

Forecasting And Planning Case Study

Profit-Chain Consulting

Our Client

Consumer packaged goods producer of nutritional products serving mass merchants, specialty stores, convenience stores, Internet and other channels. Our publicly traded client operates multiple plants in the US and generates \$400 million in sales.

Client's business had been growing as new products and channels took hold, but cash was getting tight and credit limits strained. Forecasting was identified as the culprit and they set out to improve customer order forecasts.

Improving forecasts turned out to be a tougher nut to crack than they initially thought. After some deliberation, the client turned to us for input and ideas to improve forecasting.

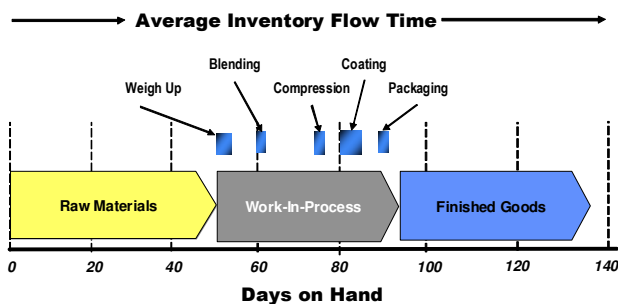
From Solutions To Problems

We suggested a more thorough diagnosis of the problem prior to launching the forecast improvement effort. This initially seemed like taking steps backward, but they agreed to clearly define the problem.

Our first step was to organize the combined team around key analyses to provide perspective on the forecasting and cash crunch issues. The teams split into the following groups:

- Market forecasting
- Production cycle time and scheduling
- Distribution and order fulfillment

The results from each team were fairly startling: lead times were long, business processes were not well connected and the systems did not support some of the key success factors of the business. For example, the production cycle time team came back with the following summary flow analogy:



These inventories varied in "quality" (Q = variation in turn rate across all SKUs) from very high to low. Improving the average quality of inventory became a high priority from the lot expiration, sell through and new product introduction perspectives.

The cycle time became a key target for reduction to improve response to forecast changes and production scheduling.

The Forecasting Dilemma

It became clear that the current forecasts were not sufficiently accurate to drive production plans. The team determined that error ranged from a low of 23% to over 70% for some product lines:

Forecasting Goal: Reduce error to < 20%; actual = 42%

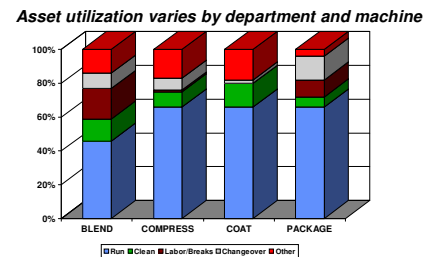
3-Month Rolling Average		
	% ERROR	% < 20%
Product Line 1	38%	17%
Product Line 2	72%	18%
Product Line 3	27%	28%
Product Line 4	24%	20%
Product Line 5	43%	38%
Product Line 6	25%	33%
Product Line 7	29%	39%
Product Line 8	33%	29%
Product Line 9	23%	66%
Product Line 11	38%	33%

The approach to improving forecasts included:

- Focus on near term trends rather than long term specifics
- Enhanced involvement from Sales and Marketing
- Improved use of current ERP capabilities
- Accuracy at a product line level, then customer

Planning: Improved

Forecast accuracy improvements were then leveraged into production planning to increase asset utilization and cost. The current utilization of key production assets was hampered by the schedule or resulted in excess inventories, with this current profile:



Asset utilization increased as schedules stabilized with the improved forecasts and shorter cycle times.

Results

Forecast improvement was a key measure and a driver of other more critical aspects of the business: cash flow and asset turns. Key benefits included:

- Inventory turns doubled: from 2.7 to 6.2
- Debt reduced 90%
- Forecast error (average) less than 20%

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