		48	N/A		53	N/A
% of shipment value transported by own transportation		86	N/A		69	N/A
Losses due to transportation (% of sales)		1.2	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	70	67	73	72	70	74
% of firms visited by tax officials	86	93	78	82	82	82
Average number of visits	3	2	4	3	3	3
% of visits with informal payments expected/required	7	0	16	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.7	0.4	1.1	1.0	0.7	1.3
% of firms paying for security	78	77	78	78	75	80
Cost of security in % of sales	1.7	1.4	2.1	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	4.2	4.7	3.5	3.2	3.2	3.3





## ANNEX 19

# State of Ondo

The most important obstacles perceived by firms located in the State of Ondo include electricity, reported by 83% of firms, followed by transportation and tax rates, cited by 39%, and 34% of firms, respectively, as illustrated in Figure A.19.1.

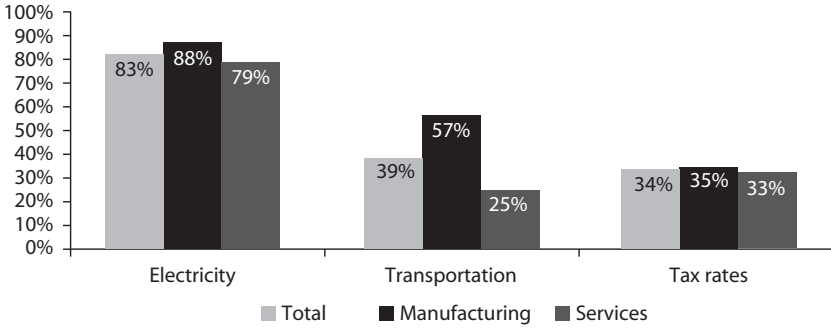
Here again, quite logically, a greater proportion of manufacturers found transportation more problematic than service sector firms.

Electricity was perceived as a severe constraint in the State of Ondo, but losses due to power outages (3.7%) were lower than the national average. The average duration of power outages in the state was 135 hours, which was also lower than the national average of 239 hours.

Transportation was cited as one of the top constraints in the state. In fact, the losses due to transportation for manufacturing firms were slightly higher than the Nigerian average (2.6% vs. 2.4%).

Access to finance was not reported as a major issue in Ondo. However, among the firms operating there, only 7% were able to benefit from an overdraft facility, while only 1% had a line of credit or a loan facility.

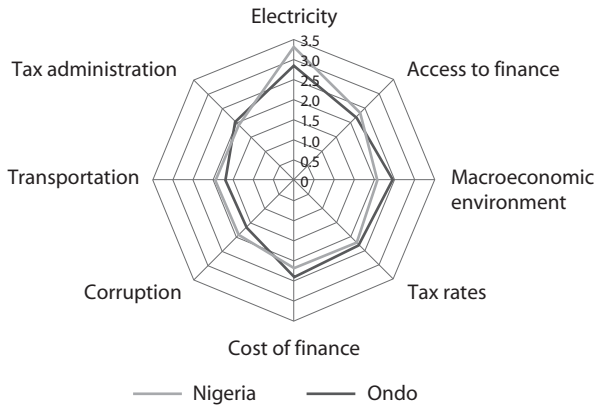
**Figure A.19.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.19.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	83	88	79	48	90	82
Transportation	39	57	25	41	35	41
Tax rates	34	35	33	47	34	33

**Figure A.19.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.19.2 Selected Indicators – All Formal Sectors**

	<i>Ondo</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	3.7	3.3	4.0	5.3	4.3	6.3
Average duration of power outage (hrs)	135	100	159	239	248	230
% of firms with gen	91	94	87	88	88	87
% of electricity from gen		58	N/A		69	N/A
Average duration to obtain an electric connection (days)	4	4	5	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	74	61	83	69	70	68
% of firms with overdraft	7	3	10	19	16	21
% of firms currently have either line of credit, loans or both	1	0	1	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		84	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		5	N/A		8	N/A
% of firms using own transport		82	N/A		53	N/A
% of shipment value transported by own transportation		71	N/A		69	N/A
Losses due to transportation (% of sales)		2.6	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	70	61	77	72	70	74
% of firms visited by tax officials	71	58	80	82	82	82
Average number of visits	3	2	3	3	3	3
% of visits with informal payments expected/required	69	86	60	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.4	0.5	0.3	1.0	0.7	1.3
% of firms paying for security	83	87	80	78	75	80
Cost of security in % of sales	1.8	1.1	2.3	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	1.9	2.5	1.4	3.2	3.2	3.3



## ANNEX 20

# State of Osun

The most important obstacles perceived by firms located in the State of Osun include electricity, reported by 85% of firms, followed by the access to finance, and the macroeconomic environment, cited by 42%, and 35% of firms, respectively, as illustrated in Figure A.20.1.

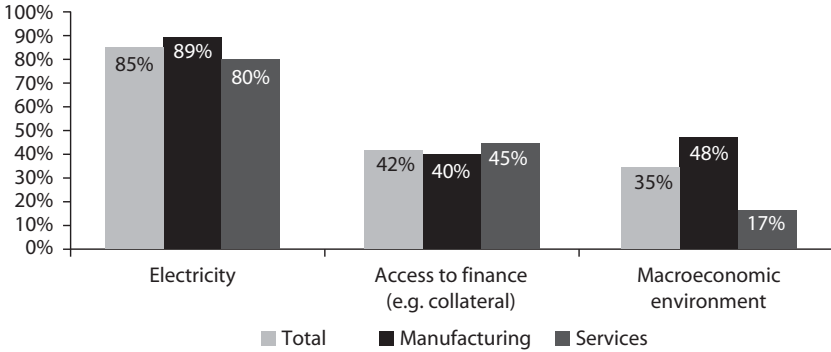
Macroeconomic environment was felt more adversely by manufacturing firms than service sector firms.

Electricity was perceived as a severe constraint in the State of Osun, yet losses due to power outages were lower than the national average, representing 4.6% of total sales. Service sector firms lost approximately 7.9% of their sales due to outages, though losses for manufacturers amounted to only 2.1% of sales. The average duration of power outages in the state was 128 hours, which was lower than the national average of 239 hours.

In the State of Osun, only 7% of firms were able to benefit from an overdraft facility, while 14% of firms had a line of credit or a loan facility.

About two-thirds of total sales were reported for tax purposes and tax officials visited 82% of firms, on average 3 times a year. Moreover, about one third of firms declared that informal payments/gifts were expected/required during visits from tax officials.

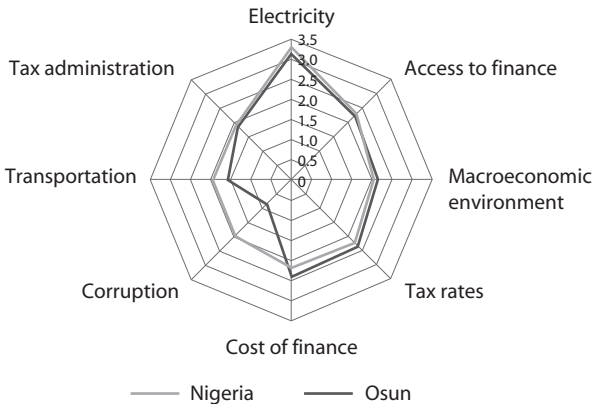
**Figure A.20.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.20.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	85	89	80	90	83	84
Access to finance (e.g. collateral)	42	40	45	43	48	39
Macroeconomic environment	35	48	17	63	28	28

**Figure A.20.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.20.2 Selected Indicators – All Formal Sectors**

	<i>Osun</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	4.6	2.1	7.9	5.3	4.3	6.3
Average duration of power outage (hrs)	128	104	162	239	248	230
% of firms with gen	90	89	90	88	88	87
% of electricity from gen		52	N/A		69	N/A
Average duration to obtain an electric connection (days)	8	6	11	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	71	68	74	69	70	68
% of firms with overdraft	7	4	11	19	16	21
% of firms currently have either line of credit, loans or both	14	13	15	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		83	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		4	N/A		8	N/A
% of firms using own transport		58	N/A		53	N/A
% of shipment value transported by own transportation		64	N/A		69	N/A
Losses due to transportation (% of sales)		1.3	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	66	62	72	72	70	74
% of firms visited by tax officials	82	81	84	82	82	82
Average number of visits	3	2	5	3	3	3
% of visits with informal payments expected/required	33	41	22	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.0	0.8	1.3	1.0	0.7	1.3
% of firms paying for security	89	93	84	78	75	80
Cost of security in % of sales	1.4	1.0	2.0	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	2.1	2.7	1.2	3.2	3.2	3.3





## ANNEX 21

# State of Oyo

The most important obstacles perceived by firms located in the State of Oyo include electricity, reported by 84% of firms, followed by tax rates, and transportation, cited by 48% and 39% of firms, respectively, as illustrated in Figure A.21.1.

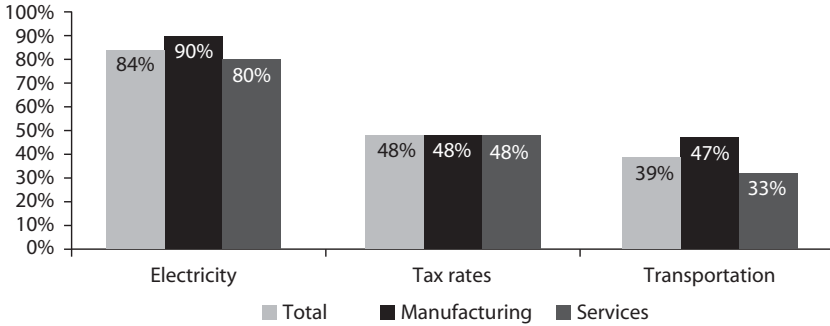
Tax rates are perceived as equally constraining by manufacturing and service sector firms.

Electricity was perceived as a severe constraint in the State of Oyo; it was also a great source of indirect costs. Losses due to power outages represented 5.8% of total sales, lasting on average 424 hours. Almost all firms (97%) reported owning a generator, including 100% of manufacturing firms. The generators were used to supply 82% of firms' electricity.

Firms operating in the State of Oyo spent an average 3.4% of their total sales on bribes. 65% of total sales were reported for tax purposes and tax officials visited 78% of firms, on average 2 times a year. Moreover, 44% of firms declared that informal payments/gifts were expected/required during visits from tax officials.

Losses due to transportation for manufacturers are very high (4.2% of sales), almost double of the national average (2.4%). Moreover, losses due to crime in the state of Oyo were higher than the national average (1.7% versus 1% of sales). More than nine firms out of ten (92%) paid for security, the average cost of which was 1.7% of total sales, compared to 1.5% of total sales at the national level.

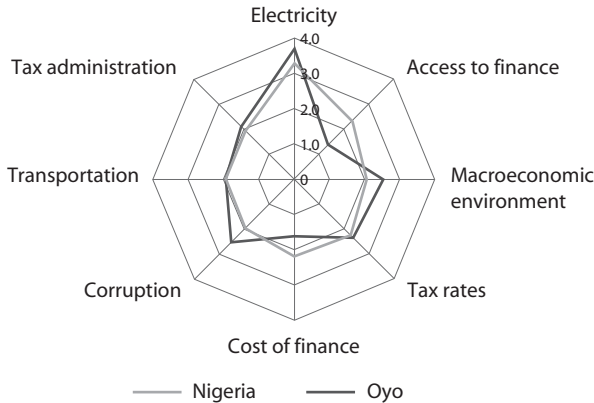
**Figure A.21.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.21.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	84	90	80	62	89	82
Tax rates	48	48	48	46	54	43
Transportation	39	47	33	38	31	49

**Figure A.21.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.21.2 Selected Indicators – All Formal Sectors**

	<i>Oyo</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.8	7.3	4.5	5.3	4.3	6.3
Average duration of power outage (hrs)	424	419	428	239	248	230
% of firms with gen	96	100	89	88	88	87
% of electricity from gen		82	N/A		69	N/A
Average duration to obtain an electric connection (days)	7	6	8	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	64	63	64	69	70	68
% of firms with overdraft	20	20	20	19	16	21
% of firms currently have either line of credit, loans or both	13	17	10	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		39	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		7	N/A		8	N/A
% of firms using own transport		76	N/A		53	N/A
% of shipment value transported by own transportation		87	N/A		69	N/A
Losses due to transportation (% of sales)		4.2	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	65	63	67	72	70	74
% of firms visited by tax officials	78	81	76	82	82	82
Average number of visits	2	3	1	3	3	3
% of visits with informal payments expected/required	44	46	42	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.7	2.4	1.1	1.0	0.7	1.3
% of firms paying for security	92	91	93	78	75	80
Cost of security in % of sales	2.3	2.5	2.2	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.4	4.1	2.7	3.2	3.2	3.3



## ANNEX 22

# State of Plateau

The most important obstacles perceived by firms located in the State of Plateau include electricity, reported by 69% of firms, followed by corruption and inadequately educated workforce, cited by 47% and 38% of firms, respectively, as illustrated in Figure A.22.1.

These constraints were perceived as more problematic by service sector firms than manufacturing firms. Also the State of Plateau was unique in its strong concern with the education of their workforce.

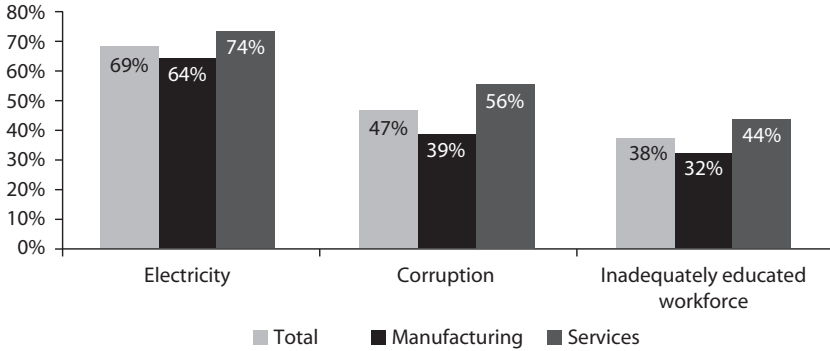
Electricity was perceived as a severe constraint in the State of Plateau, although losses due to power outages were lower than the national average, representing 3.9% of the total sales. The average duration of power outages in the state was 254 hours, which was greater than the national average of 239 hours. Approximately 85% of firms, 92% for service sector firms, reported owning a generator, which supplied 72% of electricity for manufacturing companies.

Firms operating in the State of Plateau are among the most leveraged by financial institutions across Nigeria. Indeed, 46 % of firms were able to benefit from an overdraft facility, while 21% had a line of credit or a loan facility.

Corruption was perceived as a major issue in the State of Plateau. Indeed, the payment of bribes represented 6.6% of total sales. Tax officials visited more than three-quarters of firms on average 6 times a year and over one third of firms (34%) declared that informal payments/gifts were expected/required during visits from tax officials.

The inadequately educated workforce was a concern. 11% of firms declared having difficulties in finding new skilled employees (8% was the national average).

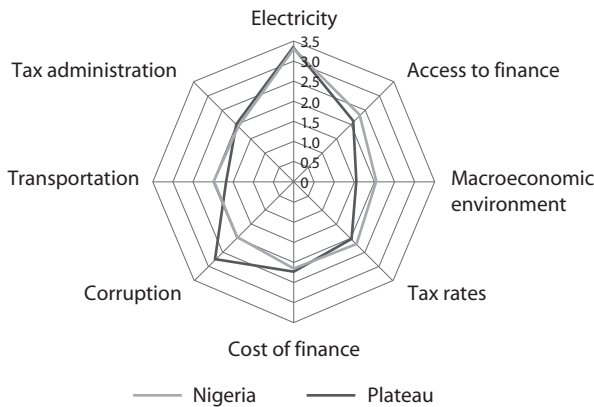
**Figure A.22.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.22.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	69	64	74	96	66	62
Corruption	47	39	56	55	36	49
Inadequately educated workforce	38	32	44	54	32	34

**Figure A.22.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.22.2 Selected Indicators – All Formal Sectors**

	<i>Plateau</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	3.9	4.6	3.1	5.3	4.3	6.3
Average duration of power outage (hrs)	254	243	268	239	248	230
% of firms with gen	85	84	92	88	88	87
% of electricity from gen		72	N/A		69	N/A
Average duration to obtain an electric connection (days)	41	61	14	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	60	62	59	69	70	68
% of firms with overdraft	46	37	56	19	16	21
% of firms currently have either line of credit, loans or both	21	29	12	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		57	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		3	N/A		8	N/A
% of firms using own transport		59	N/A		53	N/A
% of shipment value transported by own transportation		51	N/A		69	N/A
Losses due to transportation (% of sales)		2.6	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	71	72	70	72	70	74
% of firms visited by tax officials	77	81	72	82	82	82
Average number of visits	6	6	6	3	3	3
% of visits with informal payments expected/required	34	36	32	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.3	0.2	0.3	1.0	0.7	1.3
% of firms paying for security	75	69	82	78	75	80
Cost of security in % of sales	0.8	1.3	0.3	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	6.6	5.4	8.0	3.2	3.2	3.3





## ANNEX 23

# State of Rivers

The most important obstacles perceived by firms located in the State of Rivers include electricity, reported by 69% of firms, followed by access to finance, and obtaining business licenses and permits, cited by 53%, and 26% of firms, respectively, as illustrated in Figure A.23.1.

The identification of business licensing as a top constraint is unique to the State of Rivers. Service sector firms had more problems obtaining the licenses and permits necessary for their business operations.

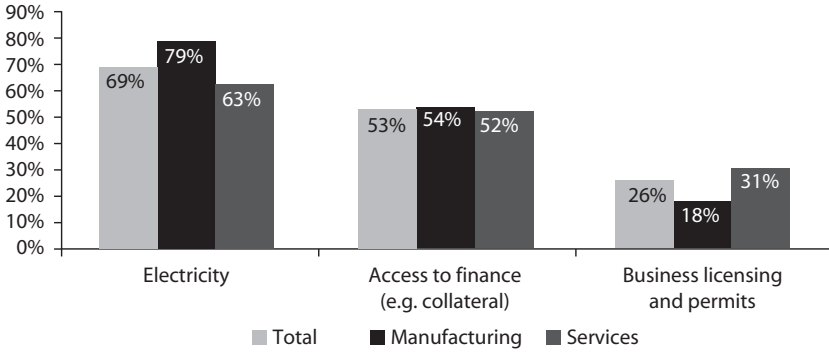
Electricity was perceived as a severe constraint in the State of Rivers. Its shortage also led to high indirect costs, representing 5.3% of total sales. Moreover, the power outages lasted on average 260 hours and 87% of firms, among which 92% of manufacturing firms, owned their own generator, which supplied 74% of the latter's electricity.

Service sector firms had much better access to credit than manufacturing firms: 28% versus 19% of firms had a line of credit, loans or both. The difference vanishes with regards to overdraft facilities.

Losses due to transportation are not especially high (1.9% of sales) compare to the national average (2.4%).

Approximately 82% of total sales were reported for tax purposes and tax officials visited 94% of firms, on average 4 times a year. Moreover, 54% of firms declared that informal payments/gifts were expected/required during visits from tax officials.

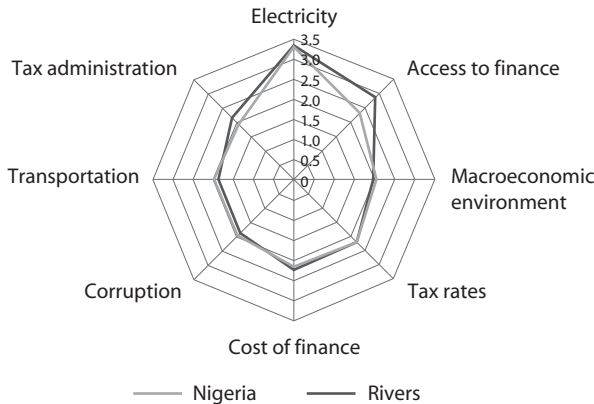
**Figure A.23.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.23.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	69	79	63	73	73	68
Access to finance (e.g. collateral)	53	54	52	66	46	53
Business licensing and permits	26	18	31	21	26	29

**Figure A.23.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.23.2 Selected Indicators – All Formal Sectors**

	<i>Rivers</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.3	5.5	5.2	5.3	4.3	6.3
Average duration of power outage (hrs)	260	272	252	239	248	230
% of firms with gen	87	92	76	88	88	87
% of electricity from gen		74	N/A		69	N/A
Average duration to obtain an electric connection (days)	20	23	19	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	74	73	75	69	70	68
% of firms with overdraft	19	20	18	19	16	21
% of firms currently have either line of credit, loans or both	24	19	28	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		92	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		13	N/A		8	N/A
% of firms using own transport		48	N/A		53	N/A
% of shipment value transported by own transportation		34	N/A		69	N/A
Losses due to transportation (% of sales)		1.9	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	82	81	82	72	70	74
% of firms visited by tax officials	94	95	94	82	82	82
Average number of visits	4	5	3	3	3	3
% of visits with informal payments expected/required	54	49	57	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.4	1.0	1.7	1.0	0.7	1.3
% of firms paying for security	76	77	76	78	75	80
Cost of security in % of sales	1.1	1.5	0.8	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	0.6	0.6	0.6	3.2	3.2	3.3



## ANNEX 24

# State of Taraba

The most important obstacles perceived by firms located in the State of Taraba include electricity, reported by 67% of firms as a top constraint, followed by the access to finance, and transportation, cited by 58%, and 41% of firms, respectively, as illustrated in Figure A.24.1.

Problems with the power supply were more acutely felt by manufacturers than service sector firms. The same was true for the access to finance, which twice as many manufacturing firms reported as a severe constraint. However, transportation issues were felt more strongly in the service sector.

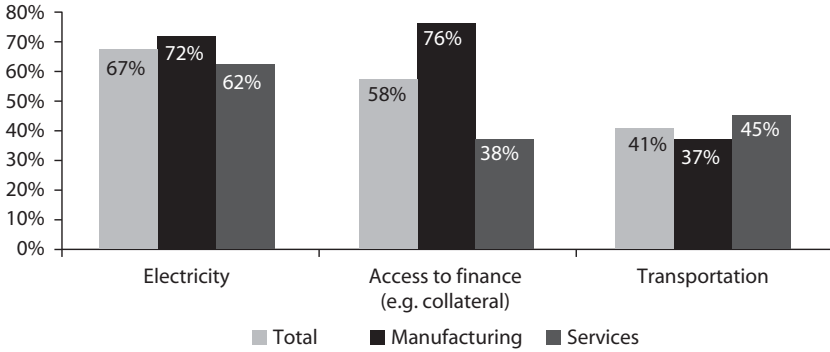
Electricity was perceived as a severe constraint in the State of Taraba and was also reported to represent a significant source of indirect costs. In fact, the losses due to power outages represented 5.0% of total sales. Moreover, the power outages lasted on average 275 hours and 94% of firms (100% of service sector firms) owned their own generator. For manufacturing companies, these generators supplied 88% of electricity used.

Firms in the state of Taraba are facing tremendous financing challenges. The access to credit is very poor, especially for manufacturing firms, where no firms had access to either a line of credit or loans or overdraft facilities.

Losses due to transportation are very low (1% of sales) compared to the national average (2.4%).

The payment of bribes in the state represented 3.3% of total sales. Approximately 85% of the total sales were reported for tax purposes and tax officials visited 92% of firms, on average 3 times a year. Moreover, 46% of firms declared that informal payments/gifts were expected/required during visits from tax officials.

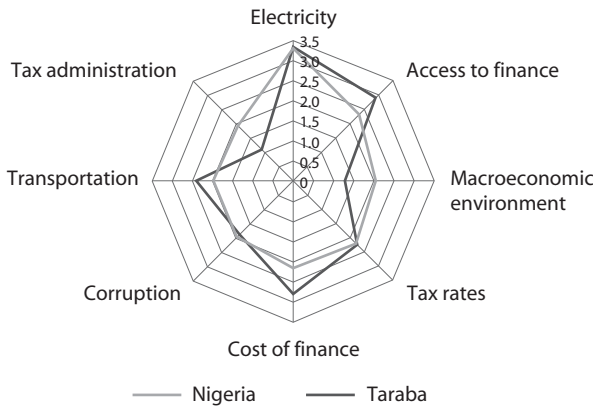
**Figure A.24.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.24.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Electricity	67	72	62	59	60	75
Access to finance (e.g. collateral)	58	76	38	41	69	41
Transportation	41	37	45	62	47	30

**Figure A.24.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.24.2 Selected Indicators – All Formal Sectors**

	<i>Taraba</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.0	3.2	6.9	5.3	4.3	6.3
Average duration of power outage (hrs)	275	364	174	239	248	230
% of firms with gen	94	91	100	88	88	87
% of electricity from gen		88	N/A		69	N/A
Average duration to obtain an electric connection (days)	9	14	9	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	77	87	66	69	70	68
% of firms with overdraft	6	0	13	19	16	21
% of firms currently have either line of credit, loans or both	9	0	19	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		100	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		9	N/A		8	N/A
% of firms using own transport		65	N/A		53	N/A
% of shipment value transported by own transportation		84	N/A		69	N/A
Losses due to transportation (% of sales)		1.0	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	85	88	81	72	70	74
% of firms visited by tax officials	92	100	83	82	82	82
Average number of visits	3	3	2	3	3	3
% of visits with informal payments expected/required	46	59	29	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.7	0.0	1.5	1.0	0.7	1.3
% of firms paying for security	81	91	70	78	75	80
Cost of security in % of sales	1.3	0.6	2.0	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	3.3	3.6	3.0	3.2	3.2	3.3





## ANNEX 25

# State of Yobe

The most important obstacles perceived by firms located in the State of Yobe include access to finance, reported by 63% of firms as a severe constraint, followed by electricity, and transportation, cited by 58%, and 44% of firms, respectively, as illustrated in Figure A.25.1.

Almost all manufacturing firms (98%) mentioned access to finance as a major constraint, compared to 33% of service sector firms. It is important to note that this obstacle overtakes electricity (cited as number one constraint for almost all other states). Transportation seemed to represent a severe obstacle for manufacturers, particularly those that experienced high employment growth rates.

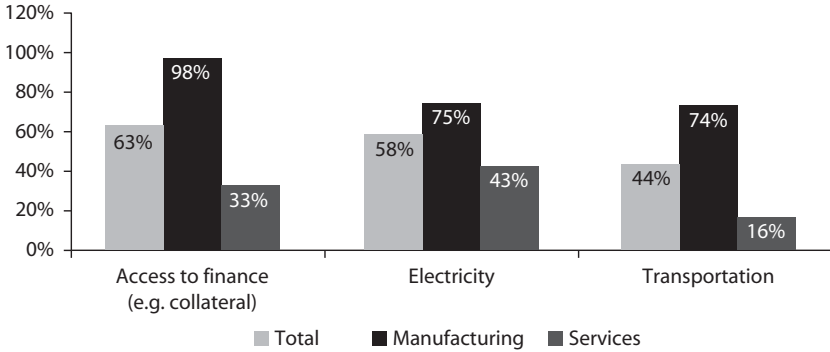
Access to credit is surprisingly high for service sector firms, especially when compared to manufacturing firms (44% vs 2% of firms had a line of credit or loans; 30% of service sector firms had overdraft facilities compared to only 5% for manufacturers). Consequently, manufacturers financed three quarters of their working capital by internal funds while service sector firms financed less than half of their working capital through internal funds.

Electricity was perceived as a severe constraint in the State of Yobe, and it was also a significant source of indirect costs. Losses due to power outages represented 5.6% of total sales. Moreover, the power outages lasted on average 309 hours and 97% of firms (100% of manufacturing firms) owned their own generator which supplied 83% of manufacturing companies' electricity.

Transportation is perceived as an important obstacle by almost three quarter of manufacturers. On the other hand, the losses due to transportation represented only 0.5% of sales.

Although not mentioned in the top 3, corruption was also a major source of indirect costs. The payment of bribes represented 5% of total sales. Tax officials visited almost nine firms out of ten (100% of manufacturing firms), on average 5 times a year. Close to three-quarters of firms (73%) declared that informal payments/gifts were expected/required during visits from tax officials.

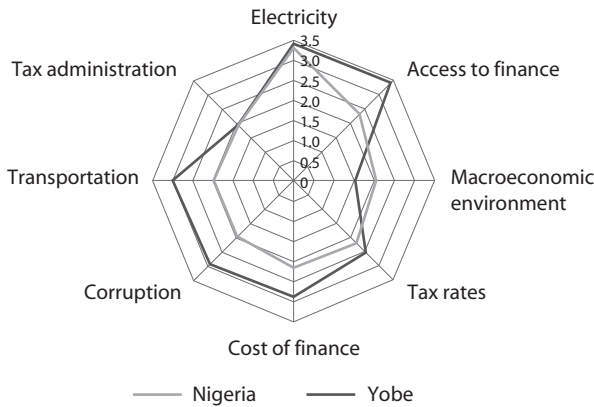
**Figure A.25.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.25.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Access to finance (e.g. collateral)	63	98	33	22	58	73
Electricity	58	75	43	35	57	63
Transportation	44	74	16	7	41	51

**Figure A.25.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.25.2 Selected Indicators – All Formal Sectors**

	<i>Yobe</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	5.6	1.2	9.6	5.3	4.3	6.3
Average duration of power outage (hrs)	309	437	184	239	248	230
% of firms with gen	97	100	89	88	88	87
% of electricity from gen		83	N/A		69	N/A
Average duration to obtain an electric connection (days)	20	13	23	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	61	75	48	69	70	68
% of firms with overdraft	18	5	30	19	16	21
% of firms currently have either line of credit, loans or both	24	2	44	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		1	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		4	N/A		8	N/A
% of firms using own transport		78	N/A		53	N/A
% of shipment value transported by own transportation		85	N/A		69	N/A
Losses due to transportation (% of sales)		0.5	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	86	92	80	72	70	74
% of firms visited by tax officials	88	100	78	82	82	82
Average number of visits	5	5	5	3	3	3
% of visits with informal payments expected/required	73	93	49	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	0.5	0.0	0.9	1.0	0.7	1.3
% of firms paying for security	80	100	62	78	75	80
Cost of security in % of sales	1.0	0.3	1.6	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	5.0	5.4	4.7	3.2	3.2	3.3



## ANNEX 26

# State of Zamfara

The most important obstacles perceived by firms located in the State of Zamfara include access to finance and electricity, reported by 73% and 71% of firms as a top constraint, followed by tax rates cited by 34% of firms, as illustrated in Figure A.26.1.

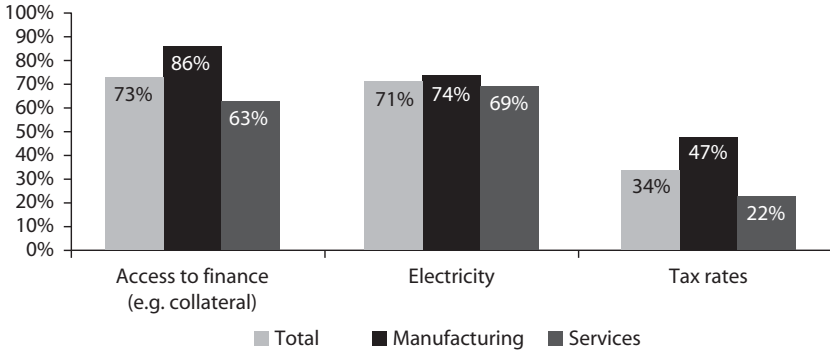
Each of the most frequently cited top constraints was perceived to be more severe for manufacturers than for service sector firms. Here again, access to finance was a greater obstacle than electricity.

In the State of Zamfara, access to finance is not easy: only 15% of firms were able to benefit from an overdraft facility, while 11% of firms had a line of credit or a loan facility.

Electricity was perceived as a severe constraint in the State of Zamfara. Power outages lasted on average 165 hours, the losses of which represented 6.6% of total sales. Service sector firms lost up to 10.6% of their sales. Over three-quarters (76%) of firms owned a generator; these supplied 54% of the electricity needs for manufacturing companies.

Although corruption was not cited, it is also a major source of indirect costs. The payment of bribes represented 5.3% of total sales. Tax officials visited 85% of firms (97% of manufacturing firms), an average of 2 times a year. On a positive note, however, only 4% of firms declared that informal payments/gifts were expected/required during visits from tax officials.

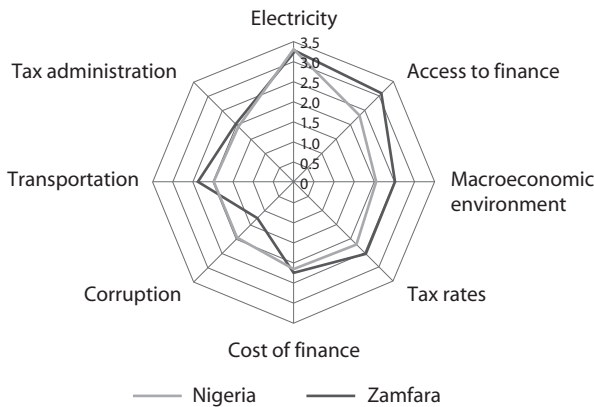
**Figure A.26.1 Top Three Ranked Perceived Constraints – All Formal Sectors**



**Table A.26.1 Top Three Ranked Perceived Constraints – All Formal Sectors (%)**

	Industry			Employment growth		
	Total	Manufacturing	Services	Negative growth	Slow growth	High growth
Access to finance (e.g. collateral)	73	86	63	67	80	62
Electricity	71	74	69	71	68	81
Tax rates	34	47	22	42	40	22

**Figure A.26.2 Major Perceived Constraints – Visual Comparison State/Country**



0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, 4 = Very severe obstacle

**Table A.26.2 Selected Indicators – All Formal Sectors**

	<i>Zamfara</i>			<i>Nigeria</i>		
	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>	<i>Total</i>	<i>Manu- facturing</i>	<i>Services</i>
<b>Electricity</b>						
Losses due to electricity (% of sales)	6.6	1.5	10.6	5.3	4.3	6.3
Average duration of power outage (hrs)	165	129	194	239	248	230
% of firms with gen	76	73	80	88	88	87
% of electricity from gen		54	N/A		69	N/A
Average duration to obtain an electric connection (days)	18	23	18	15	18	13
<b>Finances</b>						
% of working capital financed by internal funds/returns earnings	67	62	70	69	70	68
% of firms with overdraft	15	17	14	19	16	21
% of firms currently have either line of credit, loans or both	11	6	14	15	12	19
<b>Transportation</b>						
% of firms with inputs delivered by road		97	N/A		70	N/A
Average duration to ship inputs to the establishment (hrs)		3	N/A		8	N/A
% of firms using own transport		32	N/A		53	N/A
% of shipment value transported by own transportation		71	N/A		69	N/A
Losses due to transportation (% of sales)		0.4	N/A		2.4	N/A
<b>Tax</b>						
% of sales reported for tax purpose	73	66	78	72	70	74
% of firms visited by tax officials	85	97	75	82	82	82
Average number of visits	2	2	2	3	3	3
% of visits with informal payments expected/required	4	0	9	34	33	34
<b>Crime and Theft</b>						
Losses due to theft in % of sales	1.1	0.0	1.9	1.0	0.7	1.3
% of firms paying for security	72	74	70	78	75	80
Cost of security in % of sales	1.7	1.1	2.2	1.5	1.3	1.8
<b>Corruption</b>						
% annual sales on bribes	5.3	5.5	5.1	3.2	3.2	3.3





