Lecture Session #9

Group # 9-8

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**Question 1**

1) Vineland can reverse a proportion of the impairment loss as it is a public company that follows IFRS standards. The fair value of the buildings in 2022 equals $7,000,000, which is higher than the current carrying value of $5,000,000. We can see that the carrying amount of Vineland's buildings would have cost $5,800,000, if the impairment did not occur, so we could conclude that the initial carrying value for the buildings was 5,800,000. However, the loss up until the initial cost and not up until the fair market value can only be recovered. We would need to bring back the carrying value for Vineland's assets back to 5,800,000, the reversal of impairment loss is 800,000 as 5,800,000-5,000,000.

Journal entry:

Buildings 800,000 (debit)

Loss due to impairment 800,000 (credit)

2) Perry will not reverse its impairment loss as it is a private company that bases its accounting principles on ASPE and ASPE prohibits any reversals on impairment loss.

3) Calculation of ratios before the reversal of impairment loss.

1. Profit margin = net income/sales.

Profit margin Vineland = 180,000/2,250,000=0.08

Profit margin Perry = 200,000/2,500,000=0.08

2. Asset turnover ratio = net sales/average total assets.

Asset turnover ratio Vineland = 2,250,000/9,000,000=0.25

Asset turnover ratio Perry = 2,500,000/10,000,000=0.25

3. Return on assets ratio = net income + interest expense / average total assets.

Return on assets ratio Vineland = 180,000/9,000,000=0.02

Return on assets ratio Perry = 200,000/10,000,000=0.02

Calculation of ratios after the reversal of impairment loss.

1. Profit margin = net income/sales.

There will be no change in profit margin as the net income and sales are not affected by the carrying value of the buildings.

Profit targin Vineland = 180,000/2,250,000=0.08

Profit targin Perry = 200,000/2,500,000=0.08

2. Asset turnover ratio = net sales/average total assets.

The asset turnover ratio needs to be adjusted as it includes the value of assets in its calculation. The average value of buildings used for the calculation of 2022 asset turnover ratio is calculated as follows: (the value of buildings in 2021+ the value of buildings in 2022)/2 = ($5,000,000+$5,000,000)/2=$5,000,000. The average total value of assets = $9,000,000, so we could calculate the rest of the assets to be equal to $4,000,000. After the reversal the average value of buildings = ($5,000,000+$5,800,000)/2=$5,400,000. Therefore, we could conclude that the total average value of assets = $5,400,000+$4,000,000=$9,400,000

Asset turnover ratio for Vineland = 2,250,000/9,400,000=0.2394

The asset turnover ratio for Perry won't change as the impairment reversal has not been made.

Asset turnover ratio Perry = 2,500,000/10,000,000=0.25

3. Return on assets ratio = net income + interest expense / average total assets.

Return on assets ratio Vineland = 180,000/9,400,000 (plug-in value) =0.01915

Return on assets ratio for Perry won't change as there has been no reversal of impairment loss.

Return on assets ratio Perry = 200,000/10,000,000=0.02

4) Profit margins for both companies are equal to 0.08. Asset turnover ratio before reversal of the impairment loss is equal to 0.25 for both companies. Likewise, the return on assets ratio is also equal to 0.02 for both companies. However, Vineland's asset turnover ratio equals to 0.2394 and Perry equals to 0.25 after the reversal, which indicates that Perry used its assets more efficiently as it generates approximately 0.0106 (0.25-0.2394) more revenue per dollar of asset. The same trend occurs for return on assets ratios with Vineland and Perry yielding 0.01915 and 0.02, respectively. We can conclude that Perry is more efficient in using its resources when it comes to generating profit as its return on assets ratio is higher than that of Vineland's. As Perry has higher assets turnover and return on assets ratios we can conclude that it performs better as it utilizes its resources more efficiently. However, we should also take into account how these two companies' ratios reflected the same values before the impairment loss reversal and the difference in performance could be explained by different accounting standards.

5) Users would want to first find out which accounting standards the company uses and its implications before coming to conclusions.

**Question 2**

1) Stakeholders of Manitoba Packaging Ltd. - the president - Andy Laidlaw, shareholders, the controller employee.
2) It will not affect the net income for this year as changes in the estimates for residual value and useful life are put into action starting from the beginning of the next year.
3) Profit margin - net income/sales - will increase as the net income will increase due to reduced depreciation expense. Asset turnover ratio - net sales / total average assets - will decrease as the value for total average assets increases as the accumulated depreciation is lower than before the proposed change.
4) It is true that residual value and useful life are just estimates. However, changing the estimates should be based on certain changes that reflect future economic benefits for the asset instead of just for the sake of higher profit and lower expenses. It will definitely be an unethical practice if put into action.

**Question 3**

1) a) Current Ratio = current asset / current liability

2021: (10000 + 5000 + 7500) / 16550 = 1.3595

2022: (2000 + 20000 + 30000) / 30930 =1.6812

b) Receivable Turnover Ratio = net credit sales / average net accounts receivable

2021: $50000 / 5000 = 10

2022: $100000 / 20000 = 5

c) Inventory Turnover Ratio = cost of sales / average inventory

2021: 20000 / 7500 = 2.6667 times

2022: 50000 / 30000 = 1.6667 times

d) Debt to Total Assets = total liabilities / total assets

2021: (16550 + 30000) / (10000 + 5000 + 7500 + 50000) = 0.6421

2022: (30930 + 40000) / (2000 + 20000 + 30000 + 60000) = 0.6333

e) Times Interest Earned Ratio =

(net earnings + interest expense + income tax expense) / interest expense

2021: (50000 – 20000 – 10000) / 1500 = 13.3333

2022: (100000 – 50000 – 26000) / 2400 = 10

2) a) Current ratio increased from 1.36 to 1.68. This is because Pioneer Limited had more account receivable and inventory in 2022 compared to 2021. Pioneer issued more sales on credit to customers in 2022, therefore had a higher accounts receivable. The excess inventory was a result of the acquisition of equipment at the beginning of 2022. Additionally, there is also an increase in accounts payable. This is probably due to the high rent payables of a larger facility.

b) Receivable turnover ratio decreased from 10 to 5. Pioneer Limited had more credit sales and collected its trade receivables at a slower rate.

c) Inventory turnover ratio decreased from 2.67 to 1.67. Pioneer Limited's inventory level increased dramatically. The reasons might be that the company is not efficiently converting its inventory into sales. It might also because it falsely estimated the future sales and demand as they moved into a much larger facility.

d) Debt to total assets marginally decreased from 0.64 to 0.63. More assets have been accrued with more liabilities.

e) Times interest earned ratio decreased from 13.3 to 10. Interest expense was higher while profit before interest and taxes remained stable. The higher interest expense is probably a result of a higher interest rate due to inflation.

3)Although the current ratio of Pioneer Limited in 2022 has increased from 2021, the majority of assets consists of accounts receivables and inventories. By looking at receivable turnover ratio and inventory turnover ratio, we can identify that Pioneer Limited was having a hard time collecting its receivables and turning inventories into sales in 2022. The low cash flow also indicates that the company was struggling with paying back the loans and interest. Moreover, there is a potential lawsuit that Pioneer did not take into consideration yet, which would require more cash to settle. The time interest earned ratio had decreased, meaning the creditors would need to take a higher risk. Since Pioneer Limited was struggling to meet its short term and long term liabilities, Oliver’s banker may not want to give the company an operating line of credit.

**Question 4 (Note: will abbreviate Software Solutions Inc. as SS throughout this question)**

1) Liquidity - SS is more liquid. Its current ratio is higher than its competitor Micro Inc. and is above the industry average. The current ratio demonstrates the company's capability of paying off current liabilities through current assets. Therefore, SS proves a high capability of paying off its liabilities within one year through its current assets. On the other hand, it also reveals the insufficient use of resources, which will be elaborated below as efficiency.

2) Solvency - Micro Inc. is more solvent. As opposed to the performance in the liquidity ratio, SS demonstrates the least capability in both the Debt-to-Assets and Times Interest Earned ratios. The ratios measure a company's structure in terms of assets: the percentage of owning by creditors by measuring how much debt is borrowed both in long and short-term. The high ratio of Software Solution Inc. reveals the structure of the company's total assets is composed of 35.8% debts, meaning the 35.8% technically belongs to a portion of creditors. Since debts are under the company's obligation to pay off, the lower the Debt-to-Assets ratio is, the better off, or more solvent, the company will be. Therefore, Micro Inc. performs the best with the lowest ratio of debts under equity of 31.5%. Moreover, Software Inc. also demonstrates a lack of available earnings in the future to pay off interest payments with a ratio of 10.8. Micro Inc. is slightly higher than Software Solution Inc., but they both are below the industry average. Times-interest earned ratio reflects on the ability to fulfill the debt with current income. The higher the ratio is, the more earnings exceed debt. This ratio of industry is above both companies; therefore, Micro Inc. and the industry average is more solvent than SS.

3) Profitability - In general, SS is more profitable. Through dissecting the given turnover ratios, SS is inadequate in collecting receivables and turning inventories into sales. Comparatively, Micro Inc. does a better job in executing the efficiency in the company. Both gross profit margin and net profit margin demonstrate the company profitability through the percentage of how much revenue exceeds costs. Here SS outperforms its competitor and the industry average, indicating the profitability after subtracting net costs/operation costs. The relatively high ROA reflects the efficiency of SS to create profit from its assets, demonstrating its exceptional ability among the industry. Likewise, SS also presents the highest ROE than the other two, further indicating that it

yields the highest earning per dollar of shareholder's equity, which will attract more investors in the future.

4) An investor, who was more interested in receiving dividend income than in appreciation of the share price, would prefer to buy shares in SS. According to the table, the only data associated with dividends is the dividend yield rate, which measures the dividends income with respect to the company's current share price. A rate between 2% to 4% is considered a strong rate, demonstrating an increasing value of the share added to the dividend. Among the companies and the industry, Software Solution Inc. showcases the highest performance. Although the price-earning ratio, which measures the appreciation of share price, of Software Solution Inc. is not the most optimized. A low price-earning ratio means the appreciation of share price is large when the current share price remains unchanged, but SS falls in between the ratio of the industry and Micro Inc. However, since the investor was more interested in the dividend income, Software Solution Inc. would be the one to buy with the highest dividend yield rate.

5) In contrast, the investor, who values the appreciation of the share price, would prefer to buy a share from Micro Inc., because the average price-earning ratio in the industry is lower than both SS. and the industry. A low price-earning ratio indicates the current share price is high relative to earnings/appreciation per share. A high appreciation of shares can be reflected in a high price-earning ratio since it is the numerator in the ratio, only if the denominator remains constant. To select the highest appreciation of the share price, the investor should choose the highest price-earning ratio, which would be Micro Inc..

6) The performance of a public company is more unpredictable because of the larger numbers of shareholders. The large number of shareholders either support or intervene in the decision-making process of a company. A public company can flounder in such a large base of opinionated shareholders. Therefore, Emily and Daniel will want to scrutinize the Company shareholders before making an investment. Emily and Daniel will need to consider the history of the public company, and its reputation associated with it; for example, the value of goodwill, and prediction of continuity. It is better for the investors to investigate more companies in the industry to further compare the data. Moreover, for those two companies, the investors should

calculate their turnover ratios (assets, receivables, and inventory) to measure the company efficiency in turning assets, receivables, and inventory into solid value.

**Question 5**

Column B is the High-Tech Equipment because it is the only business model that would require investments into R&D (13.6%) and would have the most intangible assets (26.2%) in comparison with the companies.

Column C is the Furniture Retailer because of the high percentage of assets as inventory (11.2%), and since it has been in business for over 100 years, it would likely have the second highest intangible assets relative to the rest.

Column D is the Oil and Gas Producer as it has 95.2% of its assets in Property, Plant, and Equipment which is required for the nature of the business. Additionally, given the high gross profit (56.8%) and net profit (11.7%) it can be concluded that it is an oil producer due to the nature of the prices.

Columns E is the Private Grocery Store Chain as it has a high shareholder equity (77.2%) meaning that it has its own private label. Additionally, as a grocery store it has a highest cash balance (37.9%) due to gaining cash through sales of consumable goods.

Therefore, column A is the Discounted Airline. The key indicator is that the majority of the expense will be in the cost of goods sold and the least in receivables. The high cost of goods sold is the result of the high maintenance cost which includes fuel, repairs, and trained personnel. While the minimal receivable is due to the fact that no one boards a plane before paying. Thus, it is evident that the cost of goods sold in column A has 82.3% of its revenues as cost of goods sold and 1% as accounts receivable. A few other factors such as the large cash holdings (37.6%), minimal inventory (1%), high percentage of assets in property, plant, and equipment (53%), and a lower profit margin due to the high COGS (17.7%) help us to determine that column A is the Discounted Airline.

**Question 6**

1) Knowing the time taken to pay back suppliers helps to accurately calculate the debt to total assets ratio. Furthermore, this ratio will help to understand the current cash position of the business as if the company takes too long to pay off creditors then it could indicate cash

problems.

2) Knowing the specific gift card information can help the company better record adjustments on unearned revenue accounts to get a more accurate calculation of total liability.

3) There could be a difference between a quoted price by the supplier and the recorded inventory cost as well as the accounts payable of the purchased inventory due to the discount taken. It is important to know the creditor who issued the discount, so that future inventory purchases can again be made from her/him for a discount. If the company can't pay off in the given discounted time then they would need to consult the employee who approved the purchase to clarify how much more than the recorded accounts payable they should pay.

4) This information allows the company to estimate the cost of the warranty and adjust the specific warranty policy. It also affects the provision for warranty expense for the next year, as the reserve for next year's warranty expense is calculated based on historical information showing the cost of replacing or repairing a defective or malfunctioning product.

5) Being aware of changes in interest rates will help us to understand whether the net earnings have changed due to changes in interest rates, therefore, affecting interest expense, or there has just been a change in sales or other expenses. In regards to the bonds, higher interest rates might tempt the bond issuer to also raise its interest rates to make its bonds more attractive to the market, therefore, increasing its interest expense.

6) The service life of the server will be shorter than expected, so the company would need to buy new ones sooner, leading to a higher account payable - higher liabilities, if it purchases on credit. When the useful lives of the servers are shorter then the depreciation expense is higher, leading to greater accumulated depreciation, which consequently lowers the net realizable value for the servers, further lowering the value of assets.

7) By knowing that three machines are used 40% less than the other 7 on the line, we could extend the useful life of those three machines or increase their residual value from 0.

8) What decisions to take depends on whether the repairs were made to maintain or improve the efficiency of the asset. If the repairs were made to maintain the machine, then the cost will not be capitalized and it could indicate the poor condition of the machine, leading us to reduce its useful life and/or residual value. If the repairs were made to improve the efficiency, the cost should be capitalized and we would need to increase its useful life and/or residual value.