

Appraisal of Distribution Network of Vegetable Seed Companies:  
Benchmarking the Best Distribution Practices

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Abstract:

The aim of present study was to analyze the distribution network of different vegetable seed companies for tomato seed and benchmark the best distribution network in the study area. Six major players dealing in tomato seed business were selected for the purpose. Twenty three parameters were devised during the study ranging from distribution density to distribution depth and width. Each company was ranked on 1 to 5 scales. Statistical tool like weighted mean was used for analyzing the data. A comparison on individual parameter was done and the overall performance of each of the company was calculated with help of a grid. In the given paper, the name of the companies under study has been changed to refrain of disclosing competitive strength.

## Appraisal of Distribution Network of Vegetable Seed Companies: Benchmarking the Best Distribution Practices

### Introduction:

India is the second largest producer of vegetables next only to China with an estimated production of about 105.0 million tons from an area of 6.0 million hectares at an average yield of 16 tons per hectare. India shares about 15% of the world's output of vegetables from about 2.8% of cropped area in the country. Seeds form the fundamental and crucial input for sustained growth in farm production. Timely availability of seeds at a convenient place is one of the most important determinants in the vegetable seed business. The stiff competitions due to presence of many multinational and indigenous companies have widened the choice of farmers as many brands are present at any seed retail counter. As a result, companies are serious about logistical arrangements for timely availability of seeds at every place of requirement.

The Distribution Benchmarking process helps the companies to know strengths and weaknesses in their distribution system as compared to market leaders. The tomato crop was purposively selected for the study as in tomato by volume; more than 95 percent seeds are of hybrid varieties and are significantly costlier as compared to other crops touching Rs. 60,000 per kg. Secondly, tomato is one of the major cash crops in the study area amongst vegetables comprising 750 hectare next to Potato and Pea with an area under cultivation as 2421 and 1506 hectares respectively. The study was under taken with the following specific objectives:

- I. To analyze the distribution network of different vegetable seed companies for tomato seed

- II. To benchmark the best distribution network among different vegetable seed companies

Methodology:

The descriptive research was conducted for analyzing the distribution network of vegetable seed companies and for benchmarking the existing distribution network. The area chosen for the study was district Udham Singh Nagar of Uttarakhand. Convenient sampling method was used to identify the respondents including distributors, retailers, farmers and company representatives. Benchmarking of distribution network of different seed companies was done on the basis of twenty three parameters. These parameters were number of distributors, distribution density, average distance, percentage overlap, sales volume, distributor width, distributor depth, retailer width, retailer depth, push-pull index, product display, problem solving nature of distributor, distributor's shop location, transport facility with distributors, work force at distributor's shop, age of the firm, payment habit of distributor, types of companies dealt by distributor, time period of dealing with a company, promptness in delivery, appropriating schemes, account settlement, and cordial nature of distributors. Only a part of the study is presented with the following formulas used to draw the meaningful inferences.

- (i) Distribution Width=  $\frac{\text{Number of distributors of a particular company}}{\text{Total number of distributors}}$
- (ii) Retail Width=  $\frac{\text{Number of retailers covered by a particular company}}{\text{Total number of retailers}}$
- (iii) Distribution Depth=  $\frac{\text{Company's sales volume through distributors (in kg)}}{\text{Total sales volume of all distributors (in kg)}}$
- (iv) Retail Depth=  $\frac{\text{Company's sales volume through retailers (in kg)}}{\text{Total sales volume of all retailers (in kg)}}$
- (v) Push-Pull Index=  $\frac{\text{Average Push Volume}}{\text{Average Pull Volume}}$

Weighted mean was calculated for parameters of distribution system and was used for knowing the overall performance of each company with the help of a grid. The weights were assigned to different parameters after proper classification according to their importance and deep discussion with company personnel and traders. Points awarded to each parameter were multiplied with the weightage given to that respective parameter and the sum was calculated for individual company. Company getting highest total was termed as the benchmark and was considered to have the best distribution system for tomato seed.

#### Result and Discussion:

Benchmarking is the process of comparing the cost, time or quality of what one organization does against another organization on the same parameter. The result is often a business case for making changes in order to make improvements. It is a continuous effort to improve company's manufacturing process, distribution process, advertisement process, consumer satisfaction process and so on. Normally benchmarking is required by a company to have market leadership in the industry and competitive advantages over others due to its enhanced performance. Better performance is directly linked to financial performance in terms of net profit of the company. Distribution Width is an important parameter while comparing the distribution system of different companies. Distribution width of a company indicates the reach of a particular company among distributors. More distribution width signifies better distribution network. Retail width indicates the reach of different companies among retailers. Company having highest retail width will be considered as the benchmark for a particular trait. It was evident from the study that the distribution width of Macho was foremost followed by Nansee. Hence, the

Macho was having a better reach to its distributors in comparison to its close competitors. The rest four players demonstrated the same distribution width. However for retail width, Nansee was the leader followed by Synergy, Macho and Adhari.

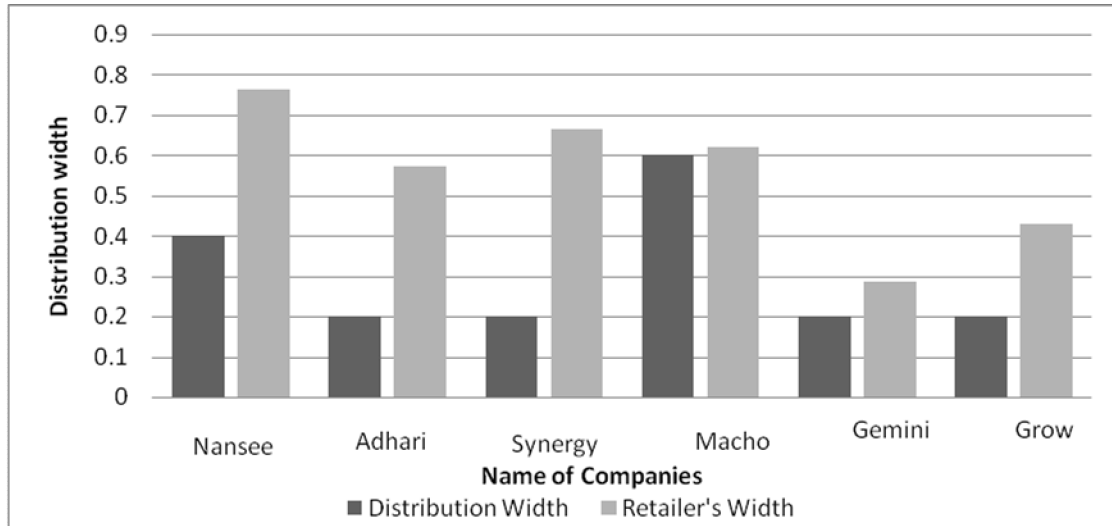


Exhibit 1: Distribution and Retail Width of the Major Players

Depth of distribution system indicates the penetration of a particular company in a particular market. Distribution depth shows the penetration of a company among distributors and retail depth shows the penetration of a company among retailers.

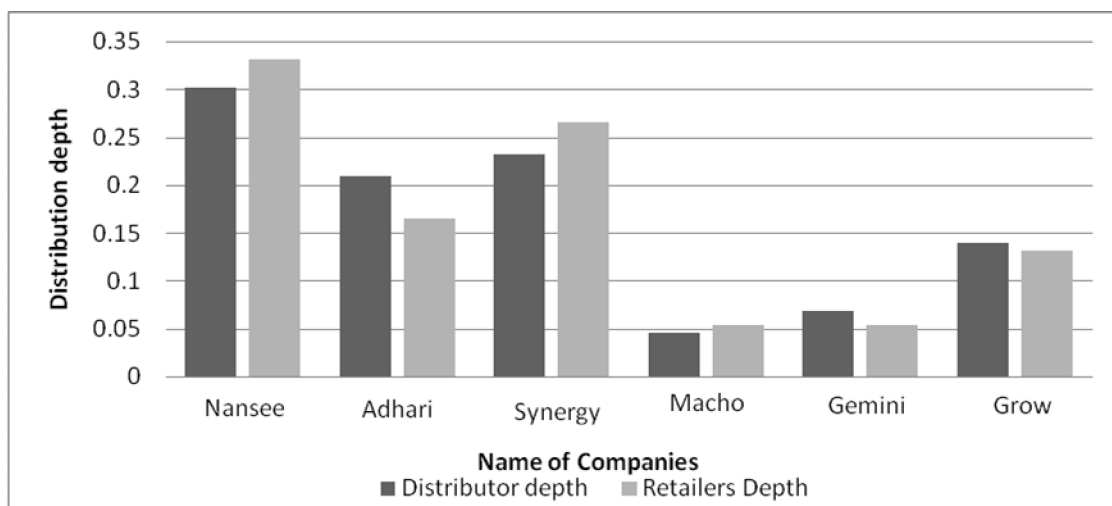


Exhibit 2: Distributor and Retailer Depth of the Major Players

The study showed that both distribution and retail depth was highest for Nansee followed by Synergy however, the lowest distribution and retail depth was measured for Macho. It meant that share of Nansee was highest in total volume of tomato seed sold at distributor's shop as well as retailer's shop.

Push-Pull index is an important criterion to judge the loyalty of a distributor. Pushing more the products of a company signifies distributor's loyalty towards the firm. Usually a distributor pushes the products of a company that offers him greater margin. The companies consider the value of push-pull index for ascertaining the loyalty of its distributors and the profiteering business that distributor may yield for the company. On the other hand, market pull indicates that the product is having good reach amongst the customers and is widely popular. Increasing the sales volume of these products invites fewer efforts on the part of the company. It was evident from the study that Nancee was having maximum pull whereas the products of Gemini were having maximum push by distributors. The distributors of Gemini have shown more loyalty towards the company. It was due to greater profit margins offered by the company. However in case of Nancee the farmers and retailers directly came to distributor shop and asked for the products of Nancee. It can be furnished on the basis of responses received that Gemini was not having strong brand recognition for tomato seeds as compared with Nancee.

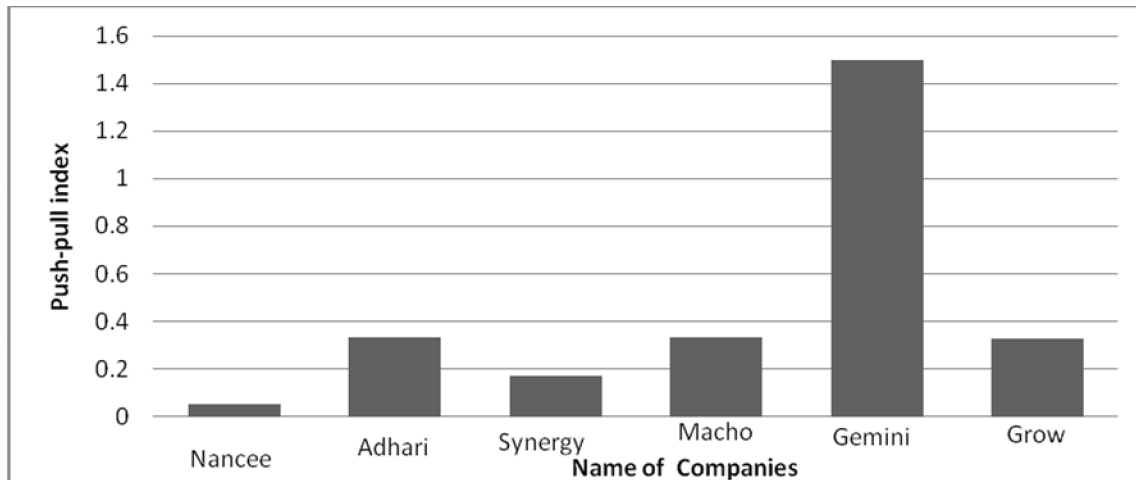


Exhibit 3: Push-Pull Index for Major Players

Sales volume is also an important criterion for determining the penetration of a company among end users. More the sales volume, better the company's reach amongst the customers. Company having maximum sales volume is supposed to have best distribution system and company having least sales volume is having less developed distribution system. Exhibit 4 shows that Nancee was having maximum sales volume in tomato seed followed by Synergy and Adhari. These findings endorse the better presence of Nancee in the market as this company was also prominent in terms of distribution depth.

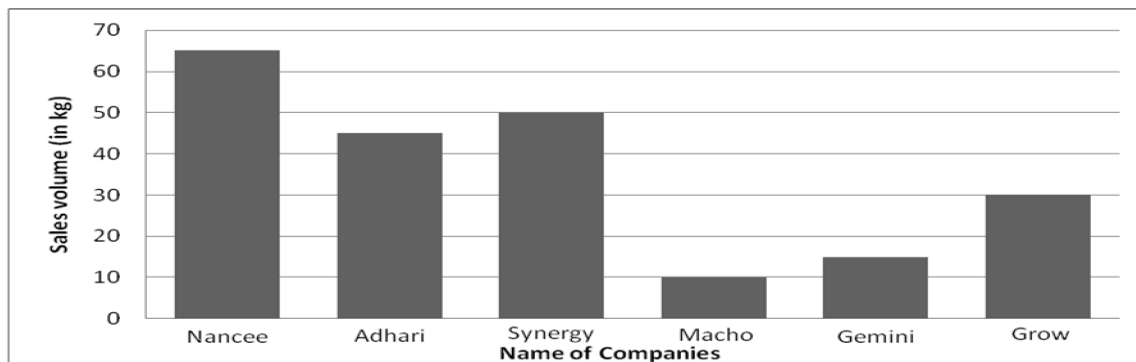


Exhibit 4: Sales Volume of Major Players

Table: Grid showing Overall Performance of Companies on Selected Parameters

| Parameters              | Weightage | Nancee | Adhari | Synergy | Macho | Gemini | Grow |
|-------------------------|-----------|--------|--------|---------|-------|--------|------|
| No. of Distributors     | 5         | 3      | 1      | 1       | 5     | 1      | 1    |
| Average Distance        | 5         | 1      | 1      | 1       | 5     | 1      | 1    |
| Distribution Density    | 5         | 3      | 1      | 1       | 5     | 1      | 1    |
| Percentage Overlap      | 5         | 3      | 5      | 5       | 1     | 5      | 5    |
| Sales Volume            | 8         | 5      | 3      | 4       | 1     | 1      | 2    |
| Distributor Width       | 5         | 3      | 1      | 1       | 5     | 3      | 3    |
| Distributor Depth       | 5         | 5      | 3      | 4       | 1     | 1      | 2    |
| Retail Width            | 5         | 5      | 2      | 4       | 3     | 1      | 1    |
| Retail Depth            | 5         | 5      | 3      | 4       | 1     | 1      | 2    |
| Push-Pull               | 5         | 1      | 3      | 2       | 3     | 5      | 3    |
| Product Display         | 3         | 3      | 3      | 3       | 1     | 1      | 5    |
| Problem Solving         | 4         | 3      | 1      | 1       | 4     | 5      | 5    |
| Shop Location           | 3         | 3      | 5      | 5       | 1     | 1      | 1    |
| Transport Facility      | 4         | 3      | 3      | 3       | 5     | 3      | 3    |
| Work Force              | 3         | 3      | 5      | 5       | 3     | 5      | 1    |
| Age of the firm         | 3         | 3      | 5      | 5       | 3     | 1      | 1    |
| Payment Habits          | 8         | 5      | 5      | 5       | 5     | 5      | 5    |
| Type of Companies dealt | 4         | 5      | 5      | 5       | 3     | 5      | 5    |
| Time period of dealing  | 2         | 5      | 2      | 4       | 4     | 1      | 3    |
| Promptness in delivery  | 4         | 3      | 3      | 3       | 5     | 3      | 3    |
| Appropriating schemes   | 3         | 5      | 5      | 5       | 5     | 5      | 5    |
| Account Settlement      | 3         | 5      | 5      | 5       | 5     | 5      | 5    |
| Cordial Nature          | 3         | 3      | 1      | 1       | 4     | 5      | 5    |
| Total                   | 100       | 366    | 303    | 330     | 335   | 268    | 280  |

#### Conclusion:

It was evident from the study that the distribution network of Nancee was best for tomato seed in the study area emerging as benchmark on overall score. The study also strengthened the contemplation that seed marketing at micro level involves the matching of the farmers needs with timely seed supply. The determinants like availability of seed during the seasons, outlining the catchment area to be covered by specific varieties, adequacy of support system including finance and stocking at



different levels have great significance in making a strong distribution network. The study also revealed the overlapping among distributors of the same company leading into dissatisfaction amongst them. The overlapping was also promoting the bad practices including undercutting, cross selling and badmouthing among the distributors. The sales volume and payment habits were regarded as most important attributes for appraising the distribution practices. The company surveyed may make it a point to appoint new distributors to increase their width or depth on case to case basis to cater the unreached areas. Distributors' margin may also be judiciously planned to increase push-pull index and ultimately to increase the sales volume.

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