dharma life
RISING TOGETHER

Clean Cooking in India

CLEAN ENERGY PRODUCTS DISTRIBUTION MODELS

A guide to setting up an optimised distribution model for clean energy products

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INTRODUCTION

In India, more than 160 million households depend on biomass as their main cooking energy source; around 90% of these use traditional cookstoves for their daily cooking. These traditional methods include three-stone fires or simple potter stoves, which consume excessive amounts of biomass fuel while causing health-threatening levels of indoor air pollution. According to the World Health Organization (WHO), indoor air pollution from traditional cookstoves cause more than 400,000 premature deaths in India annually.

According to the 2011 national census, 80.7 million households live without electricity and of these, about 75 million households are in rural areas. Nearly 44% of rural households have access to electricity but receive irregular supply. According to the International Finance Corporation, it is estimated that 85 million households use kerosene lamps for lighting and spend almost USD 2.2 billion a year on the purchase of kerosene for lighting.

Biomass consumption and kerosene usage significantly contribute to indoor air pollution. This can be dramatically reduced by adopting alternatives such as improved cookstoves, induction cooktops, thermo electric generator (TEG) cookstoves and solar lights. However, the adoption of these energy products has so far been low in rural India mainly due to the absence of lack of a low-cost effective model. The low adoption rate of energy products can be attributed to a number of factors which can be categorized into three broad categories:

1. Lack of significant demand.
2. Insufficient supply of appropriate technologies.
3. An under-developed market ecosystem.

This report reviews Dharma Life's contributions towards evolving a cost-effective distribution of energy products in rural India. It suggests ways in which an ecosystem, which will involve multiple stakeholders, can be formed to address this problem. Thus, this report will act as a guide for any social enterprise trying to establish a supply chain/ rural distribution model in India.

Dharma Life has gained extensive experience in distribution of energy products in rural markets. The distribution solutions have ranged from direct delivery of goods through distributors to partnership with financing organizations to achieve reach and reduce costs. These efforts have resulted in evolution of distribution models towards driving operational efficiency, reducing costs and increasing reach.

This report presents the design and implementation of various distribution models aimed at serving rural consumers. It aims to provide an overview of the following:

1. Types of models and their alternatives
2. Key Takeaways: successes and failures from case studies
3. Key Learnings from the implementation of these models
4. A Summary of Challenges Overcome and Improvements Witnessed
5. Key Takeaways for future project(s)

1. TYPES OF MODELS AND THEIR ALTERNATIVES

Dharma Life has developed and tested four distribution models in rural areas:

A. Direct Trade Channel:

This approach tests effectiveness of distributing clean cooking products through local distributors and village level entrepreneurs in rural markets.

Dharma Life started selling improved cookstoves in partnership with a clean energy social enterprise

organisation, in 2010. The pilot was implemented in Maharashtra for the distribution of two cookstove models: B1200 and G3300. A three-tier distribution channel was proposed to distribute the product.

Below, is a brief outline of how demand, supply and distribution worked in this model:

Demand Side

1. Dharma Life Entrepreneurs at village level (DLE's) aggregate the demand in their local communities (or villages)
2. DLE's pass this information to Enterprise Leaders1 (EL's) 3. EL's through the nearest registered distributor (at a district/ block) level place the demand on Dharma Life

Supply Side

1. Dharma Life carries out local procurement (in the state), and receives the material at its state-level warehouse
2. Once it receives the demand through its EL, the product is shipped from the warehouse to the distributor
3. Once the material reaches the distributor, EL facilitates the movement of goods from distributor to DLE's
4. DLE's, upon receipt of the goods, are responsible for distributing it among the consumers. In this set-up, the profit margin is shared among the three channel partners: Dharma Life, distributor and DLE.

There were several challenges that came up on both the demand supply side. They are listed below:

Supply Side Challenges:

1. Variable/ Anemic demand leads to procurement and fulfilment challenges. Dharma Life has observed that the demand generated through its DLE network, specifically for energy products has been sporadic. This poses challenges in terms of planning procurement from suppliers and further fulfilment of demand downstream.

A variable/ anemic demand leads to high cost of delivery. An Enterprise Leader is a Dharma Life employee, who coordinates sales and distribution within 15-20 DLE's in his network. Given that most of these locations are remote and difficult to access, coupled with anemic/ variable demand – cost of delivery (per unit) to these last-mile locations is invariably high.

Demand Side Challenges:

1. Access to products based on the feedback received from the field teams and non-availability of products at the nodal points or fulfilment of demand is a major contributor to an anemic/ variable demand
2. Access to Finance Limited/no access to financing options is one of the major contributors for demand not being converted into sales. Given the limited discretionary spending power among rural consumers, product financing is essential to ensure sustained demand for energy products
3. Awareness and adoption coupled with limited access to products, and financing options – lack of awareness about alternative energy products is also a major contributor to weak demand
4. Lack of serviceability/ after-sales service options on these energy products also acts as a deterrent for consumers to adopt new models.

B. Microfinance (MFI) Channel:

This model evaluates the advantages and disadvantages of partnering with MFIs to distribute social impact products.

As mentioned above, limited access to finance is a major barrier to the widespread uptake of products

among rural consumers. Given that these solutions are costlier than traditional sources of energy, product financing through Microfinance Institutions (MFIs) provided a viable solution to enable access to credit. The following cases demonstrate our experience of engaging MFIs as our partners in the distribution channel.

CASE 1:

In 2011, Dharma Life partnered with a Karnataka based organization to distribute G3300 cookstoves. While the organization provided loans to consumers to improve affordability, Dharma Life's role was to generate demand for Improved Cookstoves (ICS) through awareness and behaviour change campaigns and ensure the delivery of cookstoves through its appointed field agents.

CASE 2:

In 2013, Dharma Life partnered with an MFI in Uttar Pradesh, to facilitate demand through product financing of improved cookstoves. In this model, products were stored at the branch-level stockists, a third-party distributor. The MFI also implemented awareness generation campaigns through appointed agents at in villages. Dharma Life's role in the partnership was limited to delivering products from its CFA to the stocking points.

CASE 3:

In 2016, Dharma Life partnered with an organization in three states (Karnataka, Gujarat and Maharashtra) to distribute induction cooktops. In this partnership, Dharma Life's had an enhanced role to generate demand on the field through awareness campaigns, demonstrations etc., and deliver products to the last mile using its village entrepreneur network.

C. Community Based Financing Organization (SHG) Channel:

This method evaluates the merits of engaging community-based organizations such as SHG federations, to distribute energy products. The following is the flow of demand and goods in this channel:

a. To address the issue of limited connect at the last mile in the MFI-linked models, Dharma Life partnered with a community-based MFI in Maharashtra in June 2015. In this model, the MFI's role is to identify entrepreneurs from its member base and Dharma Life is responsible for training of the DLEs in sales and services, awareness and demand generation at the village level and servicing of DLEs for products and services.

b. In August 2015, Dharma Life partnered with a top business organization/trust for promotion of clean cooking products in rural Gujarat to provide product loans and deliver products at the last mile. Under the partnership, Dharma Life works with the partner NGOs and federations of the trust in the districts of Kodinar and Dahod for the generation of demand and implementation of awareness and behaviour change campaigns and product delivery to the rural consumer. This is done through the entrepreneurs identified by the Federation who are then trained by Dharma Life to facilitate sales.

c. Hybrid Distribution Model a.k.a. Hub and Spoke a.k.a. Stockist Model: An exercise was conducted to determine the requirements of the stocking point and the ideal profile of the establishment that could function as one. Furthermore, in order to ensure that each CDO would be able to perform the last-mile distribution, a detailed geographical mapping was done to understand which locations would ensure maximum efficiency. Each district was to have a single stocking location initially, which could increase depending on the volume of business.

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To optimize last-mile delivery of clean energy products by assessing the existing distribution models, benchmarking these against best practices in the industry, designing and piloting innovative models for maximum efficiency and periodically evaluating the same.

Based on extensive research, 2 separate models were deployed for the same:-

1. Direct Customer Delivery

Sales executives of Dharma Life (called CDOs or Channel Development Officers) would engage in a robust demand aggregation process, details of which are processed centrally and daily dispatches from the state-level warehouses to customer residences would be conducted to fulfil the demand.

2. Hub-and-spoke model through commercial stockists

Here, stock would be maintained at locations in the proximity of CDO locations. As soon as orders are generated, the CDO would collect the same from the stockist and deliver to the customer. The whole operation was integrated into an IT backbone which would trigger an automatic reorder request to the state-level warehouse with the hub-to-spoke logistics being carried out by India Post.

The stockist model of distribution with India Post forming the hub-to-spoke link was extended to all the major MFI channels of Dharma Life with great success. Since Dharma Life personnel plays a key role with regard to the demand generation in the MFI channel, the forecast accuracy is much higher there and the benefits by transitioning into the new model of distribution is even greater. Currently this extends to 4 states and the plan is to build on this with the ultimate aim of creating a national account for India Post. This will enable Dharma Life to use other value-added services of India Post like the banking service which will reduce transaction costs for cash collection et al.

E. Collaboration with India Post

With over 150,000 offices servicing close to 19,000+ unique PIN codes, India Post is by far the largest distribution network with the widest reach in the country. It is renowned for its reliable service and the ability to deliver to even the remotest parts. There is a natural synergy between the operations of Dharma Life and India Post and we were keen to explore the latter as material movement and stocking partner. Following up on this, we conducted a visit to various post offices in few districts in Uttar Pradesh (UP) with the following objectives: •

To understand the technical capabilities and process flows. •

To understand post office structure in a district/ state. •

To evaluate the possibility of using Post Offices as a stocking points.

Renowned for its unparalleled reach and extremely reliable service, India Post was a natural choice in this regard and the process was initiated to design a fulfilment model piggybacking on the capabilities of India Post.

The ideal plan for the operation of this involved the following stages:

1. Set up a corporate account in each India Post circle where Dharma Life has its operations- each circle has autonomy to decide on the terms of engagement.

2. Transition material delivery to distributor/ stockist/customer points exclusively through India Post which would provide huge time and cost benefits. Though the Business Parcel facility is more cost effective in this regard, the ideal option is to go for Speed Post since this has real-time tracking of each consignment.

3. Back this up by registering for the Book Now Pay Later (BNPL) facility of India Post which will not lead to any shipment getting stuck with regard to payment issues.

4. Map the operational locations of Dharma Life with respect to sub PO locations, visit them and evaluate the feasibility of using them as stocking points. This will vary greatly depending on the ownership of POs (some properties are government owned, others are leased) and their storage capacity.

Discussions were held with the apex Business Development unit in Delhi and the central Rail Mail Service (RMS) to establish a corporate relationship. This was followed by visits to circle offices in New Delhi, Uttar Pradesh (UP), Rajasthan, Madhya Pradesh (MP) and Chhattisgarh (CG). After very positive discussions, a plan was formulated to initiate the goods movement for GIZ project locations through India Post.

II. OTHER METHODS

A. Adoption of Technology

Further to refining the current distribution model, adoption of technology comes as a natural step to streamlining the process and further optimize existing as well as new processes. The ability to track and trace a product is central to achieving a sound supply chain. Traceability affects efficiency, product safety & security, on-time delivery performance, troubleshooting customer issues, controlling costs, and regulatory compliance. There are various technologies to assist in tracking and tracing of products across the supply chain. The most common ones include Barcodes, QR codes, GIS, and RFID tags. Technologies are further selected based on the products served, level of automation, processes and the specific needs of the company.

The main areas where technology plays a larger role is Product/Logistics tracking.

Technology based logistics tracking offers multi-fold advantages over manual reporting and tracking of data.

It was determined that having a QR code or Barcode based tracking would offer further visibility into the supply chain. It will help to achieve shipment visibility across multiple parties and modes of transport. This will further translate into real-time tracking of inventory across value chain.

B. Focus on Brand Awareness/Recall

One of our key challenges with previous models was with regards to consumer association with the brand. Since most of the products are owned and branded by respective vendors or manufacturers, the end consumer does not associate with Dharma Life as a brand. In the absence of DL branded products, marketing activities and awareness campaigns associated with clean living are the only avenues to create brand recall. Key part of our Hub-Stockist plan, this helped in having an efficient after sales solution is essential for repeat purchases as well as improving brand recall/awareness and thus, improved sales.

III. CASE STUDIES

The following is a list of case studies undertaken by Dharma Life.

1. Project Shakti

In 2000 this project was launched to extend the reach of its consumer goods portfolio to poor rural areas. The main aim of initiative is to empower rural women financially and to create an extra source of livelihood

and regular income stream for them. The sale of fast moving consumer products (FMCG) happens through a network of empowered women village entrepreneurs known as 'Shakti Ammas' (referred to as 'SA' going forward).

2. Sakhi Retail

In 1993, an NGO was established in the region of Latur in the aftermath of the earthquake which shook Maharashtra to help the rebuilding process with a specific focus on involving women and in close collaboration with the community. In 2009, Sakhi Retail (SRPL), a rural distribution network for socially beneficial, innovative products such as Oorja stove, with the goal of helping such devices reach the under-served populations along with offering a new income stream for low literate and low-income women.

3. Grameen Shakti

The journey started in 1996 as a social enterprise selling solar home systems (SHS), and subsequently launched improved cook stoves and biogas plants in 2005 to cater the energy needs of the poor population in rural Bangladesh. It aims to promote clean, affordable and sustainable renewable energy technologies for the rural people of Bangladesh. Initially it used a bank's experience to develop a financial package based on instalment-based payments, it finally decided to handle financing independently.

4. SELCO

In 1995, a company specialized in distributing solar home systems (SHS) in the state of Karnataka was founded. The company is based in Bangalore and defines itself as a "system integrator and service provider, focusing on quality while selling to poor rural customers. It has been a recipient of multiple awards gaining international recognition over the years. Its sound economic model has also helped in achieving investments over a million dollars from various foundations to provide sustainable energy solutions for the poor.

5. Villgro Stores

Villgro, formerly known as Rural Innovations Network, is India's foremost and oldest incubator in the social enterprise space. Villgro provide funds, mentors and incubates innovation-based, early-stage social enterprises that strongly impact the lives of India's poor population. Since 2001, Villgro has incubated 119 such enterprises, which have secured Rs. 1195 million in follow-on funding and touched over 15 million lives.

6. Inthree

A Chennai based company is offering all the products and SKUs to the rural population with the help of its assisted e-commerce platform 'BoonBox' and its hub and spoke distribution model reaching far ends of the rural reach in the most cost-effective manner. This company caters to both B2B and B2C segments through its rural network.

7. SaniShop Home

In 2008, an organization started an initiative in Cambodia to promote the sale and use of affordable home toilets throughout South east Asia. The initial pilot of the project – funded by USAID - was launched in association with Lien and the University of Carolina in K. Speu province late 2009. The pilot relied extensively on government public officials to conduct the sales and monitoring and was entirely based on grant. Late 2010, it decided to leverage the network and product it had developed by experience and decreased reliance on public officials. SaniShop is also experimenting and shifting to a market-based approach, wherein it will make efforts to recover part of its operating costs by charging a franchise fee to toilet producers.

8. Africa-Focused Case Study

There is an Africa-focused non-profit social organization whose mission is to lift millions of people

in Africa out of poverty, quickly, cost-effectively and sustainably by enabling them to make more money. It designs and then delivers effective and affordable tools that poor families can use to increase their incomes.

9. Cambodia-based Company

A Cambodia-based company traces its roots to a ceramic water filter project implemented in 2001 by iDe, an international development organization which is US, UK, and Canada. iDe Cambodia introduced the clay-pot water filter technology to Cambodia from Central America with the help of the Potters for Peace, an NGO.

PEROFRMANCE FEEDBACK FROM CASE STUDIES

While the various organizations have adopted different distribution model i.e. both traditional, innovative and hybrid, no model has come across as perfect and are riddled with their own set of challenges. We tried to benchmark some of the above organizations and their models with the Dharma Life distribution model based on certain key parameters essential for the success of any distribution model.

The table below indicates the results of such exercise. It reflects the performance of few organizations on certain key supply chain metrics. The major challenges faced by the organizations lies in achieving accurate demand forecast, having an efficient inventory management system freeing up working capital, adopting technology to enable decisions based on real time data, and reducing the cost of complete delivery.

The following metrics holds the key to an effective distribution and in turn a successful supply chain. The new and improved model to be designed as the next phase of the project would need to address these metrics and strive to achieve sustainable improvement in each of these key parameters.

The following key has benchmarked and provided ratings to both DL and competition as described:

Doing Well
Average
Needs Improvement

How do they perform on…?	HUL Project Shakti	Inthree	Villgro Stores	Dharma Life (Direct Trade)	Dharma Life (MFI)	Key Takeaways
Inventory Management	Low cost everyday FMCG products. Hence, faster movement	Since orders are placed directly to the suppliers/mfgrs via app, there is a demand visibility across chain, hence inventory movement Is faster with minimal delay or holding	Products are procured and transferred to Villgro stores in small towns. All last mile sales and demonstrations happen through these stores	Since demand generation via DLEs is variable, it poses challenges in terms of procurement and further management of inventory	Since products are prestocked at stockist locations to cater demand in MFI selling, it results in eventual higher cost of sale	Need to improve demand visibility across supply chain through technology adoption and real time data to optimize inventory at each stage
Cost of Delivery	Since HUL already has a distribution network in place, Shakti Amma acts as a retailer for HUL, hence no increased cost in this model	Inthree has built a Hub & Spoke model for delivery and in cases where supplier has no distribution network, Inthree takes care of supply.	Villgro stores acts as stocking points and also retail sales. However, VLEs markets and sells.	Since, products move through multiple channels(CFA, stockist,VLEs,ELs) coupled with variable demand cost of delivery is high as compared to some competition.	Although cost of delivery is less then DL direct trade channel as stockist are located close to MFI branches, the costs are still higher due to multiple levels and anticipated stocking.	Optimizing handling of inventory through multiple channels and optimizing load through better demand aggregation would help in reducing costs.
Demand Forecast	Project Shakti deals with everyday FMCG products, hence commands steady demand.	Since, Inthree caters to both B2B as well as B2C network, bulk B2B demand is more or less steady while forecast is difficult for B2C as wide offering poses scattered demand and not bulk purchase	VLEs generate demands by visiting villages and generating demands. While assessing demand for agriculture products (seeds, fertilizers) is easier as compared to other products such as burners and solar stoves.	Demand generation through DLEs is not steady restricting effective distribution planning. Since DL deals mostly in products which are not a first-choice for consumers, generating and sustaining demand requires super marketing efforts.	Determining demand in MFI channel is better than Direct Trade, however, still this channel faces challenges as awareness for newer products and marketing doesn't comes under purview of MFI branches.	Having access to real time data is the key to achieve better demand forecast here. Defining SOPs with digital data reporting would be instrumental supply

Supply Efficiency/ TAT	HUL has a wide distribution network in tier-2 & 3 cities. Hence easy movement till Shakti Amma	Since, info is shared as soon as order is placed, the TAT is considerably lower if the aggregate order meets the MOQ	TAT is quite lower since stores are located in small towns and acts as stocking points as well as retail sell points	Due to multiple levels in distribution, TAT becomes higher in certain cases	Due to multiple levels in distribution, TAT becomes higher in certain cases	This would require expanding network reach through HubnSpoke/cluster-based models to facilitate fast and easy movement making supply chain more agile and responsive
Working Capital	Financial risk lies with Shakti Amma, since she has to fund procurement from HUL	Since, ordering happens via a tech platform , easier to track and aggregate demand and effective utilization of working capital	Most products don't have a steady demand, hence working capital is tied up and also depends on VLEs creating effective demand	Since, products are pre-stocked at certain locations, inventory is tied up if there's not adequate demand. Also, effectiveness of VLEs also have an effect	effect have continued demand through this channel, products need to be stocked in advance, tying up capital and risk obsolescence or no liquidation	Better demand aggregation, achieving better forecast accuracy, optimized inventory would ultimately lead to reduction in working capital
Last Mile Visibility	SA invests and procures products from HUL and then sells it to end customer. HUL has complete visibility till SA	BoonBox associates are rural influencers and since ordering happens via an app, tracking till last mile is better in case of Inthree	Since, Villgro manages all nodes of its supply chain, it has better visibility	Since, all DLEs are not active at a time and lack of set written process or real time sale tracking hampers last mile visibility in many cases.	Since, MFI sales have preceding processes such as loan application and registration with MFI, visibility till the last mile is better than the direct trade channel of DL	Moving away from manual processes to a more digital reporting and tracking would lead to improved supply chain visibility. Technology is the main driver here.
After Sales Services	Since most of the products are everyday use, after-sales is not a requirement	Inthree has dedicated call centres to cater to after-sales service in tie-up with vendors	Stores also acts as after-sales service centres and hence lower TAT in this regard	After-sales is handled by in-house team, however there is no set processes to track and handle resolutions. Since DL acts as intermediary between vendor and customer, TAT increases	After-sales is handled by in-house team, however there is no set processes to track and handle resolutions. Since DL acts as intermediary between vendor and customer, TAT increases	Defining after -sales SOPs for each product category/ SKUs. Categorization of issues with appropriate resolution and execution matrix. Digitized reporting and tracking of each complaint

Brand Awareness/ Product Association	HUL has a high brand recall, not through parent brand name but mainly through individual brands (Lux, Dove, Surf Excel)	Since Boon box associates facilitates product demonstration and ordering, awareness is quite high in areas they serve.	Villgro incubates and mentors early stage enterprises and demonstrates their products and hence brand awareness is mostly in terms of a facilitator than a product brand.	Except co-brand products, there is little brand visibility in other products. Effective engagement activities/touch-points required to have a better brand awareness	Most of customer interactions in this channel are with MFI officials and limited engagements with DL, hence limiting brand awareness	Moving to more co-brand and Dharma offerings and reiterating Dharma at customer touch points. Collaborating with key influencers(e.g. doctors, sarpanch) in the village besides DLEs to promote hygiene and clean health products
Technology Adoption	Real time data tracking for sales, assisting in accurate forecast of demand and delivery	Boonbox app associates facilitates ordering of products. Having an app enables catering a wide range of products from multiple vendors and also a factor of success for Inthree	Since, Villgro stores acts as a central node in the supply chain, tracking demand and orders is comparatively easier although not in real time	Development of systems and auto reporting is required to achieve strict data driven processes which would help in effective fulfillment	Development of systems and auto reporting is required to achieve strict data driven processes which would help in effective fulfillment	Adopting technology for logistics and fulfillment tracking, real time data monitoring for accurate forecast and inventory optimization

CONCLUSION

There isn't a single distribution models that provides a complete answer to all the distinct requirements for any given BoP (rural) product. These organizations outlined above have developed their own hybrid approaches to distribution model, which is completely different from the approach they might have used to reach urban customer.

Some of the organizations including Dharma Life have adopted multiple distribution models, enabling them to be well equipped to tackle issues like warehousing, transportation, demonstration, after-sales service.

The hybrid approaches effectively integrate key aspects of different generalized models to arrive at a model suited to their requirements and capabilities. For example, leveraging with the grassroots reach of an NGO is the most discussed and preferred models. However, they may not be well suited or adapted to undertake financing activities. The organization might have to consider roping in another entity, such as an MFI which has an expertise in financial products. The different approached are summarised as follows:

Organisation	Model 1	Model 2	Model 3
HUL Project Shakti	Entrepreneurs (VLE)	Self-help Groups (SHGs)	Own Retail
SRPL	Entrepreneurs (VLE)	Self-help Groups (SHGs)	
Grameen Shakti	Entrepreneurs (VLE)	Open Market	
SELCO	Retail		
Villgro	Own Retail Network	Entrepreneurs (VLE)	
Inthree	Entrepreneurs (BoonBox)	Own Retail (B2B)	
SaniShop	Franchise Model		
KickStart	Retail (Direct Sales)	NGOs	
Hydrologic	NGOs	Entrepreneurs (VLE)	

After designing and testing multiple frameworks for our two successful distribution models – Direct Delivery Method and Hub-and-Spoke Model – we analyse their successes and failures as follows:

Parameter	Direct Delivery Model	Hub-And-Spoke Model
INVENTORY HOLDING	Here, the aim is to minimise the inventory value by making Just-in- Time procurement from vendors. MSL value is maintained only at the warehouse level.	Here, the aim is to minimise the delivery time by ensuring the availability of inventory at spoke locations. MSLs are maintained at each stockist location. This naturally transits to more working capital blocking.
COST SAVINGS OVER CONVENTIONAL MEANS	Very high- ODA charges have been completely eliminated.	Medium- overheads for maintaining stockist location.
DEMAND FORECAST	Can work efficiently even with variable demand.	Requires steady demand and accurate forecasting methods
DELIVERY TAT	Medium- as each order requires separate shipment.	Maximum efficiency with regard to TAT adherence.
FULFILMENT ACCURACY	Estimated to be over 90%.	Estimated to be over 95% since customer delivery is kept in-house.

WORKING CAPITAL	Very lean model requiring minimum working capital.	Extensive investment in working capital.
STOCK ACCURACY AND LAST MILE VISIBILITY	Very high	Medium- since data has to be maintained for all stocking points.
TECH ADOPTION	Estimated to be over 90%.	Estimated to be over 95% since customer delivery is kept in-house.
AFTERSALES SERVICE	All damaged stock is collected back to warehouse through reverse logistics and technicians visit the same on a periodic basis for repair/replacement.	The stocking points have also been utilized as aftersales points with the defective units being collected back from the customers and deposited here. Technicians have been on boarded who visit the different stocking points as per a beat plan. Instant repair/replacement is done by the technicians for products at the stocking points thereby enabling a robust first-of-its-kind aftersales network.
INDIRECT CONTRIBUTION TO SALES	Low	High- the assured material supply leads to conversion of most leads.

As is evident from the above table, the direct delivery model works best when the delivery time is not urgent and the demand is scattered. There is clearly a more pronounced saving of working capital and delivery charge. This is especially true in the post-GST timeframe as freight costs have decreased significantly. A case can also be made for the fact that this is best suited for small ticket items as shipping costs would be much lower than the working capital costs.

On the other hand, the stockist model works best when there is a steady demand. There is a clear trade-off between operational cost and ensuring a quick TAT, so this is best suited when the profit margins are higher. But the quick TAT also has an indirect influence on boosting sales and is extremely viable for higher volume of goods as economies of scale kick in. This is also ideal for products which have considerable weight, for which separate shipments each time would highly inefficient.

With the demonstrable success of the new distribution models, a need was felt to modify the same so that it could be scaled up.

1. Fine-tuning the stockist selection process- the stockist is also expected to keep track of material movement meticulously and therefore, must have requisite space and time for the exercise.

2. Extending the same to integrate seamlessly with the CRM which will help make decisions with regard to sales forecast, inventory holding ultimately leading to efficient working capital management.

3. Have a clear mapping exercise which will match each business model with the appropriate distribution model. For example, the Direct Trade model with variable demand could best served through Direct Delivery whereas MFI business undoubtedly requires a stockist model.

Once all these had been materialized, the stockist model of distribution with India Post forming the hub-to-spoke link was extended to all the major MFI channels of Dharma Life with great success. Since Dharma Life

personnel plays a key role with regard to the demand generation in the MFI channel, the forecast accuracy is much higher there and the benefits by transitioning into the new model of distribution is even greater. Currently this extends to 4 states and the plan is to build on this with the ultimate aim of creating a national account for India Post. This will enable Dharma Life to use other value-added services of India Post like the banking service which will reduce transaction costs for cash collection et al.

With the success of the new distribution models evident, a mapping exercise was conducted to understand which business model would be best fit for these distribution models. It was felt that the Direct Trade Model with typically low-ticket items, anaemic demand and typical difficulty in forecasting would be best served through Direct Deliveries. The tie-up with India Post was replicated from the success in UP and terms of engagement were formalized with 4 other circles namely in Rajasthan, MP, CG and Delhi. The plan is to build on this with the ultimate aim of creating a national account for India Post. This will enable Dharma Life to use other value-added services of India Post like the banking service which will reduce transaction costs for cash collection et al.

However, since Dharma Life personnel play a key role with regard to the demand generation in the MFI channel, the forecast accuracy is much higher there. Moreover, the demand is more or less steady and the value of each item is significantly higher than in the Direct Trade Model. Also there is a relentless focus to drive down the TAT and ensure speedy aftersales service. This makes the hub-and-spoke model an ideal fit for the MFI business and Dharma Life was embarked on a project to transition the nation-wide MFI business to this model. Over 300 stocking points have been created so far in 9 states. The aim is to convert the stocking points into aftersales and demonstration focused experience centres where customers can also come in to have a touch and feel of the products before purchasing them. Having a nationwide network of stocking points is also strategically important when the business expands to other models, giving a huge edge over other distribution networks.