

Entrepreneurship and Informality in Developing Countries

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Abstract

The informal sector is a prominent feature of developing countries. Formal businesses are those registered with the government, while informal firms operate without tax authority registration but are legal in all other respects. These high informality levels have important consequences for development. Not surprisingly, the questions of how the informal sector affects the aggregate economy and how to induce informal firms to formalize have motivated a large literature as well as an intense policy debate. So far, the literature studies the informal sector by focusing on either workers or firms, leaving entrepreneurship in this context relatively unexplored. Understanding the entrepreneurial decisions between formal and informal businesses will draw new insights into evaluating government policies for effective formalization strategies, addressing issues such as resource misallocation, total factor productivity losses, and other aspects of economic development.

Using the Brazilian National Household Sample Survey (PNAD) data, we present three main findings. First, surprisingly, over one-third of entrepreneurs in the top income decile of the entire Brazilian population operate businesses in the informal sector. Second, formal sector entrepreneurs are primarily concentrated in higher income groups, with 29.2% of them belonging to the top income decile and 61.5% to income deciles 8-10. Lastly, we observe that informal sector entrepreneurs in the top income group are more likely to switch to the formal sector, while formal sector entrepreneurs in the bottom income group are more likely to switch to the informal sector. These observations, particularly the first and third, are quite novel to the literature.

We propose a general equilibrium, life-cycle, heterogeneous agent model to reconcile these empirical observations. The model incorporates occupation choice and learning, where households are endowed with working productivity and business quality. Each period, households decide between wage work and entrepreneurship, and if they choose entrepreneurship, they further decide between the formal and informal sectors. While working productivity is observable, true business quality is not. Instead, households update their beliefs about business quality through starting a business and production. For most entrepreneurs, it is optimal to conduct this learning process in the informal sector due to lower operation costs. High business quality entrepreneurs with better belief then choose to switch to the formal sector to gain access to financial markets and to expand their firm size without government detection concerns.

We then calibrate this model to match empirical moments. The calibrated model serves as a laboratory for conducting policy experiments.