Forecasting methodology in business

Business

In today's rapidly changing world, people in all walks of life need trustworthy data on which to base choices and decisions. More and more these days, with a limited pool of available[S2] funding and resources and the adverse effects that political, social and cultural events have on businesses and the economy, key decision makers are having to rely on forecasting as one of the major tools for decision making and planning. According to research cited in this paper forecasting is a tool used for the projection of future financial position and operating results of an organization (Siegel and Shim, 2000 p. 191).

Moreover, forecasting can be used as a tool to project or estimate future sales, revenue, earnings, or costs (Siegel and Shim, 2000 p. 191). Similar to the purpose of forecasting the weather, forecasting methodology in business is intended to prepare the user and enable them to make strategic and informed business decisions based upon assumptions about an uncertain future. However, forecasting methods differ in their approach, theirgoalsand their processes.

For the sake of brevity, and to conserve the boundaries set upon this research paper, the purpose of this paper will be to conduct a brief comparative analysis of several widely used forecasting techniques pning across varying basic categories. Forecasting Techniques and Methodology Classifying Forecasting Cited from Dr. David S. Walonick's article entitled An Overview of Forecasting Methodology there are seven major categories of forecasting. They are[S3]: trend extrapolation, genius forecasting, simulation methods, consensus methods, cross-impact matrix method, scenario, and decision trees (http://www. statpac. com/ research).

In contrast (by number only), in their 11th Edition of Operations Management for Competitive Advantage Chase, Jacobs and Aquilano cite that forecasting can be classified into four basic categories: qualitative, time series, analysis, causal relationships, and simulation (p. 513). Respectfully, I will briefly discuss both views and their respective classifications. Types of Forecasting As cited by Walonick there are 7 major categories of forecasting. Genius forecasting is a forecast based on intuitive knowledge.

This type of forecast is backed and supported by anecdotal evidence which may be realistically supported by historical data or other forms of valid information. This method may be deemed as the common sense approach to predicting an uncertain future. For example, an assumption that ice cream sales will peak in the summer and decline in the winter may be an intuition based forecasting. Simulation methods use analogs or symbolic representations (e. g. : mechanical, mathematical, game analogs) to model complex systems that can be used to make predictions about specific system.

In other words, simulation methods involve using a symbolic representation to illustrate a forecast or to make prediction. A forecaster may use a mathematical model to illustrate the growth of a certain variable such as internet use based on computer sales and internet service provider sales. Similarly the scenario methods are narrative forecasts that describe a potential course of events by recognizing the interrelationships between the components and variables of certain systems such as the previously mentioned implication that internet use is related to computer sales and the sale of internet services.

Trend extrapolation utilizes apparent reoccurring events, historical data and cyclic information to make forecasts based on applicable mathematical techniques (e. g. statistics) to make predictions and forecast. If ice cream sales have historically increased in the hotter summer months for each previous year, trend extrapolation will endeavor to produce a forecast based on the statistical analysis of this reoccurring event. In a related fashion consensus methods utilizes the opinions and predictions from several[S4] experts to make forecast.

These forecast are typically reflective of other analysis, information or other methodologies such as research or math based forecast. This adds validity to the forecast. In essence the expert's opinion used in consensus methods is based on their respective knowledge (e. g. based on historical trends, statistics-based analysis, and intuitive knowledge) of the cyclic behaviors of specific forecasted systems. The Cross-impact matrix method recognizes that relationships often exists between events and variables that are not revealed by forecasting techniques that only examine one variable.

This method infers that the occurrence of an event can, in turn, affect the likelihood of other events occurring (Walonick). As the forerunner to computer generated flow charts the decision tree methods evolved as pictorial or graphical device used to help illustrate the structural relationships between alternative choices, events or variables. This method allows for a decision maker to visualize the impact of various decisions and their likely consequence or outcome (Walonick).