



**ABC ANALYSIS TECHNIQUE OF MATERIAL TOWARDS INVENTORY
MANAGEMENT**

Avinash Mishra*¹, Dr. M.Lsoni²

¹Research Scholar, Govt. Hamidiya Comm.& Arts college, Bhopal.

²Asst. Prof, Govt. Hamidiya Comm.& Arts college, Bhopal.

ABSTRACT

ABC analysis is that technique of material control in which we divide our material into three categories and investment is done according to the value and nature of that category's materials. materials, we include 10% of total material, but its cost will be high, so its investment requirement will also be very high and it may be 70% of total investment in inventory. The ABC method requires more resources to maintain than traditional costing systems. When cycle counts are performed, class A inventory must be routinely analyzed to determine if the inventory still consists of high-priority items.

INTRODUCTION

A large service organization and a consumer goods manufacturer participated in the study. The managers in both organizations used cost and non cost criteria for developing the ABC categories for inventory management. The study shows that managers can develop no cost criteria and classify the inventory items in ways that combine the criteria types. Specific policies were defined for managing the items in the industrial firm. Once the benefits of the methodology were demonstrated, a year-long program for implementing the system was developed. The project is estimated to cost less than 10 to 15% of the available storeroom clerk man hours and provide substantially greater benefits.

There are no fixed thresholds for each class, different proportion can be applied based on objective and criteria. ABC Analysis is similar to the Pareto principle in that the 'A' items will typically account for a large proportion of the overall value but a small percentage of number of items. Example of ABC class are

- 'A' items – 20% of the items accounts for 70% of the annual consumption value of the items.
- 'B' items - 30% of the items accounts for 25% of the annual consumption value of the items.
- 'C' items - 50% of the items accounts for 5% of the annual consumption value of the items.

The **ABC analysis** is a business term used to define an inventory categorization technique often used in materials management. It is also known as Selective Inventory Control. Policies based on ABC analysis:

- A ITEMS: very tight control and accurate records

- B ITEMS: less tightly controlled and good records
- C ITEMS: simplest controls possible and minimal records

CONCEPT

ABC analysis is that technique of material control in which we divide our material into three categories and investment is done according to the value and nature of that category's materials. After this, we control of material according to their level of investment. We need not to control all the categories but we have to control those materials which are in a category.

A. Category materials and its control

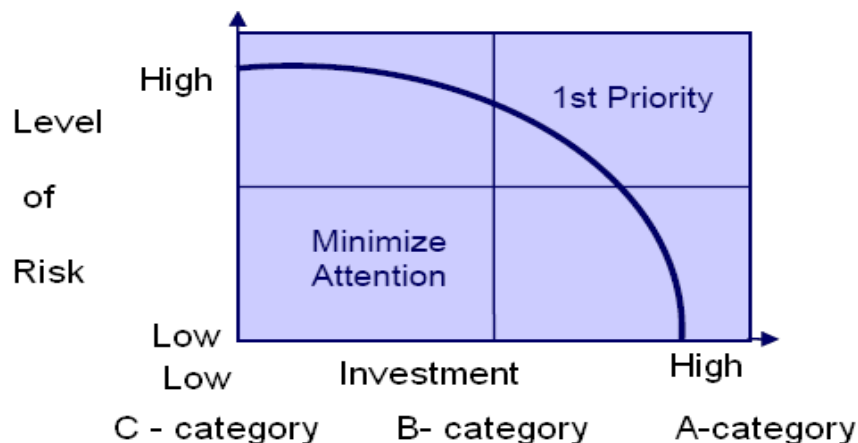
In these category materials, we include 10% of total material, but its cost will be high, so its investment requirement will also be very high and it may be 70% of total investment in inventory. Store keeper should make safe these materials from any wastage, because its price or demand is very high. Store keeper also keeps its economic order quantity and tries to decrease misuse of money in this category. A category which will also require special attention due to the "large amount of money" they represent. A small "mistake" in managing the few A Category materials may cost a lot to your company.

B. Category materials and its control

In this category, there are many normal materials can be included which are needed for production. Store keeper can classify 20% of material and we need 20% of total investment in this type of inventory for buying. But its control is also necessary, because without this, production may be delay. So, store keeper should not ignore its control and for continuing supply, storekeeper should maintain its minimum, maximum and re-order level.

C. Category materials and its control

There is no need to control this type of material but normal care is needed for keeping this material in right position before using it for production. Its quantity is of 70% of total quantity but cost is 10% of total investment in inventory. So, overstocking can increase store cost and interest on capital. So, purchase should be in hand.



- The A segments represent approximately 70% of the total spend within a category

- High attention

- The B segments represent the following 20% of the total spend within a category

-Normal attention

- The C segments are the remaining (most of the time several segments) which Represents the final 10% of the total spend - **Low attention**

RESEARCH METHODOLOGY

In this survey normative frameworks are excluded, process guidelines and management systems which embrace all three sustainability aspects (ecological, economic and social) have been

compared. The methodologies chosen for analysis vary from scientific to practice oriented, from well known international to locally used and prepared in separate institutions. The analysis was carried out for quantitative and qualitative assessment methodologies separately. Main advantages and disadvantages were highlighted for each methodology and between quantitative and qualitative groups of methodologies.

OBJECTIVE OF ABC ANALYSIS

ABC analysis allows the grouping of objects in three segments:

- A segment = important objects
- B segment = less important objects
- C segment = relatively unimportant objects

You use ABC analysis in order selection in Product Cost Controlling (CO-PC) to receive an overview of the production orders in a plant that incur the most actual costs. In the A segment you can see the orders that incurred the highest costs and that represent 50% of the entire actual costs in a plant. In the B segment you can see the orders with the next-lowest actual costs; up to 80% of the total costs of the plant are now reached. The orders that incurred low costs are shown in the C segment.

The object to be grouped must have a value for at least one key figure. In ABC analysis the objects are first sorted in ascending or descending order with reference to a preselected key figure. Then the list is subdivided using a predefined strategy. The following strategies can be used for grouping:

- Key figure (percentage)

The division into groups is based on the percentage shares of the key figures on the total value. For example, if the selected grouping is A = 50%, B = 30% and C = 20%, the objects in the list are sorted in ascending or descending order according to the value of the selected key figure and then assigned to segment A if the percentage share of the total of the key

figures of the total value does not exceed 50%. Then the objects are assigned to the B segment if the percentage share of the total of the key figures does not exceed 80% of the total value. The remaining objects are assigned to the C segment.

➤ Key figure (absolute)

The division into groups is based on the absolute values of the key figures. Two limiting values must be specified: the limiting value between the A and B segments and the limiting value between the B and C segments. The objects are assigned to groups using these limiting values.

➤ Characteristics (percentage)

The division into groups is based on the percentage number of objects in the list compared to the total number of objects. For example, if the selected grouping is A = 50%, B = 30% and C = 20%, the objects in the list are first sorted in ascending or descending order according to the value of the selected key figure. The A segment therefore receives 50% of the total number of objects with the highest or lowest key figure value. The B segment receives the next 30% of the objects, and all remaining objects are assigned to the C segment.

➤ Characteristics (absolute)

The number of objects to be assigned to the A and B segments is specified by the user. The remaining objects are assigned to the C segment.

Advantages and Disadvantages of ABC Analysis Inventory

Activity Based Costing, or ABC, is a method of allocating overhead and direct expenses related to the most important activities of the company first. This process allows business owners and managers an opportunity to better define the areas of manufacturing or sales that generate the most profit for the company. Inventory analyzed under the ABC method is classified in order of profitability to the company. Class A inventory accounts for 80 percent of revenue, class B inventory for 15 percent of revenue and class C inventory for 5 percent of revenue.

Better Control of High-Priority Inventory

ABC inventory analysis places tighter and more frequent controls on high-priority inventory. High-priority inventory, or class A inventory, is the class of inventory that customers request most often. In manufacturing, class A inventory also can include the items most often used in the production of goods. Because Class A inventory is directly linked to the success of the company, it is important to constantly monitor the demand for it and ensure stock levels match that demand. With ABC analysis, your company can use its resources to prioritize control of high-priority inventory over inventory that has a lower impact on your bottom line.

More Efficient Cycle Counts

Under the ABC inventory analysis method, you can allocate your resources more efficiently during cycle counts. A cycle count is the process of counting only certain items on scheduled dates. The frequency of your cycle counts and the items you choose to include depends on

how often your inventory fluctuates. Once inventory is organized by class, you can focus regular cycle counts on class A inventory. Depending on your needs, it may be necessary to count class B inventory as infrequently as twice per year and class C inventory only once per year. The ABC analysis method saves time and labor counting only the inventory required by the cycle for the class of inventory versus counting all inventory items each cycle.

Conflict with Other Cost Systems

The ABC inventory analysis does not meet Generally Accepted Accounting Principles (GAAP) requirements and also conflicts with traditional costing systems. Companies that use ABC methods must operate two costing systems, one for internal use under the ABC method and another for compliance with GAAP. Traditional costing systems generate the figures required by GAAP. Traditional costing systems allocate cost drivers by the actual unit cost, rather than by the activity percentage of the cost driver. As a result, ABC cost assignments often differ from traditional cost system assignments.

Requires Substantial Resources

The ABC method requires more resources to maintain than traditional costing systems. When cycle counts are performed, class A inventory must be routinely analyzed to determine if the inventory still consists of high-priority items. If an inventory piece is no longer used or demanded as frequently, it is moved to another inventory classification. This constant process requires much more data measurement and collection.

Objectives of the study

- 1) To carry out ABC analysis this is carried in the company.
- 2) The Inventory Management, to ascertain the Inventory control method adopted by the company and to identify the problems in managing inventory.
- 3) To know the efficiency of Inventory Management in Pvt. LTD Company.

CONCLUSION

ABC analysis can separate academic radiology into three businesses-teaching, research, and clinical-and provide a detailed understanding of the cost structure of each. This analysis identifies opportunities for improved quality of service, productivity, and cost within each business. An ABC analysis requires an in-depth evaluation of an organization's processes and activities, which in turn enables an allocation of costs that better reflects resource usage. Conducting an ABC analysis provides financial and operational information to management that facilitates more effective decision-making, thereby leading to improved financial outcomes. The Inventory Management to ascertain the inventory control method adopted by the company and to identify the problems in managing inventory.

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