



FOOD AND BEVERAGE MANAGEMENT & COST CONTROL 16SCCHM9



Dr. A. ALAN VIJAY, HEAD
DEPARTMENT OF HOTEL MANAGEMENT
BHARATH COLLEGE OF SCIENCE &
MANAGEMENT, THANJAVUR – 05.

FOOD AND BEVERAGE MANAGEMENT & COST CONTROL

UNIT - 1

GAINING A PERSPECTIVE ON SELECTION AND PROCUREMENT

- Selection of procurement
- Distribution systems
- Forces affecting the distribution systems
- An over view of purchasing function
- The organization and the administration
- Buyers relationship with purchasing other company personnel

➤ **Selection of procurement :**

Procurement is the process of finding, agreeing terms, and acquiring goods, services or works from an external source. Procurement generally involves making buying decisions under conditions of scarcity.



➤ **Distribution system :**

Distribution is the process of making a product or service available for the consumer or business user that needs it. This can be done directly by the producer or service provider or using indirect channels with distributor or intermediations. The overall distribution channel should add value to the consumer.

Distribution system (Channels)

B2B and B2c companies can sell through a single distribution channel or through multiple channels that may include.

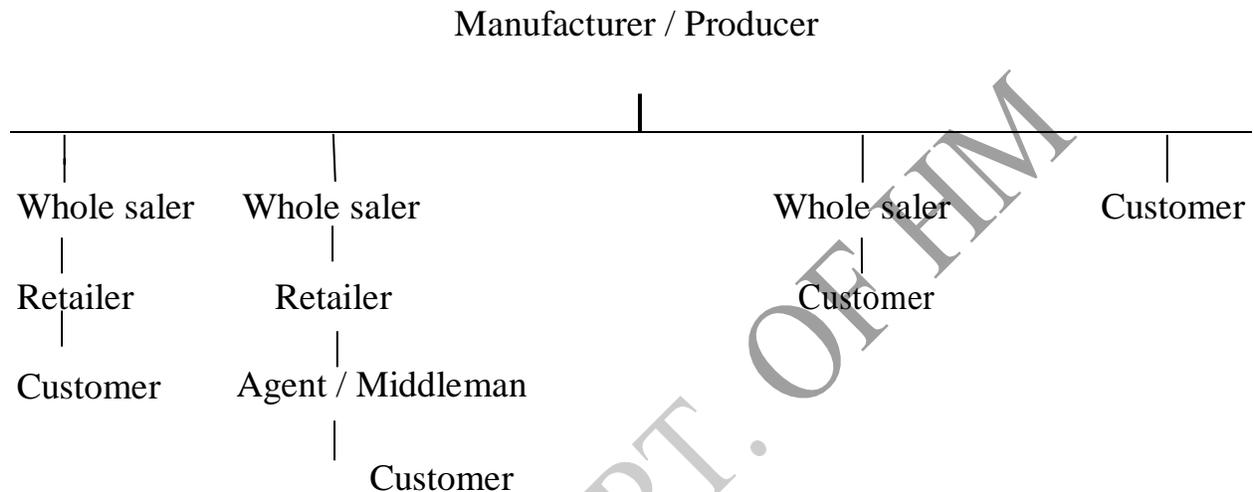
- Whole saler / Distributor

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➤ Direct / Internet

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- Direct / Sales team
- Value Added Reseller (VAR)
- Consultant
- Dealer
- Retail



FACTORS AFFECTING DISTRIBUTION SYSTEM:

1. FACTORS RELATED TO PRODUCTS

(a) Perish ability of product:

Perishable products must be sold and consumed immediately after production so, for perishable products, normally direct (or) short channel is advisable.

(b) Technical aspects:

Technical products cannot be used without sufficient information and direct supervision.

(c) New v/s Existing Product:

Consumers need more information and attention for new products. More efforts and time are required to convince consumers to sell existing product.

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Companies internal situation have direct impact on choice of marketing channel. Manager has to analyze company related factors to decide the best fit channels.

- (a) Companies / hotels financial position.
- (b) Experience and Expertise
- (c) Hotels past experience

3. FACTORS RELATED TO CUSTOMER:

- (a) Credit worthiness of customer
- (b) Attitudes of customer
- (c) Services rendered by customer
- (d) Financial capacity of customer

4. FACTORS RELATED TO MARKET:

- (a) Size of market
- (b) Geographical concentration
- (c) Service expected by market
- (d) Current market trend

5. FACTORS RELATED TO COMPETITION:

- (a) Intensity of competition – Considering competitors distribution marketing strategies.
- (b) Response and reaction of competitors.

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(c) Hotel companies competitive position in market.

6. FACTORS RELATED TO ENVIRONMENT:

(a) Legal provision – Govt. policies

(b) Availability of facilities – Accessibility, Transport, Employees, etc...

➤ PURCHASING FUNCTIONS:

1. Receiving indents.
2. Assessment of demand of need.
3. Selection sources of supply.
4. Receiving of quotation.
5. Placing order.
6. Maxing delivery at the proper time by following up the orders.
7. Verification of invoices.
8. Inspection of incoming materials.
9. Meeting transport requirement of incoming and outgoing materials.
10. Maintaining purchasing records and files.
11. Reporting to the top management.
12. Developing co-ordination with other supplying personnel's.
13. Creating goodwill of the organization in the eyes of the suppliers.

What is Hotel Organizational Structure?

A hotel organization structure is a comprehensive plan by a hotel owner to define departmental activities and responsibilities. This structure brings order to every aspect of hotel operation from the front desk and room service to the human resources department. Hotel organizational structures are necessary to ensure maximum profitability from each room, restaurant and bar on a daily basis. Your hotel can run efficiently if it creates an organizational structure that is easy to understand.

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A hotels organizational structure is useless without an initial listing of organizational objectives. These objectives address internal and external affairs for the hotel so that the goals it sets forth can be achieved by appropriate personnel. An internal objective for a hotel may be weekly meetings between department heads to communicate operational problems. External objectives within a hotel organizational structure may include recruitment goals for seasonal staff and variable pricing for weekdays and weekends.

What is hotel administration?

The Hotel Administration field involves working with people, managing events and creating memorable moments. Below are some resources that can help you decide if a career in this field is right for you.

Required Skills:-

The hospitality industry revolves around carefully planned events, world – class meals and welcoming guest rooms. If you pursue a career in hospitality, you might work at a hotel, resort, restaurant, campground or casino. A hospitality administration job requires you to direct several services, such as food preparation, hotel activities and guest accommodations, combined with the management of general business tasks, such as accounting, marketing and sales.

Hospitality managers must oversee all aspects involved in running a profitable and comfortable facility. If you want to enter the field, you should have a strong understanding of food service management, human resources, hospitality law, hospitality marketing and tourism management. Hospitality professionals also need to have exceptional communication skills, since much of their work involves interacting with clients and customers. If you're considering a leadership position, you should possess strong critical thinking, finance and organizational skills.

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BUYERS RELATIONSHIP WITH PURCHASING OTHER COMPANY PERSONNEL



- Benefits of supplier relationship management.
 - (a) Reduced cost
 - (b) Increased efficiency
 - (c) Minimizes price volatility
 - (d) Consolidated of the supply chain
 - (e) Continual improvement of operations

In recent years, many companies have come to recognize the crucial role that procurement management activities play in determining overall corporate performance of main concern in many companies is the development of an effective and custom tailored supplier partnership program.

The common practices in procurement have changes drastically in the recent years. The traditional 'purchasing' have evolved into 'procurement' or 'supply chain management'. The new way of conducting business is more based on a buyer / supplier relationships vs. simply the best price. By buyer / supplier relationship, it does not mean a personal relationship between the two sides rather it means working together to a mutually beneficial long-term program.

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Another reason for this movement towards closer co-operation between buyers & suppliers is due to the globalization and today's much more competitive and complex marketplace. This new reality of procurement is focused on cost, quality, delivery, flexibility, and technology. All of this subsequently creates a greater need to emphasize mutually beneficial collaboration amongst various business partners. The buyer – supplier relationships have evolved towards a new form in order to respond to intensified competition and complexity.

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PRINCIPLES OF SELECTION & PROCUREMENT THE PURCHASE SPECIFICATION



STANDARD PURCHASE SPECIFICATION – SPS

Standard purchase specification are concise description of quality, size, weight, or count factor desired for a particular item, specification buying will give uniformity and consistency to purchasing and receiving, that will aid to maintain a desire food cost and create a standard product.

OBJECTIVE:

- a) To establish a suitable buying standard for particular commodity for the hotel.
- b) To furnish the supplier in writing in specific term the requirement of the hotel.
- c) To help in setting the price of a commodity.
- d) To obtain a standard product material for f & b dept.

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e) To obtain a standard product so that measurement of performances of departments can be accurate.

For proper and effective control, purchase specification should be used in all purchasing. It help in bringing uniformity and consistency in buying, which maintains required cost of product. Each specification is determined by purchase manger, Executive chef, and F & B manager as per the catering policies, menu requirement and price range. The specification format is maintained with F & B service and production, receiving, stores department.

The purchase specifications contain:

- a) Definition of each items.
- b) Grade or brand name of each item
- c) Weight, size, or count.
- d) Unit against which price should be coated.
- e) Special note for commodity

THE OPTIMAL AMOUNT

The optimal quantity of an activity is the quantity at which marginal benefit is equal to marginal cost, and where the marginal benefit curve intersects with the marginal cost curve.

THE OPTIMAL PRICES

The optimal price is the price at which a seller can make the most profit. In other words, the price point at which the seller's total profit is maximized. When they find the price point that gives them the ideal sales volume, they have reached the optimal price.

THE OPTIMAL SUPPLIERS

Supplier quality is a supplier's ability to deliver goods or services that will satisfy customers' needs. Supplier quality management is defined the system in which supplier quality is managed by using a proactive and collaborative approach.

It's an organizations interest in ensuring that its service or material suppliers are providing the highest quality products and services while also conforming to pre-established requirements. This is often accomplished through the use of supplier

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quality management systems QMS, which allow companies to monitor supply chains and inspect or audit materials and services at regular intervals.

Supplier quality management begins early in the product design and supplier selection process. It continues through the entire life cycle of a product and for the duration of the relationship with that particular supplier. Proper supplier quality management tactics include taking inputs (such as employee work, market place requirements, operating funds, raw materials, and supplies) and effectively and efficiently converting them to outputs deemed valuable by customers.

Supplier performance and quality management go beyond securing a low purchase price or getting the best deal on bulk materials. It also includes:

- The costs of transactions, communication, problem resolution and switching suppliers.
- The reliability of supplier delivery, as well as the supplier's internal policies (e.g., inventory levels, all impact supply-chain performance)

THE BENEFITS OF A PROPER SUPPLIER QUALITY MANAGEMENT PROCESS

At one time, it was not uncommon to line up multiple suppliers for the same raw material, usually due to concerns about running out of stock or a desire to play suppliers against one another for price reductions. This has given way to working more closely with a smaller number of suppliers in longer term, partnership-oriented arrangements.

The benefits of supplier partnerships include:

- Less variation in vital process inputs when working with fewer suppliers.
- Reduced need for constant monitoring of suppliers and products if the suppliers have proven to be effective at controlling their output.

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Establishing an effective supplier management process requires:

- Mutual trust and relationship building to share expertise and resources and reduce risk.
- An understanding of how both organizations' unique roles in the process.
- Support from executives or upper management of both companies involved.

SUPPLIER SELECTION CRITERIA & STRATEGIES

Supplier selection criteria for a particular product or service category should be defined by a cross functional team of representative from different sectors of your organization. In a manufacturing company, for example, members of the team typically would include representatives from purchasing, quality, engineering and production. Team members should include personnel with technical / applications knowledge of the product or service to be purchased, as well as members of the department that uses the purchased item.

Common vendor and supplier selection criteria include:

- Previous experience and past performance with the product/ service to be purchased.
- Relative level of sophistication of the quality system, including meeting regulatory requirements or mandated quality system registration (e.g., ISO 9001)
- Ability to meet current and potential capacity requirements on the desired delivery schedule.
- Financial stability.
- Technical support availability and support in developing and optimizing processes.
- Total cost of dealing with the supplier, including material cost, communications methods, inventory requirements and incoming verification required.
- The supplier's track record for business performance improvement.
- Total cost assessment.

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Methods for determining how well a potential supplier fits the selected criteria:

- Obtaining a Dun & Bradstreet report or other publicly available financial report.
- Requesting a formal quote, which includes providing the supplier with specifications and other requirements, such as testing.
- Visits to the supplier by management and / or the selection team.
- Confirmation of quality system status either by onsite assessment, a written survey or request for a certificate of quality system registration.
- Discussions with other customers served by the supplier.
- Review of databases or industry sources for the product line and supplier.
- Evaluation, such as prototyping, lab testing, or validation testing, of samples obtained from the supplier.

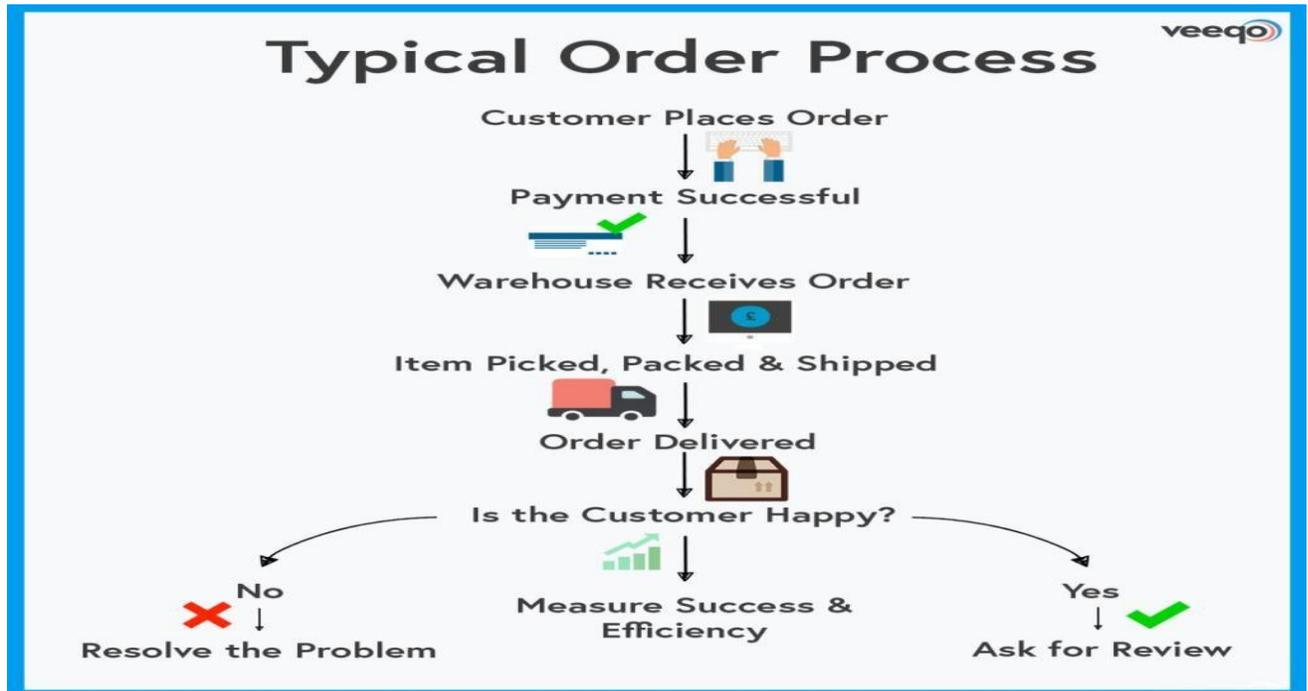
THE OPTIMAL PAYMENT POLICY

Buyers usually have little influence on their company's payment procedures unless they are themselves, the owners who pay the bills. Usually, the controller or some other financial officer is responsible for these decisions. But buyers cannot be divorced entirely from this issue for at least four reasons:

- (1) Payment terms, cash discounts, opportunity buys, and so on, represent supplier services, and buyers must consider them in value analyses.
- (2) At times, these supplier services are negotiable, implying that buyers need at least some limited authority to bargain effectively.
- (3) Opportunity buys normally require quick payment.
- (4) Buyers must continue to work with suppliers who are sometimes "stalled" at bill-paying time. Such stalling tends to place buyers in a relatively poor negotiating position in future dealings; hence, buyers need to be able to influence any such "stalling" decision

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TYPICAL ORDERING PROEDURE



- Buyer determines amount to order
- Buyer prepares purchase order (PO)
- Buyer sends purchase order to suppliers
- Purchase order form varies, but basic information the same
- Placing the order
Handing the sales representative the PO, Calling in or faxing the order, Sending the order by email, sending the order via the Web, Resembles a purchase requisition. However it is an external document used to procure goods and services.
- Information usually includes
Date, Transportation requirement, Packaging instructions, Quantity, Item type, Unit size, Unit price, Extended price.
- Operations use different number of copies of the PO
Supplier – original, Second supplier copy – to use as a bill, Third supplier copy—for initialing and to send back to the buyer, Buyer copy, Receiving clerk copy, Requisitioned copy, Accountant or bookkeeper copy, Head office copy, Used if a buyer wishes to alter a purchase order that was

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recently placed with a vendor; may be a written document, or it could be accomplished with a phone call or email.

- Buyer's effort to monitor suppliers to ensure that products and services arrive at the right time in the right condition
- Special times – steaks required for a banquet
- Since unlike foods or beverages, it is much more difficult to ship and install them
- Blanket Order
- Purchase Order Draft System
- Supplier's Forms
- Standing Order
- Computerization

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UNIT - 3

SELECTION AND PROCUREMENT OF THE ITEMS

TYPICAL RECEIVING PROCEDURE

Explain the objectives of receiving.

- Explain the essentials of effective receiving.
- Describe invoice receiving and other receiving methods.
- Outline additional receiving duties.
- List good receiving practices and methods to reduce receiving costs.

■ **ESSENTIALS FOR GOOD RECEIVING** To ensure that the receiving function is performed properly, several factors must be in place:

1. Competent personnel should be placed in charge of receiving activity. By “competent,” we mean persons, full-time or part-time, who are reasonably intelligent, honest, interested in the job, and somewhat knowledgeable about the items to be received. Once this person is designated, it is necessary to train him or her to recognize acceptable and inferior products and services. However, where the line cook-receiver combination is used, management may need to make quality checks and to supervise the receiving activity more closely. It is very important to provide the receiving agent with appropriate training. This can be a

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time-consuming, costly procedure, but it is absolutely essential. The receiver must be able to recognize the various quality levels of merchandise that will be delivered to the hospitality operation. He or she also must be able to handle the necessary paperwork and/or computerized record keeping adequately.

Furthermore, the receiver must know what to do when something out of the ordinary arises. While the training costs may be considerable, they will be recovered many times over if the receiver is able to prevent merely one or two receiving mistakes per month.

2. Proper receiving equipment is a must. Since many deliveries must be weighed, accurate scales are, perhaps, the most important pieces of equipment in the receiving area. Temperature probes let receivers check the temperatures of refrigerated and frozen products. Rule measures are useful in checking trim of, for example, fat on portion-cut steaks. Calculators are needed to verify costs. Cutting instruments, such as a produce knife, are handy when product sampling is part of the receiving process. Conveyor belts, hand trucks, and motorized forklift trucks can help transport the received items to the storage areas or, in some cases, directly to a production area. And, where applicable, receiving agents must have the technology to read existing bar codes on product packaging in order to process shipments correctly. In short, receivers should have enough of the proper equipment to do the most efficient, thorough job possible.

In a smaller operation, a reliable scale is a bare minimum. It is surprising how many small operations “save money” by purchasing an inexpensive scale that is often inaccurate. Then, because “it doesn’t work anyway,” they do not use it. This is the falsest of economies since, even if the operators trust their suppliers, unintentional errors can still occur.

3. Proper receiving facilities are necessary if an operation wants a receiver to perform adequately. By “facilities,” we are referring to the entire receiving area. For example, the area should be well lit, big enough to work in properly, reasonably secure, and convenient for both delivery people and receivers. In some old buildings, or in a hospitality operation built into another kind of building—for example, an office building—management may not see exactly what we have

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described, but the closer management can move to this ideal, the better the receiver can do his or her job.

4. Appropriate receiving hours should be scheduled. If possible, deliveries should be staggered so that a receiver is not rushed. Also, all delivery times should be relatively predictable so that a competent receiver is on hand and receiving is not left to whoever happens to be handy. Remember, we mentioned that one of the biggest benefits of one-stop shopping is to minimize any difficulties and expense arising from too many deliveries. Perhaps now you can appreciate why many managers are swayed by this potential benefit. It not only reduces the number of hours a receiver must work, but it also allows for a more secure backdoor routine and, because of fewer transactions, minimal theft opportunities.

5. A copy of all specifications should be available to the receiver as a reference. This can help whenever ambiguity arises, as it sometimes will. When a supplier is out of a particular brand of soap, for example, he or she might deliver what is believed to be a comparable substitute. When this occurs, it becomes necessary for the deliverer and receiver to have a reference handy unless the buyer insists on handling any substitutes personally, in which case the receiver will ask him or her to inspect the substitute. In many cases, though, drivers are not eager to wait for this decision; it is expensive for them to leave their trucks idle. As a result, decisions must often be made quickly, and a copy of the specifications can, therefore, be quite helpful.

6. A copy of the purchase order should be handy. Most hospitality operators feel that a receiver should know what is due to be delivered so that he or she can be prepared. These purchase order copies are necessary to ensure this preparedness.

ADDITIONAL RECEIVING DUTIES As a general rule, the receiving procedure is now complete. But the receiver may have other, less routine duties to perform. He or she may have to do the following: **Date the Delivered Items** If it is too costly to do this, the usual compromise is to date only the perishable items. This dating is usually done with colored tags or with an ink stamp. This can facilitate

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proper “stock rotation,” a process by which older products are used first. Price All of the Delivered Items Like dating delivered items, this pricing may also be too costly, but it can have such benefits as costing of inventories for accounting purposes and providing an easy cost reference. Some operators like to price the items for the psychological effect it supposedly provides. Items that an operator has priced are no longer just merchandise to employees, but articles of value to be treated accordingly. Many properties use the “Dot System” to date and price inventories. These are color-coded, stick-on dots (usually a different color for each day) that have sufficient space to pencil in dates, times, and prices. Incidentally, this procedure is also used to identify and code preprepared products that the kitchen staff has made. For instance, grated cheese to be used later on can be coded so that all cooks use any older grated cheese first.

Create Bar Codes In some large hospitality operations, the receiving agent may need to create bar codes and apply them to incoming products that do not have them on their package labels. This is usually done to enhance the inventory management and control process, in that it makes it very easy to track inventories and their AP prices throughout the operation. While investing in the technology needed to adopt this procedure can be very expensive, in the long run it could prove very cost-effective.

GOOD RECEIVING PRACTICES

Receivers should follow a number of sound procedures. Most of them fall loosely under the security category:

1. Receivers should beware of excess ice, watered-down products, wrapping paper, and packaging that can add dead weight to the delivered items. Receivers must subtract the amount of this dead weight, which is sometimes referred to as the “tare weight,” from the gross weight in order to compute the net weight of the merchandise.
2. Receivers should always check the quality under the top layer. Make sure that all succeeding layers are equal to the facing layer.
3. Receivers should always examine packages for leakage or other forms of water damage. This could indicate that the package contents are unusable. If the packages, especially cans, are swollen, the contents are probably spoiled and receivers should reject the shipment.

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4. If a package label carries an expiration date, receivers should ensure that it is within acceptable limits. Receivers should also make sure that the dating codes are correct.
5. Receivers should not weigh everything together. For example, they should separate hamburger from steak and weigh each product by itself. If they weigh these items together, they might begin to buy hamburger at a steak price.
6. Receivers should be wary of delivery persons eager to help them carry the delivered items to their storage areas. Trust is not the issue. The big problems with letting people on the premises are the distraction they cause among employees and the possibility that liability insurance premiums will increase.
7. Receivers should watch for incomplete shipments, as well as for the delivery person who asks them to sign for a complete order after telling them that the rest of the order will arrive later. Later may never come.
9. Receivers should be careful of closed shipping containers with preprinted dates, weights, counts, or quality standards. Someone may have repacked these cartons with inferior merchandise. It might be wise to weigh flour sacks, rice sacks, potato sacks, and the like, once in a while. Receivers might even open a box of paper napkins occasionally to count them.
10. Receivers should also be careful that they do not receive merchandise that has been refrozen. In addition, they should be on the lookout for supposedly fresh merchandise that is actually “slacked out” (i.e., has been frozen, thawed, and made to appear as if it is fresh).

TYPICAL STORAGE MANAGEMENT PROCEDURES

- Explain the objectives of storage.
 - Identify space, temperature, humidity, and other requirements of proper storage.
 - Describe the process of managing storage facilities, including inventory.
 - List important storage-management practices for small hospitality operators.

The major factors needed to achieve the storage objectives are discussed in the following paragraphs.

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ADEQUATE SPACE

Of all requirements, this is probably the hardest for hospitality operators to comply with. Usually, they must accept what they have to work with unless they are willing to remodel or add more floor space to the building. If hospitality operators are constructing the building from the ground up, designers can plan for optimal space, for today and for the future. But when building costs must be cut somewhere, the storage area is vulnerable. This is unfortunate because it not only hampers current storage demands, but also limits the types of products operators can store in the future. Also, this more or less permanently limits what they can offer customers. Generally, the space needed for all storage is between 5 square feet per dining room seat and 15 square feet per hotel room, depending on the amount of sales, types of items sold, the quantity of nonfood items held in storage, and the local health district space requirements. A well-managed facility usually allocates about 10 to 12 percent of the total property for the storage function.¹ Typically, owner-managers try to minimize the storage space so that they can add more dining room seats or rooms. Real estate is expensive, and no one can blame owner-managers if they prefer tables and chairs that generate sales to storage shelves whose direct relation to sales is not so clear. But the smaller the storage space is today, usually the more limited are an operator's offerings tomorrow.

ADEQUATE TEMPERATURE AND HUMIDITY

A hospitality operation that houses one or more food-service facilities will need to follow its local health district temperature requirements and space requirements. In general, the health district mandates that all potentially hazardous food—such as meats, seafood, and poultry—must be stored at 40°F, or below, or at 140°F, or above. However, the Food Safety and Inspection Service of the United States Department of Agriculture (USDA) has suggested even higher storage temperatures for cooked hamburger meat and poultry (see Figure 15.1). Nonhazardous food and nonfood items usually have no temperature requirements. Furthermore, they usually have no mandated humidity requirements. A local health district typically mandates certain space requirements, so that good housekeeping practices can be performed. For instance, merchandise usually must be stored about 4 inches from the walls, ceiling, and floor. Food items usually

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must be stored on shelving that is not solid, so that proper air circulation can be maintained. Food cannot be stored under any exposed or unprotected sewer lines or water lines, or in rooms with toilet or garbage facilities. Furthermore, such material as soaps, chemicals, and pest control supplies must be stored in a separate storage area so that it can neither contaminate food and beverage products, nor be picked up by accident by someone obtaining food supplies.

While health district requirements are important, they represent minimum standards of sanitation and wholesomeness. Wise hospitality operators will go beyond these requirements in order to ensure that the shelf life of all stored merchandise is maximized. You can accomplish this objective by following the temperature guidelines presented by the National Restaurant Association Educational Foundation (NRAEF)². Its recommendations are:

- Meat and Poultry: 32°F to 41°F
- Fresh Fish: 32°F to 36°F
- Live shellfish: 30°F to 41°F
- Eggs: 40°F to 45°F
- Dairy products: 35°F to 41°F
- Most fruits and vegetables: ranging from 32°F to 50°F
- Freezer storage: 0°F to 10°F

Food Recommended Product Temperatures (°F/°C) Maximum Storage Periods

Meat

Roasts, steaks, chops	35°F to 41°F (2°C to 5°C)	2 to 5 days
Steaks	35°F to 41°F (2°C to 5°C)	2 to 5 days
Chops	35°F to 41°F (2°C to 5°C)	3 to 4 days
Ground and stewing	35°F to 41°F (2°C to 5°C)	1 to 2 days
Variety Meats	35°F to 41°F (2°C to 5°C)	1 to 2 days
Whole ham	35°F to 41°F (2°C to 5°C)	7 days
Half ham	35°F to 41°F (2°C to 5°C)	3 to 5 days
Ham slices	35°F to 41°F (2°C to 5°C)	3 to 5 days
Canned ham	35°F to 41°F (2°C to 5°C)	9 months to 1 year

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Frankfurters 35°F to 41°F (2°C to 5°C) 1 week
 Bacon 35°F to 41°F (2°C to 5°C) 5 to 7 days
 Unopened Luncheon meats 35°F to 41°F (2°C to 5°C) 3 to 5 days
 Leftover cooked meats 35°F to 41°F (2°C to 5°C) 1 to 2 days
 Gravy, broth 35°F to 41°F (2°C to 5°C) 1 to 2 days

Poultry

Whole chicken, turkey, duck, goose 32°F to 36°F (0°C to 2°C) 1 to 2 days
 Giblets 32°F to 36°F (0°C to 2°C) 1 to 2 days
 Stuffing 32°F to 36°F (0°C to 2°C) 1 day
 Cut-up cooked poultry 32°F to 36°F (0°C to 2°C) 1 to 2 days
 Fish Fresh fish 32°F to 36°F (0°C to 2°C) 1 to 2 days
 Fish (smoked) 30°F to 41°F (21°C to 5°C) 1 to 2 days
 Clams, crab, lobster (in shell) 30°F to 41°F (21°C to 5°C) 2 days
 Scallops, oysters, shrimp 30°F to 41°F (21°C to 5°C) 1 day

Eggs

Eggs in shell 45°F (7°C) *4 to 5 weeks beyond pack date
 Leftover yolks 40°F to 45°F (4°C to 7°C) 1 to 2 days
 Leftover whites 40°F to 45°F (4°C to 7°C) 4 days
 Dried eggs (whole eggs and yolks) 40°F to 45°F (4°C to 7°C) Up to 1 year (Unreconstituted)
 Reconstituted dried eggs Use immediately
 Cooked dishes with eggs, meat, fish, poultry, milk, 32°F to 36°F (0°C to 2°C)
 Serve day prepared

Dairy Products

Fluid milk 35°F to 41°F (2°C to 5°C) 5 to 7 days after date on container
 Butter 35°F to 41°F (2°C to 5°C) 2 weeks
 Hard cheese (cheddar, parmesan, romano) 35°F to 41°F (2°C to 5°C) 1 month
 Soft cheese 35°F to 41°F (2°C to 5°C) 1 week
 Dry milk (nonfat) 35°F to 41°F (2°C to 5°C) 1 year unopened
 Reconstructed dry milk 35°F to 41°F (2°C to 5°C) 1 week

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Relative Humidity (RH)

Fruit, Storage Temperatures (°F/°C), (%), Comments

Apples 32°F to 35°F (0° to 2°C) 90–95% Will ripen at room temperature.

Avocados CA: 40°F to 42°F (4°C to 6°C), 85–90% Will ripen at 65°F to 70°F (18°C to 21°C). **FL:** 55°F (13°C) 85–95% **FL:** 55°F (13°C). Will ripen at room temp at 85 to 95% RH.

Bananas 60°F 85–90% Will ripen at 62°F to 64°F (17°C to 18°C) at 85–95% RH.

Blueberries 31°F to 84°F (21°C to 1°C) 90–95% Should not be washed before storage.

Cantaloupe 34°F to 40°F (3°C to 4°C) 85–90% Will ripen at room temperature.

Cherries 32°F to 34°F (0°C to 1°C) 90–95% Will not ripen after picking; keep dry; store away from other foods with strong odors.

Cranberries 38°F to 40°F (3°C to 4°C) 85–90%

Grapefruit CA/AZ: 55°F to 58°F (13°C to 14°C), 85–90% Will not ripen after picking; chill damage occurs at temps below 40°F (4°C).

FL/TX: 50°F to 55°F (10°C to 13°C)

Grapes 32°F to 35°F (0°C to 2°C) 90–95% Will not ripen in storage; do not wash before storage; do not handle excessively.

Kiwifruit 32°F to 35°F (0°C to 2°C) 90–95% Can be stored up to 12 weeks at 32°F (0°C); will ripen quickly if stored near ethylene-producing fruits.

Lemons 50°F to 55°F (10°C to 13°C) 85–90% Long refrigerated shelf life; store away from foods with strong odors.

Limes 50°F to 55°F (10°C to 13°C) 85–90% Do not hold as long as lemons.

Mangos 50°F to 55°F (10°C to 13°C) 90–95% Will ripen at room temperature; refrigerate to retard ripening.

Melons 45°F to 50°F (7°C to 10°C) 85–90% Will ripen at room temperature; refrigerate to retard ripening.

Nectarines 32°F (0°C) 95% Immature fruit will not ripen further.

Oranges CA: 45°F to 48°F (7°C to 9°C), 85–90%

FL: 34°F to 40°F (1°C to 4°C), 85–90%

TX: 32°F to 35°F (0°C to 2°C) 85–95%

Peaches 32°F (0°C) 95% Will not ripen properly after picking.

Pears 32°F to 35°F (0°C to 2°C) 90–95%

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Pineapple 45°F (7°C) 85–90% Prone to chill damage; store as close to 45°F (7°C) as possible.

Plums 32°F (0°C) 95% Does not have a long shelf life, even under refrigeration.

Raspberries 32°F to 35°F (0°C to 2°C) 90–95% Do not sprinkle before storage; refrigerate immediately after receiving; use quickly.

Strawberries 32°F to 35°F (0°C to 2°C) 90–95% Will not ripen after being picked; do not wash until just before use; very perishable.

Tangerines 40°F (4°C) 85–90%

Tomatoes 55°F to 60°F (13°C to 16°C) 85–95% Do not refrigerate.

Watermelon 55°F to 70°F (13°C to 21[degC) 85–90% Holding at room temperature improves flavor; quality deteriorates at temperatures of 50°F (10°C) or below

Relative Humidity (RH)

Vegetables, Storage Temperatures (°F/°C), (%), Comments

Artichokes 32°F to 34°F (0° to 1°C) 90–95% Do not dampen when unrefrigerated, may cause mold.

Asparagus 32°F to 35°F (0° to 2°C) 90–95% Shelf life is improved when stood on end in an inch of water.

Beans 45°F to 50°F (7°C to 10°C) 90–95% Do not rinse until before use; allow adequate air flow around containers.

Broccoli 32°F to 35°F (0°C to 2°C) 85–90%

Cabbage 32°F (0°C) 90–95% Will lose moisture at room temperatures; refrigerate whole heads with leaves intact.

Carrots 32°F to 34°F (0°C to 1°C) 90–95% Extremely long shelf life; remove tops to prevent moisture loss.

Cauliflower 32°F to 35°F (0°C to 2°C) 85–90% Susceptible to damage in handling and storage; store boxes upside down; dry atmosphere will cause curd to dry out.

Celery 32°F to 35°F (0°C to 2°C) 90–95% Highly perishable; wilts in high humidity.

Corn 32°F to 34°F (0°C to 1°C) 85–90% Refrigerate to slow conversion of sugar to starch.

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Cucumbers 45°F to 50°F (7°C to 10°C) 85–95% Most cucumbers are shipped waxed to prevent moisture loss.

Eggplant 45°F to 50°F (7°C to 10°C) 85–95% Easily damaged; will decay if bruised.

Lettuce 32°F to 35°F (0°C to 2°C) 90–95% Rotate FIFO; revive wilted lettuce by plunging in cold water; store away from ethylene-producing produce.

Mushrooms 32°F to 35°F (0°C to 2°C) 85–90% Do not wash or cut until just before using.

Onions (white) 45°F to 50°F (7°C to 10°C) 65–70% Can withstand long-term storage; air circulation is beneficial to prevent other produce from absorbing odors.

Onions (green) 32°F (0°C) 90–95% Very perishable; trimming end and soaking in water will revive wilting.

Peas 32°F to 35°F (0°C to 2°C) 50% Very perishable; refrigerate and rotate supplies.

Peppers 45°F to 50°F (7°C to 10°C) 85–90% Very perishable at room temperature.

Potatoes 45°F to 50°F (7°C to 10°C) 85–90% Store in cool, dark area; should not be exposed to light or freezing temperatures.

Spinach 32°F (0°C) 90–95% Wilts quickly at room temperature; adding ice to containers prolongs life.

Sprouts 36°F to 40°F (2°C to 4°C) 90–95% Cover during storage to prevent moisture loss

ADEQUATE EQUIPMENT

A proper storage area requires at least three major types of equipment: shelving/racks, trucks, and covered containers. Shelving, wall racks, and floor racks (i.e., “tonnage racks” or “pallets,”) are essential because you cannot store anything directly on the floor. Motorized and/or non-motorized trucks are needed to transport products in and out of storage. Furthermore, covered containers, including see-through plastic buckets and pans, are needed to hold products, such as cored lettuce; you may want to remove from shipping crates before placing into storage.

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ACCESS TO PROPER MAINTENANCE IS ESSENTIAL

Depending on the size of the operation, thousands, tens of thousands, even hundreds of thousands of dollars worth of inventory can be on hand at any one time. One freezer breakdown can ruin a considerable amount of frozen food. A leaking water pipe can damage huge amounts of food in the dry storage areas.

A maintenance contract is, therefore, useful, even though it carries no guarantee that the service person can get there precisely when needed. Some operations hire maintenance personnel to ensure that service is available at a moment's notice. Unfortunately, small operations cannot afford this luxury. Their best bet is to purchase good equipment in the first place.

SECURITY IN THE PURCHASING SYSTEM;

■ SECURITY PROBLEMS

Several potential security problems arise in connection with purchasing, receiving, storing, and issuing, and an owner-manager must be on guard against them.

The major ones are discussed next.

This heightened interest in security can be attributed to at least four factors: (1) hospitality operators find it increasingly difficult to pass on security losses to the consumer in the form of higher menu and room prices, (2) in general, the public has become more security conscious, (3) the cost of insurance coverage has skyrocketed, and (4) a good deal of unfavorable publicity has focused on the hospitality purchasing function.

SUPPLIER AND RECEIVER ERROR

Incoming invoices must be checked for arithmetic errors. It is surprising how many unintentional mistakes occur. These could be a form of kickback. Either way, the loss is the same.

Several other more or less unintentional mistakes can occur. Most of them are relatively minor. But, in the long run, little losses add up. Some of the typical errors are: (1) losing credit for container deposits or returned merchandise, (2) receiving a substitute item of a slightly lower quality than that ordered and failing to issue a Request for Credit memo, or otherwise ensuring that the cost

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Difference is corrected, (3) receiving the wrong items unintentionally (such as receiving bulk butter instead of butter pats), and (4) weighing items with an inaccurate scale. has skyrocketed, and (4) a good deal of unfavorable publicity has focused on the hospitality purchasing function.

INVENTORY THEFT

To prevent inventory theft, operators should restrict access to all storage areas and receiving facilities. Only authorized persons should be allowed to enter these areas. Furthermore, these areas should be locked when not in use.

The most common type of “inventory shrinkage” is pilferage by employees. Restricted access can reduce pilferage opportunities. Adequate supervision in the production and service areas of the hospitality operation also can reduce or eliminate pilferage and shoplifting opportunities.

INVENTORY PADDING

Recall from Chapter 15 our discussion of the physical inventory-taking process, and that one of the reasons for doing this was to compute various product costs. The formula used to compute, for example, the actual food cost for the month is:

Beginning inventory + Purchases = Food available for sale - Ending inventory - Other credit (e.g., food used for employee meals) = Cost of food sold

If the beginning inventory is \$12,000, the purchases are \$20,000, the ending inventory is \$14,000, and the other credit is \$2,000, the actual food cost is \$16,000 (\$12,000 + \$20,000 - \$14,000 - \$2,000 = \$16,000).

INVENTORY SUBSTITUTIONS

In hospitality operations with an open-storeroom policy, it is relatively easy for an employee to remove high-quality merchandise and substitute inferior goods. The employee can consume the stolen merchandise or can sell it on the black market. This potential security problem is similar to inventory padding in that an independent audit may be needed to uncover it.

SUSPICIOUS BEHAVIOR

A variety of employee behaviors call for management scrutiny. The owner-manager

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should be wary of employees who:

- (1) Seem unduly friendly with suppliers, salespersons, or delivery agents;
- (2) Hang around storage areas pointlessly;
- (3) Needlessly handle keys or locks;
- (4) Make too many trips to the garbage area, Bathroom, locker room, or parking lot (perhaps to move stolen merchandise);
- (5) Requisition abnormally large amounts of supplies;
- (6) Make frequent trips to the storage areas for no apparent good reason;
- (7) Have relatives working for his or her suppliers;
- (8) Stray from their assigned workstations too frequently;
- (9) Are seen passing packages to guests;
- (10) Are seen stuffing boxes or packages under a couch in a public area, which a conspirator may pick up later;
- (11) Permit delivery agents to loiter in unauthorized areas; and
- (12) Have visitors on the work site. The list could go on. Since many employees cannot be restricted to one work area, theft and pilferage opportunities are always a part of the workplace.

■ PREVENTING SECURITY PROBLEMS

In general, an owner-manager can take three main steps to prevent security breaches:

- (1) select honest suppliers,
- (2) employ honest employees, and
- (3) design the physical facilities so that tight, effective security conditions can be maintained.

It is difficult to assess the honesty of potential suppliers. Even if they are willing to talk about dishonesty, the most that they usually say is, “We don’t do anything like that.” The more dishonest the suppliers, the salespersons, or the delivery agents, the less likely they will be to admit it. It is useful, though, to ask other hospitality operators for their advice. Whatever report an owner-manager receives on a supplier, he or she must remember that bad practices may have been corrected. As with so much else, management’s own informed judgment must be the guide.

Assuring employee honesty is no simple matter. Hospitality operators have trouble with pilferage for two reasons. First, many of the products they use can easily be converted into cash. Second, few hospitality operators do more than

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just fire a dishonest employee. Having petty thieves arrested is still uncommon, and, as a result, a thief has little to lose if caught.

The owner-manager should invest in some cost-effective physical barriers. These include:

- (1) time locks that can be opened only at certain times by certain persons; Marlock computerized locking systems (or an equivalent) are excellent choices as they will print out reports that indicate who accessed the system (and whether such persons were authorized to do so), as well as access times;
- (2) heavy-duty locks that are rotated occasionally, with the keys or key cards entrusted only to those who absolutely must have them; Modecos locks (or an equivalent) are good choices as they are very secure;¹⁸
- (3) adequate lighting in the storage areas so that thieves cannot hide;
- (4) reasonably priced closed-circuit television (CCTV), which can be an excellent deterrent to theft, some of which can be accessed remotely online;
- (5) uniformed guards, who may inspect employees, their packages, and their time cards when they leave work;
- (6) see-through screens on all storage facility doors—heavy screens can keep thieves out, while allowing a supervisor to spot-check the storage areas quickly; and
- (7) perimeter and interior alarm systems; a sound control system is especially useful for areas in the property that are not continuously open.

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If possible, an owner-manager should try not to hire employees who have relatives working for suppliers. Better to eliminate this and other similar conflicts of interest from the start.

The owner-manager should maintain close tabs on all expensive items throughout the production and service cycles. For instance, each day a manager should conduct a critical-item inventory analysis; that is, he or she should balance the use of key, expensive ingredients with the stock requisitions and guest checks. The actual usage of these items and their expected (i.e., “standard”) usage should be the same.

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If affordable, management should adopt computer technology available to calculate the theoretical-inventory value, which is sometimes referred to as the inventory “book” value, so that it can be compared with the value determined by a physical-inventory count. Unlike hand-posted records, a computer facilitates a quick, convenient compilation of bin card balances that, when compared with the physical-inventory count, will immediately highlight inventory control problems.

Management must ensure that access to all records is restricted to only those individuals who are authorized to make entries in those records or to those persons who must analyze them.

PURCHASE PROCEDURE, CONVENIENCE FOODS, PROCESSED PRODUCE AND OTHER GROCERY ITEMS:

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Identify management considerations surrounding the selection and procurement of processed produce and other grocery items.
- Identify the selection factors for processed produce and other grocery items, including government grades.
- Describe the process of purchasing, receiving, storing, and issuing processed produce and other grocery items.

■ INTRODUCTION

The purchasing procedures for convenience items, such as processed fruit and vegetables, and for other grocery items, such as spices, pastas, fats, and oils, are more routine than those required for fresh products. In general, the qualities are more predictable, and the as-purchased (AP) prices do not fluctuate so widely as those for fresh products.

To prevent the mistaken idea that this area of purchasing does not present difficulties, we must stress that purchasing processed items requires several management considerations.

As is almost always the case, these considerations center on the determination of what a hospitality operation wants, what type of

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product is best suited for its needs, and which supplier can accommodate these needs.

■ MANAGEMENT CONSIDERATIONS

It is probably impractical to imagine any storeroom without a few cans of tomatoes on its shelves. Thus, the decision here is not an either/or proposition. It is more a question of which products should be fresh and which should be processed. In addition, some methods used to cook certain fruits and vegetables do not produce food that tastes substantially different from its processed counterpart.

For example, a tomato sauce made with canned tomatoes may taste about the same as one made with fresh tomatoes. Finally, you can combine some fresh products with processed ones. For instance, a tomato and green bean casserole can be made with fresh tomatoes and canned or frozen beans, or with fresh beans and canned tomatoes.

Food processors process produce for many reasons in addition to preserving them. Food processors seek to smooth out seasonal fluctuations and to capture items at their peak of flavor while simultaneously adding value to the items. In doing so, food processors transfer some work from the food-service kitchen to the food-processing plant. Thus, processing fruits and vegetables can be viewed as the procedure of extending the availability of perishable items.

One of the ironies about processed produce is that most items are processed to increase shelf life. When these items are lost due to mishandling in the foodservice operation, one of the main reasons why they were processed in the first place is defeated. Many processed products, once thawed, opened, or heated, have extremely short in-process shelf lives. In addition, reheating or reusing many of these items usually results in inferior finished products. Processed produce shares this problem with most convenience products.

Consequently, a major management decision involving processed produce items is whether to use them at all. (Hospitality operations usually have little choice for other grocery items, although some properties make their own pasta, render their own fat, and blend their own condiments.) Taking into consideration the current interest in “natural, whole foods,” operators cannot take this decision lightly. Some make a point of reminding their patrons that all vegetables on their menus are cooked from the fresh state. Whether this approach has marketing value may be a matter of opinion.

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Once hospitality operators realize that at least some processed produce and other grocery items will be used in preparing menu items, they face the question of which processing method to choose. For some products, they have little choice. For example, if buyers must purchase plain pasta, they must keep in mind that it is a dried product, though some fresh refrigerated and some precooked frozen pastas are available. They must also consider additional processing techniques, like pickling and other fermentation methods.

Buyers almost exclusively purchase foods processed in these ways for the taste the processing imparts and not necessarily for convenience, AP price considerations, or other reasons. Also, some other preservation methods, such as adding chemical preservatives and refrigerating some soup bases, have become standard. Unless buyers specify otherwise, they will receive the product this way. The buyers' selection of a processing method, then, is affected by:

(1) food quality, (2) AP price, and (3) the need for convenience.

Although the standards of quality vary within each processing method, by and large, the processing method itself predetermines the taste, AP prices, and convenience. If buyers opt for canned goods or shelf-stable products packed in aseptic packaging, they will receive the benefits of standardized packaging, longer shelf life, and less expensive storage costs. But the buyers also get a distinctive "canned" taste. For some items, such as tomato sauce, cans or aseptic packages may be the only choices. For others, such as white asparagus spears, buyers may have to settle for a can or a bottle.

When buyers choose frozen processing, they have the benefit of fresher flavor, or at least a taste as close as possible to natural flavor. Moreover, purveyors claim that only products picked at their peak of flavor are frozen. Some processed items usually are sold only in the frozen state. For example, corn on the cob and french fries are normally available only fresh or fresh-frozen.

Unfortunately, frozen-fruit and frozen-vegetable packaging are not quite so standardized as produce packed in cans. Buyers also take greater risks with frozen items: the chances of thawing and refreezing, a freezer breakdown, and freezer burn. The shelf life of many frozen items is not so long as that of canned and bottled items. The AP prices tend to be higher, and a higher storage cost is associated with frozen products.

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One of the biggest difficulties with any frozen product is the possibility of thawing more than is needed. The excess cannot be refrozen without a considerable diminution of quality. Usually, the item is then wasted entirely. But frozen products are just too costly to throw out; consequently, a hospitality operator may try to work them into the menu somehow at the risk of alienating customers. When choosing dried products, buyers are obviously going to save on storage. In addition, if buyers care for the items properly, they will have a long shelf life. Also, since the food is lightweight and does not require refrigeration, its transportation costs remain low, which, in turn, reduces AP prices. On the other hand, the AP prices of many dried items stay high because of the amount of time and energy used to process them. Unfortunately, buyers cannot purchase very many food items in a dried state. However, some processed items, including instant mashed potatoes, dried onion flakes, and dried spices, are usually sold only in a dried state. Many dehydrated foods are expensive. For example, dried fruit requires very ripe fruit with a high concentration of natural sugar. These qualities are costly; however, they make such fruit particularly desirable. For example, dried pineapple rings used in making upside-down cakes probably have an AP price that exceeds that of the canned counterpart, but the taste is different—dried pineapple is extremely sweet and strong.

A major difficulty with some dried items is the need to reconstitute them. A mistake here, even a tiny one, can ruin the product. Another difficulty is the style of packaging. For instance, macaroni products come in all sorts of packaging materials and package sizes. Dried fruit is sometimes nicely layered on waxed paper and lined up neatly in a box. But it may also be slab-packed, or tossed in randomly and pushed together so that by the time buyers get it, some of it may be damaged. In addition to deciding which processing method best suits the needs of the operation, management must make another major decision regarding processed products, which centers on the question of substitution. For example, a recipe for mixed vegetables could include some fresh product, to use leftovers; some frozen product, bought at bargain prices; and some dried product, to take advantage of the excess sweetness. But consider the problem of inertia: since these purchases do not usually represent a large percentage of the purchase dollar, few operators devote much effort to determining the least expensive recipe unless they have access to a computerized management information system (MIS). Although this area may not seem to offer a great deal of money-saving potential, some money can, nevertheless, be saved.

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When buyers purchase processed food, they usually obtain what they want. They name it, and somebody will make it if the purchase volume is large enough. For instance, fats and oils can be manufactured almost according to individual specifications, but operators must pay for this service. Nevertheless, when buyers purchase these products, it is good to know that they can get what they need. Some other management considerations involving processed food that occur intermittently:

- 1.** Some buyers tend to neglect generally accepted purchasing principles when it comes to some processed produce and grocery items. This is probably because only a small amount of the total purchase dollar is involved, with the majority going toward meat, fish, poultry, alcoholic beverages, and some desserts. For example, the temptation is strong for buyers to set the par stock for condiments and let it go at that. Manufacturers and suppliers who rely heavily on “pull strategies” for some of these items further foster this tendency. Some products, such as Heinz® ketchup and A-1® steak sauce, that grace a dining room table seem almost traditional. To a lesser extent, other condiments, such as olives, pickles, and relishes, fall into this category.
- 2.** The neglect mentioned earlier might also be nurtured by the cavalier attitude with which some employees approach inventory. For instance, some managers allow service personnel to bypass the normal issuing system when they need steak sauce, hot sauce, or similar condiments. In many small operations, service staff walk into the storeroom and take what they need. If a bottle or two spills or disappears, few supervisors get upset.
- 3.** Numerous “impulse” purchases flood the market. For example, buyers can purchase devices to: drain near-empty catsup bottles, check the pressure in canned goods, and determine whether a product has been thawed and refrozen. These may be used once or twice and then tossed into the back of a drawer.
- 4.** For one reason or another, several new products are introduced each year in grocery product lines. Of course, many food products are not really new, just new variations of existing foodstuffs. For example, buyers can find all sorts of new vegetable combinations and sauce variations. The same is true for rice and pasta concoctions. Taking the time to examine

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all these “new” ideas can finally force buyers to neglect other more important business.

- 5.** Sometimes buying one processed item entails buying something else. For instance, if buyers purchase semolina flour to make their own pasta, they must also buy the pasta machine. Similarly, if they buy corn flour to make their own tortillas and taco shells, they may need a special basket to hold the shells in the fryer.
- 6.** Processed foods present several “opportunity buys,” such as introductory offers, quantity discounts, volume discounts, salvage buys,* and other hospitality operations’ going-out-of-business sales. For operators who control a lot of purchase money, long-term contracts may also be available. These opportunities usually require a bit of extra analysis. Buyers must decide whether they are going to buy these items on a day-to-day basis or to succumb to a salesperson who comes in with a flamboyant special offer.
- 7.** Buyers must decide which container size they should buy. Smaller packages have higher AP prices per unit, but they sometimes provide the best edible portion (EP) cost. A related concern exists: should buyers purchase individual, filled catsup bottles or should they keep the empty bottles and refill them with catsup from a No. 10 can or some other bulk pack. The latter choice may entail some waste and labor, but it may also produce the best EP cost.
- 8.** A final major consideration relates to Point (6). Should buyers accept an offer that looks appealing but would involve changing the form of the product they usually purchase? For instance, they may be offered a bargain in canned green beans, but they normally use the frozen form. Buyers should not take this temptation lightly. When profits run a little low for their business or they are just naturally conservative with money, buyers would be surprised how big a few pennies can look. (This problem is also related to introductory offers or other types of “push strategies.” Suppliers often try to switch a buyer from one item to another by temporarily manipulating the AP price.)

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UNIT – 4 COST CONTROL TECHNIQUES DAIRY PRODUCTS

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Explain the selection factors for dairy products, including government grades.
- Describe the process of purchasing, receiving, storing, and issuing dairy products.

PRESERVATION METHOD

Most dairy items are kept under continuous refrigeration. Although refrigeration is not required for some items, such as certain cheeses, if buyers want these types of items kept under refrigerated conditions, they need to note this on the specification. Some dairy items are frozen. The obvious ones are ice creams and frozen yogurts. However, some suppliers freeze the cheeses and butter they sell. So, if buyers do not want frozen dairy items, they may have to specify this for some items that they purchase. A few dairy items are traditionally canned. Evaporated milk, sweetened condensed milk, and canned, whole milk are usually marketed in metal containers. Whole milk also comes in aseptic packages and can be kept at room temperature for months. This “shelf-stable” product is pasteurized using “ultra high temperatures” (UHT), and its taste is very similar to fresh, refrigerated, whole, fluid milk and coffee creamers. This technique is sometimes referred to as “ultra pasteurized” (UP). Although individual UP creamers are used extensively in foodservice operations, the whole-milk product has yet to gain popularity in the United States. When considering preservation methods, wise buyers also take the time to specify the maximum pull date allowed at time of delivery. If stored correctly, dairy products will remain safe to consume for a few days after the pull date; however, their culinary quality could be compromised to the point where these products should not be served to guests.

■ STORING DAIRY PRODUCTS

Most dairy products should be stored in a refrigerator or freezer as soon as possible. Dried, canned, and bottled items can go to the storeroom, as can, possibly, some nondairy products. If chefs are going to serve a certain dairy product—for example, they plan on presenting a cheese platter on that evening’s menu, they should bring the cheese to the correct serving temperature by leaving it out at room temperature before serving. If they are going to serve the cheese later

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in the week, it should be refrigerated since room temperatures cause most cheeses to age. This will have a detrimental effect on the cheese by causing it to quickly change in odor, flavor, and appearance. Most dairy items readily pick up odors. Therefore, maintaining a separate dairy refrigerator is recommended. If that is impossible, hospitality operators should keep dairy products tightly covered, in a segregated area in the common refrigerator, and away from odorous foods. As much as possible, operators should also keep dairy products, particularly cheeses, in their original packaging. When they store these items, they should try not to nick or cut the packaging. This is easy to do and hastens spoilage and waste. When storing dairy products, operators should take a bit of extra time to ensure that they rotate the products on the shelves properly. They cannot take a chance that a customer will get sour milk. It is not easy to tell whether the food is rotated properly unless they take the extra time to check the pull dates many dairies put on their products. Dairy products are not like lettuce: if a head of lettuce is bad, you know it, but whole milk in individual half-pints is harder to monitor.

EGGS

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Explain the selection factors for eggs, including government grades.
- Describe the process of purchasing, receiving, storing, and issuing eggs.

PRESERVATION METHOD

Buyers should know how fresh and processed egg products are preserved, so that they can make additional judgments concerning the items' quality. The most common preservation methods are discussed in the following paragraphs:

Refrigeration

This is the most common preservation method for fresh shell eggs.

As fresh eggs get older, they lose quality: moisture dissipates, the white gets thinner, and the yolk becomes weaker. Refrigeration is the best deterrent to this quality loss. The FDA recommends that state and local health districts require fresh shell eggs to be received and stored at 40°F or less in order to minimize foodborne illnesses that can result if the eggs are contaminated with small amounts of salmonella bacteria. However, no federal law requiring egg refrigeration exists. Wise buyers do not jump to the conclusion that the fresh shell eggs they have purchased have been kept under constant refrigeration.

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POULTRY

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Explain the selection factors for poultry, including government grades.
- Describe the process of purchasing, receiving, storing, and issuing poultry.

PRESERVATION METHOD

Most poultry purchased for use in the hospitality industry is preserved in one of two ways: refrigerated or frozen. Many refrigerated products are packed at chill pack temperatures. If suppliers do not provide the chill pack alternative, usually they will provide the ice pack method, which tends to accomplish the same effect as the chill pack—namely, the reduction of the storage temperature to just above freezing. Both chill packs and ice packs maintain temperatures of about 28°F to 29°F. Food-service operations that strive for a good poultry reputation usually purchase fresh, ice packed, or chill packed poultry. For instance, if fried chicken is an operation's signature item, it is very unlikely that the firm will use a frozen item because it can cause several problems. These items can, for example, very easily thaw just a bit during the receiving cycle and become freezer-burned when they refreeze in storage. In addition, frozen poultry products get a red tinge around the bones when they are cooked. Furthermore, these items lose flavor and moisture when they are thawed too long before cooking. Some fresh poultry (as well as fresh meat, fish, and produce) may be preserved with irradiation. Irradiation removes almost all traces of harmful bacteria in meat and fish, and spoilage bacteria in fresh produce. However, many critics maintain that nutrients are lost during the irradiation process and that not enough information is known about the safety of this procedure. As a result, many food services are not eager to embrace this technology.

Generally, buyers purchase processed poultry products in the frozen state. Some canned products exist, but the typical hospitality operation seldom uses them. For instance, buyers could purchase either frozen or canned chicken noodle soup. The canned item is usually less expensive, but many food-service operators opt for the frozen variety because the culinary quality is superior.

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FISH

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Explain the selection factors for fish, including government grades.
- Describe the process of purchasing, receiving, storing, and issuing fish.

PRESERVATION METHOD

Fish is preserved in many ways: frozen, dried, smoked, refrigerated, ice packed, cello packed, chill packed, live, live-in-shell, and canned.

The operation that offers fish signature menu items prefers live, live-in-shell, and/or ice packed or chill packed dressed fresh fish. If fresh product is unavailable, the frozen item is normally the preferred alternative, because at least it ensures a steady, year-round supply.

For some products, canned is the preferred choice. For example, snails, tuna, and sardines are usually purchased in cans or bottles. Indeed, Americans buy more canned fish than any other type, fresh or processed.

MEAT

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Identify the management considerations surrounding the selection and procurement of meat.
- Explain the selection factors for meat, including government grades.
- Describe the purchasing, receiving, storing, and issuing meat.

PRESERVATION METHOD

Most meat products that food-service buyers purchase are preserved in one of two ways: refrigerated or frozen. Canned, dehydrated, and pickled products are also available. For example, buyers can purchase canned soups and canned chili products; however, many operators tend to favor the frozen varieties.

Meat is also preserved by curing and/or smoking. Curing is accomplished when the meat is subjected to a combination of salt, sugar, sodium nitrite, and other

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ingredients. Smoking preserves the meat and, in most instances, cooks it as well. Many cured items are also smoked. Food-service buyers purchase a good deal of these products. The primary factors used for the selection of cured and smoked meats are the unique flavor, texture, and aroma that these preservation methods create. Usually, these products are refrigerated when delivered to a hospitality operation, though many of them could be frozen. For instance, bacon, which is a cured and smoked product, may be refrigerated or frozen. The hospitality industry has witnessed a great deal of controversy concerning the use of nitrites. Sodium nitrite combines with certain amino acids to form nitrosamine, a carcinogenic substance. Nitrites continue to be used, though in lesser amounts than before, because of their superior preservation qualities and because they can control the growth of *Clostridium botulinum*, the deadly bacterium that causes botulism food poisoning. Nitrites also are responsible for the characteristic color and flavor of cured meat products.

If operators use cured and/or smoked products, they must ensure consistent culinary quality by specifying very clearly the types of products they desire. Ordinarily, the only way to obtain consistency is to specify a particular packer's brand. The many combinations of curing and/or smoking procedures that can be used almost forces buyers to select one desired packer's brand for each item purchased. Product substitutions are inadvisable because customers would notice them very quickly.

BEVERAGES

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Identify management considerations surrounding the selection and procurement of beverage alcohols and nonalcoholic beverages.
- Explain the selection factors for beverage alcohols and nonalcoholic beverages.
- Describe the process of purchasing, receiving, storing, and issuing beverage alcohols and nonalcoholic beverages.

■ BEVERAGE ALCOHOLS

Beverage alcohols (also referred to as "liquor") include wines, beers, and spirits. Wines result from the fermentation of sugars in fruits or berries (most commonly grapes), various plants or their saps, honey, and even milk. Beers are produced

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by the fermentation of grains after the starch in them is converted to sugar. Spirits are distilled from wines or beers. Beverage alcohol products are often the easiest items a buyer can purchase.

These are standardized products that are manufactured under controlled conditions. Accordingly, the quality of beverage alcohol is very consistent. While most beverage alcohols will not spoil, some products, such as canned and bottled beer, and a few wines, tend to lose their quality over a period of time. Wine is sensitive to changes in temperature, humidity, light, and vibration. Exposing wine to extreme temperature during shipping and storage can result in its degradation.

Draft beer, with its limited shelf life, will spoil if it is not consumed within a short period of time. Generally, however, when hospitality operators store beverage alcohols under controlled conditions, buyers do not have to worry about an oversupply spoiling before they can serve them to customers.

Another favorable factor relating to beverage alcohols is that many customers tend to order a preferred, or “call,” brand. For instance, typical customers would not ask a restaurant operator for Heinz catsup; they would take the one the establishment offers and, usually, not give it a second thought. However, these customers may specify an exact brand name when ordering a favorite beverage alcohol.

This type of “pull” strategy in the beverage alcohol distribution channel can facilitate the buyers’ job. Also, because of beverage alcohols’ popularity, some bar owners can easily inventory these preferred brands.

In some instances, selected suppliers are exclusive distributors for one or more products in a given market area. Under such conditions, if bar operators want specific brands, they will have only one source of supply. Since several exclusive distributorships exist in the beverage alcohol trade, buyers do not need to shop around very much. In extreme cases, state governments (and some counties, such as Montgomery county in Maryland;

<http://www.co.mo.md.us/services/liquor.html>) regulate and control the manufacturing, possessions, sales, transportation, and delivery of beverage alcohols . Also in these “control” states, the buyers must follow the states’ specific ordering and bill-paying procedures. This makes the buying job easier; however, the excessive regulation found in control states tends to increase the edible-portion (EP) costs of beverage alcohols. Alternately, some states regulate beverage alcohol commerce through the issuance of “licenses.” These license states also simplify the buyers’ job. For instance, a certain amount of price

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control exists in some areas; the state or local government agency stipulates that beverage alcohols must be sold at minimum wholesale prices and minimum retail prices. While as-purchased (AP) price discount opportunities and other sorts of “deals” available in license states exist, buyers do not have that many to evaluate; fewer opportunities imply less work for buyers. License states are slightly more liberal than control states in terms of liquor ordering and bill-paying procedures. For example, licensed distributors are able to deliver products, whereas in control states, buyers usually must pick up the order at a state liquor warehouse. License states are also allowed to offer credit terms, while in control states, buyers usually must pay cash when they pick up their order. The license states, though, do not grant *carte blanche* to their liquor distributors. These states tend to restrict the amount and types of supplier services that can be provided, much more than other types of suppliers. Consequently, even in a state where two or more suppliers carry some of the same brands, buyers may not be able to exploit the situation.

PRESERVATION METHODS

Although operators normally serve red wines at about 60°F, and white, rosé, and sparkling wines at refrigerated temperatures, about 40°F, they and the distributors should maintain all wines at cool temperatures. Distributors and operators should keep canned and bottled beers cool as well. In addition, they must keep draft beer, which has the shortest shelf life of all beverage alcohols, under constant refrigeration. Otherwise, this type of beer tends to lose its culinary quality very rapidly. To maintain the quality, distributors should ensure that canned, bottled, and draft beers are transported under optimal conditions. Distributors should store wines and beers in a dark environment. Light has a negative impact on these products. In fact, even a brief exposure to natural light can adversely affect their flavor. Distributors can, however, keep distilled spirits at any temperature, although excessive heat will tend to cause them to evaporate. Also, products with considerable sugar in them can sour under extreme heat conditions. Generally, though, since distilled spirits are inert products, their shelf lives are virtually unlimited. Distributors usually do not find it too difficult to maintain proper temperatures, but this is not the case in the control states where buyers must pick up their orders from the state liquor store warehouses. Unless they have an appropriate vehicle, or can hire one, their liquor items will not have the best possible in-transit storage environment.

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■ NON ALCOHOLIC BEVERAGES

The growth in the nonalcoholic beverages industry is evident by the expanding number of both traditional and new beverages available in the marketplace. Café latte, green tea, specialty waters, sports drinks, and energy drinks are commonplace in food-service operations.

In many respects, the purchasing of nonalcoholic beverages parallels that of beverage alcohols. Of course, operators have more freedom here mainly because patrons do not seem to have the same brand loyalties as they do for beverage alcohols.

For instance, if an operation does not serve Coca-Cola, only a few customers will balk at Pepsi. On the other hand, some soft-drink companies are very active in enforcing their rights under copyright law, and so, in listing soft drinks, as on a menu or drink list, operators must take care to be accurate. The terms “Coca-Cola” and “Coke” are proprietary brand names and can be used only when Coca-Cola is served.

PRESERVATION METHOD

Generally, suppliers deliver premix products at room temperature, although there is no reason not to insist that suppliers maintain refrigerated temperatures while the products are in transit. They should, for example, keep some specialty products, such as “natural” apple juice, under constant refrigeration in order to preserve their quality and extend their shelf lives. Depending on the type of item, postmix products are held under refrigerated, freezer, or dry-storage temperatures.

For instance, liquid coffee concentrates are normally kept at refrigerated temperatures, liquid juice concentrates are normally delivered at freezer temperatures, and powders are normally kept at dry-storage temperatures.

Some products, such as ground coffee and whole coffee beans, are normally kept at dry-storage temperatures, unless something different is specified. However, since refrigerated and freezer temperatures tend to extend these products' shelf lives, buyers may want to consider dealing only with those suppliers who provide them.

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SERVICES

THE PURPOSE OF THIS CHAPTER

After reading this chapter, you should be able to:

- Identify management considerations surrounding the selection and procurement of services.
- List the types of services that might be purchased by a hospitality operator.
- Outline the general procedures used when purchasing services.
- Describe the major selection factors for services.

PEST CONTROL

Pest control is one of the trickiest control areas in the entire hospitality industry. It is easy for some hospitality operators to feel that they are pest control experts since spraying chemicals appears to be the only necessary action. But pest control is a difficult service to perform, and some chemicals are so dangerous that only licensed pest control operators (PCO) can legally handle them. Probably the best strategy is for hospitality operators to contract for a weekly or monthly visit, as well as a price to be charged for emergencies, such as an unanticipated infestation. Calling a pest control service only when an obvious problem arises is bad business. A great deal of damage to the operators' building, as well as to their reputation, may have already occurred. Operators will learn that purchasing this service is, generally, preferable to providing it themselves. When they purchase a service, they need not store poisonous chemicals on their premises, which is always a risky practice. The operators' purchasing objective here is obvious: no pests. They must determine what pest control services charge, and they should check various companies' performances by conferring with their customers. Normally, prices among these firms are very competitive. The pest control company that can provide the best service schedule, solid advice on how to correct building problems that invite infestation, and direction regarding the appropriate sanitation procedures employees should follow probably will be an operator's first choice. A few national pest control companies exist. Large chain operations might consider negotiating one contract at a lower price in order to include every unit in the chain. The cost of pest control service is small indeed compared with the problems it can solve and the expenses it can save. This is no area for operators to be sticklers over a few cents difference among service providers.

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LAUNDRY AND LINEN SUPPLY

No service generates as much disagreement as laundry and linen supply. Some hospitality operators seem to have a good experience with these suppliers, while others simply are not satisfied. If operators use linens and uniforms, they may: (1) buy their own and purchase a laundry service, (2) purchase the laundry service and rent the fabrics, or (3) purchase their own fabrics and laundry machines and do their own work. The first two options require less work on the operators' part than the third, in that they order just what they need, receive it, store it, and use it. Also, they can expend only a minor amount of effort to shop around since, normally, they have only two or three laundry and linen supply services in their area to choose from.

Large operations are more interested in the third option. They often own an in-house laundry system. Smaller operations might experiment with their own laundry machinery. However, the cost of the space needed to house the machinery, the labor cost, the cost of cleaning chemicals, and other overhead costs usually seem to be too expensive for these properties.

Some operations have gone so far as to eliminate linens and uniforms altogether; these companies use disposable linens and give employees a uniform allowance so that they can provide their own uniforms. Renting a laundry and linen supply service is more convenient, and operators receive professional service. If operators erect their own laundry, they must be prepared for more responsibility to accompany the savings they may realize. If they eliminate permanent fabrics, they need to be prepared for the high cost of disposables and, possibly, customer resistance to disposable napkins, tablecloths, and bed linens.

If operators decide to rent linen and laundry service, they should evaluate each potential supplier based on the following factors: (1) length of contract; (2) service schedule; (3) how seasonal fluctuations are handled; (4) variety and quality of products offered; (5) overall cost of the service; and (6) cost of lost, damaged, or stolen products for which operators are responsible. It is possible for operators to have an outside management contractor manage their own laundry and their own dish- and pot-washing system in their establishment. Some independent contractors supply laundry and steward services. In some cases, they might provide the least expensive alternative.

FOOD AND BEVERAGE MANAGEMENT & COST CONTROL**UNIT – 5****FOOD COSTING TECHNIQUES****DEFINITION OF ABC XYZ ANALYZES:-**

ABC/XYZ analysis is a method of grouping planning objects (characteristic value combinations, SKUs) based on their value (revenue or sales volume) and dynamics of consumption or sales. During the analysis, the planning objects are assigned one of the classes of ABC and XYZ simultaneously. Analysis based on value (ABC analysis) can be done by applying Pareto's rule on the value of individual items in a specific time horizon. The analysis ranks planning objects according to their value contributions in terms of sales or contribution margin. Analysis based on the dynamics of consumption (XYZ analysis) means the calculation of a variance coefficient of consumption or sales in a specific time horizon. For example, a planning object that has the values BY might mean a planning object with medium volume, and trend or seasonal demand..

ABC Analysis

You perform an ABC analysis to classify planning objects according to their usage value, or number of objects. During ABC analysis, the system assigns each object one of the following indicators:

- A - The most value, or given number of objects that produce the greatest value
- B - Less value, or given number of objects that produce less value
- C - The least value, or given number of objects that produce the least value

XYZ Analysis

You perform an XYZ analysis to classify planning objects according to the variance in a specific coefficient. During XYZ analysis, the system assigns each object one of the following indicators:

- X - Very little variation
- Y - Some variation
- Z - The most variation

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ABC XYZ ANALYZIS FOR INVENTORY MANAGEMENT:-

	A	B	C
X	AX Class <ul style="list-style-type: none"> • High consumption value. • Even demand. • Reliable forecasts. 	BX Class <ul style="list-style-type: none"> • Medium consumption value. • Even demand. • Reliable forecasts. 	CX Class <ul style="list-style-type: none"> • Low consumption value. • Even demand. • Reliable forecasts.
Y	AY Class <ul style="list-style-type: none"> • High consumption value. • Predictably variable demand. • Less reliable forecasts. 	BY Class <ul style="list-style-type: none"> • Medium consumption value. • Predictably variable demand. • Less reliable forecasts. 	CY Class <ul style="list-style-type: none"> • Low consumption value. • Predictably variable demand. • Less reliable forecasts.
Z	AZ Class <ul style="list-style-type: none"> • High consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible. 	BZ Class <ul style="list-style-type: none"> • Medium consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible. 	CZ Class <ul style="list-style-type: none"> • Low consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible.