The MIT Practical Impact Alliance addresses Last-Mile Distribution Challenges

Catalyzed by the work of the MIT Practical Impact Alliance working group on Base of the Pyramid (BoP) distribution challenges, MIT D-Lab has developed a practical tool for social business and development practitioners to select appropriate distribution strategies for their products in BoP markets.

Companies interested in increasing sales of social value products in BoP markets face challenges ranging from limited infrastructure to lack of consumer awareness, limited consumer disposable income, and high distribution costs. Additionally, variations in population density as well as the economic and cultural contexts within developing markets add further complexity when selecting a distribution strategy.

BoP Distribution Compass

The interactive nature of the BoP Distribution Compass helps decision makers in companies identify a suitable last-mile distribution model based on their specific product requirements, market conditions, and organizational capabilities. The compass can be used by companies looking to enter a new market, or reevaluate their existing distribution strategy for a product. The focus of this tool is on distribution strategies for physical products at the “last mile” of the supply chain. It does not address in detail regulatory frameworks or staff compensation.

The BoP Distribution Compass consists of a questionnaire (see page 3) covering the product requirements, market conditions, and organizational priorities and capabilities for which a company is evaluating a distribution strategy. Based on the answers to the questionnaire, the tool provides:

- Recommendations of distribution models (e.g. door-to-door or retail sales, shared or proprietary distribution, and whether or not to leverage institutional partnerships).
- Case studies of successful distribution models in a similar context.

Because the context for distributing a product in a given target market is constantly changing, a company can revisit this tool any time product requirements, market conditions and/or organizational priorities change. Future plans include building an online interface to enhance the user experience and make this tool accessible as an open source resource to social businesses and development organizations globally. Since D-Lab is currently developing a case library to further develop the tool, the tool has not been launched on our website yet.
Case-Study-Centered

The BoP Distribution Compass is being developed based on the cases presented in the PIA BoP Distribution Challenge working group, as well as further research on the challenges that companies face in delivering their products to low-income communities in developing countries.

A set of 10 case studies both from within this working group and from outside sources were used to refine the tool and develop the initial case library. D-Lab is currently building a larger case library and seeking additional input from a larger group of enterprises and experts to further refine and improve the robustness of the tool.

CASE Ajinomoto, Inc.
Shared Door-to-Door Sales & Shared Retail

Ajinomoto is a global leader in amino-acid-based products for the pharmaceutical, nutraceutical, sports nutrition, consumer food, health, and beauty industries. The company created a fortified infant food supplement to address the stunted growth of children six to twenty-four months due to malnutrition. The project was piloted in Ghana in partnership with the International Nutrition Foundation, the University of Ghana, and the Global Alliance for Improved Nutrition (GAIN) program. Ajinomoto piloted two different distribution models in two different geographies:

- **Door-to-door**: In a rural market, Ajinomoto tested a door-to-door model in partnership with CARE. Ajinomoto delivered the product to distribution hubs near villages and CARE Village Based Entrepreneurs purchased it weekly and distributed directly to customers. CARE provided marketing support to build awareness and demand through cooking demonstrations, community theater, and market-day outreach. This high-touch model was effective in creating message coverage and also in triggering continued usage of the product (62 percent after 12 months).

- **Retail**: In a more urban market, Ajinomoto tested distribution through traditional retail and worked through the Experiential Social Marketing Foundation to implement a social marketing plan including radio, information centers, posters, billboards, cooking demonstrations, and mobile activation vans. This model showed high message coverage, but the continued usage was significantly lower (only 9 percent after 12 months).

Sales were still higher in absolute value through the retail model because population density in urban areas is much higher. Ajinomoto is looking to scale both models in the different markets, recognizing however that the door-to-door model in rural areas will require subsidy to sustain demand generation activities and will require partnerships with other product providers to share distribution costs.

OVERVIEW OF KEY DISTRIBUTION MODELS

Following is a list of the primary distribution models that are included in this tool.

**PROPRIETARY DOOR-TO-DOOR**
A network of door-to-door sales agents carries and sells products from a single company, addressing specific or related needs (e.g. health, energy, agriculture).

**SHARED DOOR-TO-DOOR**
A network of door-to-door sales agents carries and sells products from multiple companies and brands, addressing a range of related or unrelated needs.

**PROPRIETARY RETAIL**
Products from a single supplier or brand are displayed and sold in fixed retail locations (e.g. franchise or branded kiosks) addressing specific or related needs (e.g. health, energy, agriculture).

**SHARED RETAIL**
Products from multiple companies and brands are displayed and sold in fixed retail locations (e.g. retail chains or mom-and-pop shops), addressing a range of related or unrelated needs.

**INSTITUTIONAL PARTNERSHIPS**
Piggybacking on a partner organization’s assets, capabilities, and relationships in the target market to bring the product to, or closer to, the customer.
BoP Distribution Compass Questions

The BoP Distribution Compass walks the user through a series of introspective questions that enable a nuanced understanding of their product, market, and organization constraints and opportunities in relation to their distribution needs. The user chooses from a series of multiple choice answers which serve as inputs to compute the distribution model recommendation and identify cases that match their situation.

Product Requirements

1. Does our product have a value proposition that is easily identified by target customers?
2. Does our product require explanation for proper use among target customers?
3. Does our product require customization to meet the requirements of users in the target market?
4. Does our product require behavior change for product adoption?
5. Does our product require financing or resorting to personal loans for our target population to purchase?
6. Does our product require significant after-sales interaction with the customer?
7. Does our product have shipping, handling and storage requirements?
8. Does our product physically constrain (size or weight) the delivery of the product to the customer?

Market Conditions

1. What is the population density in our target market?
2. Are our target customers familiar with the product?
3. What is the target customer’s current perceived need for our product?
4. Are there alternative solutions in the target market addressing the need our product aims to address?
5. Does our product experience seasonal demand?
6. What are the target customers currently spending on alternative solutions?
7. Is there an established supply chain for our type of product in the target market?
8. What are the top 3 barriers to enter this target market for this type of product? Stringent regulatory framework; market saturation; dominant competitors; product differentiation; high start-up capital; lack of infrastructure awareness; affordability; other.

Organizational Priorities and Capabilities

1. Does our company have a trusted brand in the target market?
2. To what extent are skilled and/or trained staff needed for product sales and maintenance in the target market?
3. To what extent does our company have access to skilled staff in the target market?
4. Does our company have access to a door-to-door sales network that could be leveraged?
5. Does our company or partners have access to a retail sales network that could be leveraged?
6. Does our company need assistance with any of the following in the target market? Navigating regulatory requirements; hiring and training door-to-door sales network; identifying and engaging retail stores network; accessing supply chain infrastructure; navigating cultural norms; consumer financing; enterprise financing; other.
7. Please rank the following in the order that is most important to your company: Gaining customer information and feedback; control over branding; financial sustainability; depth of market development in one geography; scale to broader geographic markets.

Practical Impact Alliance Last Mile Distribution Challenges Working Group

In 2015, PIA formed a working group to exchange and document best practices for last mile distribution. The working group included fast moving consumer goods companies Ajinomoto, Danone, Johnson & Johnson, Mars and SC Johnson; nongovernmental organizations World Vision and Grameen Foundation; and social ventures Community Enterprise Solutions, Greenlight Planet, and Living Goods.

The group was co-led by MIT D-Lab and SC Johnson; and gathered monthly in 2015 to share and discuss case studies on the subject. A total of 14 case studies were presented and discussed including nine by PIA member and five by guest speakers. These included representatives from ADB (Asian Development Bank), the BoP Innovation Center, Mercy Corps, MIT CTL (Center for Transportation and Logistics) and Snow Trading International.
CASE Greenlight Planet - Institutional Partnerships and Hybrid models

Greenlight Planet (GLP) is a market leader in providing high-quality solar lighting solutions to off-grid communities around the world. They are active in more than 30 countries, with over three-million products—many of them under the Sun King brand—sold yearly to 12 million users worldwide. The company started focusing on a door-to-door (D2D) model in India and has achieved scale through a variety of institutional partnership models, particularly in African markets where lower population density challenges the cost effectiveness of the D2D model alone. In Ethiopia for example, the Sun King product line is distributed through the Ethiopian Postal Service. Post officers are trained in product sales and post offices serve as channels for product delivery and replacement.

GLP has also found that hybrid models that mix the D2D model with an institutional partnership or a retail channel are effective in addressing certain markets that require services that move beyond GLP’s capabilities. In Kenya, GLP established a hybrid model that includes partnerships with a microfinance institution and with Orange, a telecommunications company. GLP agents conducted outreach door-to-door and referred clients to equity branches for credit, while Orange managed product logistics and product delivery at its retail outlets.

In other instances, GLP has adopted parallel distribution models in the same market. Often engaging with different partners on different distribution models, GLP has its product both in retail and in D2D simultaneously, leveraging the reach of retail and the depth of D2D to maximize brand awareness and product availability. This is the case in Kenya, where, supported by Unilever, GLP products are placed in last mile retail convenience stores. Also, in Tamil Nadu, India, GLP lanterns are offered at Essmart (a last mile distribution social venture) affiliated retailers. In both markets, GLP also has agents selling the products door-to-door.

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Seeking Test Cases

PIA is seeking test cases for the BoP Distribution Compass that will help us further develop the tool. If you are interested in submitting your case, please contact Eric Verploegen: ericv@mit.edu

Further information

D-Lab | Massachusetts Institute of Technology
77 Massachusetts Ave., Bldg N51-317
Cambridge, MA 02139  USA
impact-alliance@mit.edu