Supply Chain Management / Supply Chain Consulting

CASE STUDY

Best Practices in Inventory Management

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A leading consumer products company dealing in cosmetics and other personal care products was seeking ways to:

- Reduce inventory levels across their forward supply chain
- Improve Inventory Record Accuracy at their storage points
- Accurately track damaged goods at various points in the supply chain

The above problems together were a significant burden to the company.

Implementation of best practices after a detailed business analysis resulted in the following benefits:

- Inventory Record Accuracy improved to 95% within 2 months
- Stock levels reduced by about 30% across stocking points in the supply chain
- Complete visibility was achieved in the supply chain with respect to damaged goods inventory

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Organisation Background:

The firm was a leading consumer products company dealing in cosmetics and personal care products with its head office located overseas. The company had a supply chain network of 3 factories with bonded stock rooms (BSR) attached for despatch to the depots and 35 depots for servicing distributors. Goods move from the factory to the BSR. BSR despatches stocks to Mother CFAs (depot). Other depots receive stocks from the Mother depot and sell them to distributors.

Key Concerns for the Company:

1. To reduce inventory level at the BSR and depots.
2. To improve inventory accuracy at stocking points including both BSRs and depots
3. To identify the damaged stocks across the chain and initiate action in a timely manner

Focus of Study

A study was completed focusing on the

1. Inventory-related issues at BSRs and depots. These included:
   - Inventory holding as a proportion of sales
   - Practices employed for track goods in the warehouse
   - Proportion of fast and slow moving stocks to the total inventory
   - Linkages of factory dispatches to BSR with patterns of BSR dispatches to depots
   - Accuracy of inventory records especially of fast selling lines
2. Demand Planning process. The study looked at:
   - Forecast Accuracy and process of reviewing and revising forecasts
   - Level of safety stock at each location combined with process to review and reset the same
   - Linkages of forecasts and consequent despatches with relevant available closing stocks at depots

Findings

Key Business Indicators

1. Total average inventory holding at BSRs was 8.2 weeks of sales
2. Average inventory holding at the depots was 6.5 weeks of sales
3. Depots were holding
   - High inventory of old/withdrawn stocks
   - Damaged stocks for a long time (over 3 months)
4. Book and physical stocks had discrepancy of over 30%

Conclusions

1. High Inventory Levels: Inventory levels were very high across the distribution chain on account of:
   - Sales and despatch forecasts that were not in line with actual primary / secondary sales
   - There was no process to periodically review and refine the Annual Forecasts, in line with market feedback
   - Stocking across all points in the distribution chain was driven by a push-oriented system that did not have provisions to be tuned to market requirements
   - Actual safety stocks maintained at depots were significantly higher that target safety stocks agreed at the beginning of the year. No system was in place to monitor and correct the same during the year
   - Stock allocation from depots was manual. Orders received from distributors were manually processes and no process was in place to automatically collate orders and allocate stocks
2. High Levels of Old / Withdrawn / Damaged / Slow-moving stocks: Dead stocks were allowed to accumulate in the system mainly because:
   - There was an absence of visibility into inventory details across stocking points
   - The process to monitor and act on dead stocks was not adhered to
   - Records of slow-moving / old / withdrawn / damaged stocks were not maintained methodically at the stocking points. Records were inaccurate.
   - Communication of details of dead stocks to the relevant teams was based on manually filed reports which was time-taking and open to error
3. Inaccuracy in inventory records:
   - The organisation did not have a clear policy on periodic reconciliation of physical stock with book records
   - Inaccuracies grew over time, compounded with process failure on accounting for dead stocks

Action Steps Advised and Undertaken

Process Improvements

1. Bin card system was implemented for each rack at the CFAs and the delivery staff was trained in relevant bind card maintenance practices.
2. A process to regularly reconcile physical and book stocks using the cycle-count process was mandated
3. An IT solution was identified and implemented for
   - Accounting the Cycle count process, providing MIS on deviations and accounting the adjustment notes
   - Computing the forecast using consolidated orders, with factoring for promotions and seasonality
   - Calculating safety stock level based on number of weeks of sales target
   - Facilitating communication of closing stock data from BSR and depots to logistics department
   - Facilitating communication of damaged and un-saleable stock quantity to commercial department
   - Automatically allocating stocks using FIFO principle at the depots
4. Demand planning and forecasting were made a periodic activity using the above IT solution to align forecasting with market orders and actual sales. The process of setting safety stocks at depots was made periodic and dynamic, based on updated sales data.
5. Norms were set to act on damaged / old and other dead stocks. Clear action steps were laid down to liquidate or destroy these stocks. Responsibility and accountability were set to in the organisation to monitor and authorise activities in this regard based on visibility provided by the IT solution.

Benefits:

1. The organisation achieved an inventory record accuracy (book stocks correctly reflecting physical stocks) of 95% within 2 months .
2. The company achieved (Within 2 Planning cycles i.e. 2 Months)
   a. Stock level reduction
   - From 8.2 weeks to 5.5 weeks at the BSR
   - From 6.5 weeks to 4 weeks at the depots which included Damaged Inventory
   - Reduction in stock Value holding across the supply chain

   b. Transparency of saleable and damaged stocks quantities across the supply chain resulting in more accurate demand planning, stock allocation and production.
   c. Better management of damaged and un-saleable stocks:
   - Sales realisation on salvaging and selling damaged stocks at a discounted price
   - Timely destruction of unusable and potentially harmful products
   - Timely action on transport, handling, stock management and product development fronts to reduce damages

   d. Reduction in proportion of old and damaged stocks; Facilitation of ensuring fresher stocks in the market. This was achieved mainly by reducing inventory levels across the chain and also by better stock management at the depots