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## Foundations of Financial Analysis

### Learning Objectives

1. To learn about the fundamental methods of financial analysis.
2. To understand the Financial Management Cycle.
3. To understand the importance of comparing numbers to give them meaning. This involves measuring the actual financial performance of a business to previously established measures or goals.
4. To understand the importance of measuring change and what it tells about the financial performance of a business.
5. To learn how percentages are used in financial analysis to measure financial performance.
6. To be able to identify trends and understand their importance to financial analysis.

### Chapter Outline

#### Fundamental Methods of Financial Analysis

Two Important Tools

The Financial Management Cycle

#### Comparing Numbers to Give Them Meaning

Last Year

Budget

Forecast

Previous Month or Period

Pro Forma

Other Goals

#### Measuring Change to Explain Performance

#### Using Percentages in Financial Analysis

### Calculating Percentages

#### What Percentages Measure

#### Four Types of Percentages Used in Financial Analysis

##### Cost or Expense Percentages

##### Profit Percentages

##### Mix Percentages

##### Percentage Change

#### Trends in Financial Analysis

##### Short- and Long-Term Trends

##### Revenue, Expense, and Profit Trends

##### Company and Industry Trends

##### General Economic Trends—National and International

#### Summary

#### Hospitality Manager Takeaways

#### Key Terms

#### Formulas

#### Review Questions

#### Problems

This chapter presents some of the fundamental accounting concepts and methods of financial analysis that will be used throughout the book and also throughout the career of any hospitality manager. These are not only fundamental accounting concepts but important management tools used to operate a business on a daily basis.

The concepts and terms are explained in a direct and fundamental way. The typical detailed and complicated accounting explanations are missing because they will do no good if they are not understood. The information in this chapter will form a solid financial foundation, one that will enable students to expand in terms of knowledge and application as they work through problems and deal with business situations. It will focus on hospitality industry operations, but the methods of financial analysis presented are useful and applicable to any business operation.

## **Methods of Financial Analysis**

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Analyzing financial reports and statements requires a fundamental understanding of where numbers come from, how they are organized and presented, what they mean, what they measure, and how they are used. This section discusses two concepts of working with numbers to analyze financial statements.

## Two Important Tools

First, we will talk about two important ways numbers are used in business. They are used to measure financial performance and to provide a management tool to use in operating the business.

### ***To Measure Financial Performance***

Numbers provide a way to determine how a business is performing. Measuring financial performance is historical in nature and uses the actual numbers or results from business operations. It tells us what the business has produced, and it compares and evaluates that performance to specific measures. It is looking back through the rearview mirror at operations. The three main financial statements are all used in measuring financial performance.

The Profit and Loss (P&L) Statement shows the revenues, expenses, and profits for a specified time period. Each month, accounting period, quarter, or year, the numbers produced by an operation are recorded in the P&L statement and tell whether the business revenue and profits are improving, declining, or staying the same.

The Balance Sheet shows the assets, liabilities, and owner equity of a business at a specific time. These numbers tell us whether the business is getting financially stronger by increasing assets or owner equity or if it is struggling and increasing liabilities. The numbers also tell us how the business is capitalized or started—with more debt than owner equity or with more owner equity than debt.

The Statement of Cash Flows shows how much cash is generated by a business and how effectively it is used in operating the business over a specified time period. Cash and liquidity are critical to the success of a business, and the numbers included in the Statement of Cash Flows tells us how cash is being acquired and used.

### ***To Provide a Management Tool***

Numbers provide a way for managers to plan for varying levels of business volume. This can take the form of forecasting revenues, scheduling wages, implementing cost controls, expanding business operations, or preparing the annual budget. Numbers give managers feedback on their operations and then assist them in making appropriate changes.

This aspect of using numbers is very valuable to a business because it is the process of taking the information numbers provided and applying them back to operating the business.

## The Financial Management Cycle

Second is the **Financial Management Cycle**. It is important to understand this process and how numbers are generated and used in business operations. This cycle deals with the flow and use of numbers in business operations.

1. *Operations produce the numbers.* All the activities involved in the daily operations produce the numbers that measure performance. In a hotel, the daily operations

provide products and services to guests, including the rooms department, food and beverage outlets, gift shop, and any other department that produces a sales transaction with a guest. Numbers used in financial analysis have to come from somewhere, and that is the daily operation of the business.

2. *Accounting prepares the numbers and provides financial reports and statements.* At the end of the day, week, or month, the numbers resulting from all operations and activities are collected, summarized, and reported by the accounting department. These reports describe the operations and activities and are distributed to the appropriate managers for their review and use.
3. *Accounting and operations analyze the numbers.* Operations management and accounting management work together to review and analyze the reports. They look for changes, the cause of the change, and the result of the change to understand operations and determine ways to change and improve. Together they have operational experience and financial analysis experience and can identify any changes or improvements that need to be made to ensure that productive operations continue.
4. *Operations applies the numbers back to the business.* After reviews and discussions, the operations managers make any necessary changes to operations to correct or improve them. The ability to analyze quickly and accurately and then make any necessary changes is an important part of any business operation. It enables the business to constantly improve by being more productive or creating more value in the products and services that it provides.

## Comparing Numbers to Give Them Meaning

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Numbers need to be compared to something to have any meaning. A hotel has monthly sales of \$1 million. All this tells us is the sales level. How do we know if this is good or bad, up or down, acceptable or not acceptable? A fundamental concept of financial analysis is to compare a number produced by operations to an established number that will tell us if there was an increase or a decrease. The most common **comparisons** are to (1) last year, (2) budget, (3) forecast, (4) previous month or period, (5) pro forma, or (6) any other established goal.

### Last Year

Comparing actual financial results to last year's actual results is a useful comparison. The first evaluation of financial operations is to show if operations are better than the previous year. The best results are if actual operations for the current year are better than last year and the budget. The worst results are if the current year is worse than last year and the budget.

## **Budget**

Actual financial results for a month, quarter, or year are compared to the established budget. The budget is the formal one-year financial operating plan for a company. Budgets include planned increases in revenues and profits, and productivity improvements in costs and expenses. Comparing actual results to the budget shows whether the business is moving in the direction planned and budgeted and how close it is in meeting, exceeding, or missing the budgeted numbers.

## **Forecast**

Forecasts update the budget. Whereas the budget is done once for the entire year, forecasts are done continually to adjust or relate to current business conditions. Forecasts can be weekly, monthly, quarterly, biannually, or can apply to the end of the year. They are important because they are more current and help project business performance compared to the budget.

## **Previous Month or Period**

These comparisons are important because they identify trends in operations. A goal of any business is to continually improve. Examining month-to-month performance tells us the trend and direction of our operations. They can show improvements that we hope are the results of corrective action implemented by management to keep the company moving in the right direction.

## **Pro Forma**

A new business does not have any historical operating information. Therefore, management, developers, and bankers prepare a pro forma based on market conditions and expected financial returns. The pro formas are estimates or projections of how these financial experts think the business will perform in the first year of operations. The pro forma is used for the first year of business operations and is then replaced by the budget, which is prepared based on the first year's actual performance. Pro formas are used to establish and identify initial business revenues and profits that will generate the cash flow necessary to repay loans and investments.

## **Other Goals**

Occasionally a business will establish other goals or benchmarks to compare actual performance. Examples are improving profit margins to meet an established goal, achieving specific revenue levels, or entering new markets.

Let's use our example to give meaning to the \$1,000,000 in monthly sales. Suppose that last year we did monthly sales of \$950,000; this year we increased that by \$50,000 to \$1,000,000, which is good—sales are increasing. However, if the budget was \$1,100,000,

we missed the budget by \$100,000, which is not good—our sales did not increase as much as we had budgeted.

Now let's analyze our \$1,000,000 monthly sales performance. Was it good or bad? We know we increased sales \$50,000 over last year, but we missed budget by \$100,000. The answer, then, is that our performance was both good and bad. It was good because we improved \$50,000 over last year. It was bad because we missed the budget by \$100,000. The next question we have to ask is, "Was the budget set too high?" Comparing the budget of \$1,100,000 to last year's actual sales of \$950,000 tells us that we expected (or budgeted) sales to increase \$150,000. We can also measure this increase in percentages by dividing the \$150,000 increase by last year's sales of \$950,000 to get a budget percentage increase of 15.8%. That is an aggressive budget increase. If I were the manager of this business, I would be very happy to have the \$50,000 increase over last year (a 5.3% increase). I would also review the reasons we thought we could increase by 15.8% and analyze why that didn't happen.

Comparing numbers to something concrete is essential to give any meaning to the numbers. This is particularly important for the P&L Statements. The Balance Sheet and the Statement of Cash Flow are analyzed more to look for changes from previous statements or to goals or benchmarks than to budgets. Typically there is no budget for these two financial statements. That is why they are compared to the previous month or period or to a goal. Remember to compare any financial report to last year, last month, the budget, the forecast, the pro forma, or the goal to give it meaning. Then we can tell whether operations are improving or not.

## **Measuring Change to Explain Performance**

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One of the most important elements of financial analysis is to be able to identify where changes occur and what caused the **change**. In a large business with many products and departments, an effective financial analysis of the financial reports must locate the department that is changing and identify the causes of that change. Is it in revenues—volume or rate? Is it in expenses—cost of sales, wages, benefits, or other operating expenses? Is it a direct or indirect, fixed or variable expense? One department or many departments may be affecting operations with positive or negative changes.

Changes are identified by comparing actual performance to previous performance or a specific goal or measure. These changes can be for a month, a quarter, or a year. The more information that is obtained about the changes, the better chance that good decisions can be made to respond to the changes.

Changes, both positive and negative, are measured in terms of units, dollars, and percentages. These three measurements can tell us a lot about the performance of a business. From our \$1,000,000 monthly sales example, we have already looked at the dollar *increase*

(+\$50,000 over last year) and the percentage *increase* (+5.3% over last year). We know that we have \$50,000 more sales dollars, a positive change. We know that we increased sales by 5.3%, also a positive change.

Performing that same financial analysis process, our \$1,000,000 is \$100,000 *below* the budget of \$1,100,000 and 9.1% *below* the budget. We know that we have \$100,000 fewer sales dollars than budgeted, a negative result. Our 9.1% is also a negative result from our budget.

The final measurement is units. If the entire \$1,000,000 in monthly sales was from room revenue, our unit will be the number of rooms sold. Our accounting reports would tell us how many rooms were sold and what the average room rate was. Let's assume the average room rate was \$80. We can then calculate the number of rooms sold by dividing total room sales of \$1,000,000 by the average room rate of \$80, which gives us 12,500 rooms sold. That should match the number of rooms sold on our accounting report.

So now we have the units or volume—12,500 rooms sold—but we don't know if this is better or worse than last year's monthly sales of \$950,000. The answer will come from last year's accounting reports. If the report tells us that the average rate for last year was \$78 and 12,180 rooms were sold, we can multiply these together and get the monthly sales of \$950,000. Now we can compare our actual rooms sold this year of 12,500 to last year's rooms sold of 12,180. We can also compare this year's average rate of \$80 to last year's average rate of \$78.

Take a minute to calculate the increases from last year in dollars, units, and percentages for this year's monthly sales of \$1,000,000 (Table 2.1).

**TABLE 2.1**  
**Comparison Actual to Last Year**

	Sales	Rooms Sold	Average Rate
<b>This year</b>	\$1,000,000	12,500	\$80
<b>Last year</b>	\$950,000	12,180	\$78
<b>Dollar difference</b>			
<b>Percentage difference</b>			

**The Answers to Table 2.1**  
**Comparison Actual to Last Year**

	Sales	Rooms Sold	Average Rate
<b>This year</b>	\$1,000,000	12,500	\$80
<b>Last year</b>	\$950,000	12,180	\$78
<b>Dollar difference</b>	\$50,000	320	\$2
<b>Percentage difference</b>	+5.3%	+2.6%	+2.6%

## Using Percentages in Financial Analysis

**Percentages** are one of the three ways numbers are used to measure financial performance. They provide an additional dimension or perspective in financial analysis. Percentages measure relationships and changes and always involve two numbers.

### Calculating Percentages

Percentages are the result of combining two numbers that define a relationship. A change in one number changes the resulting percentage. Both numbers can also change. When a percentage changes, it is important to know which number changed and what caused the change. For example:

*Wage cost percentage equals wage expense dollars divided  
by the associated revenue dollars*

If our department wage expense is \$350 and our department revenue is \$1,000, our wage cost percentage is 35% ( $\$350 / \$1,000$ ).

Wage cost percentage can go up or down in two ways. An increased wage cost would result from our actual wage expense increasing or our revenues decreasing. Continuing our example:

1.  $\$400 \text{ Wage Expense} / \$1,000 \text{ Department Revenue} = 40\% \text{ Wage Cost Percentage}$
2.  $\$350 \text{ Wage Expense} / \$875 \text{ Department Revenue} = 40\% \text{ Wage Cost Percentage}$

If our wage cost expense went up, we would analyze the labor numbers to see where the increase was and what caused the increase. In our first example, our wage expense went up \$50 to \$400, but our department revenue remained the same at \$1,000. This is not good because we spent \$50 more on wages but did not increase our output or revenues. The business operation was *less productive*.

In our second example, our wage cost remained constant at \$350, but our department revenue went down \$125 to \$875. This is also not good because we spent the same amount on wages, \$350, but it resulted in less sales, \$875. Again, our business operation was *less productive*.

When you identify where the changes occurred, then you can look for the causes of the changes and make any necessary adjustments to improve operations. Our corrective action will be different in each example. In the first example, we would look at our work schedule to make scheduling changes to get back to 35% wage cost. In our second example, we would look to the sales department to see what caused the drop in sales to \$875 and to determine how we can correct it. In either case, it is an important part of financial analysis to make any necessary changes in our work schedule to adjust to the forecasted production volumes and their corresponding sales.

## What Percentages Measure

Percentages measure relationships and *changes*. An example of relationships is the previous wage cost example. A 35% wage cost means that 35 cents out of every revenue dollar is used to pay the wage cost associated with producing that revenue dollar. Another example is food cost percentage. An actual food cost percentage of 40% means that 40 cents out of every food revenue dollar is used to pay for the associated food cost to produce that one food revenue dollar.

The food cost percentage will go up or down based on changes in food costs or food revenues. To become more productive and profitable, the actual food expense that results in a sale would have to decline or stay the same, but the food revenue would increase. To become less productive, our food cost would have to remain the same and our food revenues go down or our food cost would have to increase but our food revenues would remain the same. By looking at each number and identifying any changes, we analyze the numbers and identify what changed and how that affects our operational performance.

Let's look at another example of percentages and change. If our revenues increase from \$1,000 to \$1,200, the resulting dollar change is an increase of \$200. To calculate the associated percentage change, divide the \$200 increase by the original \$1,000 revenue, and the result is a 20% increase in revenues. *The amount of change is always divided by the base, beginning, or original number.* Percentage change can be calculated for changes in revenues, expenses, profits, assets, units, liabilities, owner equity, or any other specific account.

Using percentages in the process of financial analysis includes three steps. First is identifying and measuring the change. Second is identifying the cause of the change. Third is developing and implementing corrective action into daily operations.

## Four Types of Percentages Used in Financial Analysis

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### Cost or Expense Percentages

These percentages tell us what dollar amounts of expenses are associated with corresponding revenues or sales. The previous examples of wage cost and food cost demonstrate cost percentages. Cost percentages can be calculated for any expense account or type that has a specific dollar cost associated with it. The formula for cost percentage is expense dollars divided by corresponding revenue dollars. For example, suppose that the room revenues for January are \$40,000, wage costs are \$5,000, benefit costs are \$2,000, reservation costs are \$4,000, and linen costs are \$1,500. Our expense formula is dollar cost / department revenue. Our cost percentages for January are as follows:

*Wage Cost = 12.5% (\$5,000 / \$40,000)*

*Benefit Cost = 5.0% (\$2,000 / \$40,000)*

*Reservation Cost = 10.0% (\$4,000 / \$40,000)*

*Linen Cost = 3.8% (\$1,500 / \$40,000)*

## Profit Percentages

Profit percentages tell how much of the revenue dollar is remaining after all expenses are paid. Profits are measured in dollars and percentages. Dollar profit measures the absolute number of dollars remaining as profit, whereas percentage profit measures how much of the sales dollar is remaining as profit. Profit percentages can be applied to different levels of profit: department profits, house profits, or gross operating profits.

Department profit percentages are important because each department that is a profit center has a different profit percentage resulting in different department profitability. For example, the rooms department typically has a department profit range of 65% to 75%, the banquet or catering department profit typically ranges from 30% to 40%, lounge and retail shop profits range from 25% to 35%, and restaurant profits range from 0% to 10%. It is also possible for some restaurants to operate at a loss, therefore having a negative percentage referred to as department loss percentage rather than department profit percentage.

## Mix Percentages

Mix percentages tell you how much of your total comes from different departments, or how much each department adds to the total. Mix percentages can be measured in units or dollars. They are useful because they provide a quantified measure of each part to the whole.

The sales mix percentage identifies the portion or amount each department's sales adds to total sales. Following is an example of a hotel sales mix:

<u>Department</u>	<u>Sales Dollars</u>	<u>Sales Mix Percentage</u>
Rooms sales	\$1,000	50%
Restaurant sales	300	15%
Beverage sales	200	10%
Banquet sales	<u>500</u>	<u>25%</u>
Total sales	\$2,000	100%

If each department has the same profit percentage, the sales mix percentage is not very helpful. In this case, the same amount of profit will result from each revenue dollar regardless of the department. However, the actual department profit percentages are very different as demonstrated in the previous section. Let's add department profit percentages to our example:

<b>Department</b>	<b>Profit</b>		<b>Sales Mix</b>		<b>Profit Mix</b>	
	<b>Percentage</b>	<b>Sales Dollars</b>	<b>Percentage</b>	<b>Profit Dollars</b>	<b>Percentage</b>	
Rooms sales	70%	\$1,000	50%	\$700	70.7%	
Restaurant sales	10%	300	15%	30	3.0%	
Beverage sales	30%	200	10%	60	6.1%	
Banquet sales	40%	<u>500</u>	<u>25%</u>	<u>200</u>	<u>20.2%</u>	
Total sales/profit		\$2,000	100%	\$990	100.0%	

Now we can draw some additional conclusions about the monthly sales and profits:

The Rooms Department generated 50% of sales but 70.7% of total profit dollars.

The Restaurant Department generated 15% of sales but only 3.0% of total profit dollars.

The Beverage Department generated 10% of sales but only 6.1% of total profit dollars.

The Banquet Department generated 25% of sales and 20.2% of total profit dollars.

This information tells us that the Rooms Department is the main contributor of both sales and profits. This department should be our main priority. The Banquet Department is the next highest profit contributor in dollars and percentages. It is still important to focus on Restaurant and Beverage operations, but they do not account for a significant portion of profits—9.1% combined, even though they have a combined 25% of sales.

These mix percentages have given us examples of sales and profit dollar mix percentages. We can also calculate a mix percentage for units sold, market segment, meal periods, or any other unit that we measure and record. Following are examples of the rooms sold market segment mix and the restaurant meal period mix. These are in units, rooms sold, or customer counts.

<b>Rooms Sold Market Segments</b>			<b>Restaurant Meal Periods</b>		
	<u>Rooms Sold</u>	<u>Mix Percentage</u>	<u>Meal Period</u>	<u>Customers</u>	<u>Mix Percentage</u>
Transient	1,500	60.0%	Breakfast	325	41.7%
Group	700	28.0%	Lunch	190	24.3%
Contract	<u>300</u>	<u>12.0%</u>	Dinner	<u>265</u>	<u>34.0%</u>
Total	2,500	100.0%	Total	780	100.0%

## Percentage Change

This percentage is important because it measures progress or lack of progress. Have our restaurant sales increased or decreased compared to last month? Which meal period showed the most improvement, breakfast, lunch, or dinner? Are the sales up because we

had an increase in customers served or because our average check increased? The percentage change gives us this information.

Percentage change is calculated by dividing the amount of the change in dollars (increase or decrease) by the base or original amount. In our example, the change or difference would be calculated by subtracting our actual or current month results from the base or previous month. This change amount would then be divided by the base or, in this example, the previous month's results—for example, this month's sales of \$4,800 compared to last month's sales of \$4,500. Our percentage change is calculated by subtracting this month's sales of \$4,800 from the previous month's sales of \$4,500 resulting in a *difference* of \$300. This is where it is important to relate the numbers to actual operations. This calculation results in a \$300 difference. We then know that this is a positive difference because our current month's sales of \$4,800 is larger than the previous month's sales of \$4,500.



Photo: Hyatt Hotels & Rentals

### The Grand Hyatt Atlanta

This 439-room Hyatt hotel is located in the heart of Buckhead, Atlanta's most prestigious and fashionable area. It has over 18,000 square feet of meeting space including a

9,700-square-foot ballroom, 5,500 square feet of pre-function space, and 10 meeting rooms. Food and beverage facilities include a restaurant, 24-hour room service, pool snack bar, and a lounge.

From an accounting perspective, consider the banquet and catering operations of this hotel. It is located in a very upscale area of Atlanta that provides many opportunities for profitable social banquets in addition to regular group business. It is also able to command high room rates. Do you think that the rooms sales mix will be higher or lower than a typical business hotel? Do you think the banquets and catering sales mix will be higher or lower than a typical business hotel? Do you think the banquet department will be able to generate a higher profit percent than the banquet department in a typical business hotel?

## **Trends in Financial Analysis**

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Trends are important because they show the direction or movement of business operations, industry, and national and international economies. Understanding the different types of trends and how they affect the operations of a business is an important part of financial analysis. We will discuss four types of trends that affect a business.

### **Short- and Long-Term Trends**

It is important to look at both short-term and long-term trends. Short-term trends (less than 90 days) often involve seasonality or the expected cycles of a business or industry. A business that is slowing down because of seasonality or an industry cycle should be evaluated differently from a business that is slowing down because of increased competition, product or service quality, or pricing issues. A long-term trend is a better evaluator of products or services, especially when compared to competitors and industry performance.

When looking at the month-to-month performance of a business, it is important to distinguish between one month of poor financial performance and several months of poor financial performance. It is typical for a business to have a problem or one-time event that results in performance below expectations for a month. One month by itself does not make a trend or signal a major or long-term problem. However, it is important to correct any poor performance to prevent it from becoming an ongoing problem.

If a business has several months of poor performance, this is a trend that could signal continuing major long-term problems. Management might have to make major evaluations and analyses to determine what is causing the ongoing poor performance and how it can be corrected. Correcting the cause of several months or years of poor performance is a much larger task than correcting a problem that has affected only one month.

## Revenue, Expense, and Profit Trends

These trends are all shown in the P&L Statement. Each individual trend is compared to the other two to determine if financial performance is improving or declining. For example, if revenue is trending up and expenses are staying flat, the profit trend should also be up. These are good trends and good relationships between revenues, expenses, and profits. However, if revenues are trending up but expenses are trending up at a faster rate, that will result in lower profits. That is not a good trend. Most important, are revenues or expenses trending in the direction to increase or decrease profits? Equally important is which of the three trends are increasing or decreasing faster or slower than the other two. For example, if sales are increasing 5% but expenses are increasing 10%, profits will decrease. The best case for increasing profits is if sales are increasing and expenses are decreasing.

Favorable and unfavorable trends that affect productivity and profits are demonstrated here:

### Trends That Increase Profits

Revenues increasing, expenses decreasing  
 Revenues increasing, expenses flat  
 Revenues increasing faster than expenses

### Trends That Decrease Profits

Revenues decreasing, expenses increasing  
 Revenues flat, expenses increasing  
 Expenses increasing faster than revenues

## Company and Industry Trends

It is important to compare the trend of a company with the trends of the industry and general economy. Are the company trends the result of the success or failure of your business operations, the result of conditions that are affecting the entire industry, or the result of the general economic environment? Trends can result from any or all of these conditions, and it is important to identify the causes of trends for the business and the industry. Then appropriate action can be implemented.

For example, if your business profits are down 10% from the previous year and the industry average is down 8% to 12%, then you can safely say that your business profits are down as a result of industry conditions and nothing specific to your business. However, if your profits are down 10% from the previous year and the industry average is up 2%, then you can safely say that the reason your business profits are down is because of problems or the inferior performance of your business and not any industry factors. The causes of the 10% decrease in profitability are different from what is occurring in the industry and should be treated in different ways to correct problems and improve efficiencies of the company so that it gets back to desired profit levels.

## General Economic Trends—National and International

The world is indeed shrinking, and problems in other countries or other parts of the United States can affect the performance of an individual business operation. Inflation

rates, interest rates, unemployment rates, consumer confidence indexes, budget deficits, exchange rates, and social/political environments are all factors that may have major influences on a business. The most dramatic and tragic example of this is the attack that took place on September 11, 2001, which changed the economic, political, military, and social environment for every country in the world. Each industry and business had to develop new policies, procedures, and strategies to survive in such a turbulent and negative environment.

Another element of national economic influences is the understanding of business cycles. Economic growth, bull markets, bear markets, and stable social and political environments do not go on forever. There are business cycles as short as six months and as long as five to eleven years that occur in normal business and economic activities. Financial analysis can assist a business in identifying business cycles and their causes and determining best practices to permit the best possible operations in any economic environment.

Today's major impact player is China. It is such a large and undeveloped market that major companies throughout the world are planning ways to tap into this new and emerging business environment. Yesterday's major impact player was technology. How it will affect business in the next few years is also a major factor for a company or industry to consider in its plans and strategies for the future.

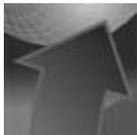
## **Summary**

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This chapter has provided a foundation for accounting concepts and a framework for financial analysis by presenting key components for understanding and working with numbers. Analyzing financial statements provides a way to measure the financial performance of a business and provides information that can be used as a management tool to change or improve the operations of a business.

The four steps of the Financial Management Cycle show the flow of numbers as they are used in financial analysis. Operations produce the numbers, accounting prepares the numbers, both operations management and accounting analyze the numbers, and operations management applies the financial information to daily operations to improve or change them.

Other key elements of financial analysis include (1) comparing actual financial results to other financial information such as the previous year's results, the current year's budget or forecast, or a pro forma; (2) measuring and evaluating changes to other numbers; (3) understanding the importance of percentages in financial analysis; and (4) using trends to interpret financial performance.



## Hospitality Manager Takeaways

1. There are four key ways that numbers are used in measuring financial performance and as a management tool:
  - a. Numbers must be compared to other numbers or standards to have any meaning.
  - b. Numbers are used to identify the cause of change and to measure its impact.
  - c. Percentages are used to measure change and describe relationships.
  - d. Trends provide an important framework to evaluate financial performance.
2. The Financial Management Cycle describes the flow and use of numbers in a company or business. First, operations produce the numbers; second, accounting prepares the numbers; third, both accounting and operations analyze and evaluate the numbers; and fourth, operations applies the numbers to improve operations or solve problems.



## Key Terms

**Budget**—The formal business and financial plan for a business for one year.

**Change**—The difference between two numbers.

**Comparison**—An examination that allows one to note a likeness or difference.

**Financial Management Cycle**—The process of producing, preparing, analyzing, and applying numbers to business operations.

**Forecast**—Updates of the budget prepared weekly, monthly, or quarterly.

**Last Year**—The official financial performance of the previous year.

**Percentages** —A share or proportion in relation to the whole; part.

**Change**—Measures the difference in percentage between two numbers.

**Cost**—Measures the dollar cost or expense as a part of total applicable revenue.

**Mix**—Measures dollars or units as a part of a whole.

**Profit**—Measures the dollar profit as a part of total applicable revenues.

**Pro Forma**—The projected first year of operations prepared before actual operations begin.

**Trend**—A general inclination or tendency.



## Formulas

<b>Change—Dollars</b>	Actual Results – Previous Results
<b>Change—Percentage</b>	Dollar Change / Previous Results
<b>Cost Percentage</b>	Expense Dollars / Corresponding Revenue Dollars
<b>Mix Percentage</b>	Individual or Department Amount / Total
<b>Profit Percentage</b>	Profit Dollars / Corresponding Revenue Dollars



## Review Questions

1. What are the two ways numbers are used in financial analysis? Give examples.
2. Name the four steps in the Financial Management Cycle.
3. Name five reports or financial documents the actual financial performance is compared to.
4. What is the difference between an annual budget and a pro forma?
5. Discuss some of the important components of measuring change in financial analysis.
6. Name the four types of percentages used in financial analysis. Give examples.
7. Name the four types of trends used in financial analysis. Give examples.
8. Discuss, in two paragraphs, why trends are important and how you would use them to analyze the financial operations of a business.



## Problems

1. Following are the financial results for January for the Lumberjack Hotel:

	<u>Actual</u>	<u>Budget</u>	<u>Last Year</u>
Room Revenue	\$ 695,000	\$ 680,000	\$ 650,000
Room Profit	\$ 500,000	\$ 486,000	\$ 460,000
Average Room Rate	\$ 67.50	\$ 68.00	\$ 65.66
Rooms Sold	10,300	10,000	9,900
Occupancy Percent	83.1%	80.1%	79.8%

Restaurant Revenue	\$ 126,000	\$ 125,000	\$ 124,000
Beverage Revenue	\$ 48,000	\$ 50,000	\$ 47,000
Catering Revenue	\$ <u>240,000</u>	\$ <u>250,000</u>	\$ <u>245,000</u>
Total Food & Beverage Revenue	\$ 414,000	\$ 425,000	\$ 416,000
Gift Shop Revenue	\$ 23,000	\$ 22,000	\$ 21,000
Total Revenues	\$1,132,000	\$1,127,000	\$1,087,000

Calculate the following:

- Dollar change for room revenue—actual to budget and last year.
- Percentage change in room revenue—actual to budget and last year.
- Dollar and percentage change for rooms sold, occupancy percentage, and average rate—actual to budget and last year.

Budget      Last Year

- Sales mix percentages for room revenues, total food & beverage revenue, and gift shop revenue.

Actual      Budget      Last Year

- Sales mix percentages for restaurant, beverage, and catering revenues.

Actual      Budget      Last Year

- The following financial information is from the Darden Restaurants 2003 annual report:

	<u>Sales</u>	<u>Mix Percentage</u>	<u>Number of Restaurants</u>	<u>Mix Percentage</u>
Red Lobster	\$2,430,000,000		673	
Olive Garden	\$1,990,000,000		524	
Bahama Breeze	\$ 138,000,000		34	
Smokey Bones	\$ <u>93,000,000</u>		<u>39</u>	
Totals				

- What was the total annual sales and how many total restaurants did Darden operate in 2003?
- Calculate the sales mix percentage for 2003.
- Calculate the restaurant unit mix percentage for 2003.

3. Following is the revenue from continuing operations from the Marriott International 2003 annual report (in millions):

	<u>2003 Mix Percentage</u>	<u>2002 Mix Percentage</u>	<u>2001 Mix Percentage</u>
Full Service	\$5,876	\$5,508	\$5,260
Select Service	\$1,000	\$ 967	\$ 864
Extended Stay	\$ 557	\$ 600	\$ 635
Time Share	<u>\$1,279</u>	<u>\$1,147</u>	<u>\$1,009</u>
Totals	\$8,712	\$8,222	\$7,768

- Calculate the sales mix percentage for 2003, 2002, and 2001.
  - Calculate the percentage change in revenue for each segment from 2003 to 2002.
  - Calculate the percentage change in revenue for each segment from 2002 to 2001.
  - What is the overall revenue growth (percentage change) from 2002 to 2003 and from 2001 to 2002?
4. Calculate the cost and profit percentages for General Electric for 2003 and 2002.

	<u>2003</u>	<u>2003 Percentage</u>	<u>2002</u>	<u>2002 Percentage</u>
Total Revenues	\$134,187		\$132,210	
Cost of Goods Sold	37,189		38,833	
Cost of Services Sold	14,017		14,023	
Interest, financial charges	10,432		10,216	
Other Costs and Expenses	52,645		50,247	
Total Costs	\$114,283		\$113,319	
Earnings before Taxes	\$ 19,904		\$ 18,891	

5. Problems 1 through 4 represent the second step in the financial management cycle. The following questions represent the third step—analyzing the numbers.
- For the Lumberjack Hotel, discuss the actual January performance, including dollar and percentage change. Include comparisons of actual with both the budget and last year and identified operating departments that improved or did not improve.
  - For Darden Restaurants, explain what the mix percentages tell about the sales amounts and number of units for each restaurant concept.
  - For Marriott International, which market segment increased its sales mix percentage the most, and which if any had a decrease in its mix percentage? Compare 2003 actual numbers with both 2002 and 2001 for your answers.

- d. For General Electric, list the cost areas that resulted in productivity improvements and any that resulted in productivity declines for 2003. Comment on all four cost areas and the total costs. Why did the earnings percentage go up? Is that good or bad?