
**STUDY ON HOUSEKEEPING LINEN INVENTORY
MANAGEMENT WITH REFERENCE TO STAR CATEGORY
HOTELS IN PIMPRICHINCHWAD-PUNE.**

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ABSTRACT:

This work evaluated the hotel housekeeping stock control practices followed within some of the star category hotels in Pimpri- Chinchwad area, Pune region. The primary data for this research paper was collected using a questionnaire and an interview method. Simple statistical tools were used to analyze the data which was generated for the study. The research revealed that the hotels covered under this study adopt inventory control measures in their operational areas. The study included the data on the various types of housekeeping inventories. However the study focused on the inventory control practices followed for hotel linen, as the major challenges that the housekeeper faces is during the inventory of linen. The study revealed the importance of inventory management in maintaining the smooth function of the housekeeping department and its benefits to the organization. The challenges associated with inventory control promoted the researcher for this study. Based on the findings, conclusions were drawn and the recommendations were made towards the inventory management techniques followed in hotels.

Keywords: *Inventory management, Hotel Housekeeping Department*

Key terms and definitions:

Housekeeping:

Housekeeping is defined as the provision of a clean, comfortable, safe and aesthetically appealing environment.

Inventory Management:

As per Business Dictionary it is the value of materials and goods held by an organization to support production, for support activities, or for sale or customer service.

1. INTRODUCTION

Housekeeping inventories refer to the stocks of purchased operating supplies, equipments and other items held for future use in housekeeping operations. (G.Raghubalan 2015). Stock control eliminates overstocking as well as under stocking of the material needed for smooth operations. Inventory control ensures the movement of each item and minimizes any form of pilferage or wastage. However the system of inventory control should ensure that the stock is available to meet the demands and the material is available also in case of emergencies.

Housekeeping Inventory Management: One of the primary responsibilities of the housekeeper is managing inventories. The two types of inventories that must be managed are: Recycled Inventories which includes linen, uniform, guest loan items and Non recycled Inventories which includes cleaning supplies, small equipment items and guest supplies and amenities. The first and the most important task in effectively managing inventories is maintaining the Par level for each inventory item. Par refers to the amount of each type of linen required to make up all the guest rooms of the hotel at a given time, and so is the minimum quantity of clean linen that must be on hand at any time.

Stock taking or physical inventory of linen:

Linen in hotels is broadly categorized into:

Bed linen:

This includes bed sheets, pillowcases, blankets/ duvet covers, mattress protector, curtains, etc.

Bath linen:

This includes Towels, Bathmats, Hand towels, Face towels, shower curtains, Bath robe etc.

Food & Beverage service linen:

This includes Table cloths, Napkins, slip cloths, frills and runners, etc.

The linen is cycled in different stages in the entire hotel operations. Stock taking of linen is thus physically counting the linen which is available in the operations. Proper records are maintained to note down the opening and the closing stock after checking the shortages. The frequency of linen inventory is generally once a month, though it depends on the category of hotel. During the process all the linen in the housekeeping store, in floor pantries, on the trolley and linen in use as well as the previous discarded

linen is taken into consideration. The inventory is conducted in the presence of the housekeeper for proper supervision.

1.2 Scope of Research

The scope of the research is applicable to the following:

1. Hotel Housekeeping of star category hotels in Pimpri Chinchwad, Pune.
2. It is applicable to the linen inventory management practices in Hotel housekeeping.

1.3 Limitations of the Research

1. The study is only applicable to inventory of hotel linen.

2. Literature Review:

1. Serhii Ziukov (2015)

As per the study inventories can be either considered as company's assets which are either ready or will be ready in future. Hence there is a need for formulating a decent inventory model for the industry. The paper analyzes various parameters of inventory control models. It also gives insight into various types of inventory control models.

2. Sofia Rachad, Benayad Nsiri and Bahloul Bensassi (2015)

This paper presents study on a the warehouse of goods Distribution company. A mathematical model of an inventory system from using system identification approach was used for this study. For this model, the inputs of the system were items ordered from suppliers and items shipped to customers. And for the output of the system stock level is considered. In this research paper, ARX model and ARMAX model are outlined and compared. The performances of each type of model are highlighted. A case study with real data set is also discussed.

3. P. Ezhilmathi and Dr .T. Shanmugapriya (2016)

The study is based upon construction industry in India. Though the industry is blooming, some of its scope is limited due to improper management. The loss occurred could be due to critical element of material management. To bridge the gaps, a systematic control on material management is needed, which includes planning and designing of the material, control in purchasing and ordering parts and also dispatching the goods or storing it in the warehouse.

4. Osei Mensah (2013)

The study discusses on 24* 7 hospital operations where, managing and stock of medicines and medical supplies is very important. Improper stock management in

hospitals may lead to poor healthcare facilities. It is a case study on the operations of St. Martin's Catholic Hospital Agroyesum, Amansie-West. A sample of 60 staff and 30 patients was selected for the study, where questionnaires were used as the main instrument of data collection. The study discovered that the hospital ensures agreements with supplier for medical supplies, forecasts proper supplier delivery schedules and operate Materials Requirements Planning system (MRP). The study also revealed that the hospital followed Strategic Supplier Partnerships and incorporated Information Technology for Inventory management practices. Based on the data interpretation, it recommended strong emphasize on inventory management system.

5. Anichebe Nnaemeka Augustine and Agu, Okoro Agu (2013)

This study was carried out to assess the impact of proper inventory management on organizational performances in Emenite, Hardis & Dromedas and the Nigeria Bottling Company all in Enugu. Survey and case study were used as tools for data collection. Data was also gathered with the help of questionnaire, oral interviews, observations, books, journals and the internet, which was presented and analyzed. Study concluded that there was improper inventory management which affected the organization's productivity. The findings indicated a direct relation between a proper inventory management of the company and its success, also effectiveness.

6. Agu Okoro Agu, Obi-Anikeand Eke Chukwuma Nnate (2016)

The research was based on the manufacturing firm's management and studied about its customer satisfaction. The findings of the study indicated that proper inventory control methods considerably affect the growth of selected manufacturing firms. That customer satisfaction and demand management are directly related to each other. The recommendations were based on training the staff for inventory control methods.

7. Syed Jamal Abdul Nasir Bin Syed Mohamad(2017)

The research was based on the inventory management in textile store in Malaysia. It also surveyed the issues related to inventory, inaccurate records, unavailability of skilled workers, etc. Inventory days and return on asset was used as a base for comparison. It also recommended the company on future scope for improvement in inventory control methods.

8. Edwin Sitienei, Florence Memba (2016)

This study discussed about the advantages and disadvantages of inventory management. On a beneficiary note, it mentioned that inventories are important for the smooth functioning of the organization. They satisfy customer demands and leads to positivity. The conclusions of the study mentioned about a negative relationship between inventory turnover, inventory conversion period and storage cost with profitability of the company. It recommended that the Cement-manufacturing firms in Kenya should struggle to make sure that the right stock is kept in their warehouses.

9. Lydiah Mwangi (2016)

The research discussed the conflict between the benefits of holding inventory on one side and on the other side considering it as an unnecessary management procedure. This study examined the effects of inventory management on firm's profitability and operating cash flows of Kenya Breweries Limited beer distribution firms in Nairobi. The study recommended that the company should adopt roper inventory management practices to increase the profitability of the organization.

10. G. Raghubalan and Smritee Raghubalan (2015):

In their book has mentioned about housekeeping inventories. It briefs in detail about each inventoried item in housekeeping department. It also has a separate section on the par stock and linen control procedures in hotel.

3. Objectives of the study:

- To understand application of different types of inventory management in housekeeping.
- To identify types of linen used in hotel.
- To study about the par of linen maintained in hotels.
- To study the procedure for Linen inventory applied in housekeeping department of hotels.

4. Research Methodology

The study adopted interview method. The area of study was star category hotels in Pimpri Chinchwad area of Pune region. The population for the study comprised of the Executive housekeepers of these hotels. The sample size for the study is five hospitality establishments in the study areas. For each establishment, twenty (10) questionnaire

were administered. Also data was collected in the form of structured interview with open ended questions. Simple yes/ no statistics was used to analyze objective one and two. An open ended question was used to collect the inputs on objectives three and four

Primary Data Collection:

The first set of primary data was collected with the help of information based on the structured questionnaire to the Executive housekeeper who has the main responsibility of linen inventory in hotels. The executive housekeepers were interviewed to get inputs on the details procedure for linen stock taking.

Secondary Data Collection:

Secondary data is collected with the help of articles from literature reviews from published journals, published research papers, newspapers, magazines, books etc.

5. Data Analysis and Interpretation:

The data collected was analyzed for better interpretation. The data analysis was conducted with the purpose of attaining the objectives of the research.

5.1. From the interview conducted with the Executive housekeepers, it was realized that Housekeeping Inventory can be broadly categorized as follows:

A. Recycled Items:

i. Linen:

The linen par is maintained in the linen stores, floor pantries, trolleys, laundry and in the guest room. The laundry has a major role in maintaining flow of linen. It requires for proper communication between the laundry and the linen room supervisor for the requirement of the linen depending on the hotel occupancy levels. The laundered linen should also be allowed to rest which increases its lifespan. The discard linen is kept separately and is mostly reused by the department. Linen should be stored in a place which is relatively

ii. Cleaning equipment and machines:

The housekeeper is responsible to see that the housekeeping staff has proper tools to carry out the cleaning function. Inventory control of machines and equipment involves maintaining accurate inventory records, establishing issuing procedures and ensuring proper storage and their maintenance.

iii. Uniforms:

While uniforms are one of the challenging items under housekeeping inventory. The housekeeper has to consider the number of uniformed staff, their various sizes,

how often they need to be laundered, and the hotel policy. Generally the uniform room is responsible to control uniform inventory.

iv. Guest loan items

Includes iron, iron board, etc. establishing the par level for the guest loan items depends on the size of the hotel and the need of the guest.

B. Non Recycled items:

i. Cleaning supplies:

While considering cleaning supplies, the housekeeper has to maintain the following.

- a. The minimum quantity: refers to the fewest number of purchase units that should be in stock at any given point.
- b. The lead time quantity: It refers to the number of purchased units that are used up between the time that a supply order is placed and the time it is actually received.
- c. The safety stock level: refers to the number of purchases that must always be on hand for the housekeeping department to work smoothly.
- d. The maximum quantity: refers to the greatest number of purchases that should be in stock at any given time.

ii. Supplies other than guest loan items:

These are guest room amenities and bathroom amenities. Establishing inventory levels for guest room supplies would be quantity of each guest supply needed to outfit all occupied rooms in the hotel one time. Par levels are established, physical inventories are taken and records are maintained as a procedure for inventory control.

iii. Cleaning agents:

The inventory of the cleaning agents is as similar to that of cleaning supplies.

C. Other category

i. Lost & Found:

Any article left by the guest in the check out room or public area is referred to as lost & found. These are stored in the lost and found cupboard depending on the type of article viz: Perishable, valuable, Non valuable. Once in a month, the housekeeping supervisor along with the security in charge would do the physical check of these items till they are claimed by the guest.

Findings:

From the above data, it is found that the housekeeping department has a responsibility of various category of items for physical stock taking. Out of which the linen inventory is most important. Hence, the linen inventory has to be carried out each month to ensure the smooth working of the hotel and to avoid guest complaints. Also there are more chances of pilferages of linen due to various reasons as compared to any other housekeeping inventory item.

5.2 The data was collected through the formats shared by the Executive housekeeper regarding different items covered under linen inventory is as follows. In any particular room the room linen is divided into Bed linen and Bath linen.

The bed linen is further bifurcated into:

Double bed sheet

Single bed sheet

Double duvet cover

Single duvet cover

Pillow cover

The bath linen is divided as follows:

Bath Towel

Hand towel

Face towel

Bath mat

Bath robe

Findings:

As guest room linen is a major part of the room inventory, it should be handled carefully by the guest room attendants, laundry as there are more chances of misuse and damage due to stains and negligence by the laundry operations. Sometimes guests also carry some item of linen while checking out, which is either charged to the guest or is a loss to the organization.

5.3 The data collected through the housekeeping department of the star category hotels shared inputs about the PAR maintained for each category of item under housekeeping inventory. They also shared the logic behind the PAR level. The level of the par changes as per the size and the type of the hotel property. It also depends on the

whether the hotel has an in-house laundry or the linen is outsourced. The three PAR level for linen is: One par which is laundered, stored and ready for use in stores, a second par which is soiled and is to be laundered and the third par which is in the guest room.

Findings:

Most of the hotels either outsource the linen because of the cost involved in laundry operations. Other reasons are lack of space and manpower. However most of the hotels with in-house laundry main three PAR of linen. Maintaining a par becomes a challenge during high occupancy levels in hotel.

5.4 The data collected through the interview with the housekeepers regarding the procedure for the actual linen inventory is discussed as follows:**(Please find attach linen inventory format in Annexure)**

- A separate room linen inventory sheet is carried by the guest room attendant, for each floor. It has room numbers on one side and the room inventory items across other side. The guest room attendant physically counts the same in each room and enters in the spreadsheet.
- The separate sheet is maintained by the laundry where on one side all the linen particulars are mentioned. Across the count is taken for soiled linen, fresh linen and the housekeeping store linen. It is then totaled in the last column.
- A consolidated sheet is maintained for each floor likewise and the total count is taken.
- Linen inventory is usually done at the end of each month. Floor wise for each linen item, mentioned are: opening balance, fresh stock, floor wise stock, laundry stock, missing linen, discarded stock is considered and the physical count is entered. This becomes the closing stock for that month.

6. Conclusion of the study:

- The housekeeping inventory is divided into Recycled items and Non recycled items.
- Stock control of all the inventory items needs proper records and supervision by the housekeeper to avoid pilferages, misuse and damages.
- Linen inventory is most important as a huge amount of cost is involved in purchasing linen and maintaining it.

- A successful management of linen depends on the par stock of the linen maintained by the housekeeping department.

7. Recommendations:

- A linen inventory should be done on regular basis to control on pilferages, misuse and maintaining the life span of the linen.
- Proper records should be maintained to monitor the physical stock taking process.
- Housekeeping staff can be trained to ensure that the linen is carefully handled.

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11. A Research Project Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Science in Finance, School of Business, University of Nairobi

Annexure 1

Room linen inventory										
Room no	doubl e Bed sheet	singl e Bed sheet	doubl e Duvet cover	single Duvet cover	Pillo w cover	Bath towe l	Hand towe l	Face towe l	Bat h mat	Bath robe
101										
102										
103										
105										
106										
107										
108										
109										
110										

Annexure 2

THE XYZ HOTEL, Hinjewadi					NAME:	
					DATE:	
Sl. No	ITEM	SOILED	LAUNDRY	DEPT. FRESH	H/K STORE	TOTAL
1	Sgl Bed Sheet					
2	Dbl Bed Sheet					
3	Sgl Du/Cover					
4	Dbl Du/Cover					
5	SglMatress/Pro					
6	DblMatress/Pro					
7	Sgl Duvet					
8	Dbl Duvet					
9	Pillows					
10	Pillow Cover					
12	Bath towel					
13	Face towel					
14	Hand towel					
15	Bath Mat					
16	Dress gown					

Annexure 3

Items	Open ing Balan ce	New Rece ived	1 Flo or A	2 Flo or A	Dept /Lau ndry	Mis sing	Disc ard	Ph ysi cal Co un t	Clo sing Bal anc e	Vari ance	New Linen Stock In Hand- B1
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double
bed
sheet
single
bed
sheet
double
dovet
cover

single
 dovet
 cover
 bath
 towel
 hand
 towel
 face
 towel
 bath
 mat
 bathro
 be
 pillow
 cover

Annexure 4

THE XYZ HOTEL, Hinjewadi					NAME:		
					DATE:		
Sl. No	Item	1 FLOOR	2 FLOOR	3 FLOOR	4 FLOOR	Dept/ Laundry	Total
1	Sgl Bed Sheet						
2	Dbl Bed Sheet						
3	Sgl Du/Cover						
4	Dbl Du/Cover						
5	SglMatress/Pro						
6	DblMatress/Pro						
7	Sgl Duvet						
8	Dbl Duvet						
9	Pillows						
10	Pillow Cover						
12	Bath towel						
13	Face towel						
14	Hand towel						
15	Bath Mat						
16	Dress gown						