# MULTIDISCIPLINARY HIGHER EDUCATION, RESEARCH, DYNAMICS & CONCEPTS

**OPPORTUNITIES & CHALLENGES FOR SUSTAINABLE DEVELOPMENT** 



A collaborative effort of NGO - AHSAS and SV College, Aligarh





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## Emerging Opportunities In Planning & Review Of Inventory **Control in Hotel Industries**

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#### Abstract

In every company or organization, all functions are connected, linked and often superfluous. Some important aspects such as supply chain management, logistics and inventory are the backbone of business delivery possibilities. That is why these functions are very important for financial managers and marketing managers. Inventory management not only affects the financial health of the balance sheet, it is also a very important function in determining the health of the supply chain. Each organization constantly strives to maintain an optimal inventory to meet the requirements and to prevent surplus or inappropriate stock that could affect financial data. Stock is always dynamic. Inventory management requires continuous, careful assessment of external and internal factors through planning and assessment. Most organizations have separate departments or functions called inventory planners who constantly monitor, control and evaluate the inventory and link it to production. purchasing and finance departments. In this research report we have studied various techniques for inventory management in the hotel industry.

#### Research goals

- 1. Focus on various inventory management systems in the hotel sector.
- 2. To study a store, the functions and goals of the store are required.

#### Research methodology

The current study is entirely based on secondary data. Data collected from secondary sources such as research journals, books, newspaper articles, interviews with experts and suggestions from hoteliers. We have collected data by visiting digital sources, websites such as electronic reports and surveys.

#### Introduction:

Stock is an inactive inventory of physical goods with economic value and is stored in various forms by organizations waiting to be packaged, processed, transformed, used or sold in the future. Organizations that produce, trade, sell and maintain a product must have a variety of physical resources to help them consume and sell in the future. Stock is a necessary condition for such a company, but you can see that your organization has a stock for various reasons. Stock contains all kinds of material that are mainly stored for future use in the production process. So today's stock is

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produced tomorrow. Semi-finished products that are waiting to be used in the next produced temporal products that are waiting to be used in the next process and finished products waiting for release for sale, however, are also included process and inventory category with no stock. Stocks are all kinds of materials or in a broad single broad stock. Stocks are all kinds of materials or sources of economic value that are waiting for conversion or are in use in the future. sources of conversion or are in use in the future. Stock is required for all production organizations, but it is usually not in stock without Stock is required stock. In fact, the order of items happened to be found in many small controlled tasks. Inventory management is professionally managed only in large hotels. Small businesses must maintain an adequate stock level to improve efficiency. Stock is one of the most important factors in business operations, but it is really a struggle for many companies. I would like to draw a person in a circus who is on a struggie when making an inventory. The hard movement to one side takes a wild ride. Stock is synonymous with balancing exercise. Operators must install and operate the product on a shelf. However, too many products can be a serious problem for business operations.

## Demerit of Excess Inventory

Excess inventory is always harmful for all business organizations. Business is either big or small if you stored excess inventory it is not cost effective. Some reasons are as follows:-

#### · Blocking Capital

Maintaining excessive inventory means tying up money on the shelves. The money tied up in inventory has an opportunity cost. Inventory is a form of investment and it should give a reasonable return.

#### · Quality

Food service operators know that perishable items have limited shelf life and this is generally taken care of. The dry goods and frozen items should be taken care of since the stores people some times do not understand the limited life of these items.

## Difficulty to Service The Guest

The operations need supplies to service the guest. If the food service operation is not able to service items listed in the menu, it sends a very negative image and the guest may be disappointed.

Placing orders costs time, labour, transportation, costs etc. And hence ordering too many times will involve lot of unnecessary costs.

## Reasons of maintaining inventory

Following are some reasons for maintaining inventory:-

## (a) Protection Against Fluctuating Demand

Demand is not fixed. It fluctuates on day-to-day basis ego in case of number of guest increasing on a particular day at a restaurant, it should be able to service the orders.

## **Protection Against Delayed Supplies**

Supplies can be delayed for several reasons ego transport strike, traffic jams, supplier supplies can be delayed for several reasons ego transported to deal with such not able to supply etc. Buffer stocks have to be maintained to deal with such situations.

#### **Benefits Of Large Quantities** (c)

Some times volume purchases mean lower cost of purchase and hence inventories may be kept to take advantage of discounts. This practice is generally not followed in the food service operations due to perishability of most food items.

#### Savings On Ordering Cost (d)

A fixed cost is associated with each order hence reducing the number of orders will reduce the cost of placing and processing orders.

#### Cyclic Process Of Inventory Management

The inventory system involves a cyclic process. Following are concepts related to cyclic process of inventory system.

#### **Inventory Level**

The item stocked in a storage area constitutes an inventory. The inventory level of an item is the inventory on hand.

#### **Demand And Depletion**

Demand leads to depletion in inventory ego order of fruit salad in a restaurant will lead to depletion in fresh fruit stock in stores. With time, the inventory level reduces. The depletion rate depends on the rate of demand. Higher demand of certain products may lead to faster depletion of some stock items.

#### (c) Reordering

As the inventory reduces with time, it has to be reordered to replenish it. When the inventory level reduces to a certain point called reorder point, the order is placed. Other methods like periodic review system, par stock method are commonly used by operations to manage inventory. Lead-time is the time between ordering and receiving

#### Replenishment Shortages And Surpluses (d)

Some basic inventory models assume that re-ordering is timed so that the items will arrive when the inventory in hand reaches zero. But this needs modification in actual practice. Fluctuation of demand or variations in lead time can lead to the situation of

#### (e) Safety Stock

A buffer or safety stock is built in the inventory system so that the stock out situation is avoided.

Hence, the order has to be computed and placed so that a certain level of inventory is in balance when the stock arrives. Stock needed to cover the lead-time between placing an order and receiving delivery is known as 'safety stock'.

#### Inventory cost

There are four costs relevant to inventory

#### (a) Ordering Costs

Certain costs are involved in placing orders and it is assumed that the cost per order is constant. These costs include paper work, typing and dispatching costs, follow up costs like telephone, telex bills, costs involved in receiving the order, inspection and checking.

#### B) Cost Of Carrying Inventory

The cost of carrying inventory includes.

- (i) Storage costs: it costs to maintain storage space rent, lights, heat, security, chilled storage, maintenance etc. Makeup the storage costs.
- (ii) Salaries of store staff who work on record keeping and undertake physical stock taking etc.
- (iii) Cost of capital: the money invested in the inventory has an opportunity cost i.e. If invested elsewhere it will earn a return.
- (iv) Obsolescence and deterioration costs.
- (v) Taxes and insurance.

#### (c) Stock-Out Cost

Stock out costs happen when an item goes out of stock and the demand cannot be satisfied. This may result in a lost opportunity and cost the organisation its customers or result in dissatisfied customers.

#### (d) Overstocking Cost

Overstocking will lead to increased inventory carrying costs.

#### **Inventory Management Systems**

#### The Two Bin System

This is one of the earliest systems of inventory control. Two bins are used for one item. The items are issued from the first bin and when the first bin is empty the item is re-ordered. During the lead-time, items from the second bin are used. On arrival both bins are replenished.

#### Maximum - Minimum Method

In this method, for each inventory item, a maximum and minimum level is fixed i.e. The quantity should not rise above the maximum level and should not fall below the minimum level.

This method is used for non-perishable goods and also beverages & shelf stable food

In food service operation this method is used for items, which fulfill, the following conditions.

- (a) Item, which are standardised.
- (b) Quality of items is stable.
- (c) Supply is consistent.
- (d) Ap prices are relatively stable.
- (e) Items are used in predictable quantities.
- (f) Product purchased in bulk.
- When reasonable quantities do not represent excessive storage. Spaces and (g)
- Products have reasonable shelf life. (h)
- (i) Products in continuous use.

The minimum level is established by considering the lead-time for reordering. If the lead-time is unpredictable, the minimum level should be set at a higher level.

The minimum level also depends on the usage rate. If the usage rate increases, the minimum level should rise. If usage rate varies considerably, the minimum level should be higher to prevent stock out situation.

Maximum-minimum system can be easily applied by use of computer systems but since the assumptions made regarding safety stock and lead-time may not be accurate, situation of stock-out or overstocking can still result at rimes.

## Periodic Review System

The fixed time or periodic review system involves a periodic auditing of inventory eg. Once in 15 days, a month, quarterly etc. At the time of periodic order, requirements of all items are worked out afresh and the items are ordered accordingly.

This is a very common method in small sized stand-alone food service operation and in small & medium sized independent hotels. Operations generally review the

## Par-Stock Method

In this method, firstly the supplier's delivery schedule is determined i.e. Daily, weekly, or monthly delivery schedule. On the basis of the delivery schedule, the par-stock is determined, i.e. The inventory level to be held to maintain a continued supply of goods. Longer the period between deliveries, higher the level of par-stock needed to

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suffice the period. While ordering, the stock-on hand is deducted from the par-stock and a safety stock may be added eg. For bars, a par stock level is set which must he on hand before opening the bar. The system of replacing empty bottle with a full bottle is widely used for bars. the par stock levels also change with the level of sales i.e. If the demand is varying an extra amount of safety stock has to be added to the par stock to avoid stock-out situations. the par stock method is the most common method in the hospitality industry and works quite well. But there are other methods to determine the correct order size and order time.

## The Practical Method

In very large-scale operations, like in chain rood service outlets where inventory held is large, a more accurate and formal inventory system to needed. The orders need to be of the right size and made at the right time.

#### Right size

The determination of right size depends on the storage costs and the ordering or administrative costs. To determine the optimum order size, these two costs have to be balanced. The intersection of storage cost curve and ordering cost curve represents a favourable balance between the two costs. Besides the graph method the economic order quantity (eoq) formula can also be used to determine the optimum order size the calculation of economic order quantity greatly assists buyers to determine a practical order size for inventory.

#### Right time

There is a time gap between the placement of order and it's delivery, which is called the lead-time. Hence the order should be timed when a certain level of stock (re-order point) is still available. This level of stock will be determined by the daily usage rate and the lead-time.

The theoretical method determines the economic order quantity and re-order point based on usage pattern, lead times, safety stocks, storage costs etc. If this data is inaccurate, the re-order point will also be inaccurate.

The disadvantages of this system are that usage rates & prices vary from day to day and cannot be calculated exactly. It assumes that the operation has adequate storage facilities, which may not be true. The eoq assumes that the product will not spoil and hence it is not suitable for perishables. It can be followed for dry goods, shelf stable goods and packaged beverages.

The advantages are that the method gives facts regarding the optimum order quantities and range of possible order sizes can be assessed. This system is suitable to computerised systems of inventory control where calculations for each item can be done quickly to provide important feed back for taking buying decision.

## Perpetual Inventory System

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good conditions and other details such as cost, vat, etc. Can be dealt with in the control office.

## Contradiction

During the receipt of the goods you can notice differences between the ordered goods. During the delivered goods. These differences can be about different quality or size, and the down wrong article, poor rating, bad or damaged items. Contact the supplier wrong amounts, oad or damaged items. Contact the supplier and solve the problem is beyond the control of the supplier. sometimes the problem is beyond the control of the supplier. If you have a constant sometimes with your supplier, you must change your supplier. If you have a constant problem with your supplier, you must change your supplier. In general, suppliers are problem was switch randomly because they can cause problems instead of solving problems.

## Security and control

Security and control are possible if only a small number of people mentioned can display goods in the store. Control and safety issues often occur at foodservice companies and are one of the most important aspects of tasks as a store manager. Theft or theft can be a major problem for the operation of meals. This can make a major contribution to the financial collapse of the foodservice activities. Storage space must be lockable. Alarm systems, access cards for employees, passwords for computer systems, video cameras, safety lights, security doors and more.

#### Conclusion:

In the hotel and catering industry, information technology is used at various locations in different industries. The most important tools are computer and telephone systems and software applications are increasingly being used. Many technologies are also used to improve the purchasing and inventory management process. Computer applications are used by catering companies for the ego of inventory management and cost control. Some operators develop advanced spreadsheets with all products in the inventory. The actual calculation of your store and in-process inventory is complete on the last day of the month and entered into your spreadsheet. You can use the inventory, stock breakdown, purchases and other reconciliation data before the end of the month of last month to calculate the monthly costs of your sold products. Many hotel operations use ready-to-use software packages that are specially designed to manage the inventory of the hotel industry. Most of these packages can be linked to the operator's pass system. If your spreadsheet program or standard software does not meet the needs of the hospitality provider, you can hire a software company and develop custom software for your activities. Appropriate controls must take Precedence over the issue of articles. Poor issuance procedures can lead to loss of benefit it benefits through good purchasing and inventory management. Large-scale foodservice Operations have introduced official issuance procedures, but some procedures for small control of the same procedures as a sword for an arrangement of the same procedures. small foodservice operations do not exist. The person must issue a sword for an approved approved account signed by the appropriate person. Setting up the right publication procedures is an important way to manage data.

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Today the Education & Research is in transition searching for more innovative ways to combine economic growth, the reduction of poverty and equitable development in a more environmentally sustainable manner. There is a mounting concern in all corners and a dawning realization that ensuring the quality of present and future life and employment depend on how well we tackle this challenge. This calls for new forms of dynamic research & concepts, cooperation between governments, business, workers and societies in general to promote the concept of "Sustainable Development". The objective of the book is to provide the platform for Students, Academicians, Researchers and Scientists to share the knowledge and ideas in the recent trends in the field of Social Science, Management and Human Behavior others. This book will provide an Excellent sharing of knowledge & will provide a platform to the researchers and practitioners from both areas academia as well as industry to meet the share cutting-edge development in this field of Higher Education. Another goal is to promote substantial information interchange between academicians, researchers, developers, professionals, students, and practitioners working in and around the world.

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