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ALPHA ADVANTECH LLP: REACHING THE MASSES

Late one evening in January 2020, Nitin Lalit, co-founder of Alpha Advantech LLP (Alpha Advantech), sat in his office assessing the future he envisioned for his agricultural and gardening products company. Nitin wondered if he should drive organic growth and use his resources to expand Alpha Advantech's operations. The company had performed well since its inception in 2016. Alpha Advantech had ended 2019 with revenue of ₹232.7 million,[1] reflecting a growth of 52.7 per cent over 2018 (see Exhibit 1). A meeting with Nitin's partners and team members earlier in the day had proven fruitless, as each person had had a different assessment of the scenario. Nitin aimed to achieve turnover of ₹600 million by 2022, but the company's sales and financial resources were limited. With this clouding his mind, Nitin could not decide whether to let Alpha Advantech stay niche in the business or to expand it both geographically and in terms of its range of offerings. He realized that if he were to choose expansion over consolidation, he would need to devise a strategic plan for Alpha Advantech's growth, assess the technical and digital capabilities that his company would require, and anticipate the scalability issues it was likely to face. Given that the future growth of his company rested on his judgment, Nitin had to make a decision soon.

COMPANY BACKGROUND

Nitin founded Alpha Advantech in 2016 in partnership with his father, a retired bank officer and agriculturist, and two of his brothers. Nitin was a Canadian citizen. After finishing his mechanical engineering education from a prestigious college in Canada in 2008, Nitin joined F & P Manufacturing Inc. and worked on suspension project with Honda Canada Inc.. In 2012, he moved to General Motors of Canada Company, an experience that proved beneficial because it helped him to gain knowledge about plant operations. In 2016, Nitin and his wife returned to India from Canada with a vision of setting up a research and development centre for designing and manufacturing agricultural tools.

The company started in a combined workshop and office that was set up in a renovated rice mill in Karnal, Haryana, India. Nitin had converted the two-acre area—which included an office, a workshop area, and a pillar-free storage space that was almost 15 feet high—into different spaces as required by his business. The presence of vast storage space in the mill worked to his advantage because he planned to place a large machine there in the future. From his shop floor experience, he knew that a floor plan with low interference from other

[1] ₹ = INR = Indian rupee; ₹1 = US$0.1399 on January 8, 2020; all currency amounts are in ₹ unless otherwise specified.

activities in the vicinity was ideal for any workshop and storage-related business. Nitin saw the open land space as ideal for displaying plants in the planters that were manufactured and assembled by his company. In addition, he wanted to build a consumer demonstration centre that could hold approximately 150 people. He wanted his company to provide a live demonstrations of terrace gardening and farming flowers, fruits, herbs, medicinal plants, salad vegetables. People could come to the centre to see new methods of gardening and of growing their own vegetables and fruits. He also used the space to conduct all of the gardening trials. People from different cities could visit the plant to experience this new way of gardening.

START-UP TIME

The enterprise was set up with a bootstrap budget of about ₹1 million, toward which Nitin had pooled his own personal resources. He had also borrowed some money from his late mother. He co-operated with the owner of an injection-moulding machine worth ₹1.5 million to procure his polyethylene sheets, as the machine had been lying idle and the owner was ready to share the machine for the work of Alpha Advantech. Nitin provided his staff to mould the sheets, and the owner used Nitin's staff to carry out the additional external work orders that the owner was receiving. Nitin also helped the owner with other work orders, which ensured that the owner had no overheads and that Nitin did not have to buy a new machine. Nitin was making loan payments for the machine and would own the machine once the loan was paid off. This was part of standard practices in Nitin's community, where people tried to help each other in one way or another. In this case, there was no written agreement, but the arrangement had been discussed and decided upon by Nitin and the owner in front of two witnesses, and that was how it was working. The verbal agreement worked because all parties came from a farming background and formed a strong community. They did not feel the need to go through any legal hassle and a banking set-up involving collateral and paperwork.

Additionally, Nitin had secured a working capital loan of ₹1.5 million without any collateral from the Union Bank of India under the Startup India initiative,[2] in which the bank was a channel partner. Nitin used part of this loan to purchase the office–workshop–cultivation area. The rest of the loan was spent on putting together other machines and equipment. His technical and farming expertise helped Nitin make a rudimentary machine out of spare parts that he had purchased. He hoped to refine the machine over time and with business growth. The cost of manufacturing per 24-by-28-inch sheet was ₹70–₹80. The sheet could be flattened and transported easily both nationally and internationally.

THE TEAM

Nitin was the eldest of three brothers, and together they ran the family-owned business. Nitin and his father, Jai Kishan Lalit, managed production and packaging with the help of two machine operators. Nitin had also hired five people to do the assembly work. In addition, Nitin led the promotional activities of the company through different events and exhibitions. Nitin's uncle, Surinder Lalit, who had recently retired as director of the Rural Self Employment Training Institute (Kachawa, Karnal), gave agricultural advice and also managed the company's financial accounting. Nitin's brother, Anshul Lalit, who had a master of business administration in marketing and finance, looked after the marketing activities. The youngest brother, Achin Lalit, a software engineer who lived in Canada, handled the product-branding essentials. The company had a team of four to look after marketing activities, create the website, and generate social media buzz. This team was also responsible for handling online orders with secure payment gateways.

[2] A Government of India initiative that sought to build a safe environment for start-ups to innovate and accelerate sustainable economic growth in the country and provide jobs.

ALPHA POTS

Alpha pots were planters that Nitin had scientifically designed to ensure optimum conditions for the improved root growth of plants. The design of the pots helped the plant to develop healthy feeder roots, which maximized the plant's ability to absorb nutrients and water and hence grow faster. In addition, the planters facilitated proper gaseous exchange. Although it was evident and well known that all plants needed healthy roots, traditional pots were designed in such a way that they deformed the root and severely compromised the health of the plant. Unlike traditional pots, however, Alpha pots had several advantages (see Exhibit 2), including being used for both small- (container) and large-scale (trough) crop production. The pots could also be used for vertical farming, using the soilless media and aeroponics system.

The Manufacturing Process

Nitin purchased water bottle caps made of high-density polyethylene for manufacturing his planters from Bisleri International Pvt. Ltd. (Bisleri). He purchased these caps because they were of superior plastic and quality—and he did not want to compromise on quality. Unlike Bisleri's polyethylene caps, other bottle caps were made of polypropylene that was prone to breakage and had a shorter shelf life, and were thus not suitable for his manufacturing process. While the plastic bottles were regularly recycled—they were crushed and made into yarn—the bottle caps had no takers. This proved beneficial for Alpha Advantech, as Nitin bought the caps from the scrap dealers and had them ground by the bailing machine to convert them into granules. First, flaky polyethylene granules were put into a hopper, which resembled a wheat-grinding machine, and were then passed through a heating barrel in a screw action and then onto a die, followed by a cooling process. Another machine made the screws and base plates through the injection-moulding process, in which an injector pushed the granules into a mould and cavity and then retracted. These dies then went through a cooling process once again. Once out of the mould, the extra plastic that had been cut off could be reused. The machine could make 15–20 sheets per hour. Once a sheet was ready, it had to be assembled with the base plate and screws to prepare the final easy-to-assemble product (see Exhibit 3).

The scientific design of the Alpha pots played a pivotal role in increasing the per-capita yield. Nitin ultimately aimed to help farmers double their income. Besides the scientific and farming community, the urban community, too, appreciated the design of the Alpha pots for its aesthetic value and utility in kitchen gardens and vertical farming. Alpha pots were available in different designs to cater to residential complexes, gardens, farming, and so on (see Exhibit 4). In addition, Alpha Advantech used recycled plastic to manufacture Alpha pots, thus contributing to environmental safety and sustainability.

Nitin's company also developed an easy-to-transport, modular self-watering planter that could not only hold a sufficient amount of air but also regenerate water. This product ensured low-maintenance, hassle-free gardening and healthier plants, as well as enabled water conservation, which was its unique selling proposition.

Product Range

The company had an extensive product range of horizontal and vertical pots. It offered small pots for indoors and larger ones for terrace gardening. It also made large modules made of aluminum, steel, and plastic, for farming organic food. The sheets of these modules were modified into a large kayak with four wheels and back support about 50 inches long and 23 inches wide. Branded as the Alpha Infinity Trench, the design enabled easy assembly using slip-and-slide technology (see Exhibit 5). All parts were detachable and could be assembled in just a few minutes. The product was suitable for growing creepers, and the company had filed a patent application for it.

Alpha pots had several unique features, including water conservation, reduced evaporative loss, and 360-degree air and moisture retention that promoted root growth. Although the product had several benefits over traditional pots, customer awareness was low, as the product was in the nascent stage of its life cycle. According to Nitin, most people who took up gardening as a hobby usually started with economical and readily available traditional pots, but eventually gave up because of the time needed to maintain the plants. He believed that the Alpha pot, with its scientific, aesthetic, and water-saving qualities, could be marketed to appeal to people looking for low-maintenance, environmentally-friendly, and sustainable gardening.

Price

Alpha Advantech's products ranged in cost from ₹300 to ₹7,500. While the mini indoor pots cost about ₹300, the bigger pots were priced according to design and size. The large Alpha Infinity Trench, for example, cost about ₹7,500. Nitin decided to keep a price point that conveyed the perceived value of the product. Although the Alpha pots were costlier than the cement and ceramic pots (see Exhibit 6), Nitin wanted to keep the price affordable for the majority of his customers, and this included considering the 40 per cent margins for distribution, sales, and marketing. The company expected better business from the business to customer (B2C) segment in the coming years.

Promotion

The company tried promoting the products through participation in different exhibitions and events. Since the beginning of 2017, Nitin had taken his products to many horticulture exhibitions organized in different parts of the country. Considering that the footfall at the Alpha planter stalls during these exhibitions was more than 1,000,000 people, he expected these exhibitions to generate some initial orders. Until 2018, the company's predominant focus had been on direct sales through the exhibitions, but in 2019, the focus shifted to brand-building activities. The company used the exhibitions as platforms to not only demonstrate its products and conduct promotional activities—by involving customers to showcase the ease of use of these products—but also to gift all participants with mini Alpha planters. As the company had been operating on a limited budget, it did not have the funds to opt for commercial promotion platforms and instead relied solely on social media and word-of-mouth promotion.

Nitin also tried building networks offline and reached out to the retail market in adjoining areas. In addition, he planned product demonstrations and promotions at different housing societies in Chandigarh and Gurgaon on the weekends. Alpha Advantech products were appreciated by many government organizations and received widespread coverage in leading newspapers such as the *Dainik Bhaskar* and the *Tribune*, with one of the newspapers even naming Nitin "Jal Nayak" ("Water Hero") for his water-conservation initiative.

Place

The planters were manufactured in Karnal, Haryana, but the company supplied its products to various parts of India. It also shipped products to Canada to meet a few international orders there. The company sold its products online through its website and through the major e-tailer Amazon India.[3] Nitin planned to have a combined office and warehouse in western India by 2022 to reach a wider customer base.

[3] "Alpha Planters Scientific Pots with Patent Pending Technology by Alpha Planters," Amazon India, accessed January 8, 2019, https://www.amazon.in/Alpha-Planters-Pots/dp/B07RQCF151.

Customers

The company catered to a wide range of customers, including retailers, customers buying pots for their homes and gardens, farmers, government agencies that maintained gardens, and offices. The company also sold its products to companies involved in gardening services. The majority of the company's business (about 80 per cent) came from business-to-business (B2B) customers; the rest came from B2C customers, predominantly farmers. Nitin also collaborated with some companies offering flowers and plants as gift options.

Distribution

Nitin took care of sales and distribution. The products were distributed from the company's warehouse in Karnal to major towns in India. Loose pots were transported in the company's van for deliveries to local and nearby areas. For longer distances, however, the minimum order value was kept at ₹10,000, and the company packaged the products in recycled but sturdy cardboard boxes, charging an additional 5 per cent over the cost of the product for this packaging. For bulk orders and exports, the company palletized and bubble-wrapped the pots for protection from rain and dust.

FLOWERPOTS AND PLANTERS MARKET

The global flowerpots and planters market was valued at US$1.7 billion in 2018. Industry growth was fuelled by millennials' growing interest in gardening. In addition, consumers were spending more on decorative features for their residences, including planting money plants and flower sets in gardening pots, containers, and bags. Gardening pots had proven to be an efficient method for potting saplings inside the house.[4] According to a 2019 Grand View Research Inc. report, rapid growth was expected in the Asia-Pacific region's gardening pots market, which was forecasted to expand at a compound annual growth rate of 6.9 per cent from 2019 to 2025. The governments of China, India, Thailand, Malaysia, Singapore, and Japan were pushing tourism initiatives, which in turn pushed beautification drives. Moreover, the growing number of corporate buildings in developing economies was expected to lead to increased demand for well-maintained gardens.[5]

The flowerpots and planters market in India was primarily unorganized, with many small players. Nitin considered the industry nondescript, with no clarity on the size of the market. He noted that although the market seemed large, considering that households, shops, offices, malls, and gardens all had a demand for pots and plants, the products were not promoted across either print or broadcast media. He observed that despite the easy availability and presence of pots and planters, there were no reports, consolidated data, or information about market size and type. Besides this, Alpha Advantech also included farmers among its customers, which made it difficult to ascertain the size of the market.

Despite the lack of clarity on market size, Nitin believed Alpha Advantech could appeal to individuals who valued organic food and had an interest in growing their own food on their balconies and terraces and in small kitchen gardens, as well as to horticultural organizations that engaged in large-scale cultivation. He felt that in the absence of suitable planters and growing methods, his company's products were the right fit for those with minimal gardening knowledge, skill, or experience; those who lacked time to tend to plants (watering, weeding, etc.); and those who relocated often.

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[4] Grand View Research, *Gardening Pots Market Size, Share & Trends Analysis Report by Product (Refractory Material, Polymer), by Application (Commercial, Residential), by Distribution Channel (Offline, Online), and Segment Forecasts, 2019 – 2025*, August 2019, accessed January 8, 2019, https://www.grandviewresearch.com/industry-analysis/gardening-pots-market.
[5] Ibid.

FLORICULTURE MARKET

Nitin felt that the growing floriculture[6] market presented a good opportunity for the company. In 2017, the Indian floriculture market was worth ₹130 billion and was estimated to reach ₹394 billion by 2023, at a compound annual growth rate of 20 per cent. Although flowers had been an integral part of Indian society and were cultivated for various aesthetic, social, and religious purposes, the commercial floriculture industry was still nascent. A strong increase in international and domestic demand for cut and loose flowers had led to floriculture becoming an important commercial trade in Indian agriculture. Modernization and the growing influence of Western culture had influenced consumer behaviour such that more people were buying flowers for different occasions, including Valentine's Day, birthdays, festivals, anniversaries, marriages, farewell parties, and religious ceremonies.[7] Nitin expected the growth in the floriculture market to contribute to the growth of the flowerpots and planters market.

EVOLVING INDIAN CONSUMERS

Nitin viewed Indian millennials' inclination toward gardening as a "gasp for greenery" in concrete surroundings and as a pleasant, calm, and stress-reducing distraction from their screens. He thought that a fast-paced lifestyle, high-stress jobs, the space crunch, increased awareness of pesticide-free organic food, greater interest in practices such as astrology and feng shui, and higher disposable incomes—yet a paucity of time—were leading more people, especially in metropolitan (metro) cities, to take up gardening in their kitchens, balconies, homes, and terraces. Besides this, several governments were encouraging home farming by offering vegetable-growing kits at a 50 per cent subsidy. More companies were adding green touches to their offices and buildings, with plant walls and fern-lined "breakout" areas. Nitin saw that these factors presented a good opportunity for all of his products, including the large Alpha pots and the Alpha Infinity Trench.

THE WAY FORWARD

Nitin wanted both a geographical and a portfolio expansion for his company, as he believed that the market was ripe and that it was the opportune time for Alpha Advantech to take the leap by exploring newer geographies and adding more products. Nitin's company was now restricted to the northern region of India, and he wanted to expand its footprint to the western region to get a broader reach. He also considered increasing the product range to include plug trays, plant labels, watering wands, and irrigation drippers in order to offer a more comprehensive range to his customers. He had been in talks with a manufacturer willing to supply watering wands and irrigation drippers to his company at a special price, with manufacturing costs plus 20 per cent additional charges for profit and delivery. Nitin found the idea feasible because his company would not have to invest anything to deliver these products.

Nitin also wanted to have regional distribution centres by the end of 2020, to increase the customer base and minimize distribution costs. As some of his competitors had sales stores to cater to retail customers for the home and office segment, Nitin was also considering setting up sales stores in metro cities. Following some market research and calculations, Nitin estimated that the initial costs of starting a sales office in metro areas would be ₹270,000, that the monthly expense would be ₹130,000 (see Exhibit 7), and that his company would require sales of ₹1.5 million per month to cover these expenses. Given the demand for gardening and farming products, Nitin was positive about the outcome.

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[6] Floriculture referred to the cultivation of flowering and ornamental plants.

[7] Research and Markets, *Indian Floriculture Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2018–2023*, Globe Newswire, November 13, 2018, accessed December 26, 2018, https://www.globenewswire.com/news-release/2018/11/13/1650207/0/en/Indian-Floriculture-Market-2018-Market-is-Projected-to-Reach-INR-394-Billion-by-2023.html.

CHALLENGES FOR ALPHA ADVANTECH

Alpha Advantech was at a key stage in its growth, and the future of the company hinged on Nitin's decision. His choice between consolidation and expansion would be crucial to achieving his ambitious goal of making Alpha Advantech a ₹600 million company by 2022 as well as ensuring the future of his company. The company had performed well since its inception; in 2019, it registered 52.7 per cent growth over the previous year. Although the upbeat figures led Nitin to wonder if this was the opportune time to drive organic growth through portfolio and geographic expansion, his brother Achin felt that the company had not grown enough to diversify, and his brother Jai thought it wiser to persist with market penetration and consolidation with the current range of products. His father, on the other hand, dissuaded Nitin by citing the example of a Mumbai-based company: it had made considerable investments to expand geographically and enlarge its product portfolio, but within a year, the company found it difficult to sustain growth in a scattered and unorganized market.

This lack of encouragement from his partners forced Nitin to take stock of the situation and assess that despite substantial growth in the previous year, the limited scale of the company and the size of his team challenged his vision of expansion. Because much of his business came from promotional activities such as participating in exhibitions and demonstrations, his ₹600 million target for 2022 seemed steep. For international marketing opportunities, he also considered the possibility of expanding to countries such as Canada, where he already had a network of friends. Despite the challenges, Nitin could foresee an opportunity in B2B and B2C situations if he were to succeed in building a sales team and a direct distribution channel with sales stores in different metro cities. Although he sensed that an organic growth expansion strategy was the way to go, he had to first clear the path for his vision by assessing and ascertaining the best way of marketing to increase Alpha Advantech's customer base, understanding the scalability issues that his company would face, identifying the growth and marketing strategies it would need to devise to achieve its 2022 target, and acquiring the technical and digital capabilities it would need for the future.

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EXHIBIT 1: ALPHA ADVANTECH LLP—SELECTED FINANCIALS, 2017–2019

(in millions of ₹)	2017	2018	2019
Total revenue	64.8	152.4	232.7
Cost of sales	28.5	79.7	119.8
Marketing and other expenses	19.5	39.2	61.6
Other expenses	3.2	6.9	11.2
Net profit (loss)	13.6	26.6	40.1

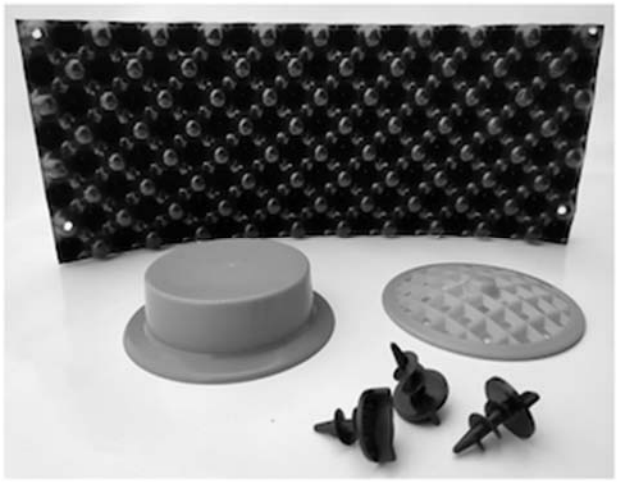
Note: Figures have been changed to maintain confidentiality; ₹ = INR = Indian rupee; ₹1 = US$0.1399 on January 8, 2020.
Source: Company files.

EXHIBIT 2: FEATURES OF ALPHA POTS AND TRADITIONAL POTS

Alpha Pots	Traditional Pots
Made of high-density polyethylene	Made of cement, plastic, and ceramic
Lightweight and durable	Heavy and poor durability
Porous and sterilized media	Soil compaction
Active drainage	Electrolyte accumulation over time
Accelerated nutrient uptake	Nutrient deficiency
Expedited growth	Retarded plant growth
Root pruning	Root girdling
Assembly type	Occupies a large space
Easy to transport	Difficult to transport
Multi-use	Single-use
Excellent root physiology (air exchange)	Bad root physiology
Low maintenance cost	High maintenance cost
Easy, economic, and safe transportation	Bulky and risky transportation

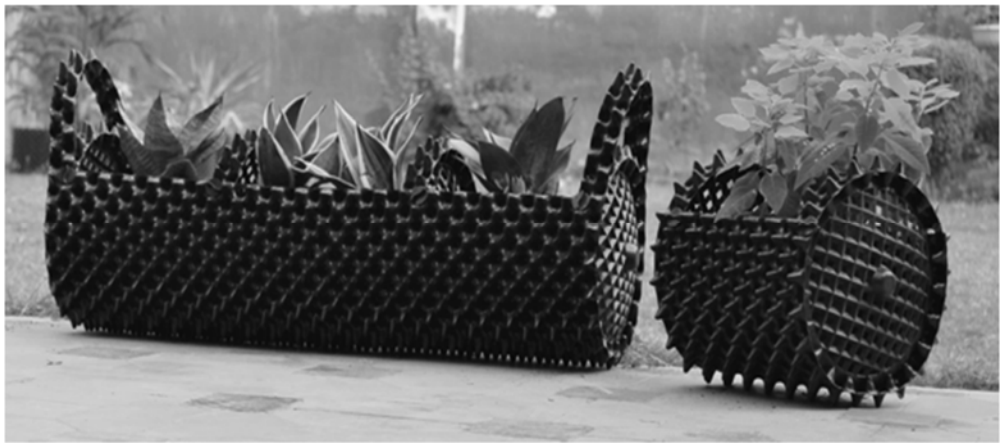
Source: Company files.

EXHIBIT 3: ALPHA POT EASY-TO-ASSEMBLE MODEL



Source: Company files.

EXHIBIT 4: ALPHA POT FOR GARDENS



Source: Company files.

EXHIBIT 5: ALPHA INFINITY TRENCH

Source: Company files.

EXHIBIT 6: PRICE POINTS OF ALPHA POTS, CEMENT POTS, AND CERAMIC POTS (₹)

Size	Cement	Ceramic	Alpha
Small	100	250	300
Medium	250	500	500
Large	400	1,000	1,000

Source: Company files.

EXHIBIT 7: COSTS OF CREATING A SALES STORE

Initial Set-Up Costs (₹)

Interior cost (1,000 square feet)	50,000
IT infrastructure and furniture	50,000
Rent (3 months)	150,000
Variable costs (3 months)	10,000
Employee hiring and training	10,000
Total (3 months)	**270,000**

Monthly Costs (₹)

Estimated Fixed Costs (Monthly)	
Employees' salaries	50,000
Telecom charges	5,000
Other utilities	10,000
Estimated Variable Costs (Monthly)	
Maintenance	5,000
Promotional expenses	10,000
Distribution charges	50,000
Total	**130,000**

Note: IT = information technology.
Source: Provided by the company.