Module Title: MENU PLANNING AND COSTING

Department: Hospitality Management

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Lecture 9 : Determine Sales Forecast

- This lecture presents the methods and procedures you must learn **to create accurate histories** of what you have sold in the past as well as projections of how much you will sell in the future.

- This includes the **total revenue you will generate, the number of guests to be served, and the number of dollars each guest will spend.**
- Knowledge of these techniques is critical if you are to analyze sales trends in the facility you manage and be prepared to serve your future guests well.

Objectives

- At the end of this lecturer, learners will be able to:

- Develop a procedure to record current sales.
- Compute percentage increases or decreases in sales over time.
- Develop a procedure to estimate future sales.

Importance of Forecasting Sales

- The first question operating managers must ask themselves is very simple: **“How many guests will I serve today?—This week?—This year?”.** The answers to questions such as these are critical, since these guests will provide the revenue from which the operator will pay basic operating expenses

- Simply put, if too few guests are served, total revenue may **be insufficient** to cover costs, even if these costs are well managed.
- In the hospitality industry, we have many ways of counting or defining sales. In its simplest case, **sales are the dollar amount of revenue collected during some predetermined time period.**

- The time period may be an hour, shift, day, week, month, or year.
- When you predict the number of guests you will serve and the revenues they will generate in a given future time period, you have created a sales forecast.

- You can determine your actual sales for a current time period by using **a computerized system called a point of sales (POS) system** that has been designed to provide specific sales information.
- Alternatively, **a standard cash register or even manually produced guest checks or head counts** will help you establish how many sales were completed

- It is important to remember that a distinction is made in the hospitality industry between **sales (revenue) and sales volume**, which is the number of **units sold.**

- Consider Manuel, a bagel shop manager, whose Monday business consists of $2,000 in sales (revenue) because he actually sold 3,000 bagels (sales volume).
- Obviously, it is important for Manuel to know how much revenue is taken in, so he can evaluate the expenses required to generate his revenue and the number of units that have been sold. With this information, he can properly prepare to serve additional guests the next day.

Advantages of Precise Sales Forecasts

- 1. Accurate revenue estimates
- 2. Improved ability to predict expenses
- 3. Greater efficiency in scheduling needed workers
- 4. Greater efficiency in scheduling menu item production schedules
- 5. Better accuracy in purchasing the correct amount of food for immediate use

- 6. Improved ability to maintain proper levels of nonperishable food inventories
- 7. Improved budgeting ability
- 8. Lower selling prices for guests because of increased operational efficiencies

- 9. Increased dollars available for current facility maintenance and future growth
- 10. Increased profit levels and stockholder value

Sales History

- **A sales history** is the systematic recording of all sales achieved during a predetermined time period.
- It is no less than an accurate record of what your operation has sold.

- Before you can develop a sales history, however, it is necessary for you to think about the definition of sales that is most helpful to you and your understanding of how the facility you manage functions.

- Notice that, in this most basic of cases, you would determine **daily sales either from your POS system, from sales revenue recorded on your cash register**, or from adding the information **recorded on your guest checks**. You would then transfer that **number**, on a daily basis, to the sales history by entering the amount of your daily sales in the column titled **Daily Sales.**

- **Sales to date** is the cumulative total of sales reported in the unit.
- **Sales to date** is the number we get when we add today's sales to the sales of all prior days in the reporting period.
- Sales to date on Tuesday, January 2, is computed by adding Tuesday's sales to those of the prior day ($851.90 + $ 974.37 = $1,826.27).

Daily Sales vs Sales to Date

Rae's Restaurant			
Sales Period	*Date*	*Daily Sales*	*Sales to Date*
Monday	1/1	$ 851.90	$ 851.90
Tuesday	1/2	974.37	1,826.27
Wednesday	1/3	1,004.22	2,830.49
Thursday	1/4	976.01	3,806.50
Friday	1/5	856.54	4,663.04
Saturday	1/6	1,428.22	6,091.26
Sunday	1/7	1,241.70	7,332.96
Week's Total			7,332.96

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P30
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Sales History

Eureka Summer Camp								
	Guests Served							
Serving Period	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total
7:00–9:00 A.M.	121							
9:00–11:00 A.M.	40							
11:00–1:00 P.M.	131							
1:00–3:00 P.M.	11							
3:00–5:00 P.M.	42							
5:00–7:00 P.M.	161							
Total Served	506							

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P31
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- Given the data in **sales history table**, the implications for staffing service personnel at the camp are very clear.
- **Fewer** service personnel are needed from 9:00 to 11:00 A.M. than from 7:00 to 9:00 A.M.
- The reason is obvious. Fewer campers eat between 9:00 and 11:00 A.M. (40) than between 7:00 and 9:00 A.M.(121).

- Notice that, as a knowledgeable manager, if you were operating this camp, you could either **reduce staff** during the slower service period or **shift those workers to some other necessary task**.
- Notice also that you might decide not to produce as many menu items for consumption during the 9:00 to 11:00 AM period.

- In that way, you could make more efficient use of both labor and food products.
- It is simply easier to manage well when you know the answer to the question, **“How many guests will I serve?”**

Computing Averages for Sales Histories

- In some cases, knowing the a**verage number of revenue dollars generated in a time period, or the average number of guests served** in that period, may be a real benefit to you.

- This is because it may be helpful to know, for example, the number of dollar sales achieved **on a typical day last week or the number of guests served on that same typical day.**

- Since **future guest activity can often be expected to be very similar to the activities of guests in the past**, using historical averages from your operation can be quite useful in helping you project future guest sales and counts.

- **An average** is defined as the value arrived at by adding the quantities in a series and dividing the sum of the quantities by the number of items in the series.
- Thus, the average of 6 9 18 11. The sum of the quantities in this case equals 33 (6 + 9+ 18 = 33). The number of items in the series is **three**, that is, 6, 9, and 18. Thus, **33/3 = 11**, the average of the numbers.

- Sometimes, an average is referred to as the **mean** in a series of quantities.
- The two major types of averages you are likely to encounter as a foodservice manager are as follows:
- **1. Fixed average**
- **2. Rolling average**

- **A fixed average** is an average in which you determine a specific time period, for example, the first 14 days of a given month, and then you compute the mean or average amount of sales or guest activity for that period.
- This average (total revenue/number of days) is fixed or constant because management has identified **14 specific days** that are used to make up the average.

Fixed average example

Day	Daily Sales
1	$ 350.00
2	320.00
3	390.00
4	440.00
5	420.00
6	458.00
7	450.00
8	460.00
9	410.00
10	440.00
11	470.00
12	460.00
13	418.00
14	494.00
14-day total	$5,980.00

$$\frac{\$5,980}{14} = \$427.14 \text{ per day}$$

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P33
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- **The rolling average** is the average amount of sales or volume over a changing time period.
- Essentially, where a fixed average is computed using a specific or constant set of data, the rolling average is computed using **data that will change regularly**

- To illustrate, consider the case of Ubalda Salas, who operates a sports bar in a university town in the Midwest.
- Ubalda is interested in knowing what the average revenue **dollars were in her operation for each prior seven-day period.**
- Obviously, in this case, the prior seven-day period **changes or rolls** forward by one day, each day.

- It is important to note that Ubalda could have been interested in her average daily revenue last week (fixed average), but she prefers to know her average sales for the last seven days.
- This means that she will, at times, be using data from **both last week and this week to compute the last seven-day average**.

- Note that each seven-day period is made up of a group of daily revenue numbers that changes over time.
- The first seven-day rolling average is computed by summing the seven days' revenue and **dividing that number** by seven to arrive at a seven-day rolling average

Ubalda's Sports Bar

Date	Seven-Day Period 1–7	2–8	3–9	4–10	5–11	6–12	7–13	8–14
1	$350	–						
2	320	$320	–					
3	390	390	$390	–				
4	440	440	440	$440	–			
5	420	420	420	420	$420	–		
6	458	458	458	458	458	$458	–	
7	450	450	450	450	450	450	$450	–
8		460	460	460	460	460	460	$460
9			410	410	410	410	410	410
10				440	440	440	440	440
11					470	470	470	470
12						460	460	460
13							418	418
14								494
Total	2,828	2,938	3,028	3,078	3,108	3,148	3,108	3,152
7-Day Rolling Average	404.00	419.71	432.57	439.71	444.00	449.71	444.00	450.29

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P35
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Recording Revenue, Guest Counts, or Both?

- Food service operators developing sales histories by recording the number of individuals they serve each day.
- Thus, **guest counts**, the term used in the hospitality industry to indicate the number of **people served**, is recorded on a regular basis.

- Not surprisingly, you may decide that your operation is best managed by tracking both **revenue and guest counts.**
- In fact, if you do decide to record both revenue and guest counts, you have the information you need to **compute average sales per guest, a term also known as check average.**

- Average sales per guest is determined by the following formula:

$$\frac{\text{Total Sales}}{\text{Number of Guests Served}} = \text{Average Sales per Guest}$$

Brothers' Family Restaurant				
Sales Period	Date	Sales	Guests Served	Average Sales per Guest
Monday	1/1	$1,365.00	190	$7.18
Tuesday	1/2	2,750.00	314	8.76
Two-Day Average		2,057.50	252	8.16

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P36
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Predicting Future Sales

- It has been pointed out that truly outstanding managers have an ability to see the future in regard to the revenue figures they can achieve and the number of guests they expect to serve.

- **Future Revenues:**
- Erica Tullstein is the manager of Rock's Pizza Pub on the campus of State College. Her guests consist of college students, most of whom come to the Rock to talk, listen to music, eat, and study. Erica has done a good job in maintaining sales histories in the two years she has managed the Rock. She records the revenue dollars she achieves on a daily basis, as well as the number of students frequenting the Rock.

- Revenue data for the last three months of the year are recorded

Revenue History

Rock's Pizza Pub				
Month	Sales This Year	Sales Last Year	Variance	Percentage Variance
October	$ 75,000	$ 72,500	$ 2,500	3.4%
November	64,250	60,000	4,250	7.1
December	57,500	50,500	7,000	13.9
Fourth-Quarter Total	196,750	183,000	13,750	7.5

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P43
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Let’s do it!

- If Erica were to use the 7.5% average increase from the fourth quarter of last year to predict her revenues for the first quarter of this year, a planning sheet for the first quarter of this year could be developed as fellow:

Rock's Pizza Pub				
Month	Sales Last Year	% Increase Estimate	Increase Amount	Revenue Forecast
January	$ 68,500	7.5%	$ 5,137.50	$ 73,637.50
February	72,000	7.5	5,400.00	77,400.00
March	77,000	7.5	5,775.00	82,775.00
First-Quarter Total	217,500	7.5	16,312.50	233,812.50

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P43
https://www.slideshare.net/slideshow/food-and-beverage-cost-control-2nd-edition/26949965

Let’s do it!

Future Guest Counts

- Guest Count History

Rock's Pizza Pub				
Month	*Guests This Year*	*Guests Last Year*	*Variance*	*Percentage Variance*
October	14,200	13,700	+ 500	3.6%
November	15,250	14,500	+ 750	5.2
December	16,900	15,500	+1,400	9.0
Fourth-Quarter Total	46,350	43,700	+2,650	6.1

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P45
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First-Quarter Guest Count Forecast

Rock's Pizza Pub				
Month	Guests Last Year	% Increase Estimate	Guest Increase Estimate	Guest Count Forecast
January	12,620	6.1%	770	13,390
February	13,120	6.1	800	13,920
March	13,241	6.1	808	14,049
First-Quarter Total	38,981	6.1	2,378	41,359

Jack E. Miller et Al (2002) Food and Beverage Cost Control, Second Edition P43
https://www.slideshare.net/slideshow/food-and-beverage-cost-control-2nd-edition/26949965

References

[1] Jack E. Miller, David K. Hayes & Lea R. Dopson (2002)Food and Beverage Cost Control, Second Edition, P27-52

https://www.slideshare.net/slideshow/food-and-beverage-cost-control-2nd-edition/26949965

[2] Paul J. McVety et al (2009), Fundamentals of Menu Planning

https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

End of Lecture 9

Next lecture : Managing the cost of beverages

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Thank you!