

How Do Manufacturing and Service Firms Differ within the Informal Sector?

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A comparison of service and manufacturing firms in the informal or unregistered sector in Côte d'Ivoire, Madagascar and Mauritius shows that service firms are larger in terms of total sales and also generate more output per worker. They rely less on physical infrastructure and machines but more on human capital. Service firms also appear to be better integrated with the financial system and access to finance is less of an obstacle to their business. Some of the commonly held reasons for not registering, such as the taxes that registered businesses have to pay, and the benefits from registering, such as better access to government programs, appear to be less important to service firms than manufacturing firms. Furthermore, there are also some important country-specific differences between service and manufacturing firms.

There is a growing body of work that suggests that service and manufacturing firms differ fundamentally in overall structure and growth dynamics. However, this literature is almost entirely based on firms operating in the formal or registered sector, even though in many developing countries the informal sector is quite large. This note compares service firms and manufacturing firms in the informal or unregistered sector in three African countries.

The comparison is important for a variety of reasons. First, it is not obvious whether the findings for the formal sector regarding service vs. manufacturing firms can be extended to the informal sector. For example, most informal businesses require little capital (Bigsten et al. 2004). Therefore, size-related benefits enjoyed by manufacturing as compared with service firms in the formal sector might not be too relevant for the informal sector. Second, bringing the informal firms within the fold of the formal sector is expected to yield substantial productivity gains (de Soto 1989). However, effective policy measures aimed at getting the informal firms to register require understanding the reasons why firms choose to be informal. These reasons could vary across service and manufacturing firms. For example, relative to service firms, manufacturing firms are typically larger and hence prime targets for inspections by government officials. This could be an important

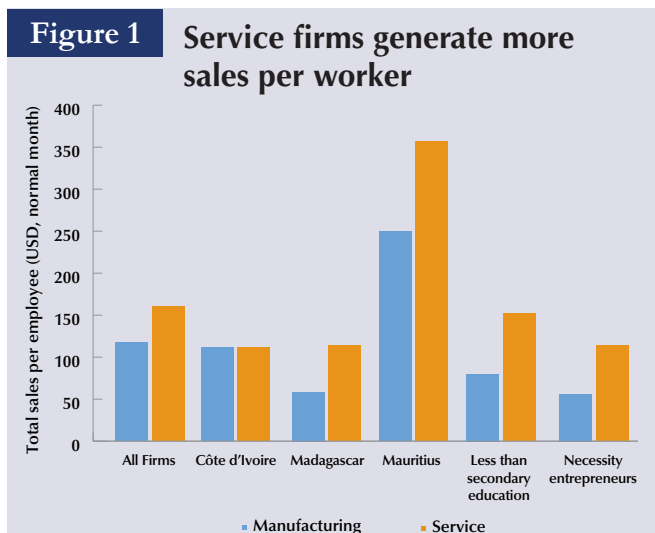
motivation for manufacturing firms to begin operations in the informal sector and remain informal. Third, service and manufacturing activities are easily identifiable so that if we do find differences between these two sectors, then policy measures can be tailored to their respective needs. Fourth, lower entry costs and lower capital requirements in service firms relative to manufacturing firms may be particularly attractive to women who often face greater difficulties than men in getting credit (Cavalluzzo et al. 2002; Muravyev et al. 2009). Hence, concerns regarding gender parity warrant a closer look at service firms vs. manufacturing firms.

The data we use come from a random sample of informal (unregistered) firms in Côte d'Ivoire, Madagascar and Mauritius collected by the World Bank's Enterprise Surveys in 2008-09. Due to lack of appropriate information on the informal sector, the survey is not necessarily representative of the informal sectors in the surveyed countries. Hence, the results discussed in this note relate to the sample of surveyed firms and not the informal sectors per se. Our sample consists of 201 manufacturing and 183 service firms. Within the manufacturing sample, the major business activities are the garments sector (cloth manufacturing and making of clothes represent 29 percent) followed by food processing (20 percent of firms). In the sample of service firms, the major activities are retail (51 percent) followed

by hospitality (8 percent of firms are engaged in the hotel and restaurant business).

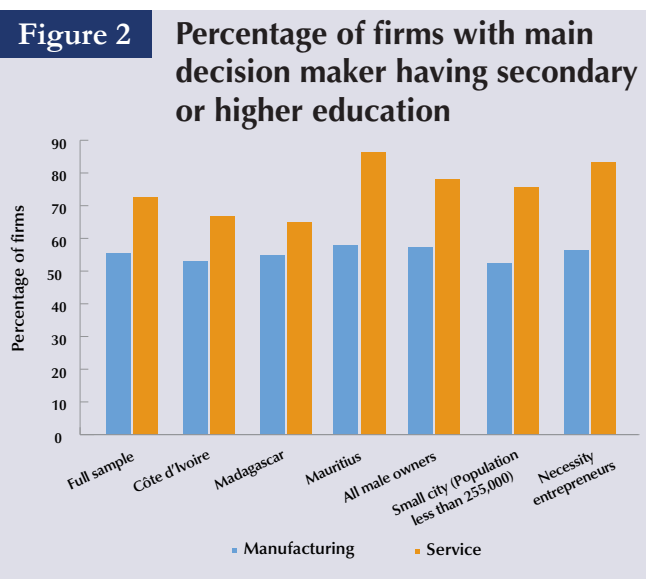
Service firms are larger and generate more sales per worker

Total sales in a regular month for a service firm equal US\$300 compared with US\$218 for a typical manufacturing firm. That is, the former is about 138 percent of the latter in the full sample. The corresponding figure equals 113 percent for Côte d'Ivoire, 140 for Madagascar and 150 for Mauritius. In contrast, total employment in a manufacturing firm is only slightly lower than the same in a service firm (1.5 vs. 1.6). For sales per worker, a measure of firm efficiency, service firms outperform manufacturing firms except in Côte d'Ivoire (figure 1). The difference is particularly sharp for firms where the main decision maker has less than a secondary level education (primary or no education), and for firms that were started because the individual owning the maximum share of the firm (henceforth, largest owner) could not find a satisfactory job (necessity entrepreneur or firm) rather than starting the firm to take advantage of a business opportunity (opportunity entrepreneurs or firms).¹ We also looked at the Enterprise Surveys data on registered small firms in the three countries and found only weak evidence of higher labor productivity in services relative to manufacturing.²



Source: Enterprise Surveys.

Less than secondary education implies that the main decision maker has either primary education or no education. Necessity entrepreneur refers to firms that were started because the largest owner could not find a satisfactory job rather than to take advantage of a business opportunity. Values of output per worker shown are their median values.



Source: Enterprise Surveys.

Service firms rely less on electricity and machines but more on human capital

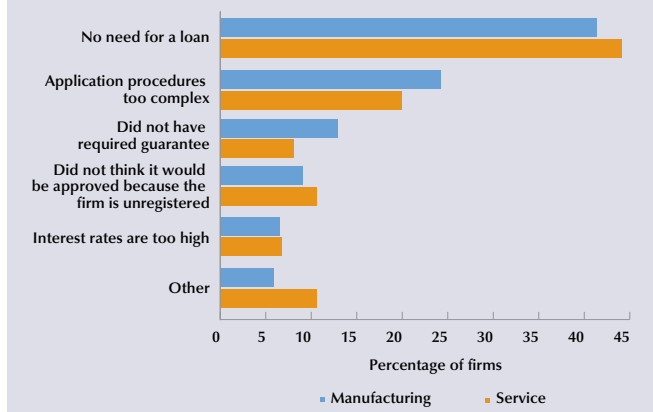
Service firms score higher than manufacturing firms in the education level of the main decision maker. This difference is particularly sharp among certain categories such as necessity entrepreneurs (figure 2). A plausible interpretation of this finding is that due to lower entry costs, the service sector is more attractive to those necessity entrepreneurs who are educated and hence expect to find a wage-earning job in the near future.³

As expected, relative to manufacturing, service firms are less likely to use electricity (53 percent vs. 69 percent) and machinery (26 percent vs. 62 percent). They are also less likely to operate outside of the household premises (24 percent vs. 41 percent). However, the use of vehicles or other means of transport is roughly same in the two sectors (14 percent vs. 12 percent) as is the use of cell phones (76 percent vs. 79 percent).

Service firms are better integrated into the financial system

More than 46 percent of service firms have a bank account to run the business and 65 percent of these firms have a business account that is separate from the household account. Corresponding figures for manufacturing firms are lower at 33 percent and 62 percent, respectively. Furthermore, in the full sample, financial accounts of the businesses are run separately from the accounts of the household for over 50 percent of the service firms but only for 34 percent of the manufacturing firms. These findings suggest better banking habits among service firms. The percentage of firms using bank finance for their day-to-day operations is low in the informal sector, although

Figure 3 Main reason for not applying for a loan in manufacturing vs. service firms



Source: Enterprise Surveys. Firms were asked this survey question if they did not apply for a loan in the past year.

higher for service firms compared with manufacturing firms (6 percent vs. 2 percent), and the same holds for microfinance (5 percent vs. 1 percent). Also, fewer service firms relative to manufacturing firms report access to finance as a major or very severe obstacle for running their business (44 percent vs. 53 percent).

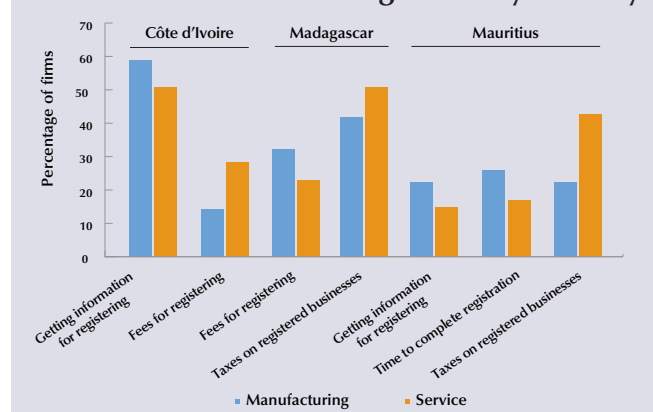
Consistent with the findings reported above, less than 10 percent of all firms applied for a loan during the year prior to the survey. The percentage is lower among manufacturing compared with service firms (8 percent vs. 12 percent). Lack of collateral as the main reason for not applying for a loan is significantly more common among manufacturing firms relative to service firms (figure 3).

Production structure and basic firm characteristics are similar between service and manufacturing firms

With a few exceptions, service and manufacturing firms show very little difference in firm characteristics such as age, probability of having one or more female owners, total number of owners, hours of operation in a typical week, proportion of output that the main product/service represents, ratio of paid to unpaid workers and the ratio of sales in the busiest to the slowest month (seasonality). Also, we find virtually no difference in the gender composition of the workforce between service and manufacturing firms—a finding that is sharply different from existing studies on the formal economy that suggest a greater

Fewer service firms relative to manufacturing firms report access to finance as a major or very severe obstacle for running their business (44 percent vs. 53 percent)

Figure 4 Most important reason for not registering in services vs. manufacturing varies by country



Source: Enterprise Surveys.

concentration of women in service vs. manufacturing sectors. Three exceptions are that relative to service firms, manufacturing firms are much more likely to produce under contract for another business or person (14 percent vs. 5 percent), more likely to operate outside than within household premises (41 percent vs. 24 percent) and have managers with more experience working in the industry (12.7 years vs. 9.4 years).

Benefits and costs of registering

The survey reports on the severity of various obstacles to registering as experienced by the firms. These obstacles include getting information on registration procedures, time and required fees to complete registration and the required fees/taxes on registered businesses, required inspections and meetings with government officials that registered businesses must have and bribes that registered businesses need to pay. On average, service firms report the severity of these obstacles at par with the

manufacturing firms, and in some cases, lower. Obstacles less severe for service firms include getting information on how to register, registration fees, and bribes that registered businesses pay.

Looking at which of the above obstacles to registering is most important, we find important country-specific differences between service and manufacturing firms (figure 4). For example, there is a significant difference in the proportion of firms that report taxes on registered

businesses as a major obstacle, but only in Madagascar and Mauritius. Regarding the time to complete registration procedures, service and manufacturing firms are equally likely to report this as a major obstacle in Madagascar and Côte d'Ivoire, unlike in Mauritius.

For the perceived benefits from registering, firms were asked about better access to financing, raw materials, markets, services, workers, government programs as well as fewer bribes to pay, better legal foundation on property rights and better opportunities for negotiating with formal firms. Much like the obstacles discussed above, the percentage of firms reporting the benefits as important was lower for service firms than for manufacturing firms in some cases (e.g., 57 percent vs. 67 percent for better access to government programs) and roughly the same in the remaining cases.

How do service firms vs. manufacturing firms rank the benefits listed above? The answer to the question varies by country (figure 5). For example, in Côte d'Ivoire, better

access to markets is the most important benefit for 15 percent of manufacturing firms but only for 3 percent of service firms. Corresponding figures for better access to finance are 69 percent and 78 percent, respectively.

The effectiveness of policy measures aimed at improving the functioning of firms in the informal sector and the proposed benefits from such policy measures depend crucially on the sorts of firms that operate in the sector, how they do business and the main obstacles they face in conducting business. That some of these dimensions may vary across service and manufacturing informal firms is confirmed in this note. Depending on the objective, policies towards the informal sector may need to be tailored to these differences.

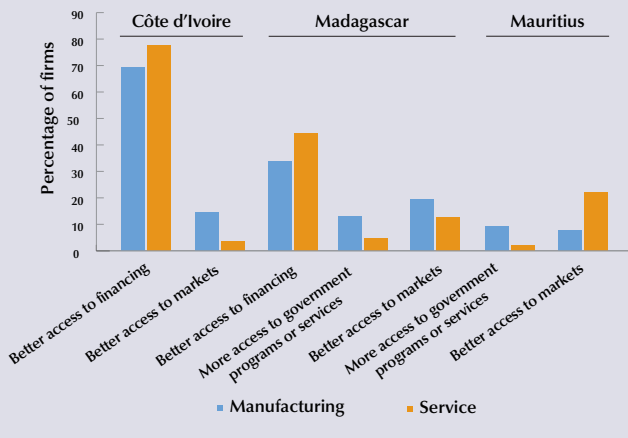
Notes

1. Values of total sales and output per worker are the median values for the various samples discussed. The qualitative analysis does not change much if arithmetic means are used instead although in some of the cases these are unduly affected by extreme values.
2. The ratio of (median value of) labor productivity in the service to manufacturing sector was high for registered firms only in Madagascar, equaling 3.2. Corresponding figures for Mauritius equals 0.83 and 1.14 for Côte d'Ivoire. For the informal firms, these figures equal 2 (Madagascar), 1.5 (Mauritius) and 1 (Côte d'Ivoire).
3. Note that the education level refers to the main decision maker while the motivation for starting the business refers to the largest owner. However, for over 95 percent of the firms, the main decision maker is also the largest owner.

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Figure 5 Most important benefit from registering in services vs. manufacturing varies by country



Source: Enterprise Surveys.

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