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Key Finding

The bottom of the economic pyramid is a large and diverse market. Serving it requires smart segmentation and new business models adapted to the local context.

Business Application

Experimentation helps to design business models for off-grid energy in Africa.

More than one-third of the world's population lives on less than \$2.50 a day without access to basic facilities such as electricity and clean water. Trying to find solutions for the problems faced by people living at the bottom of the pyramid (BoP) is frustrating and hugely expensive; statistics suggest that three out of four development projects in Africa fail. A classic example is PlayPump, a children's carousel designed to help pump clean water in Africa, which, despite \$16 million in funding, failed to gain traction. There are many reasons why firms at the BoP fail, yet it is less often due fierce competition or lack of innovative products than because they address the BoP as a monolithic block. However, one size fits all solutions don't work.

Indeed, the poor are not defined by their poverty alone. Just like consumers in the developed world, they are individuals who face varying challenges, besides cash flow, that influence their consumer habits. For example, my research on the Rwandan off-grid light market identifies specific segments of consumers for whom clean rechargeable bulbs are less attractive than more expensive and unhealthy solutions, such as kerosene, because these segments are more sensitive to the inconvenience of recharging than to the cost of doing so. Experimenting with the design of the product, and the pricing structure, allowed me to provide solutions adapted to the local context. In sum, I found that serving BoP consumers requires using a micro lens to understand their needs and challenges, and new business models that respond to them. Experimentation helps.

Read more: Uppari, B. S., Popescu, I., and Netessine, S., "Selling off-grid light to liquidity constrained consumers", available at

https://www.darden.virginia.edu/uploadedFiles/SellingOffGridLight_Uppari%20Popescu%20and%20Netessine.pdf

Laporte, I., (2017), "Market Segmentation at the Bottom of the Pyramid", INSEAD Knowledge, 25 September.

Netessine, S., and Popescu, I., (2014), "A lean startup approach to international development", *Harvard Business Review*, 11 December.

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Research interests: decision-making and uncertainty, mathematical theory and analytics, emotions and embodied cognition.