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SARDAR PATEL UNIVERSITY
VALLABH VIDYANAGAR

MASTER OF BUSINESS ADMINISTRATION EXAMINATION 2008
SEMESTER III

FM – 206 – MANAGEMENT CONTROL SYSTEM

Date: May 02, 2008 **Time: 03:00 pm to 06:00 pm** **Total Marks: 70**

Instructions:
1. This is a Closed Book Examination.
2. Figures to the right indicate the marks.
3. You are required to attempt all the Questions.

Q. 1 A Explain the meaning, scope, elements and essentials of Management Control System. **(07)**

B Distinguish Strategic Planning, Management Control and Operational Control. **(07)**

Q. 2 Define the term Responsibility Center and also describe in brief the types of Responsibility Centers and also distinguish Engineered Expenses Center and Discretionary Expenses Center. **(14)**

Q. 3 A Explain in brief Transfer Pricing, its features and Transfer Pricing Methods. **(10)**

B Explain the following terms: **(04)**
1. Value Chain Analysis
2. Factors considered while administrating the Transfer Pricing.

Q. 4 Read and analyze the case "Aloha Products" and carefully attempt the following questions. **(28)**

1. Do the industry analysis and also explain what the strategy of the company is?
2. Is the firm organized and controlled in line with its defined strategy?
3. Evaluate the key success factors of the company?
4. Evaluate the current control system for the manufacturing, marketing and purchasing departments of Aloha Products.
5. Considering the company's competitive strategy, what changes, if any, would you like to make to the control system for these three departments?

Case 7-4

Aloha Products

I'm completely fed up. How am I supposed to run a profitable plant when I don't have any control over the price of my inputs and none over the volume, price, or mix of my outputs? I'm held hostage by the whims of the purchasing and marketing departments. I didn't go to business school so I could be evaluated on the basis of someone else's performance.

Lisa Anderson
Aloha Products Plant Manager, Dayton, Ohio
October 1994

Aloha Products, founded in 1910 and headquartered in Columbus, Ohio, sold its own brands of coffee throughout the Midwestern and Middle Atlantic states. In 1994, the sales revenues of the company were $150 million. The company's stock was closely held by members of the founder's family. The president and the secretary-treasurer were part of the family and the only members of the management team to have equity stakes.

The Coffee Industry

Coffee in its raw state is referred to by buyers and sellers as "green coffee." This refers to the green beans that are picked from the coffee trees. There are two types of coffee beans: arabica and robusta. Arabica, a favorite of American consumers, is grown primarily in South America. Robusta coffee's major grower is the Ivory Coast. It has a stronger flavor than arabica and is favored by processors who make instant coffee.

Suppliers

Coffee generally is grown in tropical regions. Brazil, the largest producer, supplies 20 to 30 percent of the world's green coffee. Other large exporting countries include Colombia, Indonesia, the Ivory Coast, and Mexico. Coffee is harvested somewhere in the world almost every month of the year. For example, Brazil harvests coffee April through September, Colombia from October into March, and the Ivory Coast from November into April.

Buyers

The United States is the world's largest single importer of coffee. It buys most of its coffee from Brazil and Colombia. Europe is second, purchasing a little less than half of all coffee exported.

Buyers fall into two categories: roasters and brokers. Roasters include large food processing companies such as Philip Morris (which acquired General Foods, including its Maxwell House

This case was written by Ruthard C. Murphy (T'93) and Anil R. Chitkara (T'94) under the supervision of Professors Vijay Govindarajan and Robert N. Anthony. The case is based on an earlier Note on Coffee prepared by Scott Barrett (T'89) and an earlier case prepared by Professor Russell H. Hassler, Harvard Business School.

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brand), P&G, and Nestlé, as well as regional and local coffee companies. Large players purchase their coffee supplies directly from the growers. Their financial strength generally allows them to negotiate favorable terms with the growers and to inventory coffee stock as protection against future price increases.

Smaller coffee processors normally buy their coffee from brokers—either a "pure" broker or a trade firm. Pure brokers don't actually purchase the coffee; they merely match buyer and seller in the marketplace. Trade firms do purchase coffee from its country of origin and then sell it to a food processor. Generally, they finance their transactions through secured loans from commercial banks. These banks usually allow a creditworthy company to borrow 80 to 90 percent of the market value (based on the spot price) of the coffee purchased. The bank holds the title to the coffee until the trade firm sells the product to end users. Once the loan is repaid, the trade firm takes the remaining proceeds of the sale as profit.

For large and small buyers, the coffee business is a relationship business. Developing strong relationships with the growers is important to maintain a steady supply of coffee. Although coffee is a commodity product and, as such, its supply and demand depend on price, one cannot fly down to Colombia and expect to buy a million bags of coffee easily. Growers want to deal with buyers they trust and vice versa.

A strong relationship provides two things: information about the coffee market and an inside track on a grower's crop. This is especially important if a roaster needs a certain type of coffee (e.g., Colombian mild) to maintain a standard blend of ground coffee that will keep consumers drinking "to the last drop."

Factors Affecting Price

Weather, specifically frost and drought, is the most important factor affecting production and hence price for Western Hemisphere coffees. The commodity sections in most major newspapers often carry stories concerning the effect of weather on harvests. Coffee crops from Eastern Hemisphere countries most often are damaged by insects. The level of coffee inventories in major producing and consuming countries is another important market consideration. Actual or threatened dock strikes may cause a buildup of coffee stocks at a port of exit. Marketing policies of various exporting countries also affect prices. On the consumer side, high retail prices or concerns about health can reduce consumption, which, in turn, may exert downward pressure on prices.

The Futures Market

Futures markets for coffee exist in New York, London, and Paris. In New York coffee futures are traded on the Coffee, Sugar, and Cocoa Exchange. Predicting prices and availability of green coffee beans entails considerable uncertainty. Thus, the normal use of the coffee futures market is to set up a hedge to protect one's inventory position against price fluctuations. A hedge is commonly defined as the establishment of a position in the futures market approximately equal to, but in the opposite direction of, a commitment in the cash market (also known as the physical, or actual, commodity). Only 2 percent of all futures contracts result in actual delivery of coffee beans. The majority of contracts are closed out by purchasing a contract in the opposite direction or by selling one's own contract.

For example, a company that owns an inventory of coffee establishes a short position in the futures market. This position offsets a drop in the value of the firm's inventory in case coffee prices decline. The short position obligates the holder to sell coffee at a predetermined price at some future date. If, in the future, coffee prices drop, the short position increases in value because the holder locked in at a higher sales price. This offsets the decline in value of the actual coffee inventory. It is virtually impossible to set up a perfect hedge position because of imperfections between the physical and futures markets, but the futures markets do protect the value of one's inventory.

Hedging also allows coffee merchants to get bank credit. Banks seldom lend money to commodity holders who do not attempt to hedge their positions properly.

Coffee Consumption Trends

Per capita coffee consumption has declined precipitously since 1965. Exhibit 1 shows US liquid consumption in several drink categories. While overall coffee consumption declined, specialty premium and gourmet coffees bucked this trend and sold well. Gourmet coffee sales alone climbed from approximately $500 million in 1987 to $780 million in 1992. During this period, total coffee sales moved only from $6.3 billion to $6.8 billion. Specialty brands attracted new coffee consumers who were younger and more affluent than the coffee drinkers of 30 years earlier. Gourmet and premium coffees accounted for 19 percent of total consumption in 1992, and this percentage was expected to increase in the future.

Many small firms stepped in to both create and take advantage of this shift in consumer preference. One of them was Seattle-based Starbucks Coffee Company. Starbucks purchased and roasted high-quality whole bean coffees and sold them, along with fresh-brewed coffee, a variety of pastries and confections, and coffee-related accessories and equipment, primarily

EXHIBIT 1 A Generation of Evolving Tastes—US Liquid Consumption Trends (Gallons per Capita)

	1965	1975	1985	1990
Soft drinks	17.8	26.3	40.8	47.5
Coffee*	**37.8**	**33.0**	**25.8**	**25.2**
Beer	15.9	21.6	23.8	23.4
Milk	24.0	21.8	19.8	19.0
Tea*	3.8	7.3	7.3	7.2
Bottled water	—	1.2	5.2	8.8
Juices	6.3	6.8	7.4	6.9
Powdered drinks	—	4.8	6.2	5.3
Wine†	1.0	1.7	2.4	2.0
Distilled spirits	1.5	2.0	1.8	1.4
Subtotal	108.1	126.5	140.5	146.7
Imputed water consumption	74.4	56.0	42.0	35.8
Total	182.5	182.5	182.5	182.5

*Data are based on 3-year moving averages to counterbalance inventory swings, and to show consumption more realistically.
†1985 and 1990 figures include wine coolers.
Source: Beverage Industry—*Annual Manual 1992.*

EXHIBIT 2 **Selected 1992 Segment Sales and Expense Data* ($ in millions)**

	Nestlé‡	Procter & Gamble	Philip Morris
Sales	$9,658	$3,709	$29,048
Cost of sales	4,369	2,373	19,685
Marketing and administration†	3,564	1,157	6,594

*Since these companies participate in multiple industries, only the segment data for the food or beverage segment (that included the company's coffee business) are provided.
†Marketing and administration expenses include research and development costs.
‡Financial information for Nestlé was converted from Swiss francs into dollars using the average exchange rate for 1992—SF1.40/$.
Source: 1992 Annual Reports.

through its company-operated retail stores. To ensure compliance with its rigorous coffee standards, Starbucks purchased green coffee beans for its many blends from coffee-producing regions throughout the world and custom roasted them to its exacting standards. It also controlled the packing and distribution of coffee to its retail stores. For the year ended October 1994, Starbucks generated $284 million of sales from 400 company-operated retail outlets.

Green Mountain Coffee Roasters (GMCR), based in Shelburne, Vermont, enjoyed $11 million in sales for 1991. This company had seven retail outlets and more than 1,000 restaurant and gourmet food store accounts. GMCR kept its prices high and was decidedly high tech, using a computerized roaster and a database to help customers manage their coffee inventories.

While the specialty coffee industry had high hopes for consumer demand in the early 90s, some trends in consumer products pointed to opportunities in the nonspecialty segments. In the wake of an economic recession, consumers were cost conscious. Accordingly, demand for lower-priced store brands (private labels) increased. It was not yet clear how this trend would manifest itself in the coffee retail market in the years ahead.

Competitors

Nestlé was the largest coffee company in the world. In the United States, the largest coffee producers were Philip Morris (Maxwell House) and P&G (Folgers). These companies had considerable resources: infrastructure, distribution networks, brand equity, production resources, and marketing expertise. They had competed largely through heavy advertising[1] and aggressive pricing. Sensitive to shifts in coffee consumption, all three had introduced many new coffee products. (Selected financial data on the major competitors are provided in Exhibit 2.) In addition to these coffee giants, there were several niche players such as Starbucks.

Aloha Products

The vice president of sales for Aloha Products and his two assistants centrally managed the sales policies. The company president and the vice president of sales jointly assumed responsi-

[1]In 1990 Philip Morris and P&G each spent roughly $100 million on coffee advertising.

EXHIBIT 3
Profit & Loss Statement for Plant No. 1

Net sales (shipment at billing prices)			100%
Less: Cost of sales:*			
Green coffee at contract cost		50%	
Roasting and grinding			
Labor	5%		
Fuel	3		
Manufacturing expense	5	13%	
Packaging			
Container	11%		
Packing carton	1		
Labor	2		
Manufacturing expense	4	18%	
Total manufacturing cost			81%
Gross margin			19%

*Cost of sales is expressed as percent of net sales revenue. Dollar amounts have been omitted.

bility for advertising and promotion. The vice president of manufacturing oversaw the roasting, grinding, and packaging of Aloha's coffees.

The company operated three roasting plants in the Midwest, each plant with its own profit and loss responsibility. A plant manager's bonus was a percentage of his or her plant's gross margin. Headquarters prepared monthly gross margin statements for each plant, as illustrated in Exhibit 3.

At the start of each month, headquarters presented plant managers with production schedules for the current month and a projected schedule for the succeeding month.

Each plant had a small accounting office that recorded all manufacturing costs and prepared payrolls. The home office managed billing, credit, and collection, and prepared all of the company's financial statements.

Plant managers had no control over buying the green (unprocessed) coffee beans. A special purchasing unit within the company handled these purchases. The unit was located in New York City, the heart of the green coffee business, because this allowed constant contact with coffee brokers. The purchasing group was largely autonomous. It kept all of its own records and handled all of the financial transactions related to purchasing, sales to outsiders, and transfers to the three company-operated roasting plants. The unit's manager reported directly to the company's secretary-treasurer.

The purchasing unit's primary function was to obtain the necessary varieties and quantities of green coffee for the roasting plants to blend, roast, pack, and deliver to customers. The purchasing group dealt with more than 50 types and grades of coffee beans grown in tropical countries all over the world.

Using projected sales budgets, the purchasing group entered into forward green coffee bean contracts with exporters. Forward contracts required green coffee delivery 3 to 12 months out at specific prices. The group also had the option of purchasing on the spot market—that is, purchase for immediate delivery. Spot purchases were kept to a minimum. A purchasing agent's knowledge of the market was critical; the agent had to judge market trends and make commitments accordingly.

The result of this process was that the green coffee purchasing unit bought a range of coffees in advance for delivery at various dates. At the actual delivery date, the company's sales were not always at the level expected when the original green coffee contract was signed. The difference between actual deliveries and current requirements was handled through either sales or purchases on the spot market. The company would sell to, or buy from, coffee brokers and sometimes from other roasters.

As an example, commitments for Kona No. 2 (a grade of Hawaiian coffee) might specify delivery in May of 22,000 bags (a bag contains 132 lbs. of green coffee). These deliveries would be made under 50 contracts executed at varying prices, 3 to 12 months before the month of delivery. If for some reason demand for the company's products fell in May, the plant's raw material needs could correspondingly fall to 17,000 bags. In this case, the purchasing unit would have to decide between paying to store 5,000 surplus bags in noncompany facilities or selling the coffee on the open market. This example had been typical of the company's normal operation.

Generally, the company's big volume purchases permitted it to buy on favorable terms and to realize a normal brokerage and trading profit when it sold smaller lots to small roasting companies. Hence, the usual policy was to make purchase commitments based on maximum potential plant requirements and sell the surplus on the spot market.

The company accounted for coffee purchases by maintaining a separate cost record for each contract. This record was charged with payments for coffee purchased as well as shipping charges, import expenses, and similar items. For each contract, the purchasing group computed a net cost per bag. Thus, the 50 deliveries of Kona No. 2 cited in the example would come into inventory at 50 different costs. The established policy was to treat each contract individually. When green coffee was shipped to a plant, a charge was made for the cost represented by the contracts that covered that particular shipment of coffee. There was no element of profit or loss associated with this transfer. When the company sold green coffee on the open market, the sales were likewise costed on a specific contract basis with a resulting profit or loss on the transaction.

The operating cost of running the purchasing unit was charged directly to the central office. The cost was recorded as an element in the general corporate overhead.

For the past several years, the plant managers had been dissatisfied with the method of computing gross margin (as evident from the quote at the beginning of this case). Their complaints finally motivated the president to request a consulting firm that specializes in strategy execution to study the whole method of reporting the results of plant operations, sales and marketing, and the purchasing groups.
