

Developing A Marketing Strategy For A Leading Agrochemical Company: A Case Study on Adoption of Agrochemicals by the Vegetable Growers in Chattisgarh

*Dr. Sangeeta Sahney**, *Ms. Archana Shrivastava***

Introduction

India's agricultural production has shown a growth of 2.7% p.a. over the last 40 years, contributing today to one fifth of its GDP. From a mere 52 million tones in 1951-52, the food grain production in 2005-06 has increased to 210 million tones. However, differences in soil fertility and corresponding agricultural growth as well as unreliable weather conditions across the country, have resulted in an overall wide disparity in terms of regional agricultural produce. This has further been worsened by farmer illiteracy, backwardness and poverty. Notwithstanding, an important role in the overall agricultural growth and productivity in India has been due to the agrochemical industry. Through government support and assistance, farmers have been encouraged to adopt better techniques of production, advanced technology, latest machines, improved seeds, fertilizers, chemicals and all this has led to spectacular increases in yield of crops. The agrochemical market in India has grown over the decades, with the farmers having been inclined toward adoption of agrochemicals to protect their crops. Agrochemicals defend crops against insects, pests, disease, and weeds before and after harvesting. They play a major role in improving soil fertility, protecting crop produce and raising productivity. Agronomy revolves around the optimum application of agrochemicals and that in turn greatly influences the production of various crops.

The case speaks about an agrochemical company, Krishna Pvt. Ltd., dealing with manufacture and production of agrochemicals and pharmaceuticals. While the company had a history of growth and success and had begun to control a substantial market share of agrochemicals in the country, the year 2000 onwards, witnessed a deterioration of sales. In 2003-2004, the company decided to concentrate on its core agrochemical business and the years 2005-2006 saw a turnaround in terms of revenue and profit generation, giving it a second place in the agrochemical market. Krishna Pvt. Ltd., which had by then decided to focus on the untapped rural market in the country saw an opportunity in the vegetable growing belt of the state of Chattisgarh, where the market was lucrative for business. The state government was playing an active role in making available and encouraging the adoption of agrochemicals for its farmers, through financing rural development programs and subsidizing agrochemicals. The company thus, decided to go in for a study of the market. The existing marketing strategies were examined and problem areas identified. The effectiveness of various marketing alternatives in rural markets was studied, and, marketing strategies developed and implemented, that have helped the company to grab a substantial share of the market.

Indian Agrochemical Industry

Historical Background

The Indian agrochemical industry has its roots in the year 1906, when the first manufacturing unit was set up in Ranipet with a production capacity 6000 metric tones. Subsequently, in the forties and fifties, large sized fertilizer and chemical plants were set up in Cochin and Sindri, with a view to establishing a base for mass production, manufacturing and industrialization. A major boost to the agrochemical industry came with the success of the green revolution in the late sixties. The decades beginning the eighties have seen a notable addition to the fertilizer production capacity; India is the third largest producer and consumer of fertilizers in the world.

*Assistant Professor, IIT Kharagpur, sahney@vgsom.iitkgp.ernet.in

** Project Assistant, IIT Kharagpur, archanashri@rediffmail.com

Presently, there are 63 large size fertilizer units and 79 small and medium scale units in operation in the country manufacturing a wide range of nitrogenous, phosphoric and complex fertilizers. The total installed capacity of fertilizer production in the year 2007 was 120.61 LMT of nitrogen and 56.59 LMT of phosphate.

The average per hectare consumption of agrochemicals has increased from 1 Kg. in 1951-52 to 90.04 kg in 1998-99 and steadily rising, leading a considerable rise in agricultural productivity. This level is expected to increase even further with the government of India aiming to double food production by 2010-2012.

Changing Trends

The Government of India has been consistently pursuing policies conducive to increased availability and consumption of fertilizers in the country. The annual consumption of fertilizers, in nutrient terms (N, P & K), has increased from mere 0.7 LMT in 1951-52 to 203.40 LMT in 2005-06, while per hectare consumption, which were less than 1 Kg in 1951-52 has risen to the level of 104.5 Kg in 2005-06.

The changing global market environment, farmer awareness and knowledge, significant development in research and development, and the role played by the government has greatly affected the agrochemical industry. This has had a positive impact on the growth of the industry. The changing trends may be studied under the following heads:

Stakeholder expectations are high and ever changing. Farmers expect ready product information and availability of good quality agrochemicals and accessories at optimum prices. Another pressure has been by the increasing popularity of organic farming; the *end consumers* of agro products expect transparency of information regarding nutritional value and low residues traceability of chemicals and fertilizers. *Governmental and environmental concerns* have increased especially on issues of usage of chemicals, disposal of containers, safety in usage and disposal, low residues in soil, ground water safety, and, regulatory compliance related to pollution etc., thereby creating enormous pressures on the agrochemical industry.

The answer to this has been largely through *research and development* in the agrochemical sphere. The agrochemical industry which has until now worked in isolation, is now geared up towards interaction and cooperation with the department of agriculture, fertilizers and irrigation, the department of science and technology, and reputed institutes of science and technology. The government has encouraged technology transfer and absorption, and higher investment in process development and basic research is underway. A high level of automation is expected in agrochemical industry. Old chemicals are being phased out; safer eco-friendly and low dosage molecules are being developed; and, agrochemicals are getting patented, thus providing immense opportunities for growth of the industry at large. Emphasis has to be laid on innovations and consistently maintaining the world class quality.

Strategic alliances in production, marketing and ancillary services have further given an impetus especially in the global competitive environment. Older production plants and techniques have been replaced by technologically advanced and sophisticated plants that are easy to manage, cost effective and environmentally less dangerous. An *interactive market analysis* and planning is also being encouraged. More investments in CRM, with emphasis on data mining and data warehousing for farmer contact, and customer satisfaction are being practiced. Systems and procedures to develop farmer awareness and confidence about newer products and their usage, as

also the accessories that complement and supplement each other are being laid out and followed (See Table I).

Table I: Drivers and Challenges to the Agrochemical Industry

DRIVERS	CHALLENGES
<p>Large untapped market: -30% increase in agriculture produce if the right products could be developed for controlling pests and diseases for which no solution exists as of now.</p>	<p>Target pest defiance to agrochemicals: - With continued usage over a period of time, a resistance to chemicals may develop; the resultant effectiveness of the agro chemical could result in lost sales, if newer products are not developed and introduced in the market.</p>
<p>Innovative markets: -New uses for existing products have offered attractive market opportunities. Some fungicides and insecticides have turned out to be very helpful as seed treatments to control against soil-borne diseases and insect pests immediately after germination. Some insecticides that were developed for crops have proven very effective for use as flea and tick control agents on farm animals.</p>	<p>Regulatory norms to reduce toxicity: - Governmental and environmental concerns towards healthy and safe environment also act as a challenge.</p>
	<p>Low capacity utilization: Under-utilization of resources to produce agrochemical basically because of seasonal demand, unreliable power and cheap imports.</p> <p>High inventory: Seasonal demand and poor management leads to over capacity and high inventory costs. Keeping in view the dates of expiry, the companies often have to follow a policy of end of season sales and this leads to price-cutting and market degradation.</p> <p>Low profit margins: Retailers buy on credit from companies and farmers pay retailers at harvest. This leads to problems in working capital management. Also, with the need to clear up stocks, companies follow a policy of price-cutting. Margins get decreased, and only those players who are proactive and offer novel products remain in strong positions.</p> <p>Environmental pressures: Pollution caused by agrochemicals and fertilizers has been a major cause of concern worldwide. Companies need to comply with the global regulations. The farmers should also be educated on the usage and disposal of such products and their impact on the environment.</p> <p>Other problems typical to industry: The customer segment is geographically dispersed and broad with varying requirements. Regulations and controls with regard to pricing and distribution. The market is subject to seasonal demand and fluctuations. There is no product differentiation and competition is intense.</p>

Krishna Private Limited:**Background:**

Krishna Pvt. Ltd. is one of the leaders in the Indian agrochemical industry with a capacity to produce 12,000 M.T. of technical grade pesticide and 35,000 Tons/Liters of formulations per annum. In 2005, Krishna Pvt. Ltd. earned revenues figuring Rs. 3870 crores and profit after taxes of Rs. 40 crores. The company is also among India's leading producers of urea, ammonia and phosphatic fertilisers. With its vision to be a market leader in whichever market it serves, it has always stressed on innovative business practices and a high performance standard with customer and employee satisfaction as the ultimate goal.

Krishna Pvt. Ltd. has a cost effective and competent manufacturing infrastructure across the country. The Krishna Research Center (KRC) situated in Andhra Pradesh has state of art laboratories, and has been successful in launching a number of new generic molecules. Been honored with both national and international awards for developing of new molecules, it has been successful in making its presence felt across the country, with a distribution network that covers 80% of the districts in the country; it has more than 1500 dealers and 30,000 retailers all over the country.

The years 2000 onwards, witnessed a deterioration of sales, with the year 2002-2003, recording the highest losses, a figure of Rs. 110 crores for the company. A strategic decision on the part of the company led to concentration on the core agrochemical business alone. The next two years saw a turnaround and the years 2005-2006 saw a revenue generation of Rs. 3870 crores, which has given it a second place in the agrochemical market (See Table II).

Table II Krishna Pvt. Ltd. - Association with rural India

Pre- 1947	Krishna set up a country-wide trading operation in cotton, jute and other agricultural products.
1948-1970	Krishna started fertilizer manufacture and distribution in India.
1971-2000	Investment was made in modernizing manufacturing locations and the Krishna Research Center was established. Exports were given greater thrust.
2001 onwards	Disinvestment of Pharma and Gelatin business. Focus on core business of Agrochemicals. Leading player.

Product Line:

Krishna Pvt. Ltd. manufactures a wide range of agrochemical products; viz, insecticides like Saksham, T Seeda, Saja, Nasaf and Heera; fungicides like Sintaf, Sintaf Plus, Captain and Fusigrab; and, weedicides like Seize, T Dosti and T Pasinda. Krishna Pvt. Ltd. has at least one brand among the top ten pesticide brands and at least two brands among the top ten fungicide products sold in the country. A comparison with other brands proves that the strength of Krishna lies in the fungicides market. Further, most of the best selling brands of Krishna are very old well established products.

Krishna's strengths lie partly in development but majorly in marketing; being strong with a rich product portfolio, a wide distribution reach and popularity amongst the farmers, it was a leader in the domestic agrochemical market for more that a decade till the merger of Bayer with Aventis (See Table III and IV).

**Table III: Relative Strengths: Krishna Pvt. Ltd vs. MNC's
(On a scale from 5 Very Strong -1 Very Weak**

Company	R & D		Production		Marketing			
	Chemistry	Development	Tech.	Cost	Portfolio	Fieldwork	Distribution	Comp. image
Bayer	5	4	5	3	5	4	4	4
Syngenta	5	4	5	4	4	5	3	4
Dow	4	2	2	2	2	2	3	3
DuPont	4	3	2	2	2	3	3	3
Krishna	3	5	3	3	5	4	4	5

**Table IV: Relative Strengths: Krishna Pvt. Ltd vs. Indian Companies
(On a scale from 5 Very Strong -1 Very Weak**

Company	R & D		Production		Marketing			
	Chemistry	Development	Tech.	Cost	Portfolio	Fieldwork	Distribution	Co. Image
Gharda	5	3	4	5	4	1	3	3
Cheminova	3	2	4	4	3	2	3	2
Indofil	2	3	3	3	2	3	2	3
Nagarjuna	3	3	3	3	3	2	3	2
Krishna	3	5	4	3	5	4	4	5

3.3 Problems Faced: Chattisgarh:

The company decided to target the untapped rural market in the country. One such area was the vegetable growing belt of the state of Chattisgarh. The market seemed to have developed tremendously with the state government playing an active role. Despite its efforts, Krishna Pvt. Ltd. was not able to capture the huge market of vegetables growers in Chattisgarh effectively, one of the very important agricultural states of India with a huge market size of Rupees 8 crores. It had only been able to make its presence felt in this region, and had a small market share of 8 %. The Kolkata zone officials were spending a lot of money as well as time and energy to turn around the position of Krishna in the vegetable market of Chattisgarh but all in vain. The company thus, decided to go in for a study of the market, so as to identify the fundamental issues.

4. Objective of the Study:

Because of the problems faced in Chattisgarh, it was essential that a primary research be undertaken at both the farmers and the retailer level to help understand the peculiarities in terms of customer psyche and expectations. Rural markets are unique and marketing strategies need to be customized to the dynamics of forces operating in the market, and so the study became all the more important.

The aim of the study was to undertake both primary and secondary research of the vegetable market, competitors and vegetable growers, so as to study, develop and implement market strategies for vegetables growers in Chattisgarh. The objectives of the study are as follows:

1. Studying the farmer profile:
 - a) Ascertaining the uniqueness of farmer profile, and peculiarities in rural buyer behavior.
 - b) Assessing the influence of opinion leaders.
2. Conducting primary research of pesticide market and recommending a tactical plan, for the company to regain its market share:
 - a) Studying the market share, industry players and company strengths at distributor and retailer level.
 - b) Estimating market size, growth patterns, new opportunities and threats.
3. Setting up a new distribution network of Krishna Pvt. Ltd. in Chattisgarh:

- a) Studying the distribution network mapping and marketing mix of competitors.
- b) Analyzing needs served by agrochemical dealers and effectiveness of various marketing mediums in rural markets; and, developing optimum contact strategies as well as an appropriate marketing mix.
- c) Recommending marketing strategies at field level for farmer individual contact, farmer meeting and promotional campaigns.

Methodology of the Study:

The study was confined to the vegetable growers of Chattisgarh, with the sample being concentrated around patches of vegetable growers in and around Raipur and Durg. Based on the premise that geographical demarcations could exhibit similarity in the farmer profile and the buyer behavior, a cluster sampling technique was used; within these clusters, a stratified sampling technique was undertaken based on the size of holding and caste demographics. A total of 100 farmers and 30 dealers/retailers were chosen as the sample size (See Table V).

Table V Profile of the Sample

Classification of Farmer	Total Acreage of the farmer (Acres)	% Of this Farmer in the sample
Small Farmer	0- 5	10
Medium Farmer	5- 30	60
Large Farmers	30 – 60	20
Traders	> 60	10

A schedule was prepared that was administered to the farmers and distributors; the questionnaire as a tool to gather data, seemed inappropriate, first, because of the literacy rate of the farmers; second, due to the product complexity and the technical complexity involved. The use of personal interviews while administering the schedule could help (i) in simplifying aspects of the questionnaire; (ii) watching customer's reactions and personal observations; (iii) getting a deeper understanding of the underlying reasons and effects .

Findings:

Customer Profile:

Farmer Profile:

The farmer profile indicated that the farmers have large holdings with an average land holding of 25 acres and median land holdings of 20 acres and are well off comparatively.

Cropping and Spraying Pattern:

The cropping pattern revealed that the farmers prefer to grow vegetables in comparison to other crops; about 80% of the cultivated area was under vegetables, followed by 15% in maize, fruit and sugarcane and 5% under paddy. The average yield in quintal per acre for the vegetables grown was also high. The number of sprays per crop season amounted to 10-12 sprays, with the spraying frequency being 8–10 days; this varied across the months.

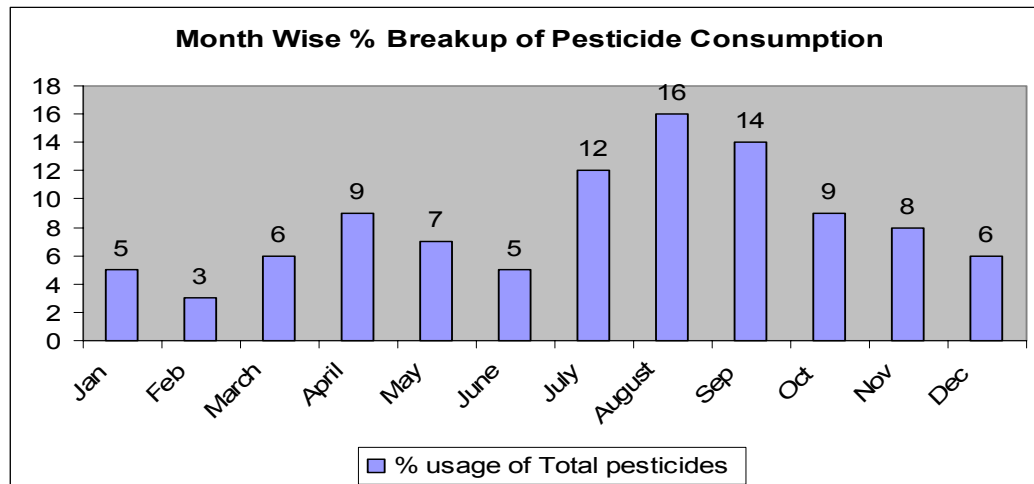


Fig. I. Month wise breakup of Pesticide Sales

Irrigation Facilities:

The region is well drained and irrigated, so as to facilitate 2-3 crops in 10-11 months of cultivation. It was found that 86 % of the total vegetable acreage had boring facility; about 60% of the total vegetable acreage had drip irrigation.

Cash Credit ratio:

For the smaller farmers with land holding of less than 25 acres, the credit ratio is 30 %; these farmers actually felt the need to avail a cash discount benefit and mainly bought on cash. As far as the farmers with land holdings of more than 25 acres was concerned, the credit ratio is 80%; this was primarily due to relationships that they could build with their lenders and suppliers. The net credit ratio is 60%.

Innovativeness and product loyalty:

The study revealed that the bigger farmers are less brand conscious, and show a low product loyalty. While the farmers were satisfied with their current products, about 70 % of the vegetable farmers were keen in trying out new agrochemical products and techniques to prevent resistance formation. The rest of them waited for the performance to reduce before changing their products/ brands.

Customer Buying Behavior:

Critical success factors in determining the choice of the product was identified, viz., company name, farmers' recommendation, dealers' recommendation, launch of new chemicals and trial pack result. The figure depicts the parameters which were rated in order of importance by the customers' choice (See Figure II).

It was observed that 84% of the farmers were knowledgeable and actually purchase the pesticide based on the technical compounds rather than on the company name and image.

As far as source of information is concerned, 40 % of the farmers took advice from the dealers, 95% filed the product literature for future reference, and 15 % of the farmers watched the agri-programmes, like Krishi Darshan on Doordarshan. The farmers also rely on local newspapers and agricultural trade journals for information.

While co-farmer recommendations and experiences play a major role as a determinant of product quality, it was observed that the company officials and the qualified field staff acted as major educators, influencers and persons who were consulted in the purchase decision in fact, the results from the study reveal that the farmers also desired such help from the company; this could take form through meetings, contacts, demonstrations etc. (See Figure 3). The field staffs and field assistants not only campaigned for the products but also educated and guided the farmers all the year round. Village fairs and stage shows are used to display product offerings; video vans are used to screen pictures and documentary films to attract farmers, and educate them on the product and brand offerings and the usage techniques. The farmers were also educated on pests and diseases and the corrective measures that were required to be undertaken. This highlighted the need for appropriate contact strategies between the company and the farmers. The study indicated the importance of farmer meetings and face-to-face contact with company officials as a major educator and influencer for the adoption and usage of chemical products. While 62 % of the farmers came to the dealers’ outlet with a product decision already decided based on preconceptions, the push was required as it led to greater confidence and satisfaction in the minds of the farmer.

“(Take in Figure III).”

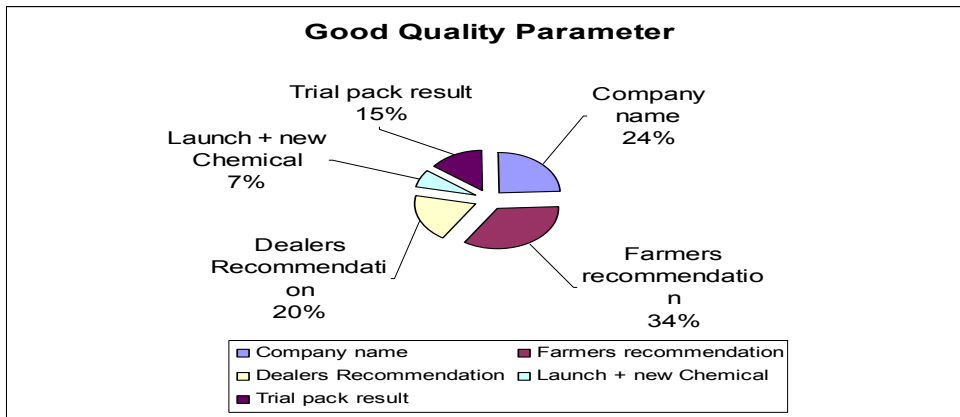


Fig. II. Good Quality parameters

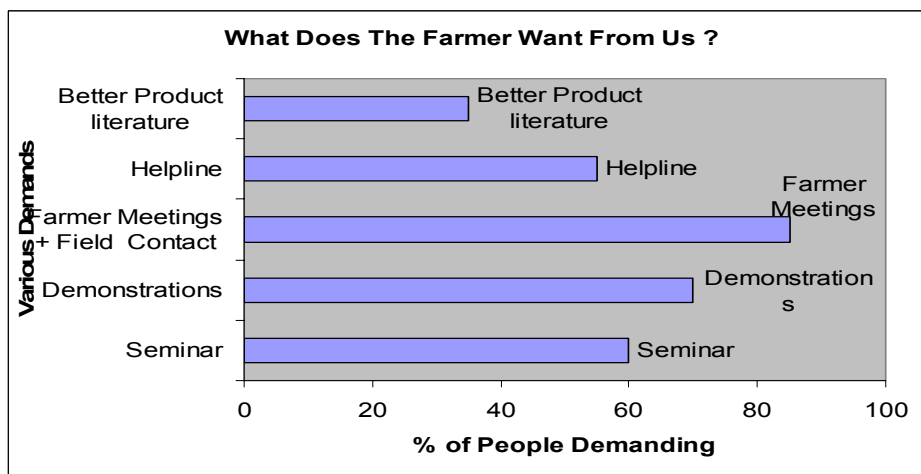


Fig. III. Farmer Expectations

Customer Expenditure:

With the seed expenditure/acre/pa and the pesticide expenditure/acre/pa being correlated to each other, Krishna Pvt. Limited also studied the seed expenditure vs. the pesticide expenditure. This could help the company in segmentation on basis of usage rate so as to target the appropriate farmers. It was seen that the increased popularity of the high yielding hybrid seeds is affecting the pesticide industry, with a seed expenditure/acre/pa of Rs. 3000 and a pesticide expenditure/acre/pa of Rs. 10000. The cost of cultivation was calculated; the pesticide expenditure amounts to the second highest component of the total expenditure (See Figure IV).

“(Take in Figure IV).”

Market Analysis:**Product Portfolio:**

For The Vegetable Growers the product portfolio can be divided into 3 types of products.

Type 1 – Products, which are already popular and are used regularly by the vegetable growers Flitox, Sintaf and Dogor.

Type 2 – Products which need to be focused since farmers are satisfied with their usage are Srajan , Heera , Vishal , Saksham , Seeda

Type 3 – Products of other companies’ with similar technical propositions are used extensively but not the Krishna brands like Prakat, Diotox and Liptane.

Market study:

The analysis of the market in Chhatisgarh revealed that Krishna Pvt. Ltd. has a strong name and image, with a high recall value, and a mindshare of 55 %. The number of product offerings from Krishna Pvt. Ltd. are few. In spite of this, when asked to name a major player in the market, the farmers named Krishna. This is indicative of the fact that it has a strong name and was popular. However, the major causes of concern for Krishna Pvt. Ltd. in Chhatisgarh are as follows:

i) The main dealer Kisan Ratna in Raipur, is weak in selling to the vegetable sector and has a share of 17% as against the more important dealers Krishak Kendra and Nootan Beej Bhandar, who are dealers of Syngenta and Bayer and has a share of 66 % (See Figure V).

“(Take in Figure V).”

ii) A similar problem exists in Durg, where the dealers of Bayer and Syngenta have a share of 61 % (See Figure VI).

“(Take in Figure VI).”

Distribution network Analysis:**i) Needs served by the Dealer:**

The main reason for farmers’ adoption of agrochemicals amongst the vegetable farmers of Chhatisgarh, is protection of crops. The dealers provide *information* about the various product offerings, their constituents and benefits; the usage; the accessories; and, the side effects and results of using such chemicals. They also educate them on issues of safe usage and disposal. Apart from this, the major role played by the dealer was *facilities of credit* and development of *long term relationships*. The dealers provide credit facilities, often through mutually agreed upon terms and conditions whereby the farmers are allowed to pay in installments or sometimes even after harvest. The long term relationship that developed between the two, on basis of trust was an important factor affecting both product and store loyalty (See Figure VII).

“(Take in Figure VII).”

ii Dealer Feedback:

The study on the dealers revealed that there was a high degree of discontentment amongst the dealers, issues being:

- i) Pricing: The pricing methodology of the company is vague, incomprehensible and non-transparent.; the pricing for each month is announced as late as two weeks every month and that made implementation difficult.
- ii) Product packages and sizes: There was a complaint from the dealers that smaller packs are always short in supply; this is true even for newer product offerings where trial is an important issue for farmers.
- iii) Company representative visits: The frequency of visits made by the company officials was found to be satisfactory at the dealer level but at the retailer level it is weak (See Figure VIII).
“(Take in Figure VIII).”

It was also seen that the dealers preferred to stock, established brands in the market, even if it meant lower margins which they could offset by sales, as brand image in the minds of the farmers is an important parameter. However when the product was not an established brand, then the dealers were more interested in higher margins and returns.

Competitor Analysis:

Contact Strategies of Competitors:

Due to the complexity of the product and its usage, communication with the farmers to create awareness and knowledge becomes essential in the agrochemical industry. Efforts towards effective customer relationship management are undertaken by the players in the industry through contact strategies so as to win the confidence of farmers and develop long-term close relationships. The study revealed that Syngenta, the market leader of agrochemical industry in Chattisgarh has contact strategies that are paramount to its success. Right from the sales executives to sales officers and field staff, every official is proactive and visits 20-35 farmers a month. Syngenta uses advanced technologies through audio visual means; a van with LCD screen to educate farmers on latest agricultural practices and to promote its products is used. The Syngenta India Agro Farmers Club has been formed to facilitate network building amongst farmers who thereby have a platform to share their experiences and increase awareness. Syngenta and Basf have also been organizing annual and biannual informational seminars that serve as a platform for grievance reprisal and to launch of new products. The companies also have an attractive reward system for its retailers, who are thus, always keen to push the product.

Suggestions and Recommendations:

Contact Strategy:

Effective contact strategies to connect with customers and treat them in a special way are of utmost importance as service differentiation can win customers and boost the business of the company (See Table VI).

Table VI Recommended Contact Strategies

Contact Strategy	Objectives	Frequency	Key Notes
Informational Seminar	-Communication Platform: Information about the product portfolio, -Brand Strengthening, -Mind share for the new products.	-Annual or Biannual with at least 100 – 150 Progressive Farmers	-Invite knowledgeable Experts, Scientists or Professors. -Cover topics like crop rotation soil types and micronutrients
Field contact by knowledgeable and qualified people. -Responsibility: Permanent Field	- Field Contact + Regular Advising - Objective to visit the farm crops, identify the major pests and diseases and advise the correct pesticide for it.	-2 villages and 10 Farmers / Day; -Cycle repeated monthly; -a total of 10*25 = 250 farmers a month and then	Farmers visited should become dependent on brilliance of Krishna for advice.

Staff + Sales Officer		regular follow up	
Farmer Meeting and Demonstrations -Responsibility: Sales Officer	-Group Meetings + Demonstrations to spread product information.	-Weekly from Aug– Nov with farmer strength 30 – 70. -16 meetings in a season.	-Hold at the opinion leader's farm. -Establish brands of not so well known products.
Progressive Vegetable Growers Club -Responsibility: Area Marketing Manager	Gain goodwill of opinion leaders and build squad of Krishna loyalists.	Members in regular contact with Area Regional Manager and Area Marketing Manager through phone and personal visits.	Provide best services and inform latest schemes to members.

Pricing Policy:

The product portfolio should be categorized into two categories: (A): Key brands where retail-level prices will be informed through the Pricing Circular; (B): Brands for which net prices would be offered to distributors of so that they can work out on their gains. In order to bring uniformity and clarity, and thereby improve, the analytical efficiency in the pricing system, certain suggestions were made with regard to the two pricing elements, viz., Maximum Retail Price (MRP) and Dealer Billing Price (DBP). The MRP across the country should be finalized once every year and be effective from April 1 of every financial year. The uniform DBP across the country should be finalized along with MRP at the beginning of each financial year. Any changes made would be informed through circulars. A range of discounts should be offered to sole stockiest, distributors and farmers to intensify the sale of various products.

i) Sole Stockist Margin: Sole stockists would be entitled to a margin of 3%, calculated on DBP, for category A products and a margin of 2%, calculated on DBP, for category B products. For category A products, the recommended price to retailer will be provided in the price circular to the sole stockist. However, no recommended price to retailer will be indicated in the price circular for category B products.

ii) Matching Discount: Matching discount would be offered to match temporary deviation in prices in the market and it thus it could vary across months. It would be applicable on every unit sold of a particular product. Special discounts for exceptional customers who buy in bulk like plantations or institutions would be indicated in the price approval formats.

iii) Payment Incentive: Payment incentive would be offered to sole stockists or preferred dealers for paying cash within specific days of invoicing. It would be calculated as a percentage of net DBP (DBP less Sole Stockist Margin less Matching Discount).

iv) Rebate Agreement: This would take the form of an incentive and would be offered to the sole stockist and preferred dealers for lifting the sale of a particular product.

v) Year-end Performance Incentive: Year-end performance incentive was a reward for sole stockist and preferred dealers for accomplished targets established at the beginning of the financial year. It was valid on sales of all Category A and Category B products, excluding the low profitability products. It would be based on both quantitative (25 % weightage) as well as qualitative (75 % weightage) parameters, to be decided at the beginning of the year in consultation with Regional Manager – Sales.

vi) Differential Discounts: Apart from the above, differential Discounts would be offered to sole stockists or preferred dealers.

Key recommendations:

The study revealed that the vegetable growers of Chhatisgarh, are progressive and knowledgeable and have been farming on a commercial scale for a very long time.

i) Target market:

Krishna has a good presence amongst the small farmers. The company needs to focus on the medium farmers, as their brand loyalty is high and they are less cost conscious. They can be easily be broken into with regular individual contact supported by informative product literature.

ii) Product portfolio:

- Campaigns should be undertaken for Type 2 Products (Heera , Samarth , Anant , Saksham , Sintaf) , since farmers are satisfied with their usage.
- Krishna has a good presence in the fungicide market; this needs to be further strengthened. However, the company needs to increase its base in the pesticide and herbicide sector, the latter being the weakest sector. The company should focus on products like Srajan, Heera and Vishal. Krishna should penetrate the market technically through brand creation and aggressive marketing to have a greater impact.

iii) Dealer Network:

- In Durg and in Raipur, the vegetable sector is dominated by dealers of Syngenta and Bayer. The realignment of the distribution network of the company to support vegetable growers is required so as to hold of the vegetable market.
- New dealers in Durg and Raipur must be appointed to create a stronger distribution network. The existing dealer, Kisan Ratna in the Raipur market, has only a 17 % market share and the dealer, Ratna Krishi Kendra in Durg has just 10 % market share.
- Krishna Pvt. Ltd. has strong controls and higher market shares in the interiors and among the smaller farmers. This needs to be further strengthened.
- The company needs to concentrate on the retailer level schemes in the market; it should introduce lucky draw prizes, cash or holiday trips as a reward for the pushed sale of a particular product in a limited period. This could motivate the dealers and stockists and help build long-term relationships.
- Incentives should be given to big dealers like Krishak Kendra or Nootan Beej Bhandaar as they have big market share as compare to smaller dealers; this could encourage them and act as motivators for them as well as for others. A uniform pricing and discount policy as discussed above should be adopted to reduce the discontentment among the dealers.
- Regular contact of company officials with dealers to discuss the sales, marketing and incentive related issues must be initiated.

iv) Communication and promotion:

- Krishna Pvt. Ltd. needs to focus on the information need of the farmers.
- Product literature that is crop and disease specific, through audio visual means should be distributed.
- Product portfolios should be promoted as a complete solution for all problems of vegetable growers. Trial packs and smaller packs must be distributed.
- The acreage of plantation crops like banana and papaya are increasing exponentially and so in this market, Krishna should be concentrating on sales of its already popular products of chemical fertilizers.
- The vegetable farmers have been under the impression that Krishna and all its marketing activities are concentrated on the paddy farmers; they have felt ignored by Krishna. Contact strategies to provide information on advanced agricultural technologies as well as agrochemical products is required. The vegetable farmer community is progressive; they use the latest technologies and have a high level of awareness about pests and diseases. It has been observed that officials from Syngenta, Bayer and Basf, have been working in this sector for the past 10 years and are in regular touch with the farmers. Infact, the success of Syngenta lay in its intensive individual farmer contact, finally making the farmer dependent on the company officials for regular advice before purchasing pesticides. This seemed to be lacking in Krishna's case; there exists a void between Krishna's officials and vegetable farmers due to less actual field contact. Due to this the share is less than 8 % in the pesticides. However it is noteworthy that the brand

Image and mind share of Krishna is close to 55 % and with a focused contact strategy of demonstrations and meetings, as well as regular field contact the link between the farmers and the company the situation could improve. Thus there was a need for contact strategies.

- Certain areas were identified which were high pesticide consuming centers, where a sizeable amount of pesticides were used in the entire crop life cycle. A big role is also being played by opinion leaders and it was realized that if Krishna could connect with these customers periodically, it could capture a large share of the market. The aim is to serve these 20% affluent lot who would give 80% of the business.
- Frequent product demonstrations followed by farmer meeting are required to be initiated as part of the contact strategies.
- A personalized help line for farmers to connect and discuss problems should be introduced.
- For launching and ascertaining the brand value of new products, mass campaigns should be initiated; this could take the form of public meetings, where product portfolio could be displayed, information on pests and diseases provided, and discount coupons and gifts given; the dealers and retailers should be involved.
- 23 % of the farmers depend on the dealers for product information; hence more of point of purchase display at the outlets is recommended.
- Dealer hoarding and tractor painting must be initiated as communication strategies.
- Advertisement through the print media is also recommended. Agricultural related newspapers and magazines like Krishak Jagat are usually read and informative appeal could be the basis for the message strategy and content. Audio visual advertisements could be played on Doordarshan and All India Radio in the Krishi Jagat programs.

Implementation and Conclusion

In the agrochemical industry, a company could hardly afford product differentiation and so the main success factor for Krishna Pvt. Ltd. lay in service differentiation. The marketing strategy that needed to be followed by the company was through exploiting the progressive vegetables growers profile and their expenditure tendencies.

Since Krishna is a well-known brand among the vegetables growers, company name, dealer's recommendation and fellow farmer's recommendation would positively influence the growth of the company. The importance of a strong dealer network in Raipur and Durg to increase the market share could not be underestimated. Regular contact with dealers and farmers to provide information as well as effective pricing policies would certainly produce positive results. This would further stimulate their loyalty towards the company. Number of incentives and discounts recommended to farmers, distributors and stockiest would be driving the sales of the company. It was utmost essential to get rid of the void existing between Krishna officials and vegetables growers through focused contact strategies. Krishna must take advantage of the rising popularity of audiovisual medium as an information source among the formers through the recommended marketing strategies. While advertising whether through print, audiovisual medium or meetings, promotion of products should be the ultimate objective; but to gain confidence, goodwill and trust of the farmers and to build long-term relationships, company must use these platforms to educate farmers about the modern agricultural practices. It is also important to note that the innovation could also play a major role in the growth of the company. The company must utilize its state of art research center for the development of innovative crop and disease specific quality products. Growing environmental concerns about the safe use of agrochemicals should also be addressed. Recommendations were thus made; corresponding to these marketing strategies were developed and implemented that have helped the company to grab a substantial share of the market and

emerge successful. The past two years have witnessed a period of success for the company that has been able to grab a huge share of the market in Chhatisgarh.

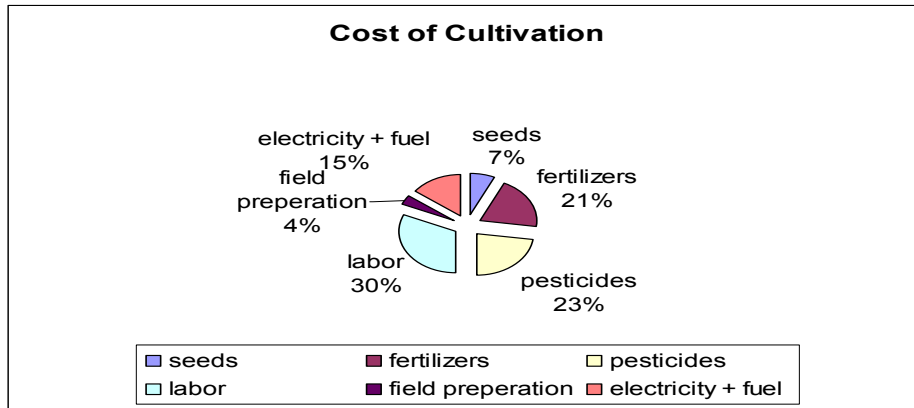


Fig. IV – Components of Cost of Cultivation

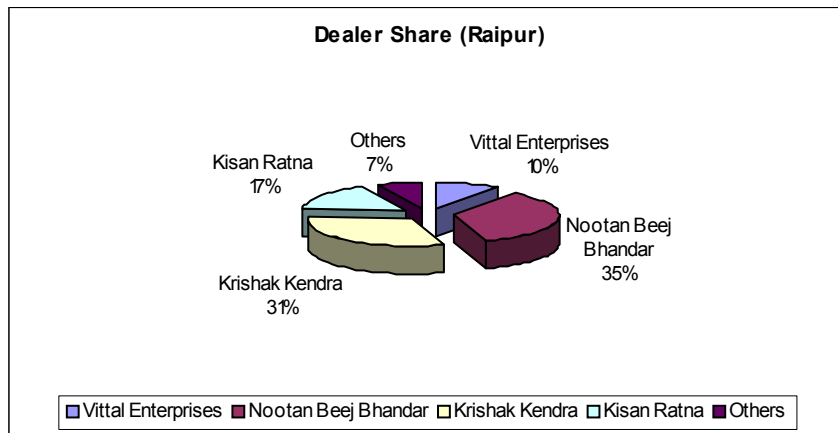


Fig. V – Dealer Shares (Raipur)

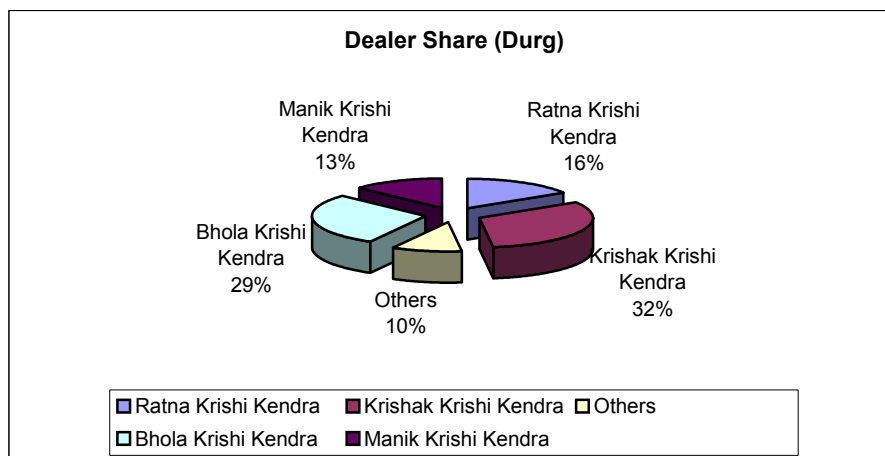


Fig. VI – Dealer Shares (Durg)

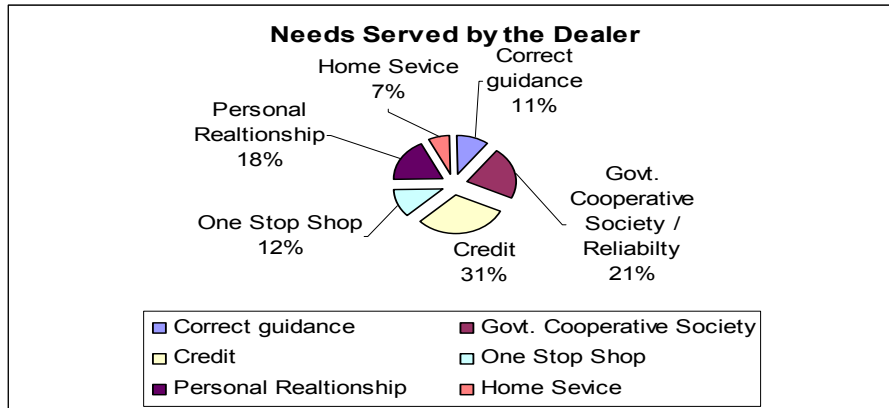


Fig. VII – Need served by Agrochemical Dealers

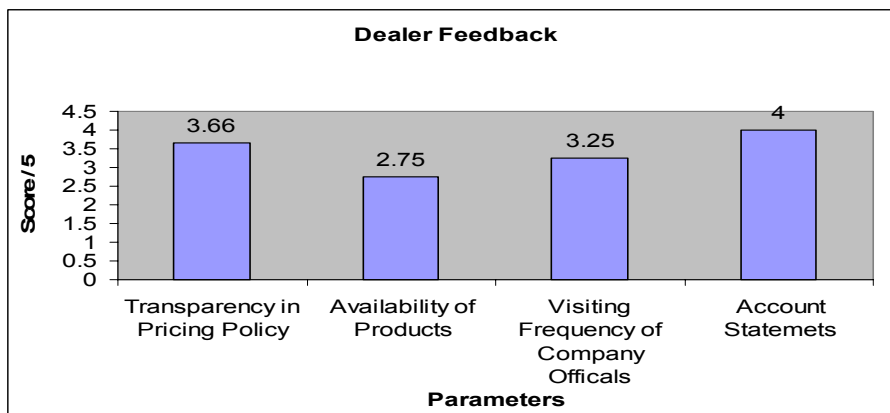


Fig. VIII – Dealers response

Acknowledgment

The authors are grateful to **Mr. Naman Kapoor**, an ex-student of Vinod Gupta School of Management at IIT Kharagpur, for his valuable inputs that have helped us to develop the case.

References

- <http://fert.nic.in>
- <http://www.ficci.com>
- [http:// www.ifco.nic.in](http://www.ifco.nic.in)