Gazelles in Ghana: Identifying High-Growth Firms Through Panel Judges or Survey Instruments

Researchers:

Marcel Fafchamps

Christopher Woodruff

Sector(s): Firms, Labor Markets

Location: Accra and Tema, Ghana

Sample: 335 microentrepreneurs

Target group: Entrepreneurs Managers Self-employed and microentrepreneurs

Outcome of interest: Firm survival and sustainability Profits/revenues

Intervention type: Business skills training Information

Research Papers: Identifying Gazelles : Expert Panels vs. Surveys as a Means to Identify Firms w...

Partner organization(s): CDC Consult, The National Board for Small-Scale Industries (NBSSI)

The majority of microentrepreneurs in low- and middle-income countries do not aspire to grow, and indeed, may not be able to manage larger enterprises. Can small firms with the potential to create jobs be identified? Better identification would help policymakers targeting job creation to develop interventions that stimulate more rapid expansion among this subset of firms. Researchers conducted a business plan competition to test whether panel judges or questionnaires answered by firm owners could more accurately identify the fastest growing firms in Ghana. Survey measures strongly predicted future growth of entrepreneurs, and expert panel scores significantly enhanced the accuracy of those predictions.

Policy issue

Many policymakers in Sub-Saharan African countries aim to create jobs. While single large firms can sometimes create jobs in large numbers, more often jobs are created a handful at a time by the modest expansion of large numbers of small firms. However, only a minority of microenterprises ever hire any employees. Effectively identifying the minority of small firms with the potential to generate employment would aid policy makers targeting job creation in developing policies and programs to stimulate more rapid expansion among these firms. Researchers conducted a business plan competition to test whether survey instruments or panel judges are better able to identify the fastest growing firms known as "gazelles."

Context of the evaluation

Small enterprises dominate the local economy in Ghana, representing about 85 percent of businesses, and contributing about 70 percent to the gross domestic product (GDP).[1], Of the fifty leading firms in Ghana, fifteen began as small-scale startups, suggesting that rapid growth—while not common—sometimes does occur.[2]

Researchers recruited small business owners in two metropolitan areas: Accra-Tema and Kumasi. Eligible entrepreneurs had to be between the ages of 20 and 40 and be owners of a business with three to fourteen employees. Businesses who took part in

the competition were considered small firms and had between two and twenty employees. Enterprises were on average 9 years old, and 25 percent of their owners had a bank loan in the past and 42 percent have received some form of formal entrepreneurship training.

Firm owner
Photo: © Arne Hoel | The World Bank

Details of the intervention

Researchers conducted a business plan competition to test whether survey instruments or panel judges are better able to identify the fastest growing firms known as “gazelles''. To recruit entrepreneurs to participate, researchers advertised in the newspaper and on radio and worked with the Association of Ghanaian Industries (AGI). In addition, researchers conducted a door-to-door marketing program in fifteen neighborhoods with large concentrations of small businesses. To participate in the competition, applicants submitted a form with basic information to ensure compliance with eligibility criteria. A total of 335 eligible applicants were recruited to participate in the business plan competition which required entrepreneurs to submit a three to five page business plan and present the plan in front of judges for 15 minutes followed by a 15 minute question-and-answer session.

First, all applicants were invited to a three-day training program, offered by CDC Consult Limited, designed to guide them in writing a basic business plan that would be presented in the competition. Of the 216 who completed the initial training, 152 (45 percent of the initial sample) submitted a business plan and 141 (42 percent) presented the plan before a panel of judges. Panels of up to four successful business owners and consultants with extensive experience working with small businesses in Ghana were assigned to judge twelve to sixteen business plans. The judges evaluated business plans on five criteria: i) the description of the business concept, ii) the definition of the market, iii) the description of the current organization, iv) the financial statements and v)

the overall organization of the business plan. Judges scored each presentation against the level of preparation, confidence, understanding of business, as well as the ability of the entrepreneur to make their case, and the ability to answer questions. The overall applicant score was based on both the written business plan and the presentation.

As an incentive to participate in the business plan competition, researchers provided a scholarship for customized management training to a randomly selected subset of participating entrepreneurs, and those that scored higher in the competition faced a greater likelihood of being selected. In all, seventy participants (about half of the 140 participants) were randomly selected for the scholarship. By randomizing selection into the course, researchers were able to measure whether better or worse ranked firms benefited most from the training.

Prior to the initial three-day business plan training course, researchers conducted a baseline survey to gather information on the owner and business and to test whether survey responses—which are cheaper to collect than business competitions—can predict the growth potential of firms. The survey gathered information on the owner, the history of the business, and enterprise-level data on assets, current employees, and sales and revenues. It also included measurements of risk aversion, numeracy, logical skills, personality diagnostics, and other measures from the entrepreneurial psychology literature.

To track growth, follow-up surveys were conducted with all applicants one and two years (in July and August of 2011, and again in August and September 2012) after the business plan competition. Growth measures included level of sales, profits, and investment, along with the number of paid employees.

Results and policy lessons

Both survey assessments and judging of business plans through panels selected firms with the potential for faster growth. Panel scores further improved upon the accuracy of the predictions made by the survey assessments, however, two measures together were a stronger predictor of growth than either one alone. Survey assessments were better than panel scores in distinguishing between successful and unsuccessful top performers. On the other hand, panel scores were more effective in making the same distinction amongst weaker performers.

Survey assessments: Researchers examined whether growth was associated with five different dimensions: a measure of ability; two measures of attitudes; management practices; and access to credit. Entrepreneurs that scored higher on the ability measure - a combination of non-verbal reasoning tests, numeracy tests, years of formal schooling, and financial literacy – reported higher employment and profits one to two years later, as well as a measure of aggregate growth. Entrepreneurs that scored higher on management practices measured at baseline reported higher growth in revenue and investment. Neither access to credit nor the attitude measures were associated with growth.

Panel scores: The two summary scores provided by the panel of judges, overall prospect of growth and how attractive the enterprise would be to an angel investor, correlated highly with growth.

Business training: Enterprise training did not have an effect on firm performance, but firms who undertook the training were seven percentage points more likely to shut down (meaning firms reported zero revenue) one year later. Researchers suggest that the training may not have been useful or that entrepreneurs who were not selected into the course acquired equivalent training elsewhere. Researchers are not able to say whether training should optimally be targeted at top or weaker performing firms.

The business competition was implemented by the researchers themselves, which precluded the scaling up by an implementing partner. The results of the study nonetheless helped demonstrate the usefulness of business competitions in Africa, and they may have been influential in providing support for government initiatives elsewhere, for example in Nigeria.[3]

---

1. International Trade Centre (2016). SME Competitiveness in Ghana: Alliances for Action. ITC, Geneva. https://intracen.org/media/file/2825

2. Sutton, J., and B. Kpentey. 2012. An Enterprise Map of Ghana. London: International Growth Centre.

3. McKenzie, David, and Dario Sansone. 2019. “Predicting Entrepreneurial Success Is Hard: Evidence from a Business Plan Competition in Nigeria.” *Journal of Development Economics* 141 (November): 102369. https://doi.org/10.1016/j.jdeveco.2019.07.002.