Fold each printed sheet in half lengthwise. The left side of the document will list the term and the right side will list the definition. Tape or staple the open edges of your flashcards. Cut out your flashcards on the solid lines indicated and fold them on the dotted lines.

Module 1
Section D: Forecasting

Term
Bias

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A consistent deviation from the mean in one direction (high or low). A normal property of a good forecast is that it is not [affected by this]. See: average forecast error.

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Term
Demand forecasting

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Forecasting the demand for a particular good, component, or service.

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Term
Demand planning

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The process of combining statistical forecasting techniques and judgment to construct demand estimates for products or services (both high and low volume; lumpy and continuous) across the supply chain from the suppliers' raw materials to the consumer's needs. Items can be aggregated by product family, geographical location, product life cycle, and so forth, to determine an estimate of consumer demand for finished products, service parts, and services. Numerous forecasting models are tested and combined with judgment from marketing, sales, distributors, warehousing, service parts, and other functions. Actual sales are compared to forecasts provided by various models and judgments to determine the best integration of techniques and judgment to minimize forecast error. See: demand management.

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Term
Forecast error

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The difference between actual demand and forecast demand. [It] can be represented several different ways: mean absolute deviation (MAD); mean absolute percentage error (MAPE); and mean squared error (MSE). See: mean absolute deviation (MAD), mean absolute percentage error (MAPE), mean squared error (MSE).

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Term
Forecasting

The business function that attempts to predict sales and use of products so they can be purchased or manufactured in appropriate quantities in advance.

Module 1
Section D: Forecasting

Term
Leading indicator

A specific business activity index that indicates future trends. [Housing starts is an example of this] for the industry that supplies builders' hardware.

Module 1
Section D: Forecasting

Term
Mean absolute deviation (MAD)

The average of the absolute values of the deviations of observed values from some expected value. [This] can be calculated based on observations and the arithmetic mean of those observations. An alternative is to calculate absolute deviations of actual sales data minus forecast data. This data can be averaged in the usual arithmetic way or with exponential smoothing. See: forecast error, tracking signal.

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Term
Mix forecast

Forecast of the proportion of products that will be sold within a given product family, or the proportion of options offered within a product line. Product and option mix as well as aggregate product families must be forecasted. Even though the appropriate level of units is forecasted for a given product line, [...] material shortages and inventory problems [can be created if this is inaccurate].

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Term
Safety factor

1) The ratio of average strength to the worst stress expected. It is essential that the variation, in addition to the average value, be considered in design. 2) The numerical value used in the service function (based on the standard deviation or mean absolute deviation of the forecast) to provide a given level of customer service. For example, if the item's mean absolute deviation is 100 and a .95 customer service level (safety factor of 2.06) is desired, then a safety stock of 206 units should be carried. This safety stock must be adjusted if the forecast interval and item lead times differ. Syn.: service factor. See: service function.

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Term
Standard deviation

A measurement of dispersion of data or of a variable. [It] is computed by finding the differences between the average and actual observations, squaring each difference, adding the squared differences, dividing by $n - 1$ (for a sample), and taking the square root of the result.

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Term
Tracking signal

The ratio of the cumulative algebraic sum of the deviations between the forecasts and the actual values to the mean absolute deviation. Used to signal when the validity of the forecasting model might be in doubt. See: forecast error, mean absolute deviation.