BA 203 – Financial Accounting
Fall 2020-2021

Case Study Guidelines

- **Due Date: December 30, 2020- Wednesday 23:59**
- There are two parts in this case study. First and second parts are 30 and 70 points, respectively.
- You can work on the case as a group of two students (choose a partner from your own section). If you want to submit as a group of two students, you should write both names in the submitted files and submit the same files. **(Both students are required to submit separately.)**
- Show all your work in order to receive partial credit.
- The deliverables of the case study are:
    1. **Case Report - Word file** (which explains your answers to questions in Part 1 and Part 2 step by step)
    2. **Analysis - Excel file for part 2** (Please use excel formulas in your solutions and do not just manually fill the cells in Excel.)
    - The submitted files should be named as: [your names]_Case_Report [for example, isil_yilmaz&burze_yasar_Case_Report)] for word file & : [your names]_Case_Analysis_Part2 for the Excel file.
- Late submissions will not be accepted

Case Study Part 1 (30 points):

The following transactions occurred for Murphy Delivery Service during December 2019:

Dec. 1	Murphy Delivery Service began operations by receiving $20,000 cash and a truck with a fair value of $14,500 from Russ Murphy. The business issued Murphy shares of common stock in exchange for this contribution.
1	Paid $2,400 cash for a one-year insurance policy. The policy begins on December 1.
4	Paid $920 cash for office supplies.
12	Performed delivery services for a customer and received $6,250 cash.
15	Completed a large delivery job, billed the customer, $9,300, and received a promise to collect the $9,300 within one week
18	Paid employee salary, $1,800.
20	Received $8,000 cash for performing delivery services.
22	Collected $4,200 in advance for delivery service to be performed later.
25	Collected $9,300 cash from a customer on account.
27	Purchased fuel for the truck, paying $550 on the account. (Credit Accounts Payable)
28	Performed delivery services on account, $1,400.
29	Paid office rent, $2,500, for the month of December.
30	Paid $350 on the account.
31	Cash dividends of $3,250 were paid to stockholders.

Assume that Murphy Delivery Service started its operations in December 2019 and the beginning balance in all accounts is zero.

Requirements:

1. Record each transaction in the journal using the following chart of accounts. Explanations are not required. **(7 points-0.5 each)**

Cash	Salaries Payable	Depreciation Expense-Truck
Accounts Receivable	Unearned Revenue	Insurance Expense
Office Supplies	Common Stock	Fuel Expense
Prepaid Insurance	Retained Earnings	Rent Expense
Truck	Dividends	Supplies Expense
Accumulated Depreciation-Truck	Service Revenue	
Accounts Payable	Salaries Expense	

2. Post the transactions in the T-accounts. **(3 points)**
3. Prepare an unadjusted trial balance as of December 31, 2019. **(3 points)**
4. Journalize the adjusting entries using the following adjustment data and also by reviewing the journal entries prepared in Requirement 1. Post adjusting entries to the T-accounts. **(3 points-0.5 each)**

    a. Depreciation was recorded on the truck using the straight-line method. Assume a useful life of four years and a residual value of $2,500.
    b. Office Supplies on hand, $340.
    c. Accrued Service Revenue, $750.
    d. Accrued Salaries Expense, $1,200.
    e. Prepaid Insurance for the month has expired.
    f. Unearned Revenue earned during the month, $1,250.

5. Prepare Murphy Delivery Service's income statement and statement of retained earnings for the month ended December 31, 2019, and the classified balance sheet on that date. **(8 points)**
6. Journalize the closing entries, and post to the T-accounts (using the accounts we covered in class). **(3 points)**
7. Prepare a post-closing trial balance as of December 31, 2019. **(3 points**

Case Study Part 2 (70 points):

The second part of the case study requires you to fulfill the following steps by using the data (Income Statements, Balance Sheets and Cash Flow Statements) available in moodle:

Assume that you are employed as an analyst at an international consulting firm. You manager asks you to prepare a report on two firms whose shares are traded on Borsa İstanbul[1], Penguen Gida Sanayi AS and Dardanel Onentas Gida Sanayi AS. Both firms are operating in the Food Processing Sector.

1. Briefly describe the main operations of these companies in your own words (you can use company websites & reports as references) **(4 points)**

2. Generate the Common Size Balance Sheets (% of Assets) and Common Size Income Statements (% of Sales) for both companies. Interpret your findings. **(20 points- 10 points for generating the required statements in excel and a brief explanation of calculation, 10 points for interpretation)**

3. Prepare a horizontal analysis for the main items for both companies. Interpret your findings. **(18 points- 10 points for generating the required analysis in excel and a brief explanation of calculation, 8 points for interpretation)**

4. Calculate at least one liquidity ratio, one profitability ratio, one leverage ratio and one operating performance ratio for both companies for 5 years. Interpret your findings (Compare the calculated ratios with each other and also consider the industry medians given below in your evaluation). **(18 points- 10 points for generating the required analysis in excel and a brief explanation of calculation, 8 points for interpretation)**

Financial Ratio	Industry Median (End of 2019)	Definition
Profitability		
Gross Margin	34.7%	This item is calculated as Gross Profit (Industrial and Utility) for the fiscal year divided by Primary Revenue for the same period, and multiplied by 100.
EBITDA Margin	16.2%	This value represents annual Earnings Before Interest, Taxes and Depreciation expressed as a percent of annual Total Revenue.
Operating Margin	12.2%	This value measures the percent of revenues remaining after paying all operating expenses. It is calculated as annual Operating Income divided by annual Total Revenue, multiplied by 100.
Pretax Margin	11.4%	This item represents Pre-tax Income for the fiscal year as a percentage of Net Revenue, or the percent profit before taxes for the same period.
Effective Tax Rate	16.6%	This value is Total Income Tax for the fiscal year divided by the same period Income Before Taxes and is expressed as a percentage.

[1] To see all listed companies in Borsa İstanbul by sector, visit https://www.kap.org.tr/en/Sektorler

Net Margin	7.7%	Also known as Return on Sales. This value is the Income After Taxes for the fiscal year divided by Total Revenue for the same period and is expressed as a percentage.
DuPont/Earning Power		
Asset Turnover	0.97	The amount of revenue generated for each unit of assets. Also known as TAT. It is calculated as Primary Revenue for the fiscal year divided by the Average Total Assets for the same period.
x Pretax Margin	11.4%	This item represents Pre-tax Income for the fiscal year as a percentage of Net Revenue, or the percent profit before taxes for the same period.
Pretax ROA	11.5%	This item represents the return on assets before taxes. It is calculated as Income Before Tax for the fiscal year divided by the Average Total Assets for the same period and is expressed as percentage.
x Leverage (Assets/Equity)	1.88	This is the ratio of Total Assets for the fiscal year to Common Shareholders Equity for the same period and is expressed as percentage.
Pretax ROE	23.0%	This item represents the return on equity before taxes. It is calculated as Income Before Tax for the fiscal year divided by the Total Equity and is expressed as percentage.
x Tax Complement	0.79	This item represents Net Income Including Extraordinary Items for the fiscal year divided by Income Before Tax for the same period.
ROE	19.2%	This value is calculated as the Net Income Before Extraordinary Items for the fiscal year divided by the same period Average Total Equity and is expressed as a percentage. Average Total Equity is the average of Total Equity at the beginning and the end of the year.
x Earnings Retention	0.55	This is ratio of Retained Earnings to Income Available to Common Excluding Extraordinary Items for the fiscal year and expressed as percentage.
Reinvestment Rate	8.7%	This ratio is calculated by dividing Retained Earnings for the fiscal year by the average Common Shareholders Equity for the same period and is expressed as percentage. Retained Earnings represents Income Available to Common Excluding Extraordinary Items minus Gross Dividends (Common Stock).
Liquidity		
Quick Ratio	0.86	Quick Ratio is defined as Total Current Assets minus Total Inventory for the fiscal year divided by Total Current Liabilities for the same period.
Current Ratio	1.44	This is the ratio of Total Current Assets for the fiscal year divided by Total Current Liabilities for the same period.
Times Interest Earned	11.8	Measures the number of times within a fiscal year the company generates enough operating income to meet its interest payments. It is calculated as Earnings Before Interest and Taxes for the fiscal year divided by Interest Expense for the same period.
Cash Cycle (Days)	50.7	This value represents the sum of Average Inventory (Days) and Average Receivables Collection Period (Days) minus Average Payables Payment Period (Days) for the fiscal year.
Leverage		
Assets/Equity	1.88	This is the ratio of Total Assets for the fiscal year to Common Shareholders Equity for the same period and is expressed as percentage.
Debt/Equity	0.14	This is the ratio of Total Debt as of the end od the fiscal year to Common Shareholders Equity for the same period and is expressed as percentage.
% LT Debt to Total Capital	7.2%	This is the ratio of Long Term Debt divided by Total Capital at the end of the fiscal year and is expressed as percentage. Total Capital is the sum of Total Equity, Total Debt and Minority Interest.
(Total Debt - Cash) / EBITDA	0.40	This is the average Net Debt divided by the EBITDA for the fiscal year. EBITDA is EBIT for the fiscal year plus the same period's Depreciation and

		Amortization expenses.
Operating		
A/R Turnover	13.7	This item measures the number of times Receivables are cycled through in a given period. It is calculated as Primary Revenue for the fiscal year divided by the Average Total Net Receivables for the same period.
Avg. A/R Days	26.6	This item represents Average Receivables Collection Period Ratio for the fiscal year multiplied by 366 days.
Inv Turnover	5.7	This is the ratio of Total Cost of Revenue for the fiscal year to the average Total Inventory for the same period.
Avg. Inventory Days	64.0	This items represents Average Days Inventory (Ratio) for the fiscal year multiplied by Days In Year (366).
Avg. A/P Days	40.4	This item represents Average Payables Payment Period Ratio for the fiscal year multiply by 364 days. Average Payables Payment Period Ratio defined as average Accounts Payable divided by Total Cost of Revenue.
Fixed Asset Turnover	2.63	The amount of revenue generated for each unit of fixed assets. It is calculated as Primary revenue for the fiscal year divided by the sum of Total Net Property, Plant & Equipment and Total Net Utility Plant for the same period.
WC / Sales Growth	(0.0%)	This is the change in Working Capital to Sales for the fiscal year.
Bad Debt Allowance (% of A/R)	2.1%	This is the ratio of Allowance for Doubtful Accounts (ADA) at the end of the fiscal year to Accounts Receivable (A/R) for the same period and is expressed as a percentage.
ROIC	-	This value is calculated as Income After Tax for the fiscal year divided by the same period Average Total Long Term Capital and is expressed as a percentage. Total Long Term Capital represents the sum of Total Equity, Total Long Term Debt, Deferred Income Tax and Total Other Liabilities.
Revenue per Employee (TRY)	-	This is the ratio of Total Revenue for the fiscal year to the average number of Employees (Millions) at the end of the same period.

Source: https://www.thomsonreuters.com/

Additional Explanation on Dupont Analysis :

Reinvestment Rate = $\frac{Retained\ Earnings}{Equity}$

$$\frac{Net\ Sales}{Assets} x \frac{Taxable\ Income}{Net\ Sales} x \frac{Assets}{Equity} x \frac{Net\ Income}{Taxable\ Income} x \frac{Net\ Income - Dividens}{Net\ Income}$$

Total Asset Turnover*Pretax Margin= Pretax ROA
Pretax ROA*Leverage (Assets/Equity)=Pretax ROE
Pretax ROE*Tax Compliment (equal to(1-Tax Rate)=ROE
ROE*Earnings Retention ((Net Income-Dividends)/Net Income)=Reinvestment Rate

5. Based on your analysis through questions 1 to 4, what can you say about these two companies? Which one seems more successful over the past 5 years? Why? (Hint: you can compare the firms in terms of revenue generation, cost control and cash management) Can you think of any recommendations to these companies which may help them to become more profitable? **(10 points)**