
Nature Isle Herbal Teas, Ltd.

DOMINICA, WEST INDIES

Background

Nature Isle Herbal Teas is part of the cottage industry of a developing country in the Caribbean. Less than 15 years ago, Dominica was part of the British Commonwealth. As a third world country, it faces all of the uncertainty and inconveniences one might expect: cash and credit shortages, political instability (upcoming elections), high cost of capital equipment, labor intensive processes, expensive imports, and poor domestic infrastructure.

The company's founder is well-respected for his knowledge of herbs and teas and has succeeded in the local marketplace in large part because of this reputation. Traveling to other islands, even those nearby, is expensive and the management team is unfamiliar with other islands. The chairman, Glen Martin, has spent some time on Guadeloupe and has handled most the development there for the company. Guadeloupe and Martinique, however, are both French-speaking, and the management team is weak in languages other than English or Creole. (Note that the case makes the point that Creole on Dominica varies from the Creole spoken on other Caribbean islands, thus contributing to the difficulty of communicating.)

The nation's economy is heavily dependent on agriculture. Banana exports account for about 70% of the desperately needed foreign exchange. There is an urgent need for diversification in agriculture and into other segments of the economy, for a number of reasons. The subsidized price that Great Britain has been

paying for bananas is being phased out by the European Community. Dominican agricultural products cannot be cultivated with the same economies of scale as is possible in several Latin American economies. Many Caribbean officials fear the NAFTA agreement will divert to Mexico what little investment money currently makes it to the region.

As is common in developing nations, Nature Isle Herbal Teas has relied heavily on revenue grants and assistance from a variety of development agencies. This was how initial growth was financed. The company is now at a crossroads. Development assistance is limited and they have a great deal of short-term debt, which makes them a less-than-attractive loan applicant. Timing of cash flows is a critical management issue. The company does not have the strong banking relationships required to construct a loan consolidation and owners do not have any personal wealth or collateral to contribute.

Discussion Suggestions

There are a variety of ways in which this case can be used.

1. As an example of typical issues facing *entrepreneurs in developing economies*. Discussion could focus on: the impact of infrastructure inadequacies on development; the importance of cash flow and working capital management in developing a business; uncertainties and risks associated with changes in governmental structures and regional trading blocks; and

the critical need for private capital to fund development in the third world.

2. Highlight the potential for *market growth through exports*. Nature Isle Herbal Teas needs a well-articulated marketing strategy that incorporates export markets. Domestic customer and competitor analysis should be contrasted with foreign counterparts. This provides an opportunity to illustrate customer/competitor analysis and the development of these components in the marketing strategy. Included in the analysis should be a discussion on the difficulties of managing development and growth in new markets, while not losing focus with current customers.
3. Emphasis can also be placed on *production capabilities required to support market growth*. The operational aspects of the case center on: bottlenecks, employee skills, capacity utilization, process flows, raw material acquisition, and inventory management. The impact of production management on marketing strategy can be easily identified by less experienced students. This provides an opportunity to discuss the integration of functional aspects of the firm with beginning students of business.
4. A financial analysis will quickly alert students to the *cash and credit shortage*. Implications of limited cash on market growth will lead to discussions about financing needs for promotion, advertising, product development, and other expenses associated with developing new markets (travel expenses, sample products, new packaging, etc.). There are no easy solutions that will solve this part of the case. Instructors should include information on the importance of banking relationships, financial planning, and a financial strategy that supports the marketing and production plans.
5. *New product development* is actually a very interesting way to direct case discussion. Packaging problems mentioned in the case help to highlight customer requirements different from what Nature Isle Herbal Teas has provided so far. An evaluation of products in developed countries can give great insight into directions for new product or package development. Sample items for addition to the product line are covered in the "Suggested Answers" to the case questions.

The thrust of the case should be to extrapolate sound business principles developed for the U.S. domestic context to a different cultural environment. Instructors and students should be encouraged to research the country and the Caribbean region for current issues and events in economic development before preparing the case.

Suggested Answers to Case Questions

I. Identify the production bottlenecks and recommend potential solutions.

- a. A production process diagram can be drawn from the case description. Each product line can be diagramed as follows:

Production Processes By Product Line

TEAS: Raw Materials → Solar Dryer → Sorting → Milling → Bagging → Boxing → Shrink Wrap Cartons

SPICES: Raw Materials → Solar Dryer → Sorting → Milling → Filling → Heat Sealer → Cartons

In order to evaluate bottlenecks, students must determine process capacity from the information provided in the case. As summarized in Teaching Note Exhibit I, a table describing capacity constraints can be constructed.

Students should be able to infer that the *solar dryer* is the limiting constraint for both *product lines*. Suggestions for solving the bottleneck should focus on the need for additional solar drying capacity.

Additional capacity may come from either the purchase of another dryer or building one. Regardless of the choice, students must address how additional capacity will be financed. Possible solutions are outlined below.

Solution: Bank loan, with new dryer as collateral.

Concern: Significant short-term debt already.

Restrictive cash flows will not service additional debt and interest payments.

Solution: Grant or loan from regional development agency.

Concern: Identify agency with available funds.

Demonstrate revenue-generating potential of

Teaching Note Exhibit I CAPACITY BY PROCESS

	Pounds	Grams*	Bags/Sachets	Boxes
Solar Dryer	130/week	59,020/week		
1. Sorter	300/week	136,200/week		
Milling	210/week	95,340/week		
2. Filling/Sealer		5,400/hour	3/minute	
3. Tea Bagger				14,400/week

Notes:

1. Capacity is 300 lbs/week assuming four production employees are devoted full time to the process.
2. Assumes an average of 30 grams per bag.
3. 10,800 boxes was estimated to be 75% of the machine's capacity. $10,800/.75 = 14,400$ boxes at 100% capacity.

*There are 454 grams in 1 pound.

investment and continued business (may require up-front sales commitments to justify).

- b. Hand sorting raw materials—The method of removing the leaves from the twigs is very labor-intensive and time-consuming. One employee can sort about 15 lbs. of product per day. As cash flow and space constraints preclude the expansion of the labor force, a mechanized solution is most desirable. Proposed questions for company research should focus on what equipment and technology exist to solve the problem and what is available to the island. It is often difficult to research these options from a remote location, let alone deal with the challenge of bringing the proper equipment to the site—unless it can be built in Dominica. A simple sifter could be used, but this does not alleviate the labor intensity problem. Again, if an automated solution is proposed, how do students think it can be financed?

If a proposal is made to research existing technologies, it should include participation in U.S. or European trade shows, ties with industry association contacts in other countries, investigation of other agribusinesses in the region, etc.

Implications for the installation of new equipment include:

- Duties, tariffs
- Freight costs

- Insurance
 - Installation capabilities
 - Technical support
 - Time-lapse from point of inquiry to installation
- c. Production flows should be evaluated based on the plant layout. Students should discuss the possible rearrangement of the facility if they think this will help decrease cycle time.

Improvements include possibly adopting a more linear production flow, which would reduce material and worker movement. An example might be to arrange for delivery of raw materials at one end of the factory and the shipment of finished goods out the other end. The production process would flow from end-to-end in a more efficient manner.

2. What inventory issues can you identify? Suggest how you would deal with the issues you have identified if you were part of the Nature Isle management team.

- a. Increased demand and cash shortages necessitate using materials on hand to meet as many orders as possible. An inventory management system (non-automated) should be implemented so that available resources are used to the greatest benefit.

A physical inventory of raw materials by type and amount is an important starting point. Given

known orders, Nature Isle should determine if necessary raw materials are on hand in sufficient quantity. Possible suggestions for insufficient inventories include:

- Negotiate partial deliveries with promise of additional product as soon as possible. This may necessitate discounts to keep customers, thus affecting critical cash flows.
 - Promote other products for which raw materials are in greater supply. Advertise specials for retailers on products that can be delivered on-time in sufficient quantities.
- b. Given the lead time for agricultural raw materials (three months), a production plan should be developed. This can include: a manual MRP system, daily production levels which are matched to available materials, and lead times for setup for new product development. Are there other “products” that might use available resources better than those currently marketed?

Suggested Manual MRP (Materials Requirement Planning) Framework by raw material category

Week	Beginning Inventory	Expected Deliveries	Predicted Requirements	Shortages/ Excess
1				
2				
3				
.				
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Examine Exhibit I, “Product Lines.” Nature Isle has traditionally offered single-flavor teas in 20-sachet boxes. Suggestions for other products may include:

- Tea blends;
 - Gift baskets with samples of several Nature Isle products;
 - Sampler boxes of teas.
- c. Revisit the factory layout during discussions of inventory management. Evaluate the logic of raw materials flow in the production process.

3. Develop an export strategy for the company. What time-frame is reasonable? How would you go about identifying potential competitors in other markets? What questions must be addressed before a full-scale export strategy is implemented?

- a. Discussion should start with the importance of a sound business plan that states company philosophy, mission, vision, goals, and strategies. This provides an opportunity to stress the need for an articulated corporate strategy to drive the business and activities of the firm.
- b. There is no one export strategy that is correct for Nature Isle Herbal Teas. However, there are elements of an export strategy that should be consistent across all proposals. First, how do students propose to research the opportunities in other markets? How do they initiate a competitor analysis from a distance? What sources of reliable information exist? How do they plan to develop a contact list of credible associates and potential business partners in countries where they have no current contacts? Students should identify government and private sources of information that can support strategy decision making, from both the exporting country and the target country.

One example of excellent government resources is a consulate or embassy in the region. Information ranging from economic profiles to specific market research is conducted regularly. Also, trade associations exist to help direct businesses to credible distributors. Another resource is an international bank which operates in the region. Banks are familiar with resources and business practices in many areas of the world.

- c. Selecting a time frame for starting to export is difficult. Waiting too long allows potential competitors to move in and take market share ahead of you; moving quickly requires immediate cash. Students should propose an implementation plan that balances these issues.
- d. Revisit product development during this discussion. What products would work best in the

target markets? Students should suggest that there may be a cost effective implementation strategy that allows the company to move with speed.

4. Given Nature Isle's current product lines and packaging, what ideas would you pose to them for new product development?

- a. A close look at products currently available in stores that students actually frequent is a good way to approach this question. Shaker bottles for spices, resealable containers, tea blends, specialty teas, and other ideas will be obvious from the grocery store shelves at their own local markets.
- b. Given the increase in the cruise ship traffic, students should suggest products that would be attractive to tourists who are visiting the island for brief tours.
- c. Destination shoppers and impulse buyers are two groups of customers with different interests that students should target for possible new product development. All shoppers will find the resealable containers attractive. Destination shoppers—those who are shopping specifically for teas and spices—will respond well to tea blends. "Tea Samplers" that allow the purchaser more than one choice of tea flavors in the same box is another natural product idea.
- d. Impulse shoppers, on the other hand, will be attracted to gift baskets, samplers, and other items that highlight Dominica culture. They will look for a souvenir purchase that can easily be carried back to the cruise ship. It should be small and easy-to-pack, and obviously "Dominican." This can be done by packaging the product in small baskets made on the island, using colorful, festive cloth as packaging material.

5. The most recent financial statements for Nature Isle are contained in Exhibits 4 and 5. What is your opinion of the current state of their financial affairs? What financial management strategy should they follow?

- a. The company has attained incredible growth over the last couple of years. This has been

accomplished by debt financing and capital grants (note increases in the components of liabilities and equity). Much of this has been invested in fixed assets, although it is also obvious that some of the cash has been used as working capital.

- b. The current difficulty facing the company is the serious cash flow shortage. Increased liabilities have high servicing costs. The question is whether existing inventories are in the right raw material combinations to fill incoming orders. If not, the production plan has to be tightly coordinated with the financial plan, since there is such a limited amount of cash to fund additional raw material purchases.
- c. Students should suggest the development of a cash budget to support sales. The question of the turnover of receivables should be included in their analysis.
- d. The current inventory of packaging supplies will not contain appropriate materials if changes in packaging are being proposed. The case provides no specifics here, but this type of analysis should be explored in any recommended solution.
- e. A ratio analysis will highlight the following trends:

Liquidity is quickly deteriorating, making the company a larger bankruptcy risk. This will have a serious impact on their banking relationships.

Inventory turns for raw materials have improved, showing that there are tighter controls on inventory than they had previously. This also suggests that they may be carrying less inventory than they did previously due to the lack of working capital to support it.

Debt/Equity comparisons have risen dramatically over the last three years. This confirms that operations and fixed asset purchases are being financed by debt.

Cost of goods sold as a percentage of sales has improved over time. This suggests that management has found ways to streamline the process and develop more cost-effective methods of production.

Many other comments can be made about the financial position of the company. When assigning this question, note that all statements provided on the company are in accordance with the generally accepted accounting principles of the United Kingdom.

Ratio Analysis:

Average Collection Period in Days:

Average Receivables/Sales	8.9 Days
$\frac{1}{2} (2680 + 3338) * 365 \text{ days} / 123,300$	

Average Payment Period for Trade Accounts:

Average Payables (Accrued Expenses)/Cost of Goods Sold	32.2 Days
$\frac{1}{2} (3726 + 7420) * 365 \text{ days} / 63,176$	

Current Ratio:

Current Assets/Current Liabilities	
1991	3.22
1990	3.68
1989	10.26

Quick Ratio:

Cash + Receivables/Current Liabilities	
1991	.73
1990	1.14
1989	3.64

Inventory Turnover:

Cost of Goods Sold/Average Inventory	
1991	1.76
1990	1.52

Debt/Equity

Total Liabilities/Stockholders' Equity	
1991	43%
1990	32%
1989	19%

Product Costs as % of Sales

Cost of Goods Sold/Sales	
1991	51%
1990	54%
1989	76%