MODULE II

ANALYSIS OF FINANCIAL STATEMENTS

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INTRODUCTION

This module presents the analysis of financial statements. It is hoped that you will learn to not just compute but to analyze and interpret the content of a firm's financial statements.

OBJECTIVES

After studying the module, you should be able to:

1. Know and explain the various ways financial statements are analysed.
2. Know and explain the objectives of financial statement analyses
3. Know the steps in doing financial statement analyses
4. Perform the steps in doing financial statement analyses by applying the different techniques, interpretations, conclusions and draw implications based on the results of the applications.

DIRECTIONS/ MODULE ORGANIZER

There are three lessons in the module. Read each lesson carefully then answer the exercises/activities to find out how much you have benefited from it. Work on these exercises carefully and submit your output to your faculty.

In case you encounter difficulty, discuss this with your tutor during the face-to-face meeting. If not contact your faculty.

Good luck and happy reading!!!

Lesson 1

Understanding Financial Statements

FINANCIAL STATEMENTS

- Written records of business finances
- Summation of financial position, financial performance, and cash flows of an entity.
- Reflect the financial effect of transactions and events that have already happened

COMPARATIVE STATEMENTS	INTERIM FINANCIAL STATEMENT
▪ Financial statements presenting data for two or more periods. ▪ Provide analysts with significant information about trends and relationships over two or more years. ▪ Considered to be more significant than a single-year statement.	▪ Reports for periods of less than a year. ▪ Purpose: improve the timeliness of accounting information

Every Financial Statement is prepared on the basis of several **Accounting Assumptions:**

1. **Monetary Unit Assumption -** All transactions can be expressed or measured in the local currency
2. **Going Concern Assumption** – Enterprise will continue business indefinitely
3. **Periodicity Assumption -** Statements will be prepared at regular intervals

These assumptions provide the foundation for the structure of accounting theory and practice and explain why financial information is presented in a given manner.

Financial Statements must be prepared in accordance with Generally Accepted Accounting Principles (GAAP) and must include explanation of the accounting procedures and policies of the company.

Accounting Procedures- Rules and practices that are associated with the operations of an accounting system and that lead to the development of financial statements.
Accounting Policies - Accounting principles followed by a specific entity.

COMPONENTS OF FINANCIAL STATEMENTS
A complete set of financial statements should include:

- **Statement of Financial Position**
  - Lists all the assets, liabilities, and stockholders' equity (for a corporation) of an entity.
  - Balance Sheet is essentially a financial snapshot of the entity.
- **Income Statement / Statement of Comprehensive Income**
  - Presents the summary of the revenues, gains, expenses, losses, net income (loss) of an entity and other comprehensive income.
- **Statement of Cash Flows**
  - Summarizes entity's cash receipts and cash payments relating to its investing, operating, and financing activities.
- **Statement of Changes in Owners' Equity or Shareholders Equity**
  - Reconciles the beginning of the period equity of an enterprise with its ending balance.
- **Notes to Financial Statements**
  - Informative disclosures appended to financial statements.

FINANCIAL STATEMENTS	FINANCIAL REPORTING
One source of information needed by those who make economic decisions about business enterprise.	Broad concept encompassing financial statements, other supplementary information (such as changing prices) and other means of financial reporting (such as management discussions and analysis and letters to shareholders).

LEARNING ACTIVITY

MODIFIED TRUE OR FALSE. Write TRUE if the statement is correct but if it's false, write the word/s that make/s it wrong and beside it write the word/s that make/s the whole statement true.

____________________ **1.** Interim Financial Statement presents data for two or more periods.

____________________ 2. Every Financial Statement is prepared on the basis of several accounting computations.

____________________ 3. Financial Statements must be prepared in accordance with Generally Accepted Accounting Principles (GAAP) and must not include explanation of the accounting procedures and policies of the company.

____________________ 4. Accounting Policies are principles that are followed by a specific entity.

____________________ 5. Statement of Financial Position presents the summary of the revenues, gains, expenses, losses, net income (loss) of an entity and other comprehensive income.

____________________ 6. Statement of Cash Flows summarizes entity's cash receipts and cash payments relating to its investing, operating, and financing activities.

____________________ 7. A complete set of financial statements should include Statement of Financial Position, Income Statement, Statement of Cash Flows, Statement of Changes in Owners' Equity and notes to Financial Statements.

____________________ 8. Financial position if written records of business finances.

____________________ 9. Financial Statements are prepared in an irregular interval.

____________________ 10. Financial Statements must be prepared in accordance with Generally Accepted Accounting Procedures.

Lesson 2

Financial Statements Analysis

Financial Statement Analysis is the process of identifying financial strengths and weaknesses of the firm by properly establishing relationship between the items of the statement of financial position and the profit and loss account.

TYPES OF COMPARATIVE ANALYSIS

1. **Intracompany Basis** – comparison **within** a company are often useful to detect changes in financial relationships and significant trends. For example, a comparison of the cash amount of the company for the current year with the cash amount of the prior year shows either an increase or decrease. Likewise, a comparison of the company's year-end cash amount with the amount of its total assets at year-end shows the proportion of total assets in the form of cash.
2. **Intercompany Basis** - Comparisons **with other companies** provide insights into the competitive competition position of a company. For example, Jollibee's total sales for the year can be compared with the total sales of its competitors in the fast food area, such as McDonald's and KFC.
3. **Industry Averages** - Provide information about the relative position of the company within the industry. The ratios of a firm are compared with those of similar firms or with the same averages or norms to determine how the company is faring relative to its competitors.

OBJECTIVES OF FINANCIAL STATEMENT ANALYSIS

Financial analysis aims to probe the company's:

1. **Profitability.** This pertains to the ability of the firms to yield a sufficient amount of return on company sales, assets, and invested capital. It also refers to the firm's capacity to generate earnings vis-à-vis its expenses and other relevant costs incurred during a specific period of time.

2. **Liquidity and Stability.** Liquidity is also referred to as *working capital position* or *short-term financial position*. It is the ability of the firm to meet or pay its current or short-term maturing obligations.

3. **Asset utilization or Activity.** This pertains to how efficient the company is in managing its resources. It also refers to the firm's speed or pace in turning over accounts receivable; inventory and long-term assets. This reveals the frequency of the firm in selling its products or in collecting its receivable.

4. **Debt-utilization or Leverage.** This pertains to the overall debt status of the company. It measures the degree of how the firm is financed. The debt is evaluated using other variables like assets, equity, and earning power.

The following Financial Statements will be the basis of computations on the different tools and techniques of Financial Statement Analysis (Lesson 3).

A. Comparative Statements of Comprehensive Income

ABM III Corporation
Comparative Statements of Comprehensive Income
For the Years Ended December 31
(Php '000s)

	2019	**2018 (*base year*)**
Net Sales	3,200	2,850
Less: Cost of Sales	2,380	2,199
Gross Profit	820	651
Less: Operating Expenses	420	388
Operating Income	400	263
Less: Interest Expense	88	60
Net Income before taxes	312	203
Less: Income Taxes (30%)	94	61
Net Income	**218**	**142**

B. Comparative Statements of Comprehensive Financial Position

ABM III Corporation
Comparative Statements of Financial Position
As of December 31
(Php '000s)

	2019	2018
Assets		
Current Assets		
Cash and Cash Equivalents	10	80
Accounts receivables	375	315
Merchandise Inventory	615	415
Total	1,000	810
Non-Current Assets		
Plant assets, net	990	870
Total Assets	**1,990**	**1,680**
Liabilities & Shareholders' Equity		
Current Liabilities		
Accounts Payable	60	40
Notes Payable	140	60
Accrued Payables	100	130
Total	300	230
Non-current Liabilities		
Bonds Payable	754	580
Total Liabilities	1,054	810
Shareholders' Equity		
Preference Shares, 10%	40	40
Ordinary shares, 10%	130	130
Retained Earnings	766	700
Total	936	870
Total Liabilities and Shareholders' Equity	**1,990**	**1,680**

Lesson 3

Tools and Techniques of Financial Statement Analysis

I. HORIZONTAL (TREND) ANALYSIS

- Compares line items from one period with another period to assess trends.
- Purpose: To determine the increase (decrease) that has taken place, expressed in either an amount or percentage.
- An analysis of peso changes and percentage changes over two or more years as means of determining improvement or deterioration of the financial condition or results of operation of a business enterprise.

A. ***Increase/Decrease Method.***

- Horizontal analysis is facilitated by showing changes between years in both pesos and percentage form in each account.
- **Peso change** in account balance is the current year balance less the base year balance. Showing changes in pesos form helps the analyst focus on key factors that have affected profitability or financial position.
- **Percentage Change** in account balance is determined by dividing the peso change in account balance by the base year balance. Showing changes between years in percentage form helps the analyst to gain perspective and to gain a feel for the significance of the changes that are taking place.

The formula to calculate percentage changes for horizontal analysis:

1. Compute the difference between the amount for a comparison year and the amount of a base (earlier) year.

PESO CHANGE = Amount in Comparison Year – Amount in Base Year

2. Divide the peso amount changed by the amount of the base year.

$$\% \text{ CHANGE} = \frac{\text{Peso Change}}{\text{Amount in Base Year}} \times 100$$

**This method only enables the analysts to compare financial statements for two accounting periods.*

Illustration 1:

ABM III Corporation
Comparative Statements of Comprehensive Income
For the Years Ended December 31
(Php '000s)

			Increase/Decrease	
	2020	**2019 (*base year)***	**Amount**	**%**
Net Sales	3,200	2,850	350	12.28
Less: Cost of Sales	2,380	2,199	181	8.23
Gross Profit	820	651	169	25.96
Less: Operating Expenses	420	388	32	8.25
Operating Income	400	263	137	52.09
Less: Interest Expense	88	60	28	46.67
Net Income before taxes	312	203	109	53.69
Less: Income Taxes (30%)	94	61	33	54.10
Net Income	**218**	**142**	**76**	**53.52**

THINK!

Using the Comparative Statement of Financial Position (in page 8), prepare the Horizontal analysis using the Increase (Decrease Method).

ABM III Corporation
Comparative Statements of Financial Position
As of December 31
(Php '000s)

	2019	2018	Increase (Decrease) Amount	%
Assets				
Current Assets				
Cash and Cash Equivalents	10	80		
Accounts receivables	375	315		
Merchandise Inventory	615	415		
Total	1,000	810		
Non-Current Assets				
Plant assets, net	990	870		
Total Assets	**1,990**	**1,680**		

	2019	2018	Increase (Decrease) Amount	%
Liabilities & Shareholders' Equity				
Current Liabilities				
Accounts Payable	60	40		
Notes Payable	140	60		
Accrued Payables	100	130		
Total	300	230		
Non-current Liabilities				
Bonds Payable	754	580		
Total Liabilities	1,054	810		
Shareholders' Equity				
Preference Shares, 10%	40	40		
Ordinary shares, 10%	130	130		
Retained Earnings	766	700		
Total	936	870		
Total Liabilities and Shareholders' Equity	**1,990**	**1,680**		

B. *Trend Percentages or Index Numbers*

To compute for trend percentages, these steps are followed:

1. A *base year* is selected and each item in the financial statements for the base year is given a weigh of 100%.
2. Express each item in the financial statements for the following years as *percentage of its base year* amount. This is done by dividing an item in the years after the base year by the amount of such item in the base year.

$$\text{TREND \%} = \frac{\text{Amount in Comparison Year}}{\text{Amount in Base Year}} \times 100$$

**This method is used in comparing data from financial statements of more than two years.*

Illustration 2: **(Horizontal Analysis: TREND PERCENTAGES)**

**Amounts used for computation are based on the Comprehensive Statements of Comprehensive Income shown in page 7.*

ABM III Corporation
Comparative Statements of Comprehensive Income
As of December 31
(in %)

	2020	**2019 (*base year*)**
Net Sales	112.28	100.00
Less: Cost of Sales	108.23	100.00
Gross Profit	125.96	100.00
Less: Operating Expenses	108.25	100.00
Operating Income	152.09	100.00
Less: Interest Expense	146.67	100.00
Net Income before taxes	153.69	100.00
Less: Income Taxes (30%)	154.10	100.00
Net Income	**153.52**	100.00

THINK!

Using the Comparative Statement of Financial Position (page 8), prepare the Horizontal analysis using the Trend Percentages.

ABM III Corporation
Comparative Statements of Financial Position
As of December 31
(in %)

	2019	2018
Assets		
Current Assets		
Cash and Cash Equivalents		
Accounts receivables		
Merchandise Inventory		
Total		
Non-Current Assets		
Plant assets, net		
Total Assets		
Liabilities & Shareholders' Equity		
Current Liabilities		
Accounts Payable		
Notes Payable		
Accrued Payables		
Total		
Non-current Liabilities		
Bonds Payable		
Total Liabilities		
Shareholders' Equity		
Preference Shares, 10%		
Ordinary shares, 10%		
Retained Earnings		
Total		
Total Liabilities and Shareholders' Equity		

II. VERTICAL (Common-Size) ANALYSIS

- Vertical Analysis, also known as common-size analysis, is a technique for evaluating financial statement data that expresses each item in a financial statement within a year as a percent of a base amount.
- It is used to evaluate the relationship within a single financial statement.
- All items on the statement are stated as a percentage of a selected or base item on the statement.

$$\% = \frac{\text{Amount of Line Item}}{\text{Base Item Amount}} \times 100$$

- Common-sized Financial Statement is one that shows the items appearing on it in percentage form as well as in peso form. Key financial changes and trends can be highlighted by the use of common-size statements.
- The base account is the total assets for the Statement of Financial Position accounts and net sales/revenues for income statement accounts.

Illustration 3. **Vertical (Common-Size) Analysis**

ABM III Corporation
Common-Size Statements of Comprehensive Income
For the Years Ended December 31
(Php '000s)

	2019	%	2018	%
Net Sales	3,200	100.00	2,850	100.00
Less: Cost of Sales	2,380	74.38	2,199	77.16
Gross Profit	820	25.62	651	22.84
Less: Operating Expenses	420	13.12	388	13.61
Operating Income	400	12.50	263	9.23
Less: Interest Expense	88	2.75	60	2.11
Net Income before taxes	312	9.75	203	7.12
Less: Income taxes (30%)	94	2.94	61	2.14
Net Income	218	6.81	142	4.98

THINK!

Using the Comparative Statement of Financial Position (page 8), prepare the Vertical (Common-Size) Analysis.

ABM III Corporation
Common-size Statements of Financial Position
As of December 31
(Php '000s)

	2019	%	2018	%
Assets				
Current Assets				
Cash and Cash Equivalents	10		80	
Accounts receivables	375		315	
Merchandise Inventory	615		415	
Total	1,000		810	
Non-Current Assets				
Plant assets, net	990		870	
Total Assets	**1,990**		**1,680**	
Liabilities & Shareholders' Equity				
Current Liabilities				
Accounts Payable	60		40	
Notes Payable	140		60	
Accrued Payables	100		130	
Total	300		230	
Non-current Liabilities				
Bonds Payable	754		580	
Total Liabilities	1,054		810	
Shareholders' Equity				
Preference Shares, 10%	40		40	
Ordinary shares, 10%	130		130	
Retained Earnings	766		700	
Total	936		870	
Total Liabilities and Shareholders' Equity	**1,990**		**1,680**	

III. RATIOS ANALYSIS

- The ratios analysis is the most powerful tool of financial analysis.
- Ratios mean one number expressed in terms of another. A ratio is a statistical yardstick by means of which relationship between two or more various figures can be compared or measured.
- Ratio Analysis involves analyzing financial statements to help appraise a firm's financial position and strength. It is used for evaluating the financial health and performance of a company by comparing the ratios with a standard.

A. LIQUIDITY RATIOS

- Liquidity Ratios measure the ability of a company to meet its current obligation. These ratios are used to assess the short-term debt-paying ability of a company. Any company's liquidity may vary due to seasonality, the timing of sales, and the state of the economy.

1. Current Ratio

- aka *"working capital ratio"*
- General and quick measure of liquidity of a firm
- Represents the margin of safety or cushion available to the creditors
- Index of the firm's financial stability
- Measures the ability of a company to pay short-term (current) liabilities from short-term (current) assets.

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

Example:

	2019	2018
Current Assets	*1,000*	*810*
Divided by: Current Liabilities	*300*	*230*
Current Ratio	*3.33*	*3.52*

Significance:

Relatively high current ratio - firm is liquid and has the ability to pay its current obligations in time.

Relatively low current ratio - liquidity position of the firm is not good and the firm shall not be able to pay its current liabilities in time.

Increase in the Current Ratio - improvement in the liquidity position of the firm

Decrease in the Current Ratio - deterioration in the liquidity position of the firm.

Current Ratio of less than 1 - considered unacceptable since in that case current liabilities would excess current assets.
Current Ratio of less than 1 - considered unacceptable since in that case current liabilities would excess current assets.

2. **Liquid / Acid Test / Quick Ratio**
   - Used as a complementary ratio to the current ratio
   - More rigorous test of a company's ability to meet its short-term debts than the current ratio since it excludes less liquid current assets such as inventories and prepaid expense.
   - Measures firm's ability to pay off short-term obligations without relying on the sale of inventories.

Acid Test Ratio =	$\dfrac{\text{Current Assets – Inventories – Prepayments}}{\text{Current Liabilities}}$

Example:

	2019	*2018*
Quick Assets	*385*	*395*
Divided by: Current Liabilities	*300*	*230*
Quick Ratio	*1.28*	*1.72*

Significance:
High liquid ratio - firm is liquid and has the ability to meet its current or liquid liabilities in time
Low liquidity ratio - firm's liquidity position is not food.
"One to one" (1:1) is considered to be satisfactory.

B. **ACTIVITY / EFFICIENCY RATIOS**
- Measures the efficiency with which the resources of a firm have been employed.
- These ratios are called turnover ratios because they indicate the speed with which assets are being turned over into sales.

1. **Accounts Receivable Turnover (ARTO)**
   - Measure how quickly accounts receivables are turned into cash.
   - Measures the velocity of debt collection of a firm.
   - AR TO in days provides information about the number of days the average balance of AR is outstanding before cash is collected.

$$\text{Accounts Receivable TO} = \frac{\text{Sales on Account}}{\text{Average Accounts Receivable*}}$$

* Average Accounts Receivable = (AR, beg + AR, end)/2

Example:

	2019
Net Sales	*3,200*
Divided by: Accounts Receivable (315+375)/2	*345*
Accounts Receivable Turnover	*9.28*

Significance:

Accounts Receivable Turnover indicates the number of times the receivables are turned over a year.

The higher the value of receivables turnover – more efficient is the management of debtors or more liquid the debtors are.

2. **Average Collection Period**
   - Used to evaluate credit management and account collection practices

$$\text{Ave. Collection Period} = \frac{\text{365 or 360 days**}}{\text{Accounts Receivable Turnover}}$$

Example:

	2019
Number of days in a year	*360*
Divided by: Accounts Receivable Turnover	*9.28*
Average Collection Period	*38.79*

Significance:

This ratio measures the quality of debtors. A short collection period implies prompt payment by debtors. It reduces the chances of bad debts. Similarly, a longer collection period implies too liberal and inefficient credit collection performance.

3. **Inventory Turnover**
   - Measures how quickly inventory is converted into sales.
   - Inventory turnover in days provides information about the number of days inventory is held before being sold. It gives us indication of how long it takes the firm to convert its inventory into cash.

Inventory Turnover=	$\dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory*}}$

**Ave. Inventory = (inventory, beg + Inventory, end)/2

- Every firm has to maintain a certain level of inventory of finished foods so as to be able to meet the requirements of the business. But the level of inventory should neither be too high nor too low. A too high inventory means higher carrying costs and higher risk of stocks being obsolete whereas too low inventory may mean the loss of business opportunities.

Example:

	2019
Cost of Goods Sold (Cost of Sales)	*2,380*
Divided by: Average Inventory (415+615)/2	*515*
Inventory Turnover	*4.62*

Significance:
High inventory turnover - efficient management of inventory
Low inventory turnover - over-investment in inventories, dull business, poor quality of goods, stock accumulation, accumulation of obsolete and slow moving goods and low profitability.

4. **Average Sales Period / Average Age of Inventory / Inventory Holding Period**
   - In its most spontaneous form, the average number of days required to sell inventory is computed by dividing 365 (or 360) days by the inventory turnover figure.
   - This ratio is used to evaluate inventory management.
   - It calculates the number of days, on average, that elapsed between finished goods production and sale of product.

Ave. Age of Inventory =	$\dfrac{\text{365 or 260 days}}{\text{Inventory Turnover}}$

Example:

	2019
Number of days in a year	*360*
Divided by: Inventory Turnover	*4.26*
Average Age of Inventory	*77.92*

Significance:
An increase in the inventory turnover (and a decrease in the average sale period) would usually be considered favourable.

C. LONG-TERM SOLVENCY/LEVERAGE

- Convey a firm's ability to meet the interest costs and payment schedules of its long-term obligations. Leverage ratios look at the extent that a company has depended upon borrowing to finance its operations.
- A high leverage ratio may increase a company's exposure to risk and business downturns, but along with this higher risk also comes the potential for higher returns.

1. Times-Interest-Earned Ratio

- The time-interest-earned ratio is a measure of a firm's ability to meet interest payments.
- It indicates the relation between interest payments and the earnings that are available to make those interest payments.
- Creditors would like to see a high times interest-earned ratio.

$$\text{Times Interest Earned} = \frac{\text{Earnings before Interest \& Income taxes}}{\text{Interest Expense}}$$

Example:

	2019	*2018*
Earnings before interest & income taxes	*400*	*263*
Divided by: Interest Expense	*88*	*60*
Times interest earned	*4.55*	*4.38*

Significance:

The times-interest-earned ratio, also known as *interest coverage ratio* is very important from the lender's point of view. It indicates the number of times interest is covered by the profits available to pay interest charges. It is an index of the financial strength of an enterprise. A high debt service ratio or interest coverage ratio assures the lenders a regular and periodical interest income. In general, a higher interest coverage ratio means that the small business is able to take on additional debt.

2. Debt to Asset Ratio

- Referred to as financial leverage
- Measure the portion of a company's capital that is provided by borrowing. It involves financing assets with funds that have been provided by creditors or preferred shareholders at a fixed rate of return.

$$\text{Debt to Asset} = \frac{\text{Total Liabilities}}{\text{Average Total Assets**}}$$

**Ave Total Asset = (Total Assets, beg + Total Assets, end)/2

Example:

	2019
Total Liabilities	*1,054*
Divided by: Average Total assets (1,680+1,990)/2	*1,835*
Debt to Asset Ratio	*.57 or 57.44%*

Significance:

If assets in which the funds are invested earn a rate of return greater than the fixed rate of return required by the suppliers of the funds, then financial leverage is positive and the ordinary shareholders benefit.

3. Debt to Equity Ratio

- Long-term creditors would like a reasonable balance between the capital provided by creditors and capital provided by the shareholders.
- Creditors would like the debt-to-equity ratio to be relatively low.

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Average Shareholders' Equity**}}$$

**Ave SHE =)SHE, beg + SHE, end)/2

Example:

	2019
Total Liabilities	*1,054*
Divided by: Average Shareholders' Equity	*903*
Debt to Equity Ratio	*1.17 or 116.72%*

Significance:

A company is generally considered safer if it is a low debt to equity ratio – that it is, a higher proportion of owner-supplied capital – though a very low ratio can indicate excessive caution. In general, debt should be between 50-80 per cent of equity.

D. PROFITABILITY RATIOS

- Show the combined effects of liquidity, asset management, and debt management on a firm's operating results.
- Measure the earning ability of a company and the extent to which invested funds are being used efficiently.
- Measure the results of business operations or overall performance and effectiveness of the firm.

1. Gross Margin Ratio / Gross Profit Ratio

- Measures the margin on sales the company is achieving. It can be an indication of manufacturing efficiency or marketing effectiveness.
- It may be indicated to what extent the selling prices of goods per unit may be reduced without incurring losses on operations. It reflects efficiency with which a firm produces its products.

$$\text{Gross profit (Margin) ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}}$$

Example:

	2019	2018
Gross Profit	*820*	*651*
Divided by: Net Sales	*3,200*	*2.850*
Gross Profit (margin) ratio (in %)	*25.62*	*22.84*

An ***increase*** in the gross profit may be due to the following factors:

- Increase in the selling price without any corresponding increase in the costs of goods sold
- Decrease in cost of goods sold without decrease in selling price.
- Omission of purchase invoices from accounts
- Undervaluation of beginning inventories or overvaluation of ending inventories.

A ***decrease*** in the gross profit ratio may be due to the following factors:

- Decrease in the selling price of goods without corresponding decrease in the cost of goods sold
- Increase in the cost of goods sold without any increase in the selling price
- Unfavorable purchasing or mark-up policies
- Inability of management to improve sales volume or omission of sales
- Overvaluation of beginning inventories or undervaluation of ending inventories

Significance:

There is no standard GP ratio for evaluation. However, the gross profit earned should be sufficient to recover all operating expenses and to build up reserves after paying all fixed interest, charges and dividends.

2. Profit Margin (Return on Sales)

- Percentage of net profits to net sales
- Measures the overall profitability of the company, or how much is being brought to the bottom line.
- An income statement ratio and a high profit margin indicates good cost control.
- Strong gross profitability combined with weak net profitability may indicate a problem with indirect operating expenses or non-operating items such as interest expense.

$$\text{Return on Sales} = \frac{\text{Net Income}}{\text{Net Sales}}$$

Example:

	2019	*2018*
Net Income	*218*	*142*
Divided by: Net Sales	*3,200*	*2,850*
Return on Sales (in %)	*6.81*	*4.98*

Significance:

In general terms, net profitability shows the effectiveness of management or the firm's capacity to face adverse economic conditions such as price competition, low demand. The higher the ratio, the better is the profitability.

3. Total Assets Turnover

- Measures a company's ability to use assets to generate sales.

$$\text{Total Assets Turnover} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

Example:

	2019
Net Sales	*3,200*
Divided by: Ave. Total Assets (1,680+1,990)/2	*1,835*
Total Assets Turnover	*1.74*

Significance:

Although the ideal level for this ratio varies greatly, a very low figure may mean that the company maintains too many assets or has not deployed its assets well, whereas high figure means that the assets have been used to produce good sales number.

4. Return on Assets (ROA)

- The return on total assets is a measure of how profitability assets have been employed.
- Attempts to measure what the return on total assets would be if the company had no long-term debt in its capital structure. The after-tax interest expense is added back to net income to eliminate the interest expense associated with debt.

$$\text{Return on Assets} = \frac{\text{Net Income} + [\text{Interest expense x (1-tax rate)}]}{\text{Average Total Assets}}$$

Example:

	<u>*2019*</u>
Net Income (218+61.6)	*279.6*
Divided by: Ave. Total Assets (1,680+1,990)/2	*1,835*
Return on Total Assets	*.15 or 15.24%*

Significance:

A very low ROA usually indicates inefficient management whereas a high ROA means efficient management. However, this ratio can be distorted by depreciation or any unusual expenses.

5. Working Capital

- Excess of current assets over current liabilities
- A large working capital balance provides some security to short-term creditors

Working Capital = Current Assets – Current Liabilities

LEARNING ACTIVITY

COMPUTATION:

1. Based on the following data for the current year, what is the number of days' sales in accounts receivable?

Net sales on account during the year	P	584,000
Cost of goods sold during the year		300,000
Accounts receivable, beginning of year		45,000
Accounts receivable, end of year		35,000
Inventory, beginning of year		90,000
Inventory, end of year		110,000

2. Based on the following data for the current year, what is the inventory turnover?

Net sales on account during the year	P	500,000
Cost of goods sold during the year		330,000
Accounts receivable, beginning of year		45,000
Accounts receivable, end of year		35,000
Inventory, beginning of year		90,000
Inventory, end of year		110,000

3. Based on the following data for the current year, what is the number of days' sales in inventory?

Net sales on account during the year	P 1,204,500
Cost of goods sold during the year	657,000
Accounts receivable, beginning of year	75,000
Accounts receivable, end of year	85,000
Inventory, beginning of year	81,600
Inventory, end of year	98,600

4. The following ratios were computed from Siason Company's financial statements for 2019: [MAS 656]

Return on asset	24%
Asset turnover	1.6 times

What was the company's profit margin ratio?

5. The following are taken from the balance sheet of MoveOnNa Company as of December 31, 200B:

Assets:		Liabilities:	
Cash	P 341,600	Notes Payable	P 280,800
Accounts Receivable	200,000	Accounts Payable	1,062,500
Merchandise Inventory	308,400	Long-term liabilities	3,000,000

What are the company's current ratio and quick ratio?

6. The following data were taken from the comparative balance sheets of Kartib Company:

	Dec. 31, 2019	Dec. 31, 2018
Cash	P 35,000	P 33,125
Accounts Receivable	49,375	48,000
Inventories	71,250	69,375
Prepaid Expenses	2,375	5,000
Accounts Payable	31,250	35,625
Accrued liabilities	7,500	10,500
Bonds payable, due 2025	100,000	100,000

The company's working capital increased (decreased) from 2018 to 2019 by?

MODULE SUMMARY

In Module II, you have learned about Financial Statement Analysis. You have gained a deeper understanding of what Financial Statements are and how they affect the company as a whole.

There are three lessons in Module II. Lesson 1 tackled about financial statements and its components. While Lesson 2 dealt with the importance and objectives of financial statement analysis. Lesson 3 was all about the tools and techniques of financial statements analysis.

Congratulations! You have just studied Module I. now you are ready to evaluate how much you have benefited from your reading by answering the summative test. Good Luck!!!

SUMMATIVE TEST

MULTIPLE CHOICE: Choose the best answer from the given choices. Encircle your answer.

1. Vertical analysis is also known as
   A. Perpendicular analysis
   B. Trend analysis
   C. Common-size analysis
   D. Break-even analysis

2. In financial statements analysis, expressing all financial statement items as a percentage of base year amount is called
   A. Trend analysis
   B. Variance analysis
   C. Horizontal common-size analysis
   D. Vertical common-size analysis

3. The percentage analysis of increases and decreases in individual items in comparative financial statements is called
   A. Vertical analysis
   B. Solvency analysis
   C. Profitability Analysis
   D. Horizontal Analysis

4. Horizontal analysis is a technique for evaluating financial statement data
   A. For one period of time
   B. Over a period of time
   C. On a certain date
   D. As it may appear in the future

5. Which of the following statements is correct?
   A. Liquidity refers to the firm's ability to pay all its obligations and to continue operations.
   B. Solvency refers to a firm's ability to survive in the long-term by paying its short-term obligations.
   C. Trading on the equity refers to a firm's sale of its own stocks in the stock exchange
   D. Ratio analysis addresses such issues as the firm's liquidity, use of leverage, management of assets, cost control, growth and evaluation.

6. Decrease in the gross profit may be due to the following factors except:
   A. Increase in the cost of goods sold without any increase in the selling price.
   B. Unfavorable purchasing or mark-up policies
   C. Undervaluation of beginning inventories.
   D. Undervaluation of ending inventories.

7. It shows the percentage of net profits to net sales.
   A. Working Capital
   B. Return on Assets
   C. Gross Profit Ratio
   D. Profit Margin

8. The relationship of P225,000 to P125,000, expressed as ratio is
   A. 2.0 to 1 B. 1.9 to 1 C. 1.5 to 1 D. 0.56 to 1

9. Which of the following ratio measures short-term solvency?
   A. Current Ratio
   B. Age of receivables
   C. Creditor's equity to total assets
   D. Return on Investment

10. Assume that Kartib Company reported a net loss of P50,000 in 2017 and net income of P250,000 in 2018. The increase in net income of P300,000
    A. Can be stated as 0%
    B. Can be stated as 100% increase
    C. Can be stated as a percentage
    D. Can be stated as 200% increase

Computation:

1. The following are selected financial and operating data taken from the financial statements of ABM III Corp.:

	As of December 31	
	2018	2017
Cash	P 80,000	P 640,000
Accounts Receivable	400,000	1,200,000
Inventory	720,000	1,200,000
Marketable securities – short-term	240,000	80,000
Land and buildings	2,720,000	2,880,000
Bonds payable – long-term	2,160,000	2,240,000
Accounts Payable	560,000	880,000
Notes payable - short-term	160,000	320,000
	For the year ended December 31	
	2018	2017
Sales (20% cash, 80% credit sales)	P 18,400,000	P 19,200,000
Cost of Goods Sold	8,000,000	11,200,00

Compute the following ratios: [a] Current Ratio for December 31, 2018; [b] Quick ratio for December 31, 2018; [c] Accounts Receivable Turnover for 2018; [d] Inventory Turnover for 2018; [e] Gross Margin for 2017; [f] Average age of accounts receivable for 2018.

2. Presented below was lifted from the comparative income statement of Pandy Company:

	2019	2018	2017
Sales	25,520	23,980	24,200
Cost of Sales	17,220	15,400	15,400
Operating Expenses	5,280	5,184	5,088

Required: Using the Trend percentage of horizontal analysis, present the income statement covering the years 2017 to 2019, with the year 2017 as base year.

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