THUNDERBIRD
SCHOOL OF GLOBAL MANAGEMENT

TB0344

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Hola-Kola—The Capital Budgeting Decision Teaching Note

Synopsis

Antonio Ortega, the owner of Bebida Sol, a private-label carbonated soft drink company based in Mexico, was contemplating whether to invest in a new zero-calorie soda product line, Hola-Kola. This was the first major capital investment decision Antonio had to make after his father unexpectedly passed away. Through a market study, he collected some data about the potential market size and the costs associated with this new product line. Along with these data was also the concern that the new product line might severely erode his existing regular soda sales. He needed to determine if this capital investment was worth making and would create value for his company.

Teaching Objectives

This case may be used in a core finance course, either undergraduate or graduate, to familiarize students with investment or capital budgeting decisions. It allows students to build financial models on spreadsheets, carry out sensitivity, scenario, or breakeven analyses. With the free cash flows calculated, students can also use the different capital budgeting measures such as NPV, IRR, payback period, and profitability index to determine if the project creates value for the firm. The case can also be used as a hands-on way to apply the concepts of discounted cash flow analysis.

Besides tool building, the case can be used to illustrate the importance of competitive environment and a firm's strategic direction in investment decision-making.

Teaching Outline

A suggested teaching plan for a 90-minute course section would be constructed as follows:

• Case Setup: What are the backgrounds of the investment environment and the soda market in Mexico?	10 minutes
• What are the relevant cash flows? Specifically, discuss the working capital, rental of the unoccupied building, market study cost, and the potential erosion of existing sales.	30 minutes
• Discuss the importance of sensitivity, scenario, and breakeven analyses. Ask students whether these analyses affected their decision.	15 minutes
• Discuss the risks and benefits of this investment.	15 minutes
• Ask students to vote as to whether they would invest in this project. Have them argue why or why not.	15 minutes
• Summarize the lessons learned.	5 minutes
	90 minutes

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Budgeting

Suggested Assignment Questions

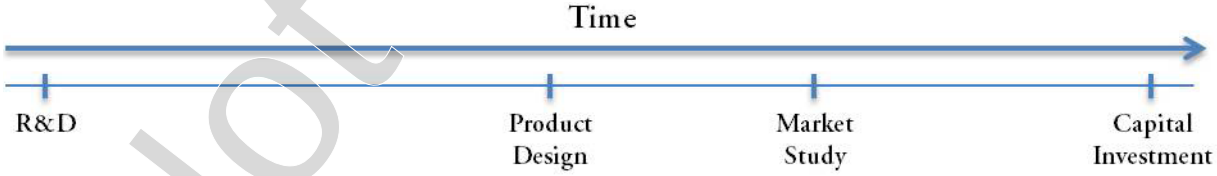
1. What are the relevant cash flows? In the capital budgeting analysis of this low-price, low-calorie soda project, how shall we treat:
   a. the consultant's market study cost?
   b. the potential rental value of the unoccupied annex?
   c. the interest charges?
   d. working capital?
2. Should we consider the erosion of the existing product—the regular sodas—in the analysis? Why or why not?
3. Calculate the project's NPV, IRR, payback period, discounted payback, and profitability index.
4. Perform sensitivity analyses on sales volume, price, direct labor, materials, and energy cost. What do you observe?
5. What are the benefits and risks of undertaking this project?
6. Should Bebida Sol undertake this project?

Relevant Cash Flows in Capital Budgeting Decision

To determine if a project is worth taking, all cash flows relevant to decision-making have to be included. With a few exceptions, all of the relevant cash flows in investment analysis are items found on the firm's income statement and statement of cash flows. It is worthwhile to ask students to discuss the few items that are not so obvious as to whether they are relevant cash flows.

Market Study Cost

Not knowing how the private-labeled diet soda would be received in the marketplace, a consultant was hired to do a market study. The market study cost five million pesos, and the consultant was paid shortly after the study was completed. The five million pesos was an out-of-pocket expense that was recorded in the income statement the year it was expensed. However, it would not be a relevant cash flow in the capital budgeting analysis because it is a sunk cost. When evaluating whether to go ahead with the project, costs that have been incurred are no longer relevant. Most students will agree that sunk cost should not be included in the cash flow, but often are puzzled as to when this cash flow would be accounted for in the project. This is the perfect opportunity to discuss the timeline as to when the different costs are incurred during the investment life cycle. I often like to use an example of a pharmaceutical firm developing a new drug.



The market study cost along with the R&D and product design costs are incurred before the capital investment on manufacturing or equipment is required. These costs are considered sunk costs and are not being considered when deciding whether to go ahead with the capital investment. In the case of a new drug, these sunk costs could be many times higher than the capital investment and can make a positive NPV project unprofitable. Here, students will see that even though sunk costs are not considered in capital investment decisions, they definitely play an important role in determining the overall profitability of the project.

Some students may suggest making the decision early, deciding whether to invest in R&D. They will soon realize that if no investment dollars were made in R&D, the company would not have found out if the new product (or new drug in the case of a pharmaceutical) would have any potential in getting approval or making it to the market.

Rental of the Unoccupied Annex

Even though the annex used in the project was originally unoccupied, there is a value that has to be accounted for. Given that the firm received an offer to lease out the space for 60,000 pesos a year, that amount would be foregone if the project were undertaken. The foregone amount is the opportunity cost. All costs related to the project have to be accounted for, including the opportunity costs. For students who might be puzzled as to why we consider something that we didn't receive as negative cash flows, I suggest that they think of this as the "rent" that this project has to pay. It is also worthwhile to ask the students whether this cost shows up in the firm's income statement, which it doesn't.

Erosion of Existing Soda Sales

The market study suggested that the new diet soda would cannibalize the sales of existing regular sodas. This problem seemed daunting, given that Bebida Sol's sodas were sold only in small, independent grocery and convenience stores that are likely to have the same set of customers. Unless Hola-Kola is taking away market share of international-brand diet sodas like Diet Coke or Coke Zero, it is highly likely that sales of Bebida Sol's regular sodas would be eroded. The potential erosion could cost the firm as much as 800,000 pesos of after-tax cash flows per year. Most students would consider this as a cash outflow, arguing that this is one of the side effects of the project. This argument is valid if the industry has a high entry barrier or the firm is not operating in a competitive environment.

At this point, I would ask students if this particular industry has high entry barriers. Some may say no because the capital investment is not very high, and many companies could easily come up with the required investment. Also, the recipe for diet soda may not be too complicated and could be replicated fairly inexpensively. Additionally, a small company like Bebida Sol was fairly successful in the space, suggesting a low entry barrier. Others might say yes because the distribution network could be sophisticated in Mexico and might be hard for outsiders to penetrate. The discussion on entry barriers would force students to briefly analyze the soda industry in Mexico.

If students conclude that the soda industry in Mexico has a relatively low entry barrier, meaning others could easily penetrate this market, the cash flow treatment in capital budgeting would be quite different. The potential erosion is no longer a relevant cash flow issue when viewed in a competitive context. If Bebida Sol did not introduce the diet soda, someone else would probably do so and erode its regular soda position. If erosion is going to happen anyway, it is no longer a relevant cash flow problem. Students are amazed to see the difference in NPVs when this item is left out in the capital budgeting analysis.

Interest Charges

The new project will require 20% debt financing at a 16% interest annually. Many students will suggest that this is one of the relevant cash flows. The reason for this is that interest paid to the bank represents a real cash outflow. This is a good time to discuss how we separate investment from financing decisions in corporate finance. In the calculation of free cash flows, financing items such as interest would not be considered. We take interest (cost of debt) into account when we calculate the weighted average cost of capital (WACC). WACC is affected by the firm's financing decisions. Since WACC is used to discount all future free cash flows, financing has been taken into account. Subtracting interest to get free cash flow would double count the impact of interest.

Working Capital Requirements

Perhaps the most common error in the spreadsheet analysis is the calculation of working capital. There are three components of working capital that were cited in the case: accounts receivable, accounts payable, and inventory. They can be calculated as follow:

Inventory = (600,000 liters @ 1.8 pesos per liter) = 1,080,000 pesos
Accounts Receivable = Sales/365 * Average Collection Period = 4,438,356 pesos
Accounts Payable = (Raw materials cost/365) * Average Payment Period = 1,278,247 pesos

Total working capital needed = Inventory + Accounts Receivable – Accounts Payable
= 1,080,000 + 4,438,356 – 1,278,247
= 4,240,110 pesos

Since the project requires an increase in working capital of 4,240,110 pesos, this means the equivalent amount of cash needs to be invested for this purpose. Hence, the change in working capital is a negative cash outflow of 4,240,110 pesos.

Most students have no problem deriving the working capital figure and knowing that it is a cash outflow. However, many of them will place this negative cash flow at the end of Year 1 instead of at the beginning, arguing that there are no sales or purchases at the beginning of the year. This is when I explain how cash flows or income statement items are recorded. They are "for the year ending" rather than "as of a particular date" on a balance sheet. When income statement items such as sales are recorded at the end of the first year, it is simply an aggregate of all the sales occurring from the beginning to the end of the year. If the working capital were invested only at the end of the year, there would not be any capital to support the sales and production in the early or middle part of the year. Hence, change in working capital, like capital investment, is a line item at the beginning of the year.

Other Relevant Cash Flows

Other relevant cash flows include all the operational expenses such as raw materials, direct labor and energy costs, overhead expenses (1% of sales), fixed general administrative and selling expenses of 300,000 pesos, and depreciation. It is worthwhile to point out that even though straight-line depreciation is stated in the case, companies always depreciate the maximum amount allowed by law in earlier years to take advantage of time value of money.

The project also requires an initial investment of 50 million pesos to acquire the new equipment. The equipment could be sold at the end of five years for four million pesos. Since this equipment will be fully depreciated by the end of Year 5, the four million pesos is the capital gain, a taxable item in Mexico.

Investment Decision Rules

Once the free cash flows are obtained, students will be able to calculate NPV, IRR, payback period, discounted payback, and profitability index. I often use the opportunity to reiterate the relationship between NPV, IRR and profitability index, and the pros and cons of each. Even though a decision solely based on the payback period may be flawed, it is often worthwhile to perform the calculation so we know how long it takes to recover the initial investment.

Sensitivity, Scenario, and Breakeven Analyses

I always like to emphasize the importance of sensitivity, scenario, and breakeven analyses and how they improve the confidence of our capital budgeting decisions. If students do this assignment on a spreadsheet, these analyses could be carried out very easily. The instructor could also use these tools to determine if the students build their spreadsheets correctly.

The items I like students to perform sensitivity analyses on include price, direct labor, materials, energy costs, and the volume of sales (see Exhibit TN-1a through TN-1c). The typical assignment questions include:

- Scenario 1: Perform a capital budgeting analysis with the information provided in the case.
- Scenario 2: You have been advised by the consultants that the energy costs, the labor costs, and the material costs are likely to rise by 5% a year, starting in Year 2. The consultants do not think that you can pass the extra cost through. What do you observe?
- Scenario 3: You have been advised by the consultants that the energy costs, the labor costs, and the material costs are likely to rise by 5% a year, starting in Year 2. The consultants think that you can pass part of the extra cost through. You should be able to increase the price per unit by 5%, but the volume would decrease by 2%. What do you observe?

Spreadsheets on these different scenarios are available for download.

Since erosion of existing soda sales could be a nonrelevant cash flow, the spreadsheet also allows students to assign different values to this item. If working capital management is a topic an instructor would like to emphasize, the spreadsheet allows for different payable and receivable days. Cost of capital could also be changed if an instructor wants to discuss the possible financing structure of the deal.

Benefits and Costs of Accepting the Project

Before making the final decision, it is always worthwhile to discuss the benefits and costs of introducing this new product.

Benefits

- For Bebida Sol, a soda company, this diet soda is another product in the core business. Management has expertise and experience in the soda business, and the new product can share the same distribution channel.
- Bebida Sol is a very small player in the overall soft drink market in Mexico. The new product could help capture additional market share in this market.
- By introducing this new product, it could also prevent or deter competitors from introducing a similar product. This will give the firm the opportunity to enjoy impressive margins in the private-label diet soda business for some time.
- The market study cost that had been paid amounted to five million pesos. This is a sunk cost and was not taken into account in the capital budgeting analysis. The potential positive NPV could help offset the market study cost.
- The project could be abandoned if sales are poor. The annex could be rented out to external parties or used in another project. The company recently received an offer to lease out the annex for 60,000 pesos a year.

Risks

- The project has a negative NPV in the base case if the low-price, zero-calorie project is eroding the existing regular soda sales. The erosion seems unavoidable, given that the independent stores where Bebida Sol's products are sold tend to serve the same set of customers.
- There is also a risk that production costs could increase dramatically. This potential increase in production cost could be devastating for the project if costs cannot be passed on to the consumers.
- There is a risk that the market served is not ready for diet soda consumption. Given that most of the consumers are in the middle to lower income brackets, they may not be as aware of the obesity and health problems as the higher income, more educated group.
- Sales of low-price, private-label soda may decrease when the economy improves.
- Even if erosion of Bebida Sol's existing soda is not a big issue, sales for Hola-Kola in the future years might be affected by competitors' new products. This is the risk inherent in many businesses.

Conclusion

To conclude the case discussion, the instructor might want to ask students if they would vote to invest in this new product. Students should also be asked to explain their choice. I would conclude by summarizing the case discussions and emphasize that financial or investment decision-making does not only lie in the numbers. It involves analyzing the competitive business environment, industry analysis, and how the decision fits in with the overall corporate strategy.

Exhibit TN-1a. Capital Budgeting Analysis of Hola-Kola (Base Case: Scenario 1)

Monthly Sales (units)	600,000
Increase (Decrease) in Sales Volume	0%
Unit Sale Price (pesos)	5
Increase (Decrease) in Sales Price	0%
Unit Raw Material Cost (pesos)	1.8
Increase (Decrease) in Raw Material Costs	0%
Monthly Labor Costs (pesos)	180,000
Increase (Decrease) in Direct Labor Costs	0%
Monthly Energy Costs (pesos)	50,000
Increase (Decrease) in Energy Costs	0%

Cost of New Equipment (pesos)	50,000,000
Resale Value of Equipment (pesos)	4,000,000
% Overhead to Sales	1%
Building Rental (pesos)	60,000
Average Collection Period (Days)	45
Average Payment Period (Days)	36
Years of Straight-line Depreciation	5
Cost of Capital	18.2%
Tax Rate	30%
Erosion (pesos)	800,000

Year	0	1	2	3	4	5
Cost of New Equipment (pesos)	(50,000,000)					
Resale Value of Equipment (pesos)						4,000,000
Less Taxes						(1,200,000)
Net Resale Value of Equipment (pesos)						2,800,000
Working Capital Requirements (pesos)						
Receivables ((Sales/365)*Avg Collection Period)	4,438,356	4,438,356	4,438,356	4,438,356	4,438,356	
Inventories (One month materials costs)	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	
Payables ((Material Costs/365)*Avg Pmt Period)	(1,278,247)	(1,278,247)	(1,278,247)	(1,278,247)	(1,278,247)	
	4,240,110	4,240,110	4,240,110	4,240,110	4,240,110	-
Change in Working Capital Requirements (pesos)	(4,240,110)	-	-	-	-	4,240,110
Annual Sales (Units)		7,200,000	7,200,000	7,200,000	7,200,000	7,200,000
Annual Sales Revenue (pesos)		36,000,000	36,000,000	36,000,000	36,000,000	36,000,000
Operating Expenses (pesos)						
Raw Material Costs		(12,960,000)	(12,960,000)	(12,960,000)	(12,960,000)	(12,960,000)
Direct Labor Costs		(2,160,000)	(2,160,000)	(2,160,000)	(2,160,000)	(2,160,000)
Energy Costs		(600,000)	(600,000)	(600,000)	(600,000)	(600,000)
Building Rental (Opportunity Costs)		(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
Depreciation		(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)
General Administrative and Selling Expenses		(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
Overhead Expenses		(360,000)	(360,000)	(360,000)	(360,000)	(360,000)
Total Operating Expenses (pesos)		(26,440,000)	(26,440,000)	(26,440,000)	(26,440,000)	(26,440,000)
Operating Profit Before Tax (pesos)		9,560,000	9,560,000	9,560,000	9,560,000	9,560,000
Taxes (pesos)		(2,868,000)	(2,868,000)	(2,868,000)	(2,868,000)	(2,868,000)
Operating Profit After Tax (pesos)		6,692,000	6,692,000	6,692,000	6,692,000	6,692,000
Project's Operating Cash Flow (pesos)						
Depreciation (pesos)		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Erosion of Existing Sales (pesos)		(800,000)	(800,000)	(800,000)	(800,000)	(800,000)
Total Operating Cash Flow (pesos)		15,892,000	15,892,000	15,892,000	15,892,000	15,892,000
Project's Free Cash Flow (pesos)	(54,240,110)	15,892,000	15,892,000	15,892,000	15,892,000	22,932,110
Present Value of Cash Flow (pesos)	(54,240,110)	13,445,008	11,374,796	9,623,347	8,141,579	9,939,319

NPV (pesos)	(1,716,061)
IRR	16.86%
Payback Period (Years)	3.41
Discounted Payback Period (Years)	Never Payback
Profitability Index	0.97

Exhibit TN-1b. Capital Budgeting Analysis of Hola-Kola (Scenario 2)

Monthly Sales (units)	600,000
Increase (Decrease) in Sales Volume	0%
Unit Sale Price (pesos)	5
Increase (Decrease) in Sales Price	0%
Unit Raw Material Cost (pesos)	1.8
Increase (Decrease) in Raw Material Costs	5%
Monthly Labor Costs (pesos)	180,000
Increase (Decrease) in Direct Labor Costs	5%
Monthly Energy Costs (pesos)	50,000
Increase (Decrease) in Energy Costs	5%

Cost of New Equipment (pesos)	50,000,000
Resale Value of Equipment (pesos)	4,000,000
% Overhead to Sales	1%
Building Rental (pesos)	60,000
Average Collection Period (Days)	45
Average Payment Period (Days)	36
Years of Straight-line Depreciation	5
Cost of Capital	18.2%
Tax Rate	30%
Erosion (pesos)	800,000

Year	0	1	2	3	4	5
Cost of New Equipment (pesos)	(50,000,000)					
Resale Value of Equipment (pesos)						4,000,000
Less Taxes						(1,200,000)
Net Resale Value of Equipment (pesos)						2,800,000
Working Capital Requirements (pesos)						
Receivables ((Sales/365)*Avg Collection Period)	4,438,356	4,438,356	4,438,356	4,438,356	4,438,356	
Inventories (One month materials costs)	1,080,000	1,134,000	1,190,700	1,250,235	1,312,747	
Payables ((Material Costs/365)*Avg Pmt Period)	(1,278,247)	(1,342,159)	(1,409,267)	(1,479,730)	(1,553,717)	
	4,240,110	4,230,197	4,219,789	4,208,861	4,197,386	-
Change in Working Capital Requirements (pesos)	(4,240,110)	9,912	10,408	10,928	11,475	4,197,386
Annual Sales (Units)		7,200,000	7,200,000	7,200,000	7,200,000	7,200,000
Annual Sales Revenue (pesos)		36,000,000	36,000,000	36,000,000	36,000,000	36,000,000
Operating Expenses (pesos)						
Raw Material Costs		(12,960,000)	(13,608,000)	(14,288,400)	(15,002,820)	(15,752,961)
Direct Labor Costs		(2,160,000)	(2,268,000)	(2,381,400)	(2,500,470)	(2,625,494)
Energy Costs		(600,000)	(630,000)	(661,500)	(694,575)	(729,304)
Building Rental (Opportunity Costs)		(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
Depreciation		(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)
General Administrative and Selling Expenses		(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
Overhead Expenses		(360,000)	(360,000)	(360,000)	(360,000)	(360,000)
Total Operating Expenses (pesos)		(26,440,000)	(27,226,000)	(28,051,300)	(28,917,865)	(29,827,758)
Operating Profit Before Tax (pesos)		9,560,000	8,774,000	7,948,700	7,082,135	6,172,242
Taxes (pesos)		(2,868,000)	(2,632,200)	(2,384,610)	(2,124,641)	(1,851,673)
Operating Profit After Tax (pesos)		6,692,000	6,141,800	5,564,090	4,957,495	4,320,569
Project's Operating Cash Flow (pesos)						
Depreciation (pesos)		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Erosion of Existing Sales (pesos)		(800,000)	(800,000)	(800,000)	(800,000)	(800,000)
Total Operating Cash Flow (pesos)		15,892,000	15,341,800	14,764,090	14,157,495	13,520,569
Project's Free Cash Flow (pesos)	(54,240,110)	15,901,912	15,352,208	14,775,018	14,168,969	20,517,955
Present Value of Cash Flow (pesos)	(54,240,110)	13,453,395	10,988,436	8,946,962	7,258,859	8,892,967

NPV (pesos)	(4,699,490)
IRR	14.40%
Payback Period (Years)	3.58
Discounted Payback Period (Years)	Never Payback
Profitability Index	0.91

Exhibit TN-1c. Capital Budgeting Analysis of Hola-Kola (Scenario 3)

Monthly Sales (units)	600,000
Increase (Decrease) in Sales Volume	-2%
Unit Sale Price (pesos)	5
Increase (Decrease) in Sales Price	5%
Unit Raw Material Cost (pesos)	1.8
Increase (Decrease) in Raw Material Costs	5%
Monthly Labor Costs (pesos)	180,000
Increase (Decrease) in Direct Labor Costs	5%
Monthly Energy Costs (pesos)	50,000
Increase (Decrease) in Energy Costs	5%

Cost of New Equipment (pesos)	50,000,000
Resale Value of Equipment (pesos)	4,000,000
% Overhead to Sales	1%
Building Rental (pesos)	60,000
Average Collection Period (Days)	45
Average Payment Period (Days)	36
Years of Straight-line Depreciation	5
Cost of Capital	18.2%
Tax Rate	30%
Erosion (pesos)	800,000

Year	**0**	**1**	**2**	**3**	**4**	**5**
Cost of New Equipment (pesos)	(50,000,000)					
Resale Value of Equipment (pesos)						4,000,000
Less Taxes						(1,200,000)
Net Resale Value of Equipment (pesos)						2,800,000
Working Capital Requirements (pesos)						
Receivables ((Sales/365)*Avg Collection Period)	4,438,356	4,567,068	4,699,513	4,835,799	4,976,038	
Inventories (One month materials costs)	1,080,000	1,111,320	1,143,548	1,176,711	1,210,836	
Payables ((Material Costs/365)*Avg Pmt Period)	(1,278,247)	(1,315,316)	(1,353,460)	(1,392,710)	(1,433,099)	
Total Working Capital Requirements (pesos)	4,240,110	4,363,073	4,489,602	4,619,800	4,753,775	-
Change in Working Capital Requirements (pesos)	(4,240,110)	(122,963)	(126,529)	(130,198)	(133,974)	4,753,775
Annual Sales (Units)		7,200,000	7,056,000	6,914,880	6,776,582	6,641,051
Annual Sales Revenue (pesos)		36,000,000	37,044,000	38,118,276	39,223,706	40,361,193
Operating Expenses (pesos)						
Raw Material Costs		(12,960,000)	(13,335,840)	(13,722,579)	(14,120,534)	(14,530,030)
Direct Labor Costs		(2,160,000)	(2,268,000)	(2,381,400)	(2,500,470)	(2,625,494)
Energy Costs		(600,000)	(630,000)	(661,500)	(694,575)	(729,304)
Building Rental (Opportunity Costs)		(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
Depreciation		(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)
General Administrative and Selling Expenses		(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
Overhead Expenses		(360,000)	(370,440)	(381,183)	(392,237)	(403,612)
Total Operating Expenses (pesos)		(26,440,000)	(26,964,280)	(27,506,662)	(28,067,816)	(28,648,439)
Operating Profit Before Tax (pesos)		9,560,000	10,079,720	10,611,614	11,155,890	11,712,755
Taxes (pesos)		(2,868,000)	(3,023,916)	(3,183,484)	(3,346,767)	(3,513,826)
Operating Profit After Tax (pesos)		6,692,000	7,055,804	7,428,130	7,809,123	8,198,928
Project's Operating Cash Flow (pesos)						
Depreciation (pesos)		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Erosion of Existing Sales (pesos)		(800,000)	(800,000)	(800,000)	(800,000)	(800,000)
Total Operating Cash Flow (pesos)		15,892,000	16,255,804	16,628,130	17,009,123	17,398,928
Project's Free Cash Flow (pesos)	(54,240,110)	15,769,037	16,129,275	16,497,931	16,875,149	24,952,703
Present Value of Cash Flow (pesos)	(54,240,110)	13,340,979	11,544,627	9,990,266	8,645,253	10,815,092

NPV (pesos)	96,107
IRR	18.27%
Payback Period (Years)	3.35
Discounted Payback Period (Years)	4.99
Profitability Index	1.00