



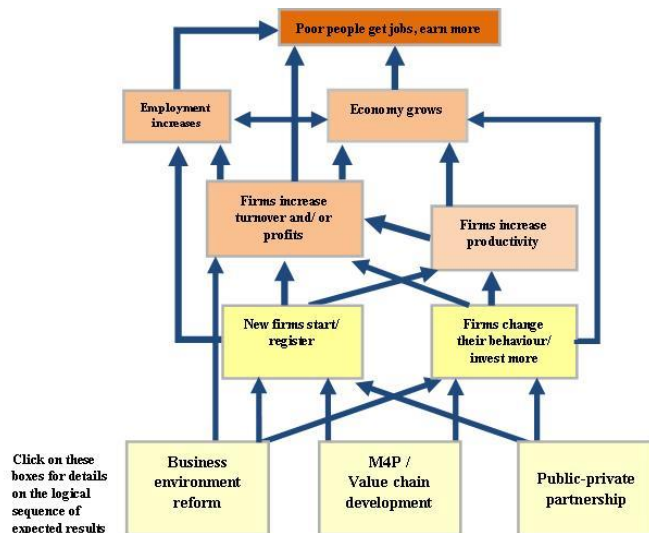
What do we know about the effectiveness of business registration support and reforms?

Key studies referenced in the DCED Evidence Framework

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Background

The Evidence Framework on the DCED website structures the available evidence on the effectiveness and logic of private sector development programmes. The Framework is presented as a summary results chain or theory of change for PSD as a whole, in order to make the evidence more accessible; it is organised according to its place in the overall logic, so can be viewed by clicking on the relevant link in the logic (blue arrow) at www.enterprise-development.org/page/evidenceframework.



This paper summarises the evidence for the results of reforms to business entry regulation and their effects at various levels within the evidence framework. Hyperlinks are provided for the studies mentioned in this paper.

Introduction

Donor efforts to promote a business environment conducive to private sector activity typically include interventions to support the formalisation¹ of informal micro, small and medium-sized enterprises (MSMEs). Expected benefits of formalisation for governments include increasing the tax base and increased investment by newly registered businesses

¹ Various degrees of informality can be found along a continuum between an enterprise operating completely informally, and one that complies with all laws and regulations. For example, an enterprise may be officially registered with some but not all of the relevant authorities, or be registered with all but engage in informal activities by underreporting sales or employing workers informally. The working definition of formality used by the studies included in this summary is whether a business is registered for all the relevant municipal licenses and with the tax department.

while businesses' benefit when their changed behaviour helps them become more productive and grow – for example because of improved access to government and other services. The following sections considers how effective interventions are, whether they increase the performance of firms, and whether they improve the functioning of markets.

1. How effective are interventions to support the formalisation of informal SMEs?

Evidence Framework: Business environment reform → New firms start/register

1.1 Reforming business entry regulations

Reforms which make it cheaper and easier to register a business have been widely implemented in the past decade and several studies report increased registration. For instance:

- [Aghion et al \(2008\)](#) examined the effects of the elimination of the License Raj, a system of central controls regulating entry and production activity in India's manufacturing sector, which, among other things, eased business entry by removing at least four procedures to start a business. Tracking the effects of the reforms in the years 1980-1997 in 16 Indian states, and controlling for the effects of various other factors such as trade liberalisation and labour market laws, Aghion et al. establish that the elimination of the License Raj led to 6% increase in the number of new firms.
- A [USAID \(2009\)](#) study of reforms implemented by the Georgia Business Climate Reform Project, which significantly streamlined business and tax registration procedures, reported the number of businesses registered increased by 67% between 2005 and 2009.
- Using panel data on the number of new firm registrations in 92 countries, [Klapper and Love \(2010\)](#) found that when registration reforms are sizeable – a 40% or more reduction in procedures, or 50-60% or more reduction in costs and days – they significantly increase the number of firm registrations. The study also found that where two or more business environment indicators are improved in a relatively short space of time, new firm registration is more likely to accelerate. However, countries with weaker business environments require larger reforms to increase the registration rate.

Interventions which have contributed to increased registrations include:

- **One-Stop Shops** for business registration typically reduce the number of procedures and visits required to register a business with all of the relevant authorities, and in doing so also tend to make the process cheaper. Studies have found that their introduction led to increases in firm registration of 5-6% in urban areas of Colombia ([Cárdenas and Rozo, 2007](#)) and Mexico ([Bruhn, 2011](#); [Kaplan, Piedra and Sierra, 2011](#)) – although no significant effect was found in rural Brazil ([Bruhn and McKenzie, 2013](#)).
- **Electronic Business Registration**, when introduced as part of broader government-led reforms to business entry registration, has been found to lead to increases in firm registration of more than 20% in Guatemala, Sri Lanka and Jordan ([Klapper, 2007](#)).

Most studies are unable to differentiate between registrations of existing informal firms and registration of totally new firms. An exception is [Bruhn \(2011\)](#), who finds that the 5%

increase in firm registrations in urban areas of Mexico following the introduction of One-Stop Shops is almost exclusively due to former wage earners starting new businesses. [Mullainathan and Schnabl \(2010\)](#), studying the effect of reforms to licensing procedures in Lima, find a 484% increase in registrations in the year following the reforms – of which 75% were existing informal businesses. However, most of these licenses were provisional. However, registrations more than halved the following year, suggesting many were not renewed.

Whilst large reforms to the business registration process have been shown to increase firm registrations, these increases are modest. Ultimately, even in instances when reforms have increased the number of firm registrations, most MSMEs have continued to operate informally. A study in Tanzania also highlighted the potential for negative effects on the livelihood of informal business owners associated with **greater enforcement of regulations for business registration**. In 2003, the Tanzanian government introduced a Business Licensing Act which aimed to simplify business registration by reducing the number of licence categories. The Act abolished the ‘peddling licence’, which had allowed street vendors to legally trade in a public place. Most street vendors did not have a fixed address, and so were unable to register for any other licence. Nonetheless, in a drive to successfully implement the Business Licensing Act and additional reforms intended to increase levels of business registration, the government increased evictions of street vendors in preference to allowing them to operate without a license. [Lyons, Brown and Moska \(2013\)](#), studying street-vendors in Dar es Salaam, find that the percentage of their sample that experienced evictions increased from 36% in 2003 to 70% in 2007.

1.2 Providing information about business entry regulation

Three studies included in [Bruhn and McKenzie’s \(2013\)](#) review of existing evidence on ‘Entry Regulation and Formalization of Microenterprises in Developing Countries’ consider the impact of providing information about both the benefits of becoming a formal business and how to register. None find a significant effect on the number of registrations, even when firm owners are found to have over-estimated the difficulty and cost of the process prior to the intervention.

[De Giorgi and Rahman \(2013\)](#) find in Bangladesh that providing face-to-face information about a major implemented business registration reform initiative improved firms’ knowledge of the new registration procedures, but did not increase the probability of registration.

More recently, [Benhassine et al \(2016\)](#) found that few firms register when just given information about the new regime, but personalised visits to firms coupled with an explanation of benefits and assistance filling out forms induced 9.6 percent of informal firms to formalize; adding supplementary services in the form of access to business training, bank accounts, and tax mediation services increased this to 16.3 percent.

1.3 *Waiving or lowering the costs of business registration*

A study by [Jaramillo \(2009\)](#) of micro-firms in downtown Lima found that most firms reported greater disadvantages than advantages of being informal suggesting that for some firms formalisation may not be desirable, no matter how low the licence fee is. This is most likely to be associated with the recurrent costs of being formal (e.g. resulting from inspections); the low perceived value of the benefits of formalisation; the limited growth perspectives of the firms.

[De Andrade et al \(2013\)](#) and [de Mel, McKenzie and Woodruff \(2013\)](#) also find that the waiving of registration fees is ineffective at changing the number of firms registering. However, de Mel, McKenzie and Woodruff's study of informal small firms in Sri Lanka finds that additional monetary incentives can increase registration rates. This demonstrates to the authors that informal firm owners perceive there to be ongoing costs associated with operating formally, which they would not expect the benefits to outweigh without compensation.

[Campos et al's \(2015\)](#) study compared three treatments (all treatment groups were aided with costless business registration; the second group also got support with costless tax registration; and the third group received an information session at a bank that ended with the offer of an account) found that there was a significant increase in business registration, with 75 percent of those offered assistance receiving a business registration certificate. However, like other studies, information and assistance has a limited impact on tax registration.

1.4 *Tax policy and business registration*

Using a panel of administrative data and regression discontinuity analysis, [Bruhn and Loeprick \(2014\)](#) examined how the introduction of preferential tax regimes for Georgian micro and small businesses in 2010 affects formal firm creation and tax compliance. The results show that the new tax regime for micro businesses increased the number of newly registered formal firms by 18-30 percent below the eligibility threshold during the first year of the reform, but not in subsequent years. The analysis does not find an effect of the new tax regime for small businesses on formal firm creation in any year.

The DCED's "[How Business Environment Reform Can Promote Formalisation: Annex to the Practical Guidance on Supporting Business Environment Reform](#)" (2011) offers guidance on how to successfully promote formalisation through business environment reform and on implementing **complementary reforms which address the causes of informality**.

2. Does firm registration improve the performance of firms?

Evidence Framework: New firms start/register → Firms increase turnover and/or profits

Reforms to business registration regulations can also encourage new firms to start. Entry restrictions such as high costs or difficulty in obtaining a licence can deter firms which might be more productive than incumbents from entering the market. By reducing these

restrictions, a more competitive market with higher aggregate productivity may therefore be established.

Increases in entry costs have been shown to lead to decreases in productivity. Based on the World Bank's 2007 "Doing Business" data set, a cross-country study by [Barseghyan \(2008\)](#) estimates that an increase in entry costs by 80% of gross national income per capita is associated with a 22% reduction in total factor productivity and a 29% reduction in output per worker. Barseghyan suggests that, when entry costs increase, incumbent firms face less competition and hence are less productive.

A study by [Chari \(2011\)](#) empirically tests logic between registration and productivity using firm level data following licence reform in India in 1985. The reform significantly relaxed entry and size constraints for certain manufacturing industries. The result was aggregate productivity growth of 22% in the manufacturing sector, of which 75% could be attributed to the relaxation of entry restraints.

Comparisons of the productivity of informal and formal firms, such as [La Porta and Shleifer \(2008\)](#), often find that formal firms have substantially higher productivity levels. However, a correlation between formality and productivity levels may be misleading. [Bruhn and McKenzie \(2013\)](#) argue that it is owners of more productive firms who are likely to perceive benefits, e.g. taking out a loan for expansion, to being formal.

At present, only a few studies have tested whether and how firms change their behaviour after formalising. Studies include:

- Once formal, firms can **advertise** and to **offer their customers receipts**. [de Mel, McKenzie and Woodruff \(2013\)](#) find that Sri Lankan firms which formalised were 26% more likely to advertise. They also find that formality is correlated with greater use of tax receipts; [McKenzie and Sakho \(2010\)](#) find a similar effect amongst firms in Bolivia.
- Formal firms can apply for **formal credit**. However, de Mel, McKenzie and Woodruff (2013) find that the formal firms in their sample were no more likely to get a business loan or indeed open a business account than the informal firms. The authors hypothesise that most small firms would be unable to access credit, regardless of their registration status. Similarly, [Boly \(2017\)](#) finds that performance benefits arise from better access to **powered equipment** or higher **business association membership**, but **not better access to credit**.
- [Campos et al \(2015\)](#) measured the short-term impacts of formalization on financial **access and usage**. Business registration alone has no impact for either men or women on bank account usage, savings, or credit. However, the combination of formalization assistance and the bank information session results in significant impacts on having a business bank account, financial practices, savings, and use of complementary financial products.
- The likelihood of participation in **government programmes for SMEs** is not found to be significantly affected by formality in the study by [de Mel, McKenzie and Woodruff \(2013\)](#), with less than 5% of formal and informal firms utilising these services.

- Once firms are registered, they have **legal recognition** which offers benefits such as the ability to sign contracts enforceable through the courts. [De Vries \(2010\)](#) hypothesises that this security makes firms more likely to invest. Whilst the investment behaviour of the Sri Lankan firms studied by [de Mel, McKenzie and Woodruff \(2013\)](#) is not tested, 12% state that the benefit of formalising is feeling more protected.
- A cross-country study of European firms by [Klapper, Laeven and Rajan \(2006\)](#) directly investigates how the behaviour of incumbents is affected by entry costs. The authors find that, even in naturally high-growth industries, higher market entry regulations are associated with slower productivity growth in incumbent firms. One of the reasons for this slow growth may be that, in less competitive environments, firms have weaker **incentives to invest in new technologies**.
- A study by [Nicoletti and Scarpetta \(2003\)](#) estimates that, in a sample of OECD countries, entry liberalisation has a positive impact on productivity due to uptake of new technologies.

Due to the problem of self-selection into formality, few studies have been able to robustly test the **link between changes in behaviour and increases in productivity**:

- [De Vries \(2010\)](#), controlling for self-selection and a wide set of firm, industry and owner characteristics in a dataset of 11,000 firms with up to five workers, finds that formal small retailers in Brazil are on average 65% more productive than their informal counterparts.
- [De Vries \(2010\)](#) further finds that use of formal credit is not a significant predictor of productivity, hypothesising that access to informal credit may explain this. Technical assistance, including through government programmes, is found to be strongly correlated with productivity. However, only 4% of the sample receives technical assistance of any kind. He concludes that the productivity gap is likely to be explained by **increased efficiency and higher levels of investment**.

[De Vries \(2010\)](#) hypothesises that efficiency gains after formalising come from the broader customer bases which firms can develop if they increase their use of advertising and tax receipts. He also argues that the security offered by legal recognition encourages higher levels of investment. It is in these aspects that [de Mel, McKenzie and Woodruff \(2013\)](#) find significant changes when firms formalise. As such, there are some indications that formalisation may lead to productivity-enhancing behaviours.

There is only limited evidence that firms increase their revenue because of formalisation.

[Boly \(2017\)](#) analyses the consequences of formalisation on the performance of informal firms, using a panel dataset from Vietnam. He finds that switching firms (before switching) have higher profit and value added compared to non-switching firms. Becoming formal leads to an additional increase in switching firms' profit and value added. The benefits of formalisation materialise in the short-term (one year) and persist in the longer-term (three or more years). These benefits run through various channels such as better access to

powered equipment or higher business association membership; but not better access to credit.

[De Mel, McKenzie and Woodruff \(2013\)](#) find a small average increase in profitability, but this is driven by a handful of firms in their sample which substantially changed their operations. A study by [Alcazar, de Andrade and Jaramillo \(2010\)](#) tracked over 200 firms twice a year for three years after reforms to the license registration process in Lima and finds no effect of formalisation on either profit or revenues.

[Medvedev and Oviedo \(2015\)](#) estimated the **impact of informality on profits** using a definition of informality which explicitly recognises that most firms comply with some regulations but not others. Through a survey administered to 1,200 firms with less than 50 employees in four cities in Ecuador, and accounting for firm selection and controlling for a large set of firm, owner and location characteristics, the study concludes that more formal firms tend to be more profitable and have higher output per worker. This impact operates, inter alia, through improved access to credit.

3. Does firm registration improve the functioning of markets?

Evidence Framework: New firms start/register → Firms increase productivity

A study by [Bruhn \(2011\)](#) of the impact of reforms on firm registration in urban areas of Mexico finds that, following a 5% increase in firm registration, the revenue of incumbent firms decreased by 3%. Most firm registrations were by wage earners registering new businesses. Entry restrictions such as difficulty in obtaining a licence can deter firms which might be more productive than incumbents from entering the market. Moreover, when incumbents face more competition, they have more incentive to improve their productivity, for example by investing in new technology. In theory, reducing these restrictions could therefore increase aggregate productivity.

A study by [Chari \(2011\)](#) empirically tests this relationship using firm level data from the six years following licence reform in India in 1985. The reform significantly relaxed entry and size constraints for certain manufacturing industries – previously, government permission had been required, to set up a factory or to expand output in an existing factory. The firms were found to have achieved aggregate productivity growth of 22%, of which three quarters was attributed to the relaxation of entry restraints.