

## **Identifying and spurring high-growth entrepreneurship: A review of the World Bank study by McKenzie (2015)**

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Established theories of development indicate that capital constraints hamper the ability of potential high-growth entrepreneurs to generate firm growth and employment<sup>1</sup>. In developing countries, the vast majority of firms employ, and never grow beyond, a few workers<sup>2</sup>. A recent World Bank study by McKenzie in 2015<sup>3</sup> on *'Identifying and spurring high-growth entrepreneurship: experimental evidence from a business plan competition'* asked the following two questions: Are there potential high-growth entrepreneurs with the ability to grow beyond their existing firm size and is it possible to identify them? And, can direct policy action like capital injection into these firms of these entrepreneurs mitigate the constraints they face and generate firm growth and employment. This short review is designed to reflect on the findings of this World Bank study.

A business plan competition (BPC) in Nigeria, which provided cash grants to attract entrepreneurs to start new and expand existing firms, was used to investigate these two questions. The BPC aimed to identify entrepreneurs with promising ideas for new and existing businesses and assist these entrepreneurs to develop these ideas into a more detailed proposal and to implement the business plan by providing finance. The grants under the BPC were allocated randomly.

The World Bank study used a randomized controlled trial, allocating an average of US\$50,000 (out of a total pool of US\$36 million) to each winning entrepreneur in the BPC. The award was presented in four tranches, each one contingent on the entrepreneur achieving pre-specified outcomes. By tracking the applicants using surveys over three years, the study found that the cash injections had a large impact on the rate of firms starting up and the survival of existing firms, as well as on employment, sales and profit figures. More specifically, new entrants were 37 percentage points more likely to operate a firm and 23 percentage points more likely to employ 10 or more workers than the control group. Existing firms were

20 percentage points more likely to stay in business and 21 percentage points more likely to have 10 or more workers than the control group. The study concluded that this growth was due to the capital injection, rather than alternative explanations (such as participation in business training programmes or being a winner of the BPC). The widely quoted finding of the study is that the programme enhanced employment creation in a more cost-effective way than large-scale policy efforts, like those in the United States (in which the cost of fiscal stimulus per job-year created ranges from US\$92,136 for government spending to US\$145,351 for tax cuts).

While the use of the randomized controlled trial is an important methodological strength of the World Bank study, other aspects urge a more cautious view of the extent to which this study can inform evidence-based policy. Three issues stand out: self-reporting effects, spillover effects and the sustainability of results.

**Self-reporting effects:** Given the self-reported nature of the employment and sales turnover data, there are concerns about changes in the behaviour of the treatment group<sup>4</sup>. When respondents are aware that they are part of a study, it can induce them to change their behaviour and create a tendency to overestimate impact or inflate data. This is known as the ‘Hawthorne effect’, and any research relying on self-reported data or outcomes faces this issue<sup>5</sup>. In this study, the nature of the grant may have induced over-reporting by BPC participants, as the continued receipt of the grant was contingent on employment and sales turnover figures.

The Hawthorne effect is a serious issue in this research and is likely to have driven the impact of the capital injection described in the paper. Firstly, the prize awarded to the entrepreneurs was payable in four tranches contingent on the achievement of the specified outcomes. Therefore, entrepreneurs had reason to think that future receipt of the award would be conditional on how they used the capital. Secondly, the findings indicate that the cash injections had an impact on all types of programme outcomes, which is highly unlikely in view of the heterogeneity of the firms that participated in the BPC. Large impacts were reported among start-up firms, but also among existing firms (both national and

zonal winners), as well as on employment creation, profit and sales, business practices, and innovation. These similarities make it more likely that the results are tainted with self-reporting bias.

**Spillover effects:** Another concern is the effect of firms participating in the BPC being nearby other non-treated/competing firms. However, the potential outcomes for each firm should be unrelated to the treatment status of other firms<sup>6</sup>. The presence of spillover effects can generate biased estimates of the treatment effects<sup>7</sup>. In view of this, it is important to control for the potential negative spillover of direct policy action on other start-up and existing businesses<sup>8</sup>.

In the present study, we should be concerned with both the competition effects and the movement of labour in the market. Firstly, the presence of treated firms can cause 'business stealing' or 'crowding out', as treated firms may take the market share of untreated firms and put competing untreated firms out of business due to the advantage afforded by the capital injection. The study ignores such business stealing and crowding out effects. Secondly, it is also important to consider the impact of labour poaching by treated firms from competing untreated firms. It is clear that the presence of treated firms may have a negative impact on untreated competing firms<sup>9</sup>. Hence, it is reasonable to assume that the outcome of the capital injection on treated firms is positive irrespective of whether or not they displace or negatively affect other firms in their neighbourhood, indicating that the overall impact is not necessarily positive. The problem is simple: if a capital injection given to a group of treated firms greatly improves their performance, it will have a similar negative impact on a number of the untreated (or competing) firms in the neighbourhood. This makes it difficult to believe that the results of the BPC programme are purely due to the capital injection.

**Sustainability:** Given the nature of self-reported effects, it is difficult to claim that there has been growth in profits and employment without undertaking a supplementary check of the reported data (e.g. against tax returns). Furthermore, although the study claims that the results of the cash injection on the treated group are robust and consistent, there is no evidence that these results will be sustained in the future. Finally, of greatest concern is corruption. The 2015 Corruption

Perception Index ranks Nigeria 136 out of 167 countries in terms of corruption. In the study, McKenzie<sup>10</sup> claims that "... winning the competition could give the firm some protection against government officials asking for bribes or otherwise inhibiting firm productivity, since now the firm is seen as a favored firm which should not be touched". If this is the case, the findings may not be sustainable, even in the near future, as this 'protection' will disappear once the programme is phased out, and the winners may even be targeted by 'rent-seekers'. Consequently, even if the results are robust, the presence of corruption may mean that treatment impacts are short-lived. In view of this, Nigeria would be better off first taking direct policy action to tackle corruption, instead of making large capital injections in enterprises.

In sum, there are plenty of reasons to doubt the BPC treatment effects and the hype surrounding this research. It is also important to underline that the research is still a working paper and has not yet been subjected to the process of peer-review. It may be easier to believe the findings of the study after it has undergone a rigorous academic peer-review.

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<sup>1</sup> Karlan, D., Knight, R. and Udry, C. (2013) *Consulting and capital experiments with micro and small tailoring enterprises in Ghana*. Yale University Working Paper.

<sup>2</sup> Nichter, S., and Goldmark, L. (2009) Small firm growth in developing countries. *World Development*, 37(9): 1453–1464.

<sup>3</sup> McKenzie, D.J. (2015) *Identifying and spurring high-growth entrepreneurship: experimental evidence from a business plan competition*. World Bank Policy Research Working Paper, (7391).

<sup>4</sup> De Mel, S., McKenzie, D. and Woodruff, C. (2008) 'Returns to capital in microenterprises: evidence from a field experiment.' *The Quarterly Journal of Economics*, 1329–1372

<sup>5</sup> De Mel, et al. (2008); Fiala, N. (2015) *Rethinking the microfinance model: returns to subsidized microcredit for male and female entrepreneurs in Uganda*. University of Connecticut.

<sup>6</sup> Angrist, J.D., Imbens, G.W. and Rubin, D.B. (1996) 'Identification of causal effects using instrumental variables.' *Journal of the American Statistical Association*, 91(434): 444–455.

<sup>7</sup> Duflo, E., Glennerster, R. and Kremer, M. (2007) Using randomization in development economics research: a toolkit. *Handbook of Development Economics*, 4: 3895–3962.

<sup>8</sup> De Mel, et al. (2008) and Fiala (2015)

<sup>9</sup> As found by De Mel, et al. (2008) in a study on Sri Lankan microenterprises.

<sup>10</sup> McKenzie (2015), p. 17