

In assessing the financial prospects for a firm, financial analysts use various techniques. An example of vertical, common-size analysis is:

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- A.** An assessment of the relative stability of a firm's level of vertical integration.
- B.** A comparison in financial ratio between two or more firms in the same industry.
- C.** Advertising expense in 1995 is 2 percent greater than it was in 1994.
- D.** Advertising expense in 1995 is 2 percent of sales.

Explanation

Choice "D" is correct. Vertical common size analysis is used to determine relationships between different account types in relation to an appropriate base. For example, cash as percentage of total assets, or cost of goods sold as a percentage of total sales revenue.

This type of analysis can be used to create context surrounding compositions of accounts and respective weights or significance of items in relation to the respective base.

A prime example of this would be the evaluation of advertising expense in relation to total sales as a percentage.

Choice "A" is incorrect. The vertical common-size analysis would not be utilized to assess the stability of a firm's level of vertical integration. Vertical integration refers to the company's involvement in all activities associated with acquisition of inventory through the sale and distribution.

Choice "B" is incorrect. The vertical common-size analysis would not be utilized to compare financial ratios between companies within an industry.

Choice "C" is incorrect. The vertical common-size analysis would assist in the analysis of composition of accounts in relation to a base, and while a comparison to previous-year percentages could be evaluated, this would not be categorized as vertical common-size analysis.

Which one of the following statements does not represent a benefit of vertical analysis?

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| A. | It is simple to implement and easy to use. |
| B. | It helps identify where management invested its resources. |
| C. | It helps managers compare two different entities of different sizes. |
| D. | It helps managers measure the liquidity of the company. |

Explanation

Choice "D" is correct. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. In a vertical analysis, all line items in the income statement are commonly expressed as a percentage of net sales revenue, allowing comparison of operating performance between two differently sized entities in the same industry as well as a comparison among different years for the same entity.

It is easy to implement and can be used to compare different-size entities. This type of analysis shows the composition of total assets by breaking down individual accounts to illustrate concentrations of invested dollars. Vertical analysis is not used to measure liquidity of a company.

Choice "A" is incorrect. This statement indicates a benefit of vertical analysis. Vertical analysis is easy to use and implement.

Choice "B" is incorrect. This statement indicates a benefit of vertical analysis. Vertical analysis shows what percentage of funds has been invested in each type of assets.

Choice "C" is incorrect. This statement indicates a benefit of vertical analysis. Vertical analysis helps a user in comparing entities of different sizes.

When performing a common-size analysis, which one of the following statements is correct?

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| A. | A base amount is required. |
| B. | A base amount is optional. |
| C. | The same base is used across all financial statements analyzed. |
| D. | The results of the horizontal analysis are necessary inputs for performing the analysis. |

Explanation

Choice "A" is correct. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. In a vertical analysis, all line items in the income statement are commonly expressed as a percentage of net sales revenue, allowing comparison of operating performance between two differently sized entities in the same industry as well as a comparison among different years for the same entity.

By definition, the common-size analysis requires a base account to compare all amounts with.

Choice "B" is incorrect. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. The base amount in a vertical analysis is not optional.

Choice "C" is incorrect. When performing a common-size analysis for a balance sheet, total assets is commonly used as a base. When performing a common-size analysis for the income statement, net sales is commonly usually used as a base. However, any account within each statement can be applied as the base account for the vertical analysis of that statement.

Choice "D" is incorrect. The horizontal analysis is not a prerequisite for the performance of a common-size (or vertical) analysis.

Which of the following statement(s) is (are) correct regarding common-size financial statement analysis?

- I. A common-size financial statement displays items on a financial statement as a percentage of a common base figure.
- II. Investors use common-size financial statements to make it easier to compare a company to its competitors.
- III. Common-size analysis is also known as trend analysis. Common-size analysis allows the assessment of relative changes in different items over time.

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- A.** I only
- B. I and II
- C. I, II, and III
- D. II and III

Explanation

Choice "B" is correct. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. It is easy to implement and can be used to compare different-size entities, especially those within the same industry.

By definition, a common-size financial statement displays items on a financial statement as a percentage of a common base figure. It is common for investors to use common-size financial statements to make it easier to compare a company to its competitors.

Choice "A" is incorrect. Although it is true that common-size financial statement displays items on a financial statement as a percentage of a common base figure, it is also true that investors use common-size financial statements to make it easier to compare a company to its competitors.

Choice "C" is incorrect. It is true that common-size financial statement displays items on a financial statement as a percentage of a common base figure and that investors use common-size financial statements to make it easier to compare a company to its competitors, however, common-size analysis is not referred to as "trend analysis." Common-size analysis is referred to as vertical analysis. Horizontal analysis is referred to as trend analysis.

Choice "D" is incorrect. Although it is true that investors use common-size financial statements to make it easier to compare a company to its competitors, it is also true that a common-size financial statement displays items on a financial statement as a percentage of a common base figure. In addition, common-size analysis is not referred

to as "trend analysis." Common-size analysis is referred to as vertical analysis. Horizontal analysis is referred to as trend analysis.

When preparing common-size statements, items on the balance sheet are generally stated as a percentage of _____ and items on the income statement are generally stated as a percentage of _____.

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- A. total assets; net income
- B. total shareholders' equity; net income
- C. total shareholders' equity; net sales
- D. total assets; net sales

Explanation

Choice "D" is correct. Common-size balance sheets express all assets, liabilities, and equities as a percentage of the balance sheet footing (total assets). Common-size income statements express all sales adjustments, expenses, gains, losses, other revenues, and taxes as a percentage of net sales.

Choice "A" is incorrect. When preparing common-size statements, items on the balance sheet are generally stated as a percentage of total assets. However, items on the income statement are not generally stated as a percentage of net income.

Choice "B" is incorrect. When preparing common-size statements, items on the balance sheet are generally not stated as a percentage of total shareholders' equity. Additionally, items on the income statement are not generally stated as a percentage of net income.

Choice "C" is incorrect. When preparing common-size statements, items on the balance sheet are generally not stated as a percentage of total shareholders' equity. However, items on the income statement are generally stated as a percentage of net sales.

Which of the following statements is true regarding common-size statements?

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| A. | Common-size statements indexed over two years for two companies, with both showing a 10 percent increase in profits, show that both companies would make equally attractive investments. |
| B. | All of the other three answers are correct. |
| C. | Common-size statements can be used to compare companies of different sizes. |
| D. | Horizontal common-size statements can be made only for companies with at least 10 years of operational data. |

Explanation

Choice "C" is correct. Common-size statements showing a 10 percent increase in profits for two companies do not alone indicate that both are equally attractive investments. One of the companies may have shown an increase in profits from \$10 to \$11, and the other may have shown an increase in profits from \$1,000,000 to \$1,100,000. Horizontal common-size statements do not require 10 years of data.

Choice "A" is incorrect. The statement "common-size statements indexed over two years for two companies, with both showing a 10 percent increase in profits, show that both companies would make equally attractive investments" is false.

Choice "B" is incorrect. The statement "all of the other three answers are correct" is false. Only one of the answers is correct.

Choice "D" is incorrect. The statement "horizontal common-size statements can be made only for companies with at least 10 years of operational data" is false.

In Year 1, a restaurant reported sales revenues of \$100,000. In Year 2, revenues increased by 20 percent while cost of goods sold increased by 4 percent only. It was determined that the gross profit percentage for Year 2 is 60 percent. What was the cost of goods sold in Year 1?

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- A. \$48,000
- B. \$40,000
- C. \$72,000
- D. \$46,154

Explanation

Choice "D" is correct. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. In a vertical analysis, all line items of the income statement are commonly expressed as a percentage of net sales revenue, allowing comparison of operating performance between two differently sized entities in the same industry as well as a comparison among different years for the same entity. Management can use horizontal analysis (base-year trend analysis) in combination with vertical analysis (common-size statements) to examine the changes in accounts over time.

<i>Vertical Analysis</i>	
Year 2	
Sales	100%
Cost of goods sold	×
Gross profit	60%

Using the vertical analysis in this example, gross profit in Year 2 is 60 percent as a percentage of sales, meaning that cost of goods sold in Year 2 is 40 percent of sales.

<i>Horizontal Analysis</i>			
	Year 2	Year 1	% Change
Sales	×	\$100,000	20%

Using horizontal analysis, the sales in Year 2 increased by 20 percent from Year 1, or a total sales revenue number of \$120,000, calculated as $\$100,000 \times 1.20$.

Cost of goods sold in Year 2 is higher than Year 1 by 4 percent.

Cost of goods sold in Year 2 can be calculated as 40 percent of \$120,000 = \$48,000.

Therefore, cost of goods sold in Year 1 = $\$48,000 \div 1.04 = \$46,154$.

Choice "A" is incorrect. Cost of goods sold in Year 2 is \$48,000, however, the question asks for costs of goods sold in Year 1.

Choice "B" is incorrect. The gross profit percentage was only provided for Year 2. This answer choice incorrectly assumes the same gross profit percentage for both Year 1 and Year 2 and uses 40 percent of \$100,000 to calculate cost of goods sold.

Choice "C" is incorrect. The gross profit in Year 2 is \$72,000. The question asked for cost of goods sold in Year 1. It was not necessary to calculate the gross profit for Year 2 to determine cost of goods sold in Year 1.

In Year 1, a restaurant reported sales revenues of \$100,000. In Year 2, revenues increased by 20 percent while cost of goods sold increased by 4 percent only. It was determined that the gross profit percentage of Year 2 is 60 percent. What is the gross profit percentage for Year 1?

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- A. 53.85%
- B. 60.00%
- C. 46.15%
- D. 40.00%

Explanation

Choice "A" is correct. Common-size financial statements, also called vertical analysis, show each item in the financial statements as a percentage of a base account within each statement. In a vertical analysis, all line items of the income statement are commonly expressed as a percentage of net sales revenue, allowing comparison of operating performance between two differently sized entities in the same industry as well as a comparison among different years for the same entity. Management can use horizontal analysis (base-year trend analysis) in combination with vertical analysis (common-size statements) to examine the changes in accounts over time.

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Using horizontal analysis, the sales in Year 2 increased by 20 percent from Year 1, or a total sales revenue number of \$120,000, calculated as $\$100,000 \times 1.20$.