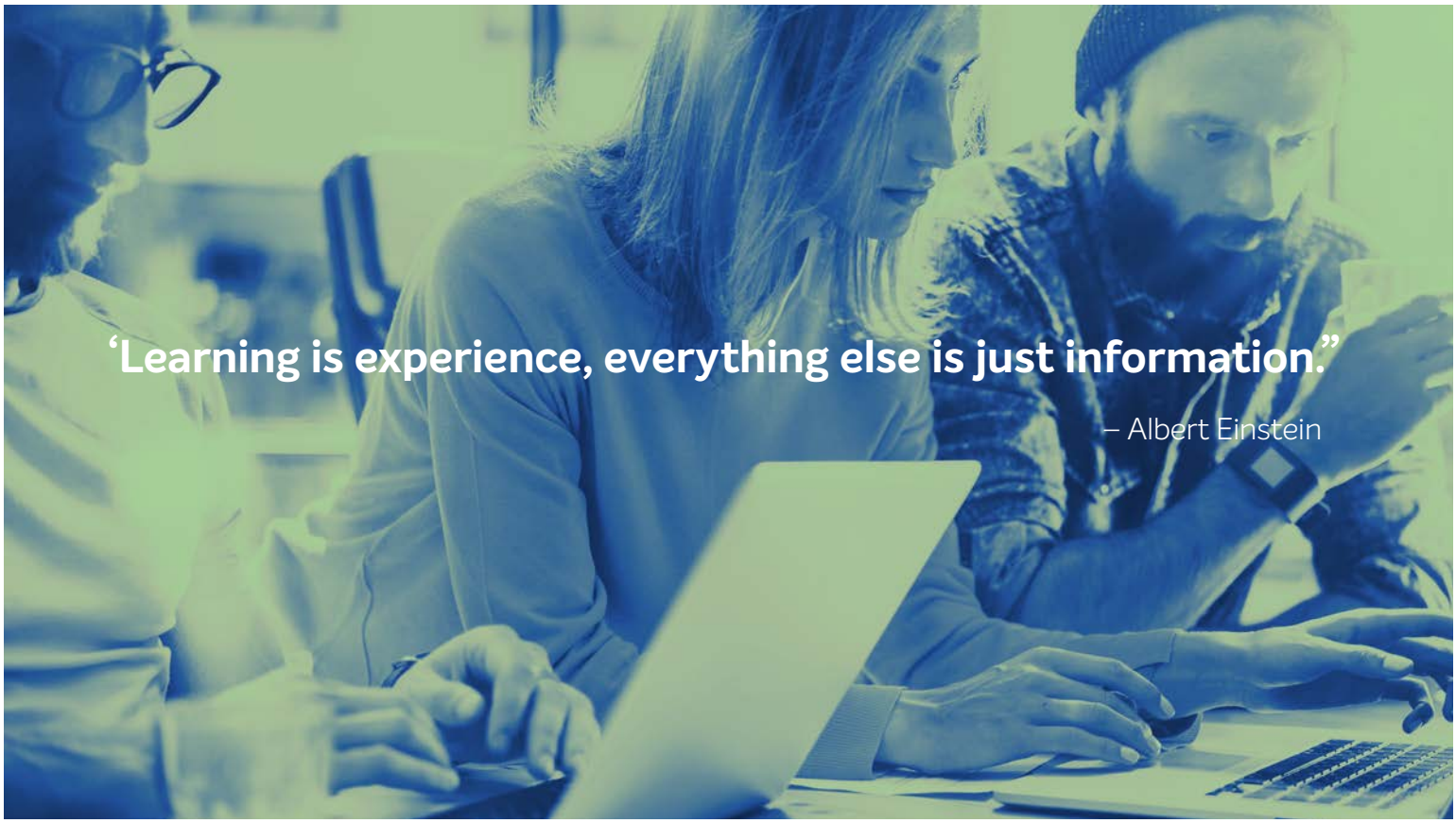
zoomsim

ZOOM Business Simulation

STUDENT MANUAL



Sometimes textbooks are not enough

This simulation is designed to help students learn how business decisions affect financial statements. Zoom simulation will also demonstrate how shareholders and investors rate their actions.

Your team is going to take over an automobile company that has been in business for only one year. Your new management team needs to make all the right decisions to increase profits, sales, earnings per share, return on equity, return on assets and increase market share. Your team has to make all the important decisions including analyzing customer expectations, buying criteria, enhancement of car designs, sales forecast, and setting sales price.

Additional decisions include:

- Developing a marketing mix
- Managing an advertising budget
- Manage your production department
- Purchase new plant and equipment
- Set your production goals

Important financial decisions include:

- Raising capital
- Managing a capital structure
- Retiring stock

Each team will analyze company performance based on financial ratios and statements, utilizing this information to enhance profitability and impress shareholders and investment analysts.

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ZOOM Simulation

- INTUITIVE
- EASY TO LEARN
- COMPETE AGAINST CLASSMATES
- LEARN HOW COMPANY DECISIONS AFFECT FINANCIAL STATEMENTS
- LEARN HOW SHAREHOLDERS AND ANALYSTS VIEW A COMPANY'S PERFORMANCE

GETTING STARTED

STEP 1

STUDENT REGISTRATION

Create your username/password login.

STEP 2

PAYMENT

Use activation code from your new Wiley textbook or a credit card.

STEP 3

CLASS CODE

This will be supplied by your instructor.

STEP 4

JOIN A TEAM/COMPANY

Join an existing team or create a new one.

For customer service requests, please email *support@zoomsim.net*

DESIGNING AND DEVELOPING EACH VEHICLE

With every new year your customers will want faster, safer, more luxurious, more efficient and more reliable vehicles. On the right side of the sales department page an annual survey of customer expectation ranges for each type of vehicle will be displayed.

As you develop your vehicle characteristics each year, your labor and material costs will accumulate in the **Total Direct Costs** field. Once you enter in your sales price, your Gross Profit Margin will then calculate.

Your team is free to exceed customer expectations to increase demand.

Economy Class Auto Y-1

	Development Decisions	Customer Expectation Range	Importance Factor
	Y-1 Decisions		
Fuel Economy:	30	26 to 30 mpg	25 %
Engine Power:	75	75 to 100 hp	5 %
Safety Features:	40	30 to 40 types	15 %
Luxury Features:	10	10 to 20 types	5 %
Reliability:	25	20 to 30 months	10 %
Labor Cost:	3,425		
Material Cost:	8,550		
Operational Cost Reduction:	0		
Total Direct Costs:	11,975		
Sales Price:	19,000	$15,000 to $20,000	25 %
Gross Profit %:	36.97%		
Sales Forecast:	2,000		
Last Year's Sales:	1750		

FORECASTING SALES

The Sales Department must determine each vehicle's "Sales Forecast": Keep in mind that your team is taking over a company that has been operating for one year.

The sales forecast will be broken out by each vehicle class. Each Class has its own sales growth rates and customer expectations. Customer demand for each vehicle class will also vary.

For each class, the Sales Department needs to determine a sales forecast by analyzing:

- **Last year's sales units**
- **This years new sales price**
- **Your vehicle's design vs. the competition**
- **Your target demographics**
- **The allocation of advertising dollars**

Vehicle Class Growth Rates

ECONOMY

Growth rate for this class is 25% per year.

SEDAN

Growth rate for this class is 30% per year.

TRUCK

Growth rate for this class is 20% per year.

LUXURY

Growth rate for this class is 35% per year.

TIP Try to forecast demand by keeping track of the growth of each vehicle class.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
ECONOMY	1750	2188	2734	3418	4272	5341	6676
SEDAN	2000	2600	3380	4394	5712	7426	9654
TRUCK	1500	1800	2160	2592	3110	3732	4479
LUXURY	1250	1688	2278	3075	4152	5605	7567

If you fail to meet or exceed customer expectations, or other companies have more effective advertising, or if other companies build better cars with lower prices, you may fail to sustain your company's market share. The table above shows the average number of cars sold per round. These figures are just an estimate, your actual sales will be determined by your decisions in each round.

The Marketing Department must set the Demographic Targets for age and income, and set specific allocations of advertising dollars.

TIP

Advertising is the most powerful sales tool any company can utilize.

Investing money in advertising will help your company to promote its vehicles.

Money spent properly will help to increase sales and help to build a brand name and identity.

Advertising will also communicate changes or new product designs to potential customers.

Advertising is an essential element of this simulation helping to enhance your company's revenues. The chart (on the following page) details each category's advertising effectiveness rate. The higher the rate the more effective the medium.

Use this as a guide to help allocate your advertising dollars.

ADVERTISING MEDIA

Medium (%'s of effectiveness)	Economy	Sedan	Truck	Luxury
NEWSPAPER	10%	10%	10%	10%
INTERNET	25%	25%	25%	25%
DIRECT MAIL	5%	5%	5%	5%
TELEVISION	55%	55%	55%	55%
RADIO	5%	5%	5%	5%
TOTAL ADVERTISING COST	100%	100%	100%	100%

Enter in dollar amounts based on the, %'s of effectiveness, and budget expectation ranges	Economy	Sedan	Truck	Luxury
NEWSPAPERS	100,000	100,000	150,000	150,000
INTERNET	250,000	250,000	300,000	350,000
DIRECT MAIL	25,000	25,000	50,000	50,000
TELEVISION	400,000	500,000	600,000	700,000
RADIO	25,000	50,000	50,000	50,000
TOTAL ADVERTISING COST	800,000	925,000	1,150,000	1,300,000

ADVERTISING INDUSTRY REPORT

Each year a report from an independent advertising research firm will publish the industry advertising budget expectation ranges. This will be displayed each round on the marketing department page. Use this research to help you determine your advertising budget.

The importance factor measures the overall effectiveness of advertising by class. Advertising greatly above the high-end of the range will not be as effective, this can produce diminishing returns.

INDUSTRY ADVERTISING BUDGET EXPECTATION RANGES

(the range amount will change depending on the round)

	Range	Importance Factor
Economy Advertising:	$2,000,000 to $2,500,000	15%
Sedan Advertising:	$2,000,000 to $3,000,000	20%
Truck Advertising:	$3,200,000 to $4,200,000	25%
Luxury Advertising:	$3,000,000 to $5,000,000	20%

ADVERTISING SLOGAN AND STRATEGY

The marketing Department for each company will create their own advertising slogan and unique strategy.

ADVERTISING SLOGAN

Advertising slogans are short, often memorable phrases used in advertising campaigns. They are often the most effective means of drawing attention to one or more aspects of a product.

ADVERTISING STRATEGY

An advertising strategy can be defined as a blueprint to help sell your product to consumers. There are almost as many different advertising strategies are there are products to advertise, and each company follows its own unique strategy plans.

PRODUCTION DEPARTMENT

During Year-0 your company experienced a significant loss in production capacity due to a natural disaster which destroyed product plants.

As a result, each vehicle class starts off with one production plant that can produce 1,000 vehicles per year.

Year-0 sales were higher than your starting production capacity in Year-1, so you will need to pur chase additional production plants to expand your production capabilities in the current year.

Each new plant will cost ten million dollars.

This investment will add to your total fixed assets on your balance sheet.

Each round you will have to state the amount of cars you wish to produce.

HINT Make sure your remaining Inventory and the cars you produce equal your sales forecast, this will help ensure better earnings estimates.

If you over produce you will see an excess amount in the Excess/Shortage field.
If you under produce you will see an shortage amount in the Excess/Shortage field.
If you want an accurate Pro forma Statement the Excess/Shortage field should equal zero.

Sales Forecast:	2,500	3,000	2,500
Current Inventory:	18	705	197
Production:	2,482	2,300	1,803
Excess/Shortage:	0	5	0

RESEARCH AND DEVELOPMENT BONUSES

Each round you can chose to invest in research that will result in a reduction in the total direct costs of producing each vehicle. The cost is two million dollars per level. These cost reductions will be evident in your Sales Department in the following year of operation.

This investment will add to your total fixed assets on your balance sheet.

You can only increase to a maximum of ten levels per car per research and development category.

Each level will continue to reduce costs year after year.

Be careful not to spend too much in any one single round, this could have adverse effects on your ratios, and your available cash.

Research and Development Categories

There are four areas where you can conduct research and development:

ELECTRIC/HYBRID TECHNOLOGY

Each level reduces the cost of increasing fuel economy by 300 per car.

PRODUCTION ROBOTICS

Each level reduces labor costs by 300 per car.

EQUIPMENT ENHANCEMENTS

Reduces material costs by 150 and labor cost by 150 per car/level.

EFFICIENCY SOFTWARE INVESTMENTS

Reduces material costs by 150 and labor cost by 150 per car/level.

HINT The earlier you invest in R&D, the greater the overall cost saving benefits received will be.

Why is it IMPORTANT to keep making INVESTMENTS in R&D?

It is important for companies to remain competitive. Investments in new technologies help to keep material costs of manufacturing down by reducing waste and improving the efficiency of material utilization.

Robotics and equipment enhancements help to reduce labor hours,and improve employee safety.

Replacing repetitive and dangerous time consuming tasks with robotics will improve a company's overall performance.

Investments in efficiency enterprise wide software will help to improve the overall management of materials and encourage efficiencies in manufacturing.

FINANCE DEPARTMENT

Running a company and funding the activities of each department, sales, marketing and production all require money.

The Finance Department is responsible for supplying the cash needed to keep things running smoothly.

If the current cash is insufficient, the Finance Department will have to raise capital.

There are three sources of new capital/money:

1. ***Long Term Debt***
2. ***Short Term Debt***
3. ***Stock Equity***

Raise money by entering an amount in the *"Additional Funds"* field.

To return the money enter an amount in the *"Retire Funds"* field.

Retiring funds will help lower your debt to equity level and lower your interest expense.

Buying back stock will help to increase your EPS and ROE.

The SEC limits the amount of stock you can buyback each round.

TIP Raising capital has its costs, the more money you borrow, the higher your interest rate. The more stock you issue, the lower your EPS.

CAPITAL STRUCTURE EXAMPLE SCREEN SHOT

Capital Structure	Last Year	Additional Funds	Retire Funds	Next Year
Long Term Debt	7,000,000	0	0	7,000,000
Interest Charge	7.00%			7.00%
Short Term Debt	5,000,000	0	0	5,000,000
Interest Charge	5%			5.00%
Stock Equity	50,000,000	0	0	50,000,000
Outstanding Shares	10,000,000			10,000,000
Stock Price	5.00			5.05
EPS	1.90			0.02
Total	62,000,000	0	0	62,000,000

FINANCIAL STATEMENTS

Each round, the prior year's financial statements will be displayed.

As you complete your decisions for each round, the Pro forma financial statements will be created.

The Pro forma is an estimation of next years financial statements, these statements are a planning tool. They will allow you to understand the results of your decisions.

If your sales forecasts don't become realized your actual financial statements will be different.

So take care to plan for variances between your forecasted sales and your actual sales by having a cash surplus on your Pro forma Statements to cover any sales shortfalls.

"Financial statements are important to shareholders, potential investors and financial institutions."

If your sales forecast and current inventory plus production don't match, your Pro forma will be inaccurate.

BALANCE SHEET

A balance sheet or statement of financial position is a summary of a company's financial positions.

Assets, liabilities and ownership equity are listed as of a specific date, end of a quarter or year.

A balance sheet is often described as a snapshot of a company's financial condition.

"Accounts receivable is estimated to be 11% of sales. Accounts payable is estimated to be 5% of cogs of the Pro forma balance sheet."

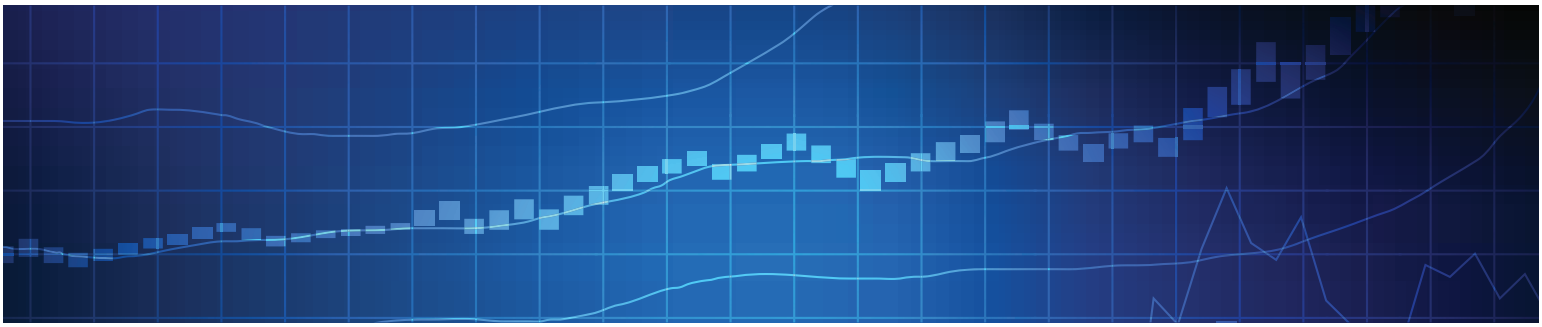
The balance sheet is the only statement which applies to a single point in time.

A company balance sheet has three parts: assets, liabilities and ownership equity.

The main categories of assets are usually listed first and are followed by the liabilities.

The difference between the assets and the liabilities is known as equity or the net assets or the net worth of the company.

According to the accounting equation, net worth must equal assets minus liabilities.



INCOME STATEMENT

Income statement, also called **profit and loss statement** (P&L), is a company's financial statement that indicates how the revenue (money received from the sale of products and services before expenses are taken out), is transformed into the net income (the result after all revenues and expenses have been accounted for, also known as the *"bottom line"*).

The purpose of the income statement is to show managers and investors whether the company made or lost money during the period being reported.

The important thing to remember about an income statement is that it represents a period of time.

This contrasts with the balance sheet, which represents a single moment in time. At the bottom of the financial statements is an estimate of *"Additional Funds Needed"* to balance the financial statements. Raise or retire capital to meet your funding requirements. A total Cash Surplus or Deficit will be displayed at the bottom. Each year the cash on the balance sheet is reset to twenty five million.

Any surplus or deficit will be displayed at the bottom of the page. Click the button, *"Submit Financial Data & Complete the Round"* to submit and save your work for that round.

Once all teams have submitted their decisions, your professor will release the round. Only then may you proceed to the next round.

"On the Pro forma income statement, general and administration expense is estimated to be 9% of sales, depreciation expense is 5% of fixed assets & fixed costs is 10% of fixed assets."

ANALYZING THE RESULTS

"The Pro forma cash is also set to the twenty-five million to match the desired ending cash balance."

After round one you will be able to view the *"Overview"* page.

This page will detail your results; calculate your (YOY) year over year change for key financial indicators, ratios and forecasting accuracy.

Each round your total points will be calculated and displayed at the bottom of the overview page, and on the industry data page.

Earn or lose one point for every percentage change year over year.

Use the overview page to analyze your performance. Each indicator should be constantly increasing each year. (Except the Debt Ratio)

If any indicator decreases take the time to understand why, and what you can do to improve the number.

OVERVIEW RATIOS

REVENUE P/S = Sales / Outstanding Shares
QUICK RATIO = (Current Assets—Inventory) / Current Liabilities
DEBT RATIO = Total liabilities / Total Assets
GROSS PROFIT = Gross Profit / Sales
OPERATING PROFIT = EBIT / Sales
NET PROFIT MARGIN = Net Profit / Sales
TOTAL ASSET TURNOVER TAT = Sales / Total Assets
EQUITY MULTIPLIER ROI = Total Assets / Total Stockholders Equity
RETURN ON EQUITY ROE = Net Income / Total Stockholders Equity
EARNINGS PER SHARE EPS = Net Income / Outstanding Shares
RETURN ON ASSETS ROA = Net Income / Total Assets
MARKET CAPITALIZATION = Stock Price * Outstanding Shares
BOOK VALUE P/S = Total Stockholder Equity / Outstanding Shares

TIP The goal of every manager is to maximize shareholders long term wealth.

Year Over Year Forecast Estimates

For each vehicle model the overview page will measure your success at forecasting sales.

- **Sales Vs Forecast – Economy**
- **Sales Vs Forecast – Sedan**
- **Sales Vs Forecast – Truck**
- **Sales Vs Forecast – Luxury**

You may be tempted to under forecast your sales in order to gain a points advantage. If you try to intentionally under forecast sales and produce more vehicles on the production page than you forecast you will generate an inaccurate Pro forma financial statement. Your estimated sales, profit margins, assets, inventory, net profits, equity and surplus/excess cash will be incorrect.

INDUSTRY DATA

The industry data page will detail the production specifics, sales price, sales quantity, and market potential of each vehicle for every company in your industry.

Use this data to size up your competition. Analyze the data to help you make new vehicle enhancements to remain competitive each round.

Each round you will also be able to see the total Sales Dollars, Cost of Goods Sold, Advertising Costs, Operating Profits EBIT, Net Profits, EPS and Stock Price for each company in your industry.

Use this data to judge how successful your overall strategy is. You will also get each firms list of financial indicators and ratios. As well as their Sales Vs. Forecast results.

	Economy	Sedan	Truck	Luxury
Fuel Economy:	30	20	18	20
Engine Power:	80	120	210	165
Safety Features:	35	40	22	30
Luxury Features:	15	40	25	90
Reliability:	25	30	25	40
Labor Cost:	3,575	5,300	6,830	7,575
Material Cost:	8,825	10,300	13,815	13,600
Operational Cost Reduction:	0	0	0	0
Total Direct Costs:	12,400	15,600	20,645	21,175
Sales Price:	20,000	25,000	39,000	45,000
Gross Profit %:	38%	37.6%	47.06%	52.94%
Sales Units	2000	2471	1628	1637
Market Potential %	19.28%	19.01%	18.09%	19.40%

This is very valuable information that details how your performance compares to your competitors.

Each years points earned from the overview page are totaled.

Charts & Graphs

After each round you will be able to view charts and graphs that detail your performance.

The charts display both individual gains and comparisons to the entire industry. You will be able to review your sales, net profits and points per year. Follow your stock price and see how your stock compares to the competition's stock prices.

You will also be able to see the sales volume by vehicle class. The market demand graph will display your market potential (the amount of cars you could have sold) and your actual sales.

You can also track your overview points against those of competing firms.

TIP Use the charts and graphs to quickly review your performance against other car companies.

VARIOUS CHARTS & GRAPHS

Who Is The Overall Winner?

Your instructor will determine which company becomes the overall winner.

Some instructors use total points from the industry page to determine the winner, while others look at stock price, EPS, retained earnings, or a combination of these.

It is important to discuss with your team what your overall goals are for your performance and how you will attain them.

President

The president must be the leader of the group, organizing and review each rounds efforts.

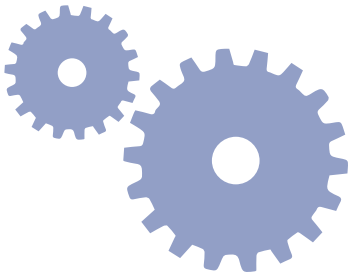
You are responsible for coming up with the company's mission statement.

You are also responsible for reviewing and submitting the company's decisions each round. You need to develop an overall strategy for your company.

You are responsible for analyzing and reviewing all the overview year over year (YOY) ratios.

You are the record keeper of each round and must print out each page of the simulation.

You will need this data to build the annual report at the end of the simulation.



Vice President of Production

You are responsible for maintaining the proper capacity and setting the production goals.

You must also allocate the research and development dollars.

You are responsible for analyzing the following year over year (YOY) ratios: ***Total Asset Turnover, Equity Multiplier ROI, Quick Ratio and Return on Assets.***

Vice President of Marketing

You are responsible for creating the Advertising Slogan & Advertising Strategy.

Setting the demographic targets and allocating the advertising investment dollars. Both must reflect the overall strategy of your company.

You are responsible for analyzing the following year over year (YOY) ratios: ***Market share and Operating Profit Margins.***

Vice President of Sales

You are responsible for redesigning the vehicles each round. Your designs must reflect the overall strategy of your company.

You are responsible for analyzing the following year over year (YOY) ratios: ***Revenue P/S, Gross Profit Margin and Sales vs. Forecast.***

Vice President of Finance

You are responsible for the capital structure of the company.

You must also analyze the Pro forma financial statement for profitability.

You are responsible for analyzing the following year over year (YOY) ratios: ***Gross Profit Margin, Operational Profit Margin, Net Profit Margin, Return on Equity, Return on Assets, Return on Investment, Earnings Per Share, Market Capitalization, Book value P/S, and Debt Ratio.***

TEAMWORK

Effective teamwork will not take the place of knowing how to do the job or how to manage the work. Poor teamwork, however, can hinder performance and prevent members from gaining any satisfaction from being a member of the team.

"Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives. It is the fuel that allows common people to attain uncommon results."

– Andrew Carnegie