NEED OF SPECIALIZED WAREHOUSING AND PROCESS IMPROVEMENT AT ABC MOTHER-HUB: AN ILLUSTRATIVE CASE STUDY

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Abstract

The pandemic was a shot of adrenaline for global ecommerce. EMarketer projects that COVID-19 accelerated India's e-commerce adoption by several years. The Indian government has been proactive in the development of this sector by granting it an infrastructure status, implementing of Goods and Service Tax (GST) and creating Logistics division in the Ministry of Commerce to coordinate integrated development of the sector by way of policy changes, improvement in existing procedures, identification of bottlenecks and gaps, and introduction of technology-based interventions.

The purpose of this case is to highlight the process, people, and operations improvements undertaken by an Indian e-commerce . Researcher spent 60 days onsite (the company's warehouse located in Haryana) observing the processes, identifying issues, providing solutions, and tracking and recording improvements as per the action research methodology3. Thus, two-fold objectives were achieved: 1) improved cost efficiency and material handling processes in the warehouse and 2) knowledge building in the strategic operations management area. The case is a representative illustration of how the Indian logistics industry is moving from fragmented, unorganized, and inefficient systems to a more organized, structured sector in an ultra-competitive global space.

Warehousing in India has been connected to nourishment security and horticultural development. The Central Government built up state claimed and controlled warehousing organizations to empower better stockpiling of farming items in the 1950s. In the course of the most recent two decades, the requirement for warehousing has likewise been felt in non-farming areas, for example, retail trade. Warehousing is currently observed as an essential piece of the inventory network where products are put away to safekeeping, as well as where other esteem procedures are executed, in this way limiting wastage and expenses.

Keyword: - Warehousing , Inventory Management , Process Improvisation , Operation Management , Safety Management

Introduction

Warehousing is the part of a firm's logistics management system that stores products between point of origin and point of consumption. Term Warehousing is referred as transportation at zero miles per hour. Warehousing gives time and place utility to crude materials, modern merchandise, and completed items, permitting firms to utilize client benefit as a dynamic esteem including focused instrument.

In warehousing inbound capacities get ready things for capacity and outbound capacities unite, pack and ship orders . Elements of warehousing incorporate Transportation Consolidation, Product Mixing, Docking, benefit, Protection against possibilities. The key distribution center exercises incorporate Receiving merchandise, recognizing the products, and dispatching products to capacity, holding products, picking products, marshal shipment, dispatch shipment and work and data framework. It also provides important economic and service benefits to both the business and its clients and customers.

Broadly warehousing categorized as Public Warehousing, Private Warehousing, Contract Warehousing, Multi - client warehousing.

The objective of warehouse operation is to provide timely customer service, Keep track of items so they can be found readily & correctly, Minimize the total physical effort & thus the cost of moving goods into & out of the storage, provide communication links with customers.

In the current scenario logistics has gone global and more complex and sophisticate in how it operates. In recent years great demand of high end logistics is increased which lead to the increase in demand of robotics and automation for more efficient and précised operations.

The specialized and automated warehouses centres are far more dynamic .These warehouses have better performing slabs, better ventilation. They are able to operate 24 hour a day with an environment that requires good air quality and constant temperature. Loading and unloading of trucks are faster and efficient.

Over the last few decades we have seen a shift in the operations of warehousing in terms of improving the overall supply chain efficiency as well as the business performance. It is still in a transition phase and needs further technological up gradation.

The two most important technologies that revolutionized the sector are Extensive use of appropriate Warehouse Management Systems (WMS) and automated Material Handling Equipment (MHEs) greatly improved the efficiency of warehouses in terms of order processing time, cost reduction, stock visibility and material flow control.

Literature Review

Warehousing takes as much as among 2% and five% of the fee of income of a corporation and with today's incredibly competitive worldwide enterprise environment companies are,emphasizing on go back on property.warehousing charges has become an critical enterprise trouble We have to work utilization of the resources to Maximize the use of warehouse effectively it leads to reduce the operating cost and maximizing the profits. also we have to work on the techniques like Process Improvement, Layout change which helps in increase in productivity At warehouse plant The purpose of this case is to highlight the process, people, and operations improvements undertaken by an Indian e-commerce giant with the help of the research team of the Galgotias University for enhanced efficiency and customer service. Researcher spent 60 days onsite (the company's warehouse located in Haryana observing the processes, identifying issues, providing solutions, and tracking and recording improvements as per the action research

Research Methodology

- Review of secondary source data on warehousing in India, and practices in other jurisdictions.
- To Observing of working of the existing market infrastructure.
- The Comparative study of Global Trends in - *Warehousing *Logistics
- Review of the People and Warehouse On the ground level.

Research Objectives

1.To research and analyse the role of evolution of next generation storages and need of specialized warehouse.

2. To improve cost efficiency and material handling processes in the warehouse

3.To improvisation in Inventory management & and safety concerns

Data Collection

Two data collection methods were used Namely primary data and secondary data Basic data was first collected using audits , questionnaires , surveys , Focus Group and interviews . Secondary data refers to information that has been collected and written by older authors and is in the form of books , reports , journals important for establishing answer finding strategies for new census focused studied in a new area.

In this study, basic data collection was used as the author aims to gain an initial understanding of how the warehouse function are working . Clearly, the data was collected from warehouse ABC . Data were collected through Surveys .The whole data collection process took a week.

Data analysis

Two types of data analysis.Capacity analysis includes statistical data and quality data with value information. It is unstable to analyze data, according to G.C Chaturvedias WDRA Warehousing Development and Annual Report 2014-15 it summarizes and highlights trends related to this topic. Pankaj Chandra, Nimit Jain (2007) also states that high-quality data will be needed to differentiate discussions, questionnaires and other data inputs used to test concepts. In this case, a quality analysis method was used. The reason for using the appropriateness is that the data collected through the Surveys is useful in content analysis.

Chapter Summary

This chapter focuses on the method used to conduct this study. The search design is an example of warehouse management . The method used to collect data is simple random sampling and this is done to give an equal opportunity to express their ideas. The first method of data collection was adopted, thus allowing important data to be collected and analysed. Specifically, Surveys were used and data were analysed using content analysis.

Results

In warehousing inbound capacities get ready things for capacity and outbound capacities unite, pack and ship orders . Elements of warehousing incorporate Transportation Consolidation, Product Mixing, Docking, benefit, Protection against possibilities. The key distribution center exercises incorporate Receiving merchandise, recognizing the products, and dispatching products to capacity, holding products, picking products, marshal shipment, dispatch shipment and work and data framework. It also provides important economic and service benefits to both the business and its clients and customers. Identification of issues: After observing and mapping the MH Resort processes and having a detailed discussion with the hub in charge, Senior Manager following issues were identified with respect to the receipt, and material handling.

- Safety: Safety is concerned as paramount to any asset especially when it comes to Flipkart. To achieve higher productivity data every hour, several actions were taken that might hamper the safety concerns. For example-Some of the stations were broken and attached with a plastic seal which may fall and cause a major injury to humans. Usually, the shipments in the trolley are pushed from one area to another rather than dragging to reduce the time but may cause injury if the trolley hits someone. Some of these trolleys had threads tangled to their wheels that might even be a safety concern. The bins attached to stations had broken iron wires which was a major concern for human safety. The pallets had nail coming out of it.

To resolve these safety issues, various measures were taken that includes replacement of old, broken primary stations with the ones in better condition at the end of the shift for 5S; taping was done at sharp ends; trolleys were checked; secondary stations which were tied with plastic seal were replaced with the ones, not in use.

- Hampering Productivity: Productivity in resort area is mapped through the HHD's i.e., how many shipments are scanned in a particular hour. That data was calculated from a directory link and accordingly the Item Per Person (IPP) was calculated. There were many ways in which the productivity could be hampered. For example- As shown in figure 6, there is no proper alignment of the trolleys which ultimately increases the time first to align these trolleys and then sorting process occurs. Also if the scanners don't have their Casper id and properly working HHD's is a major breakdown in the warehouse and was a common concern during the shifts. The productivity can be reduced if the scanners don't receive the shipment trolleys on time i.e., there is no proper feeding from grid to primary stations. Usually the shipments were thrown out of the bins while scanning fastly but at the end trolley movers had to pick those shipments and were send to re-scan at primary stations

To resolve these productivity issues certain measures were taken:

- There should be proper feeding into the primary stations for which both the team lead and supervisors were given a duty off. This would impact on less movement of shipments as well as trolley movers resulting in reducing one of the 8 wastes.
- Spontaneous actions were taken against those HHD's which were not working and had internet issues. The tickets were raised on hand, without delaying on IT portal so that IT experts could come and resolve the issue.
- FTC's login id and password were generated through the Casper id link so that they don't roam around in the warehouse and work in their respective deployed stations. Another advantage of providing these individual caper IDs and passwords was that if any mistake occurs, it could be made sure on whose Casper it has been done.

- Mis-sort: Mis-sort is common in any motherhub. It means a shipment is not correctly bagged during secondary sorting process. The acceptance criteria for Mis-Sort is 0.10% of the total shipments dispatched. So whenever there is mis-sort, it leads to shipments getting delayed and thereby causing CPD (Customer Promise Date) breach.

  To overcome the issue of mis-sort, Random Bag Checking is done where 6 employees were deployed at the starting of the shift and they were responsible to count and match the physical shipments with the shipments on bag id.

For this every day data was maintained as to reduce the number of mis-sort. Also, to reduce Mis-sort, new manpower was first given training and thereafter was deployed at the stations with old manpower to know the correct process of scanning and bagging at secondary stations. Another reason of Mis-sort was negligence by manpower while scanning, for this the casper id's were noted with stations having maximum shipments on floor and with overflow bags warnings were given.

A very common issue which again leads to mis-sort was Bin Interchange. The scanners stick the PTC (Print To Colour) according to their choice to make work easy and reduce time. But this leads to mis-sort many a times and hence PTC was placed at according to bin numbers.

IVL size-reduction

The IVL at the IRT (Issue Resolve Team) area is of size 4*6 inches that is industry standard size comprising specifications including weight, courier partner, courier return, returning to (name, GSTIN, invoice number), order id, tracking id, barcode and QR code. This size is not practical on all the packages. And hence companies like Flipkart today are keen to reduce the label size to reduce the printing cost. The cost is reduced through the less energy consumption, less label roll usage. Most companies use the labels with larger prints and white areas that are bigger than necessary, Considering this might help to reduce the label size helping in saving resources and reducing waste. This Helps in save time and reducing the paper wastage

Limitation

- There was not enough time to complete this thesis
- Respondents have lack of knowledge related to warehousing
- Lack of information provided by the respondents
- The warehouse concept is new in India so there is less of data gathering

Conclusion

Warehousing should be recognized as infrastructure. It will help in getting cheaper finance from banks and financial institutions and at the same time will help the Agri and the industrial sector. In SEZ and industrial towns, warehousing should be treated as part of common enmities like road and power, for which in his opinion, development of modern warehouses, especially for high end commodities and certification is becoming

necessary to integrate the growth of logistics with policies and integrated logistics policy will ensure that development is moving in the desired direction. To have systematic growth of the warehousing sector, it shot be put under a regulatory authority, which could make policies for implementation across the country and coordinate .With relevant ministries/states. "The government should also identity strategic logistics points and facilities on a public-private partnership mode, apart from encouraging long term investment from public players alike for developing facilities like warehousing. The requirement of industry status/tax incentive' encourage prospective investors emphasized. And we also have to take measures of safety while working in the warehouse take care of our infra assets.

Recommendations

The use of electronic and IT enabled tools in order to enable seamless transfers of information, obvious results regarding the quality and services provided by WSPs, and created low levels of storage resources.

Achieving these repositories requires a high degree of acceptance of the following:

Electronic systems for the creation of electronic NWRs (Transaction references and Tickets)

Equipment for accurately testing the quality of the deposited commodity;

.Properties to accurately measure the amount of assets to be included;

Proper Inventory of the Infra- Assets also ensures the safety and security of the manpower which helps to eliminate the safety Concerns.

.A centralized record keeping system, so that information contained in the NWRs is verified periodically. This will require all storage facilities to be connected to a centralized online record keeping system.

Regular record keeping system to allow for control monitoring;

Reaching the end of the NWR is market participants such as farmers, traders, and banks. This will require a basic internet connection for all market participants.

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