



UNIT-4

Managing Food and Beverage Operations

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Analyze the Food and Beverage Operations
- ✓ Identify the Assessment of Market and Consumer Needs
- ✓ Explain the Importance of Computer Applications in Food Beverage Services.

Unit 4

Managing Food and Beverage Operations

Introduction

The hospitality industry is primarily known by its output products for satisfying the guests' demand of accommodation, food and beverages away from their homes. Usually the industry is split into two separate segments of accommodation and Food and Beverages (F&B).

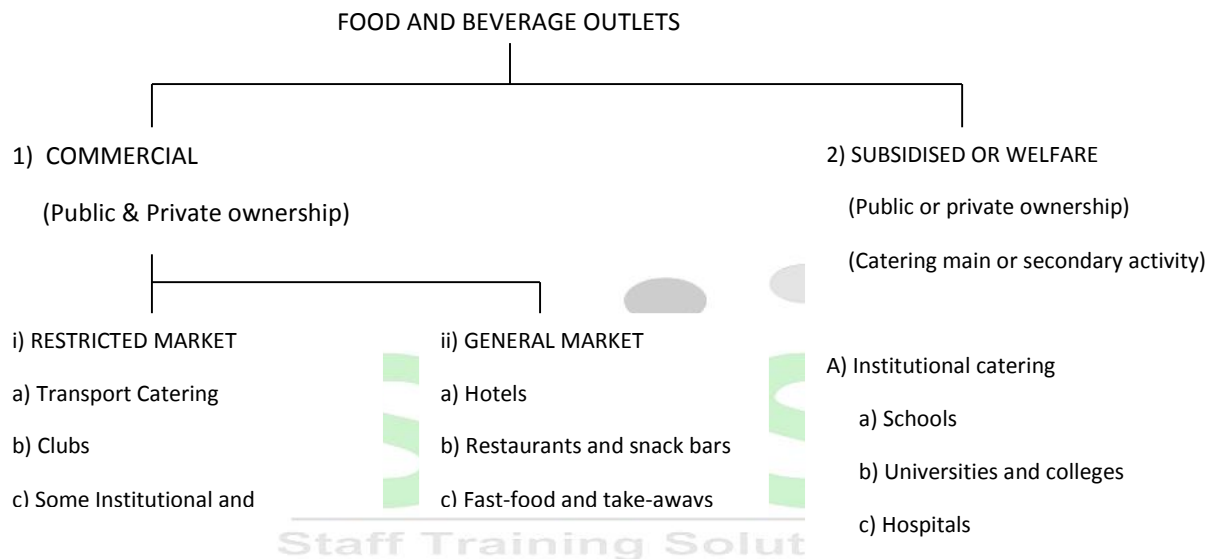


Fig: 4.1 - The Main Sectors of the Hospitality Industry. (Source: Davis and Stone, 1991)

There are various kinds of food and beverage operations designed to meet the demand of the consumers. Over the years, eating out has become a matter of choice rather than necessity. However, the primary reasons for eating out are:

- to celebrate a special occasion or treat,
- meeting friends,
- just for a change from home, and
- at times a necessity, e.g., eating out while travelling.

In this Unit thus, you will be familiarised with the working of the Food and Beverage outlets.

Primarily, you will learn about opening and managing of a food and beverage outlet irrespective of its location and speciality.

Food and Beverage Operations

Food and beverage segment of hospitality industry is primarily concerned with providing food and beverages to their consumers. Various elements related in it's operations can be summarised in the catering cycle which is shown in Figure II.

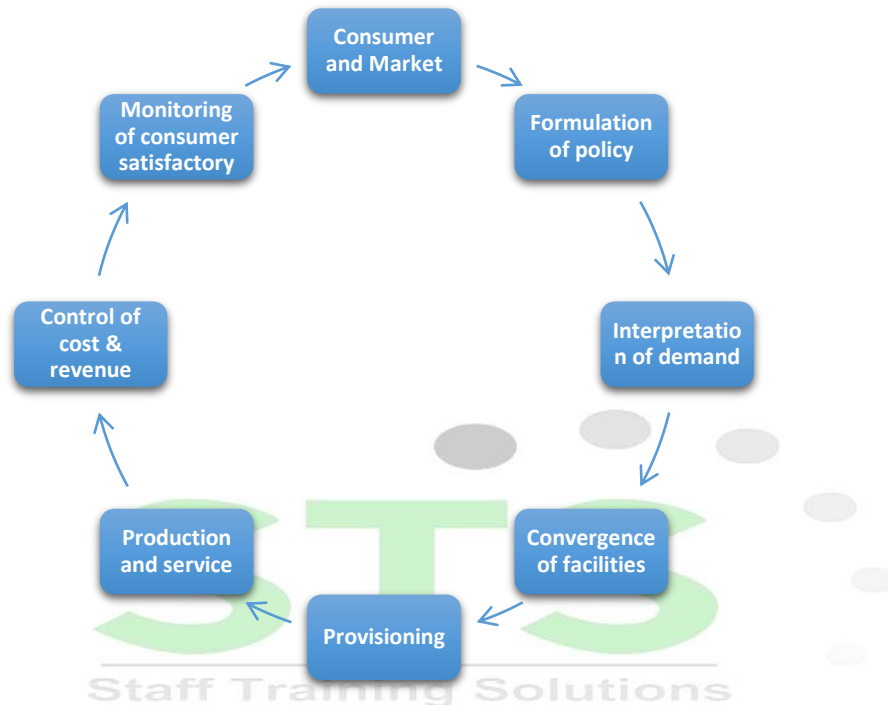


Fig: 4.2 *The Catering Cycle (Source: Cracknell et al., 1983)*

The fact that the catering cycle is not only concerned with operations but it is also a dynamic model in the sense that any one problem in one section of the cycle will cause difficulties for other elements of the cycle. For example, problem in the purchase section will also affect production and service, while improper utilisation of raw materials during production would also affect control system and so on. We can infer from the cycle that an ideal food and drink service would be one which:

- provides food and drink on demand;
- has optimum utilisation of labour and skill, raw materials and equipments;
- has quick and simple methods of operational design; and
- has flexible system design allowing ease of adaptation.

To be able to establish and manage such an ideal food and beverage outlet one would require careful preparation, both at pre and post opening stages of the outlet. Yet the common assumption is that Food and Beverage outlet is the easiest way to earn a profit, since food always sells. It is also often assumed

that if you eat well then you know how to run an eating joint. Well such thoughts are far from the truth. Let us now discuss various elements involved in the opening and running of a restaurant successfully.

Assessment of Market and Consumer Needs

Market research should be the first activity to be performed once you decide to open food and beverage outlet. Figure III displays how you can decide upon creating a product based on the consumer needs.



Fig: 4.3 *Product-consumer Relationship Development Framework*

Market research requires investment of a lot of time and money. The methods used can be interviews, questionnaires, sales analysis, consumer panels, market information from specialised publications, specifically commissioned market information and other data available ordinarily. Large organizations try out all the avenues of market research while smaller outlets may perform their market research on their own. Market research is, therefore, concerned with human needs, wants, demands, goals and values. Market research paves the way for market segmentation and the identification of the target consumers.

As you know market segmentation can be demographic, geographic or others. You should know that the same product belonging to an international food chain can be priced differently in different countries. Idea generation can be a brainstorming session or it can be based on the market research reports. It would be focussed on generating a product based on consumer needs, wants and demands. The generated ideas need to be screened. The type of outlet to the type of food that would be served needs to be generated and screened during this session.

Once an idea has passed the screening process, various products and parts of products need to be conceptualised. Various factors like price, quantity, amount of choice; consumer's quality perceptions and amount of product usage are used to position a concept. Once the idea is converted into a concept it needs

to be tested in the identified market segment. Questionnaires and interviews regarding the conceptualised product, its price and location of outlet, etc. answered by the prospective clients would help in finalising the product(s). Product Development Stage would involve turning this concept into a product. Food and Beverage products do not only mean providing food and drink but also involves decisions on the type of service outlet to be provided, the kind of service whether a self-serving or speciality restaurant or a take-away meal outlet would also help in forming the complete product. It is essential to understand how we would like the consumers to view our outlet. As the way we would want the consumers to view our outlet whether a Gourmet event or cheap meal outlet, etc. would define the ambience, price, service and food and beverage. Once we are definite on our product we need to launch our product with right promotion so as to reach our target consumers. The consumer-product relationship, once built, needs to be maintained and improved upon. However, with the passage of time the needs, wants and demands of the consumer change. Therefore, market research should be an ongoing procedure to ensure a long lasting relationship with the consumer. In other words, feedback is necessary to maintain the old consumer relationships and to form new ones.

Food Service Operation System

Food Service Operations involve the procuring of raw materials, production of food and finally serving to the customers on demand. As the food service outlet varies, the type of services provided and also the food production process also varies. Yet the process can be depicted simply as,

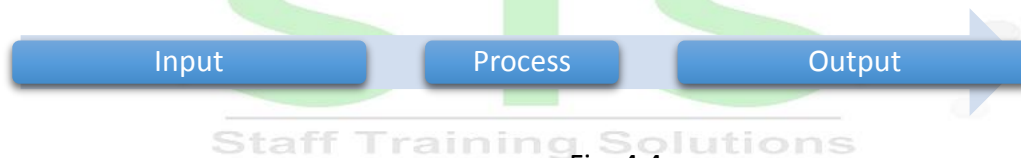


Fig: 4.4

The input being the raw materials, processing involving the cooking and preparation of food and output is to serve the prepared food to the guests. The process of the food production traditionally followed is depicted in Figure 4.5.

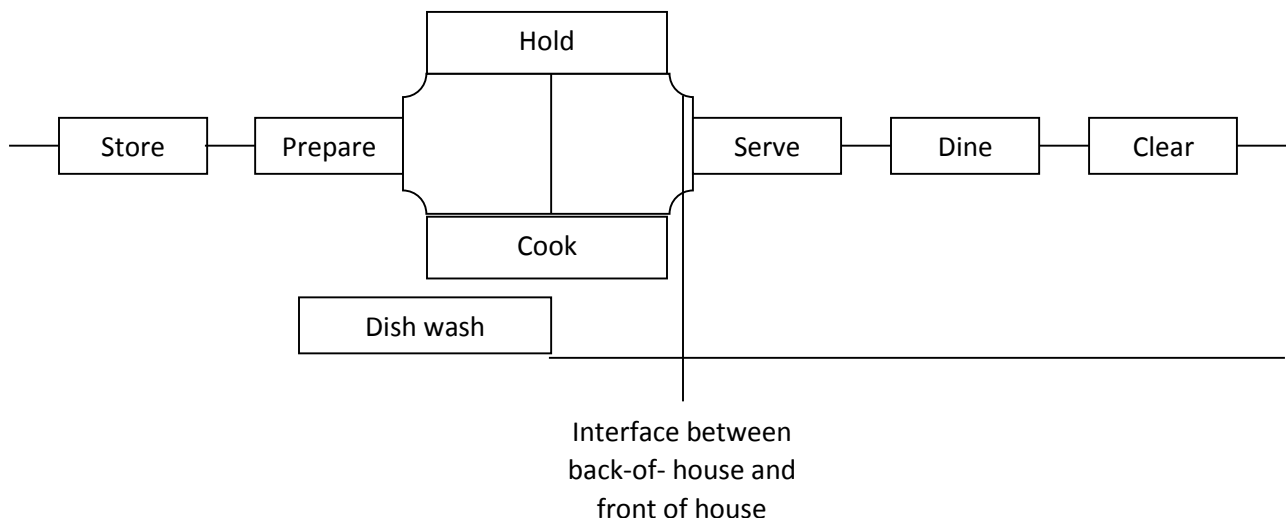


Fig: 4.5 - Flow diagram of traditional foodservice delivery systems.

(Source: Adapted from Alan Huelin and Peter Jones, *Food Service Systems: Generic Types, Alternative Technology and Infinite Variation, Journal Of Foodservice Systems, 5(4), p. 303, 1990*)

Fig 4.5 shows the eight distinct stages of the traditional food service delivery system. These stages are:

- | | | | |
|----|----------------------|---|--|
| 1. | Storage | – | refrigerated or ambient storage of material |
| 2. | Preparation | – | activities such as peeling, cutting and so forth |
| 3. | Production (cooking) | – | methods such as frying, roasting and so forth |
| 4. | Holding | – | storage between production and consumption |
| 5. | Service | – | style of delivering dishes/meals to consumers |
| 6. | Dining | – | consumption of meal by consumer in setting |
| 7. | Clearing | – | removal of equipment/food debris |
| 8. | Dish wash | – | cleansing of soiled equipment |

A few distinguishing features of the traditional system are:

- Clear differentiation between front and back of the house,
- Customer interaction/contact is restricted only to the front, and
- All the activities take place on the same premises.

Various modern food service outlets do not always follow the traditional system in its true form. A few changes are brought about, depending on the type of service outlet. For example, a la carte restaurant in a five star hotel would use fresh ingredients and stage 4, wherein prepared foods are kept on hold is not necessary. Same is the case when in speciality restaurant the different courses are prepared right in front of the guest. At times the prepared food needs to be held in special temporary conditions and so on. Thus, the food production process is modified according to the policy of the outlet. The production policy decides the purchasing and storing factors. The success of the outlet depends as much on the food production processes as on the site and décor of the place. Initially the idea of opening a distinctive type of service outlet is decided for example a bar or restaurant with self-serving facilities, etc. Then a site is selected according to the distance from the target market. Often a new restaurant is opened within an existing hotel. A manager takes decisions of opening new eating joints as a result of the changing markets trends or a demand of a new outlet by the guests visiting the hotel. The opening of a new outlet within a hotel means to create space within the area by either renovating an old eating joint or otherwise. Once the space has been earmarked, one can start working for setting up and running the outlet. This also involves designing of the Restaurant, i.e., the designing of both the sitting area and the kitchen and office area for such an outlet.

Designing the Restaurant

The designing of the sitting area of restaurant depends on the type of restaurant. For example, if the restaurant is only for breakfast buffet, then the sitting arrangements needs to be centred around or near

the buffet table for easy access by the customers. While designing the guest sitting area one needs to choose the correct furnishing and furniture. The guest sitting area should provide some form of privacy to each guest table and at the same time have optimum utilisation of space. Each table should be easily accessible by the serving staff and thus save on serving time. The décor should be pleasant as well as attractive. The ambience of the restaurant contributes towards the customer satisfaction. Over-doing the décor is not advisable. Lighting plays an important role for giving the correct ambience, but one should remember there's a difference between deductive lighting and eating one's meal in almost total darkness. Soft music, if played completes the relaxed ambience and environment. Air conditioning, though not a must a few years back, has now become a necessity so as to provide clean and cool air to the guests. Designing the kitchen also forms an important part since major work is done there. The primary areas of kitchen can be distinguished as:

- a. **Storage:** where the raw materials are stored. This would mean both dry storage and refrigerated storage area. Storage area is also dependent on the type of restaurant. For example, a speciality restaurant may require some special storage facilities for the ingredients.
- b. **Pre-preparation Area:** Kitchen usually has a specified area for cleaning, peeling, chopping, mixing and combining ingredients.
- c. **Production Areas:** The production areas or food preparation area is best situated. The production area has hot food and cold food area wherein main courses, soups and salads and other refrigerated food is prepared, respectively.
- d. **Bakery:** If the manager decides on providing baked food, a separate bakery is useful.
- e. **Holding and Service:** An area for holding the food prior to service is very essential.
- f. **Ware Washing:** The washing area is usually near to the dining area but also close to the main production area.
- g. **Pot and Pan Area:** A pot and pan area would enable the storing of the utensils when they are not in use. The restaurant design must have an Office Area and Employees Area. The office area would be used to keep the record of various transactions both with the suppliers and the consumers. The employees need an area to change into work clothes and also an area to rest during breaks. It's the manager's duty to check the viability of a restaurant's final design and work out the viability of the plan.

Equipments

The general points to be considered when purchasing equipment for a food and beverage service area are:

- Flexibility of use;
- Type of service being offered;
- Type of customer;
- Design;
- Colour;
- Durability;
- Ease of maintenance;
- Stakability;
- Costs and funds available;
- Availability in the future – replacements;
- Storage;
- Rate of breakage, e.g., for China;
- Shape;
- Psychological effect on guests; and
- Delivery time.

(Source: Food and Beverage Management by Cousins, Foskett and Shortt):

Menu Planning

Consumers' food preferences are the major factor while deciding upon the menu planning. It is not easy to decide what will most be liked by the people. The consumer preferences are based on many factors, such as, food, nutritional value, the cultural and ethnic background and others.



Fig: 4.6 Factors affecting food habits, acceptance, and preferences

Fig 4.6 clearly illustrates that the food habit acceptances and preferences depending on the following factors:

- Age, sex, physiological and psychological influence affect of the food a consumer chooses,
- Factors like appetite, personality, mood and emotions and also the influence of other people,
- Advertising and environmental situations prevalent even before the guest enters the restaurant,
- Economic conditions and social or prestige issue of the guest,
- The appearance, texture, quality, odour and flavour of the prepared food, and
- Finally, religious and cultural constraints as many people don't try some food due to their set views.

As you can see many factors affect the food preferences and most of them are beyond the control of F&B Manager. It is difficult to be 100% sure what is going to appeal to the consumer. Thus, menu planning is extremely important since it involves selection of food, and beverages acceptable to both to the guests (consumers) and to the management. Menu planning involves careful consideration of the following aspects:

- The type of food service outlet and the budget available with the organisation for the outlet;
- The consumer food habits;

- The availability of the raw materials is also important. Many food items are seasonal and procuring of exotic ingredients can prove to be difficult. The viability of the menu depends on the available ingredients; and
- The physical facilities and equipments also dictate menu planning. Both the type and number of equipments available play an important role in the selection of menu items.

Once the factors affecting menu planning are understood, menu is decided upon. Essentially menus can be of three types:

- a. Static or fixed menu where the same menu items are offered repeatedly.
- b. Cycle menu refers to menus, offering different items for a pre-determined time period.
- c. Finally, Single Use Menus which are planned only for special days or occasions and are not repeated.

Cookbooks and computers help to a greater extent in Menu planning. The success or failure of a food service venture depends on the menu and hence Menu is the focal point around which all the components of a food service operation are centred.

Managing Food Service Operations

As a manager you need to concentrate on the management aspect of food services once your outlet is operational. Various aspects of managing food service operations involves:

a) Food Purchasing:

According to John Stefanelli the food service purchasing involves:

- developing specifications;
- preparing an approved suppliers list;
- determining the appropriate order size; and
- establishing appropriate receiving and storage procedures.

Specifications; is the first step, since it represents cost and quality control guidelines. Developing appropriate specifications for each item purchased from an outside supplier helps in avoiding any future misunderstanding among the concerned people. Mostly the restaurant manager's develop an approved supplier's list. This ensures a consistency in quality and cost. This also helps in controlling the buyer's activities. Usually, the manager can only add or delete a supplier's name to the list. Determining the order size is very difficult. A case of over-buy results in storage problem whereas under-buy is an option no manager wants to take. Over a period of time a somewhat accepted order size could be agreed upon. Once needs are determined, the procedure for ordering and buying is set up. Invoices and receipts with signatures will help in checking any possible mischief or theft.

b) Managing Food Production Systems:

Food production is the core of the food service industry. Menu classification starts the food production system **Table 4.1** describes the three different types of menus which are mainly used according to the nature of outlet.

No Choice		Limited Choice	Choice
Fixed (static)		Quick-service restaurant	Full service restaurant Cafeteria
Cycle	Airline Nursing home	School food-service	Cafeteria
Single-use	Banquet	Catered luncheon	Buffet

Table 4.1: Menu classification

Although menu forms the core of food service industry, the ingredients form the magic part of the food produced. Herein, comes the usefulness of recipe standardisation. It is the most important tool available to control costs and ensure product consistency and quality. Consistence duplication of food item is achieved with an accurate record of ingredients, amounts and methods of combining ingredients and cooking. Given below in **Table 4.2** is a format used for standardization of recipe:

Date					
Meal					
Unit					
Item/Recipe	Quantity Needed	Actual Produced	Time	Leftover	Comments
Additional instructions					

Table 4.2 : Sample production schedule format

Although standardisation of a recipe is important, it is often overlooked in food service industry. As a manager, you shall ensure that standardisation of a recipe is achieved so as to control quantity and quality along with the costs involved in running an eating joint.

c) Food Service Hygiene:

Hygiene is very important for any eating joint. Reputation of a restaurant is made based on its menu and hygiene. Here the employees are in constant contact with food and preparation equipment. Major source of contamination of food arises from human contact from elements like skin, fingernails, hair, jewellery, mouth, nose and respiratory tract and eyes. Employees, therefore, should be trained to ensure that they maintain personal hygiene. Next area of consideration is the

equipment to be used. The cleaning area should be clean so as to ensure food service hygiene. The sink and work surfaces should be cleaned before and after every use. The equipments should be sanitised and sterilised after every cleaning. These sterilized equipments need to be stored in a clean area with protection from splash, dust and contact with food. Various sanitation methods like thermal and chemical sanitation methods among others should be used. The kitchen area and dining space should be pest free. Pests like, mice, cockroaches, etc. bring bad reputation to a place because they are carrier of many diseases. Hence, regular pest control methods must be undertaken so as to ensure hygiene of not only food but also of the surroundings.

Beverages

Beverages or drinks can be either alcoholic or non-alcoholic. Non-alcoholic beverages include tea, coffee, juices, shakes, aerated drinks and of course mineral water. The entire food service outlet usually provides non-alcoholic beverage. However, a few offer alcoholic beverages bearing in mind that:

- special permit or licence is required to serve alcohol at the premises,
- usually specific hours are maintained, and
- age of the consumer needs to be checked so as to ensure the legal age of buying an alcoholic drink.

Once an establishment starts to supply or provide alcoholic drinks to the consumers it needs to maintain a wine and drinks list. If the drinks are served along with food then the list should match the food on the menu. The drink list is provided to the guests along with food menu and the drink should help bring out the flavour of the food. For example, white wine goes well with less flavoured food and so on. The list size and shape should be such that it is easy to handle by both staff and guests.

Types of Wine and Drinks List

The wine and drink contents of a list may include (Source: Food and Beverage Management by Cousins, Foscett and Shortt):

- non-alcoholic drinks including natural spring and mineral waters, aerated waters, squashes, juices and syrups.
- cocktails including non-alcoholic cocktails,
- bitters as aperitifs and for mixed drinks and cocktails,
- wines including still wine, sparkling wines, alcohol-free, de-alcoholised and low-alcohol wines, fortified wines and aromatised wines,
- spirits,
- liqueurs,
- beers including draught and packaged beers and reduced alcohol beers, and cider & perry.

The order of wines and drinks on a list tends to follow the order of consumption or be grouped under types of wine or drink.

- Cocktails,
- Aperitifs,
- Cups,
- Wines,
- Liqueurs, and
- Beers, minerals and squashes.

After-Meal Drinks List

- These are often combined with the wine list – although are occasionally presented as a separate liqueur list,
- The list should offer a range of liqueurs together with possibly a specialist range of brandies and/or a specialist range of malt whiskies. Vintage and LBV port may also be offered here, and
- A range of speciality liqueur/spirit coffees might also be included.

Banqueting Wine Lists

- The length is generally according to size and style of operation,
- In most instances there is a selection of popular wine names/styles on offer,
- There would be a range of prices from house wines to some fine wines to suit all customer preferences, and
- In some instances the banqueting wine will draw wines from the restaurant wine list.

Room Service Drinks List

- There may be a mini-bar or choice from a standard bar list, and
- They usually offer a limited range of wines.

Purchasing and Pricing

Purchasing the right amount of stock is the main objective of a beverage manager. Many items have limited shelf life but in the case of good wine it can be decades. Nevertheless, under-stocking means not being able to serve the guests properly while over stocking means extra storage space. The right stock levels can be determined by using past sales data. A formula which can also be useful is:

$$M = W (T + L) + S$$

(Source: *Food and Beverage Management by Cousins, Foskett and Shortt*)

Where

M is the maximum stock,

W is the average usage rate,

- T is the review period,
 L is the lead time,
 S is the safety stock (buffer or minimum).

An example of using this formula could be

- W = 24 bottles per week
 T = 4 weeks
 L = 1 week
 S = 1 week's usage, i.e., 24 bottles.

Therefore,

$$M = 24 (4 + 1) + 24 = 144 \text{ bottles}$$

ROL (Reorder Level) may also be calculated as:

$$(W \times L) + S = (24 \times 1) + 24 = 48 \text{ bottles}$$

The Pricing is based on three basic methods:

- 1) **Cost Plus Pricing:** The selling price is determined by the addition of specific percentage, of the cost price, to the cost of the drink (Gross profit = sales less the cost of sales).
- 2) **Rate of Return:** The total costs of the business are determined for a given business level and from this the percentage of the cost price required to be added to the cost is determined in order to ensure that business will be viable.
- 3) **Market Oriented:** Selling price is determined by considering both what the customer is likely to pay as well as what others in similar operations, locally, are charging.

Beverage Control

The following factors need to be considered in the beverage control (*Source: Food and Beverage Management by Cousins, Foskett and Shortt*):

- The record of the supplier and the deliveries received from him,
- A record of movement of stock between bars and restaurants,
- A cellar stock ledger to maintain the stock records,
- Requisition form should be used by the units selling alcoholic beverages to draw items from the cellar,
- Record of goods received and issued from the cellar is to be maintained, and

- A record of the sales taking place. At the end of the day, auditor can go through all the records and come upon the exact sales and profit record.

Cost Control

The aim of any business is to make profit. Profit is not only earned but every time one saves money, money is earned. According to James Keiser, control works best when it is used with other management processes like planning, organising, directing and evaluating. According to him there are two basic approaches to control – Behaviouristic Approach and Traditional Approach. The traditional approach has two main aspects. One is directing personnel or keeping an eye on things or management by walking around and he or she can correct what is not right or what is cost control breakdowns. The other aspect of traditional control is measurement of performance with that desired or deemed attainable. This is the comparison aspect of the management scheme which is usually considered to have four parts:

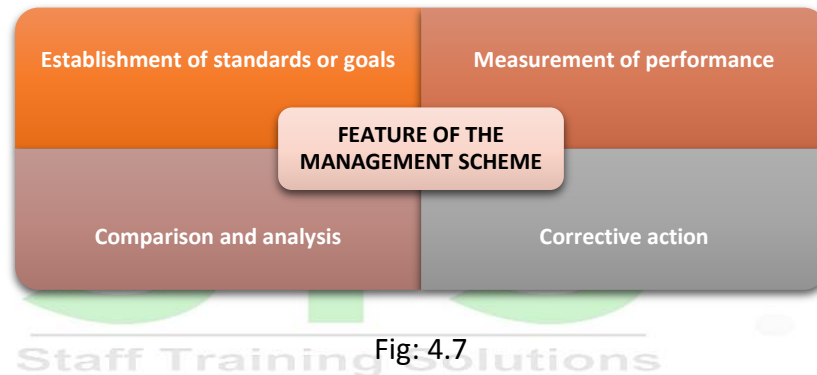


Fig: 4.7

- 1) Establishment of standards or goals.** These can be expressed in different ways, for instance, a budget figure, a percentage figure, or a performance figure such as meals served per server hour. Many industry standards are available for consideration by individual food service operations.
- 2) Measurement of performance.** There must be some means of measuring performance. Usually it is a quantitative figure, such as a dollar amount, percentage, or standard such as meals served per server hour, that related to standards.
- 3) Comparison and analysis.** Once the standard or goal has been established and actual performance determined, it is possible to compare the two. The figures will rarely be the same, and the manager must decide how much variance is acceptable and how often the comparisons should be done or over what time periods.
- 4) Corrective action.** Once a significant variation is determined, the manager must take corrective action. Such action might involve more observation, personnel changes, or different methods of operations, among many others. Or perhaps the standard is unrealistic and must be changed. The behaviouristic approach is based on the motivation of people towards the best interest of their employer. The employers tend to have good relationship with their employees in the food service industry. Yet they feel that the need for traditional control systems is necessary. Menu pricing is

another cost control tool. According to James Kieser factors that need to be considered in the menu pricing include:

- Elasticity of demand, or whether a change in selling prices will have a significant effect on customer demand.
- Perception of value, or what a customer perceives the meal or food item is worth regardless of what it costs to produce.
- Effect of competition by which competition can hold selling prices down or lack of competition can allow higher prices than normal.
- Whether the operation might try to increase profit by using low selling prices to increase volume or concentrate on higher unit profits with fewer unit sales.

Besides the menu, the other major costs in foodservice industry include:

- a) **Purchasing of food:** As mentioned earlier, the quantity of raw materials ordered should be as accurate as possible since storage in the nature of food materials can be a cause of loss. Proper inventory of the raw materials in storage will ensure that misuse of stored material doesn't happen. Cost materials till the driving experience and cleaning of the equipments.
- b) **Labour Cost:** Labour cost is another major cost involved in food production. Untrained workers will tend to cause more harm than good for the restaurant. Having a good Human Resources policy will ensure that good workers are employed and retained by the organisation. Recognition of labour/personnel needed for a job and motivation of personnel will tend to cut costs.

Computer Applications in Food and Beverage Services

Computers have now become a part and parcel of modern society. Application of computers in Food and Beverages operations help as:

- It improves guest service,
- Streamlines handling of paperwork and data,
- Improves control over day to day operations,
- Generates complete and timely reports,
- Reduces costs of paper supplies,
- Increases sales revenue,
- Increases employee productivity,
- Reduces clerical staff,
- Reduction of repetitive tasks and
- Helps in maintaining current sales and expense data on file.

Selecting a Computer System

You should take your time and consider carefully all available options before making a computer investment decision. Some catering executives suggest that you let the following rules guide your decision.

- 1) Never be the first user of a computer system. The first user usually is placed in a high-risk position,
- 2) Avoid purchasing or leasing a computer system from a firm that has many large clients, unless you are one of them. The largest users will receive priority service from the computer firm,
- 3) Before buying a system, always observe someone else using a similar system at a similar hotel property. Interview the users and seek their opinions,
- 4) Decide specifically what you want the system to do for you. This tells you the type of software you will need to purchase or rent,
- 5) Once the software is selected, look for the appropriate hardware. Be certain that the hardware is compatible with other computer systems used at your property. If possible, never select hardware that requires you to take data from one machine, reformulate it, and enter it into another machine. Data re-entry tends to reduce significantly the benefits of computerisation, and
- 6) Select an adequate computer-service firm. The firm should provide sufficient training and technical backup. The company should have a "help hotline". Furthermore, the firm must be able to adapt the standard software to coincide with your property's overall system.

A good back-up service is important even if the hotel property has computer people on staff. Many on-site computer people are front office oriented and may find your department perplexing.

Computer Uses

Software available to the food and beverage industry can be purchased to perform the following tasks:

- 1) Desk-top publishing for menus, brochures, and other similar promotional materials,
- 2) Sales analysis,
- 3) Bookings analysis,
- 4) Cancellation report,
- 5) Group-booking long,
- 6) Daily tracer-list printout of current and previous clients,
- 7) Sales-call report,
- 8) Group-profile sheet,
- 9) Banquet event order (BEO),
- 10) Function resume,
- 11) Lost-business report,
- 12) Pre-function sheet,
- 13) Catering contract,
- 14) Daily event schedule,
- 15) Forecast,
- 16) Daily function-room schedule,
- 17) Work schedule,
- 18) Room layout,
- 19) Space management,
- 20) Link to outside suppliers and service contractors,

- 21) Payroll processing,
- 22) Recipe costing,
- 23) Menu pricing,
- 24) Inventory management,
- 25) Recipe-nutrition analysis,
- 26) Invoice control,
- 27) Product-cost analysis,
- 28) Payroll-cost analysis,
- 29) Equipment scheduling,
- 30) Word processing,
- 31) Time clock,
- 32) Production schedule,
- 33) Break-even analysis,
- 34) Menu planning,
- 35) Tip reporting,
- 36) Tip allocation,
- 37) Server analysis,
- 38) Stock requisition,
- 39) Department-by-department comparison,
- 40) Open-guest-check report,
- 41) Cashier analysis,
- 42) Communication with other hotel departments,
- 43) Link with corporate headquarters,
- 44) Billing,
- 45) Inventory reorder, and
- 46) Yield management.

Further Reading:

- ✓ *Michael J. O'Fallon, Denney G. Rutherford, (2011), Hotel Management and Operations*
- ✓ *Bernard Davis, Andrew Lockwood, Ioannis Pantelidis, Peter Alcott, (2012), Food and Beverage Management*
- ✓ *John Cousins, David Coskett, (2007), Food and Beverage Management*