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Research Paper

A STUDY ON MATERIALS MANAGEMENT AND ITS IMPACT ON PROFITABILITY OF MEDIUM SIZED ENTERPRISES –NTPC

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Abstract Material management is a critical component of the construction industry. The goal of materials management is to insure that construction materials are available at their point of use when needed. The materials management system attempts to insure that the right quality and quantity of materials are appropriately selected, purchased, delivered and handled on site in a timely manner and at a reasonable cost. A proper implemented material management program can achieve the timely flow of materials and equipment to the jobsite, and thus facilitate improved work face planning, increased labor productivity, scheduling and minimize the cost. Material management is an important function in order to improve productivity in construction project. It is defined materials management function which takes off, vendor evaluation and selection, purchasing, expenditure, shipping, material receiving, where housing and inventory, and material distribution. In this project we have prepare scheme of material management in the construction industry for building project also conducting survey of industry and determine the various format for construction material management. As well as talk over the tracking system of material management in the industry and also discuss the software development for proper management.

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1. INTRODUCTION

Everything from raw substances to stock gadgets and alternative elements is considered a cloth within the introduction of products and services. When we communicate approximately the many departments' roles in coordinating the float of substances into and out of an agency, we are speaking approximately substances control.

Logistics' Materials Management subfield addresses the physical parts of a deliver chain. This consists of,

however isn't constrained to, the subsequent: the want for uncooked materials, additives, and subassemblies; the requirements concerned in ordering; the acquisition of substitute and spare parts; and the shipping and warehousing state of affairs. Knowing the quantity of elements or components required for each future time period in the making plans horizon is consequently feasible. Using this call for-dependency facts, materials management (also called materials planning) maintains music of inventory and regulates the portions of the numerous components that move into production a finished product.

Achieving a lower price investment in uncooked materials and work-in-method inventories even as stopping inventory inventory-outs and overstocks are the management goals of fabric management.

Both large and small commercial organizations employ Materials Management systems, both in component or in their entire. The intent for that is as it gives a truthful and without problems understandable method for calculating the quantity of raw substances, elements, and components required to make every finished product. In addition to supplying a timeline for whilst to order or manufacture each of these substances, components, and parts, cloth control also gives those information.

Since substances presently constitute 3 quarters of the general funding by many manufacturing service providers, the demand for stepped forward substances control has grown in significance. Commercial sectors. Companies within the telecom enterprise make recharge cards and other add-ons and buy generators and other substances for their many base stations so that their tens of millions of customers may additionally get excellent services. Here, materials want excellent management or care to save you administrative costs and losses that reduce into the organisation's earnings. The substances fraction of product value tends to rise, in line with Monk (1987), as manufacturing sports come to be more automatic and less direct labour is wanted. So, to adjust the float of substances, green and effective substances management tactics are used.

By centralising substances management features under the leadership of a materials manager, a agency might also boom overall performance. It additionally delegated materials fee-related responsibilities to the business enterprise's maximum critical departments. If done nicely, this could make all the departments which have a hand within the materials value coordinate and adjust their spending. This includes shopping for and manufacturing manipulate.

For a commercial enterprise to run easily, its materials control sports must be performed effectively. Planning, setting up, and controlling the float of substances distribution of very last items is the essential challenge of the materials management

function. In order to elevate awareness of the importance of the key vicinity of operations and the want to be attentive to time, it is important that every one main departments under substances control perform their specific responsibilities with utmost diligence.

2. NEED OF THE STUDY

It is vital to be acquainted with the industry's purchasing and cloth control device, in addition to the pricing of uncooked substances. The studies may be very useful for extraordinary departments to manage the method. Due to the impracticality of doing a micro level analysis on all NTPCs in Telangana, this observe will entirely cover NTPC Ramagundum.

Prospective researchers inquisitive about this area will discover it useful as a reference. Public and commercial corporations alike can benefit from being cognisant of ways materials management effectiveness may additionally make a contribution to price discount and the attainment of earnings goals. For most people, it'll pave the way for greater sensible rules and policymaking on substances management.

While the concept of inventory management is easy—don't have an excessive amount of stock reachable and do not have too little—there are prices associated with going out of doors of this ideal variety, and right management of stock ranges may have a good sized effect on a organization's bottom line. However, locating this sweet spot can be hard and time-eating without the proper tools.

3. RESEARCH METHODOLOGY

The research is predicated on a mix of number one and secondary sources. The senior finance worker of NTPC guided the collection of number one facts. By deliberating secondary facts obtained from sources which include yearly reviews, purchase registers, and garage information of the employer, suitable interpretations of the tabulated data were created.

Sources of data:

Primary data:

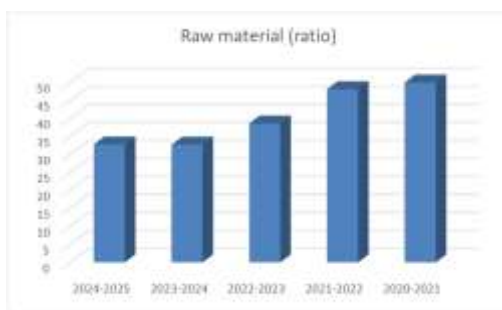
The primary data is collected by interacting with the finance manager and other executives of the company.

Secondary data:

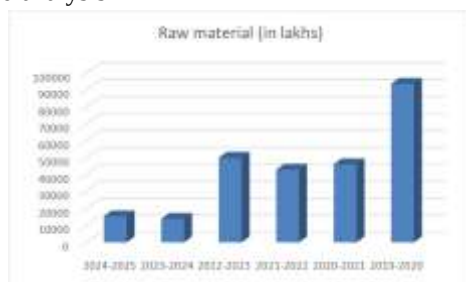
All the secondary data used for the study has been extracted from the annual reports, manuals and other published material of the company.

4. RESULTS AND ANALYSIS

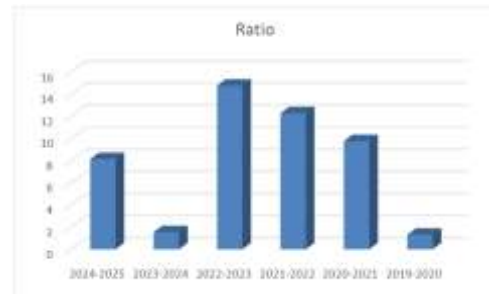
Ration Analysis



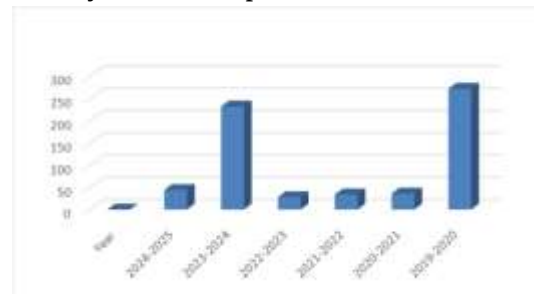
Trend analysis



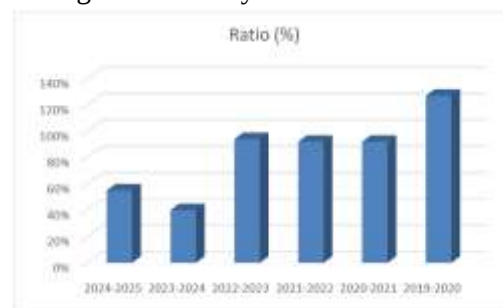
Inventory turnover ratio



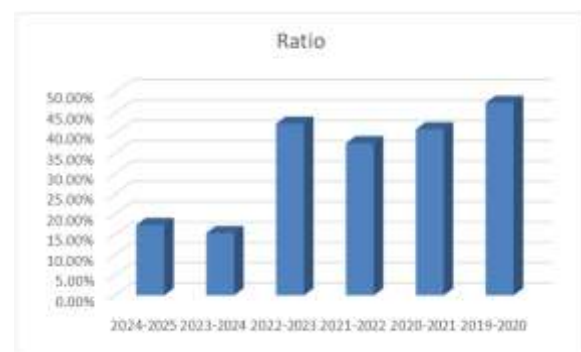
Inventory conversion period



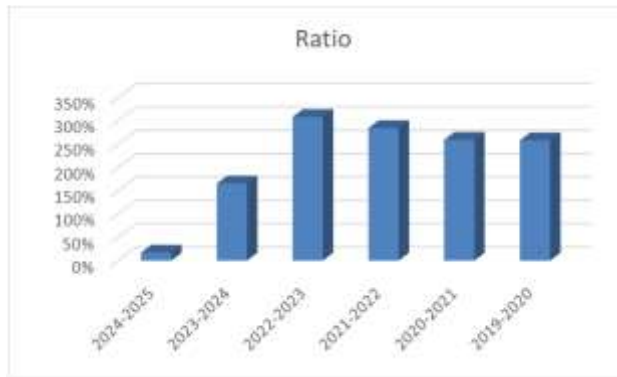
Percentage of inventory turnover current assets



Percentage of inventory over total current assets & fixed assets



Percent of inventory over total current liabilities



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www.ntpcltd.ramangundam.com

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5. CONCLUSIONS

Investing in inventories is becoming more popular.

1. During the timeframe, the average inventory ratio was a lowly 1.32 in 2020-2019.
2. The tendency of growing average inventory over current asset ratios is evident, with a recorded value of 80%.
3. In 2025–24, electricity output was 7,47,436 MW and 7,77,092 MW, both of which were greater than in 2022–21, when they were 6,87,373 MW and 7,27,447 MW, respectively.
4. Raw material investments amount to a hefty 93605.78 lakhs, far more than the 460870.45 lakhs spent in 2022-21.
5. With an inventory turnover ratio of only 1.32, it is clear that very little stock has been turned into sales.
6. It took 232 days in 2025-24 to clear the stock, which is much longer than the 28 days it took in 2024-23.

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