

Lean Startup at the Bottom of the Pyramid

Jose A. Cerecedo Lopez, The University of Texas at San Antonio, USA

In 2022, approximately more than half a billion people or 8% of the world's population lived in extreme poverty (earning less than \$2.15 a day), and when expanding the poverty threshold to earning less than \$3.65 per day, almost 23% of the world's population lives in poverty, that is close to two billion individuals. For entrepreneurs in these settings, at the bottom of the pyramid or under \$3.65 per day, business failure means they may not be able to afford sending their children to school, pay rent or acquire basic living necessities, including food. These conditions force entrepreneurs to take a low-risk and highly communal approach to entrepreneurship given that the penalty and cost of business failure is extremely high, and the repercussions can deeply affect entrepreneurs' lives and the people who depend upon them.

The Lean Startup method outlines a startup-creation process that emphasizes experimentation, adaptation, and customer feedback to develop a successful business model. The method consists of four tools that guide the entrepreneurs through the business development process: (1) opportunity navigation, (2) business modeling, (3) customer development, and (4) agile engineering.

Opportunity navigation is that first step every entrepreneur does consciously or unconsciously by analyzing their environment to determine the best available option for them to invest their time and effort. Even in severely constrained contexts, entrepreneurs are mindful of their surroundings and are faced with the task of choosing the best available choice for them to start a business. Entrepreneurs need to ask the question: Which customer segment is the best to address with my resources? Traditional Lean Startup approaches consider the market's potential for the entrepreneurs' innovations, technology, and their unique abilities but in impoverished contexts, Lean Startup methodology should focus on the entrepreneurs' resources at hand, their skills, and understanding of the market.

Once the entrepreneurs decide on an opportunity, the Lean Startup method next step is validating the business model. In mature economies, it is assumed that entrepreneurs are developing new and innovative business models and test hypotheses explicitly with the goal of understanding customers' preferences regarding a disruptive and innovative product or service. However, at the bottom of the pyramid, the development of innovative business models is extremely risky given the high cost of business failure. Therefore, in such contexts, entrepreneurs tend to rely on existing, effective business model templates that they adopt for their own use. It is not uncommon to go to a market and see hundreds of stalls essentially selling the same materials or goods. The imitation of a validated business model reduces entrepreneurs' risk while also enables entrepreneurs to work together and support each other.

The customer discovery development aspect of the Lean Startup that is of great importance at the bottom of the pyramid given the customer facing nature of how business is done in this setting. As we have noted, many businesses are very similar in settings of poverty; thus, interacting with the customer to ensure that they know their desires and build a relationship so they will return consistently becomes critical. By taking an incremental, low-risk approach and focusing on the information validated by the interactions with customers, the entrepreneur successfully develops a business model.

Lean Startup's encouragement for entrepreneurs to engage in agile engineering and develop their product as an MVP gives entrepreneurs a higher chance of success even in highly resource

constrained environments. Entrepreneurs in developed countries are often encouraged to “spend every dollar like it is your last.” While this might be an amusing mental exercise for entrepreneurs in wealthy economies, it is a way of life at the bottom of the pyramid. The entrepreneur at the bottom of the pyramid is almost universally concerned with starting with an MVP since an MVP is what can barely be afforded. Now, when we talk about the agile practice of pivoting, the major challenge for entrepreneurs in severe poverty is that they cannot necessarily adjust quickly and pivot. The reality is that entrepreneurs will have to capture as much revenue from their mistake as they can. They simply cannot throw out their initial entrepreneurial effort given that they invested all available startup capital into their initial idea. The investment must be recovered as best as possible because there may not be other capital to fund their next attempt at a business. Thus, even though the practice of an MVP is stronger in poverty, the ability to pursue the practice of pivoting is harder in settings of poverty.

Lean Startup 4-Tools	Traditional Setting	Impoverished Setting
Opportunity Navigation	Considers the market's potential for the entrepreneurs' innovations, technology, and their unique abilities.	Will focus on entrepreneurs' resources at hand, unique skills, and understanding of the market.
Business Modeling	Assumes that entrepreneurs are developing new and innovative businesses. Disruptive products and services. Implementation of new technologies.	Imitative not innovative business models. Validated business models.
Customer Development	Based on understanding and validating the various components (new tech, innovation, etc.) of the new business model and the perception of the customer.	Small and incremental based on the customer facing nature of the business and the continuous interactions with customers.
Agile Engineering	Avoid wasting time and resources. "Fail fast & fail often". Failure is an element of the business learning.	MVP is the only alternative. Failure is not an option. High economic and social cost of failure.

In conclusion, the context of severe poverty is dramatically different from the contexts in most mature Western economies. This impoverished context is characterized by resource constraints and high economic and social cost of failure which in turn leads the entrepreneur to seek a low-risk, communal approach to business development. The result is the Lean Startup method requires adaptation and special considerations in order to be successfully implemented.

CONTACT: Jose A. Cerecedo Lopez; jose.cerecedolopez@utsa.edu; The University of Texas at San Antonio; 5 Paseo Del Norte, San Antonio, TX 78249 USA.