

SUPPLY CHAIN MANAGEMENT: EXPERIENCES OF IDE (INDIA) 1992-2003

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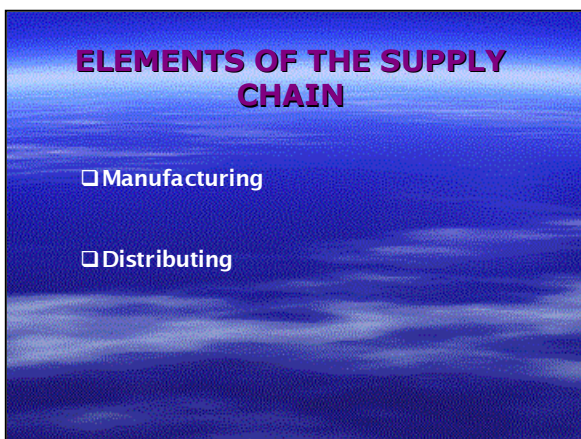
complemented with presentation and discussion note¹



- IDE-India has now 12 years experience in supply chain management - first with treadle pumps in Eastern and North-Eastern India, later with drip irrigation in the West and South of India.
- They work with
40-50 manufacturers in different areas,
around 150 distributors (linked to
manufacturers), and
1200 retailers/dealers.
- Most points of the presentations are learnings from past mistakes.



- We are talking of NGOs who want to promote products with benefits for poor people.
- These products are low cost and have low absolute margins (5-10 Rs.).
- We want to understand what issues need to be addressed when dealing with such supply chains.



¹ The notes adjacent to the slides have been compiled during Suresh Subramanian's speech. They usually give further explanations to some of the points on the slides. Note that not every point on the slide has further explanations.

WHAT IS A BETTER OPTION

- Manufacturing or Importing (one state to another / one country to another) - Cost to farmer should be the only guiding factor
- Is demand enough for setting up a manufacturer - Err on the higher side (Treadle pump from India to Africa)
- Shift from Importing to manufacturing over a time period - Technology sale will lure manufacturers

- In India manufacturing is usually not a problem, although in some areas certain industrial capacity is not available (e.g. there is no treadle pump manufacturing in North Bengal). In other countries the required industries may or may not be available.
- The decision whether to import or to produce locally should be guided to a large extent by the cost for the customers. If local production is not competitive and has no chance to become competitive, importing is better.

- An example: Earlier Indian companies manufactured wall clocks for the local market. Then Chinese wall clocks with lower prices came up. The Indian enterprises stopped production and moved to import and trade.
- Setting up local manufacturing with not enough demand means a high risk to the entrepreneur. Thus calculate demand and the production level required for profitability cautiously and rather conservatively.
- In the beginning import is a safe bet. If a product is demanded, the industrial base exists and is competitive, the local manufacturers will step in quickly.
- In Maharashtra now many people want to manufacture Eazy Drip. Mr. Pawar (the manufacturer who attended part of the workshop) was a "scout", now "troops" join in.
- Who may be a suitable manufacturer? An NGO wanted to promote treadle pumps with its target group, and understood also that they need a supply chain. However, they thought that small and marginal farmers should manufacture the pumps and tried to set up such manufacturers. These efforts obviously failed.
- When setting up manufacturers it is important to consider the cost and impact for the many small customers, rather than worry too much that a rather well-to-do entrepreneur may make too much money.

WHERE IS THE FOCUS?

- Manufacturing
- Assembling
- or both
- Components - Eazy Drip / Microtube / Filter
- Other components are part of regular production

- When IDE began to work with drip supply chain they employed the same strategy as for the treadle pump and planned to set up manufacturers. However, they soon found that the constraint for small farmers was not with manufacturing there are around 60 drip manufacturers in India), but there were no dealers and assemblers locally available (in villages and blocks) who could support small customers in establishing their small-scale drip systems.
- The strategy needs to be devised in accordance with the situation on the ground.

- For Eazy Drip there were no manufacturers. So there IDE had to go into fostering manufacturers again.

MANUFACTURING

Who manufactures –

- Self or Pvt. Sector – Sustainability – Therefore Pvt. Sector
- Short-term active player
- Associated industry – raw material

- For sustainability reasons manufacturing should be done by the private sector and not by NGOs.
- As an NGO you may take up manufacturing for a limited time, if there is no other option. E.g. IDE India initially manufactured treadle pumps because they had no manufacturer and no possibility to import.
- Where to find manufacturers? Look in associated industries which work with the same raw materials, e.g. steel and iron industries for treadle pumps, plastic industries and trade for drip equipment.

No. of manufacturers

- Monopoly
- Expand into new markets

Guaranteeing initial sales

- Building Trust
- Sucking them into the business

- How many manufacturers? There is no right answer. You always start with one or a few.
- If there is only one you have all the risks of a monopoly. This manufacturer is in a too powerful position.
- If setting up further manufacturers in new areas you will foster expansion into new markets at the same time.
- Guaranteeing a certain level of sales initially is a good way to encourage new manufacturers. It gives them a sense of security. IDE guarantees some initial sales, but not in writing.

- The way to do it, is to talk and negotiate with the manufacturer, e.g. estimate how much orders can be expected for sure and give a guarantee for half of it.
- Normally manufacturers who started, remain in business. Thus guarantees are necessary only in the beginning.

Spare parts

- Identification
- Supply with product in initial stages
- Track sales later on
- Availability at close proximity

- Initially it is good to give the important spare parts along with the product. Once spare parts are available in the market locally, this can be stopped.
- Check periodically that spare parts remain available in the local market.

Quality Specifications

- Designs, drawings
- Jigs and fixtures
- Replacement scheme
- Offer guarantee on the product
- Start with higher quality - Expand into lower end -
- Initial products should work
- Start with higher price to encourage competition
- Training of staff
- Strict checking of products with focus on process

- Quality is what the customers want at a given price (adequate quality, not the best possible one).
 - You need to have designs and drawings of product specifications in order to be able to gauge quality. Without this you have no handle to prove to a manufacturer that his product does not meet the quality specifications.
 - In rural markets there is usually no warranty on products. It is advisable to give a warranty on the products you want to promote (if the legal framework in your country allows it). With a warranty the product is positioned better.
- Combine the warranty with an effective replacement scheme (in sufficient proximity of the farmers, i.e. usually with the dealer, not with the manufacturer. If pumps or drip systems fail they need to immediately repaired or replaced.
 - The initial products **must** work, even if you have to go out yourself to ensure it works. The reputation of a product is easily destroyed if it does not work, be it due to faults in the product itself or due to wrong use.

Business to business linkages

- Own supply chain
- Linkages to supply chain established by IDEI

DISTRIBUTION

Length of distribution chain - cost, value or role of each piece evolving & dynamic

- Should be bothered with final price to customer and whether their needs are being met or not
- Chain should fit between ex-factory prices to MRP for customer
- Look at how similar products are being delivered by supply chain (handpump) or how are farmers accessing the markets to purchase products

- How many links does a supply chain need? In some places of IDE the supply chain consists of one intermediate layer only (manufacturer - dealer - customer); in other places there are five six layers in between (e.g. stockist - distributor - sub-distributor - dealer - sub-dealer - assembler).
- The length of the supply chain is determined by the geographical and market requirements. The price of the manufacturer and the price for the farmers are the cornerstones. The other links have to fit in between.

Problems with replicating across regions or products

Treadle pumps exclusively through hardware stores from gangetic plains to non-gangetic plains

Bucket kit through traditional drip stores

Guaranteeing initial sales

Building Trust

Sucking them into the business

- Don't try to replicate supply chain structures. An appropriate structure needs to be designed for every product and area.
- In India IDE promotes the products in hats (weekly village markets) because many farmers gather there. In Zambia they planned to do something similar, but there are no rural markets. Finally they found that many farmers gather at bus stands and thus they do their demonstrations there.
- Guaranteeing initial sales on the same patterns as mentioned for manufacturers is helpful with other supply chain members too.

Single retail point in a market

Larger turnover vs. customer coverage

Stocking spare parts

Established business vs. new and upcoming business

Promotional support - what can the Supply Chain do and what it can't?

- How many dealers/retail points? On the one hand you want to have proximity to customers and thus rather many retail points in the villages; on the other hand dealers need sufficient turnover.
- IDE has better experiences with newer businesses and younger people. They are more willing to run around to make their business go. Established entrepreneurs rather think it is their job to be present in their business and interact there with customers.

- Supply chain members are usually willing to print pamphlets, do wall paintings, or give incentives to customers (static promotion), but when it comes to activities which require involvement of people like farmer meetings or hat demonstrations (dynamic promotion) they are hesitant.

Young entrepreneur vs. old or middle-aged business person

Conflict – good or bad?

Effective supply chain member in no or low potential area

No. of installers on roll

Credit to customers

- While building the linkages for a supply chain there are many risks for conflicts - between different supply chain members and between you and supply chain members. Such conflicts can be turned into something positive: Every conflict that you can solve in a way acceptable to all, contributes to building trust.
- Often dealers provide credit to customers, otherwise you may have to link up customers with suitable micro-finance institutions.

Handling absence of traditional supply chain

Big bang start

Incentives through the supply chain

Meetings / agreements / credit between businesses