BPA PROJECT

Financial Analyst Team

FAT

Description: This project is based on the "Financial Analyst Team" event for 2020-21. The topic for this project is attached. Your team will prepare the following documents:

1. Google Sheets with an income statement and balance sheet for all five years of data provided (see the "ENTR Analyzing Finances" handout for a sample layout for the financial statements). Also include ratio calculations (your choice of ratios) for all five years.
2. Google Slides outlining your analysis of ratios and trends, along with summary of the data in your spreadsheets, as well as your conclusions. You will make a 5-minute oral presentation to the class, and respond to questions.

Finished Product: <u>Email/Share</u> your finished documents by the beginning of class on Friday, November 13. Note: for a 5-minute presentation, you should plan on about 15 slides.

Grading: This project is worth a total of 300 points.

Work Days: November 10, 11, 12, 13

Due Date: The project is due by the beginning of class on Friday, November 13.

<u>Tuesday, November 10</u>
- Picking Teams and Reviewing the Case
- Talk to Mr. Clark about Your Ideas
- Prepare Your Game Plan!

<u>Wednesday, November 11</u>
- Analyzing the Case
- Working on Google Sheets
- Sit Down with Mr. Clark with Questions and a Status Update

<u>Thursday, November 12</u>
- Finalizing the Google Sheets
- Working on the Slides
- Finish the Project and Practice

<u>Friday, November 13</u>
- Presentations

Initial Case Study Topic:
The Stock-Up Paper Co. was started as a small, private corporation in 2000 in the Scranton, Ohio area. Scott, the Founder and CEO, began by selling paper products to local businesses with just three employees. Over the past twenty years, the company was so successful at selling paper products that they began selling all office products; by 2020, the Stock-Up Paper Co. was a leading distributor of all office products in the Ohio region.

Stock-Up first differentiated itself from big box competitors by the high level of customer service they provide. Each customer was assigned to their own personal salesperson who took the time to get to know their customers and their needs. Stock-Up now employs six sales people; all salespersons are paid a base salary plus a commission of 5% of their sales. The salespeople are authorized to make small concessions to larger customers in an effort to provide top-level customer service. Dan, the Sales Manager, believes that these concessions are immaterial and do not significantly impact the profitability of the company; although they do significantly impact the satisfaction of the customers.

In 2010 Stock-Up introduced a website with a sales portal where customers can place their orders directly through the website without going through a salesperson. The website has been very popular, and Stock-Up saw an increase in sales; however most of the long-time customers still prefer to place their orders through their personal salesperson. Despite the fact that sales have been steadily increasing, profit margins keep shrinking and in 2020, Stock-Up posted its first loss.

Selected Financial Data
Fiscal Year End 2020

Sales	16,359,417
Cost of Goods Sold	13,669,686
Warehouse Expenses (including personnel)	869,855
Freight-Out	504,191
Sales Personnel Expenses	540,993
Other Operating Expenses	769,855
Interest Expense	46,191

Stock-Up's accountant, Lynn, further analyzed sales from the past year and discovered that almost half of all sales were from Internet orders, while the other half were placed through the salespeople. However, when Scott looked at the number of orders, almost 85% of all orders were placed through salespeople. Internet customers tended to place fewer, larger orders while those ordering through their personal salesperson tended to place smaller orders more frequently. Each order is manually packed once it is placed by the warehouse personnel. Rob, the Warehouse Manager, is concerned because the warehouse personnel are currently working at maximum capacity; and if sales continue to increase, they will need to hire more workers. The warehouse is already working overtime a couple of weekends a month just to keep up with the current demand. Stock-Up uses a commercial shipping company to ship all orders, and charges customers 2% of the total order for shipping.

Lynn also noticed that the majority of Internet customers paid for their orders at the time of sale, while the customers who placed their orders with their salesperson took advantage of Stock-Up's offer to be billed for their orders. The average level of Accounts Receivable for Internet orders was $9,000 last year, but it was $30,000 for those that placed their orders through the salespeople. In addition, Lynn noticed that the Internet customers tended to pay their bills within 30 days, while the other customers often took up to 90 days to pay. Stock-Up maintains a line of credit with their local bank that they use to help make ends meet if cash flows run short. Lately, Stock-Up has had to rely on this line of credit more. Considering that Stock-Up's line of credit charges 10% on the outstanding balance, Lynn thought this might be significant.

The Stock-Up Paper Co.'s CEO, Scott, has hired your firm to further analyze the company's business activities and make recommendations about how to reverse their recent profit slide. Your presentation should include, but is not limited to, Stock-Up's current financial position and your specific recommendations to improve profitability.

FINANCIAL RATIOS

ROUND ALL ANSWERS TO TWO DECIMALS
UNLESS REQUESTED OTHERWISE IN THE PROBLEM

LIQUIDITY RATIOS (and Working Capital)

You want current and quick ratios to be > 1

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$ #

$$\text{Quick Ratio} = \frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$$ #

$$\text{Cash Ratio} = \frac{\text{Cash + Cash Equiv. + Investments}}{\text{Current Liabilities}}$$ #

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$ $

ASSET MANAGEMENT RATIOS

You want turnover ratios to be as high as possible

$$\text{Inventory Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Inventory}}$$ #

$$\text{Total Assets Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Total Assets}}$$ #

$$\text{Accounts Receivable Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Accounts Receivable*}}$$ #

* same as net receivables

DEBT MANAGEMENT RATIOS

You want debt ratio to be low and TIE ratio to be high

$$\text{Debt Ratio} = \frac{\text{Total Debt*}}{\text{Total Assets}}$$ #

* all payables plus long-term debt

$$\text{Times Interest Earned Ratio} = \frac{\text{Income from Operations}}{\text{Interest Expense}}$$ #

PROFITABILITY RATIOS

You want all profitability ratios to be high

$$\text{Profit Margin on Sales Ratio} = \frac{\text{Net Income}}{\text{Sales (or Revenues)}}$$ %

$$\text{ROA} = \text{Return on Assets Ratio} = \frac{\text{Net Income}}{\text{Total Assets}}$$ %

(ROA is sometimes called "Return on Investment")

$$\text{ROE} = \text{Return on Equity Ratio} = \frac{\text{Net Income}}{\text{Stockholders' Equity}}$$ %

MARKET PERFORMANCE RATIOS

You want EPS to be high; P/E depends on the industry

$$\text{EPS} = \text{Earnings Per Share} = \frac{\text{Net Income}}{\text{\# of Shares Issued}}$$ $

$$\text{P/E Ratio} = \text{Price Earnings Ratio} = \frac{\text{Stock Price}}{\text{Earnings Per Share}}$$ #

$$\text{Market to Book Ratio} = \frac{\text{Market Stock Price}}{\text{Book Value Per Share*}}$$ #

* book value per share is calculated by dividing stockholders' equity by the number of shares issued.

Ratio Analysis

SAMPLE BALANCE SHEET

ASSETS	
Current Assets	
Cash	$ 100
Accounts Receivable	200
Pre-Paid Expenses	100
Inventory	150
Supplies	50
Total Current Assets	600
Long-Term Assets	
Equipment	650
Less: Accumulated Depreciation	(500)
Total Long-Term Assets	9,400
Total Assets	$ 10,000
LIABILITIES AND OWNERS' EQUITY	
Current Liabilities	
Accounts Payable*	$ 900
Other Payables*	550
Total Current Liabilities	1,600
Long-Term Liabilities	
Long-Term Debt*	4,500
Other LT Liabilities	1,000
Total Long-Term Liabilities	5,500
Stockholders' Equity	
Common Stock	2,000
Retained Earnings	900
Total Stockholders' Equity	2,900
Total Liabilities & Stockholders' Equity	$ 10,000

* Included in Total Debt

SAMPLE INCOME STATEMENT

Sales (or Revenues)		$ 1,000
Cost of Goods Sold		300
Gross Profit		700
Operating Expenses:		
Expense #1	25	
Expense #2	50	
Interest Expense	125	200
Income from Operations		500
Unusual Items: Gains or (Losses)		(100)
Income Before Taxes		400
Income Tax Expense		100
Net Income		$ 300