Forecasting method

Education, Learning

Forecasting is a way to predict what will happen in future. Forecasting is a statistical tool use to forecast future values on the basis of the past data. It can be naive or causal forecasting where former gives just the value but the latter gives reasons along too. Three Major Type of Forecasting Method Forecasting methods can be qualified into the following two: 1. Qualitative forecasting – based on judgments of individual or group and is not based on historical data. 2. Quantitative forecasting – uses significant amount historical data to base prediction on. It can be:

a. Naive forecasting – it projects past data into future with having a reason to future trends. b. Causal forecasting – it explains the functional relationship between dependent variable and the variable/s to be accounted for the change. There are six forecasting methods, out of which, the bold/highlighted ones will be discussed: 1. Expert Opinion 2. Opinion Polls and Market Research 3. Surveys of Spending Plans 4. Economic Indicators 5. Projections 6. Econometric Model Economic Indicators – it is to warm businesses about the change in economic conditions. It includes:

a) Leading indicators – which are particular economic series like stock prices, wholesale prices and others that go up and down before the GDP does. b) Coincident series – are employment, industrial production and others that go up or down with the GDP. c) Lagging Indicators – variables like retail sales, personal income and others that go down after peak and up after trough. This confirms that the economic event like recession or boom has happened. Leading indicators are a way of predicting the economy, but there has been incidents when these economic indicator seldom turn down when the economy later does not giving a false alarm.

(Allen, Doherty, Weigelt, Mansfield; pg 218-219) Projections – it is a naive method where the trends are projected into the future without considering the reason for the change. It consists of: a) Constant Compound Growth Rate – to calculate the growth rate necessary to go from the amount of the first period to that of the last. b) Visual Time Series – it plot the previous values onto the graph and with the help of the ruler the values are projected into the future. c) Time Series Projection using Least Square Method – these are used to estimate demand with only one independent variable – time.

The actual value of data consists of trend (T), business cycle (C), Seasonality (S), and Irregular variations (I). These can be separated from one another to see the individual effect on actual demand. Econometrics Model – are termed as causal or explanatory and Regression Analysis is a technique used which selects independent variables in such a way that they have an influence on the dependent variable. There can be more than one independent variable. Least square method is one of the ways to forecast. Three Time-Frames to Forecasts

Forecasts are classified according to their time and use. The following are the three forecasting time-frame: 1. Short range forecast – it has a time-frame of 3 months but can go up to 1 year, it can be for planning, scheduling, etc. 2. Medium range forecast – it has a time-frame from 1 year to 3 years. It can be used for sales project, budgeting, etc. 3. Long range forecast – it has a time-frame from 3 years or more. It is used for plant location and installation, capital expenditure, research and development, etc. (Scribd, pg 27)

At Least One Measure of Forecasting Accuracy Forecasting with time-series may give relatively better result than most of the other qualitative method or quantitative method but it does not provide us with the reason for the change. However, regression analysis is a method that uses variables that have effect on the variable forecasted (dependent variable) and it provides us with reasons too for the change that would take place. Hence the explanatory independent variables enhance the accuracy and credibility of the estimates as compared to any other forecast.

Summary Forecasting is used by organizations to predict the future which is highly unpredictable to a certain level. In order to forecast close to accuracy and plan future budget, productions, sales, capital expenditures and avoid loss and stay competitive in the world with the rest of the origination because forecasting is necessary to predict change near to accuracy and implement it as well; as the change is inevitable, in such a fast-paced, dynamic world, full of competition, to stay in the race.

References Allen, Bruce; Doherty, Neil; Weigelt, Keith; Mansfield, Edwin. “ Business and Economic Forecasting” [Book], 6th Edition, pg 218-219 Scribd. “ Forecasting” [Internet], Accessed on April 30, 2010, Available at http://www. scribd. com/doc/26941786/Forecasting