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An Analysis on Inventory Management at Whirlpool India Limited, Pondicherry

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Abstract
Inventory management system involves procurement, storage, identification, retrieval, transport and construction methods. Each is indelibly linked to safety, productivity and schedule performance. The main objective of the study is to analyse the inventory management control adopted and the effective utilization of inventory at the production level. The model can deal with both uncertain demand and availability of supply. These findings may mainly reflect the main factors that will affect the inventory management system which able to achieve the improved efficiency of project management and to reduce the waste of materials in the respective region of construction industries.

Keywords: Analysis, Inventory Management, Whirlpool, construction industries.

Introduction
Inventory control is vitally important to almost every type of business, whether product or service oriented. Inventory control touches almost every facets if operations. A proper balance must be struck to maintain proper inventory with the minimum financial impact on the customer. Inventory control is the activities that maintain stock keeping items at desired levels. In manufacturing since the focus is on physical product, inventory control focus on material control. Inventory management is the integrated functioning of an organization dealing with supply of materials and allied activities in order to achieve the maximum co-ordination and optimum expenditure on materials. Inventory control is the most important function of inventory management and it forms the nerve center in any inventory management organization.

Need for the Study
Every organization needs inventory for smooth running of its activities. It serves as a link between production and distribution processes. The investment in inventories constitutes the most significant part of current assets/working capital in most of the undertakings. Thus, it is very essential to have proper control and management of inventories. The purpose of inventory management is to ensure availability of materials in sufficient quantity as and when required and also to minimize investment in inventories. So, in order to understand the nature of inventory management of the organization, I took this Inventory Management as a topic for my project, to give findings and suggestions by adopting and analyzing different inventory control techniques.

Objectives of the Study
Primary Objective
- To analyse the efficiency of Inventory Management of Whirlpool of India Ltd.

Secondary Objective
- To identify optimum level of inventory which minimizes the cost?
- To identify the safety stock level for various components.
- To classify the various components based on its value and movements.
- To identify inventory requirement of the company for the next year.

Data Collection
Both, primary and secondary data were collected and used for the study. The required secondary data was collected through various journals, magazines, newspapers, books, reports etc. The required primary data were collected from the respondents by face-to-face approach, using of questionnaire. To collect primary data, detailed questionnaire was prepared covering most of the aspects of the objectives of the study.

Data Analysis and Interpretation

Table 1: ABC Analysis

Categories	Total No. Items in Classes	Percentage
A	18	45
B	14	35
C	8	20
Total	40	100

Interpretation
The above table shows the classification of various components as A, B & C classes using ABC analysis techniques based on unit value. From the classification A classes are those whose unit value is more than Rs.100 and constitutes 45% of total components. B classes are those whose unit value is between Rs.25-100 constitutes 35% of total components and C classes are those whose unit value is less than Rs.25 constitutes 30% of total components. It is good that the company maintains its inventories based on its value using controlling techniques.

Table 2: FSN Analysis

Categories	Total No. items in Classes	Percentage
F	17	43
S	23	57
N	0	0
Total	40	100

Interpretation

In the above table shows the classification of various components as FSN items using FSN analysis techniques based on movements. From the classification F items are those which moves fastly and constitutes 43% of total components. S items are those which moves slowly constitutes 57% of total components and N items are those which doesn't move (Non-moving items). According to data given, there is no Non-moving items. It is not good as the company maintains low percentage in moving items.

Table 3: Inventories Percentage

Years	Inventories	Percentage
2003	9,17,88,514	9.65
2004	8,66,68,300	9.15
2005	20,37,85,550	21.40
2006	17,58,61,213	18.50
2007	17,22,82,014	18.10
2008	22,11,31,100	23.20
Total	95,15,16,691	100

Interpretation

In the above table shows the percentage of inventories increases from 9.65 to 18.10 in the year 2003-2007. the inventory for the year 2008 is expected to be 23.20 which is again in the increasing trend. This infers that the inventory requirement is increasing in the future period also. It shows satisfactory position of inventories as it implies increasing production & demand for the product.

Table 4: Inventories Turnover Ratio & Velocity

Year	*Net Sales* (Rs.)	*Avg. Inventory (Rs.)*	*Ratio*	*Velocity* (in Days)
2003	12,30,05,134	8,42,09,371	1.46: 1	250
2004	16,06,43,669	8,92,28,407	1.80: 1	203
2005	11,73,30,581	14,52,26,925	0.80: 1	456
2006	55,53,74,571	18,98,23,381	2.92: 1	125
2007	79,11,78,220	17,40,71,613	4.5: 1	81

Interpretation

In the above table shows inventory turnover ratio for the past years. The ratio is showing increasing trend from1.46 to 4.5 in the year 2003 to 2007, except in the year 2005 which shows only 0.80 times. Whereas in the velocity of inventories shows less in 2007 as compared to 2003 which is 81 days in 2007 and 250 days in 2003 except in the year 2005 which is 456 days. This shows that the inventories are easily converted into sales within the shortest period i.e. the company was able to sell Rs. 4.5 by investing rupee one in the stock in 2007.

Findings

- It is found that, there is a variation in the EOQ & no. of unit purchased. It is understood that the company is not following EOQ for purchasing the materials. So, the inventory management is not satisfactory.
- From calculation of safety stock, we can able to determine how much the company can hold the inventory in reserve stock per annum.
- From the classification a classes are those whose unit value is more than Rs.100 and constitutes 45% of total components. B classes are that whose unit value is between Rs.25-100 constitutes 35% of total components and C classes are those whose unit value is less than Rs.25 constitutes 30% of total components. It is good that the company maintains its inventories based on its value using controlling techniques.
- From the classification F items are those which moves fastly and constitutes 43% of total components. S items are those which moves slowly constitutes 57% of total components and N items are those which doesn't move (Non-moving items). According to data given, there is no Non-moving items. It is not good as the company maintains low percentage in fast moving items in compared to Slow moving inventories based on movements using controlling techniques.

Suggestions

- According to EOQ, as the company does not follow EOQ for its purchasing, the company can be adjusted to order materials. This will reduce the cost & help to enhance the profit of the company.
- The company is required to maintain safety stock for its components in order to avoid stock-out conditions & help in continuous production flow.
- Under ABC analysis, the management must have more control on A than B&C, because A class constitutes more(45%) of higher values. There should be tight control exercised on stock levels, to avoid deterioration. This is done through maintaining low safety stock, continuous check on schedules & ordered frequently in inventories, in order to avoid over investment of working capital.
- The company must not go to the Non-moving items as far as possible, because there will be unnecessary blocking of working capital. This would hinder the other activities of the organization.

Conclusion

A better inventory management will surely be helpful in solving the problems the company is facing with respect to inventory and will pave way for reducing the huge investment or blocking of money in inventory. From the analysis we can conclude that the Company can follow the Economic Order Quantity (EOQ) for optimum purchase and it can maintain safety stock for its components in order to avoid stock-out conditions & help in continuous production flow. This would reduce the cost and enhance the profit. Also there should be tight control exercised on stock levels based on ABC analysis & maintain high percentage in fast moving items in inventories as per on FSN analysis for efficient running of the inventory. Since the inventory Turnover ratio shows the increasing trend, there will be more demand for the products in the future periods. If they could properly implement and follow the norms and techniques of inventory management, they can enhance the profit with minimum cost.

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