

Module Title: MENU PLANNING AND COSTING

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**Lecture 10 : Managing the cost of food and beverages**

# Food cost vs Beverage cost

- Food cost is used to express amount spent to buy and to prepare **food dishes** while beverage cost is used to express the amount paid to buy different beverages (alcoholic and nonalcoholic)
- Food cost is much complicated than beverage cost
- This lecture will put much emphasis on food cost handling and beverage cost will be emerged to the next topic

- In this lecture, you will learn the professional techniques and methods used to effectively purchase, receive, and store food products.
- You will also master the formulas used to compute the true cost of the food you provide your guests, as well as a process for estimating the value of food you have used on a daily or weekly basis

# Objectives

- ❑ At the end of this lecturer, learners will be able to:
- ✓ Use sales histories and standardized recipes to determine the amount of food products to buy in anticipation of forecasted sales.
- ✓ Purchase, receive, and store food products in a cost-effective manner.
- ✓ Compute the cost of food sold and food cost percentage.

# Menu Item Forecasting

- The menu determines the success of most foodservice operations.
- When selecting a restaurant, many guests start the process with the question, **“What do you feel like eating?”**
- For many guests, the answer to this question is the **name of a restaurant, rather than a menu item.**

- The answer to the question of how many servings of roast chicken, pork, and beef you should prepare lies in accurate menu forecasting.
- For forecasting menu items to be used for a certain period, managers should refer to previous menu items Sales History for a certain period.

# Menu Item Sales History

Date: 1/1-1/5

Menu Items Sold

<i>Menu Item</i>	<i>Mon</i>	<i>Tues</i>	<i>Wed</i>	<i>Thurs</i>	<i>Fri</i>	<i>Total</i>	<i>Week's Average</i>
Roast Chicken	70	72	61	85	77	365	73
Roast Pork	110	108	144	109	102	573	115
Roast Beef	100	140	95	121	106	562	112
Total	280	320	300	315	285	1,500	

- As you can see, an estimate of **300 guests** for next Monday makes sense because the weekly sales total last week of 1,500 guests served averages **300 guests per day** ( $1,500/5$  days  $300/\text{day}$ ). You also know that, on an average day, you sold **73 roast chicken** ( $365$  sold/ $5$  days =  $73/\text{day}$ ), **115 roast pork** ( $573$  sold/ $5$  days =  $115/\text{day}$ ), and **112 roast pork** ( $562$  sold/ $5$  =  $112/\text{day}$ ).

- Once you know the average number of people selecting a given menu item, and you know the total number of guests who made the selections, you can compute **the popularity index**, which is defined as **the percentage of total guests choosing a given menu item from a list of alternatives.**

- In this example, you can improve your “**guess**” about the quantity of each item to prepare if you use the sales history to help guide your decision.

- If you assume that future guests will select menu items much as past guests have done, given that the list of menu items remains the same, that information can be used to improve your **predictions** with the following formula:

$$\text{Popularity Index} = \frac{\text{Total Number of a Specific Menu Item Sold}}{\text{Total Number of All Menu Items Sold}}$$

- In this example, the popularity index for roast chicken last week was 24.3% (365 roast chicken sold/1,500 total guests = 0.243, or 24.3%). Similarly, 38.2% (573 roast pork sold/1,500 total guests = 38.20%) prefer roast pork, while 37.50% (562 roast beef sold/1,500 total guests = 37.50%) select roast beef

- If we know, even in a general way, what we can expect our guests to select, we are better prepared to make good decisions about the quantity of each item that should be produced. The given example, illustrates the **best guess of what your 300 guests are likely to order when they arrive.**

- The basic formula for individual menu item forecasting, based on an item's individual sales history, is as follows:

$$\begin{aligned} &\text{Number of Guests Expected} \times \text{Item Popularity Index} \\ &= \text{Predicted Number of That Item to Be Sold} \end{aligned}$$

- **The predicted number to be sold** is simply the quantity of a specific menu item **likely** to be sold given an estimate of the total number of guests expected.

- Once you know what your guests are likely to select, you can move to the next step, which is **the determination of how many of each menu item your production staff should be instructed to prepare.**

- It is important to note that foodservice managers face a great deal of uncertainty when attempting to determine the number of guests who will arrive on a given day.
- A variety of factors come together to influence the number of guests you can expect to serve on any specific day. Among these are the following:

- 1. Competition
- 2. Weather
- 3. Special events in your area
- 4. Hotel occupancy

- 5. Your own promotions
- 6. Your competitor's promotions
- 7. Quality of service
- 8. Operational consistency

- As a professional foodservice manager, you must take into account **possible increases or decreases in guest count and possible fluctuations** in your predicted number to be sold computations when planning how many of each menu item you should prepare.

# Standardized Recipes

- While it is the menu that determines what is to be sold and at what price, **the standardized recipe** controls both the quantity and the quality of what your kitchen will produce.
- Simply put, a standardized recipe consists of the **procedures to be used in preparing and serving each of your menu items.**

- The standardized recipe ensures that each time a **guest orders an item from your menu, he or she receives exactly what you intended the guest to receive.**
- Critical factors in a standardized recipe such as **cooking times and serving size** have been tested and retested and should remain constant.

- Thus, the standardized recipe is **the key** to menu item consistency and, ultimately, operational **success**.
- It is always true that guests expect to get what they pay for.
- The standardized recipe helps you make sure that they do.
- Inconsistency is the enemy of any quality foodservice operation.

- Standardized recipes must be appropriate for the operation using them.
- In general, standardized recipes contain the following information:
  - 1. Item name
  - 2. Total yield (number of servings)
  - 3. Portion size

- 4. Ingredient list
- 5. Preparation/method section
- 6. Cooking time and temperature
- 7. Special instructions, if necessary
- 8. Recipe cost (optional)\*

- Interestingly, despite their tremendous advantages, many managers refuse to take the time to develop standardized recipes.
- The excuses used are many, but the following list contains arguments often used against standardized recipes:

- 1. They take too long to use.
- 2. My people don't need recipes; they know how we do things here.
- 3. My chef refuses to reveal his or her secrets.
- 4. They take too long to write up.
- 5. We tried them but lost some, so we stopped using them.
- 6. They are too hard to read, or many of my people cannot read English.

# Example of Standardized Recipe

## Roast Chicken

Special Instructions: Serve with  
Crabapple Garnish (see Crabapple Garnish  
Standardized Recipe).  
Serve on 10-in. plate.

Recipe Yield: 48  
Portion Size: 1/4 chicken  
Portion Cost: See cost sheet

Ingredients	Amount	Method
Chicken Quarters (twelve 3–3½ lb. chickens)	48 ea.	Step 1. Wash chicken; check for pinfeathers; tray on 24 in. × 20 in. baking pans.
Butter (melted)	1 lb. 4 oz.	Step 2. Clarify butter; brush liberally on chicken quarters; combine all seasonings; mix well; sprinkle all over chicken quarters.
Salt	¼ C	
Pepper	2 T	
Paprika	3 T	
Poultry Seasoning	2 t	
Ginger	1½ t	
Garlic Powder	1 T	Step 3. Roast at 325°F in oven for 2½ hours, to an internal tempera- ture of at least 165°F.

- In fact, standardized recipes are so important that they are **the cornerstones** of any serious effort to produce **consistent, high-quality** food products at an established cost.
- Without them, cost control efforts become nothing more than raising selling prices, reducing portion sizes, or lessening quality.

- The importance of **standardized recipes** should not be underestimated.
- The effective operator should have **them printed in the language of his or her production people, or accept the responsibility of providing the training needed to learn to read them in their current form.**

- When **adjusting recipes for quantity** (total yield), two general methods may be employed. They are:

1. Factor method

2. Percentage technique

# Factor Method

- When using the factor method, you must use the following formula to arrive at a recipe conversion factor:

$$\frac{\text{Yield Desired}}{\text{Current Yield}} = \text{Conversion Factor}$$

- If, for example, our current recipe makes 50 portions, and the number of portions we wish to make is 125, the formula would be as follows:

$$\frac{125}{50} = 2.5$$

- Thus, 2.5 would be the conversion factor.
- To produce 125 portions, we would multiply each ingredient in the recipe by 2.5 to arrive at the proper amount of that ingredient.

# Factor method example:

<i>Ingredient</i>	<i>Original Amount</i>	<i>Conversion Factor</i>	<i>New Amount</i>
A	4 lb.	2.5	10 lb.
B	1 qt.	2.5	2 <sup>1</sup> / <sub>2</sub> qt.
C	1 <sup>1</sup> / <sub>2</sub> T	2.5	3 <sup>3</sup> / <sub>4</sub> T

# Percentage Method

- The percentage method deals with recipe **weight**, rather than with a conversion factor. In this regard, it is more accurate than using a conversion factor alone

- Essentially, the percentage method involves **computing the percentage of each ingredient in relation to the total weight needed.**
- In this method, the original recipe is used to determine the total weight of all ingredients used to prepare the item.
- A percentage is then established for each item ingredient.

# Percentage method formula:

$$\text{Item A Ingredient Weight} / \text{Total Recipe Weight} = \% \text{ of Total}$$

- To compute the new recipe amount, we multiply the % of total figure times the total amount required.

# Percentage method example:

<i>Ingredient</i>	<i>Original Amount</i>	<i>Ounces</i>	<i>% of Total</i>	<i>Total Amount Required</i>	<i>% of Total</i>	<i>New Recipe Amount</i>
A	6 lb. 8 oz.	104 oz.	61.9%	300 oz.	61.9%	185.7 oz.
B	12 oz.	12	7.1	300 oz.	7.1	21.3 oz.
C	1 lb.	16	9.5	300 oz.	9.5	28.5 oz.
D	2 lb. 4 oz.	36	21.5	300 oz.	21.5	64.5 oz.
Total	10 lb. 8 oz.	168	100.0	300 oz.	100.0	300.0 oz.

**Let's exercise!**

- The proper conversion of weights and measures is important in recipe expansion or reduction.
- The judgment of the recipe writer is critical, however, since such factors as **cooking time, temperature, and utensil selection** may vary as recipes are increased or decreased in size.

# Inventory Control

- With a knowledge of what is likely to be purchased by your guests (**sales forecast**) and a firm idea of the ingredients necessary to produce these items (**standardized recipes**), you must make decisions about desired inventory levels.

- A desired inventory level is simply the answer to the question, **“How much of each needed ingredient should I have on hand at any one time?”**
- It is clear that this question can only be answered if your **sales forecast is of good quality and your standardized recipes are in place** so you do not **“forget”** to stock an ingredient necessary for the production of your menu item.

# Determining Inventory Levels

- 1. Storage capacity
- 2. Item perishability
- 3. Vendor delivery schedule
- 4. Potential savings from increased purchase size

- 5. Operating calendar
- 6. Relative importance of stock outages
- 7. Value of inventory dollars to the operator

# References

[1] Jack E. Miller, David K. Hayes & Lea R. Dopson (2002) Food and Beverage Cost Control, Second Edition, P53-68

<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 10

Next lecture : Managing the food and beverage  
production process

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Thank you!