

# PLANNING TO SURVIVE IN UNCERTAIN TIMES

## Part 2: Financial Management Strategies

Exercises and Handouts

July 15, 2014

## ANALYSIS OF INVESTMENT OPPORTUNITIES - EXERCISE

A local driving range currently pays high school and college students manually to load golf balls that have been retrieved from the field, wash them, and load them into ball dispensing machines. The owner of the range has become aware that many of her competitors are using a machine that is a combination golf ball loader, conveyer system and ball washer that automatically loads the golf balls into the dispensing machines. The employees load the “picked” golf balls into the machine, which delivers the golf balls via the conveyor belt to the wash room, where it washes the balls and then delivers them to the dispensing machines. The cost of this machine, the conveyor belt system and installation is \$55,000. The range currently incurs approximately 120 payroll hours per week related to washing and loading golf balls during its season from May 1<sup>st</sup> thru the end of September (approximately 22 weeks). The owner estimates that she could reduce the payroll hours needed to wash and load golf balls to approximately 45 hours per week by purchasing the new machine. Based on information provided by the equipment dealer, the owner estimates that the costs of operating the machine to be \$2,500 per season (consisting of routine daily maintenance, belt replacement once per season, and electricity to operate the machine). The average hourly wage paid to range employees is \$10/hour. Payroll taxes, workmen’s compensation, etc. are approximately 15% of payroll costs.

### QUESTIONS

1. What is the payback period related to the purchase of the machine?
2. Are there any other factors that should be considered in making the decision of whether or not to purchase the machine?
3. Should the owner purchase the machine?
4. What is the rate of return on investment for this purchase?

ANALYSIS OF INVESTMENT OPPORTUNITIES – EXERCISE (CONT'D)

## LEASE vs. BUY - EXERCISE

A non-profit organization needs to replace its existing vehicle. It is considering two options: purchasing a new vehicle or leasing. The organization typically keeps its purchased vehicles for approximately six years. The following information relative to purchasing and leasing has been obtained:

Purchase Price	\$24,500	
Down Payment (20%)	5,430	
5 Year Loan, 3%	390	Monthly Payment
Lease, 3 Years	\$ 344	Monthly Payment
Estimate value of purchased vehicle at end of Year 6	\$11,000	
Leasing mileage limitations	15,000 miles/year	
Average miles driven/year	18,000	
Average due at end of lease If over mileage limit	\$0.12/mile	
Additional maintenance, years 4 to 6	\$1,500/year	

## QUESTIONS

1. How would you analyze this proposal?
2. What are the *quantitative* and *qualitative* aspects of this proposal that should be considered?
3. What do you recommend?

LEASE vs. BUY EXERCISE - WORKSHEET

## IN HOUSE vs. OUTSOURCING DECISION - EXERCISE

ABC Company has been approached by a company that manufactures custom parts. The company indicates that they can supply ABC with one of its key component parts for \$29/unit.

The following summarizes ABC's current production costs based on producing 6,000 units.

	<u>Per Unit</u>	<u>Total</u>
Direct material	\$ 10	\$ 60,000
Direct labor	8	48,000
Variable overhead costs	9	54,000
Fixed overhead costs	12	72,000
	<u>\$ 39</u>	<u>\$234,000</u>

Additional information: if ABC outsources the production of this key component part, it will be able to reduce its fixed costs by 25%.

### QUESTIONS

1. Should ABC outsource the production of this component part?
2. What are the qualitative and quantitative factors that should be considering in making this decision?

## SPECIAL OPPORTUNITIES – EXERCISE

Assume that Discount Auto Parts Inc. (Discount) sells oil filters for \$3.20 each. A mail order auto parts store has offered Discount \$35,000 for 20,000 oil filters, or \$1.75 per filter. This sale will:

- utilize some of Discount's existing manufacturing capacity that would otherwise be idle;
- not change Discount's fixed costs;
- not require any variable marketing or administrative expenses; and
- not affect Discount's regular product sales; and
- require the payment of a \$0.15/unit commission to the sales staff who made the sale.

The following is a *contribution margin income statement* (an internal income statement used for management purposes) for the current volume of oil filters sold by Discount. In a contribution margin income statement, variable and fixed costs are shown separately.

Sales Revenue (at normal prices)	\$3.20	\$800,000
Less variable expenses:		
Manufacturing costs (direct materials, labor and overhead)	1.20	300,000
Variable marketing and admin. Costs	<u>0.30</u>	<u>75,000</u>
Contribution margin	\$1.70	\$425,000
Less fixed expenses:		
Fixed manufacturing costs (overhead)		200,000
Fixed marketing and admin. costs		<u>125,000</u>
Operating Income		\$100,000

## SPECIAL OPPORTUNITIES – EXERCISE WORKSHEET

### QUESTIONS

1. Should Discount accept this special order and sell 20,000 oil filters at \$1.75/unit? Prepare a financial analysis regarding this proposal.
2. What are the qualitative and quantitative factors to be considered in making this decision?



## SUGGESTED FINANCIAL RATIOS FOR MANAGING NON-PROFIT ORGANIZATIONS

Ratio	Calculation	Explanation/Comments
Current ratio	Current assets/current liabilities	Measure of the organization's ability to meet its current obligations.
Defensive Interval Ratio (DIR)	Current Assets/Avg. Daily Operating Expenses	A liquidity measure; indicates the number of days the organization can meet its expenses from current assets.
Debt Ratio	Total Liabilities/Total Assets	Illustrates the percentage of assets financed by credit. High %'s can indicate risk.
General and Administrative Expense % (efficiency)	G & A Expenses as % of Total Operating Expenses	An efficiency measure; <i>watched closely</i> by some donors and groups that monitor non-profit organizations.
Fund-Raising Expense % (efficiency)	Total Fundraising Expenses as a % of Total Operating Expenses	An efficiency measure; <i>watched closely</i> by some donors and groups that monitor non-profit organizations.
Operating Margin % (efficiency)	Operating Income divided by Operating Revenue	A measure of "profitability" regarding the core business of the organization.
Revenue Mix %	Each Source of Revenue as % of Total Revenue (e.g., state government contracts as % of total revenue)	Indicates high level of dependence on a particular funding source.
Net Asset Mix %	1.Unrestricted Net Assets as % of Total Net Assets  2.Temporarily Restricted Net Assets as % of Total Net Assets	A high % of temporarily restricted net assets indicates a high dependence on grants or restricted contributions. A higher % of unrestricted net assets provides the organization with more operating flexibility.