Private Enterprise Development in Low-Income Countries

Understanding Firm Exit: Evidence from Bangladesh

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We present novel evidence on short run exit among urban firms in a developing country. Exit rates are high but surprisingly similar to those for small firms in the United States, and vary systematically by age of the firm, number of employees, and industrial sector.

Overview

Firms in developing countries face many obstacles to survival and growth. Firms often face financial constraints and costs of formalization, potentially exacerbated by corruption. Lack of good physical infrastructure and access to assistance in developing good business practices may also lead to firm failure. Understanding even basic facts about firm survival in developing countries is difficult due to data limitations: the majority of small and medium enterprises are informal and collecting longitudinal[1] data for such firms is challenging.

As part of a larger randomized controlled trial, we collected detailed survey data on the universe of firms operating within a 16 square kilometre area of Dhaka City, Bangladesh. Of the 23,034 firms in this area, we were able to conduct detailed in-person surveys with 20,254 firms in December, 2011. We then attempted to contact these firms again 18 months later, in June-July 2013. These data allow us to present novel evidence on short-run firm exit for urban firms in a developing country.

Sample statistics and aggregate exit rates

The median firm in our sample has annual turnover of approximately $15,000 USD. Median age is 4 years, and the median number of employees is 2. Unsurprisingly, these firm characteristics are highly right-skewed. Over half of firms are involved in retail trade. Rates of firm formalization, as measured by VAT compliance, are low: less than 40% of firms were registered for VAT by the end of 2012 and less than 10% made any VAT payment in 2012.

18 months after the baseline[2] survey, we attempted to contact all 23,034 firms in the sample. We were able to contact 16,252 firms, and over 85% of contact failures were attributable to permanent firm closure. This implies an overall 25% firm exit rate over an 18 month period. By way of comparison, the annual exit rate of establishments in the US was 9% in 2012[3]. However, this US exit rate varies substantially by firm size: the annual exit rate was 16% for firms with 1-4 employees and drops to 4% even for slightly larger firms (5-9 employees). Somewhat surprisingly, these figures imply that the annualized exit rates for firms in Dhaka are comparable to the exit rates for small firms in the US, suggesting that the high overall exit rates in Bangladesh may reflect issues that are common more generally to small firms.

[1] Longitudinal or panel data consist in tracking the same firms over time. This allows us to capture different significant dimensions of firms' and industries' lifecycles.
[2] The baseline survey is the first wave of survey. Generally it is conducted prior to the intervention, if any.
[3] Statistics from the Longitudinal Business Database (LBD) compiled by the US Census Bureau.

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Firm characteristics and exit rates

We next examine the predictive power of a variety of firm characteristics on exit rates. We stress that these results are correlations and should not be interpreted as causal effects. Nevertheless, these descriptive results are important for policy and research. From a policy perspective, being able to predict how long a given firm is likely to be in business is important. For example, if the tax authority can improve revenue collection from a given firm through tax inspector effort (such as spending time learning about the firm), it is important to target efforts at least in part based on expected firm survival and to consider the expected longevity of the firm when doing cost-benefit analysis. This is true for any policy with up front investments and longer run payoffs. In addition, these results provide a first step toward potential directions for future research to investigate the causal effects of firm characteristics on survival.

We first examine firm exit by age and number of employees. Figure 1 shows exit rates by the age of the firm at baseline. Consistent with prior studies, we see a declining exit rate with respect to age, though exit rates even for firms that have been in existence for many years are still fairly high.

Figure 1: Exit rate by age

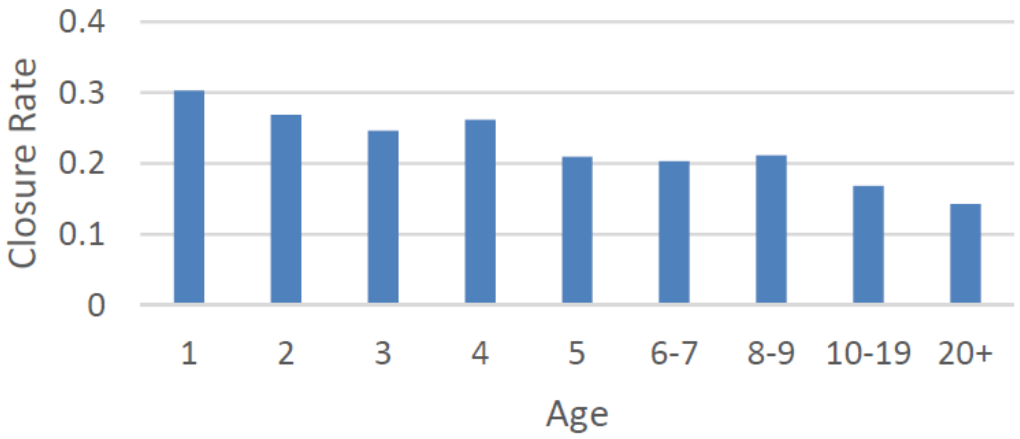
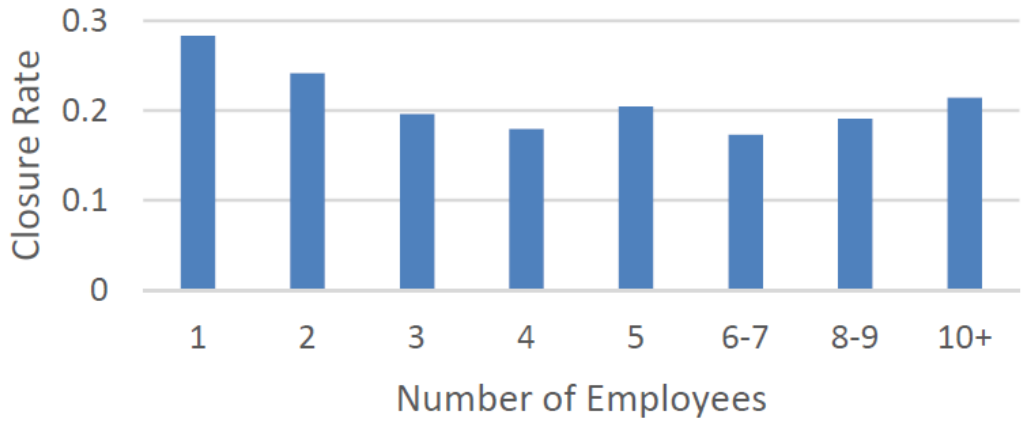


Figure 2 presents exit rates by the number of employees at baseline. We see a sharp decline at very low numbers of employees but then a fairly stable exit rate above 4 employees. This is actually consistent with patterns in the US data, though the gap between the exit rates of very small firms relative to others is lower in our sample.

Figure 2: Exit rate by number of employees



We next examine exit rate by sector and do not see sharp differences across sectors (Figure 3) with the exception of the food industry which has particularly high exit rates.

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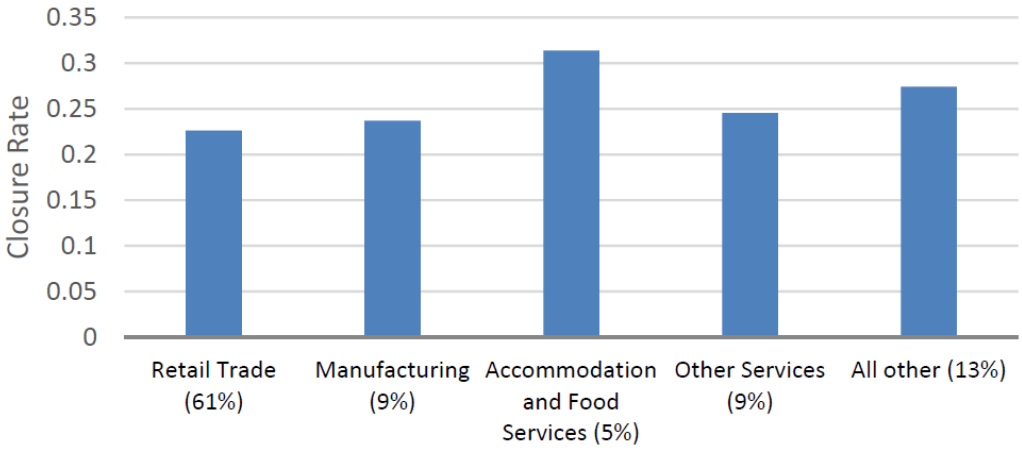
Figure 3: Exit rate by sector



Finally, we note that being tax registered and paying VAT at baseline are negatively correlated with exit rates. Formalization could improve firm outcomes, for example by increasing access to credit. However, these patterns could also be due to selection: firms which are more stable may be more likely to choose to formalize. We see this as an important avenue for future research.

Possible policy recommendations

A notable pattern from the data is that annualized firm exit rates in this sample are surprisingly similar to those for small firms in the United States, though there is much lower decline in exit rates with respect to firm size than is seen in the US. This suggests that understanding constraints on firm survival among very small firms in developed countries may hold lessons for policy in developing countries.

In addition, understanding the factors which predict firm survival – even if effects are non-causal – is important for policy. For example, we may wish to target business development policies directly aimed at increasing firm survival toward the most vulnerable firms. However, policies that require up-front costs and have payoffs only if the firm survives, such as investments in revenue collection, might be better targeted toward more stable firms.

Moving Forward…

It is important to determine whether these factors – particularly those which can be affected by policy – have causal effects on firm survival. In addition, we have limited understanding of what happens to owners of exiting firms. Do they start new businesses in related or other sectors or move entirely into a different form of occupation? We see tracking entrepreneurs over time in addition to firms as an important potential avenue for future research.