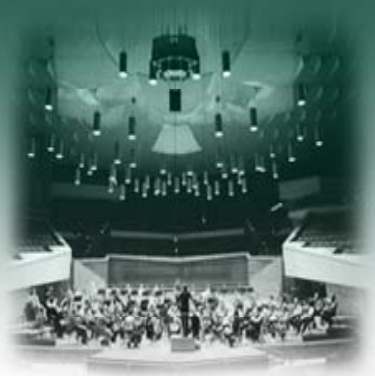

PURE PLAY SAP CONSULTING

YOUR BIG REASON TO
EXPLOIT OUR POTENTIAL

(Experience + Sap Delivery Competence) x Entrepreneurial Passion

Lower Cost through Innovative Methodologies

Your BIG Reason to Exploit our Potential

Order to Delivery Cycle Reduction

- A White Paper

"A perspective on Adoption of Innovative Strategies by an Automobile Manufacturer to reduce its order-to-delivery cycle for distribution of spare parts to its supplier network.

This white paper describes how an integrated strategy of Route Planning and Sales Discount procedures can be used to get significant improvement in Order-to-Delivey cycle."

Introduction

Business Process Case Study – Reduction in Order to Delivery Time : Intelligent Design of Sales Planning and Distribution Processes, Implementation of WMS

AUTOMOBILE Limited

AUTOMOBILE Industries is engaged in the business of Manufacturing of Automobiles. As a part of its after sales support, the company sells spare parts thru its Authorised Dealer network. The company wants to increase Dealer satisfaction by reducing the Dealer Network Inventory and also improve customer satisfaction by reducing the time the customers have to wait for Spare Parts.

Background

Distribution Network Setup

AUTOMOBILE industries sells spare parts thru a single tier distribution channel(dealers) in India. The spread of the sales channel is widespread in the Indian geography. The parts are supplied from a central warehouse based on the Sales Orders placed on it by the dealers.

Order to Delivery cycle

Order : Sales Orders are prepared by Dealers based on a MRP run and placed on AUTOMOBILE. The orders are skewed towards the end of the month for reasons of achieving Sales Targets and availability of funds.

Orders are received in AUTOMOBILE thru EDI and checked for availability of material. Based on the availability of material the delivery document is created for the available material. Only orders which have proper funds availability are released.

The AUTOMOBILE sales officials immediately generate Picking List based on the delivery documents and release the same to the warehouse. Warehouse officials pick and pack the materials. The transport is arranged then and the material is shipped.

Sales Promotion Policies

AUTOMOBILE Ltd has a sales promotion policy in place for its dealers. The Dealers are adjudged on the basis of a Yearly buy target and awarded a % of their purchase as Incentive.

Issue

- The Warehouse Pick and Pack time is typically 3-4 days
- Shipping Activity takes 1-2 day

Order dispatch time is 5-6 days from the time of generating the pick ticket.

Analysis of the Issue

Orders keep coming in to the Sales Department throught the day. If an order from a customer has necessary credit clearance then Sales Officials generate the pickticket. The count down starts at this point.

The Warehouse is designed for a certain level of picking capacity. The picking capacity is defined by the no. of lines that can be picked in a 12 hr working cycle. Line refers to each Material Quantity Storage Location/Bin combination a Pick Ticket (SAP Transfer Order) irrespective of the customer.

Since the generation of the Pick Ticket is based on the incoming order frequency so the Warehouse Load is directly proportional to it. Since the orders are skewed towards the last week of the month so typically the load on the warehouse is 5x the normal capacity. This results in outstanding in deliveries for which GI can be done at the end of the month. To ensure that sales is booked for the orders received within the month, the Sales officials complete the confirmation of the Pick Tickets (even though physically the picking has not been done) and GI is done. The physical activity of these kind of Pick Tickets is dome subsequently. This whole cycle leads to collection of a lot of material on the Warehouse Floor and poor transportation planning.

Management Objective

Achieve 100% dispatch ratio. Pickticket to Dispatch time to be 1 day (No. of Picktickets generated on a given day and dispatched / No. of picktickets generated for that day)

Solution Approach and Design

It is clear for the analysis that the bottlenecks could be removed and the process streamlined to meet the Management Objective if the following could be done

- Warehouse Load to be spread evenly everyday
- Process in Warehouse to achieve 100% dispatch ratio

The supply chain components which would have to be touched for process improvements/changes were Sales Planning, Sales Execution, WMS and Transportation.

Target	Action
Warehouse Load to spread evenly everyday	1. Picking Load given to Warehouse daily should be even and within warehouse capacity limit
Process in Warehouse to achieve 100% dispatch ratio	1. Generated pick tickets should be picked and packed and transport to be available when the material is ready to be dispatched. 2. Avoid part load generation

Changes in the Supply chain structure

The Route Plan based ordering model

The different dealers located in a physical transportation route were clubbed togethen in a logical group. For example – Jaipur, Nasik, Thane and Mumbai would fall on a Transportation route used by a Transport Carrier transporting materials to

Mumbai. Thus the dealers falling in these cities were grouped together in a logical grouping Route ##.

On the basis of the above mentioned grouping, certain 56 route groups were prepared. These groups were further grouped to prepare 6 more "super groups" with representation of almost all Indian Regions (North, South, West and East) in each "super group".

Each Super Group was assigned a Week Day of the Week. E.g. Monday to Super Group 1 and so on. This Weekday was the day on which the dealer indirectly falling in the super group would have their orders processed. So a dealer falling in Super Group 1 has his orders processed on Monday with a commitment from AUTOMOBILE for dispatch on Tuesday. So if orders were placed on any day between Tuesday and Sat then the orders would still only be processed on Monday.

The Order Processing Process

Orders which are to be processed on a given Week Day would all be processed at a defined time of the Day i.e 1530 Hrs. After the orders were processed (delivery generated), the warehouse staff would get a Report detailing Customers whose orders have been processed on that day, No. of transfer Order(pick ticket) lines, load of the warehouse in terms of pick lines per warehouse picking zones.

The Warehouse Round System

The Orders received on a particular day would be picked the following Week day with a target of dispatching them the same day. After order processing, based on the load on different zones of the warehouse the manpower estimate would be made; based on the customers of the orders, transportation agencies would be informed.

The whole working day of 12 hrs would be broken down into 6 rounds. Each Order+Customer would be allotted to each of the rounds. This grouping would ensure that a particular route fell into one of the rounds. At the end of each round of picking the material for different orders would be ready for dispatch. The transport would have been arranged accordingly.

Sales Planning Process

The Sales incentive structure was modified for dealers. The targets were divided across months of the year and then across weeks. The incentive was based on the level of adhering to the target across weeks and months. Sufficient parameters were built to ensure seasonal variations in demand etc.

These initiatives with effective implementation ensured that the order to delivery cycle come down to 1-2 days.