Forecasting

What is Forecasting - Key Concepts:
A process that provides management the ability to strategically direct its businesses to achieve competitive advantage on a continuous basis by integrating customer-focused sales and marketing plans for new and existing products with the management of the supply chain.

Why do I need to forecast?

Why do you need sales and operations planning?

What is sales and operations planning?

What types of forecasts should we do?

What is the impact of forecasting on my business?

What tools should we use?

Demand Uncertainty - Elements of demand uncertainty:
timing of order
size and composition of orders

data accuracy on:
products required
delivery points
timing.

Components of Demand
Trend: growth or decline over an extended period of time

Cyclical: fluctuation around the trend

Seasonal: pattern of change that repeats itself year after year

Random: not accounted for by the other components (trend, cyclical, or seasonal).

Forecasting Methods:
Qualitative sales forecasting methods rely more on judgment and intuition than on historical data: surveys of buyer intentions, such as questionnaires, telephone polls, and consumer interviews

Forecasting:

Delphi technique: a body of experts, consulted separately, is asked to arrive at a consensus opinion

sales force composite: based on the combined estimates of experienced sales personnel.

Quantitative: sales forecasting methods make use of past data to predict future sales:

Market tests: to gauge consumer response (usually to a new or modified product) under actual conditions

Trend: projections/analysis (also called Time Series) involves forecasting sales based on the historical relationship between sales and time, which is expressed as a growth rate (percentage) and each measure is plotted on a growth curve:

Moving average: all observations are given equal weight and only a few of the previous observations are considered

Exponential smoothing: gives greater weight to more recent observations and considers all past observations

Regression analysis: can be used to forecast a dependent variable (i.e., sales) as a result of changes in one or more independent variables (i.e., advertising)

Input-output models: forecast the impact of the change in the outputs (sales) of one industry on the out puts of the purchasing industry (i.e., a reduction in the supply of aluminum cans produced by the canning industry would effect the supply of canned drinks that would be produced by the drink manufacturers).

Computerized forecasting models include:
spreadsheets, such as Microsoft Excel and Lotus 123, that can perform calculations automatically with changes in entered data

forecasting application software: statistical packages, such as SAS and Minitab

forecasting packages specifically designed for forecasting applications, such as Mercia Links, Manugistics, Demand Solutions, Focus Forecasting and many more

Major Uses of Sales Forecasts:
Sales forecasts are used for:
production:
production scheduling
inventory control
purchasing:
determination of procurement requirements
scheduling of purchases to get favorable prices

Forecasting:

Marketing:
formulation of marketing strategies for products
setting of sales quotas
scheduling of advertising expenditures and sales promotions

personnel:
planning of manpower requirements

finance:
establishing of operating budgets
cash flow planning
capital budget / expenditure decisions

Accurate sales forecasting offers several advantages:
reduced excess inventory
fewer stock shortages which result when demand exceeds supply
fewer unnecessary production line changes to fulfill unanticipated demand
less overtime hours through improved predictions in personnel requirements
improved customer service levels as supply and demand balance more economic purchasing power.

Factors that influence forecast accuracy:
availability of product demand history
capability of computer system
other available history (i.e., new products, design changes, changes in customer base, promotional actions, economic indicators)
responsibility for forecasting: a team effort is required (Sales, Distribution and Manufacturing)

Checklist:
Sales forecasting considerations:

What are the items to be forecast?

How far into the future, should the forecast extend?

What is the length of the period for stating the forecast quantity?

How frequently should the forecast be made, reviewed and revised?

What would constitute an acceptable tolerance of forecast error?

Suggestions:
Before forecasting sales, condition the data by removing the effects of unusual events (out liers) that are not likely to happen again. Otherwise, the forecasting model will show a distorted view of the past.

Forecasting:

Examples of problems that may require data adjustments:
unusual weather
addition or loss of major customers
special promotions
changes in price or package size.

Determine the most accurate forecasting method:
regularly use a number of different methods to generate forecasts
maintain historical accuracy information on each method
use the most accurate method to generate “official” forecasts.

Make an ABC-analysis of the items to forecast:
A-items are reviewed each month by management
only those B- and C-items with a significant deviation between forecast and actual demand need to be reviewed by management..

Contact Us Today

Call 1300 – 4 TODAY (1300 – 486 – 329) or email **info@supplytoday.com.au** to discuss your forecasting needs.

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