Demonstrating Business Performance Improvement

A BA is not complete without showing that business performance can or will be improved. This case study has a basis for comparison. In comparing the MAD statistics from the present forecasting procedure and the BA proposed procedure, a potential for improvement in shipping can be observed.

The MAD statistics represent the average monthly average or underage of motors that could have

been avoided if the BA proposed procedure a potential for improvement in shipping can be observed

In the below table the MAD values based on three months (month 25, 26, and 27) used for model validation are presented. The MAD statistics represents the average monthly average or underage of motors that could have been avoided if the BA proposed procedure would have been in place. Such needless shipments waste effort and add to cost inefficiences for the manufacturer. Establishing a

Fig) Comparison of MAD statistics between present and BA proposed

MADs	Chennai	Vellore	Cochin	Bangalore	Mysor	Total
MADs for present Smoothing model	21.33	111.33	158.66	590.33	31	914.31
MADs for proposed Cubic and linear models	2.33	0.66	2.33	2.33	1.6	11.69

procedure that lowers the MAD statistic would represent an opportunity for improving business performance.

The current procedure of using a Smoothed averaging to generate a forecast results in fairly large MAD statistics compared to proposed BA procedure. The total of the MADs is in the above table clearly shows a significant reduction in monthly averages or underages when using the proposed BA procedure in forecasting motor customer demand

Reducing the inaccuracy in forecasting also translates into minimizing wasted costs of shipping the motors that are either not needed in the Warehouses during low customer

demand periods or rush-Ordered when shortage occur. These results reveal that the Implementation of the proposed BA procedure for the Supply chain Shipping schedule problem could have improved business performance for the manufacturer over what was previously used to forecast the last three months.

As a final recommendation from BA team on the prescriptive analytics Step, the analyst or BA team responsible for utilizing the new BA procedure should continously run updates to

check and confirm the benefits of using BA procedure on a monthly basis

PROCEDURE FOR THE MANUFACTURER

1. Collect Shipping cost information from the firms cost accounting department

2. Collect Supply center supply capacity to ensure sufficient supply capacity exists to handle monthly demand.

3) Run the IP or LP model and extract the Shipping schedule from model output.