Carranco – A Vertically Integrated Dairy Company in the Central Plateau of Mexico

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Executive Summary

Carranco is a family owned vertically integrated dairy operation in San Luis Potosi (SLP), Mexico. It procures most of its milk from its own dairy herd of 1200 cows and processes it into a number of dairy products at its own plant. The final products are distributed to independent grocery stores (29.1% retail sales), supermarkets (55.8%), and institutions (3.7%) as well as to the company's 13 stores (11.3%) in SLP. Sales within SLP account for 70% of total retail sales whereas 30% of sales are to nearby cities.

Carranco has been experiencing financial difficulties in the last few years. The management feels that the biggest cause of these difficulties is the North American Free Trade Agreement (NAFTA) whereby subsidized dairy products can enter the Mexican market. There may be other causes for the firm's poor financial performance including: poorly performing company stores, losses when selling products outside of SLP, high administration, wage and salary costs, a need to refocus the marketing strategy, and the wide range of dairy products Carranco manufactures.

In 2003 Carranco had a total of 426 employees, 126 on the farm, 95 in the dairy plant, 88 in distribution within SLP and 70 in distribution outside of SLP, 29 in the Carranco stores and 18 in administration. Wage and salary costs were approximately 18.3 million Mexican Pesos (MP) for farm, dairy plant and distribution workers, in addition there were 9.1 million MP of administration costs, thereby totaling 27.4 million MP or about 27% of retail sales.

Carranco lost 4,251,684 MP in 2003 after losing 1,019,826 MP in 2002 and its cash position deteriorated by 6,449,537 MP between the beginning and end of 2003. Milk production, milk processing and sales to independents, supermarkets, and institutions in SLP are generally profitable whereas sales through Carranco stores in SLP and sales outside of SLP lose money.

Finally, the Mexican dairy industry has not been able to meet the increased domestic demand for dairy products. In recent years US exports of subsidized dairy products, especially Skim Milk Powder (SMP), have met, in part, some of the increased demand in Mexico for dairy products.

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Abstract

Carranco is a family owned vertically integrated dairy operation in San Luis Potosi (SLP), Mexico. It procures most of its milk from its own dairy herd of 1200 cows and processes it into a number of dairy products at its own plant and sells most of it products in SLP. It has been experiencing financial difficulties in the last few years. These could be because of Mexico's importation of subsidized US dairy products or poorly performing company stores, losses when selling products outside of SLP, high administrative and wage and salary costs, a need to refocus the marketing strategy, or the fact that Carranco produces a large range of dairy products.

Keywords

Mexican integrated dairy, financial management, human resource management, marketing strategy, international trade

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Introduction

Carranco is a family owned vertically integrated dairy operation in San Luis Potosi (SLP), Mexico, which is in the central plateau north of Mexico City. The company procures most of its milk from its own dairy herd of 1,200 Jersey cows. It processes this milk into a number of dairy products at its own plant. Both the dairy herd and plant are located about 40 kilometers south of SLP. Once processed and packaged, the products are transported to the warehouse in SLP where they are repackaged and organized for sale. About 70% of the products are distributed to small independent grocery stores, large supermarket chains, institutions, and Carranco's 13 specialty stores in SLP. The remaining 30% is sold in nearby cities.

Carranco has been experiencing financial difficulties in the last few years, with very low returns to equity. The management feels that the biggest cause of these difficulties is the North American Free Trade Agreement (NAFTA) whereby the US is able to ship subsidized dairy products to Mexico with no tariff or quantitative impediments, while Mexican producers face small quotas, high tariffs, and phyto-sanitary restrictions imposed by the US. There may however, be other causes for the firm's poor financial performance including: poorly performing Carranco stores, losses when selling products outside of SLP, high administrative and wage and salary costs, a need to refocus the marketing strategy, and the fact that Carranco produces a large range of dairy products.

The case study is organized in the following manner. First, a history of Carranco and how it has developed to the present is given. Carranco´s current operations and human resources are then thoroughly described. Next, Carranco´s current marketing strategy is outlined, followed by detailed financial information and analysis. The case concludes with a brief description of US and Mexican dairy policy with respect to subsidization and trade restrictions.

History

Carranco's origins lie in the decision to import 30 Jersey milk cows and 10 young bulls in 1885. A technician from Ireland was also contracted to manufacture butter. The company took on the name Carranco, which is the last name of a local priest, in 1950. By

1958, Carranco had begun producing Ranchero cheese, which eventually became a market leader in the SLP area. The decade of the 1970s saw Carranco change from a somewhat cottage based low capital company to an industrially oriented and capital intensive company. In 1985 pork production was added to utilize the whey production in the dairy plant. In 1988, 3,500 litres of milk were processed daily into three products, ranchero and asadero cheeses, and butter. In 2003 an average of approximately 26,000 litres of milk were processed daily or 9.4 million litres per year into approximately 50 different products and/or size configurations. In 1991, Carranco began selling outside SLP. Aguascalientes was the first new market, followed by Queretaro and Zacatecas in 1993, and Mexico City in 1997.

Operations

Carranco's operations consist of the farm (approximately 200 hectares), the dairy plant, the packaging and distribution center, and the sales channels. The milking herd comprises 1,430 cows, of which approximately 1,200 are milking at any one time, and 1,090 replacement animals at various stages of growth. About 20% of the milking herd is culled each year but this can change from time to time (Villegas Valladares). The heifers first calve at 26.3 months of age on average and the mortality rate in the calves is 9.8% (Villegas Valladares). The interval between calving averages 13.7 months (Villegas Valladares).

The cows are kept outside in large pens all year round, and do not graze pasture at any time. The pens are cleaned twice per year. The cows are milked twice daily in a herringbone shaped open sided milking parlor where 40 head are milked at once. Cows are artificially inseminated and the herd calves all year round. Male calves are sold soon after birth and the heifers that are not being kept for replacement are sold as soon as it is feasible or retained and sold as breeding stock to other dairies.

The farm consists of 150 hectares of forage production which is irrigated using ground water and sprinklers. It is also fully equipped with modern forage and feeding equipment along with a modern feed plant for mixing the feeds, vitamins and minerals for the various dry, lactating and growing rations. The home grown forages are made into silage stored in concrete bunker silos. Silage supplies about 50% of the feed requirements of the cattle. The remainder of the feed is purchased and consists of alfalfa, mixed grass hay, corn and protein, mineral and vitamin supplements.

The cows average 8176 kgs of milk annually per head and the milk averages 3.88% butterfat and 3.24% protein (Villegas Valladares). The milk is transported from the milking parlor to the plant via a pipeline. There, its quality is analyzed it is then directed to different lines depending upon composition. The plant equipment is comparable to most dairy plants of similar size throughout the world. The processes used are also very similar but have been modified in a few cases to produce products with unique characteristics. Most products are repackaged at the distribution center to meet the sales orders. Repackaging and distribution organization could perhaps be done more efficiently on the same site as the plant but the warehouse property is closer to most customers, is the original company site, has sentimental value, and is also the location of the corporate offices.

There are also 170 breeding sows and 1,500 feeder hogs. The hog enterprise was established primarily to use byproducts of the dairy plant. The sows produce about 9 pigs per litter and farrow about 2.1 litters per year. The finished pigs are sold at about 6 months of age and weigh between 80 and 100 kgs per head.

Human Resources

In 2003 Carranco had a total of 426 employees. Wage and salary costs were approximately 18.3 million Mexican Pesos (MP) for the farm (126 employees), the dairy plant (95), distribution workers (88), and sales staff (70). In addition there were 18 employees in administrative positions costing 9.1 million MP. The total wage, salary and administration cost was approximately 27.4 million MP or about 27% of gross retail sales.

Employee relations are very good and most employees are satisfied with their jobs and its remuneration, which is higher than the minimum required by law. There are no formal unions but most workers are covered by a collective agreement that is renegotiated from time to time. On average, production line workers have been with Carranco for 3 years, workers at the farm 7 years, and individuals in supervisory positions for 10 years.

Marketing

Carranco sells about 50 different products and/or size configurations. Cheese accounts for 54.2% of sales and consists of Ranchero (21.6%), Asadero (14.0%), Cottage (5.8%), and Panela (5.6%), as well as, Amarillo, Manchego, Chihuahua, Fresh Cheese, and Special Reserve (combined 7.2%). Yogurt accounts for 34.7% of sales and is made up of five kinds of flavoured yogurt (22.3%), tuboly or drinkable flavoured yogurt (9.6%), and unflavoured or natural yogurt (2.8%). Cream (7.8%), ultra high temperature (UHT) milk (2.5%), and butter (1.1%) make up the remainder of sales. Carranco also buys products for resale, the majority of which are various flavours of ice cream and enchiladas.

Carranco sells 55.8% of its products to supermarket chains and 29.1% to smaller independent food stores (Table 1). The rest of the sales are through the 13 Carranco stores (11.3%) and to institutions such as hospitals and government organizations (3.7%). Over 50% of the sales to the supermarkets comprise flavoured yogurts (23.8%), Asadero (17.0%), and Ranchero cheese (13.6%). Sales to the independent stores, the Carranco stores, and the institutions are lead by Ranchero cheese (27.9%, 35.7%, and 25.4% respectively), flavoured yogurts (21.5%, 18.3%, and 21.5% respectively), and Asadero cheese (12.0%, 9.4%, and 7.4% respectively), with Panela cheese (13.8%) replacing Asadero cheese at the institutions.

Prices charged for the major products differ depending on the marketing channel (Table 2). In general prices are lowest to the supermarkets and highest to the Carranco stores. Competition at the supermarkets requires Carranco to supply their products at prices less than those charged to the stores. There are currently 13 Carranco stores and all are situated in SLP. The stores are attractive, clean and well maintained. They generally have a counter with built in product displays, usually for ice cream, and more glass covered cooler space behind the counter. There is usually room for 10 to 15 customers to sit at tables and consume their purchases in the store. The staff are usually female between the ages of 30 and 60 and dressed in white shirts and skirts or trousers with white hairnet caps. They handle the products using latex gloves. Many of the products are displayed in bulk form and the staff weigh and package customer requests. Many stores are strategically situated on visible and high traffic streets. Unfortunately despite all of the above listed advantages, sales volumes through these stores are disappointingly low.

Table 1: Carranco Sales (2003) by Products and Sales Channel

Product/ Location	Super-markets	Independent Stores	Carranco Stores	Institutions	Total
Ranchero	13.6%	27.9%	35.7%	25.4%	21.6%
Asadero	17.0%	12.0%	9.4%	7.4%	14.0%
Cottage	10.1%	1.6%	2.0%	2.5%	5.8%
Panela	7.7%	2.2%	4.9%	13.8%	5.6%
Other Cheese	6.4%	9.2%	5.3%	4.3%	7.3%
Drinkable Yogurt	9.4%	9.2%	9.1%	5.1%	9.2%

Flavoured Yogurt	23.8%	21.5%	18.3%	21.5%	22.3%
Natural Yogurt	2.5%	3.3%	2.4%	2.9%	2.8%
Cream	8.0%	8.2%	5.4%	7.9%	7.8%
UHT Milk	1.4%	2.8%	5.8%	5.8%	2.5%
Butter	0.2%	2.8%	1.3%	3.5%	1.1%
% of Total Sales	55.8%	29.1%	11.3%	3.7%	100%

Table 2: Carranco Prices (2003) by Products and Sales Channel (Mexican Pesos/Kg)

Product/ Location	Super-markets	Independent Stores	Wholly Owned Stores	Institutions	Total
Ranchero	$48.50	$52.35	$52.25	$50.48	$51.02
Asadero	$51.35	$57.73	$60.58	$50.41	$53.81
Flavoured Yogurt	$13.21	$16.34	$17.10	$15.06	$14.56

Carranco is increasingly marketing its products in prepackaged containers similar to other marketers of dairy products. However, Carranco also continues to operate small counters in supermarkets where products are displayed in bulk and staff, dressed similarly to those in their stores, wait on customers. Unfortunately, these counters do not appear to be used frequently as those Mexicans shopping at supermarkets are becoming more familiar with prepackaged dairy products. It follows that packaging design and shelf space allotted are becoming more important in the success of a marketing strategy. Carranco's packaging design is very basic usually using the traditional white plastic container with a thick blue band around it and Carranco's name printed in white in plain block letters on the blue band. Their shelf space in most supermarkets is usually quite limited compared to Carranco's large competitors.

Carranco's general marketing strategy as seen in newspapers and billboards emphasizes quality and tradition. The ads stress the quality and freshness of Carranco products and that the company has a long history and can be trusted. The ads often do not have pictures, but when they do it almost always includes a well-dressed conservative looking mother figure with a healthy looking child between five and ten years old.

As stated above, 70% of the sales occur in SLP and 30% outside SLP (Table 3). Queretaro (13.7%) and Aguascalientes (11.7%) are the dominant markets outside SLP with Zacatecas (3.6%) and Mexico City (1.1%) contributing marginally. Over 50% of the sales in

SLP are in Ranchero cheese (27.3%), flavoured yogurts (22.9%) and Asadero cheese (13.9%). The sales in Queretaro are more evenly distributed among flavoured yogurts (15.8%) and cheeses, Asadero (20.7%), Ranchero (13.5%), Panela (12.3%), and Cottage cheese (11.5%). Flavoured and drinkable yogurts dominate the Aguascalientes market with 24.2% and 16.4% respectively for a total of 40.6%. Cottage cheese (17.4%), Asadero cheese (10.9), and cream (10.6%) are the other major products marketed in Aguascalientes. Flavoured yogurts (33.8%), natural yogurt (21.5%), and drinkable yogurt (17.4%) dominant the market in Zacatecas. Finally, Cottage cheese (28.5%), butter (22.9%), and drinkable yogurt (20.0%) dominate the Mexico City market.

The prices charged for the major products in the various locations do not include transportation costs (Table 4). In most cases the prices received were higher in SLP despite the fact that SLP is the location of the plant and products would incur transportation costs to get them to the other cities. It would appear that Carranco is price differentiating to enter these markets at competitive prices to gain market share, but at what cost.

Financials

Tables 5, 6, and 7 summarize Carranco’s net income statement and balance sheet for 2002 and 2003 and its cash flow statement for 2003. As can be seen, Carranco lost 4,444,765 MP in 2003 after losing 1,019,826 MP in 2002. The cash position of Carranco deteriorated by 6,449,537 MP in the 2003 year.

Table 3: Carranco Sales (2003) by Products and Location

Product/ Location	SLP	Queretaro	Aguascalientes	Zacatecas	Mexico City	Total
Ranchero	27.3%	13.5%	4.9%	1.9%	3.7%	21.6%
Asadero	13.9%	20.7%	10.9%	3.0%	6.0%	14.0%
Cottage	2.2%	11.5%	17.4%	9.2%	28.5%	5.8%
Panela	4.3%	12.3%	7.1%	0.4%	2.9%	5.6%
Other Cheese	8.0%	6.8%	4.7%	2.8%	4.7%	7.2%
Drinkable Yogurt	7.1%	10.2%	16.4%	17.4%	20.0%	9.6%
Flavoured Yogurt	22.9%	15.8%	24.2%	33.8%	4.1%	22.3%
Natural Yogurt	1.9%	2.0%	3.3%	21.5%	1.3%	2.8%
Cream	7.7%	6.2%	10.6%	8.4%	2.6%	7.8%
UHT Milk	3.4%	0.4%	0%	0.8%	3.9%	2.5%
Butter	1.0%	0.5%	0%	0.9%	22.9%	1.1%

% of Total Sales	69.9%	13.7%	11.7%	3.6%	1.1%	100%

Table 4: Carranco Prices (2003) by Products and Location (Mexican Pesos/Kg)

Product/ Location	SLP	Queretaro	Aguascalientes	Zacatecas	Mexico City	Total
Ranchero	$51.45	$47.93	$47.74	$48.84	$48.29	$51.02
Asadero	$54.68	$51.82	$51.82	$54.15	$54.71	$53.81
Flavoured Yogurt	$15.15	$13.23	$13.19	$13.41	$14.05	$14.56

The sales, cost of sales, gross profit, expenses, and net income from the major enterprises in the company are presented in Table 5. This shows that milk production, milk processing and sales to independents, supermarkets, and institutions in SLP are fairly consistently profitable. Sales through Carranco stores in SLP and sales outside SLP are consistently unprofitable. The other enterprises include the feed plant, a hog enterprise, breeding stock sales; crop production and hauling which in total are not significant money makers or losers. Carranco follows a fairly complex system of internal transfers of products and services between enterprises. For example, milk is sold from the milk production enterprise to the milk processing enterprise at a close to market price of 3.7 MP per litre. Processed products are then in turn sold to the various retail outlets.

Table 5: Carranco's Net Income Statement for 2002 and 2003 (MP)

	2002	2003
Enterprise Net Income		
Milk Production		
Sales	32,960,180	37,739,223
Expenses	28,387,583	34,576,943
Net Income	4,572,597	3,162,280
Milk Processing		
Sales	55,273,978	61,333,068
Cost of Sales	40,180,591	44,571,741
Gross Profit	15,093,387	16,761,327
Expenses	11,547,056	13,716,743
Net Income	3,546,331	3,044,584
Sales in SLP (Independents, Supermarkets, & Institutions)		
Sales	57,473,503	59,684,900
Cost of Sales	42,153,183	43,522,696
Gross Profit	15,320,320	16,162,204
Expenses	11,459,605	12,982,489

Net Income	3,860,715	3,179,715
Sales in SLP (Carranco Stores)		
Sales	10,470,296	11,517,029
Cost of Sales	6,956,598	7,696,133
Gross Profit	3,513,698	3,820,896
Expenses	3,712,944	4,009,536
Net Income	-199,246	-188,640
Sales Outside of SLP		
Sales	29,207,465	30,703,570
Cost of Sales	22,428,825	23,034,240
Gross Profit	6,778,640	7,669,330
Expenses	10,196,739	11,331,831
Net Income	-3,418,099	-3,662,500
All Other Enterprises	-578,952	339,469
Total Enterprise Net Income	7,783,346	5,874,908
General Expenses		
Financing Charges	1,048,806	1,497,620
Miscellaneous Expenses	895,562	1,257,126
Administration	2,227,864	2,362,446
Depreciation	4,630,940	5,009,400
Net Income	-1,019,826	-4,251,684

The general expenses in Table 5 include finance charges, miscellaneous expenses, administration and depreciation. The administration expenses are in addition to those allocated to the enterprises which were almost 6.8 million MP. The total administration expense of 9.1 million MP represents 11% of Carranco’s total expenditure. The depreciation expense is approximately 10% of the book value of buildings, machinery, and equipment.

Carranco’s Balance Sheets (Table 6) and Cash Flow Statement (Table 7) document the changes in assets, liabilities, equity and liquidity through 2003. Investments, accounts receivable, inventories and accounts payable all rose. Land, buildings, machinery and equipment category rose by roughly the value of staff housing erected during 2003. This was financed by a combination of cash and long-term debt.

Table 6: Carranco’s Balance Sheet as at Dec. 31, 2002 and 2003 (MP)

	2002	2003
Assets		
Cash	9,793,825	3,344,288
Investments	729,369	1,322,525
Accounts Receivable	6,725,412	7,016,240
Inventories		

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Animals	17,485,552	19,846,476
Products	6,815,444	7,193,216
Feed	3,190,080	3,916,526
Gasoline, Diesel, & Lubricants	46,190	54,827
Land, Buildings, Machinery & Equipment	52,024,809	60,289,827
Accumulated Depreciation	-20,150,000	-25,159,400
Total Assets	76,660,681	77,824,525
Debt		
Bank Loans	13,432,700	18,486,405
Accounts Payable	2,533,321	2,895,144
Total Debt	15,966,021	21,381,549
Equity Capital		
Capital Stock	20,724,918	20,724,918
Retained Earnings	39,969,742	35,718,058
Total Equity	60,694,660	56,442,976
Total Debt & Equity	76,660,681	77,824,525

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Table 7: Carranco's Cash Flow Statement from Dec. 31, 2002 to Dec. 31, 2003 (MP)

	2003	
Cash from (used in) Operating Activities		
+/-Net Income (Loss)	-4,251,684	
+Depreciation	5,009,400	
+/-Changes in Accounts Receivable	-290,828	
+/-Changes in Inventories	-3,473,779	
+/-Changes in Accounts Payable	361,823	
Net Cash Flow from Operations	-2,645,068	
Cash from (used for) Financing Activities		
+Sale of Shares	0	
-Dividends	0	
+/-Changes in Debt	5,053,705	
Net Cash Flow from Financing	5,053,705	
Cash from (used for) Investing Activities		
+/-Land, Buildings, Machinery & Equipment	-8,265,018	
+/-Investments	-593,156	
Net Cash Flow from Investing	-8,858,174	
Increase (decrease) in Cash		
Cash Beginning of Year	9,793,825	
Cash End of Year	3,344,288	

Most of the milk is sold to the processing enterprise. Some milk is sold for outside processing and part of that is bought back as ice cream. Sales include cull cows and replacement heifers sold for breeding. The major expense is feed for the cattle accounting for approximately 70% of total expenditure. Wages and salaries for the staff accounted for approximately 10% of the total expenses. Income rose in 2003 from 2002 by 4.7 million MP but expenses increased by 6.2 million MP thus lowering net income by 1.4 million MP.

The milk sold to the processing enterprise is accounted for in the cost of sales of that enterprise. The gross profit for the milk processing enterprise increased in 2003 by almost 1.7 million MP. Expenses also rose in 2003 by more than 2.1 million MP. The largest expenses were wages and salaries, packaging and administration. Wages and salaries accounted for almost 30% of the total and rose by almost 0.5 million MP in 2003. This resulted in a drop in net income for the milk processing enterprise of slightly more than 0.5 million MP for 2003 compared to 2002.

In 2003 sales in SLP increased through the independent stores, supermarkets, and institution by over 2.2 million MP. Cost of sales also rose resulting in only a 0.9 million MP increase in gross profit. Expenses were up in 2003 by almost $1.5 million MP. The largest expenses were wages and salaries at more than 37% of the total, up by 0.6 million MP in 2003. All this resulted in a drop in net income for sales in SLP through independent stores, supermarkets, and institutions of more than 0.6 million MP for 2003 compared to 2002.

In 2003 sales through the Carranco stores in SLP increased by over 1 million MP. Cost of sales also rose this year resulting in gross profit only growing by 0.3 million MP. Expenses were up in 2003 by almost 0.3 million MP. Wages and salaries accounted for over 33% of the expenses and rose by almost .1 million MP in 2003. All this resulted in a rise in net income for the Carranco stores of almost 11,000 MP for 2003.

Retail sales outside of SLP grew in 2003 but so did expenses. In 2003 sales increased by 1.5 million MP, but cost of sales also rose resulting in a rise in gross profits of 1.1 million MP. Expenses were up in 2003 by over 0.3 million MP. Leading overall to a fall in net income of 0.3 million MP.

Table 8 reports a number of financial ratios for Carranco and its various enterprises and includes standards for these ratios. These standards are generally accepted throughout the financial literature but may be modified slightly from industry to industry (Allen et. al., 2006)

First, Carranco’s liquidity, solvency, profitability and financial efficiency are measured for the entire enterprise and compared to industry standards. The liquidity position or Carranco’s ability to meet short run financial obligations is measured by the current ratio and at 17.7 and 14.7 for 2002 and 2003 respectively show a very good liquidity position being significantly above the standard of two. Next the solvency position, or Carranco’s ability to meet both short run and long run financial obligations, as measured by the debt to asset ratio and at 0.21 and 0.27 for 2002 and 2003 respectively demonstrates that Carranco has significantly low debt relative to assets and is well within the standard. Carranco’s profitability is measured by the return on assets and the return on equity. At -.01 and -.05 for 2002 and 2003 respectively for the return on assets and at -.02 and -.08 for 2002 and 2003 respectively for the return on equity profitability is obviously very weak. The return on assets should exceed the cost of debt or the average interest rate paid on borrowed capital. The return on equity should be greater than the return on assets.

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Table 8: Financial Ratios: Carranco

	2002	2003	Standards
Liquidity - Carranco			
Current Ratio - Current Assets/Current Liabilities	17.7	14.7	2:1
Solvency - Carranco			
Debt/Asset Ratio	0.21	0.27	<.5
Profitability - Carranco			
Return on Assets - Net Income/Total Assets	-0.01	-0.05	> Cost of Debt
Return on Equity - Net Income/Total Equity	-0.02	-0.08	> Return on Assets
Financial Efficiency - Carranco			
Asset Turnover - Total Retail Sales/Total Assets	1.27	1.31	As large as possible
Cash Flow/Debt Ratio - EBITDA/Total Liabilities	0.29	0.11	> 0 & as large as possible
Interest Coverage - EDITDA/Total Int. Expense	4.44	1.51	> 1 & as large as possible
Profitability by Enterprise			
Milk Production			
Total Net Income/Sales	0.14	0.08	> 0 & as close to 1 as possible
Milk Processing			
Total Gross Profit/Sales	0.27	0.27	> 0 & as close to 1 as possible
Total Net Income/Sales	0.06	0.05	> 0 & as close to 1 as possible
Sales in SLP - Independents, Supermarkets, & Institutions			
Total Gross Profit/Sales	0.27	0.27	>0 & as close to 1 as possible
Total Net Income/Sales	0.07	0.05	> 0 & as close to 1 as possible
Sales in SLP - Carranco Stores			
Total Gross Profit/Sales	0.34	0.33	> 0 & as close to 1 as possible
Total Net Income/Sales	-0.02	-0.02	> 0 & as close to 1 as possible
Sales Outside of SLP			
Total Gross Profit/Sales	0.23	0.25	> 0 & as close to 1 as possible
Total Net Income/Sales	-0.12	-0.12	> 0 & as close to 1 as possible

Carranco’s financial efficiency is measured by the Asset Turnover, the Cash Flow to Debt, and the Interest Coverage ratios. The Asset Turnover ratio is total retail sales divided by total assets. Retail sales are used as they are the final sales outside of Carranco. Asset Turnover ratios of 1.27 for 2002 and 1.31 for 2003 demonstrated that annual sales more than cover the value of the assets invested in Carranco and therefore Carranco appears to be using their assets efficiently. The Cash Flow to Debt ratio is EBITDA (earnings before interest, taxes, depreciation and amortization) divided by the total debt. Cash flow to Debt ratios of 0.29 for 2002 and 0.11 for 2003 show a decreasing ability to service debt and although positive, are low and a concern. In 2003, interest rates greater than 11% could not be paid. The Interest Coverage ratio is the EBITDA divided by the total interest expense. Interest Coverage ratios of 4.44 for 2002 and 1.51 for 2003 indicate decreasing ability to make interest payments and must be a concern.

The profitability ratios for the various enterprises within Carranco are measured by the Gross Profit/Sales and the Net Income/Sales ratios. The Gross Profit/Sales ratio is sales less cost of sales divided by sales. The Net Income/Sales ratio is the gross profit less expenses including administration salaries directly related to the enterprise. Both of these ratios should be positive and as high as possible. The Net Income/Sales ratio for the milk production enterprise is strong but decreases from 0.14 in 2002 to 0.08 in 2003. The Gross Profit/Sales ratio for the milk processing enterprise is very strong at 0.27 for both 2002 and 2003. The Net Income/Sales ratio for the milk processing enterprise is also strong at 0.06 in 2002 and 0.05 in 2003. The Gross Profit/Sales ratio for the retail sales in SLP through the independent stores, supermarkets, and institutions is also very strong at 0.27 for both 2002 and 2003. The Net Income/Sales ratio for the retail sales in SLP is also strong but decreases from 0.07 in 2002 to 0.05 in 2003. The Gross Profit/Sales ratio for the retail sales in SLP at the Carranco stores is also very strong at 0.34 and 0.33 for 2002 and 2003 respectively. However, the Net Income/Sales ratio for the retail sales in SLP at the Carranco stores is very weak at -0.02 for both years. The Gross Profit/Sales ratios for retail sales outside of SLP are quite strong at 0.23 and 0.25 for 2002 and 2003 respectively. However, the Net Income/Sales ratio for retail sales outside of SLP is very negative -0.12 in both years.

Mexican Dairy Production, Consumption, and Trade

Carranco is a relatively small independent dairy company facing stiff competition from within Mexico and from imports of subsidized dairy products primarily from the U.S. The Mexican dairy industry is becoming more concentrated. In 1978 five companies (Lala, Boreal, Alpura, Chipilo, y Pasteurizadora Hermosilla) processed 55% of total milk production but by 2002, four companies (Lala, Alpura, Milk Producers Union of Juarez and

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Gilsa) processed 70% of all milk (Villegas Valaderes). Carranco is experiencing significantly higher competition in the market place and has to keep its prices competitive.

Milk consumption in Mexico has grown over the last several years (Table 9). However, the Mexican dairy industry has not been able to meet consumption growth and self-sufficiency ratios have largely decreased (Table 10). Consequently, Mexico now imports much of its dairy products, especially skim milk powder (SMP) (Table 11). The US is the leading foreign supplier to Mexico followed by Germany and Britain (Hanhausen and Domenech, 2004). Trade between Mexico and the US is largely one-way with the US exporting significantly more to Mexico than what it imports. The most important dairy export from the US in terms of volume is SMP, which Mexico uses in social programs as reconstituted fluid milk and in cheese production (Outlaw and Nicholson, 1994). For example, in 2003, the value of SMP exported by the US to Mexico was approximately US $97 million dollars compared to approximately US $43 million of cheese, the next largest item (trade data from FAS, 2004a). While not the sole supplier, the US provides the largest share of Mexico's SMP imports (Figure 1).

Table 9: Milk (Excluding Butter) Consumption per Capita per Year (In Kgs).

	1996	1997	1998	1999	2000
Mexico	107.04	111.25	109.48	116.88	121.37

Source: Data from FAOSTAT database (2002).

Table 10: Self-Sufficiency Ratios for Dairy Products; Mexico 1996-2000.

	Milk, exc. Butter		Butter and Ghee		Cheese		Whey	
	1996	2000	1996	2000	1996	2000	1996	2000
Mexico	80.0	78.7	64.4	31.2	85.7	73.4	47.2	49.1

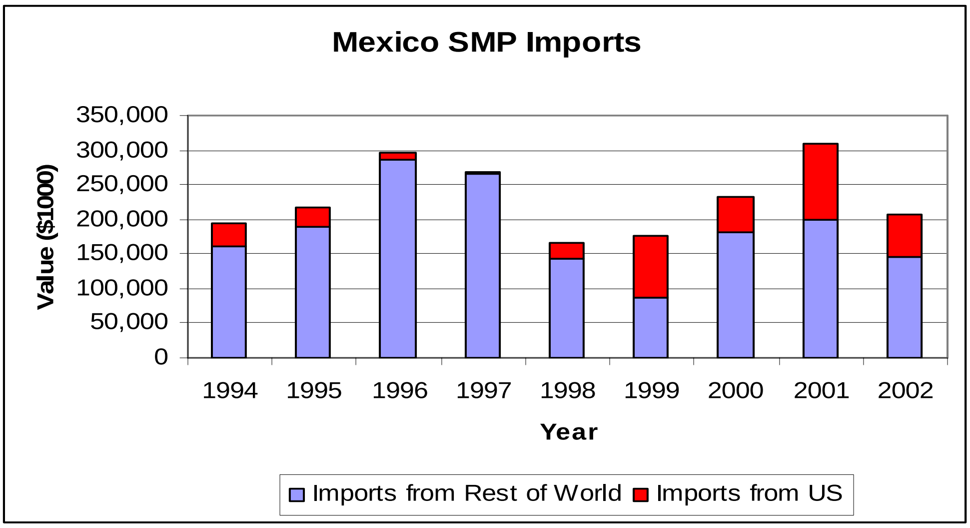
Ratios of Self-Sufficiency: local production / local consumption * 100
Source: Calculated with data from FAOSTAT database.

Table 11: Dairy Trade Balance. Averages 1998-2000, (Metric Tonnes)

	CHEESE	BUTTER	SMP	WMP (whole Milk Powder)
Mexico	-41,230	-31,598	-118,480	-28,684

Source: Calculated with data from FAOSTAT Database

Figure 1: US share of the Mexican Skim Milk Powder Market (FAS data, 2004a and FAOSTAT data, 2004).



The US dairy industry, like most but not all dairy industries in developed countries, is heavily supported through government programs that assist in stabilizing milk production and farm incomes (Figure 2). The US in 2002 exported approximately US $182 million dollars worth of SMP, just over half (53%) of which went to Mexico (Figure 3). The quantity exported to Mexico was approximately 57 thousand metric tones

Figures 1 - 3 show that in the period 1996 - 2000 the Mexican dairy industry has not been able to meet the domestic demand for dairy products. The US, however, is in a position to be a major supplier of dairy products, especially SMP. Preferential treatment for US imports, accorded through NAFTA, domestic dairy policies and the Dairy Export Incentive Programme have allowed the US to meet the growing Mexican demand for dairy products.

Figure 2: US Percent Producer Subsidy Equivalents (PSE) for Milk (OECD, 2003).

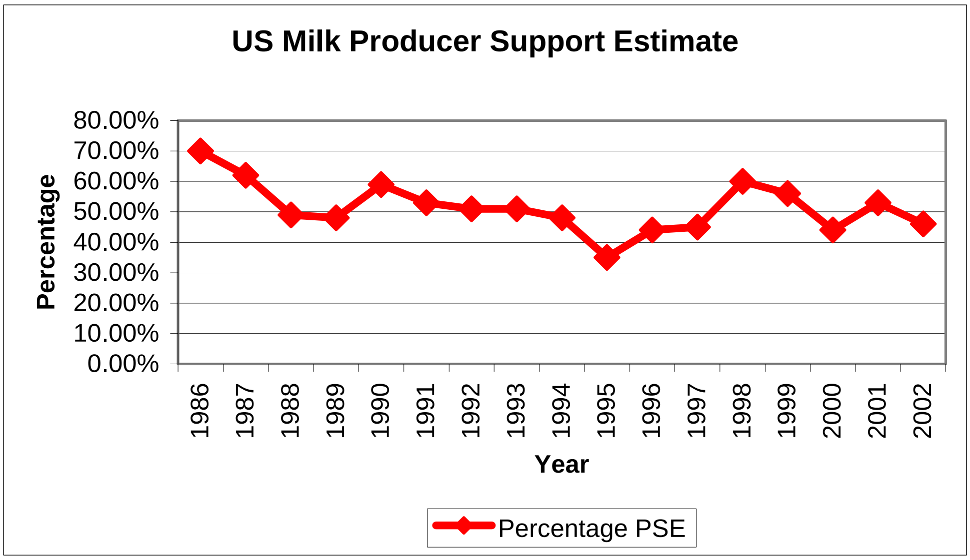
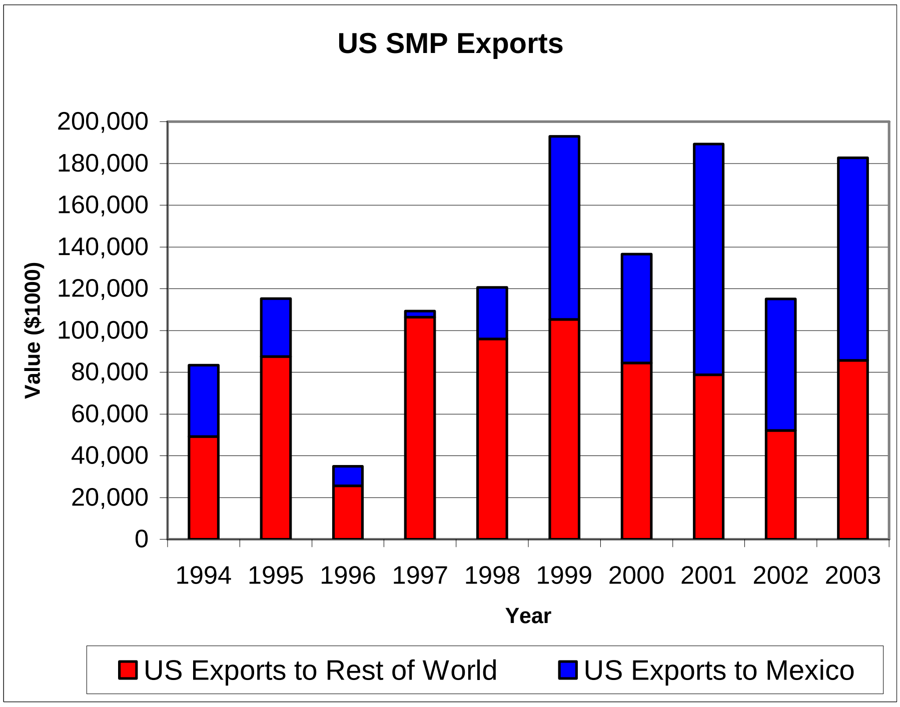


Figure 3: US Exports of SMP (FAS data, 2004).



Conclusions

Carranco is a medium sized family owned agribusiness with a long and respected reputation for selling quality products. The company is divided into several enterprises, only some of which are profitable. Carranco needs to address a number of questions about its future. Should it be producing and selling approximately 50 different dairy products and sizes or should it specialize in fewer products and sizes? Can it use its processing plant more efficiently by specializing? Where and through what channel(s) should Carranco sell its products? Should Carranco change its advertising strategy, its packaging, or perhaps seek a strategic alliance with a large company in the market? Can Carranco compete over the long run with subsidized or even non-subsized imports? If the Mexican dairy industry rationalized, could it increase its share of the domestic market? Where does Carranco fit, what are its strengths and weaknesses, and what should be its strategy for the future? How should Carranco deal with its human resources, especially the very high costs of administration? Even if Carranco can answer all of these questions successfully there is no guarantee it has a future in the rapidly changing world dairy industry.

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