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Instructional Case

Can Management Accounting Help Aid Associations Make Tough Choices in Haiti?

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Note: This case is based on a real humanitarian aid organization dedicated to bringing ready-to-use therapeutic food to Haiti. Although based on a real situation, the names and data in the case are fictitious.

ABSTRACT: Based on an actual situation, this case explores the use of management accounting analysis in a difficult make-or-buy decision in the real world of humanitarian aid. An aid organization produces a specially designed, highly nutritious peanut butter medicine to save the lives of Haiti's malnourished children. The challenge is deciding whether to source the peanuts from Haitian farmers and pay more or from foreign suppliers and pay less. Students perform both quantitative and qualitative cost-benefit, break-even, operating leverage, and product costing analysis. Performance measurement, incentive issues, short-term versus long-term thinking, micro and macroeconomics, and ethical issues are also considered. The case is best suited for cost accounting and managerial (particularly MBA managerial) accounting courses.

Keywords: product costing, outsourcing, break-even analysis, nonfinancial performance measures, management accounting, non-governmental organizations (NGOs), and ethical decision making.

INTRODUCTION

The Republic of Haiti is a Caribbean country southeast of Cuba (only about 45 nautical miles away at their closest point). Haiti occupies the western, smaller side of the island that it shares with the Dominican Republic. Even before the terrible earthquake in 2010, the nation of 10 million people strained to feed and house its people due to a history of slavery, occupation, upheaval, corrupt leaders, disease, and natural disasters. The average annual per capita income in Haiti is only US\$810, and even less in rural areas (about US\$350).

When a 7.0-magnitude earthquake struck Port-au-Prince on January 12, 2010, the problem reached alarming new levels. The earthquake caused thousands of deaths and widespread destruction. The number of malnourished children in Haiti is terribly high: 10% of children under five years old are acutely malnourished (i.e., reversible) and another 20% are chronically malnourished (i.e., stunted, which is irreversible). International food aid was the only recourse for over a million Haitian families. Looking for work, unemployed farmers and their families flocked to major cities, which were unprepared for the influx. Shantytowns sprung up, jammed with houses cobbled together from scrap materials.

Shada is one such shantytown; this is where Madame Magalie and others work tirelessly to save malnourished children in a free health clinic she runs. In a typical week, the clinic helps feed

150-250 starving children. All of the children are in various stages of malnutrition. Many show the signs of malnutrition such as low weight, small body, large belly, and changes in skin and hair color. Until recently, most of the children at her clinic would die of malnutrition. Now, however, Madame Magalie has a powerful new option. She provides the children with a kind of enriched peanut butter called “Medika Mamba,” which means “peanut butter medicine” in Haitian Creole, one of Haiti’s two official languages (the other is French).

Medika Mamba

Medika Mamba is no ordinary peanut butter. It is a RUTF (Ready-to-Use Therapeutic Food) made from roasted peanuts (about 76% of total product weight), powdered milk, cooking oil, sugar, vitamins and minerals. Andre Briend, a French pediatric nutritionist, and Michel Lescanne, a food-processing engineer and founder of Nutriset, developed the formulation for the peanut butter-based medicine in 1996. Known as Plumpy’Nut in many parts of the world, it has revolutionized how malnourished children are treated. Before Medika Mamba, as it’s known in Haiti, severely malnourished children were given liquid milk with added oil, sugar, and vitamins and minerals. The milk had to be refrigerated, it could be given only in hospitals, and it often had to be administered with a feeding tube. Even then, many children did not recover. The beauty of the Medika Mamba is that care-givers can feed it to their children at home with a spoon, the kids like it, and the survival rate is much higher. Typically, a full treatment program for one child lasts six to eight weeks and requires about 11 kilograms (kg) of Medika Mamba (120 packets). Within six weeks of starting treatment, 85% of children on Medika Mamba recover, far better than the 25% survival rate with older milk-based treatments. The Plumpy’Nut price of a full Medika Mamba treatment is about \$69.

Medika Mamba has proven to be an effective tool in fighting malnutrition. But a big question has emerged: where to buy the peanuts?

Sourcing decisions

The problem that humanitarian aid groups face is where to get the peanuts. Ideally, they would like to buy Medika Mamba made with local peanuts which not only helps feed malnourished children but also generates much needed jobs for Haitian workers and a market for Haitian peanut farmers. The downside is that food produced in impoverished countries is often more expensive than food imported from countries with more advanced economies. In Haiti, peanuts grown by local farmers cost much more than those available from foreign suppliers due to crop diseases, little or no machinery, and small-scale production capacity which limits economies of scale. Almost all the work must be done by hand.

Nutriset is the leading manufacturer of peanut butter medicine in the world. Nutriset is a for-profit company based in Normandy, France, dedicated to making nutritional products available for preventing and treating moderate and severe malnutrition in developing countries. It invests the majority of its profits in research and development and works with United Nations agencies, governmental bodies and non-governmental organizations (NGOs) to reduce malnutrition and help developing countries meet their own food needs.¹ Its Plumpy’Nut brand is a high-quality RUTF at an average price that is 18% lower than Medika Mamba due to economies of scale. It is made with

¹ From Nutriset’s website <http://www.nutriset.fr/en/homepage-nutriset.html> (retrieved April 22, 2015).

peanuts from big foreign companies with large capacity that can produce and ship hundreds of thousands of kilograms of higher quality peanuts at a much lower price.

This presents a dilemma to humanitarian aid groups like UNICEF² trying to help feed malnourished children. How much extra should they be willing to pay for the peanut butter medicine made with local peanuts? It would be ideal to buy medicine made with Haitian-grown peanuts to help farmers be able to feed their own children and reduce the total number of malnourished children. But purchasing medicine made with higher-quality peanuts from foreign suppliers at a lower price allows them to feed more severely malnourished children and save more lives now. To help farmers improve the quality and price of Haitian peanuts, there is a small but growing NGO located in Haiti called Helping Haitian Children.

Helping Haitian Children (HHC)

Over the years, many aid programs have come to Haiti to try and ease the plight of this struggling country. In 2003, a pediatrician from Sacramento, California (USA) named Susan Jackson arrived hoping to help make a difference in the lives of malnourished Haitian children. After a short time, she committed herself to relieving the suffering and started a nonprofit organization named Helping Haitian Children (HHC). HHC is a social enterprise whose mission is “saving Haiti’s malnourished children from starvation and stunted development.” A big part of that mission is providing RUTF to Haiti, especially the peanut butter-based medicine they call Medika Mamba.

In the early days, HHC workers cooked peanuts purchased from foreign suppliers over an open flame in a church school room in Cap-Haitien. They made the Medika Mamba by hand and delivered it in small plastic tubs to outpatient clinics. Originally, HHC’s objective was rescue—saving children’s lives. But after a while, Dr. Jackson wondered if saving children was really enough. She observed that rescue only led to more rescue. The root cause of malnourished kids is their parents are unemployed and therefore have no money to buy food for their family. She and her staff decided to broaden their objectives. If HHC produced Medika Mamba in much greater volumes in their own Haitian factory, they could help feed even more children plus provide much-needed jobs to their parents. They converted a rented house into a small factory and soon became a major supplier to UNICEF for the peanut butter medicine to be distributed in Haiti. Further, they began buying their peanuts from local farmers.

In 2012, HHC opened a new 18,000 square foot factory with modern production equipment just a few miles from the slums of Cap-Haitien. To finance the new \$3.2 million factory, it raised \$2.8 million from donors and used a bridge loan for the balance. The new factory produces between 5,000 and 8,000 kg of Medika Mamba per week and has the capacity to feed 80,000 children per year (The old factory could feed 8,000 children per year). The Medika Mamba packages that it produces are purchased by UNICEF or the World Food Program and then delivered to hospitals and clinics throughout Haiti. HHC has 22 employees plus three others working in its agricultural

² Originally named as United Nations International Children’s Emergency Fund, it is now better known by its acronym UNICEF. UNICEF is headquartered in New York City with a brand known throughout the world for humanitarian aid. It is the leading advocate for children’s rights and is active in more than 190 countries. It relies on contributions from governments and private donors and specifically requested US\$22 million in 2015 to treat Haitian children suffering from severe acute malnutrition (SAM). Source: http://www.unicef.org/about/who/index_introduction.html (accessed April 22, 2015).

assistance programs. Currently, HHC buys all its peanuts from 300 local farmers and hopes to increase that number to somewhere between 400 and 500 in the next year. Exhibit 1 illustrates the flow of peanuts to RUTF to Haitian children. Exhibit 2 shows HHC's financial statements for the most recent fiscal years.

[Insert Exhibits 1 and 2 about here]

Plight of Haitian Farmers

According to Amollo (2014), over 16,000 Haitian civil servants or government employees were killed in the 2010 earthquake, and essentially all government and communication systems were destroyed. The United Nations stepped in to lead the recovery and rebuilding efforts, leading some to call Haiti an “NGO Nation.” As the extent of the damage and desperate need of the Haitian people became known, donations and aid came from all over the world. The success stories of RUTF in saving thousands of painfully thin children led to millions of dollars in donations from concerned countries led by the U.S. Many philanthropic organizations provided large amounts of imported food for free distribution. With the food being provided for free, it was difficult, if not impossible, for local providers to sell their food products. If the government had been functioning, perhaps it could have started managing the amount of imported food by imposing import taxes to make them more expensive and motivate the local population to buy Haitian products. Some feel the huge influx of food aid is jeopardizing the local economy and pushing the Haitian people deeper into poverty (Amollo 2014).

Using peanuts grown by Haitian farmers to make Medika Mamba has both advantages and disadvantages. One advantage is the northern plains of Haiti are among the most fertile agricultural areas in the world. The soil fertility is excellent and water is plentiful. Just about any crop would grow well there. The area has great potential for agricultural success with effective management and investment. On the other hand, one of the biggest challenges is that peanuts grown in Haiti are often contaminated with aflatoxins, one of the most serious cancer-causing substances known, especially liver cancer. Most farmers cannot afford to buy the needed fertilizer. To ensure their product does not contain these toxins, HHC must test every batch by hand. Further, the yields in Haiti are much lower than those in the United States. For instance, peanut farmers in Georgia (USA) can produce four times the amount of peanuts per acre than Haitian farmers! The main reasons for the lower yield per acre are lack of equipment and high cost of fertilizer.

HHC's emphasis on local production has greatly benefitted many Haitian farmers. But most farms in Haiti struggle mightily to make any profit. An example of a typical farmer is Samuel Hilaire. He rents about two acres of land and grows peanuts, and his rent is \$100 per month for 10 months out of the year. Unlike big peanut farms in other countries, he does not have modern equipment or fertilizer. He pays a few people to help tend the farm and they all work long, hard days during the growing season.

When asked how it is going, Samuel replied, “It is hard, man. Last year, we produced 64 sacks but got only 48 sacks of good peanuts that passed inspection. The price was \$0.74 per kg and we barely broke even. This year, with some help from HHC, we hope to harvest 70 sacks and yield at least 60 sacks of good peanuts [about 3,000 kg]. But even if we do, the price at the market [in Port-au-Prince] is only about \$0.61 per kg now.” Samuel hopes to earn enough profit to be able to feed his family until next season and pay for his four children to be able to go to school. But his

optimism is starting to wane. It is hard to compete with huge foreign peanut companies who can produce and ship hundreds of thousands of kilograms of higher quality peanuts at a much lower price.

A few farmers are starting to have some success, however. On one such farm, there are many piles of recently-pulled peanut plants. Men and women are picking the peanuts from the plants and putting them into buckets. As they do so, they are singing and young men are playing wooden flutes. The party atmosphere at harvest time is a tradition, but it is even more so here because the yield is good and the peanuts will be sold to HHC. HHC has also helped the farm increase its yield by providing a small tractor to help clear the fields and helping them buy a pesticide that helps prevent fungal diseases that cause aflatoxin contamination. In fact, the farm is yielding almost twice as many peanuts as just a few years ago. Pushing a wheelbarrow full with peanuts, farmer Ben Garcon smiles and says, "In my whole life, I've never seen peanuts look so good as this." He is on his way to a co-op sponsored by HHC that is a couple miles away.

Many more Haitian peanut farmers would like to sell to HHC and get help increasing their yields plus have a reliable market for their peanuts. HHC's long-term plans are to continue helping Haitian peanut farmers increase their yields and lower the cost per kilogram. With help from donors, its new factory, and a huge customer like UNICEF, Susan Jackson thinks HHC can help Haitian farmers provide all the peanuts needed in Haiti at a good profit. The challenge is convincing the big food aid organizations UNICEF and World Food Program to buy more local RUTF at a time when those agencies are under increasing pressure to lower their costs and feed more starving children.

Can management accounting help?

To buy peanut butter medicine from peanuts grown in Haiti, UNICEF has been willing to pay up to 20% more for some of its RUTF than it would pay for Nutriset's Plumpy'Nut that is made with peanuts grown in other countries. But UNICEF is still price sensitive as it strives to achieve its goals. Among its specific goals, UNICEF hopes to help feed 20,000 Haitian children under five years old with severe acute malnutrition (SAM). Thus, the number of SAM children fed is a key performance measure for UNICEF. UNICEF is also brand sensitive. Its strong brand recognition helps it raise money and do the work it does all around the world. Thus, it seeks to be the major provider of humanitarian aid to Haiti and feed as many children with SAM as possible. This provides an incentive to buy the lowest-cost RUTF it can find.

Susan Jackson recently accepted an unpaid intern, Anakin (Bongjoo) Kim, a recent accounting grad who wants to do humanitarian service before pursuing a career in international business. She is hoping that Anakin can use his management accounting knowledge to help HHC fulfill its mission. Specifically, she asked Anakin to address the following questions.

Questions for Anakin

1. What drives local Haitian peanuts to be more expensive than those produced in foreign countries? Consider how operating leverage and economies of scale affect the cost per kilogram.
2. How could cost accounting information, such as break-even and target profit analysis, help Haitian farmers like Samuel Hilaire be more profitable? (Provide a minimum of three specific

examples. If you can't find a number you need, make an assumption based on other case information).

3. Most, if not all, other aid associations buy their peanuts from lower cost, higher-quality providers, but there are good reasons for HHC to buy local peanuts even though they cost more. First, do a quantitative cost-benefit analysis of buying local peanuts rather than foreign peanuts. Next, identify other qualitative costs and benefits such as those affecting local farmers, the economic viability of the country, and HHC's relationship with UNICEF.
4. Think about HHC's mission. What types of financial and nonfinancial information would help HHC lower its costs and still achieve its mission? How can cost accounting help HHC meet its objectives? Consider the appropriate costing system, key cost measures, financial and nonfinancial impact of using local peanuts.
5. Many HHC donors want to help but also want to know how their donations will make a difference. What kinds of financial and nonfinancial measures could HHC provide to donors to show how they are helping the people of Haiti? Consider how donations might be used, such as for new labor-saving equipment, supplementing HHC's budget, expanding capacity, and who might benefit from the donation.
6. What performance measures could HHC provide to UNICEF to help it achieve its goals and increase its purchases of RUTF made with local peanuts? Consider issues such as its mission, performance goals, food quality, and short-term vs. long-term costs.
7. What do you think is the best way to help the country and people of Haiti? Support your answer. Consider the macroeconomic, microeconomic, and ethical implications of your recommendation. For example, consider here (1) how HHC could persuade UNICEF to think more long term, (2) how HHC could expand its capacity to produce more MM, and (3) how to best reduce the amount of food aid provided to Haiti, and provide more non-food aid.

REFERENCES

Amollo, C. A. 2014. *Peanut Butter Drive: A Human Rights Perspective*. CreateSpace Independent Publishing Platform: San Bernardino, CA.

Exhibit 1

Flow of RUTF in Haiti

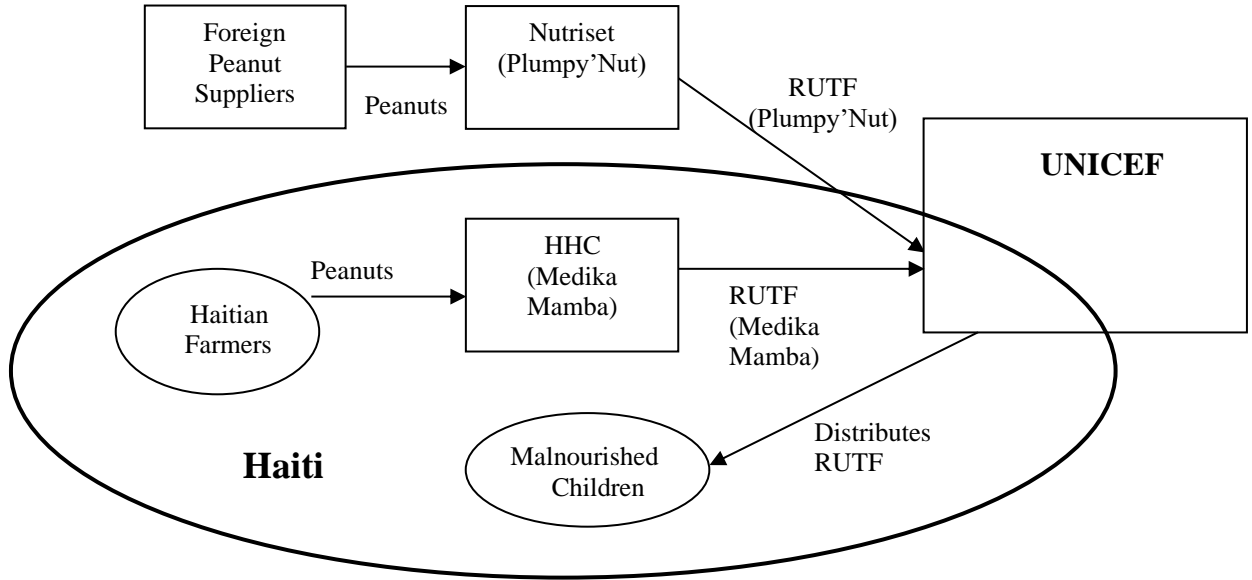


Exhibit 2
HHC's Financial Statements

Panel A: HHC's Balance Sheets as of 9/30/13 and 9/30/14

	Year ended	
	<u>9/30/2013</u>	<u>9/30/2014</u>
<u>Assets</u>		
<i>Current Assets:</i>		
Cash and Equivalents	\$ 801,248	\$ 1,340,227
Accounts Receivable	347,594	162,279
Grants Receivable	218,636	70,832
Other Receivables	276,066	208,537
Inventories	457,288	445,828
Prepaid expenses	50,380	44,310
Total Current Assets	\$ 2,151,212	\$ 2,272,013
Property and equipment (net)	3,025,315	2,797,317
Total Assets	\$ 5,176,527	\$ 5,069,330
<u>Liabilities and Net Assets</u>		
<i>Current Liabilities</i>		
Accounts Payable	\$ 170,674	\$ 133,096
Interest Payable	45,696	33,215
Other Liabilities	38,988	48,464
Unearned Revenues	238,506	180,668
Total Current Liabilities	\$ 493,864	\$ 395,443
<i>Non-current Liabilities</i>		
Notes Payable	772,632	792,288
Total Liabilities	\$ 1,266,496	\$ 1,187,731
<u>Net Assets</u>		
Unrestricted	\$ 3,843,503	\$ 3,850,727
Temporarily Restricted	66,528	30,872
Total Net Assets	\$ 3,910,031	\$ 3,881,599
Total Liabilities and Net Assets	\$ 5,176,527	\$ 5,069,330

Source: case authors

Exhibit 2 (cont.)**Panel B: HHC's Income Statements for fiscal years ending 9/30/13 and 9/30/14**

	Year ended	
	<u>9/30/2013</u>	<u>9/30/2014</u>
Support and fundraising:		
Contributions	\$ 525,145	\$ 482,299
Grants	224,689	111,890
Mamba sales	2,038,990	2,119,567
Interest income	2,343	4,432
Other income	18,321	13,689
Non-cash contributions	49,500	35,324
Total support and revenue	<u>\$ 2,858,988</u>	<u>\$ 2,767,201</u>
Cost of Goods Sold:		
Peanuts	\$ 189,296	\$ 201,379
Other ingredients	68,599	64,408
Direct labor	767,543	860,545
Overhead	1,140,984	1,188,372
Cost of Goods Sold	<u>\$ 2,166,422</u>	<u>\$ 2,314,704</u>
Other Program expenses	<u>\$ 32,802</u>	<u>\$ 36,588</u>
Total Program expenses	<u>\$ 2,199,224</u>	<u>\$ 2,351,292</u>
Support expenses		
General and administrative	165,229	203,128
Fundraising	155,556	241,213
Total Support expenses	<u>\$ 320,785</u>	<u>\$ 444,341</u>
Total expenses	<u>\$ 2,520,009</u>	<u>\$ 2,795,633</u>
Change in net assets	338,979	(28,432)
Net assets, beginning of period	<u>3,571,052</u>	<u>3,910,031</u>
Net assets, end of period	<u><u>\$ 3,910,031</u></u>	<u><u>\$ 3,881,599</u></u>

NOTE 1 ON SUMMARY OF SIGNIFICATN ACCOUNTING POLICIES (excerpt)

Unrestricted Net Assets - represent resources over which the Board of Directors has unlimited discretionary control to carry out the activities of the Organization in accordance with the Articles of Incorporation and By-Laws.

Temporarily Restricted Net Assets - represent resources whose use is limited by donor-imposed restrictions that will be met either by actions of the Organization or by the passage of time.

Inventory - Inventories consist of raw ingredients, work in process, and finished product and tend to be fairly stable each year. Total product produced and sold in fiscal years 2013 and 2014 is approximately 255,186 and 268,905 kilograms, respectively.

Source: case authors