

A Business Simulation

Student Manual

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SECTION 1
THE SCENARIO FOR THE SIMULATION

An Overview of a Simulation

1. Management teams make a set of business decisions for a simulated firm and these decisions are evaluated against those made by competitors.
2. Several teams are created for competitive operations. Each team makes a set of decisions that one might find in a business setting.
3. Each time the teams make a set of decisions, it represents a period of three months (one quarter) in the life of the company being simulated. The administrator will set the length of your competition, but it will typically be eight to twelve quarters, thereby simulating two to three years in the life of the firm.
4. Teams upload their decisions to the administrator. The program acts as the purchaser of the product, compares the relative merit of the decisions made by all teams within an industry, and computes the sales for each firm.
5. The program then prepares a quarterly report for each team and the report is made available to each team.
6. The teams analyze their results and prepare another set of decisions. This is continued until the number of quarters planned by the administrator is achieved.
7. Upon completion of play, teams usually give a short report of their strategy. This may take the form of a presentation to a group of judges, or it may be in preparing a portfolio for evaluation by a teacher. It may also include a debrief by the administrator.

The Company You Will Be Managing

For the purposes of the simulation, you will be making widgets. Administrators will typically divide their teams into different industries that may be making completely different products. However, for the purpose of the simulation, it doesn't matter what you call the product, the program treats all of them the same. You are simply making a widget.

In the simulation, your industry is composed of a few large brand name manufacturers and as well as smaller firms such as yours that have the advantage of lower overhead cost, faster time to market new product features and greater personal service to smaller retail chains. Since the market for this product is so fragmented, total sales is difficult to obtain. ***Your firm does not sell its product directly to the consumer but rather to wholesalers, distributors and all types of niche stores, and product departments of multi-product stores.***

The company of which you are assuming management has been in business only one year. The entrepreneur that established the company wishes to pursue other business interests. The company is a for-profit company and the stock in the company is held by a large variety of individuals. These stockholders (or shareholders) have invested their monies in your firm and they expect your new management team to increase profits and dividends while maintaining high ethical standards.

Factors Used to Rank Teams at the End of the Simulation

There are many factors that define and evaluate the performance of a business. Administrators may pick from any number of factors. Three of the most prominent and common metrics are found directly on your quarterly reports. They are **Return On Equity (ROE), Management Skill Score,** and **Stock Price**. Administrators will often use one or more of these to evaluate team performance. They may also use things such as: total profits, profit trend, good corporate citizenship via the mini-cases, and deductions for lost sales and overdraft bank loans. A brief explanation of the three main metrics is listed below.

Return On Equity (ROE)

Calculated as a percentage each quarter and displayed in the middle-right of your Quarterly Report, just above the *Cash Flow Analysis*. ROE resets at the beginning of each fiscal year (quarter one of year two, quarter one of year three, etc).

The formula is: Cumulative Net Profit After Tax for the current year divided by the average of TOTAL EQUITY at end of prior year and TOTAL EQUITY of the current quarter.

e.g. If you are in quarter three of year two (quarter 7), the calculation is:
ROE = (Net Profit After Tax Q5 + Q6 + Q7) / ((TOTAL EQUITY Q4 + TOTAL EQUITY Q7)/2)

Management Skill Score

Management Skill Score is calculated by the program and is reported each quarter as a number from 0-100, with 100 being a perfect score. It appears just above ROE on the right side of your Quarterly Report. Management Skill Score is a measurement of how efficiently you operate your company and use your resources to maximize profit.

Just as in the real world, you can maximize efficiency if you:

1. Utilize your plant, labor, and other assets close to their full capacity.
2. Minimize inventory without losing sales.
3. Have enough cash-on-hand in order to cover emergency expenses.

Teams that do this will score very highly. Good teams average in the 80s. Elite teams average in the 90s. Good Luck!

Stock Price

Stock Price is discussed in more detail later in this manual. However, some main things to consider when trying to achieve a higher stock price are (in order of importance):

1. Make a higher profit to increase your earnings per share (EPS).
2. Pay more dividends.
3. Make sure you can satisfy your customer's orders.
4. Invest enough in market research so that your shareholders don't think you are flying blind. No one trusts a blind pilot!

SECTION 2
MAKING DECISIONS

This section contains the information needed to make your decisions each quarter. Although you may enter many figures in various worksheets as you work on making your decision, in the end, there are exactly 10 inputs that you will be submit each quarter. Tips about these inputs are shown with an arrow (➤).

PRODUCTION DECISIONS

1. Production (thousands of units) **,000** (Last quarter's decision = 35)

Each quarter you must forecast sales and place an order with your production department for the number of units you want to produce. **If you add capacity, you may use it immediately.**

A suggestion for your first production run (Quarter 1) is 30,000 to 35,000 units. This is only a suggested order for Quarter 1 to start your thought process; you may order any number you desire depending on your pricing decision and overall business strategy.

- When you take over operation of the firm, you have an inventory of 4,000 units.
- It is much better to have inventory than to lose sales because you can't fill orders. If you do not have enough inventory, your orders cannot be filled and those customers will find another supplier.
- You may not produce any greater than your current plant capacity (plus any units you add).

2. Addition to Size of Production Plant (0-10) **,000** (Last quarter's decision = 1)

You may expand the size of your plant to meet your sales demand. If you cannot produce the number of units you request on the DECISION INPUT FORM, the program will reduce the production to equal the size of the production facility. **The addition to capacity is ordered in segments of 1,000 units.** The cost of adding each thousand units is $60,000 ($60/unit). Expanding capacity by 5,000 units would therefore cost $300,000. Capacity is reduced each quarter due to depreciation (wear and tear) at 3% of *Capacity Available*. Therefore, to keep the plant size the same, you must add 3% of the capacity in *Addition to Size* above.

- Order additional capacity in segments of 1,000 units (e.g., 5 = 5,000). You may not add more than 10 thousand units per quarter.
- If all of this is confusing, you might try adding 2,000 to 4,000 units in Quarter 1 until you can understand this better.

MARKETING DECISIONS

3. Price ($27-41) **.00** (Last quarter's decision = $34)

When you assume the management of the firm, it is charging $34 for the product. However, your firm may choose a price between $27 and $41, inclusive. If your firm decides to make an entry-level product that appeals to the masses, then a lower price in the $27 to $31 range would be appropriate. If you choose to make a high-quality luxury product, then a price between $37 and $41 would be more appropriate. The *price levels* and associated *beginning production costs* of the product are shown in Table 1.

Table 1
Beginning Prices and Production Costs Examples

	Lower Price Strategy		Medium Price Strategy		Higher Price Strategy	
Price	**$27**	**$31**	**$32**	**$36**	**$37**	**$41**
Production Cost	**$13.50**	**$15.50**	**$16.00**	**$18.00**	**$18.50**	**$20.50**

While you may change prices each quarter, in general you should choose which category of pricing you want and stay within that range (low, medium, high). However, if your inventory at the end of a quarter is too large, you may want to reduce the price for one quarter in order to stimulate sales and sell the older inventory. **You *must* choose a price within $27-$41, in even dollars only.**

4. Advertising and Sales Promotion (0-200) **,000** (Last quarter's decision = 50)

Advertising and sales promotion helps to sell your product and create awareness of your product in the marketplace. Last quarter, the firm budgeted $50,000 for this area.

- As with any expenditure, it is possible to budget too much for any item and your decision value will hit the ***point of diminishing returns***. This is the point where additional expenditures will yield few to ZERO additional results. When this happens, you are throwing money away that could be better spent elsewhere. Only trial and error will indicate when you have reached the point of diminishing returns.

5. Number of salespeople added this quarter (-4 to 4) (Last quarter's decision = 0)
(Use negative value to lay off salespersons)

You must reach your customers with the message about your product. While advertising and sales promotion will accomplish some of this, a real person pushing your product is also important. When you assume management of the firm, you employ two salespersons. You are charged $15,000 per quarter for each salesperson. This cost includes salary, benefits, payroll taxes, insurance, and auto expenses. It requires about one quarter for a salesperson to learn the product and to become effective.

- The same advice applies here in terms of the ***point of diminishing returns***. It is important to have enough salespeople representing you, but you can have too many.

- You may fire salespersons by placing a minus before the number to fire on your input form. The cost to fire each salesperson is $6,000 in severance pay, and severance is paid for one quarter.

- The total cost of salespersons, severance pay, etc. will be shown on the expense report as Sales Force Cost. Once you hire one or more salespersons, *do not* place them on your input form again the next quarter, as that would cause that many to be hired again. **If you choose to leave your salesforce at current strength, put a "0" on your form.**

MANAGEMENT DECISIONS

6. Product Development/Enhancement Budget (0-200) **,000** (Last quarter's decision = 50)

Another common term for this is Research & Development, or R&D. This budget is used for two purposes:

1. To improve and enhance the current product.
2. To create a break-through product that has more appeal to certain consumers. If you create a break-through product you would be engaging in a niche strategy and your product would be designed, marketed, and sold

to this special niche of consumers. You will be informed if your product development department develops a break-through product. If this happens, you should find a small increase in your sales going forward.

- Last quarter, the firm budgeted $50,000 for product development.

7. Total Quality Management (0-200) **,000** (Last quarter's decision = 10)

This budget is to support the quality programs in your organization and to improve the processes of purchasing, production, distribution, and marketing. Thus, spending on Quality Management has two main effects. **First, the higher the expenditure the more savings you will achieve in the *Production Cost (per unit)*. Second, higher spending will increase the public perception of your product** which can lead to higher sales. The beginning expenditure is $10,000 and is considered by some in the organization to be a bit small. Of course, you can spend *too much* on this area and not receive sufficient benefits in either cost reductions or increased sales. For this reason, continuously monitor your expenditures in this area and the *Production Cost (per unit)* of your product. The *Production Cost (per unit)* at the beginning of the simulation is half of your sales price. If you notice that your cost was $17 and it goes down to $16.20, you may assume that the *Quality Management* budget is working.

- The *Production Cost (per unit)* may be decreased through the *Quality Management* budget and by producing at the most efficient level of production in your plant, which is 85% to 95% of capacity.

8. Market Research Studies (0-15) **,000** (Last quarter's decision = 15)

A market research firm conducts various studies in your industry and makes the information available for a fee. The following studies and related costs are shown below.

- Total industry sales for the quarter, listed in units. Also, the *Economic Index* forecast for the next four quarters is given. Cost: $1,000.
- Prices for the products of every company in your industry. Cost: $2,000.
- An estimate of the average advertising, quality, and product development budgets for all firms in your industry, and the total number of salespersons in the industry. Cost: $4,000.
- A focus group study of the *Product Perception* of all products in your industry. This report will be based on index numbers with 100 being the highest level of perception and moving down from there. It is possible to have a rating as low as 1. Cost: $8,000.

Add the total dollars you want to budget on market research and enter it in your decision form. For example, if you want only the first two studies, enter $3,000 ($1,000 + $2,000). If you only want the focus group study, enter $8,000. You may mix and match any combination of studies, and since they are unique values, the program will issue precisely the studies you desire. If you want all the research studies, enter $15,000 (15) on your decision form ($1,000 + $2,000 + $4,000 + $8,000). If you are not purchasing any studies, enter zero (0).

- An estimate of your market share will be furnished if your budget exceeds $3,000 in a quarter.

FINANCIAL DECISIONS

9. Dividends **,000** (Last quarter's decision = 5)

The firm paid $5,000 in dividends last quarter. (This is entered as 5.) You may increase or decrease your dividends. The amount cannot exceed last quarter's *Net Profit After Tax*, and it cannot be paid if there are negative *Retained Earnings*. **It is very important that you create a consistent dividend strategy. Your administrator may require you to explain your strategy in either a presentation or portfolio.**

10. Loan Addition or Payment (-999 TO 999) **,000** (Last quarter's decision = 0)
(Use negative value to make a loan payment)

If your firm needs more cash than it has available, it can borrow additional funds (up to the *Maximum Loan Addition next Quarter*) from the bank by placing the requested funds on your decision form. The current interest cost is 10% annually or 2.5% per quarter.

- You may repay any part of your loan in any amount at any time. Place your loan payment on your decision form with a minus (-) sign. Be careful though, as you may want to delay making any principal payments until you get a better feeling for your cash needs.
- If you do not borrow enough to meet cash needs, the bank will issue an *Overdraft Loan* and charge a higher rate of interest for one quarter on the additional loan amount (4% per quarter). This will also hurt your ***Management Skill Score***.
- The total amount borrowed in a quarter (including any *Overdraft Loan*) must not be more than the *Maximum Loan Addition next Quarter*.

11. Mini-Case Response **(Use only values from the manual)**
(optional, depending on your administrator's settings each quarter).
You should respond to the assigned mini-case *each quarter* by placing the number of your response on your decision form. You should also document the justification for your decision. You may receive some type of feedback on your printout indicating how your response affected your firm. The effect on your firm has been programmed into the model from experience and probabilities found in the "real world." If you are not instructed otherwise, you may assume the mini-cases *will be used in order* (e.g.: Mini-case A in Quarter 1, Mini-case B in Quarter 2, Mini-case C in Quarter 3, etc.) ***Your quarterly printout will always show you the next assigned mini-case.***

Verification Total *(only if submitting paper decision forms)*
After you have completed your decision form, add up all of the numbers and place the total in the Verification Total box. Subtract any negative numbers. **IMPORTANT: Add only the numbers you *wrote*, NOT the 000's.** The total may look strange in terms of its value but it provides an error check for the person who enters your decisions into the computer.

The Beginning
As you prepare for your first decision, it can be helpful to look at what the prior management team did. Your team can use the values as a starting point for your team's discussion for Quarter 1. You are able to see these values either in a handout from your administrator, or if you fill out the form online, the program will highlight the prior decision entry for each relevant spot. Also, as you fill out the form, note the minimum and maximum entry values for each item. The *maximum values* are greater than required for a firm this size at present but are given to keep your team from entering a value that is completely out of range.

- ***Hint***: Do not *repeat* the Quarter 0 decisions with the strategy of waiting to see what other teams are going to do. This "wait and see" strategy will not give you any feedback as to the cost/benefit of changes.

Some Closing Thoughts
You may ask: "What is the winning strategy?" Many strategies can be winners. Winning teams take the simulation seriously, purchase applicable market research studies, and know what their competition is doing at all times. They analyze the quarterly reports and do some common calculations to check budget effectiveness. For example: assume you have been budgeting $20,000 for Quality Management and decide to increase it to $30,000. Is the savings in production cost greater than the extra budget you allocated? Did your product perception increase and lead to more sales? You need to analyze this, as you may have reached the *point of diminishing returns*. Carefully analyzing your quarterly report each quarter and making informed decisions is much more rewarding than just *throwing random numbers* on your entry forms.

Even if your team isn't **the** winner, it is **a** winner because you have learned from operating the simulation. You have learned many business and accounting terms, financial decisions, strategies, and group interaction. The authors, your mentors, and simulation administrator wish you a valuable learning experience and *good luck* as you engage in this simulation.

(Report for Quarter 0 – Your Starting Position for Quarter 1)

BizSim Quarter 0 Industry Co.

** INVENTORY AND PRODUCTION ANALYSIS in units**

Beginning Inventory	4,000	Beginning Plant Capacity	35,082
+ Units Produced	35,000	+ Added Capacity	1,000
= Total Units Available	39,000	Capacity Avail in Qtr 0	36,082
– Sales	35,000	– Depreciation	1,082
= Ending Inventory Qtr 0	4,000	Plant Capacity in Qtr 1	35,000

INCOME & EXPENSE ANALYSIS in 000s

Sales: 35000 @ $34		1190
Cost of Goods Sold		595
Gross Margin		595
Interest Income		0
Total Income		595
Quality Management	10	
Inventory Expense	23	
Advertising & Promotion	50	
Sales Force (2) Cost	30	
Product Development	50	
Market Research	15	
Other Expenses	0	
Interest Expense	28	
Overhead Expense	200	
Total Expenses		406
Less Depreciation		65
PROFIT BEFORE TAX		124
Less Taxes		50
NET PROFIT AFTER TAX		74
Less Dividends		5
PROFITS RETAINED		69

BALANCE SHEET in 000s

Cash		100
Inventory		68
Plant/Equip Cost	2100	
-Accum Depreciatn	0	
Net Plant/Equipment		2100
TOTAL ASSETS		2268
Liabilities: Bank Loan		1100
Equity:		
Common Stock		1000
Retained Earnings		168
TOTAL LIABILITIES+EQUITY		2268
Shares of Stock Issued:		40,000
Earnings Per Share:		$1.85
Economic Index this Qtr:		100
Maximum Loan Available $000s		584
Mgmt Skill Score-Max 100		74
Return on Equity (R.O.E.)		9.14%

**CASH FLOW ANALYSIS in 000s **

Beginning Cash	26	Expenses+Cost of Goods Sold	1001
Sales & Interest Income	1190	Taxes and Dividends	55
New Bank Loan	0	Change in Inventory Value	0
Overdraft Loan	0	Loan Payment	0
		Cost of Plant Addition	60
Total Cash Inflow	1,216	Total Cash Outflow	1116

NET CASH FLOW (This quarter's ending cash) 100

MARKET RESEARCH STUDIES: Your Market Share: 33.3% Your Stock Price: 30.56
Industry Sales (units) 105,000
Economic Forecast next 4 Qtrs: 100 ??? ??? ???
Prices: 34 34 34
Avg Advertising: $50,000 Avg Product Development: $50,000
Total Industry Salespersons: 6 Avg Quality Budget: $10,000
Product Perception (How customers view each firm's product 0-100):
28 28 28

MESSAGES TO YOUR FIRM, INDUSTRY REPORT, AND INCIDENT RESPONSE:
Production Cost-per unit 17.00 Your Product Perception 28 Lost Sales 0

Stock Prices (rounded) Co 1 to 3:
31 31 31

------ NEWS MESSAGE ------

New management has been hired for several firms in the industry. The management teams are all geared up and ready to put spark into the firms.
(Note, this example is for 3 teams in an industry)...

SECTION 3

ANALYSIS OF THE REPORT FOR QUARTER 0

This section explains the items on the Quarter 0 Quarterly Report.

INVENTORY AND PRODUCTION ANALYSIS

The first thing that should be pointed out is that **the number of units you *produce* has no bearing on the number of units you *sell***. Some teams get the (incorrect) idea that if they increase production that sales will automatically increase. As mentioned earlier, sales are driven by the *Economic Index*, advertising, product development, quality, and competitive pricing. The left side of the report lists the production analysis, which for Quarter 0 is shown below.

Beginning Inventory		4,000	
+	Units Produced	35,000	
=	Total Units Available	39,000	
–	Sales	35,000	
=	Ending Inventory Qtr 0	4,000	*(This is your Beginning Inventory for Quarter 1)*

The *Ending Inventory* for Quarter 0 becomes the *Beginning Inventory* for Quarter 1, and so on. If you place an order to produce more units than you have the capacity to produce, the simulation program will automatically reduce your production order to a value that is *equal* to your production capacity.

The *Plant Capacity* is listed on the right side of the report and appears like this:

Beginning Plant Capacity	35,082	(The ending capacity from the previous quarter)
+ Added Capacity	1,000	(1,000 units were entered on your input form)
Capacity Available this Quarter	36,082	(The maximum number of units you can produce)
- Depreciation	1,082	(Units lost to aging equipment, -3% of line above)
Plant Capacity Next Quarter	35,000	(This is your beginning capacity for Quarter 1)

INCOME & EXPENSE ANALYSIS

This portion will list the firm's sales revenue and interest income. The *Cost of Goods Sold* will be deducted from the sales revenue to indicate a common accounting term, *Gross Margin*. It should be noted that the *Cost of Goods Sold* is the production cost of *only* those units sold and not the total *Production Cost* for the quarter. Accounting practices dictate that only the units sold should be counted as an expense in a given quarter. However, the costs of manufacturing the units are a *cash expense* in the quarter in which they were manufactured, and you will find this cash requirement in the *Cash Flow Analysis*. At the end of the expenses is the *Profit Before Tax* from which taxes and dividends are deducted. The final value represents the amount of profits being kept by the firm (e.g. not paid out as dividends). The amount of *Profits Retained* is then added to or subtracted from the *Retained Earnings* shown on the Balance Sheet. *Remember that Retained Earnings is an accounting entry only and this item does not represent a reserve of cash*. The retained profits that a firm may have accumulated have already been utilized in a variety of ways such as additional plant expansion, additional inventory, or additional cash.

Interest Income

There may be occasions when you have excess cash. If your *beginning* cash balance exceeds $60,000, your bank will automatically invest your cash in a money market fund. This fund currently pays 6% interest per year (1.5% per quarter) but market interest rates may fluctuate. The interest income will appear on your *Income and Expense* statement near the top. Since your financial statement is shown in 000's, interest income values will be rounded either up or down so they can be shown in $000's (integer method). The interest is paid *on the first day* of the next quarter. To reconcile the amount of interest earned, use the *beginning cash* value in the Cash Flow Analysis.

- A cash balance of $60,000 would pay $1,000 interest which would be shown as "1" on your Income and Expense statement.

Overhead and Fixed Expenses
The firm's overhead and fixed expenses are currently $175,000 per quarter. This will allow the firm to have 35,000 units of capacity. For *each* 10,000 units above this amount, overhead will increase by $25,000. Note: Overhead costs are based on the ***capacity*** *(not sales)* of the firm.

Table 4
Overhead Cost based on Production Capacity

0 - 35,000	$175,000
35,001- 45,000	$200,000
45,001- 55,000	$225,000
55,001- 65,000	$250,000
65,001 -75,000	$275,000

And the cost continues in 10,000-unit blocks at a rate of $25,000 per 10,000 units added.

Inventory Expense
The cost to maintain your warehouse facilities is $15,000 per quarter. In addition to this fixed expense, you initially will be charged $2 per unit for each unit that did not sell (listed as ending inventory). The administrator may increase or decrease this charge during the course of the simulation.

Taxes
The simulation charges a tax rate equal to 40% of profits. This includes all types of local, state and federal taxes. If there is a VAT (value-added tax) or sales tax in your area, you may assume that it is included in this tax rate. If the firm has had losses it will receive a *credit against any future profits* from the government and no taxes will be due until this credit is exhausted.

Depreciation Expense
For those who have not had accounting, depreciation expense is a method of allocating a portion of a large-fixed asset (such as the manufacturing plant and equipment in this simulation) to each accounting period. In this simulation, the plant value (currently $2,100,000) is depreciated at 3% for the upcoming quarter, making the depreciation expense $65,000. The $2,100,000 value also represents a capacity of 35,000 units. Therefore, in quarter one you would expect the capacity to be automatically reduced by 1,050 units (35,000 x 3%). Since the plant was paid for in the past, there is no actual cash expense at this point, but we can use the depreciation expense as a legitimate expense for profit and income tax purposes. This is why it is listed as an expense on the *Income and Expense Analysis* but not as an item for which cash was needed on the *Cash Flow Analysis.* Each quarter, the *Plant and Equipment* figure will be decreased by the 3% charged as depreciation expense and increased by your expenditures in 'Addition to Size of Production Plant'.

Other Expenses
This item may contain any fines your administrator may assess and any other costs that are not listed on the report in other places.

Profits Retained
Your quarterly profits retained reflects all revenues and expenses for the quarter except your loan principal repayment. This is because principal repayments do not count as a valid expense for income purposes, although the interest on the loan is an expense. Instead, principal repayments on a loan are simply a transfer from cash to your outstanding loan balance. Your overall company value does not change. Dividends also are not an expense because they are a return on investment to the owners.

CASH FLOW ANALYSIS

The *Cash Flow Analysis* in the middle section of the quarterly report lists the firm's cash inflow, cash outflow, and ending cash position. You can use this information to plan cash needs and borrow additional funds (up to *Maximum Loan Addition next Qtr*) if necessary.

The most important item in this section is the *Net Cash Flow*, which indicates whether you had a shortage of cash or a positive cash balance. If this value is zero, it likely means that your banker had to add to your loan for you (an overdraft loan), which will show in this section. Hopefully though, your cash analysis will help you forecast your cash needs and you will take a loan if needed, instead of relying on an emergency loan. A note on borrowing: It is not necessarily a negative thing to need cash, but there are limits as to how much a firm can borrow. If you are growing and need additional plant capacity, you most likely will need to take a loan.

If more goods were produced than were sold, the excess goods are added (at their current production cost, $17 each in Quarter 0) to the *Inventory* account. Conversely, if demand was more than the units produced, the excess demand will be met out of inventory to the point of a stock-out. Thus, **a positive figure after *Net Change in Inventory Value* indicates goods were placed into inventory. A minus figure (-) indicates goods had to be taken from inventory** to meet current sales in excess of production.

Loan Repayment

Your loan balance will be shown after any payments and additions. The *Interest Expense* will be shown on the *Income and Expense Analysis*. The current interest rate (cost to you) is 10% per year, but this can vary throughout the simulation.

Overdraft Loan

If you fail to borrow needed funds or if you do not borrow enough, the shortage will be made up automatically by the bank in the form of an *Overdraft Loan*. The interest on the overdraft portion of your loan is 16% per year (4% per quarter). After one quarter, the *Overdraft Loan* becomes part of your regular loan and the higher interest rate is no longer charged**. Remember, the total amount borrowed in a quarter must not be more than the *Maximum Loan Addition next Qtr*.**

Cash *Flow* versus Cash *Expenses*

When calculating the profits for a firm, only the cost of each unit *sold* is used. If more is produced than sold, the difference in sold vs. produced is a cash expense to the firm but does not influence the profit in any way. This difference will be shown on the Balance Sheet along with unsold inventory from the previous period, e.g., total inventory in stock at the end of the quarter. If demand is greater than production in the next quarter, the units will be taken out of inventory and the inventory account will be decreased, as you have converted the inventory to cash.

Loan transactions are recorded under *Loan Payment,* and cash expended for building a larger plant is listed under *Cost of Plant Addition.* The total of all the above items represents the *Total Cash Outflow* for the quarter. If Total Inflows do not cover this amount, the balance must come from the *Cash* account, and that account is adjusted accordingly. If the cash outflow is *less* than cash inflow, the excess cash results in an addition to the *Cash* account.

Change in Price Level - Effect on Cash

If you change your price from one level to another, the value of the product in inventory must change to match your new cost level. To simplify matters, the simulation adjusts this on the cash flow analysis. There is no effect on profits.

BALANCE SHEET

A *Balance Sheet* is printed on the right side of the quarterly report. A *Cash* balance of zero (0) may indicate that there was not enough cash to cover all the cash needs and the bank automatically covered this shortfall with an *Overdraft Loan*.

Inventory is the dollar value of the current inventory at their average cost. The *Plant & Equipment* value of $2,100,000 represents its net value after 3% depreciation for the quarter has been deducted and the current plant addition is applied. This value divided by $60 will indicate the plant capacity ($2,100,000 / $60 = 35,000 units). *Other Assets* is a nonstandard accounting entry that is used to allow the balance sheet to balance due to the rounding of all numbers into even thousands. The *Total Assets* figure is the total of the four items above.

The next section of the balance sheet is *Liabilities,* which consists of only *Loans Payable*. The stockholders' *Equity* is shown next. This consists of *Common Stock* (stock that has been sold) and *Retained Earnings*. When you assume control of the firm, 40,000 shares have been sold for $25/share to raise $1,000,000 of capital.

The other part of stockholders' equity is ***Retained Earnings***. **This is the accumulated value of all past profits less dividends paid.** It represents the profits that have not been paid out to stockholders but retained by the firm for growth needs. Retained Earnings will increase or decrease each quarter based on each quarter's Profits Retained (found on the Income Statement). As a matter of accounting principles, ***Total Assets* must equal *Total Liabilities plus Stockholders' Equity***.

Other Information on the Report

Just below the balance sheet is other information of interest. *Current Price of Stock, Total Shares Of Stock Issued, Earnings Per Share,* the *Economic Index* for the current quarter, *Management Skill Score, Maximum Loan Addition next Qtr*. and *Return on Equity*. ***Earnings Per Share* is an important value.** It is calculated by dividing the *Net Profit After Tax* by the total number of shares. To annualize this quarterly value, multiply the result by four. ***Earnings Per Share* is an important factor in the value of your stock.**

On the lower third of the report, you will find the *Market Research Studies* that you have purchased. Next are the messages to your firm. This section contains a very important piece of information, *Lost Sales.* If *Total Units Available* were not enough to meet orders, the difference will be listed as *Lost Sales.* These sales are not back-ordered but go to your competitors. Your current *Production Cost* per unit is given as well as your *Product Perception*. The *Industry Report* (if used) has announcements from the administrator and other industry-specific information. At first, the team report may seem a bit confusing, but within a quarter or two you will be reading it like a pro.

The Economic Index

The simulation uses an *Economic Index* to impart information on the general health of the economy and it begins at an arbitrary value of 100. Any changes in this number will affect the total demand for your product. For example, if the *Economic Index* forecast indicates a move from 100 to 105, overall economic conditions are expected to increase approximately 5%. Conversely, an index of 96 would indicate that economic conditions are expected to decrease approximately 4% from the original 100 Quarter 0 value. Just as in real business, **the % increase or decrease is a *forecast only,* not an exact prediction** of the future, but rather a strong directional indicator.

News Messages

The news message section of your report may provide instructor messages, the impact of your mini-case response (if applicable) and other operational information, including warnings.

OTHER INFORMATION CONCERNING THE QUARTERLY REPORT

Production Cost

The production cost may increase due to new innovations you make (through budgeting *Product Development*) or due to underutilization of your production facility. The production cost may decrease due to high utilization of your production capacity or due to lowered costs from your quality management budget.

When the simulation begins, the firm is selling the product for $34 per unit to its customers and the cost to manufacture the product is $17 per unit. If you reduce your price to have a low-cost strategy, it is assumed you are producing a no-frills product to keep your costs low. In this case, your cost will be reduced by the simulation. On the other hand, if you adopt a premium price strategy, the simulation will assume you are adding premium features to the product and the unit production cost will be increased. See Table 1 for the various cost/price combinations. **Any of the three strategies can be very profitable *if* the team correctly makes all the other decisions to support its strategy.** After the simulation begins, the cost to produce a unit will change from the original 50% for each price category, due to *Quality Management* spending and how many units you produce compared to your total plant capacity.

A Note on Product Development

Naturally, it requires quite a large amount of investment to create a new and different type of product, i.e. perhaps one that is waterproof, shatter-proof, etc. The possibilities are endless. Of the total amount that you budget for *Product Development*, the product development department will first use enough of the budget to improve the current product. This is the only prudent thing to do. Otherwise, your current product will fall behind the competition in terms of features, looks, quality construction, etc.

Last quarter, the firm budgeted $50,000 for product development. This is enough for two product engineers working full time in your product lab. If you have a low-price product, you will not need to budget as much in this area as the *price* is the major selling factor. However, even if you have a lower-priced product, you would want to keep it up-to-date through a continued product development budget. A mid- or high-price strategy will require spending proportionally more in this area. Your relative product level as perceived by a marketing *focus group* is available as a market research study. You may want to compare your *Product Perception* to that of your competition, especially the competition at your price level.

Information Concerning Dividends

Dividends are a payment to stockholders for the investment they have made in your firm. You need to establish and implement a dividend policy as soon as you can. Since the stockholders are the *owners* of a company, they have every right to be rewarded for the risk they have taken in investing capital funds in a firm. On the other hand, the firm may be in a high growth period and need all available profits for growth purposes. It is a difficult decision to know if the firm needs the dividends more than the stockholders do. If the firm does not have a ready need for profits then it should pay the profits to the owners, the stockholders. Whatever you decide to do, always pay a dividend *quarterly* rather than once or twice a year. This is the standard practice by most firms and it makes the cash flow easier to predict. *Never begin a dividend payment you cannot sustain.* Stockholders will become disenchanted with your firm and your stock price will fall. Dividends cannot be paid if *Retained Earnings* are negative, and Dividends may not exceed last quarter's *Net Profit After Tax*.

Calculation of Stockholder Return on Investment

In order to give you an idea of the *return on investment* your dividends provide to your stockholders, use the following formula: Total dividends paid divided by total value of the stock. This will give you a decimal of perhaps .01. Then multiply by 4 to give the *annualized* return. This is still a decimal, so convert it to an annualized percentage (.01 x 4 = .04 = 4%).

Product Quality and Perception

As you know, all of us have a certain perception of a product. If it is a *brand name* product, our perception is usually higher than a lesser known or a generic product. If a firm has a reputation for high quality, the

accompanying perception would also be high. In the simulation, a product's perception consists of the following factors: the product's quality; the firm's advertising and promotion budget (we do form perceptions through advertising); and the product's features from product development spending. The decisions a firm makes that fall under the categories of business ethics and social responsibility also affect perception. A firm's *Product Perception* will be listed on its Quarterly Report but your competitors' *Product Perception* must be purchased through a market research study. It should be noted that a lower price product does not need as high a *Product Perception* as a higher price product. If you want to take sales from your competitors, either have a higher *Product Perception* than they do, or charge a lower price or both.

A Note on Borrowing - The Bank Loan

It is not bad business to borrow money! Most growing companies require additional cash occasionally. This is used to build additional facilities, increase various budgets, and pay for the added cost of inventory required. These additional funds will be termed capital in the simulation. There are many types of loans but **yours is a *line of credit* loan. This type of loan does not have a required repayment schedule but rather a principal payment can be made in any amount at any time. You will be charged interest on your loan each quarter**. You may want to delay making any principal payments until you have a better feel for your cash needs. **However, you should not end the simulation with a large amount of cash and a large loan principal; that would be an indication of poor financial management.** The amount of credit the bank will extend to you is based upon company value verses the loan amount you already have outstanding. You will lose your line of credit from the bank if your loan balance is already high relative to your company's assets**,** but it will return once you become more profitable. Place your loan payment (if any) on your input form with a minus (-) sign.

Interest Expense on the Bank Loan

Interest rates may increase or decrease during the simulation, depending on interest rate trends. The interest is calculated after any loan payment is applied to the outstanding balance. The current rate is 10% annually or 2.5% quarterly. Since your loan is a line of credit loan, you may borrow against your line of credit or make a payment on the loan at any time. As you prepare your decision and estimates, pay careful attention to your projected cash balance. Note that the interest rates are not related to the current rates in the "real world" in the current time period. Your administrator will be running the simulation with a predetermined economic cycle that is designed to enhance your learning experience, knowing that these lessons can last you a lifetime.

A Note on Stock Price and Number of Shares

The market value of your stock is not a precise indicator of the performance of your firm but it does give a rough estimate of the relative standings of the competing firms. Since stock market investors apply many non-quantifiable factors in valuing stock, **you should not take the stock price as an absolute but rather as an overall relative picture of the simulation standings**. Investor whims concerning poor performance one quarter could make the stock price decline perhaps more than it should. Investors may not know of the firm's overall plans and what it is trying to accomplish, thus undervaluing the stock. While you should not ignore the stock price, you should continue to operate your business and stick with your strategy.

When the firm began a year ago, there were 40,000 shares of stock that were sold at $25 per share. **You can compare how you are doing by using the $25 value as a comparison point.**

Some of the factors that affect stock price are: earnings per share (EPS); dividends; customer satisfaction (as reflected by the ability to fulfill customer orders); company long-term performance; management's investment in knowledge of the industry and market trends.

Four Key Strategies

Here are some strategies to consider. However, there are others that may be just as effective.

THE MASS MERCHANT: Cost Leadership

You want to sell as much product as you possibly can. You sacrifice some profits in order to increase market share. Your price is lower than average, and you budget more than do your competitors in the area of marketing. Your plant growth is rapid, as you have to fill all the orders coming in. There is a limited number of products to be sold, meaning that every one you sell is one your competitors cannot. **An Important Ratio:** Market Share (Your Unit Sales/Total Units Sold = Market Share %)

THE LUXURY MARKETER: A Differentiated Product

This strategy is based on the philosophy that no one NEEDS your product. Therefore, one might as well sell a luxury product, something people buy because they can afford it. With proper marketing, you can convince them that they only want the best. Price is usually not an issue, because customers feel that they get what you pay for. Your price is always higher than the competition, and your marketing budgets tend to be above average. Product Development is important, as you create the perception of being on the cutting edge of technology. Your production is lower, because you squeeze all the profit you can from each unit sold. **An Important Ratio:** Profit per Unit (Net Profit/Units Sold = Profit/Unit).

AN ANALYTIC APPROACH: Cost Focus Strategy

When you talk about your product with a retail price in the $27 - $41 range, the quality difference can't be that great. You take the approach that in the end, all firms are selling about the same product. In order to make this company profitable, you have to squeeze every dollar of profit you can. You have to drive your cost per unit down by investing in Quality Management. You have to keep your plant operating at optimum capacity (between 85% and 95%), and keep inventories as low as possible. Your price should be right in the middle of your competitors, and you should be wary of burning up money with costly marketing campaigns. Marketing is important, but you should spend as much as they do, not more. The same strategy goes for your product development budget. **An Important Ratio:** Net Margin (Profit Before Tax/Gross Sales = Net Margin %)

THE OPPORTUNIST: Emergent Strategy

Change your strategy to meet the changing markets you face. Buy all the market research you can, and attempt to capitalize on the weaknesses of competitors. If prices are rising, you lower yours to capture sales. If industry marketing is on the rise, drop price and capture their sales. If prices are low, raise yours and market heavily. If the economic forecast is good, invest in inventory in case your competitors stock out. Reduce your costs as much as possible, and have cash available in reserve for investments in inventory, marketing, etc. As to dividends, remember the investors only make money if the company makes money. This strategy is more risky but can be more rewarding, *if* implemented flawlessly. **An Important Ratio:** An Opportunist watches all ratios carefully, to calculate the odds.

Your Business Plan

"It is awfully important to know what is and what is not your business." –Gertrude Stein

Your business plan will be the "road map" for launching your new product. It will show you the steps you need to take to successfully develop your business. It is also an essential component in obtaining start-up funding – investors want to know you are worth the risk! To develop a good plan, your company should answer the following questions:

Your Key Strategy

What pricing strategy have you chosen? Why?

First Year Goal or Objective (What would you like to achieve in the first 4 quarters of the simulation?)

Second Year Goal or Objective:

Secondary Goal or Objective:

How are you going to organize your management team to accomplish your objectives? *

*For example: "Jill will analyze market research each quarter to track our competition. John will analyze our production costs and make recommendations concerning this area. Ruth will..."

Record of Decisions

This information may be useful in putting together your company's story for a presentation or portfolio or in making sure that all team members are aware of the decisions that have been made.

	Quarterly Decision Log											
	Quarter #	Production # units	Add to Capacity	Total Quality	Price	Advertising	Sales Persons	Product Development	Market Research	Dividends	Loan	ROE
	1											
Year 1	**2**											
	3											
	4											
	5											
Year 2	**6**											
	7											
	8											
	9											
Year 3	**10**											
	11											
	12											

Data Summary Sheet

These are the default values/options for a number of things in the simulation. Bear in mind that some of these may change over time, such as interest rates or inventory carrying costs.

All items are per quarter, unless otherwise stated.

Sales/Marketing Items		
Sales Price (per unit)	$27-$41	Your choice will affect total sales and the cost per unit.
Advertising & Promotion Budget	$0-$200,000	Increases product perception and sales. Diminishing returns.
Sales Force	$15,000 per salesperson each Q. You start with 2. Stays at this number unless you hire or fire (change by up to 4 per Q).	One full Q before they have any positive effect. $6,000 to fire a salesperson. Diminishing returns.
Production Items		
Production Cost per Unit	The base cost per unit is $^1/_2$ of the sales price. Other factors can make small modifications to this base cost.	Spending money on Quality Management can reduce this cost, as can some other things.
Cost of Goods Sold	Cost per Unit times number of units sold.	
Plant/Equipment Depreciation	3% of available capacity. Automatically taken away each Q.	Taken after all units are produced during the Q, so will affect what can be produced in the following Q. Can be offset by expansion.
Plant/Equipment Expansion	$60 per unit capacity added. Only in segments of 1,000 units. Adding 1 segment adds 1,000 unit production capacity and costs $60,000.	Available for use immediately. (Maximum of 10 additional segments per Q)
Overhead	Based on Production Capacity: Minimum of $175,000 for up to 35,000 units. Increases by $25,000 for each block of 10,000 units above this.	Based on capacity, not number of units actually produced. Includes what was just added this Q, if applicable.
Other Items		
Product Development	$0-$200,000	Increases product perception and sales. Continued investment may lead to a breakthrough. Diminishing returns.
Quality Management	$0-$200,000	Decreases cost per unit. Increases product perception and marketing effectiveness. Diminishing returns.
Inventory Carrying Costs	$15,000 + $2 per unit on hand at end of Q	Cost per unit may change at any time. Watch your messages closely.
Interest Rates	Paid on bank loan: 10% per year (2.5% per Q)	Received on cash (must begin Q above $60,000): 6% per year (1.5% per Q)
Taxes	40% of profits	Includes all federal and local taxes.

ANALYZING YOUR RESULTS

Following is a brief list of questions that smart teams will ask themselves each quarter when they get their results. Your stockholders (a.k.a. the judges) will be looking to see how well you understand these concepts and what adjustments you made throughout the week to improve the financial position of your company. Keep in mind, there are three main factors that will affect your performance and determine your success:

1. Your Actions (Decisions)
2. Your Competitors' Actions
3. The Economy (recessions, inflation, raw material and labor costs, and more)

It's important to be *aware* of your competitors and the economy, but don't let them solely determine your actions. RUN YOUR COMPANY. Stick to your strategy. If your initial strategy isn't working for you, change it.

1. **DID WE MAKE A PROFIT?** – what number on the sheet tells you this?
   - If YES, what are a few things you could do next quarter to increase your profit?
   - If NO, why didn't you make money and what do you need to change next quarter? (Remember, if you make money, your ROE automatically increases.)

2. **DO WE HAVE ANY CASH?**
   - If not, why not? What are some things you need to do next quarter to generate and retain cash?
   - If you have a lot of cash, i.e. more than $400,000, what are some smart things you can do with it? (Remember, you need cash every quarter to pay your employees, purchase raw materials, etc. If you have no cash, be ready to explain to your stockholders how you managed to operate without it. If you have an abundance of cash and did nothing with it, be prepared to explain that too!)

3. **DO WE HAVE INVENTORY?**
   - If over 1,000 units, what do you need to do to get rid of it?
   - If you LOST SALES, what are three things you can do to avoid this next quarter?
   - What were the factors that left you with inventory/lost sales, i.e. the economy, your competitors, your own bad decisions, all three??

4. **IS YOUR ROE INCREASING? DECREASING? WHY?**
   - What affects ROE?
   - What can you do to increase ROE over time?

5. **WHAT IS OUR MANAGEMENT SKILL?**
   - What affects it and what decisions can you make to increase it?

6. **DID WE GET THE RESULTS WE EXPECTED? WANTED?**
   If NO, why not? Your understanding of the factors that affected your results will be critical to explain to your stockholders on Friday. Make sure you record what you think happened and how you're going to respond.

IMPORTANT: Your stockholders will want to hear your story. Tell them what happened to your company. Tell them how your decisions, your competitors and the economy affected your operations and how you adjusted. **If you performed poorly in the simulation, don't worry.** Teams that have performed very poorly in the simulation but knew why and explained it to the Judges have actually won Top Company! The key to a successful Stockholders presentation on Friday is your knowledge of how business works and how well you tell your story.

- Have SEVERAL TEAM MEMBERS record what happens each quarter and WRITE DOWN WHAT HAPPENED AND WHAT ADJUSTMENTS YOU MADE TO FIX PROBLEMS.
- Start telling your story at QUARTER 1!
- Describe your Strategy, if it changed, tell them why.
- Most of all, HAVE A BLAST! This is a great opportunity, so enjoy it with your new friends.

BizSim

THE FINAL MANAGEMENT REPORT FOR YOUR FIRM

The management processes are not complete until there is some way of analyzing the outcomes of operations. This is called the *control* function of management. A list of critical questions which attempts to start your thinking on your performance follows:

1. Did you adequately state your mission and objectives?

2. Did your team make decisions on a rational basis or did you "stab in the dark"?

3. How many times did your firm lose sales?

4. Did you advertise and promote enough? Too much? Did you determine the point of diminishing returns?

5. Did you have sufficient salespersons to service your customers?

6. How would you describe your success in producing and marketing your product? Explain.

7. Did your business practices reflect your personal ethics and commitment to social responsibility?

8. Which mini-case (if applicable) created the most disagreement among team members? How did you resolve this problem?

9. If you had the opportunity to play the simulation again, what would you do differently?

EXECUTIVE BONUS RECOMMENDATION

BizSim

Quarter_____ Industry_____ Company ____

Performance evaluations are an important aspect of every manager's job. As a member of your company's Executive Compensation Committee, you have been assigned the task of allocating $100,000 among the managers (your teammates).

Fill in names of the executives in your firm, including your own	Fill in the amount of the executive bonus
Your Name:	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	TOTAL $ 100,000

COMMON BUSINESS TERMS

Assets: The items the firm owns: cash, buildings, equipment, accounts receivable (money that is owed to the firm), inventory of products that are being held for sale.

Accounts Payable: The amount the firm owes to others for goods and services rendered but not yet paid.

Accounts Receivable: The amount that is owed to the firm by others for goods and services rendered for which they have not paid.

Amortize: The accounting term that describes the allocation of the expense for a major item over several years.

Balance Sheet: Since "balance" means equilibrium, the balance sheet lists the firm's Assets on one side of the "scale" and Liabilities and Owners Equity on the other side. Accounting principles require that the two sides must have equal values.

Economic Index: The method in this simulation to describe the overall economic conditions in the U.S. It is based on a starting (index) value of 100. If the forecast were for 106 then the overall economic conditions would be expected to increase by 6%.

Change in Inventory Value: The net change in the value of the inventory at the end of a quarter. For example, if the value of the beginning inventory was $46,000 and the value at the end of the quarter was $26,000, the change in inventory value would be $20,000. Since the ending value is less, some of the stock of inventory was sold.

Cost of goods sold: The total direct costs of manufacturing a product; materials, labor, utilities, etc.

Depreciation: The accounting term that describes the allocation of the expense of a physical asset (i.e., building, equipment, etc.) over several years. In the simulation, the plant is depreciated at 3% of the value of the plant. Example: $2,100,000 plant value x 3% = $63,000, OR, 35,000 plant capacity x 3% = 1,050 unit depreciation.

Earnings per share (EPS): a common financial analysis that indicates how much profit each share of stock made in a given time period. It is calculated by dividing the current profits by the number of shares of stock. Common practice is to annualize it by multiplying it by 4 to convert a quarterly EPS to an annual EPS. Example: $100,000 quarterly profit ÷ 40,000 shares of stock = $2.50 per share for the quarter times 4 quarters in a year = $10 earnings per share. Stocks can sell on the stock market for some multiples of this value, usually from 7 to 25 times the EPS. "High Flying" technology stocks may sell for as much as 100 times the EPS as investors are banking on unusually high future returns.

Gross Margin: Also known as Gross Profit. Indicates the sum that remains after the direct production costs have been deducted (Sales - Cost of Goods Sold = Gross Margin). It is a financial test that can aid a firm to know whether their costs are in line with industry averages.

Liabilities: Amounts that are due others that have not yet been paid: loans, accounts payable, mortgages.

Loss Leader: Any product that a store uses to draw additional customers. The loss leader is priced at the lowest possible price, sometimes even at a loss. The manufacturer cannot control what prices stores choose. While a loss leader sells more of the manufacturer's products, the practice creates ill will with other retailers that want to maintain normal markups**.**

Market Share: Your firm's sales (in units) as a percent of the total sold in the industry. If there were 10 teams competing, the theoretical equal market share would be 10% for each team. If your report indicates you have 11.5%, then you have taken sales away from another firm or firms. Market share is only **one** indicator of how well you are doing. You may obtain a large market share due to a very low price but you may have little or no profits! A large market share may *help* profits but it is not a guarantee.

Overhead Expense: All the expenses of a company that are relatively "fixed" in nature and not part of the production cost of the product or service, such as supporting staff payroll and fringe benefits, insurance, power and light, telephones, computers, travel. These are costs which would go on whether or not the firm was manufacturing a product.

Owners Equity: The value of stock that has been sold plus the retained earnings (profits retained for business uses). Although profits may be retained in a firm to help finance the firm, it still belongs to the stockholders and is thus listed as part of stockholders equity.

Production Cost: The *direct* costs of producing a product such as production line labor, raw materials that go into making the product, maintenance on equipment, etc.

Quality programs: For many years now, U. S. firms have paid more attention to the quality of goods or services they offer in order to match the quality of foreign products. There are various names given to these programs including Total Quality Management, Quality Circles, Continuous Improvement, Re-engineering, etc.

Retained Earnings: The amount of profits that have not been paid as dividends but rather held in the firm for working capital, growth and other needs.

Stock: Stock is sold to investors to raise capital and it represents ownership in the firm. Stockholders expect to be rewarded for their investment by the value of their stock rising and/or dividends paid.

Working Capital: The amount of funds the firm has available in the short term (30 to 90 days) to purchase goods and services and to build up the stock of inventory.

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APPENDIX

MINI-CASE DECISIONS

This section contains several Mini-cases. The Mini-case for Quarter 1 **must** be **Mini-case A.** Your instructor *may* change the order of mini-cases in subsequent quarters. Always check the quarterly report to ascertain which mini-case is next. If you are not using the mini-cases, enter a zero on the decision form for item 11 (if given a choice).

The ability to make a decision concerning a mini-case *will be limited to the decision quarter for which it is offered*. You cannot go back to a previous mini-case to take advantage of the mini-case.

Mini-cases *may* have a financial effect on your company either in the current quarter or a future quarter.

There are many ways to implement the mini-cases. Here are two suggestions:

- Ask one or two team members to read the mini-cases aloud, then discuss as a group. After discussing each possible action, reach a consensus as a group. If a consensus cannot be found, the CEO may have to decide.
- Ask several team members to individually read the mini-case and assign one possible answer to each team member. Give them 10 – 15 minutes to develop a position then ask each to verbally deliver their position to the whole team. Then, reach a consensus.

Throughout the following pages, the instructions for entering mini-cases may refer to writing down something, or entering a number. This will all depend upon how your administrator is running the simulation.

- Some administrators may use paper input forms for running BizSim. In such cases, you would typically enter the number of your choice in item #11. You may also write down more details on the same sheet of paper that you typically turn in.
- Other administrators may run the simulation fully online. Under these circumstances, your mini-case choices should be fairly easy to select online. ***However,*** you should typically still ***record separately*** the reasons you are giving to justify your decision. Your administrator may have a separate way of handling those details.

Mini-Case A: Naming Your Company and Choosing a Strategy

Industry _____ ***Co # ____***

COMPANY NAME:

You will need to provide a name for your company and/or product. This is an extremely important decision for your team. You may assume that the firm name is also the name of your product. A product's name can create an immediate image to the prospective purchaser. For example, if a firm sold computer printers, "Perfect Print" is a more descriptive name than "The Cannon." You may want to answer some of the questions below first.

The name cannot exceed 30 letters and spaces.

1. Is the name an ego trip for team members? For example, using the letter of each person's first or last name: "JFTY "

2. Does the name help describe your product?

3. Is the name easy to remember and perhaps catchy? "Hi-Q Music"

Brainstorm some possible names:

_____ _____

_____ _____

On Your Decision Form:

1. Print the name you have chosen (maximum 30 letters and spaces).

2. Enter a zero on the decision form for the mini-case.

3. Write down a justification for your selection.

Mini-Case B: A New Production Manager

Your production manager gave two weeks notice and left to start his own business. You have conducted interviews with several applicants and you have the list down to three. Here is a short synopsis of the three:

Applicant #1
This applicant is currently your assistant production manager. He is middle age, has a bachelors degree in Business and been in the position since the firm began a year ago. He had a similar position before coming with your company. Although he knows the production process at your plant relatively well, his people skills are somewhat weak according to the departing plant manager. The advantage of hiring this person is that he knows every small detail of your operation and perhaps he could work on his people skills if given a chance to get the promotion.

Applicant #2
This applicant is currently employed by an electronic manufacturing facility such as yours. She has excellent credentials, a bachelors degree in production management and has excellent references. She needs to re-locate to your area. She has two other offers and both have offered her a bonus of $5,000 for signing. Your human resource manager feels you can hire her if you offer a $5,000 signing bonus, which includes $2,000 for moving expenses. One of your staff has pointed out that the bonus will establish a precedent in your firm. If you hire this applicant, you will be charged $5,000 in Other Expenses.

Applicant #3
The applicant has the most experience of the three. At age 63 he has been the production manager in four firms over the last 30 years, all in electronic production facilities. He has an associate degree in science and has excellent references. One of your staff members has pointed out two possible problems with this applicant. The first is that he is handicapped and uses a wheelchair to move around; there are some areas of your plant that are not equipped for wheelchair usage. The second potential problem is that he is nearing retirement age although he assures your committee that he plans to work until he is 70, as long as his health holds out. This applicant would bring a lot of experience to the position.

Choose which applicant you will hire. If you choose #2, your “other expenses” will be charged $5,000.

On Your Decision Form:

1. Enter 1, 2 or 3 depending on your choice (mini-case response).

2. Write down a justification for your selection.

Mini-Case C: Environmental Dilemma

In order to provide parking and expand your production facility, a large lot at the rear of your building must be cleared of several trees. The locality in which you are located has a regulation that any trees that are removed a like number must be planted. There is room to plant the requisite number of trees on the perimeter of the large lot. However, one of your most respected staff members made a passionate plea to go "beyond the law" by purchasing 10-20 acres out in the rural area and plant several *hundred* young trees on it as well. "If we are to think of ourselves as *trustees* of the global environment and not just *consumers* of the environment, we must go beyond the legal requirement and leave something for future generations." Your financial officer responded with "This would cost us $10,000 and we could use those funds for building the business. We could do this later after we have profits built to a much higher level. Besides, I personally believe that we should meet the legal requirements and no more. If we continue to spend money on every "social" cause that comes along, we will not be serving our stockholders well."

The staff member responded with "Our stockholders would want us to be a socially responsible firm and we would be doing it for the future descendants of the stockholders and I think the majority of them would approve of that. And as for waiting for a better time to do it, there will never be a "better" time than now. Besides, the expense is a tax deduction and it would actually cost only $6,000 cash outlay."

Discuss this situation with your team and enter:

- a one (1) on the decision form if you are going to budget the $10,000 cost of the tree project
- a zero (0) if you are not going to do it. If you elect to do it, you will be charged $10,000 in Other Expenses.

On Your Decision Form:

1. Enter 1 or 0 depending on your choice.

2. Write down a justification for your selection.

Mini-Case D: The Case of the Missing Keys

The ring containing the master keys to many areas of the building disappeared off the production manager's desk this morning. Changing all the locks would cost $2,000, as they are all high quality custom-keyed locks. An anonymous note left at lunch time on the desk of a production foreman listed three or four employees that could have taken them and that there was a rumor that they had been put in the guilty employee's locker for safe keeping in case the employees were searched. The production manager wanted to search the four lockers for the keys but the human resources manager warned him that the lockers could be considered as a personal area and the company did not have a right to search a personal area. He ended his remarks with a statement about a potential lawsuit, especially by the three non-guilty employees.

Discuss this situation with your team and enter:

- a one (1) on the decision form if you plan to search the lockers.
- a two (2) if you choose to change the locks. If you choose the latter, "other expenses" will be charged $2,000.

On Your Decision Form:

1. Enter 1 or 2 depending on your choice.

2. Write down a justification for your selection.

Mini-Case E: The Case of the Personal Email

All employee computers are now connected to the company Internet access and there has been a surge in Email traffic that you suspect is due to personal Email and personal use of the Internet. Although the law is very clear that the logs and records on the hard drives of the corporate computers belong to the company. Email is a non-cash perquisite that some companies permit to their employees. One department manager is concerned that there is a significant amount of "social loafing" associated with personal Email and Internet surfing. It is hard to compute the exact amount of work time used without hiring a specialist to conduct detailed reviews of the usage logs. It is clear that the company must establish a policy on this matter. The concerned department manager wants to have a "no use at any time" policy because he fears that "if you give them an inch they will take a mile." "Where do you draw the line?" he asks.

Discuss the situation with your team and enter:

- a one (1) if you are going to formally permit people to use their own discretion about personal Email and Internet activity.
- a two (2) if you allow employees to use their computers for personal activity only before and after work hours.
- a three (3) if you will not permit personal use of the company computers at any time.

On Your Decision Form:

1. Enter 1, 2 or 3 depending on your choice.

2. Write down a justification for your selection.

Mini-Case F: Health Insurance Decision

A group of employees has approached management with a request from a majority of employees that the firm establish a health insurance plan, paid for by the company. One staff member has pointed out that the plant does not have a union at this point and that this type of situation cannot be ignored nor placed in a committee for a 6 months analysis. The human resource manager has received proposals from an excellent insurance company for different types of plans. While the plans are not top-of-the line- in benefits, they are adequate. The plans are listed below:

- **#1** Do not establish a health plan but contract an all-purpose clinic to treat employees and their dependents for discounted fees. No cost.

- **#2** Establish a health plan for employees only (not dependents). With company paying half the cost and employee paying half the cost. Cost: $3,000 per quarter.

- **#3** Establish a health plan for employees only (not dependents) and pay the full cost. Cost: $6,000 per quarter. Employees could add and pay for dependents at the full dependent cost.

- **#4** Establish a health plan for employees and their dependents. With company paying half the cost and employee paying half the cost. Cost: $5,000 per quarter.

- **#5** Establish a health plan for employees and their dependents and pay the total cost. Cost: $10,000 per quarter.

Make your decision (1-5) and place it on the decision form. If you choose an alternative with a cost, it will appear as “other expense” for the length of the simulation.

On Your Decision Form:

1. Enter 1, 2, 3, 4 or 5 depending on your choice.

2. Write down a justification for your selection.

Mini-Case G: Going International

The Marketing Director brought up the idea of becoming an international company by exporting your product. The choice of a location is not a factor in this decision but the *method* of marketing your product in that country is.

The following choices are available to you:

- #1 Do not export at this time. You feel you need to continue and expand in your current markets and exporting would require precious capital and managerial resources.

- #2 Contract with a broker in the foreign country to handle your product as part of his line. He calls on the types of stores that would carry your product. The advantage of this alternative is that it costs nothing, as the broker would be paid a commission on each sale. The disadvantage is that you have no way of telling how hard the broker is trying to sell your line versus the other competing products he offers to his customers. It is estimated that he may be able to increase your current sales 1% to 5%. All brokers require a one-year contract as your only representative.

- #3 Hire a salesperson in that country to market your product there. The cost would be $15,000 per quarter (in other expenses) for salary. It is estimated the salesperson would be able to increase your current sales by 5 to 20% within two quarters.

- #4 Establish a sales office and stocking warehouse in the country. This would allow immediate shipments of goods to the customer, saving days as compared to alternatives #2 and #3 above. The cost would be $25,000 per quarter (in other expenses). It is estimated this alternative could increase sales 10% to 30% of your current sales.

On Your Decision Form:

1. Enter 1, 2, 3 or 4 depending on your choice.

2. Write down a justification for your selection.

Mini-Case H: Selection of a Country for International Sales

You have the choice of several countries to begin marketing activities and open up sales to the country. The alternatives are listed below. Although you may not enter the country immediately, the President wants your group to select a country so you would be ready if the decision were made.

Country Selection for Exporting				
Selection Factors	**Country #1**	**Country #2**	**Country #3**	**Country #4**
Language - Same as ours or Different	Same	Different	Different	Different
Annual Economic Growth Rate	1%	3%	5%	8%
Level of Taxes and Tariffs	Moderate	Moderate	Higher	Highest
Currency Strength Vs Our Currency	Equal	Stronger	Stronger	Weaker
Ease and Cost of Exporting to this country 0=Somewhat Difficult 10=Easy	9	8	7	6
Stability of Government 0=unstable 10=very stable	10	9	7	6
% Literacy Rate	93%	96%	92%	80%
Relative Affluence 0=poor 10=same as your country	10	8	7	5

Make a selection of the country you would enter. You must make the selection whether or not you think your firm should export.

On Your Decision Form:

1. Enter 1, 2, 3 or 4 depending on your choice.

2. Write down a justification for your selection.

Mini-Case I: Time Management and Goal Setting

The firm you are managing is relatively small and therefore you have a small staff. In assuming management of the firm a few tasks need to be accomplished as soon as possible so that you can get the firm operating as efficiently as possible. The tasks that need to be accomplished are listed below. Your team should rank order these tasks from the choices below.

1. Review the marketing plans and expedite marketing and sales of the product.

2. Review the production operations of the firm and make the shifts necessary for producing the highest quality product and the lowest cost.

3. Review the packaging, warehousing and shipping of the product to assure the product is promptly shipped to customers without delays.

4. Review personnel record of all employees to get a feel for the strengths and weaknesses of the human resources in the organization.

Even though your team would like to attend to <u>all</u> these matters, you are being asked to prioritize them. Rank order the four items and place your choice on the decision form (do not use commas or spaces). Example: 1342, 3421, 1243, etc.

On Your Decision Form:

1. Enter 1342, 3421, 1234, etc. Depending on your choice. If entering decision on a paper form, do not forget to add this into the verification total. *Note: your verification total will be a large amount – do not be alarmed!*

2. Write down a justification for your selection.

Mini-Case J: Business Ethics

Business is built on the principle of giving the customer a safe product or service at a fair price. The minimum level of business ethics is to obey all laws and regulations relating to one's business. Then comes behavior, which is legal but perhaps not ethical. Next there is a gray area of ethical behavior in which decisions are difficult to make. Finally, there is behavior which is clearly ethical, in which the firm could pass the "TV rule." (The firm so conducts its business that all of its actions could be disclosed to the public on TV without fear of any condemnation.)

The situation faced by your team today is one in the gray area of ethics. The sales force has reported that some retailers have had the latest model of your digital media player returned because of a problem with releasing the media card. A check of 100 units off the production line showed that five had the potential to be defective and one was defective. The defect could do no bodily harm to the user unless he or she tried to dislodge the media card and got their finger cut or scraped. Luckily, it is a new model and there have only been 5,000 units sold. Steps have been taken to correct the problem immediately on units coming off the production line. A meeting of your staff produced nothing except very diverse opinions as to what action to take. The alternatives appear below.

#1 Recall all units of that model, inspect them and either return it or replace it, as required. Your legal counsel has recommended this action. Cost $20,000

#2 Place ads in stores and a few newspapers announcing a voluntary recall. Only customers who would happen to see the ads would return the units. Cost $10,000

#3 Adopt an unwritten policy to repair (without cost to purchaser) any defective unit that is sent back to the factory. This would be in effect as long as the units were in consumers' hands. This is known as a "secret warranty" and no notice of the extension is given. No recall notice is given. Cost $1,000 to repair the few units that may come in.

#4 Stand behind your usual 180-day warranty. No recall would be made. If a unit comes in after the 180 days, the customer would be charged for the repair. No cost.

Discuss with your team and enter your decision (1-4) on the decision form. Although you may think of a better alternative, in a simulation the menu of choices must be adhered to.

On Your Decision Form:

1. Enter 1, 2, 3 or 4 depending on your choice.

2. Write down a justification for your selection.

Mini-Case K: Technology

At a department head's meeting the production manager brought up the topic of "Catching up with the 21st Century." He noted that while the firm was producing a widget with the latest features, the firm was behind in some areas of technology. By the time everyone had spoken at the meeting, several proposals had been made concerning utilization of new technology. They are listed below.

A. Equip the sales force with laptops and modems and LAN connection capability so orders can be placed immediately, prices confirmed and an approximate order date can be provided immediately to the customer. Cost $2,000

B. Place the purchasing system on the company Intranet and allow all employees to purchase any item where purchasing has already established a contract with automatic flow of the order directly to the supplier. A great deal of time and some cost savings would occur. Cost $4,000.

C. Purchase a new CAD (Computer Assisted Design) system, which would allow us to trade designs with our lead customer and our lead supplier. We could shorten the development time and reduce the error of designing something too expensive to build or to maintain. Cost $8,000.

D. Establish through a third party that already sells at retail on the Internet, the ability to sell your widgets via two pages in the third party's on-line catalog. This is admittedly a small step toward E Commerce but the manager who made the proposal advocated a test run of this type to ascertain what the potential is. Cost $16,000.

E. Establish an E-Commerce site that would sell exclusively your widget. The site would feature full color web pages with all product specifications listed. It would compare your widget with those of your closest competitors and show the superiority of your unit. Customers could order directly online. Cost $32,000.

All of the proposals above have pluses and minuses. Your team should discuss them and enter the *total cost* of any proposals you want to activate. Since the costs are unique numbers, the computer program can sort out which you want. For example, if you want to implement A and C, enter $10,000 ($2,000 + $8,000) on the decision form. (Valid entries are $0 to 62)

On Your Decision Form:

1. Enter 0 to 62 (no thousands) depending on your choice. *Note: do not place the alphabetic letters on your decision form (a, b, c, etc.), as the program will not accept them.*

2. Write down a justification for your selection.