Shorefast case study b march 2013

Education

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Introduction Plant Nutrients Inc. (PNI) is an international company that supplied fertilizer ingredients used by its subsidiaries in 6 geographic area which are Northeastern United States, Eastern Canada, Europe, Australia, New Zealand, and South America. The general manager of PNI is Brian Dunwoodie and the marketing manager is Dave Claussen. Mr. Dunwoodie and Mr. Claussen are the main decision makers within the organization. They were meeting with each other to determine the main issues of the company, which how to improve company's performance next year (1999).

They came up with three potential alternatives, which are strengthening the existing business, adding a seed business and adding precision agricultural services to better PNI's performance next year. For choosing the best alternatives, this paper will use different frameworks and models to analyze each alternative, for example financial analysis, strategy diamond model, internal analysis (Value Chain and VRINE), external analysis (Porter's 5 forces and PESTEL). After analyzing all these parts, the fit between internal and externalenvironmentwill be analyzed as well. Financial Analysis 1. Operating income statement (Exhibit 1)

As Exihit 1 in the case shows that the main product PNI had sold was Fertilizer, the total sales of PNI in 1998 is $4, 621, 097, which consist of the sales of Fertilizer($3, 339, 097), the sales of pesticides ($1, 058, 000) and the sale of services ($224, 000). The sales of fertilizer accounted for 72. 3% ($3, 339, 097/ $4, 621, 097) of total sales, the sales of pesticides accounted 22. 9% in the total sales, and the service only accounted for 4. 8% in the total sales, so fertilizer product generate more sales than pesticides and services and this also means the sales of pesticide and services may have huge growth potential in the future.

Hence, PNI should focus more on the sales of pesticide and service in the future. In addition, the gross margin of fertilizer was 20. 07%, and the gross margin of pesticides was 18%. Among these products, fertilizer was the major contributor of PNI's profit. In terms of the sales of each product, the analyst will use the following tables to identify what the major markets and customers of these products. 2. Fertilizer sales No. 1 The percentage of PNI's customers accounted in the Fertilizer Market. (Formula: Number of Customers in PNI / Number of Customers in the whole market)

Market AreaPNI Farm SizeSalesCustomersSalesCustomersMarket Share Small$1, 128, 000527$986, 00040476. 7% Medium$10, 635, 0001578$1, 259, 00017110. 8% Large$3, 631, 00095$319, 00099. 5% Total$15, 394, 0002200$2, 564, 00058426. 5% No. 2 The percentage of the fertilizer sales for the market and for PNI over the total sales by customer segment, 1998 Market AreaPNI Farm sizeSalesSales Small7. 33%38. 5% Medium69. 1%49. 1% Large23. 6%12. 44% Total100%100% Market AreaPNI Farm sizeSalesSales Small100%87. 41% Medium100%11. 84% Large100%8. 79% Total100%16. 7% No. The percentage of PNI's fertilizer sales contribute to the market sales by customer segment, 1998 3. Pesticide Sales No. 4 The percentage of PNI's customers accounted in the Market. Market AreaPNI Farm SizeSalesCustomersSalesCustomersMarket Share Small$797000527$35600020939. 6% Medium$63120001578$4580001066. 7% Large$3, 300, 00095$244, 00077. 4% Total$10, 409, 0002200$2, 564, 00032214. 6% No. 5 The percentage of pesticide sales for the market and for PNI over the total sale by customer segment, 1998 Market AreaPNI Farm sizeSalesSales Small7. 66%33. 6% Medium60. 64%43. 3% Large31. %21. 2% Total100%100% No. 6 The percentage of PNI's pesticide sales contribute to the market sales by customer segment, 1998 Market AreaPNI Farm sizeSalesSales Small100%44. 67% Medium100%7. 26% Large100%6. 79% Total100%10. 16% Interpretation of tables 1. Table No. 1 and No. 4 For both fertilizer products and pesticide Products, PNI's major customers are the small farm owner (Fertilizer: 76. 7%, Pesticide: 39. 6%), so the future trend for PNI is to take more medium and large farm size customers (Medium: Fertilizer: 10. 8%, Pesticide: 6. 7%; Large: Fertilizer: 9. 5%, Pesticide: 7. %). 2. Table No. 2 and No. 5 in the market area, the sales of fertilizers, the medium farm account the largest portion of sales (69. 1%). For the sales of pesticides, the medium farm still accounts the largest portion of sales (60. 64%). In the PNI's area, both the sales of fertilizers and pesticides to the medium farm customers have the highest percentage (Fertilizer: 49. 1%, Pesticide 43. 3%); therefore, PNI should focus on the sales of fertilizer and pesticide to the medium farms' customers because it accounts the largest part of PNI's total sales. 3. Table No. 3 and No. The sales of PNI's fertilizers and pesticides to the small farms' customers have already gained the largest sales in the whole market (Fertilizer: 87. 41%, Pesticide: 44. 67%). However, for the sales of PNI's fertilizers and pesticides to the medium and large farms customers account a very small portion of the total sales in the whole market (Medium: Fertilizer: 11. 84%, Pesticide: 7. 26%; Large: Fertilizer: 8. 79%, Pesticide: 6. 79%). Hence, PNI should also pay more attention to increase the sales to the medium and large farms' customers due to its huge growth potential. . According to the Exhibit 5 in the case, the large farm size prefer Materials and Regular fertilizers and it contributes almost 54. 3% of the material sales to total sales. Therefore, PNI should focus on selling Materials to large farm size customers. However, the sales percentage of the premium and regular fertilizers, which in the medium farm size contributes the most to the total sales of the market, and the sale percentages are 53. 1% and 59. 7% respectively, and the Exhibit 4 showed that the Premium fertilizers and Regular fertilizers of PNI have the highest ($89. 5) and second highest gross margin ($66. 11); hence, PNI should focus on selling premium and regular fertilizers to small and medium farm size customers. In addition, it is unnecessary for PNI to focus on the sales to dealers because PNI cannot stop the trend that the sales volume to dealers is decreasing year after year. Observation: 1. Medium and large farmers have great grow potential. 2. Small and Medium farms prefer Premium blends fertilizers, which is the most profitable fertilizer product in PNI (gross margin: $ 89. 95/ ton) Strategy Diamond Model

The strategy diamond, which includes arenas, vehicles, differentiators, staging and pacing, and economic logic, shows how well a company do its business in a strategic level. Arenas: PNI's current product and service lines consisted of fertilizers, pesticides, custom application services and oil testing. The PNI in Lancaster is one of the subsidiaries in the 6 geographical regions, which are Northeastern United States, Eastern Canada, Europe, Australia, New Zealand, and South America. In terms of distribution channel, the company outsource a trucking company to cut down on their distribution costs.

Moreover, the company have modern equipment to produce products and have the best trained operators to provide services in the region. Vehicles: There is no information about vehicle in the current situation. However, if PNI select the second alternative, which is adding a seed business in the near future, the company may alliance with Larson Seed, a regional seed producer, to provide expertise and sales training for PNI sales consultants. Differentiators: PNI bundles their prices so that when a farmer buys their product the services are also included in the price.

The services provided are also customizable to the farmer's needs. They have the most qualified operators in the region, and because of this, they are able to provide the highest quality services. They have a strong long lasting relationship with their customers as they have been in the business for 20 years. Furthermore, PNI is the only fertilizer supplier in the area with proprietary, premium fertilizers, had invested heavily over the years to develop and test their products. Each customer needs different services that depend on that customer's situation by creating value bundle.

Staging and Pacing: There is urgency for PNI to do internal development because the company wanted to perform better in the next year (1999). So, the top management had come up with three alternatives to either adding new businesses or strengthening the current business. Economic logic: There is a great potential for PNI to generate more profits when the company minimize its cost. The case mentioned that PNI didn’t achieve its maximum capacity. For example, the capacity of PNI blending plant is 14, 000 tons/ year; however, it just blended approximately 10, 000 tons in 1998.

By achieving the maximum capacity, the company can utilize the economies of scale to assign the fixed costs of the production into each process, so that the company can make more profit. Observations: Overall, PNI didn’t perform very well in 1998 because the operations within the organization don’t function well. The major reason of it is that the production level didn’t meet the maximum capacity, which increases the cost of each product. When costs go up, the revenue will decrease (assume the volume sold is the same).

Internal Analysis-Value Chain analysis The Value Chain is a tool to analyze the internal environment of a company and determine where the business concentrates their efforts. Inbound logistics: PNI’s warehouse met the latest U. S. environment standards for fertilizer and pesticide storage; however, its storage is able to handle a substantially larger volume than currently required. This means the company have high variable cost per item because it didn’t fully utilize its storage. Operations: The capacity of PNI blending plant is 14, 000 tons/ year; however, it just blended approximately 10, 000 tons in 1998.

This means PNI were not achieving the maximum capacity. The company has two types of application equipment, which are modern and in good working order. The first type is fertilizer equipment, which consist 25 bulk, full-typed spreaders. The cost of the equipment is incorporated in the price of fertilizer, so it is free for customers. However, customers just used bulk spreaders on about 80, 000 acres in 1998, which is about 32000 acres per spreaders, which is less than a spreader's capacity of about 4000 acres. So, the company can reduce the number of spreader it gave to customers to reduce costs.

Air spreader is more attractive to large and medium farmers. The capacity is 8000 acres per year under ideal condition, however, only 4000 acres in 1998, which is only half of the actual capacity. Consumers can choose to pay for it by bundling price of equipment to fertilizers or separate the price for spray equipment and fertilizers. The other type of application equipment is pesticide application equipment. There are two self-propelled applicators under pesticide application equipment, which are small unit applicator and larger unit applicator.

The capacity is 8, 000 acres per year for smaller unit and 10, 000 acres per year for larger unit. In the last two years, these two units are fully utilized, which sprays a total of 18, 000 acres of land each year. The problem is two application units were fully booked, whether lack of application capacity might be constraining pesticide sales. The soil testing lab can handle 14000 samples per year; however, it only handled 6000 samples in 1998. Outbound logistics: PNI deliver raw materials by using an excellent rail service and a local trucking firm handled all shipment to customers.

Dunwoodie said that the outsourcing of PNI’s trucking had reduced costs and investments substantially. Marketing and sales: PNI is the only fertilizer supplier in the area with proprietary, premium fertilizers, had invested heavily over the years to develop and test their products, which are urea and ammonium, regular N-P-K, and premium N-P-K. The last product was a proprietary product that carried the Nutri-Plus brand, which provides significant economic benefits to farmers and the sales of it accounted for half of sales in 1988 and an increasing percent percentage of PNI's total sales over time.

Most of customers didn’t ask about price, so they are less price sensitive. Dunwoodie estimated that to be about 40% of the total acres treated with chemicals sold by PNI. The market segments are depending on the size of farm, which are sorted by small, medium and large. There are up to 100 acres of crops in small farms, 100-500 acres of crops in medium farms and over 500 acres of crops in large farms. PNI charge on the basis of the customer's ability and willingness to pay and are sharing in the benefits it create for the customers, which result in higher margin, premium products.

However, PNI lost profit on the higher prices of these products due to high cost of service. The company had about $25, 000 in its budget for marketing. PNI spent most of them on PNI-sponsored events where 25-50 local farmers were treated to a meal, some entertainment, and an information program. PNI also advertised in local newspaper and gave away hats, pens, and other premiums to customers and prospects. Moreover, $5000 was spent on a corporate brochure in 1998. Service: extensive agronomic services: soil analysis, crop scouting, nutrient consulting, micronutrients analysis, and pesticide and fertilizer application.

Sales representative do delivery, application, consultation, consultation, and billing to customers. Also, they kept latest product knowledge and attempted to build strong personal relationships with each customer result in low customer turnover rate. Procurement: Supplied by its mother company. Technologydevelopment: PNI use modern equipment to produce products and advanced information system to provide more accurate data and feedbacks to the company. Also, if it decides to enter into the precision agricultural business, it needs to use GPS system and other AgriTechs, such as Yield Mapping and Remote Sensing Mapping.

Human resources management: Brian Dunwoodie has 11 staffs reporting to him that includes sales, marketing, accounting, production, administrative functions. Staffs are flexible and empowered, so that they could do what needed to be done. Dave Claussen is responsible for developing PNI's marketing program. There are two services managers who work with sales consultant to determine the types of products and application rates for individual farmer clients. PNI is possible to use high-level technical support because it use full time and better trained employees than competitors.

Other company use part-time employees with little expertise with the equipment or procedures involved for applying fertilizers and pesticides. There are 4 sales consultants who is selling PNI products and services, working with existing customers, explaining soil test results, helping develop an annual fertilizer and pesticide program, providing general technical advice and attracting new customers. Average 30 days each year to sales and product training, compared to other competitors less than 15 days on training. Each consultant had a designated sales territory, which has approximately 140 customers. Observations: 1.

PNI have extra capacity of warehouse and machinery. 2. Outsourcing trucking service reduce the company's cost. 3. Staffs are well-trained and be able to provide superior services to customers. VRINE analysis VRINE is a tool to analyze the internal resources and capabilities to determine if a company has a competitive advantage over competitors. Value: There is no unique resource within the organization because the technology and resources the company use to produce the products is easy to access by other competitors. However, the company provide customized services and products to customers, which provide benefits to farmers.

Also, PNI has the best operators within the organization to serve its customers, which helps the company to build a good relationship with customers. It also used the " win-win" philosophyand dispatched sales representatives to keep a good long-term relationship with its customers Rarity: The resources the company use are not rare, because it can be access by competitors too. Inimitability: The technology the company use to produce products is easy to imitate by competitors. Non-substitutability: The chemical fertilizer product can be substituted by Biofertilizers, which is made from microorganisms.

Pesticide can be substituted if farmers buy pest-resistant seed to remove the need to by pesticides. Exploitability: PNI didn't manage its resources well because they have wasted a lot of resources in the process of operations. For example, the capacity of PNI blending plant is 14, 000 tons/ year; however, it just blended approximately 10, 000 tons in 1998. Air spreader is more attractive to large and medium farmers. The capacity is 8000 acres per year under ideal condition, however, only 4000 acres in 1998, which is only half of the actual capacity. Observation: 1.

PNI has a non-sustainable competitive advantage. 2. The exploit of resource within the organization is poor. External analysis -Porter’s five forces Michael Porter's five forces model, which determined industry profitability, included degree of rivalry, threat of new entrants, supplier power, buyer power and threat of substitutes. Rivalry (High) There were five companies sell fertilizers and chemicals to farmers around Lancaster. PNI's largest competitor is Lancaster County Co-op. It supplied both crop and livestock inputs and purchased grain through a separate division.

It also offered application services-farmers were dissatisfied with the quality of these services and co-op didn't provide many value-added services, such as precision agriculture. Another competitor is Smith Farm Supply, which is an independent dealer. It only sold chemicals and fertilizers and provide custom application services using less expensive, poorly trained, part-time operators. Smith Farm Supply offered the best prices in the area. The other three competitors are Archibald Farm Supply, Henderson Farm Supply, Wilmington Crop Services; they all focus on supplying chemicals rather than fertilizer.

Threat of new entrant (Low) Since the competition is so fierce, there is less chance that new entrant want to enter into the market. Supplier power (Low) PNI can directly get supplied from its mother company. Plant Nutrients

International supplied fertilizer ingredients to its subsidiaries. And their sales would not be influenced by the suppliers. Buyer power (High) The switching cost for customers is very low, so no matter which company offer good service and lower price customers could switch forth and back. Threat of Substitutes (medium-high)

Fertilizer’s potential substitute: Customers may switch to biofertilizer, which is made from organism is applied either by coating seeds with the fungus, because people’s awareness of bodyhealth. Pesticide’s potential substitute: farmers may buy pest-resistant seed to remove the need to by pesticides Observation: Overall, the profitability of the market is not attractive because the competition is fierce, buyer power is high and there is some product can substitute the products the company currently sell. PESTEL Analysis

PESTEL analysis is used to analyze the external environment of a company; it stands for Political, Sociocultural, Environmental, Economic, Technological and Legal. Political: PNI’s warehouse met the latest U. S. environment standards for fertilizer and pesticide storage. Sociocultural: Many of the small and some of the medium farms in Lancaster were owned by Amish farmers, they were hard-working farmers whose religious beliefs called stewardship of the land. Most of them are willing to adopt technology that supported stewardship of the land.

Environmental: The chemical fertilizers and pesticides PNI sell have a potential to pollute land, so the company should be careful about the environmental costs regarding ecological or environmental issues. Economic: Asian financial crisis happened in 1997-1998, so it is not a timing to enter market into Asia. However, the financial crisis has limited influence to the

United States' economic environment. Technological: The company use advanced Information System to provide more accurate and detailed data on customers.

Moreover, PNI is possible to use high-level technical support because it use full time and better trained employees than competitors. Legal: Several federal regulations cover fertilizer manufacturing and transportation safety and limit their potential impact on the environment and security. Observation: Overall, there are many factors outside of the company have the power to influence a company's decision and strategic plan. Alternatives Evaluation 1. Working the existing business harder Dunwoodie says that if they were to make no changes and just work their existing business harder they would be able to meet their objectives.

They are lagging in the large farm segment and if they were to add 20 farms from that segment they would be able to meet their objectives. They could use their excess capacity to spread out their fixed costs. Advantages: a. It has a great potential to increase the number of customers from medium and large farmers. b. It can help the company to achieve its maximum capacity, which will reduce the cost of each product because it assigns the total fixed cost into more numbers of products. (Economies of Scale) c.

Could meet the financial obligation within one year by attracting more medium farmers (the most profitable market segment) Disadvantages: a. It is hard to attract larger farmers because they prefer low-priced products. If PNI wants to attract larger customers, it should reduce product price, which means the profit will decrease as well. b. They should hire and train more sales consultant to meet the increasing number of customers, which increase

PNI’s cost too. 2. Adding Seed Business Dunwoodie thought that adding a seed business to PNI would add value to the company.

With the new genetic seed technology chemical sales would decline in the future thus creating more opportunities for seeds. Companies like Larson Seeds were already successful seed suppliers. Larson was looking for a distributer in Lancaster, but Dunwoodie was worried about the already existing competition in the seed market, the new staff they would need to hire, and the training for the employees and the company alike to get into this business. Advantages: a. Its new genetic technology might increase seed sales. b. It can help PNI complete the product line. Disadvantages: a. he new genetic technology can also decrease chemical sales in future, which conflict with PNI’s current product line. b. Another challenge for PNI to access to the seed business was that it needed to partner with a good seed producer, so whether PNI can cooperating with a regional producer would became an important question for Dunwoodie to consider if he wanted to enter the seed business. c. This alternative is hard to meet the company’s one year financial obligation because it is a new business to add a seed business, PNI should take times to discover the right strategy to sell seeds. . the competitive market is fierce, for example, Monsanto is a giant in the seed business. It is hard to steal market share from it. 3. Adding a Precision Agriculture Services If PNI was to adapt the precision agriculture they would be the first ones to market with this service, thus creating a huge competitive advantage. There would be a huge start-up cost to start such a venture, expenses like; new staff, equipment, trucks, and training. With is new technology they would be able to better serve their customers allowing them to put together superior agronomic packages.

A lot of farmers were skeptical of the new technology but after reading the survey, I find that not many of the farmers are educated in the benefits of the new technology. It would be the sales force's job to educate the customer on the benefits to be able to make the sale. Advantages: a. Many farmers were aware of precision agriculture and precision agriculture was a coming trend, so adding precision agriculture would improve the customer service and increase total sales. b. It can complete the company's services by providing more precise and accurate method to application service. . It will be a competitive advantage for the company, because no competitor enters into this service. Disadvantages: a. High cost: it would cost $10, 000 to set up one pull-type spreader and $225, 000 to purchase the truck with six separate tanks. Moreover, PNI still needed people, computers, software, and monitors and so on; the investment would be extremely large. b. The survey found that many farmers had skepticism regarding the real benefits of the precision agriculture. c. It cannot meet the company's financial obligation in one year. FIT Analysis

Internal: Internally PNI hires the best operators and most experienced sales consultants so that they are able to provide the best services and knowledgeable employees. By meet the company's goal, which is better financial performance in the next year, PNI should hire more sales consultant to meet the increasing number of customers. Moreover, the company should try to achieve its maximum capacity in the next year, because it will significantly reduce the COGS. External: PNI has 5 competitors in Lancaster, which created a fierce competitive environment.

However, PNI has its competitive advantage over other competitors, which is the customized and superior service it provided and also the relationship it built with customers are both the assets of the company Moreover, there are many factors externally have the power to influence a company's decision and strategic plan. Observation: Overall there is a good fit between PNI's internal and external environment. It recruited full-time and well trained staff to provide superior services to customers, which is a competitive advantage of the company.

Externally, customers and even competitors perceived PNI as superior services providers with knowledgeable sales reps in the region. Conclusion In conclusion we think that PNI has the resource and capability to either entering new business or strengthening the current business, because they haven't achieve the maximum capacity of machinery and warehouse. Moreover, medium and large farmers have great growth potential and they prefer premium blends fertilizers, which is the most profitable fertilizer product in PNI.

In addition, outsourcing trucking service reduces the company's cost. Furthermore, PNI staffs are well-trained and be able to provide superior services to customers. PNI has a non-sustainable competitive advantage, which means its competitive advantage can be imitate by competitors. In addition, there are many factors outside of the company have the power to influence a company's decision and strategic plan, such as government's regulation and sociocultural factors. Recommendation

After analyzing the organization's internal and external environment, and all three alternatives, we recommend PNI choose the first alternative, which is working on the existing business harder. We also suggest that PNI focus on targeting medium farmer because of the following reasons: 1. PNI have a competitive advantage over their competitors because of their superior quality and customer relations. At the same time, medium farmers value good services when buying products, which is what PNI good at to do. 2.

They are less price sensitive than larger customers, which can help PNI increase sales. 3. Medium farmers prefer premium blending fertilizer, which is the most profitable products in PNI. 4. There are only 6. 7% of medium farmers buy fertilizers of PNI and 10. 6% medium farmers purchase PNI pesticides. This means there is a great potential for PNI to get more customers from medium farmer segment because the customer base is big. 5. It has a greater potential than other alternatives to help PNI achieve its one year financial goal.

Other two alternatives need longer term than the alternative 1 to breakeven, because PNI needs cost moremoneyto implementing the seed business and precision business. However, it costs the company less to implement the first strategy, because the company already have all capabilities and resources to implement the first alternative. However, it is not to say PNI should only target on medium customers. Instead, PNI should keep targeting small and large customers, because it is good to diversify the risk of targeting only one market segment. However, the medium farmers should be the priority of PNI.