

## **The Base of Pyramid distribution challenge:**

Evaluating alternate distribution models of energy products for rural  
Base of Pyramid in India



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## Preface

In recent years, we have been riveted as rural India has begun to fiercely negotiate its rightful place in the world. Analysts predict that by 2020, for the first time in history, the number of deprived households in rural India will be less than aspirers and seekers. This is just the effect. The cause of this massive transformation lies in a rise in discretionary incomes from increasing productivity and integration of rural markets. While the number of rural Indian consumers earning a dollar a day would fall from 400 million to 250 million by 2020, consumers earning over five dollars a day would increase from 50 million to 150 million. The economic and social shifts underway will have far-reaching effects for companies large and small, policymakers and all stakeholders in rural India's wellbeing.

In parallel with India's rapid economic growth, Indian rural consumption has grown remarkably. While this is expected to continue, the dynamics of this rural consumption is expected to change drastically. Today, the average rural Indian household spends about 75% of its annual income on food, beverages and tobacco, 12% on energy needs, and merely 2-3% on housing and health. In the near future, rural populations, supported by development policies like NREGA, farm loan waivers and enhanced rural infrastructure, are likely to spend proportionally much more on discretionary items and new product categories like healthcare, education, transportation and personal care.

Success in encouraging growth of rural Indian markets will depend extensively on continuous innovation in alternate product distribution channels. Rural markets are ready for large scale interventions. However, intent and ingenuity in these markets will count as much as execution. Only those who can create win-win possibilities in this market will get a shot at the fortune lying in millions of India's poorest households.

The compelling case of rural markets has lured large corporations and small and medium enterprises (SMEs) alike. India's largest Fast Moving Consumer Goods (FMCG), consumer durable and automobile companies are already clocking 20-40% of their annual revenues from rural markets, beating the growth rate estimates of their urban counterpart's year on year. The trend is spreading rapidly across product categories. But limited investment appetite in rural markets has forced SMEs to be right the first time or crash out. Some SMEs have found local success, but have not achieved the desired scale, inspite of continued demand-supply gaps. Since the profitability argument in servicing these markets is based on the low margin-high volume equation, scale is imperative to achieve the desired bottom-line impact. SMEs today are adopting unique mix-n-match distribution strategies, exploiting the strengths of local players and creating hybrid value chains to reach as many end users as possible.

Indian government too has picked up the cue and they are ready to act where the private sector has lagged. With less than 45% of Indian population having access to basic banking services, a planning commission committee on financial inclusion has proposed rural ATMs at Post Offices. This convergence of a wide distribution outreach of 1.55 lakh post office branches with the government's financial inclusion agenda could bring a significant rural population into the formal banking domain. Game-changing initiatives, like Aadhar-Unique Identification, are expected to accelerate the inclusion mandate, while cornering implementation issues, such as pilferage in public distribution system, and make any prosperity stick at the ground level. Such measures from the government stimulate the rural economy and create favourable incentives for organised players to participate in rural India.

Against this encouraging backdrop, this paper analyzes product distribution choices available in rural BoP markets and helps enterprises evaluate the key drivers of distribution for successful go-to-market strategies. It is based on extensive field work with commercial and social enterprises, rural BoP consumers and rigorous secondary research. The paper highlights the complexities of operating in rural Indian markets. To this end, it presents a new analytical framework to help companies identify viable alternate distribution channels and evaluate their capabilities.

We hope that this paper will help manufacturers, producers and marketers – particularly in India – to better realise the enormous potential of the underlying structures in this market and engage them in a mutually beneficial way. We believe that integrated rural markets hold the key for inclusive growth in a scalable and sustainable way. Favourable national policies, targeted capital investments and efficient business models would further realise the enormous potential of this market.

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The views expressed in this note are entirely those of the authors and should not be attributed to the institutions with which they are associated.

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#### **ICICI Foundation**

ICICI Foundation for Inclusive Growth (ICICI Foundation) was founded by the ICICI Group in early 2008 to give focus to its efforts to promote inclusive growth amongst low-income Indian households. It is committed to making India's economic growth more inclusive, allowing every individual to participate in and benefit from the growth process. The ICICI foundation does this by supporting strong independent organizations which work towards empowering the poor to participate in and benefit from the Indian growth process.

## Terminology & Assumptions

### Rural India

National Sample Survey Organization (NSSO)<sup>a</sup> defines rural India as areas with (i) population density of less than 400 per sq. km. (ii) 75 percent of the male working population engaged in agriculture and (iii) no Municipal Corporation or Board. Other government agencies, such as Insurance Regulatory and Development Agency (IRDA) and National Council for Applied Economic Research (NCAER), define rural as villages with populations of less than 5000 and 75 percent of the male population engaged in agriculture.

### Base of the Pyramid (BoP)

Here the rural Indian BoP market is defined as households in the bottom four expenditure quintiles (based on data from the National Sample Survey Organization, India) that spend less than Rs. 3,453 Indian rupees (US\$75) on goods and services per month. This definition represents a market of 114 million households, or 76 percent of the total rural population.<sup>b</sup>

### Village Level Entrepreneur (VLE)<sup>c</sup>

A VLE is often identified as a person who conducts business in a designated village/local area to increase the reach and penetration of a certain set of products and services. VLEs generate leads and make sales using their own social networks. Typically, VLEs earn commission on every sale. A VLE's role is important for sales, product promotion, product selection, field-testing and trials. VLEs can act as important communication touch points between producers/organized distributors and potential customers.

### Energy products

In the context of this report, energy products are durable or hard goods, which address the lighting or cooking needs of the consumers and yield service or utility over time. Examples of such products include cook stoves and solar lanterns.

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a Government of India. (2002). National Sample Survey Organization. Available: [www.mospi.gov.in](http://www.mospi.gov.in). Last accessed 20 July 2010.

b CDF-IFMR analysis, National Sample Survey Organization (NSSO) 2004/2005, round 61.

c Villgro. (2009). *Village Level Entrepreneur*. Available: [http://www.villgro.org/index.php?option=com\\_content&view=article&id=26&Itemid=35](http://www.villgro.org/index.php?option=com_content&view=article&id=26&Itemid=35). Last accessed 25 August 2010.

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## 1. Introduction

With an approximate population segment of 700 million people, India's rural Base of the Pyramid (BoP) market presents itself as a significant opportunity not only for multinational corporations but also for small and medium manufacturers and producers. Analysts predict the revenue opportunity in this market to be growing almost at pace with urban markets.<sup>1</sup> While numerous experiments have been conducted in pursuit of first mover advantage in Indian rural BoP markets, in reality, the success in this segment to date has remained elusive. So far, attempts to exploit opportunity in BoP markets have emphasized on product and process improvements. Success stories of increasing market penetration by certain fast moving consumer goods (FMCGs) with modified packaging, such as shampoo sachets, are encouraging but offer limited insights that can be put to use in other product classes.

The quest for innovation in distribution channels has just begun. Distribution networks in emerging markets tend to be unique and disjointed; Indian rural markets are no exception.<sup>2</sup> As C. K. Prahalad categorically highlights in *The Fortune at the Bottom of the Pyramid*, *"Distribution systems that reach the BoP are critical for developing this market. Innovations in distribution are as critical as products and process innovations"*. It is critical for any multinational corporation or small-to-medium enterprise considering entry into India's rural market to understand both the characteristics of the prevailing distribution systems and how the distribution systems would evolve<sup>3</sup>. The corporation or enterprise must also assess whether accurate and timely product distribution can be achieved without first investing in its distribution networks.

For multinational corporations and small-to-medium enterprises alike, this paper analyzes the product distribution choices available in rural BoP markets and evaluates the key drivers of distribution for a successful go-to-market strategy. It presents the case for identifying products' unique distribution requirements and for working with distribution channels that have matching capabilities, using the example of energy products in rural Indian BoP markets. Section 2 describes how the distribution challenge makes rural BoP markets seem unattractive to producers/manufacturers. Section 3 puts forth a new analytical framework for evaluating rural BoP distribution channels and their capabilities. It highlights typical marketing scenarios in which these distribution capabilities are essential. Section 4 applies the distribution capabilities framework to several

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1 McKinsey Global Institute. (2005). *Income Classes - Income Pyramids - Urban / Rural breakdown*. Available: [http://www2.mckinsey.com/mgi/publications/india\\_consumer\\_market/images/India\\_Interactive1.swf](http://www2.mckinsey.com/mgi/publications/india_consumer_market/images/India_Interactive1.swf). Last accessed 25 August 2010.

2 Dawar, N. & Chattopadhyay, A. (2002). *Rethinking marketing programs for emerging markets*. *Long Range Planning*, 35, 457.

3 Parhalad, C.K., Lieberthal, K. (2003). *The end of corporate imperialism*. Boston: Harvard Business School.

product classifications. It then also focuses specifically on the distribution requirements of rural-targeted BoP consumer energy products. Section 5 is a case study analysis of five rural-targeted consumer energy products, specifically solar lights and improved cook stoves, based upon the distribution capabilities framework established in Section 4. In Section 6, six generalized alternate distribution models for energy products are presented and evaluated based on the framework. In conclusion, Section 7 summarizes the distribution capabilities framework, presents key strengths of alternate distribution models for energy products and draws lessons applicable for successfully distributing all products/services classes to India's rural BoP markets.

## **2. The Rural BoP Distribution Challenge**

The BoP population is characterized by unmet basic needs (access to basic healthcare, water and sanitation, financial services, education, etc.) and a so-called “BoP-penalty”<sup>4</sup> that results in higher prices for BoP customers than their wealthier counterparts for basic products and services. The “BoP-penalty” is primarily an outcome of local monopolies, inadequate access, poor distribution and strong traditional intermediaries.<sup>5</sup> BoP markets are often rural, especially in emerging countries like India, are poorly served, dominated by local informal economies and consequently relatively uncompetitive and inefficient. They starkly contrast wealthier mid-market population segments that are largely urban, relatively well-served and extremely competitive.

On close observation, rural BoP markets are demanding and complex for producers/manufacturers because of multiple challenges that broadly fall into three categories:

- a. Rural BoP Customer Profile
- b. Product Challenges
- c. Operating Environment (Eco-system)

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4 Allen L. Hammond, Robert S. Katz, William J. Kramer, Julia T. Tran, Courtland Walker (2008). *The Next 4 Billion - Market size and business strategy at the base of the pyramid*. Washington D.C.: World Resource Institute and International Finance Corporation.

5 Prahalad, C.K., 2004. *The Fortune at the Bottom of the Pyramid*. 1st ed. San Francisco: Wharton School Publishing.

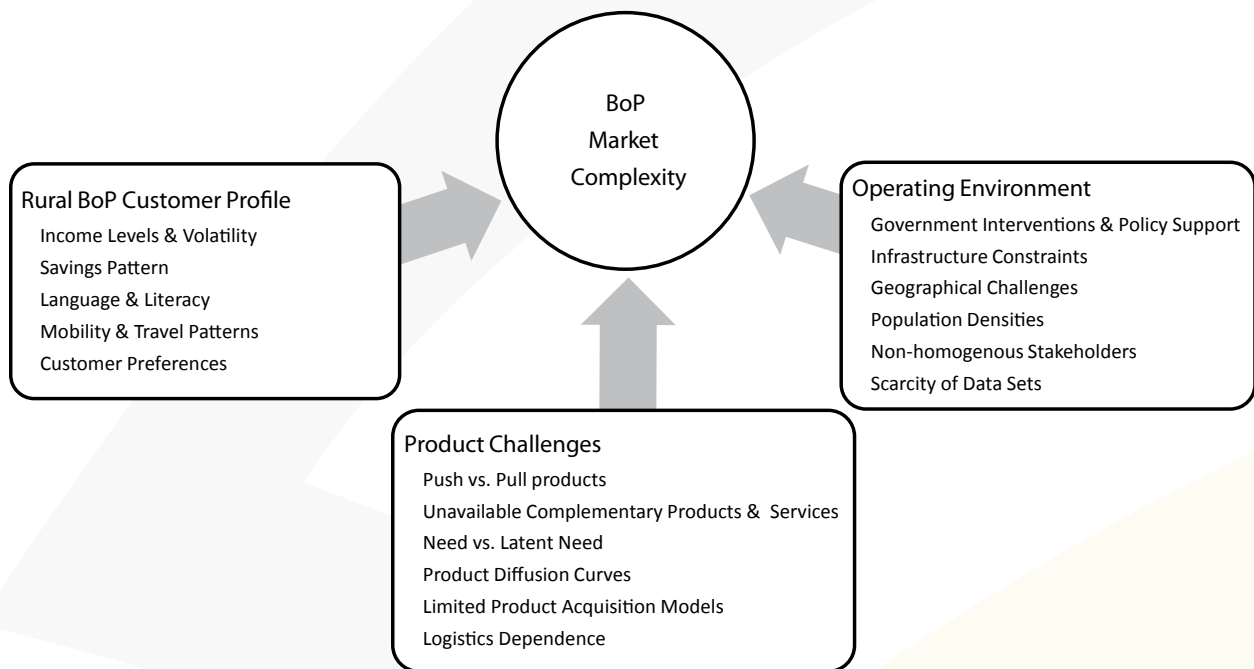


Figure 1: Rural BoP Market Complexity – Contributing Factors

## 2.1 Rural BoP customer profile

Rural BoP populations are not a homogenous group. Living in all kinds of settlements, they have varied income and expenditure levels. BoP customers' unique demands mean that product or service solutions are neither interchangeable nor readily transferable even within the segment. In spite of their diverse needs that vary across regions, BoP populations share several commonalities in their financial hardships, domestic constraints, difficult living conditions, lack of basic information for making informed decisions and informal quality standards, amongst others, such as:

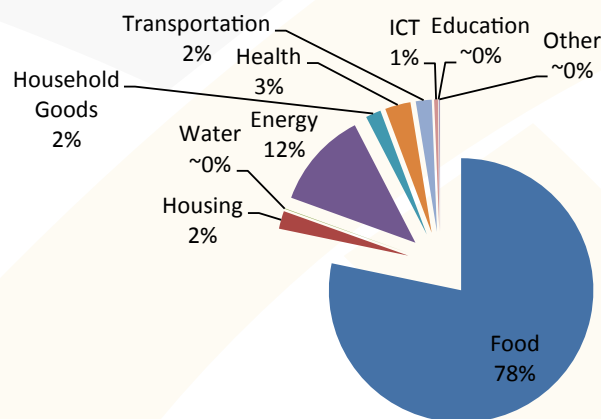
*Income levels and volatility:* Income levels of rural BoP are low in both per capita income and disposable income. Household earnings compulsorily go first towards fulfilling survival needs and investments required to assure health in the next round of the economic cycle. This underlies the need for conservative cash flow management and a low risk appetite for unproven offerings. The seasonal nature of income necessitates credit services that match cash outflows to cash inflows for discretionary products. Purchase of essential products, such as medicines or other emergency necessities, is less reliant on credit availability.

**Savings pattern:** There is a lack of ready access to financial institutions and services, which could facilitate movement of resources across time and help arrest the economic risks felt by rural BoP households. BoP households continue to have minimal savings (beyond major life cycle events, such as education and marriage), retain illiquid assets (such as land, gold and animals), and have less capability to handle economic shocks.

**Language and literacy:** Variation in languages across regions and low literacy levels inhibit the creation of standard, cost-effective marketing and communication materials, such as well-designed publications, signage, advertisements and brochures. The lack of consistent and effective marketing contributes to information asymmetry and long gestation periods for new product introductions.

**Mobility and travel patterns:** Restricted mobility and limited travel patterns of rural BoP end customers lead to slow dissemination of knowledge, resistance to change, and little benefit from existing customer experiences from outside their local communities.

**Customer Preferences:** Rural BoP end customers demand a high degree of customization before changing consumption patterns, due to deep cultural beliefs and preconceived notions or experiences with prior purchase decisions. This lowers the attractiveness of the rural BoP segment for commercial players looking to cross-sell products and services from urban centers.



Rural BoP Expenditure by Sector (Million \$'s adjusted by 2005 PPP)  
Source : "The next 4 Billion - Market Size & Business Strategy at the base of the pyramid"-By World Resource Institute, International Finance Corporation, IFMR-CDF Analysis

**Figure 2: Indian Rural BoP expenditure by Sector**

For India's rural BoP market segment as a whole, the current expenditure across product portfolios is highly concentrated in portfolios that correspond with immediate survival needs, overwhelmingly food (refer to Figure 2). There is a large (66 percent) gap between segment expenditure on food and the next largest expenditure, on energy needs, which accounts for roughly 12 percent of the Indian rural BoP annual expenditure.



## 2.2 Product Challenges

Product-related challenges for rural BoP end customers need innovations on products as well as business models. Manufacturers and producers of rural BoP products face many pressures to reinvent their offerings, supply chain arrangements, marketing and communication techniques, along with ownership models through which customers can access their products, such as:

*Push vs. Pull products<sup>6</sup>:* Pull products, such as consumption products and income- and lifestyle-improving products with recognized brands, need little demand stimulation. A lack of rural-targeted brands across multiple product categories, prominent institutions or mass-media communication methods excludes most products from the pull-products category, negating any cross-sell opportunity. Most luxury products and new, improved products with marginal enhancements are typically considered push-products that require enormous effort to communicate added benefits and scale demand.

*Unavailable complementary products and services:* Lack of available complementary products and services skews purchase choice towards a product that is part of well-functioning and complete product suite, even if that purchase inadequately serves BoP customers' unique demands. For example, although kerosene lamps are costly, less efficient and pose health and environmental hazards, they are still a preferred choice over incandescent lamps due to the easier availability of kerosene fuel as compared to electricity in rural areas.

*Need vs. Latent need:* Historical purchase decisions, product associations and conventional wisdom, along with long running market inefficiencies, have lead rural BoP consumers to deny or not recognize their latent needs and to pursue a fulfillment of only immediate, tangible needs. For example, three-brick *chulhas*<sup>7</sup> are still preferred over improved cook stoves, which have well known health and economic benefits. Consequently, products that would otherwise qualify only as substitute products actually drive demand and take away most end-customer spend.

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<sup>6</sup> Push Products: In a “push” strategy, the producer or manufacturer promotes the product to wholesalers, the wholesalers promote it to retailers, and the retailers promote it to consumers. Thus, with products promoted via this strategy, it is the supply which creates the demand.

<sup>7</sup> In Hindi language, the word “chulha” means stove, but for the low-income population in developing countries, a chulha or stove is an arrangement of three bricks or stones heated by an open wood- or cow dung-burning fire. Indoor air pollution from this cooking method poses serious health and environmental hazards.

*Typical product diffusion curves<sup>8</sup> in a rural BoP market:* Given low levels of income and low-risk appetites, rural BoP customers avoid independent decision making for new and improved products for which there is not much ‘social proof’.<sup>9</sup> Opinion leaders<sup>10</sup> and social media<sup>11</sup> in rural communities play critical roles in influencing early adopters and followers.

*Limited product acquisition models:* Only a few product acquisition models for rural BoP markets have been tested at scale, with limited success. The three most prevalent ways for rural BoP end users to acquire energy products, such as improved cook stoves and solar lanterns, are:

- a. A household owns the product after an initial upfront payment;
- b. A household purchases the product at a fixed price, and any additional complementary products/services are purchased on an ongoing basis from a local agent;
- c. The local community owns a product/service and shares the associated fixed costs, while individuals/households avail the facilities on a pay-per-use basis.

*Logistics dependence:* Products with challenging physical distribution requirements, such as specialized transportation, complex assembly, and installation, repair and maintenance, necessitate various components to be physically transported to different sites and then assembled locally.

## 2.3 Operating Environment

Political, social, economic and technological unpredictability in rural BoP markets has discouraged manufacturers and producers to actively participate in the operating environment. Variables in the operating environment that have adversely affected the interests of rural BoP end customers include:

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8 The product diffusion curve models the rate of adoption of a new product in a certain region or segment. Consumers of the product can be grouped under various categories based on how quickly they adopt a new product. Five different product adoption groups typically used explain these curves are Innovators, Early adopters, Early majority, Late majority and Laggards. Sales and marketing plays in rural markets must be planned to influence a desired segment considering this sequence.

9 ‘Social proof’ (also referred to as ‘informational social influence’), is a psychological phenomenon that occurs in ambiguous social conditions where individuals or group of individuals are unable to determine an appropriate rational behavior by themselves. Thus, making the assumption that others (individually or collectively) in similar conditions possess more knowledge and deeming their behavior as appropriate or better informed.

10 In rural markets, the influencing capability of opinion leaders in decision making and purchasing the product is remarkable. An opinion leader is a peer group leader in the sense that this person tends to lead the view and beliefs of a group of people in a reference group.

11 Social media are media for social interaction, using highly accessible and scalable publishing techniques. A common thread running through all definitions of social media is a blending of technology and social interaction for the co-creation of value.

**Government Interventions & Policy Support:** Ill-planned, poorly executed and intermittent government schemes in certain regions have led to a wide introduction of low-quality products that shift the end customer's perception away from better product choices.<sup>12</sup> Short-term subsidy programs have led to sparse distribution of products in certain rural areas, skewing the price point perception against a more long-term market-based solution.

**Infrastructure Constraints:** Low penetration of civic and private infrastructure in rural markets, such as roads, water channels, electricity and telecommunications, has created barriers to entry for affordable, mainstream products. It has added to the financial burden on manufacturers and producers of product redesign, manufacturing facilities, physical distribution, and operations and maintenance that are more suited to local infrastructure availability. Lack of adequate infrastructure in rural areas has shifted producer/distributor attention away from the basic underlying needs of the end customer. Absence of modern technological interventions, mass media instruments and platforms (coupled with excessive reliance on social media and opinion leaders) contributes to the information asymmetry that prevents the growth of effective rural markets.

**Geographical Challenges:** Extreme weather conditions, long distances (geographical spread), and hostile terrain present unique transportation and storage requirements, which require a high degree of customization both in planning and in execution of product distribution to rural BoP markets.

**Population Density:** Sparse population density in India's interior, compounded by geographical spread of rural villages, has prohibited commercial players from enjoying economies of scale.

**Non-homogenous stakeholders:** Lack of homogeneity among key stakeholders in BoP market play, such as commercial players, civil society organizations, government institutions, and uncertain power centers (political, economic and social) across local communities demand sustained, local insight by distributors, manufacturers and producers.

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<sup>12</sup> For example: National Programme on Improved Chulha (NPIC) started in 1983 by Govt. of India offered subsidies of up to Rs. 450 /- (as of 2001-2002) for varied classes of chulhas. NPIC was initially implemented as a central programme with a multi-agency approach but was converted to a state programme due to the mixed response it received in the field.

### 3. Defining Rural BoP Distribution

A distribution channel is conventionally envisioned as a series of intermediaries, who pass the product down the chain to the next entity until it finally reaches the consumer or end user. Each element of the chain has its own specific needs, stimulus, and ability to deliver in a unique operating environment, which the producer must take into account, along with those needs of the end user. Recent innovations in rural distribution models have expanded the role of the distribution partner. The distributor role is no longer restricted to physical distribution of products alone, but has also expanded to provision of several other inputs, which influence a consumer's purchase decision, such as credit and post-sales service.

Depending upon the product, customer and operating environment described in Section 2, a rural BoP distribution channel must demonstrate one or more of the following nine capabilities<sup>13</sup>:

a. **Physical Distribution:** Physical distribution involves the transportation and storage of manufactured goods to make them available to the consumer. A prospective rural BoP channel must demonstrate these minimum capabilities under "physical distribution":

- 1) Transportation/shipping infrastructure according to the civic infrastructure available en route, such as road, fuelling stations, etc.
- 2) Accessible storage/warehousing for temporary storage of goods during transit
- 3) Inventory control at all sites to ensure uninterrupted supply to target geographies
- 4) Protective packaging and materials for handling goods in the factory, warehouse, and transport terminals

This capability is most relevant to scenarios involving (i) Physical products (not services) essential for delivery of the value proposition (ii) Special packaging or sorting requirements (iii) Unique storage & transportation requirements (e.g. ice cream, vaccines).

b. **Promotion:** Promotion involves developing and spreading persuasive communications about an offer<sup>14</sup> for the purpose of informing or persuading a potential buyer's purchasing decision, both above and below the line.<sup>15</sup> A prospective rural BoP channel must demonstrate these minimum capabilities under "promotion":

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13 & 14 Kotler & Armstrong. (2006). *The nature and importance of marketing channels*. Available: [http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl\\_channels1.htm](http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl_channels1.htm). Last accessed 02-12-2010.

15 "Above the line" promotions are carried out through mass media and are tailored for a mass audience. "Below the line" promotion refers to forms of non-media communication or advertising targeted at individuals according to their needs or preferences.

- 1) Capability to develop powerful messaging which is easily understood by the audience and stimulates the recipients to take action
- 2) Capability to create or access communication vehicles, such as mass media platforms (local media), social events, etc.

This capability is most relevant to scenarios involving (i) New product introduction (ii) Differentiating a product (iii) Increasing demand for an existing product by creating customer pull (iv) Presenting product-related information to customers and other stakeholders.

- c. **Credit and Financing:** Credit is a financial instrument to match the end customer's payment ability to the product's pricing requirement. A prospective rural BoP distribution channel must demonstrate the following minimum capability under "Credit":

- 1) Provide financial products and services in a manner which are accessible, convenient, flexible, continuous and affordable

This capability is most relevant to discretionary products priced in a mid-to-high range.

Financing is the acquisition and use of funds to cover the costs of the channel.<sup>16</sup> A prospective rural BoP channel must demonstrate these minimum capabilities under "Financing":

- 1) Access to alternate sources of capital for proper functioning of channel operations
- 2) Ability to exploit manufacturer/producer promotional schemes and offers

This capability is relevant to all products.

- d. **Post-Sale Services:** Post-sale services include all support services, such as provision of information, servicing/repair and product fulfillment, provided to the customer for ensuring smooth functioning, maximizing uptime and an extended product life cycle. A prospective rural BoP channel must demonstrate these minimum capabilities under "Post-Sale Services":

- 1) Ability to optimize facility location and provide rapid product fulfillment, laying the groundwork for a post-sales program that consistently meets customer demands
- 2) Ability to accurately manage inventory and establish control through integrated capabilities supported by technology and operational processes
- 3) Ability to map out the longevity of a product and/or its parts to plan for maintenance and predict repair cycles
- 4) Ability to execute repair/fulfillment and continuous outreach

This capability is most relevant to (i) Products with relatively high degrees of technical complexity and maintenance requirements (ii) Products requiring other complimentary (usually consumable) products for their normal functioning.

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<sup>16</sup> Kotler & Armstrong. (2006). *The nature and importance of marketing channels*. Available: [http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl\\_channels1.htm](http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl_channels1.htm). Last accessed 02-12-2010.



e. **Information:** Information capability is comprised of collection and distribution of research and intelligence information about the marketing environment.<sup>17</sup> A prospective rural BoP distribution channel must demonstrate these minimum capabilities under “Information”:

- 1) Create or have easy access to primary and secondary research on population, usage rate, demographics, behavioral patterns, alternate product choices and lifestyle
- 2) Data analysis capability for meaningful insights

This capability is most relevant for differentiated (non-commodity) products and services.

f. **Contact:** Contact is the set of activities involving finding and communicating the value proposition of an offering with potential buyers. A prospective rural BoP distribution channel must demonstrate these minimum capabilities under “Contact”:

- 1) Regular physical outreach or branding presence with target customers in their local areas
- 2) Access to local intermediaries, village level entrepreneurs (VLEs) and opinion leaders with deep understanding of pathways to influence rural individuals, households and enterprises

This capability is an absolute requirement for all offerings that are not essential for immediate survival needs.

g. **Matching:** Matching refers to the fitting and shaping of an offering according to the needs of the customer.<sup>18</sup> It might include activities, such as manufacturing, grading, assembling and packaging. A prospective rural BoP channel must demonstrate these minimum capabilities under “Matching”:

- 1) Ability to understand different needs of various customer segments, articulate their customization needs and adapt manufacturers offering, as required
- 2) Access to infrastructure and supplementary products required to alter/complete the product portfolio so as to best serve end customers’ latent needs

This capability is most relevant to customizable products where alteration (by design) of product attributes is required to suit customer requirements.

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17 & 18 Kotler & Armstrong. (2006). *The nature and importance of marketing channels*. Available: [http://www.lau-kamm.de/fomweb/elearning/marketing/channel/kotl\\_channels1.htm](http://www.lau-kamm.de/fomweb/elearning/marketing/channel/kotl_channels1.htm). Last accessed 02-12-2010.

h. **Negotiation:** Negotiation is the act of agreeing upon a price and other terms of the offer so that ownership or possession can be transferred.<sup>19</sup> A prospective rural BoP channel must demonstrate these minimum capabilities under “Negotiation”:

- 1) Access to local marketing intermediaries capable of engaging the end customer in a pricing and product information related dialogue
- 2) Knowledge of end customers’ product alternatives, walk-away positions and zones of possible agreement
- 3) Ability to communicate long-term vs. short-term tradeoffs among alternate choices to the end customer

This capability is most relevant to (i) Customized products (ii) Products for which price discovery mechanisms are not already established (iii) Products with relatively medium to high price points.

i. **Risk Taking:** Risk taking entails assuming business risks, such as the inability to sell inventory at full margin. A prospective rural BoP channel must demonstrate these minimum capabilities under “Risk Taking”:

- 1) Ability to identify and account for known sources of risks to business, including natural shocks, economic shocks to customers, operational and other market risks
- 2) Ability to understand product life-cycle and end customer purchasing patterns for undertaking discount decisions to clear unsold inventory

This capability is most relevant to (i) Products with uncertain demand (ii) Physical products with significant transportation and inventory costs (iii) Perishable products.





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<sup>19</sup> Kotler & Armstrong. (2006). *The nature and importance of marketing channels*. Available: [http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl\\_channels1.htm](http://www.laukamm.de/fomweb/elearning/marketing/channel/kotl_channels1.htm). Last accessed 02-12-2010.

## 4. Mapping requirements for Rural BoP Distribution Channels across Product Classifications

Rural products have distinct functional and market characteristics. For successful go-to-market strategies, multinational corporations and small-to-medium enterprises interested in entering India's rural BoP markets must assess these product characteristics. They should identify distinct distribution requirements of their products and services and a distribution model with capabilities to match those requirements. Each distribution capability can fulfill more than one sales and marketing scenario. Based on the marketing scenarios likely to be faced by their products, distributors need to first identify the unique product distribution requirements and then pursue distribution channels which fulfill these requirements optimally. Taking time to complete this analysis in advance of product launch will help distributors choose the best possible distribution channel and also identify marketing scenarios that can be successfully handled by a given channel.

Any typical rural product can be categorized into one of the five following classifications: (a) FMCGs (b) Consumer Durables (c) Services (d) Agricultural Inputs - Consumables (e) Agricultural Inputs - Durables. Based on the capability gradient defined in Table 1 below, each of the nine distribution capabilities set forth in Section 3 is applied to the five major product classes in Table 2. The same capability gradient definition is being used throughout the paper.

Legend	Distribution capability gradient	Capability requirement of different product classes	Available capability of different distribution channels
	High	Good distribution capability is required	Good distribution capability exists
	Medium – High	Favorable distribution capability is required	Favorable distribution capability exists
	Low – Medium	Unfavorable distribution capability is acceptable	Unfavorable distribution capability exists
	Low	No distribution capability is acceptable	No distribution capability exists








**Table 1: Distribution Capability Gradient**

Product Classification	FMCG	Consumer Durables	Services	Agri-Inputs (Consumables)	Agri-Inputs (Durables)	
	Characteristics	<ul style="list-style-type: none"><li>• Small ticket size</li><li>• Standardized products</li><li>• Sold at a regular frequency</li></ul>	<ul style="list-style-type: none"><li>• Goods that yield services or utility over times</li><li>• Mid to large ticket size</li></ul>	<ul style="list-style-type: none"><li>• Non-material equivalent of a good</li><li>• No restrictions of carrying stock (inventory) or raw material</li><li>• Involves opportunity cost for service provider</li></ul>	<ul style="list-style-type: none"><li>• Recurrent purchase &amp; consumption for agricultural activity</li><li>• Small to medium ticket size</li><li>• Essential in nature</li></ul>	<ul style="list-style-type: none"><li>• Fixed assets that yield service or utility over time and used for agricultural purposes</li><li>• Large ticket size carries perception of once in a life time purchase</li></ul>
	e.g.	Toothpaste, Soap, Shampoo, Toiletries, Cosmetics	TV, Fridge, Fan, Cycle, Two Wheelers, Sewing Machines, Mixer Grinder, Radio	Telecom, Banking, Health care, Insurance	Seeds, Fertilizers, Pesticides	Tractors, Generators, Bore well
Distribution Capabilities						
Physical Distribution						
Promotion						
Credit & Financing						
Post Sale Services						
Information						
Contact						
Matching						
Negotiation						
Risk Taking						




Table 2: Distribution requirements across product classifications

## 4.1 Distribution requirements of energy products for Rural BoP

Energy products for the rural BoP, such as the improved cook stoves and solar lanterns produced by the companies studied later in detail in Section 5, can be classified as consumer durables. For energy product companies, identifying relevant marketing scenarios can facilitate the mapping of requirements for a rural BoP distribution channel as follows:

Scenarios/Requirements of BoP energy products	Applicable
Physical Distribution	
Physical product (not service) is involved and is essential for delivery of the value proposition	Yes
Special packaging or sorting requirements	No
Unique storage & transportation requirements	No
Promotion	
New product introduction	Yes
Differentiating product	Yes
Increasing demand for existing products by creating customer pull	No
Presenting product related information to customers as well as other players	Yes
Credit	
Discretionary products priced in a mid to high range	Yes
Financing	
All products & services	Yes
Post-Sale Services	
Products with relatively high degree of complexity & maintenance requirements	Yes
Products requiring other complimentary (usually consumable) products for their normal functioning	Yes
Information	
Differentiated (Non-commodity) products & services	Yes
Contact	



Scenarios/Requirements of BoP energy products	Applicable
Absolute requirement for all offerings which are not essential for immediate survival needs	Yes
Matching	
Customizable products where alteration (by design) of product attributes is required to suit customer requirements	No
Negotiation	
Customized products	No
Products for which price discovery mechanisms are not already established	No
Products with relatively medium to high price points	Yes
Risk Taking	
Products with uncertain demand	Yes
Physical products with significant transportation and inventory cost	No
Perishable products	No

**Table 3: Distribution Scenarios/Requirements of BoP energy products**

Based on the above marketing scenario analysis, the six critical distribution channel capabilities required by BoP energy products (improved cook stoves and solar lanterns) for rural distribution can thus be summarized as: (1) Physical Distribution (2) Promotion (3) Credit & Financing (4) Post Sale Services (5) Information, and (6) Contact. These types of energy products can be easily distributed through channels where (1) Negotiation and (2) Risk Taking capabilities are low and have no Matching capability.

Numerous entities, including the government, public and private sectors, participate in product distribution to the rural BoP. In this paper, they were analyzed as viable distribution channels based on the following criteria:

- Ability to make an independent decision on financial viability of a project (Financing capability)
- Ready access to rural BoP (Contact capability)

Based on these criteria, the following six entities were identified as viable distribution channels:

- a. Proprietary Distribution<sup>20</sup>
- b. Non-Government Organizations
- c. Co-operatives
- d. Self Help Groups
- e. Micro Finance Institutions
- f. Rural Retail

An in-depth evaluation of each general model is provided in Section 6.

Apart from these entities, the government public distribution system (PDS) also qualified as a strong contender but was omitted as it did not fit into the scope of this evaluation, due to a lack of private participation by the non-commodity offerings in this channel.

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<sup>20</sup> Proprietary distribution networks are included in the scope of this evaluation as manufacturers/distributors can decide upon developing an independent go-to-market capacity and not piggyback on any of the existing market players. Other than proprietary distribution, most channels mentioned above are typically designed to carry a bouquet of products supplied by multiple, distinct manufacturers/producers.

## 5. Case Studies – Energy Products for the Rural BoP

Representing most current models, the case studies profiled below analyze five distribution strategies adopted by companies working in India's rural BoP markets. They aim to provide deeper understanding of distribution channels for the BoP by highlighting current distribution practices of new and established companies to reach mass populations.

Single distribution models do not answer all the requirements for any given BoP product. These five case organizations have developed hybridized approaches, and in some cases adopted multiple distribution models, to tackle challenging issues like transportation and warehousing of goods, post-sales services and others described in Section 3.

Their hybrid approaches mean the companies leverage and integrate key aspects from several models to more effectively reach their BoP markets. For example, one of the most discussed channels to reach BoP markets is based on leveraging the grassroots reach of non-governmental organizations (NGOs). However, an NGO may not be well adapted or equipped to undertake credit and financing activities. For these requirements, the BoP producer may have to look for another organization, such as an MFI, that can provide financial products along with the main product to create demand for the product, or cover purchase financing. Overall, employing hybrid distribution models has suited these companies well. Partnering with other BoP organizations incurs less cost than establishing skill sets of distribution expertise within their own organizations.

In sum, the five case organizations have adopted the following approaches to reach the BoP:

Organizations	Model 1	Model 2	Model 3
<i>First energy oorja</i>	NGO + Rural Retail (Profit-sharing model)	NGO (Partnership-based model)	
<i>TIDE</i>	Entrepreneurs <sup>21</sup> (VLEs)	Entrepreneurs (Extension workers)	Retail (Rural + semi-urban)
<i>Prakti Design</i>	Piggyback Retail (Through an existing retail network)	-	-
<i>Envirofit</i>	Rural Retail	Micro Finance Institutions	-
<i>D.light</i>	NGO (Grant-based model)	Open market	-

**Table 4: Existing distribution approaches used by some BoP energy product companies**

<sup>21</sup> The entrepreneurs mentioned here are integral roles in several distribution channels analyzed in Section 6 and, therefore, are not considered an independent distribution channel, per se.

Many organizations adopt an NGO-based distribution model<sup>22</sup> to reach large rural BoP market segments; but, approaches to partnership building with NGOs differ based on company priorities. In the cases below, the three with NGO distribution models, First energy oorja, THRIVE and D.light Design, have been separated based on their NGO partnership terms to highlight the nuanced actions that different companies in the BoP space take to reach their end users.

## 5.1 First Energy Oorja

**Company Background:** First Energy Oorja started as a partnership between the Indian Institute of Science Bangalore and British Petroleum (BP) Emerging Consumer Market (ECM) division to develop a stove using the “power of innovation and a strong understanding of consumer energy needs”.<sup>23</sup> First Energy Oorja started promoting the stoves by conducting pilots in Tamil Nadu and Maharashtra. Initially incubated within BP, the company branched out as a separate unit in the 2009. In late 2009, First Energy Oorja was acquired by The Alchemists Ark (TAA), a privately-held business consulting firm<sup>24</sup>.

**Product/Technology:** The First Energy Oorja stoves are promoted as low-smoke, low-cost stoves, which work on pellets – an organic bio-fuel made of processed agricultural waste. The reduced smoke feature of the stove is achieved by using a fan that forces air into the fuel chamber for more complete fuel combustion, and by the stove’s inner lining that allows for more complete heat transfer. In the earlier models, the fan was powered by exhaustible batteries that required regular replacements. The latest model of the oorja stove, launched in 2009, uses rechargeable batteries to power the fan. Since its inception in early 2007, the price of the stove has been revised three times from Rs. 675 to Rs. 950, and to the current price of Rs. 1150. This increase in price is attributed to the increase in the cost of production at the manufacturer’s end.

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22 In this paper, NGO based distribution model is an approach to reach the end user where the company piggybacks on an existing NGO’s reach to rural masses. This may entitle the NGO to gain benefit from the partnership.

23 Source: ‘Growth and Innovation Lights Up India’ by Adam Smith - The BP Magazine: Issue 4, 2007

24 First Energy Private Limited, Press Releases, Business Wire India, Mr. Raymond Moses. (n.d.). Press Release Distribution, Press Release India, Press Release Distribution Services. Retrieved October 18, 2010, from <http://www.businesswireindia.com/pressrelease.asp?b2mid=20232>

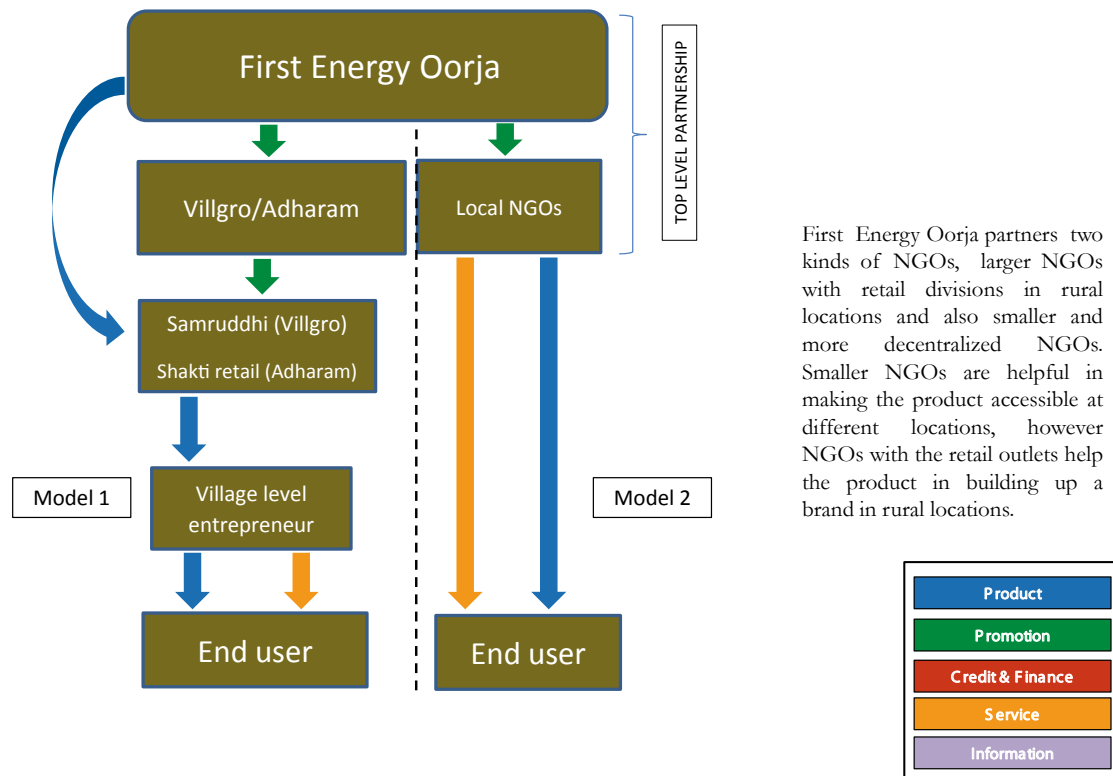


Figure 3: First Energy Oorja Models

**Business model:** First Energy Oorja depends mainly on local NGOs for the marketing and distribution of the stove. Apart from the NGOs, First Energy Oorja has forged tie-ups with dealer networks in rural markets, such as Adharam Energy, Sakthi Retail and Villgro Stores, to market their products in rural markets. One of the organizations involved in selling these stoves is Villgro Stores – an initiative by Villgro that employs VLEs to market and provide innovative affordable solutions to villagers. Villgro and First Energy Oorja involve the local community to better understand the needs and demands of the target group through constant interaction with local people. A similar strategy is followed by Adharam Energy Private Limited (AEPL), which employs VLEs, known as “Jyoti”. First Energy Oorja mandates the involvement of women from the local community who have never had sales experience is a vital component of their business model. They believe that this will help in the overall growth of the market and largely the society.

### Distribution network alternatives

**Model 1 (NGO + Rural Retail):** This model addresses the necessity of adopting a distribution channel, which increases the product visibility, reach and uptake across rural belts, to stimulate the product push and pull described in Section 2.2. It also highlights the importance of partnering



with local established NGOs in order to give the product its first push into the local markets. First Energy Oorja uses a distribution mix of NGO and rural retail organizations to sell its product in rural BoP markets. The product is transferred from the company warehouse to the Villgro store, which is the retail division of Villgro in small towns. The Villgro store is used as a warehouse for the First Energy Oorja products and a hub/stockist for VLEs that distribute product in nearby villages. The store partners with a VLE who transports and sells the product in villages. The Villgro store performs the financial bundling of the product and extends credit to the end users through the VLE.

This distribution model ensures that the product reaches remote locations and is associated with an existing NGO brand. The NGO-Retail channel also ensures that consumers have a readily accessible store when they want to purchase the product or repair it.

**Model 2 (NGO):** Alternatively, First Energy Oorja partners with local NGOs to sell the product directly in rural areas. In this case, product pull created by the company's well known parent brand, BP, allows the company to sell its products through small, local NGOs. First Energy Oorja bears the cost of packaging and training the local NGOs, who work as last mile linkages.

## 5.2 TIDE

**Company Background:** Technology Informatics Design Endeavour (TIDE) is a non-profit organization, established in 1993, registered under the Societies Registration Act of 1860.<sup>25</sup> TIDE focuses on promoting sustainable development through technological intercessions. TIDE supports and promotes a series of renewable energy and energy efficient products, specifically focusing on energy efficient stoves, dryers and kilns for households and small enterprises.

**Product/Technology:** TIDE has no specific product of its own; rather, it focuses on bringing to market upcoming renewable energy technologies, at laboratories and research centers in different universities based in India and abroad, to market. A core part of TIDE's research focuses on the building of energy efficient cook stoves for poor households and BoP businesses.

TIDE's household stove initiative is termed the "Sarala stove". This particular stove model was designed at the Centre for Sustainable Technologies, Indian Institute of Science as a double-burner with a single feeding port. Its development incorporated user experience and feedback of "Sarala stove" pilot models. The stove is constructed at the end user's premises using local raw materials, including mud, brick pieces, a tile piece, cast iron grate and a chimney. The cost of a single unit ranges between Rs. 250 to Rs. 300, depending on the size and material used for construction. TIDE trains women to build this cook stove model using a mold.

The same methodology is adopted in building bigger stoves, which are commercially used by silk reeling clusters. The most popular models are:

Products	Fuel used	Fuel saving <sup>26</sup>	Cost (INR)
Charaka oven	(Loose biomass) Groundnut husk Eucalyptus leaves	30% over conventional oven	2050
Italian oven	Firewood	40% over conventional oven	3275
Cottage oven (6 pan)	Firewood	40% over conventional oven	11025
Chimneys for silk reeling	Power operated: Grid based	N.A	6000 – 10000

**Table 5: TIDE – Product details**

TIDE follows a model of training VLEs in taking up the initiative of building the stoves. TIDE selects its partners depending on the product and technology in question. For example, TIDE partners with the Centre for Sustainable Technologies to build cook stoves and with those who have expertise in design to impart the training.

<sup>25</sup> Technology Informatics Design Endeavour.(2008). Overview. Available: <http://www.tide-india.org/06aboutus-overview.html>. Last accessed 12 April 2010.

<sup>26</sup> Technology Informatics Design Endeavor. (2008). *Household Cooking Stoves*. Available: <http://www.tide-india.org/products/06household-cooking-stoves.html>. Last accessed 18 June 2010.

TIDE also disseminates stoves for other rural industry sectors as well, typically areca boiling, jaggery making, herbal medicine preparation, textile bleaching, dyeing, large scale cooking in commercial kitchens.

Stove construction training and installation procedures are designed to ensure that only limited, permissible deviations from standard design are carried out by the stove builder to accommodate end users' opinion or convenience. This installation procedure makes sure that the environmental benefits, as measured on the standard stove design, are delivered in actual practice to the maximum extent possible.

**Business model:** The mission statement of TIDE is to “identify suitable technological interventions, to effect improvements needed for field deployment and to undertake various measures to promote the spread of these technologies”.<sup>27</sup> TIDE uses a four-step model to achieve its objectives of promotion and dissemination of these sustainable technologies:

- a. Identifying technologies generated at research institutions in India and abroad
- b. Assessing their suitability for the environment for which they were intended
- c. Further adapting technologies to fit user requirements and local conditions
- d. Demonstrating and disseminating the technologies

TIDE trains university graduates or any enterprising local youth without a university degree to become extension workers and promote TIDE technology in new areas. TIDE incubates the graduates for up to two years; the trainees are prepared to become private entrepreneurs, to develop their own marketing strategy, and to work in a specific geographical area with a controlled degree of competition. TIDE ensures that entrepreneurs promoted by TIDE are not competing against each other. For quality control, the entrepreneurs are required to keep detailed records of locations of the installed stoves for TIDE.

Since small BoP business owners have a low risk appetite for taking on new technology and changing their working patterns, as described in Section 2.1, TIDE stoves attempt to replace existing equipment with minimum interference in the daily working pattern and routines of users. New customers usually help to construct their own stoves, and the entrepreneurs educate the customers on how to use the stove properly. TIDE arranges interaction sessions for stove users, allowing them to learn from each other. Around 90 percent of the stove parts are produced using locally available materials. For remote installations, the metal air chambers are purchased in urban areas.

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<sup>27</sup> Technology Informatics Design Endeavour.(2008). Overview. Available: <http://www.tide-india.org/06aboutus-overview.html>. Last accessed 12 April 2010.

The stoves' product life cycle is four to five years. Entrepreneurs offer a one-year warranty on the equipment they have installed; after expiry of the warranty period, servicing and repairs expenses are borne by the customer.

TIDE also has a for-profit retail division known as SustainTech India pvt ltd., whose retail showrooms display TIDE products in semi-urban regions.

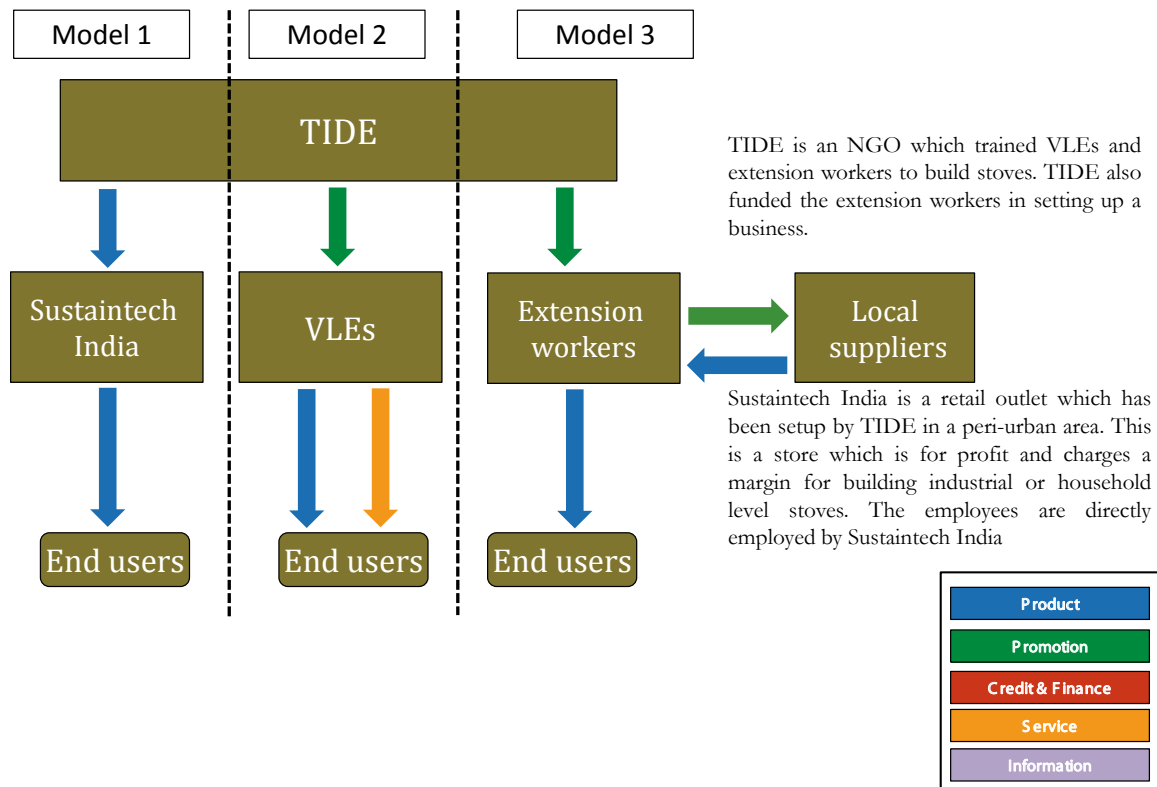


Figure 4: TIDE Models

### Distribution network alternatives

**Model 1 (VLEs):** This model, in which TIDE does not distribute the physical product, highlights the importance of producing the product components locally, so that the end users find them more accessible.

TIDE provides the training and necessary know-how to VLEs and connects them to the component manufacturers to be used in assembling/manufacturing TIDE products. Using locally manufactured components and materials, the VLEs build the products at the users' premises or workshops.

**Model 2 (VLEs + Financing):** This model of distribution is similar to the TIDE's first model, in which physical transfer of the product does not take place, but this model features a larger product and financial bundling

TIDE adopts this model for installation of larger and more expensive stove units made for commercial vendors. Extension workers assist in building the product and TIDE connects the end users to financial institutions and helps with loan applications to get them financing to get started. The extension workers are typically individual entrepreneurs who work on the product manufacturing. The extension workers, apart from being linked to parts suppliers, are financed by TIDE. The loan payback time to the extension worker is around three years and the physical delivery or construction of the product takes place at the end user's location.

**Model 3 (Semi-Rural Retail):** TIDE also adopted a Rural Retail sale model. SustainTech India pvt ltd. is based in urban and semi-urban locations where customers can come to a brick-and-mortar storefront to see the different stove prototypes. Stoves bought at the store can be taken home by the end user. In cases of large commercial stoves, the company sends extension workers to build the stoves at the end users' desired location.

### 5.3 Prakti Design

**Company background:** Prakti Design was started in December 2007. Its' headquarter is based out of the southern part of India in the union territory of Pondicherry. Mouhsine Serrar is the founder/owner and also the technical director of Prakti Designs. They aim to create affordable, easily replicable fuel-efficient stoves for deployment in Asia and Africa.

**Product/Technology:** Prakti focuses on manufacturing improved biomass cooking stove. Their product portfolio covers household and institutional stoves. They design stoves suited for different fuels: wood, charcoal. Their design aspect also includes stoves designed for using either light (manual) or dense (machine) briquettes. Prakti also manufactures the briquettes which are made from either urban waste or agricultural waste.

**Business Model:** Prakti design is primarily a product development lab. They are involved in the research and development / technology diffusion /engineering / field testing / pilot production phases of the product. The pilot deployments are done with rural/BoP distributors. Once the product has proven itself to be viable, they license their product to producers/distributors. They also venture into production if there is a sustained demand for a product. Prakti Design promotes its cook stoves through Selco. Selco has an existing network of stores which customize solar home systems. Prakti Design piggybacks its cook stoves through the Selco retail channel. The product flows from Prakti Design labs to Selco to the end user. Selco subsidizes bank loans for the end users by partnering with them and providing 5 percent loan relief. Prakti Design is Selcos' preferred stove supplier. Till date Selco has ordered and sold 5000 of the Prakti Design stoves.



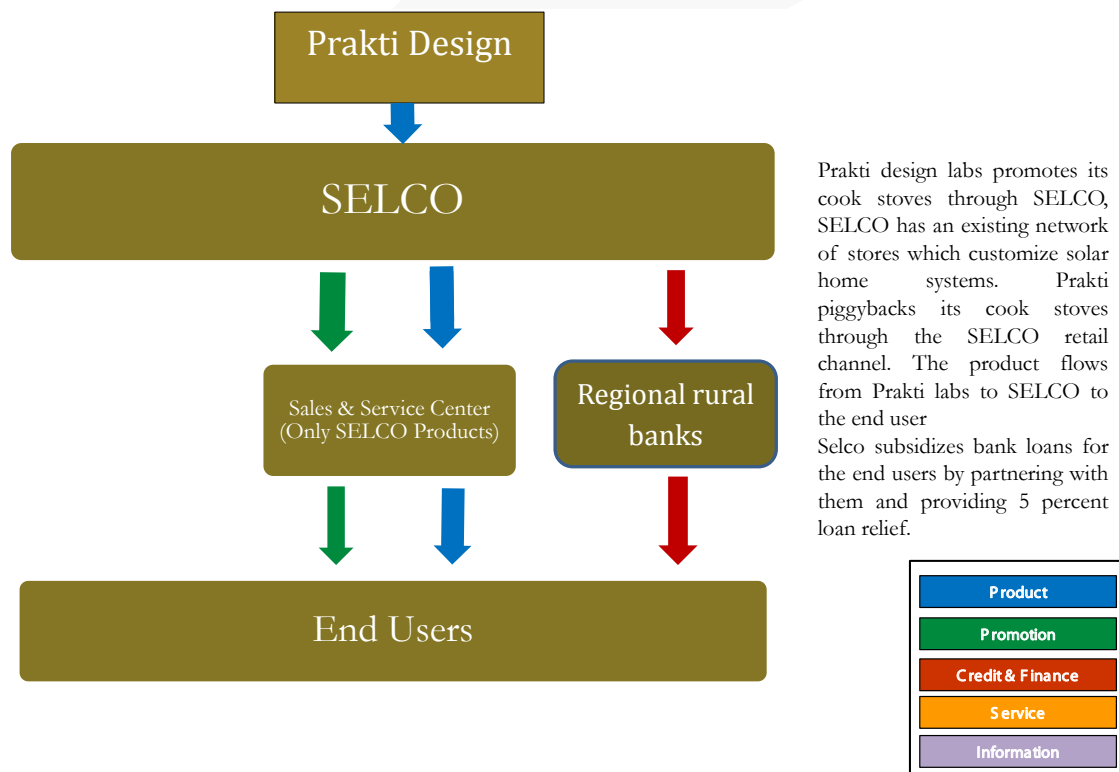


Figure 5: Prakti Design Models

## Distribution network alternative

**Distribution model (Piggyback - Retail):** Prakti Design uses the existing network of SELCO to promote its products across Karnataka. This distribution model adapts the piggybacking approach, where in the product is using the already established network. The benefits of this model range from having a market base which is more tuned to environmental products to better financial bundling of the product. Prakti Design end users also get to avail the 5 percent loan relief which the bank provides to Selco customers.

## 5.4 ENVIROFIT

**Company Background:** Envirofit India started in 2007 as a part of the US-based non-profit organization Envirofit International. Envirofit designs, develops and markets improved cook stoves in the southern states of India, Karnataka, Tamil Nadu and Andhra Pradesh. It sells stoves through a channel network of dealers, distributors, VLEs and NGOs. Envirofit India works in over 700 villages in Karnataka and over 300 villages in Tamil Nadu.<sup>28</sup>

Envirofit International<sup>29</sup>, the parent company of Envirofit India, is a non-profit organization based in Colorado, USA, founded in October 2003, by Tim Bauner, Nathan Lorenz, Paul Hudnut and Bryan Willson. Envirofit International receives funding from Lemelson Foundation and Shell Foundation.

**Product/Technology:** Envirofit India markets energy efficient biomass stoves to rural areas and a few semi and peri-urban locations across India. According to Envirofit, the stoves consume up to 50 percent less fuel, allows for cooking up to twice as fast, while preserving the traditional approaches to cooking, and generate 75 percent less air pollution than traditional biomass burning.<sup>30</sup> Envirofit works closely with Colorado State University's Engines and Energy Conversion Laboratory to develop new stove prototypes. It currently offers four stove models in India priced between Rs. 750 and 2500, depending on the model's efficiency and number of burners.

**Business model:** Envirofit sources product components through a global supply chain with a manufacturing base in China and an assembling unit at Coimbatore, India.<sup>31</sup> Envirofit's supply chain department works closely with marketing and distribution partners to prepare sales forecasts<sup>32</sup> and to take inventory in the local markets. Envirofit uses a combination of transport options to optimize time to market, freight costs and inventory costs.

Envirofit International has a partnership with the Shell Foundation to support the design and marketing of the improved cook stoves and to find commercial partners to manufacture and distribute stoves. The Shell Foundation provided \$3.5 million seed funding as part of Envirofit's goal to raise a total of \$25 million of investment. Envirofit International claims to have higher penetration levels and greater product customization as compared to its counterparts in Indian markets.<sup>33</sup>

28 Information based on Envirofit India figures. Anchan, H. (2010, June 3). Personal interview. Conducted by Bairiganjan, S.

29 Envirofit - Making the World Fit for Humanity. (n.d.). *Envirofit - Making the World Fit for Humanity*. Retrieved June 18, 2010, from <http://www.envirofit.org/>

30 Envirofit. (2009). *Envirofit Benefits*. Available: <http://www.envirofitcook-stoves.org/products/b-1100/benefits>. Last accessed 18 June 2010.

31 Anchan, H. (2009, January 5). Personal interview. Conducted by Bairiganjan, S.

32 Sales forecast is done by the Envirofit State head office (Bangalore).

33 Envirofit. (2008). *Our Impact*. Available: <http://www.envirofit.org/?q=our-products/clean-cook-stoves/our-impact>. Last accessed 22 June 2010.

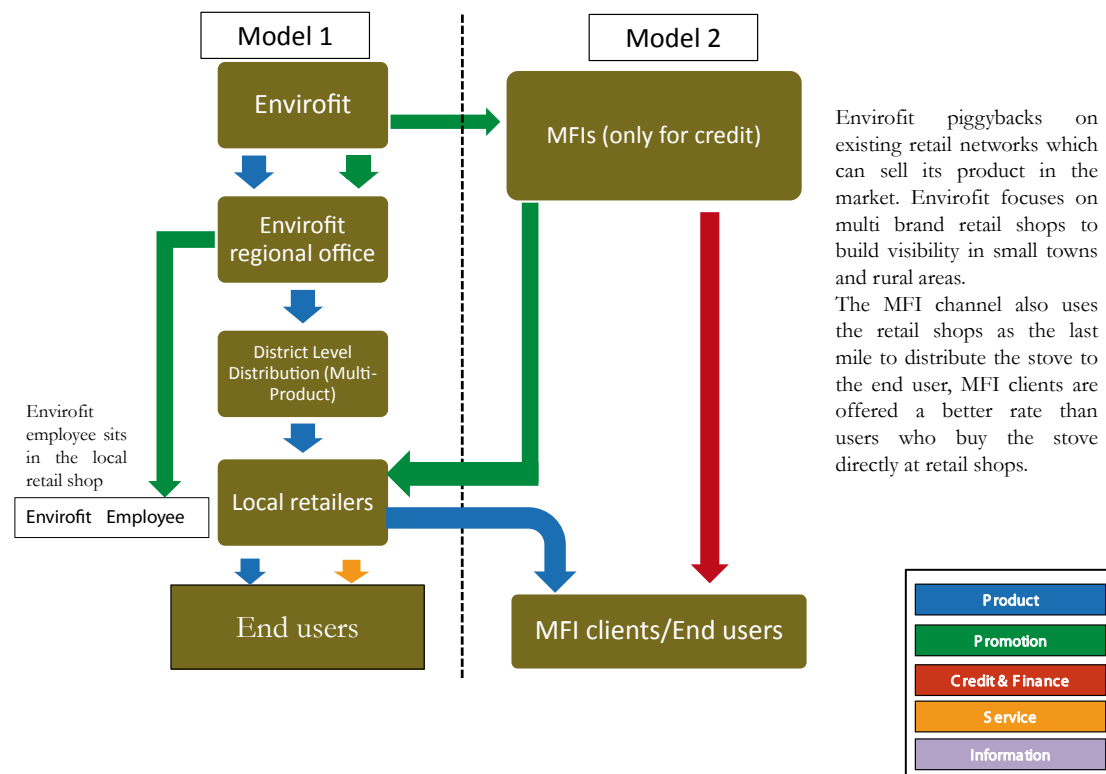


Figure 6: Envirofit Models

## Distribution network alternatives

**Model 1 (Rural Retail):** Envirofit piggybacks on existing retail networks which can sell its product in the target markets. Envirofit focuses on local multi-brand retailers and distributors to build brand visibility in small towns and rural areas and minimize distribution time (usually 24 hours from the time of order). Envirofit also used its grants for subsidizing the product in order to gain market visibility in the initial years.

Envirofit employs a local youth at the retail store to promote the stove. To gain market share and make it attractive to the local dealer/distributor networks, Envirofit subsidizes the cost of the stove by more than 60 percent through its grants and subsidies.

The dealer keeps a 20 percent margin on the product cost. Thus, the overall rate of the product for the end user is 80 percent of the manufacturing cost.

**Model 2 (MFI):** Envirofit India is one of the pioneers pushing products designed for the BoP through a MFI channel. It partners with Grameen Koota (GK), an MFI in Karnataka, to promote the stove product to the GK client base. The MFI customers interested in purchasing the stove can pay a

deeply subsidized Rs. 500 with a “stove coupon,” which can be redeemed at a local Envirofit stove retailer. The MFI offers financial product bundling to lower the Rs. 500 cost for the MFI client end user. In this model, the role of the retailer is limited to redeeming the coupon from Envirofit at pre-fixed rates, as it cannot charge any margin on the pre-fixed rates in this case.

## 5.5 d.light India

**Company Background:** Sam Goldman and Ned Tozun formally started d.light design on May 31, 2007 with \$250,000 seed capital from winning the Draper Fisher Jurvetson Venture Challenge, a business plan competition. The focus of the company is to provide high-quality, affordable light and power solutions to the rural poor. d.light calls itself “an international consumer products company serving people without access to reliable electricity”.<sup>34</sup> To date, d.light has received investment from the Acumen Fund, Draper Fisher Jurvetson, Garage Technology Ventures, Gray Matters Capital, Mahindra & Mahindra, Nexus Venture Partners and Omidyar Network.

**Product/Technology:** Co-founders Sam Goldman and Ned Tozun, along with a team of founding engineers, first designed d.light’s solar lantern prototype in the “Entrepreneurial Design for Extreme Affordability” class at Stanford University in California, USA.<sup>35</sup> d.light designs and manufactures LED lights powered by solar and battery charge. It currently offers three solar home light models (D.LIGHT S250, D.LIGHT S10 and Solata S380). The S250 is priced about Rs. 1350 and comes with a 1-year warranty. S250 has a 1-watt solar panel and a solar or AC-chargeable battery that, per d.light’s claim, can last up to two years.<sup>36</sup> S250 has a mobile phone charging socket, which can recharge a cell phone battery in one hour. The Solata is a desk lamp, which costs Rs.700-800, and comes with an AC or solar-charge option. Solata has a 360-degree head revolving option, which is helpful for small businesses like barber shops. S10 is a household lantern with differential power settings; it costs Rs. 500 and is currently one of the lowest priced solar lanterns in the Indian market.

**Business model:** d.light is a ‘commercial social for-profit’ enterprise that designs and manufactures LED-based solar lights. d.light India was set up in February 2008 and Envirofit conducted a pilot in the Aligarh district of Uttar Pradesh to get consumer feedback on the Nova (predecessor to the S250) and Solata lanterns. d.light’s business model relies on channel partners (dealers and distributors) and the open market for product sales and promotion, as well as subsidies and financing for the end users in certain markets when it is absolutely essential.

d.light’s production design team includes product designers, mechanical and electrical engineers and a group of quality control professionals to ensure quality in large scale production. In 2008

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34 D Light Design.(2009). *Who we are*. Available: [http://www.dlightdesign.com/about\\_who\\_we\\_are.php](http://www.dlightdesign.com/about_who_we_are.php). Last accessed 29 March 2010.

35 Manu, A.B. (2009). *Say goodbye to kerosene lamps, here’s Kiran!* Available: <http://business.rediff.com/slide-show/2009/dec/23/slide-show-1-worlds-cheapest-solar-lamp.htm>. Last accessed 29 March 2010.

36 Products - Nova Series (Global). (n.d.). *D.light*. Retrieved June 21, 2010, from [http://www.dlightdesign.com/products\\_nova\\_series\\_global.php](http://www.dlightdesign.com/products_nova_series_global.php)

d.light established its manufacturing operations in China; the import duty and other taxes to bring the product to India add 11 percent to the overall cost of the product. This overall cost of the product does not include the cost of distributing the product to the end user.

Beyond Solar, a US-based NGO that supported 162 lighting projects in the Koraput district of Orissa, purchased solar lanterns from d.light and distributed them to end users. Beyond Solar partnered with local NGOs and provided the lanterns to beneficiary households. The local NGOs worked towards getting the repayment on the solar lanterns from the end users over a set period of time. This distribution model worked as a regular installment purchase system, in which the local NGO acted as an intermediary that provided the end users with a cushion of paying over a period of time. The end users provided their savings on kerosene every month to the local NGOs, which go into a community fund that can be utilized for village infrastructure projects.

d.light also runs a subsidiary charitable initiative, known as Give Light, to provide solar lanterns to extremely poor rural households around the world. Previously d.light collaborated with two NGOs, One World Children's Fund and Rural Education for Development Society (REDS), to provide donor-funded lights to Dalit households. As of July 31, 2008, the Give Light Impact initiative has provided light to 11 villages, 531 families, 1,497 adults and 964 children.<sup>37</sup> This distribution network of d.light also partners with NGOs to distribute the grant-subsidized products.

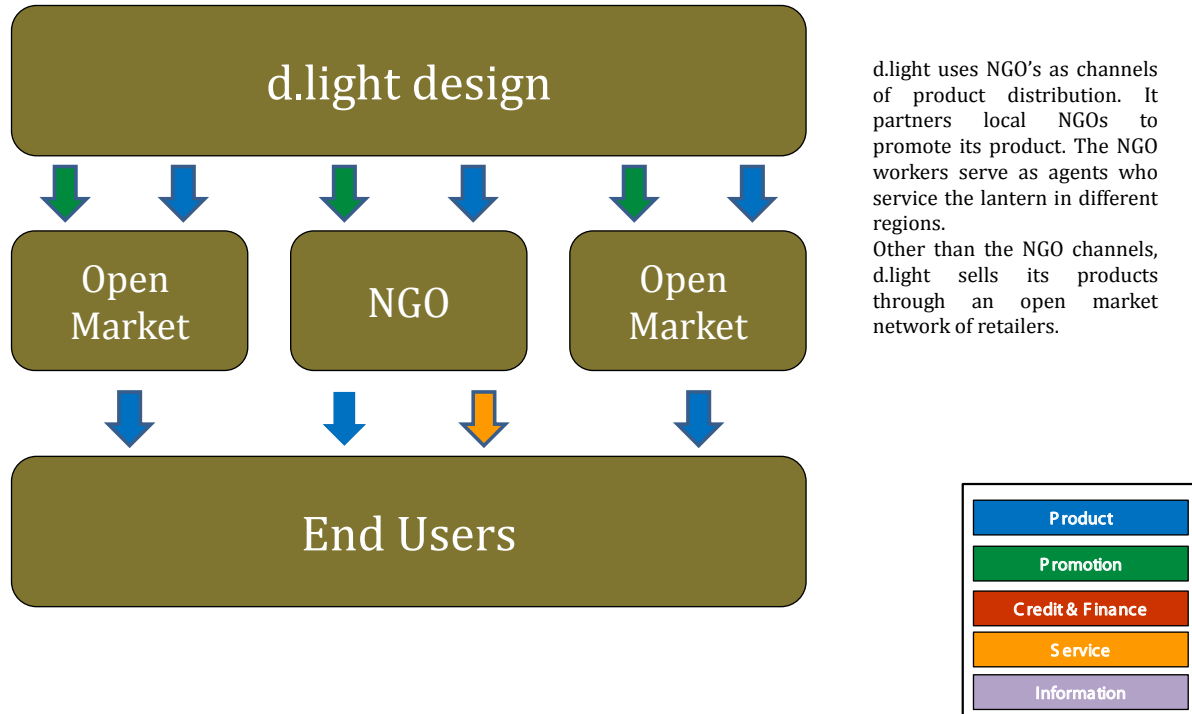


Figure 7 : D.light model

37 D.light Gives. (n.d.). *d.light*. Retrieved September 16, 2010, from <http://www.dlightdesign.com/gives.php>



## **Distribution network alternatives**

**Distribution Model (NGO grant-based):** d.light uses donor funding to subsidize the cost of the solar lanterns for the end user. This distribution model adapts the NGO partnership approach. The company partners with local NGOs to distribute the product to the end users. The NGOs take care of the post-sales servicing by pushing the product back to the company representatives. International NGOs provide subsidies for products and bundle them so that the payment options become easier for the end user. The local NGOs have the role of physical product distribution to the end users and collection of monthly fees for the amount saved on kerosene. This collected sum is transferred back to donors/international NGOs who subsidize the upfront cost of the lantern for the end users. Local NGOs also play the additional role of warehousing the d.light products.

**Distribution Model (Open Market):** Apart from the above mentioned model, d.light uses the open market channel to distribute solar lanterns in remote markets. d.light is also uses a rural entrepreneur to distribute products in rural areas.

## **LESSONS FROM THE EXISTING MODELS**

The examples in the case studies highlight that there is no single solution that can address all the distribution challenges associated with getting a rural-targeted BoP product from a manufacturer to the end user. The company's distribution network and its supply chain network have equally key roles to play in ensuring that the product reaches the end user at an affordable and attractive price.

The partners highlighted above, such as an NGO, MFI, and VLEs, play different roles in the distribution channel of a product. For an NGO, the key factor is that it can use its presence/spread and knowledge of the context very effectively in taking a product forward to the end users. However, as highlighted in Section 6 below, NGOs by virtue of their history, organizational structure and operational limitations are not well suited to address the other challenges of distribution such as providing financial bundling for the products, providing after sales services, etc. Similarly, VLEs, though very effective in after sales service and marketing the product through word of mouth publicity, have inherent limitations in various other aspects of distributing a product. In order to have a robust distribution channel, the manufacturers or other stakeholders must assess the product features, identify core challenges, prioritize them and then develop the distribution strategy by having an optimum mix of different distribution partners based on their diverse capabilities making use of their capabilities to ensure that their product is well received by the end users.

## **6. Generalized Models**

This section evaluates six generalized distribution models based on the five capabilities required for distribution of energy products for the rural BoP in Section 4.1:

- a. Physical distribution
- b. Promotion
- c. Credit and financing
- d. Post sales service
- e. Information

As mentioned in Section 4, all six generalized models were filtered based on their ability to demonstrate the 'Contact' capability required for distribution of energy products to the rural BoP.

The generalized models highlight the relationship and ownership dynamics that occur between multiple stakeholders during distribution of consumer durable energy products to the rural BoP market, as exemplified by the five case studies in Section 5. As in the real-life examples, variations to the basic models often incorporate and hybridize features from several models to meet specific requirements dictated by the BoP customer profile, product challenges or operating environment discussed in Section 2.

### **6.1 Proprietary Distribution**

Proprietary distribution channels are similar to retail distribution networks except that, in the case of proprietary distribution, the manufacturer/producer owns all or most intermediary levels to the end-consumer. Few manufacturers/producers choose to develop and own their own dedicated retail distribution networks, due to the complexities and prohibitive costs related to channel development, control, monitoring and management. However, a few manufacturers/producers still might choose to develop and own dedicated retail distribution networks for branding, a desire to push a more complex product and an intention to create competitive barriers to entry in niche markets. Proprietary channel choice is an expensive pursuit unless developed for funneling a suite of complementary products.

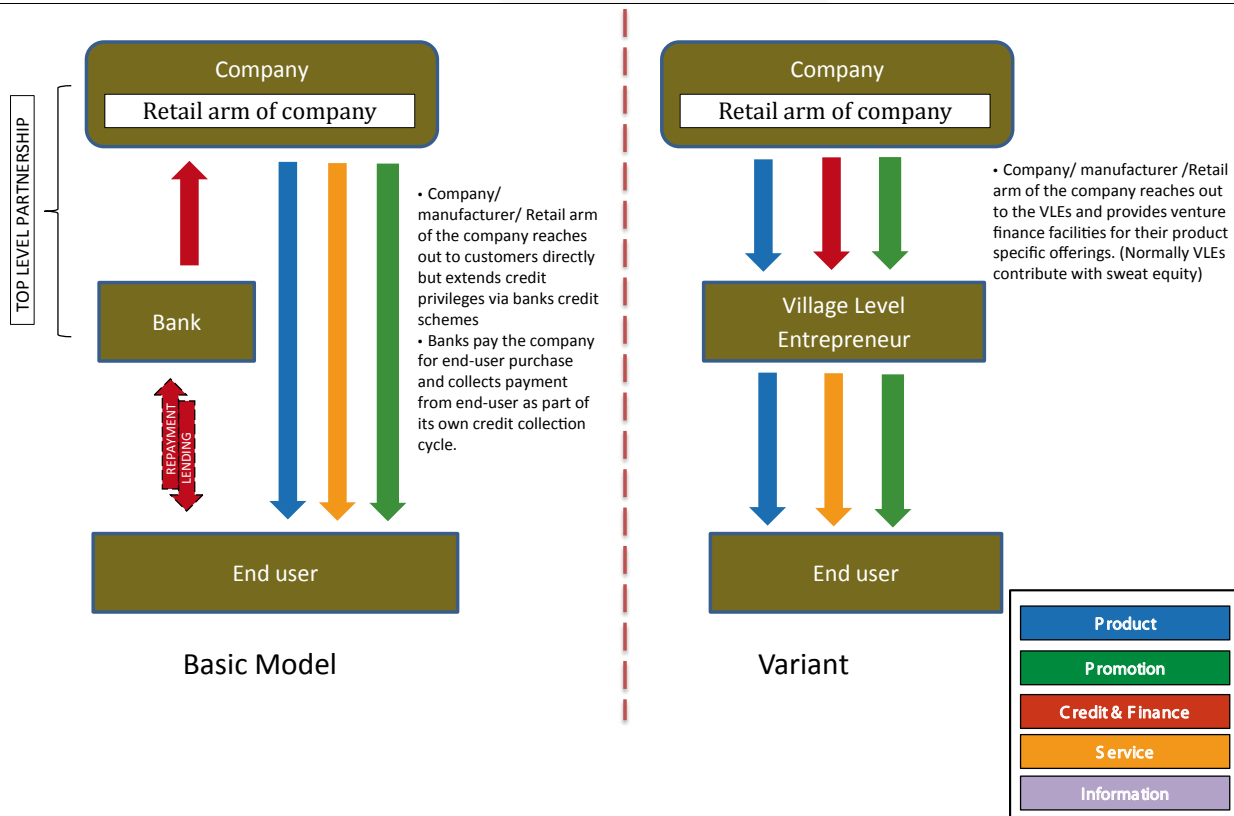


Figure 8: Proprietary Model and Variants

As discussed in Section 3, the product requirements influencing a proprietary model's potential to demonstrate critical distribution channel capabilities are as follows:

### Physical Distribution



- If required to create, own and maintain their own storage capability, most manufacturers/producers might find it financially unsustainable in the early stages of business or in reaching out to new markets.
- Most manufacturers/producers have small product portfolios. Building dedicated distribution capabilities (for small- to mid-ticket product offerings) to reach end customers is grossly inefficient as compared to other piggybacking options, even though they might not be the ideal distribution solutions.

### Promotion



- For manufacturers/producers relying on scale (quantity) for profitability, the local disconnect & distance from the local markets diminishes their capability to undertake effective promotion and increases their dependence on local intermediaries or opinion leaders.

- b. Most manufacturers/producers are ill-equipped to access and manage mass media platforms.

### **Credit and Financing**



- a. Manufacturers/producers do not have a core competency or interest in design and development of credit products. Without partners, they further lack the capability to do credit appraisals and are reluctant to do collections and deal with bad loan portfolios.
- b. Manufacturers/producers are reluctant to link product performance with credit collections from end customers for a sustained period of time.

### **Post-Sales Service**



- a. For small-ticket items, most manufacturers/producers are reluctant to spend on post-sales service, as it is expensive to maintain client relationship throughout the product life cycle, has high fixed cost to serve rural customer and erodes the tight margins earned by the sale.

### **Information**



- a. Most manufacturers/producers have no affordable means for creation of or easy access to primary and secondary research on its target market and end customer.
- b. Most manufacturers/producers depend on experiential learning, dated public sources or conventional knowledge by small manufacturers or producers.

## **6.2 Non-Governmental Organizations (NGOs)**

NGOs are legal entities created by a group of people with no governmental affiliation or endorsements who come together to address a social cause or a related set of social causes.<sup>38</sup> NGOs generate revenue and funding in the form of grants from international or national donors, membership dues, the sale of goods and services and private donations. Large NGOs in India, such as Pratham and Gram Vikas, reach large populations of beneficiaries ranging from 2 to 10 lakh each. Their extensive reach becomes the primary driver for considering NGOs as distribution partners, in spite of their limited commercial capabilities and orientation required for most products. NGOs can have decentralized structures, which can make decision-making for commercial endeavors a complicated process.

<sup>38</sup> Uwhejevwe-Togbolo, Samuel. (2005). *The Role of Non Governmental Organizations (NGOs) in Development*. Available: <http://www.nigeriavillagesquare.com/articles/samuel-uwhejevwe-togbolo/the-role-of-non-governmental-organizations-ngos-in-development.html>. Last accessed 12 April 2010.

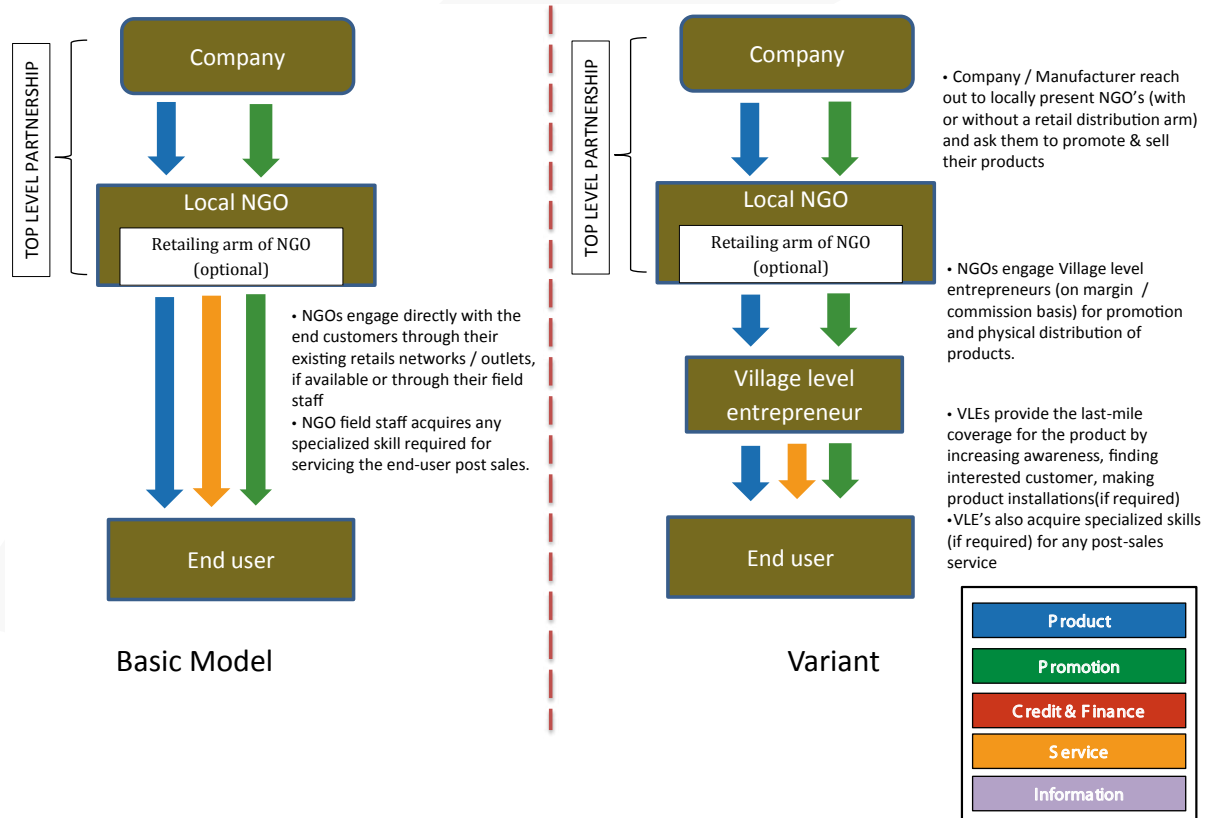


Figure 9: NGO Model and Variant

Factors influencing an NGO-oriented distribution model's potential to demonstrate critical capabilities are as follows:

### Physical Distribution



- NGOs typically have weak distribution logistics with limited access to storage and transportation of goods. However, some NGOs have limited physical distribution capacity that was built during earlier government-sponsored market linkage programs.
- They possess limited inventory management skills and technical capability to take up large-scale physical distribution.

### Promotion



- Local NGOs know the context in a village through experience. They can leverage this knowledge to convey the use and importance of any new product, such as a solar lantern or an improved cook stove.

- b. Local NGOs are not traditionally set up in a way that they can promote a commercial product through mass media channels.

### Credit and Financing



- a. NGOs are not structured to promote financial lending as they normally lack the expertise required for handling and provision of financial products.
- b. NGOs use grant capital to reach the end users and are not eligible to receive direct investments.

### Post-Sales Service



- a. NGOs have better reach in remote areas and can have a turn-around time for service of less than a day, so they are ideal for post-sales service.
- b. Ability to repair and service a product can be inculcated through additional training for NGO staff.

### Information



- a. Most large NGOs develop formal or informal databases on different demographic variables for their program specific needs. These databases, containing field-level inputs, can be leveraged by companies for formulating effective strategy and estimating a region's attractiveness for different products and services.
- b. However, most NGOs are small and maintain only operational data and have minimum capability to aggregate and produce data sets for commercial use.

## 6.3 Cooperatives

A cooperative (co-op) is a business organization owned and operated by its members for their mutual benefit.<sup>39</sup> Cooperatives are frequently defined as autonomous associations of people who become the joint owners of an enterprise to meet their shared socio-economic objectives. A cooperative is a designated legal entity owned and democratically controlled by its members. Cooperatives share their annual earnings, divided among the members based on their participation in the enterprise. Cooperatives have an approximate spread of 20.45 crore members spread across 4.53 lakh cooperative societies (as of 1996-97).<sup>40</sup> Examples of cooperatives distributing 36 percent of total fertilizer consumption in the country<sup>41</sup> demonstrate their overall capability

39 Tchami, Guy (2007). Handbook on Cooperatives for use by Workers' Organizations. Geneva: International Labour Organization.

40 Press Information Bureau. (1996-97). Evolution of Cooperatives in India. Available: <http://pib.nic.in/feature/fe0299/f1202992.html>. Last accessed 30 August 2010.

41 Prof. K V Thomas. (2009). Conference on Development of Cooperative Fish Marketing & Achievements on Insurance of Fishers (held at New Delhi on 20th November 2009), Speech of Prof. K V Thomas (Honorable Minister of State for Agriculture, Consumer Affairs, Food & Public Distribution, India). Available: <http://kvtnews.blogspot.com/2009/11/conference-on-development-of.html>. Last accessed 30 August 2010.



and preparedness for undertaking commercial assignments, if an appropriate support structure is available.

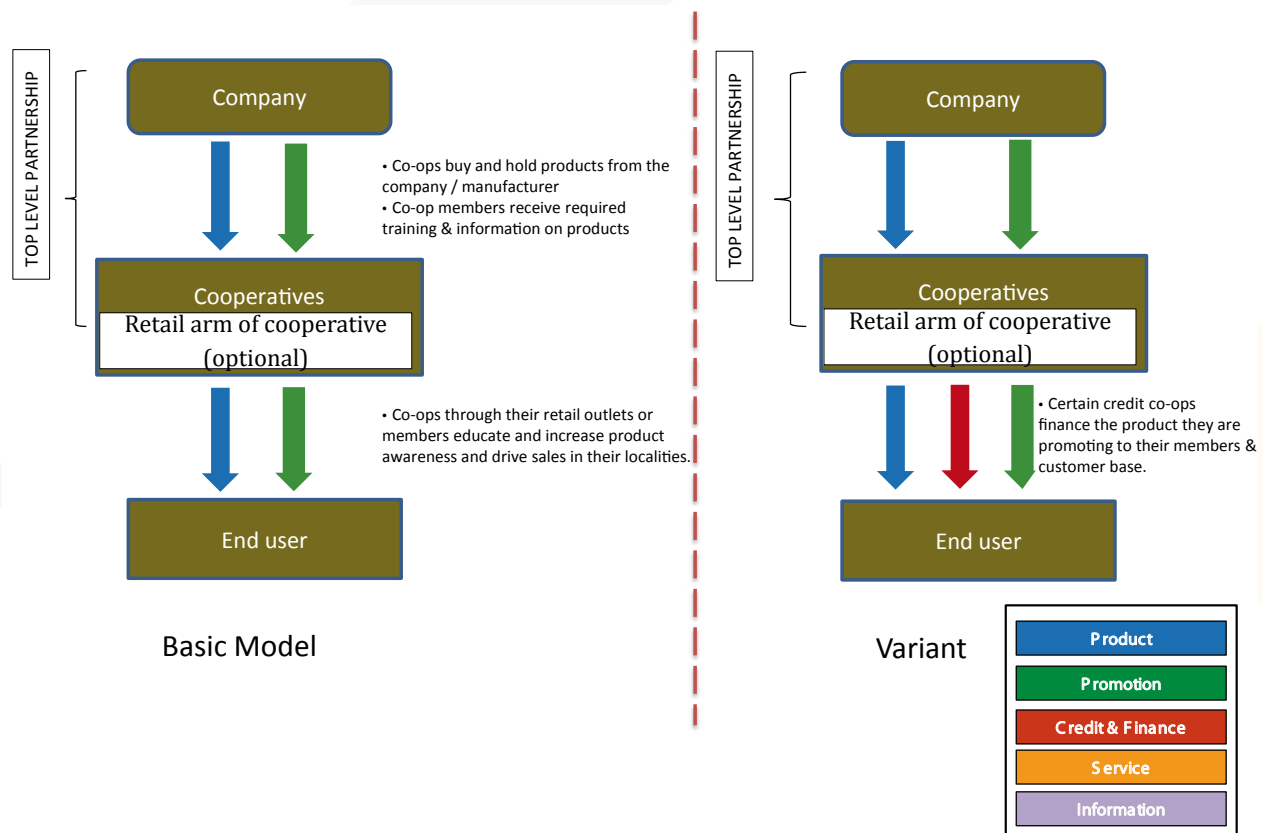


Figure 10: Co-op Model and Variant

Factors influencing a cooperative model's potential to demonstrate critical distribution channel capabilities are as follows:

### Physical Distribution



- Cooperatives have a well-adapted infrastructure to work as warehouses because of their retail-style selling. They can also do inventory management and work as a network.
- Cooperatives, however, are not capable of moving a product long distances. They function usually within a set area with readily available resources and manpower.

### Promotion



- Cooperatives are well adapted to promoting commercial products, although members are not skilled to take up promotion through mass media.

## Credit and Financing



- a. Cooperatives are credit support organizations for small groups with similar interests or occupations. Credit can also be a part of their services (especially in the case of credit cooperatives) that can be extended to the end user.
- b. Cooperatives can generate capital through multiple channels, such as investors government holdings, and can further diversify into retail channels, which have the collective power to bargain with the producers on schemes and offers.

## Post-Sales Service



- a. Marketing and sales cooperatives can rapidly service products through their own service agent network.
- b. Major costs could be incurred in identifying and training key individuals who can look after any service network created by cooperatives.

## Information



- a. Most cooperatives have well-developed organizational structures and are successful in certain geographies (e.g. Gujarat) with access to large BoP populations.
- b. Cooperatives have access to local marketing intermediaries; however, they lack skilled manpower to pass on the information.
- c. Cooperatives are highly group-specific with a focus on production. They do not have the capability to do primary and secondary research on the local population.

## 6.4 Self Help Groups (SHGs)

A Self Help Group (SHG) is a group of micro-entrepreneurs, typically 10-15 local women, with similar social-economic backgrounds, who voluntarily come together to save regular small amounts of money individually, while also contributing to a common corpus to meet their emergency needs on the basis of mutual understanding. SHGs were initially mobilized by NGOs that had broad anti-poverty objectives and have evolved to serve a variety of goals, including women's empowerment, livelihood enhancement, and improving health and nutrition. The group structure of SHGs reduces the transaction costs of external agents interested in dealing with large population bases which otherwise individually have small economic cycles, low sustainable demand and lack independent decision making capability, thus making them a unviable target audience. There are as many as 3.37 million SHGs in India (as of March 2006) providing access to 40.95 million poor

households.<sup>42</sup> SHG federations<sup>43</sup> (especially those driving a predominant non-financial mandate) are often created by NGOs and government bodies with community development objectives. SHG federations have extensive field presence and organizational capabilities, however this might not necessarily lead to any commercial capabilities. Nevertheless, partnerships between private players and SHG federations have been piloted with various degrees of success across value domains (e.g. HLL Project Shakti involved 42,000 entrepreneurs<sup>44</sup> and TATA-AIG appointed 400 micro-agents<sup>45</sup>).

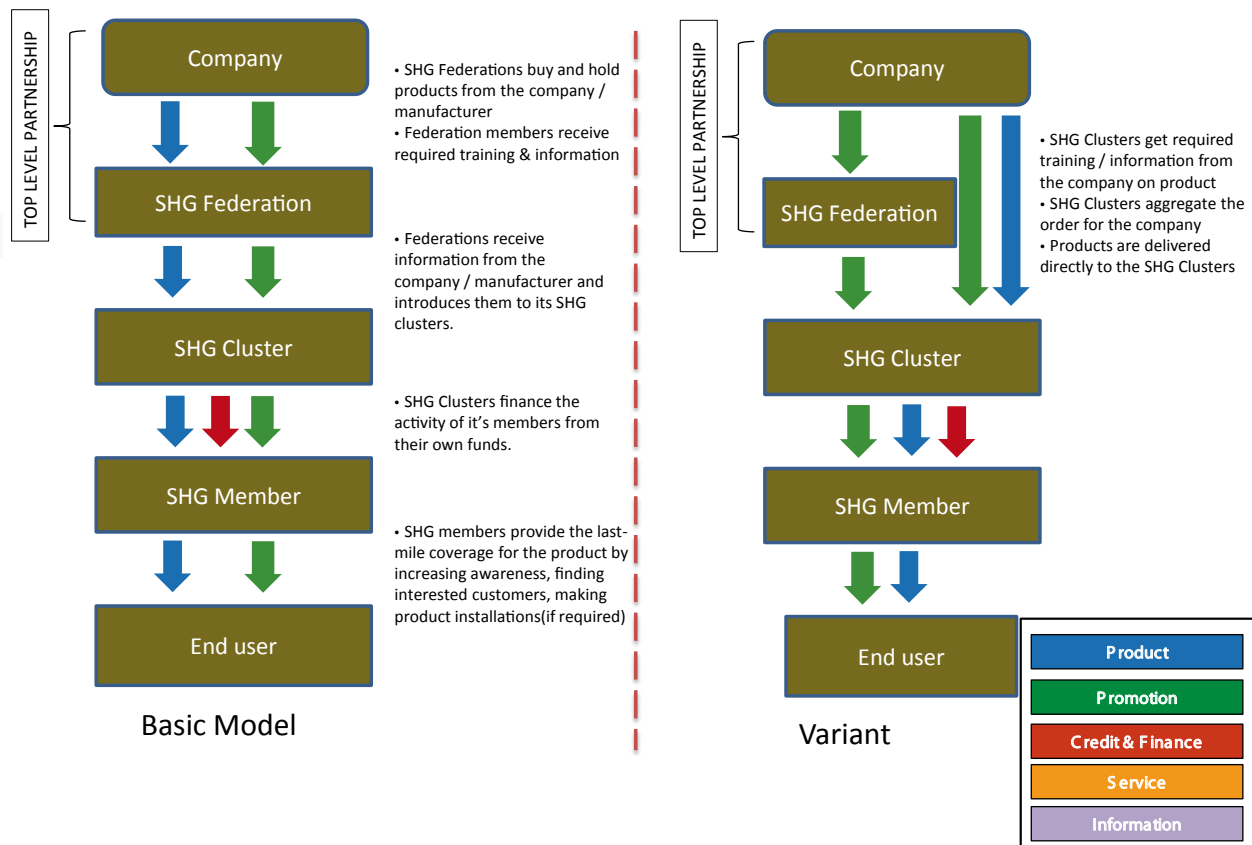


Figure 11: SHG Model and Variant

42 A. De Montesquiou. (2007). *SHGs in India: An Interview with CS Reddy*. Available: <http://www.apmas.org/pdf%5CSHG%20in%20India.doc>. Last accessed 30 August 2010.

43 A SHG federation is a democratic body formed with certain number of SHGs functioning in a specific geographical area with the objective of uniting such SHGs for common cause and for achieving these causes which an individual SHG would not be able to do. In short, the SHG Federation has to be necessarily of SHGs, by SHGs and for SHGs. (Source: APMAS. (2005). What is SHG federation?. Available: <http://www.apmas.org/faq6.aspx>. Last accessed 30 August 2010.)

44 Baillie, Doug. (2007). *Unilever in India*. Available: [http://www.unilever.com/images/ir\\_Unilever-in-India\\_tcm13-113961.pdf](http://www.unilever.com/images/ir_Unilever-in-India_tcm13-113961.pdf). Last accessed 16th Sep 2010.

45 Business Standard. (2006). *Tata AIG enters micro risk mart*. Available: <http://www.tata.com/company/Media/inside.aspx?artid=ZpisRfwJEDE=>. Last accessed 16th Sep 2010.

Factors influencing an SHG-centred distribution model's potential to demonstrate critical distribution channel capabilities are as follows:

### **Physical Distribution**



- a. Some SHG federations have access to infrastructure capabilities required for physical distribution, such as transportation facilities and warehouses, obtained during involvement in previous government-sponsored market linkage projects.
- b. However, SHG federations have extremely limited experience in managing supply chain logistics and carrying inventory.

### **Promotion**



- a. Strong relationships of SHGs with end consumers imply a high intensity touch-point and a persuasive seller position.
- b. The lack of product knowledge (technological advancements) and trust-based relationships might make persuading all SHG federation members to carry a certain product a challenging task.

### **Credit and Financing**



- a. Most SHG federations, including those with non-financial mandates, have the capability of executing basic cash transactions.
- b. Critical activities, such as credit product design and risk management, are still outside the capability limits for most SHG federations.
- c. However, most SHG federations have limited financial capability to extend credit facilities to non-members for product purchase.
- d. The decentralized nature of SHG federations restricts their capability for fundraising from external sources.
- e. Limited literacy and financial skills of most SHG members restrict their capability to undergo complex financial transactions, such as insurance.

### **Post-Sales Service**



- a. SHGs lack the capability and financial strength required for development of servicing facilities without external help.
- b. Lack of experience in providing such services can be compensated by adequate vocational training of SHG members to undertake such activities.
- c. High commitment of SHG members to reach out frequently to the consumer base is an advantage.

## Information



- a. While SHGs normally constitute enterprising community members with real time marketing information, such as local demographics and customer preferences, most SHG members can neither articulate nor organize such information for use at scale by external players.
- b. The decentralized nature of most SHG federations and the physical spread of the location of these knowledge bases make it difficult for any external producer manufacturer to easily access marketing related information.

## 6.5 Microfinance Institutions (MFI)

A microfinance institution (MFI) is an organization with the core mandate to provide financial services to the poor. This very broad definition includes a wide range of providers that vary in legal structure, mission and methodology. Many new players in microfinance have large existing branch networks, vast distribution capabilities, and the ability to make significant investments in technology that could bring financial services closer to their clients.

Increasingly, links among different types of service providers are emerging to offer considerable scope for extending financial access.<sup>46</sup> MFIs and corporations have realized that the relationships, channels and infrastructure created for micro-credit can now be leveraged for delivery of services beyond credit. This will bring greater choice and value to the end consumer while opening vast new markets to corporations in a manageable and cost-effective manner.

While the microfinance supply market is estimated to constitute more than 500 players in India (NGOs and for-profits), most outreach is concentrated amongst less than 50 players, with the top 5 players reaching up to 55 percent of the member base with their approximately 16.4 million members.<sup>47</sup> The outreach, growth rates and financing capabilities of MFIs make them attractive distribution partners; many MFIs have already experimented with leveraging their strengths for pushing mobile phones, solar lanterns, improved cook stoves and white goods<sup>48</sup> into BoP markets. However, such experiments have faced significant challenges in the field and have struggled to scale beyond the pilot stage. While MFIs continue to hold a significant position in the debate for alternate distribution channels for rural BoP customers, most product partnerships have

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46 CGAP. (2010). *What Is a Microfinance Institution (MFI)?*. Available: <http://www.cgap.org/p/site/c/template.rc/1.26.1308/>. Last accessed 26th Oct 2010.

47 Mix Market. (2010). *MFIs in India | Microfinance India*. Available: <http://mixmarket.org/mfi/country/India>. Last accessed 28 August 2010.

48 The term “White goods” here implies major household appliances such as Television, Stove, Washing Machine and Refrigerator.

been attempted without an organized effort to match the kind of products with MFIs' unique distribution capabilities.

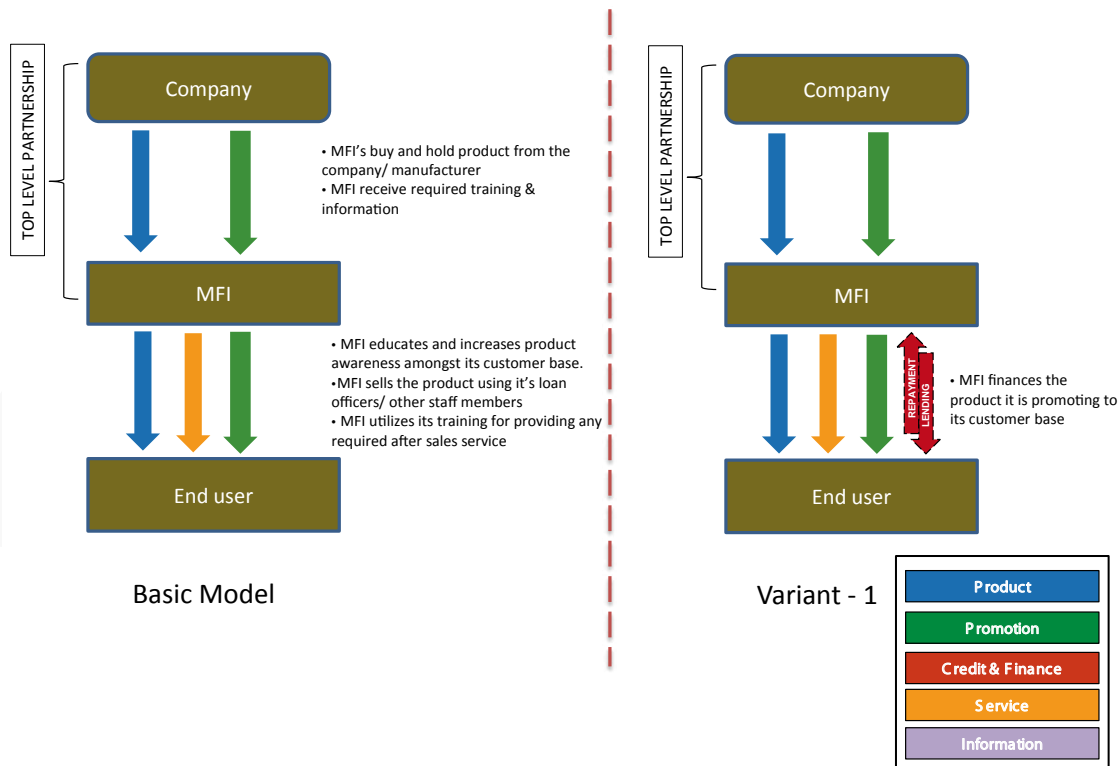


Figure 12: MFI Model and Variant

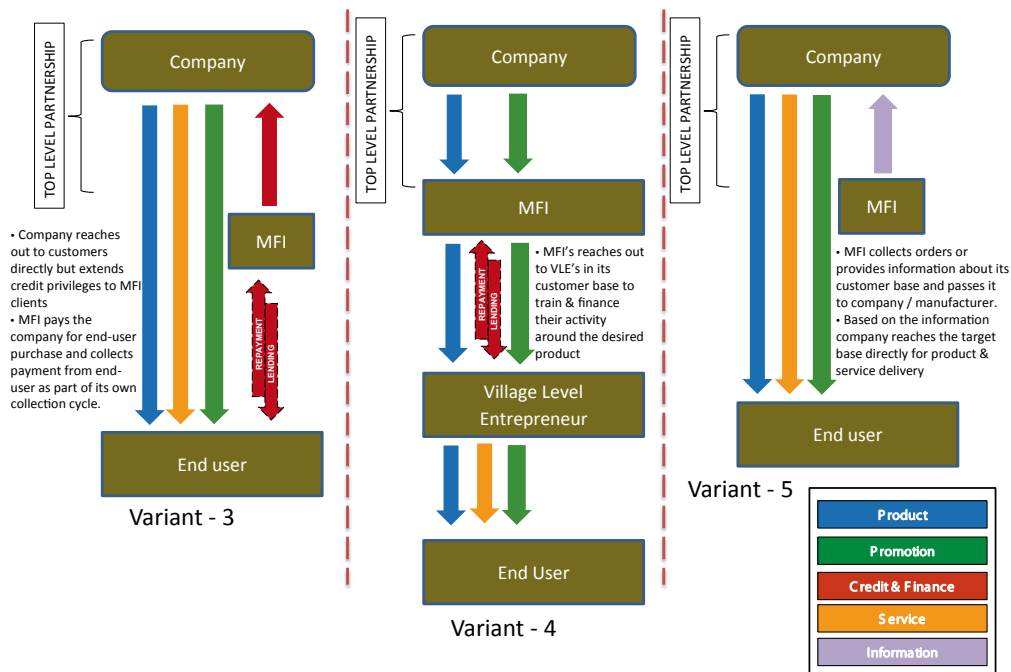


Figure 13: MFI Variants

Factors influencing a MFI-based distribution model's potential to demonstrate critical distribution channel capabilities are as follows:

### Physical Distribution



- a. While a few large Indian MFIs, such as SKS and BASIX, have shown interest in developing dedicated storage and warehousing facilities for BoP products, most MFIs are hesitant to invest in such non-financial capabilities.
- b. Most MFIs prefer to restrict themselves to providing credit facilities for products and then to partner with entities who can own responsibility of transportation, storage, inventory management and handling of physical products.

### Promotion



- a. MFIs enjoy mission-level synergies with social-benefit manufacturers/ producers, of improved cook stoves and solar lanterns, who aim to contribute to the economic wellbeing and standard of living of rural BoP customers. Most MFI loan officers are well placed to influence the decision-making in favor of these products that are traditionally considered push products.
- b. MFIs' group methodology creates the social platform for active discussion, which aids decision-making processes for new and improved products.
- c. Conflict of interest may occur as MFI field officers may present a biased view to push their credit offerings along with the product.

### Credit and Financing



- a. Driven by their core credit mandates, offerings from MFIs help bridge the working capital gap of micro-entrepreneurs allowing them to carry larger volume and variety of inventory.
- b. MFIs have alternate sources of earnings from credit activities and most MFIs engage in livelihood enhancement activities. MFIs are increasingly engaged in exploring commercial and soft sources of capital for their scaling needs.
- c. Excessive lending and spending on products, which neither directly contribute to the economic wellbeing of the BoP customer nor enhance their living standards, may lead to an increase in credit defaults and adversely influence the portfolio quality of MFIs.



## Post-Sales Service



- a. Similar to physical distribution, most MFIs are hesitant to invest in developing dedicated capabilities for non-credit products.
- b. MFIs find little incentive to provide post-sales service for non-credit products disseminated through them.
- c. MFI loan officers do not want to associate themselves or their credit offerings with product performance, as it can potentially create a reputational risk and adversely affect their portfolio quality.
- d. MFIs carry reputational risk if the product delivers a sub-standard performance or post-sales service is poor, which might in turn adversely affect the MFIs' portfolio quality.
- e. Compared to VLEs, MFI loan officers have limited inclination to develop specialized skills for mapping product life cycles, undertaking product repair and maintenance work, which does not relate to their core offering of credit products.

## Information



- a. MFI records can serve as valuable sources of information on several parameters such as local demographics, consumer spending, saving patterns and an end users' ability to buy or afford certain products.

## 6.6 Rural Retail

Rural retail consists of multiple players: wholesalers or distributors acting as intermediaries and retailers acting as last-mile touch points to the end customers.

**Wholesalers/Distributors:** Wholesaling or distributing is an intermediary role for the resale of goods or merchandise to various market players like retailers, industrial users, commercial entities, or even to other wholesalers and related subordinated services engaged in distribution. Apart from their physical distribution role, wholesalers and distributors also frequently assemble, sort and grade goods in large quantities to repackage and redistribute in smaller lots. Traditionally, wholesalers and distributors are located closer to the markets they supply than to the source of products. Wholesalers and distributors typically carry a bouquet of products supplied by multiple manufacturers/producers.

**Retailers:** Retailing consists of selling products and services from a fixed location, such as department stores, boutiques or “kirana shops”, in small or individual quantities for direct consumption by the consumer. A retailer buys goods and products in large quantities directly

from manufacturers and producers or via wholesalers, and then sells them in smaller quantities to end customers. Retailers are normally at the end of the distribution channel. Retailing might also include subordinated services, such as delivery. Marketers consider the process of retailing as an essential part of their overall distribution strategy.

In India, retail establishments are often called *kirana* shops. Other than kirana shops, India's rural retail industry has two more forms: *Haats* and *Melas*. *Haats* are weekly local markets that serve groups of 10-50 villages and sell FMCGs and day-to-day necessities. *Melas* are larger more sophisticated local temporary markets where durable consumer goods like TVs are also sold.

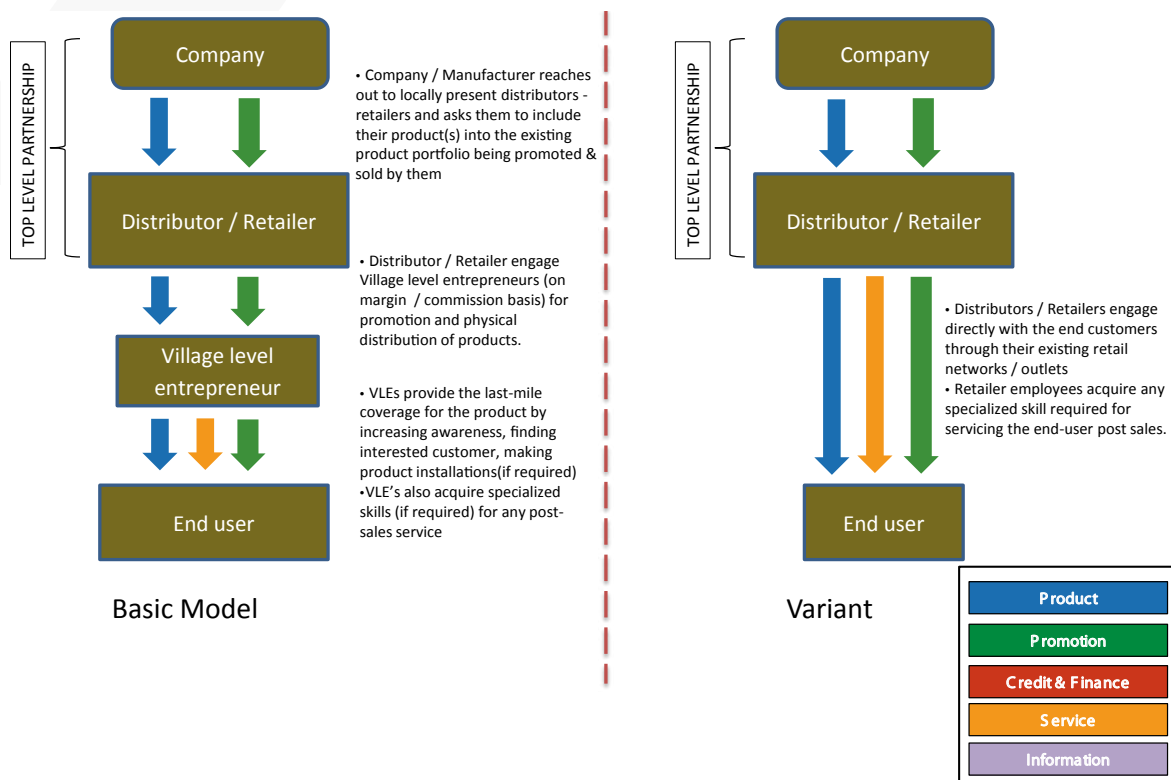


Figure 14: Rural Retail Model and Variant

Factors influencing a rural retail distribution model's potential to demonstrate critical distribution channel capabilities are as follows:

### Physical Distribution



- Rural retailers are well adapted to physically distribute the product to interior regions. Rural retail chains typically carry a bouquet of products and have excellent storage, warehousing, and material-handling capability suited for rural interior regions.

- b. Rural retailers (especially wholesalers and distributors) usually have robust inventory management systems in place to keep track of demand (including seasonal) and supply in various geographic regions.

### **Promotion**



- a. Retail networks are capable of reaching out to local intermediaries, radio, print media and events for promoting their products.
- b. Rural retail chains also design brochures, leaflets and short movies that pass on the product message in the local language.
- c. Demonstrations and street plays promoting the product in local fairs are also staged regularly by rural retailers.

### **Credit and Financing**



- a. Credit and financing activities of rural retailers are largely focused on discounts, rather than financial bundling.
- b. Credit tie-ups are extremely rare for rural retailers. Linkages with other credit providers, such as MFIs, are still rare and tend to be product-specific, not channel specific.

### **Post-Sales Service**



- a. Rural retailers tend to avoid carrying products with detailed post-sale maintenance requirements.
- b. Few semi-skilled professionals trained by manufacturers are available for repairing the product through retailers.
- c. However, if required, turnaround time is usually short for product servicing or repair because of well-established outreach in rural areas.

### **Information**



- a. Established companies and rural retail players, such as the Indian national brands ITC and Godrej, have access to market information made available to them by market research firms. However, smaller players are dependent mostly on hands on experiential learning, informal networks or local trade bodies.

## 7. Conclusion

Manufacturers and producers are susceptible to fall into the trap of assuming that their role is complete once their products have been pushed to the first link of the distribution chain. However, each member in a distribution network is undertaking a part of the responsibility. If suppliers of products and services for the BoP truly desire to be market-oriented, they must develop the capability to manage all facets of channel functioning until the product is available to the end customer at desirable and actionable terms. This will not be easy for most small players. Finding the most suitable distribution partner might come at a substantial cost, increasing the importance of analysis of possible partners' complete distribution capabilities and comparison with the product offerings' unique channel requirements. (Refer to Table 6 below for critical distribution requirements for energy products compared with capabilities of various distribution channels.)

	Critical distribution requirements for energy products	Proprietary Distribution	NGO	Co-ops	SHG	MFI	Rural Retail
Physical Distribution							
Promotion							
Credit & Financing							
Post Sale Services							
Information							
Contact							

**Table 6: Comparing critical requirements of Energy products for the rural BoP and channel capabilities.**

For manufacturers/producers of rural-targeted BoP products, the distribution channel decision is crucial to successful product adoption. As experimentation with rural distribution models continues, the exercise of marrying a product with the channel that satisfies the product's unique distribution requirements will continue to gain significance.

The distribution framework and analysis set forth in this paper can help both multinational corporations and small-to-medium enterprises alike assess the relative importance of the distribution requirements of various products and prioritize channel alternatives available. It can

also act as a management tool for the design and evaluation of a product's go-to-market strategy in rural India. While some channels, such as MFIs, will remain in media discussions for variety of reasons, they are nowhere close to being the one-stop solutions to all rural BoP distribution problems. Other distribution options, such as NGOs, SHGs and Cooperatives, need to be closely analyzed to create enough ground for experimentation by field experts and market players.

Spending sufficient time researching and experimenting with rural distribution choices before diving into the rural BoP markets can help large, medium and small companies prevent unnecessary crash and burns. Attempts to do it all alone will be difficult for manufacturers and producers who are better off focusing their energies on their core competencies and forging relationships with suitable partners. The cost of using intermediaries to achieve wider distribution is theoretically lower, and this shifts the argument in favor of piggybacking distribution options for most stakeholders. If the suitable opportunity presents itself, collaborating with existing players who have ready touch points in BoP markets can provide manufacturers and producers with key strategic advantages.

As distribution channels emerge as the vital links in reaching untapped rural BoP markets, they must continue to stretch and evaluate their distribution capabilities. Any sustainable and replicable success would mean unprecedented bargaining power for the channels and would open up unexpected revenue streams for their stakeholders. The stakes are high and the winner, for once, might actually take it all, or at least a very significant portion.

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## About the authors

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Senior Consultant, Strategy Advisory Group  
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Sachin is a development finance expert for social venture capital funds, for-profit social enterprises, microfinance investment vehicles, development finance institutions and bilateral / multi-lateral institutions.

Sachin leads the private sector development initiative at Centre for Development Finance-IFMR by facilitating investments, providing business advisory services and developing platforms that promote private enterprises and competitive markets to become stronger and more inclusive.

Prior to joining IFMR, he worked as an Engagement Manager at Intellectap, leading the incubation of 10 select Tier-II/III Indian microfinance organizations to attract equity capital. He also led the transformation initiative for the livelihood finance business of one of India's largest livelihood institutions to become a separate commercially-oriented entity.

Sachin was also a Business Manager with IBM India leading Information Management brand development in South Asia. He holds a Bachelor's degree of Technology in Mechanical Engineering from IIT-Kanpur and a Management Post Graduate degree from ISB-Hyderabad with specialization in Entrepreneurship & Analytical Finance.

### **SREYAMSA BAIRIGANJAN**

Researcher, Rural Market Insight  
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Srey's work primarily focuses on understanding dynamics of the rural energy market. He studies specific aspects like the business model, revenue model, growth opportunities and barriers for various organizations working in the BoP social venture space.

His research interests include developing instruments and toolkit for understanding the demand dynamics of the BoP markets, developing thematic notes highlighting specific aspects of BoP markets such as the distribution model, marketing and communication strategies deployed by the BoP space companies etc. He is one of the main authors of the recently launched "Power to the People: Investing in Clean Energy for the Base of the Pyramid" report



along with co-authors from IFMR-CDF and the World Resources Institute (Washington DC). The report looks at the investment potential in the clean energy space for BoP companies.

Prior to joining IFMR, Srey worked on as a short term consultant for a project with the Multi Commodity Exchange of India where he focused on developing trading models for the exchange of certified emission reductions (CERs). He graduated with a MBA (PGDFM) from Indian Institute of Forest Management in Bhopal.



## About CDF

### **CDF: Helping Market and States Work for Development**

Centre for Development Finance (CDF), IFMR is an action research think tank focused on improving government systems' and markets' capacity to channel finance into sustainable, holistic development. The Centre for Development Finance is one of the seven research centers affiliated with the Institute for Financial and Management Research (IFMR) in Chennai, India.

CDF's Strategy Advisory Group (SAG) specializes in addressing strategic and systemic issues, business challenges and organizational bottlenecks, in the social and development sector. SAG is an eclectic mix of management consultants, development entrepreneurs and organization development experts leveraging best in class business tools and management practices. SAG's approach combines deep contextual knowledge and operational experience with academically grounded development insight to contribute to more effective delivery of the infrastructure and services that are essential underpinnings for inclusive, sustainable economic and social opportunity. The SAG team provides strategy and operations consulting for corporations focused on the Base of the Pyramid. Our wide-ranging experience includes: implementation of business models, systems and processes re-engineering, conducting feasibility studies and value chain analysis of rural and urban development projects and capital structuring for development enterprises.

CDF's Rural Market Insight (RMI) initiative seeks to promote social enterprise that respects the BoP as both clients and consumers. To accomplish this, the RMI team draws upon behavioral economics, social psychology, qualitative research methodologies, traditional market research tools, and participatory rural appraisal techniques to develop - tools to help companies and investors more accurately assess demand dynamics in rural communities and concrete methods to efficiently uncover consumer preference in BoP market segments. RMI seeks to improve the impact of social venture investing and social enterprise by delivering deep, actionable insight into rural market behavior. There is a gap in information accessible to companies trying to work in the BoP space. RMI brings in traditional research knowhow and customizes it to suit the BoP market context better. Through better market knowledge, RMI distills better insights for the companies/ corporate/ policy makers to reach out to the BoP masses.



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