

Inventory Management of Consumer Products of Sai Super Market

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Abstract- Inventory management is a very important aspect as it not only affects the Retailer's financial performance but also the customer satisfaction. As it is obvious that properly managed stocks attracts large number of customers and this results in good sale. Improper stocking not only causes a negative impact on retailer's sale, but also causes severe dissatisfaction amongst customers while going for shopping. The main aim of this work is to maintain required amount of consumer products in Sai Super Market by analyzing various parameters that are related with it . In this way it reduces inventory cost, decreases wastages of material and hence inventory space utilization can be decreased.

Keywords- Inventory Management, Consumer products, Super Market.

I. INTRODUCTION

Inventory refers to goods and products that are ready to sell, along with the raw materials that are used to produce them. Inventory can be categorized in three different ways and these are,

- **Raw materials-** Raw materials are inventory items that are used in the manufacturer's conversion process to produce components, subassemblies, or finished products. These inventory items may be commodities or extracted materials that the firm or its subsidiary has produced or extracted.
- **Work-in-progress-** Work-in-process (WIP) is made up of all the materials, parts or components, assemblies, and subassemblies that are being processed or are waiting to be processed within the system. This generally includes all material from raw material that has been released for initial processing up to material that has been completely processed and is awaiting final inspection and acceptance before inclusion in finished goods.
- **Finished goods-** A finished good is a completed part that is ready for a customer order. Therefore, finished goods inventory is the stock of completed products.[1]

II. IMPORTANCE OF INVENTORY MANAGEMENT

Inventory management is vital for any company / Organization health because it helps make sure there is rarely too much or too little stock on hand, limiting the risk of stock outs and inaccurate records. Inventory management allows businesses to minimize inventory costs as they create or receive goods on an as-needed basis.[2]

III. PROBLEM DEFINITION

Sai Super Market is the first professionally managed chain of departmental stores in Solapur City. It has three branches to serve the growing needs of consumers in Solapur city. In there all branches consumer items are purchased, stored and maintained, for maintaining all these things Sai Super Market uses Classic Retail- 11.2(POS) software. In that software reorder quantity or minimum stock level, purchase order, details of products, prices, discounts and quantities are need to be maintained manually through software. In case of consumer inventory whatever the items that they have it need to store and maintain, their selling is not fixed , it may change as per the demands of customers or it will be high in particular season of time.



Figure 1-Classic retail software.

Though whatever minimum stock level for quantity of materials that are available in Sai Super Market is sufficient to fulfill the demand of customer. But in certain cases if

particular products do not sell, if it remain in stock for long time then it can get expired or the same may get damage, it leads to wastage as well as loss of money. The same case is applicable for other items too. There are certain items for which demand is too less, so such items have been in stock for long time and their associated holding cost and carrying cost get locked with their inventory.

IV. METHODOLOGY FOR SOLVING PROBLEM

So to avoid the above stated problem we studied the detail stock which is available in Sai Super Market at the same time we also observed their minimum stock level/Reorder quantity. Based on its selling we decreased the reorder quantity by single digit by considering its time of availability whenever the same quantity of material is ordered. The details of products are shown in below table.

Table no 1- Consumer Products of Sai Super Market.

Item Name	Purchase Rate in Rs.	Sale one Month	Reorder Quantity/Week	Fixed Stock	Order/Reorder	Saved Amount in Rs.	Saved Quantity
Thums up 2.25	85.88	10	6	4	4/2	343.52	4
Maggi	10.79	280	90	240	240/40	539.50	50
Detto 1 skin	31.12	6	12	3	3/3	186.72	6
HM. Daily care sham	180	2	6	1	1/1	720	4
Haldiram Rasg	163.86	4	6	2	2/2	327.72	2
Haldiram son	52.22	8	12	4	4/4	208.88	4
Bri.mu ffilisch Ococ	8.92	9	10	3	3/3	53.52	6
Parle happy venila	16.44	15	12	6	6/9	147.96	9
Morte in rat kill	55.02	8	6	4	4/4	110.04	2
Morte in rat kill 25g	17.19	6	6	2	2/6	68.76	4
Lotte choco pi cake 168g	53.90	6	10	3	3/3	377.30	7
Haldiram gulab iamun	88.38	3	3	2	2/1	176.76	2

Haldiram	26.79	3	6	2	2/1	133.95	5
Haldiram testy nuts-	40.21	8	6	5	5/3	80.42	2
Keshar kali rice	62	440Kg	150Kg	290 kg	290/150k	6820	110 kg
Haldiram mini samosa	54.45	8	6	4	4/4	108.9	2
Haldiram	43.74	4	6	2	2/2	174.96	4
Haldiram	46.07	16	24	6	6/10	829.26	18
Indrayani	46	153 Kg	90 Kg	100	100/50	1840	40
Haldiram bhujia shev	41.89	16	24	6	6/10	754.02	18
Haldiram aloo	33.52	8	12	4	4/4	268.16	8
Chad tara Rice	62	156 Kg	120 Kg	76	76/80	2480	40
Bas.king rices	90	75Kg	75Kg	25	25/50	4500	50
Bas. Royal trofi	130	43Kg	50Kg	25	25/25	3250	25
Aajanta Wheat	33	1460Kg	400 Kg	1000 kg	1000/400	4620	140 kg
Vijay mamara 500	30	238	100	188	188/50	1500	50
Vijaya ma	60	90	30	75	75/15	900	15
Goldmine	39	14	18	8	8/6	468	12
Jaggery							
Gold mine	34	152	72	118	118/34	1156	34
Rambandu	88.20	120	72	78	78/42	2646	30
Rambandu	109.76	4	6	2	2/2	439.04	4
Mixed							
Wheel green powder	105.95	29	18	14	14/15	423.8	3
Wheel green bar	4.60	146	96	110	110/36	303.	66
Wheel green powder	28.57	84	24	62	63/21	175.71	3
Saving of cost						RS. 37964.71/-	

V. RESULT AND DISCUSSION

In the above table no 1 we can see that whenever we change the re order quantity or minimum stock level of the products it can save **Rs.- 37964.71/-** which less than as per the earlier cost of inventory i.e- **Rs.-74901.26/-**

Table no 2- Costs of Inventory before and after changing Re order quantity.

Sr No.	Cost of Inventory before changing Re order quantity in Rs.	Cost of Inventory after changing Re order quantity in Rs.
1	74901.26/-	37964.71/-

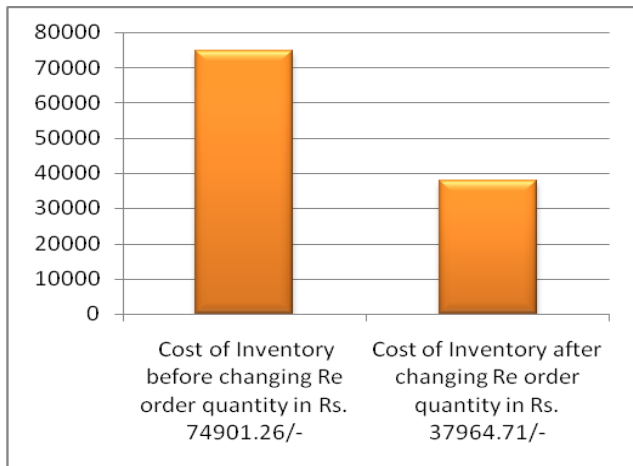


Figure 2-Graphical presentation for change of Inventory costs.

We can also see that saving of cost is almost half of the total incurred cost, which is shown in the below table no 3.

Table no 3- Percentage of Inventory costs before and after changing Re order quantity.

Sr No.	Percentage of decrease in saving cost of Inventory	Percentage of additional cost incurred in Inventory
1	50.69 %	49.31 %

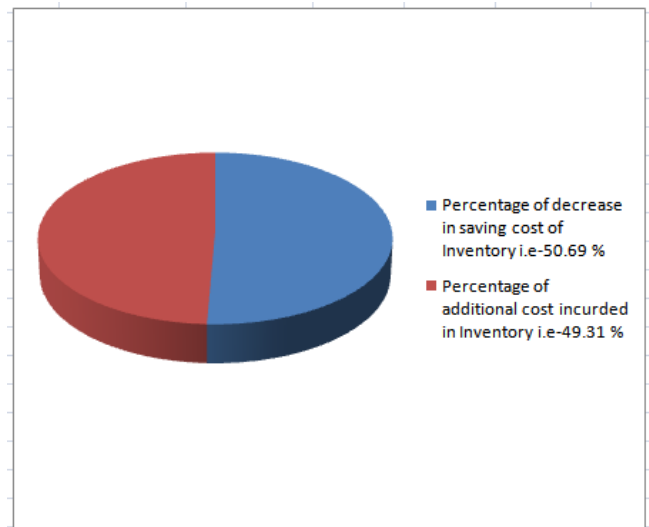


Figure 3-Graphical presentation for change of Inventory costs in percentage.

After changing the re order quantity or minimum stock level for the products that are mentioned in the above table no 1, we observed their selling consistently for two months and it is found that whatever the minimum stock level is maintained is sufficient to fulfill the demands of customers.

VI. CONCLUSION

After completing this work we can conclude that,

By changing the re order quantity or minimum stock level, it can save **Rs.- 37964.71/-**.

We can see that saving of cost is almost half of the total incurred cost.

At the same time the stored material was occupying the space for its storing i.e- Holding cost, and to do that it needs labor i.e- Handling cost. In this way we save total cost that consist of,

Total saving of cost- 37964.71+Holding cost+ Handling cost

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