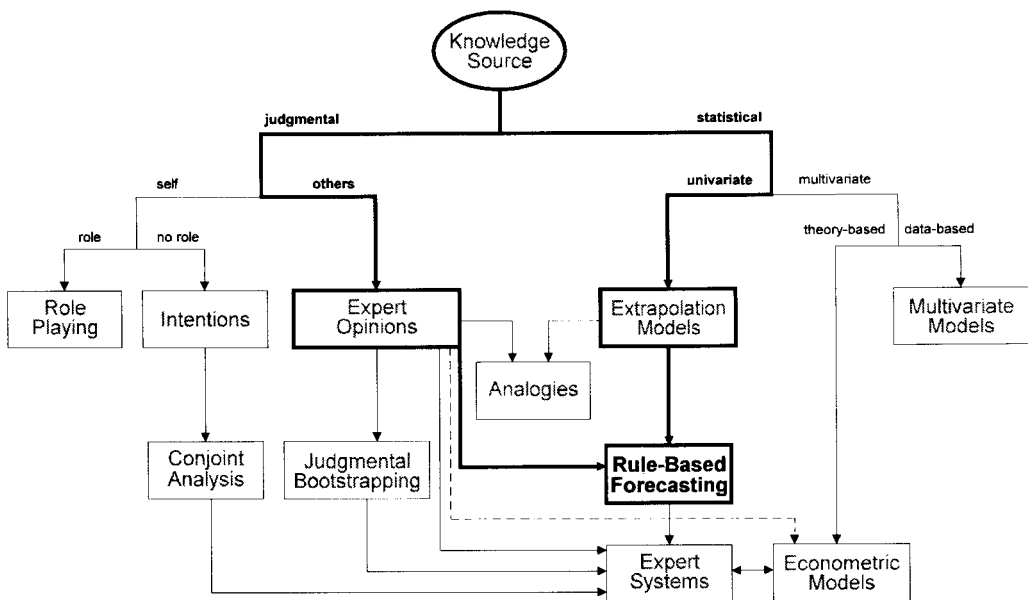

RULE-BASED FORECASTING



Traditional extrapolation methods have two major limitations. First, they do not incorporate existing knowledge that shows which extrapolation methods are best in various conditions. Second, they ignore the managers' knowledge about the situation. Rule-based forecasting (RBF) is a type of expert system that addresses these issues by translating forecasting expertise into a set of rules. These rules use the managers' domain knowledge and the characteristics of the data to produce a forecast from a combination of simple extrapolation methods.

RBF is described in "Rule-based Forecasting: Using Judgment in Time-Series Extrapolation." Although the evidence for RBF's accuracy as a forecasting method is limited, the results are promising. Much of the original research was done by Fred Collopy, from Case Western Reserve, and by Scott Armstrong at the University of Pennsylvania. Monica Adya, from DePaul University, has joined in this research effort.

Because RBF is based on deciding what methods to use for various types of data, the findings can be applied to existing extrapolation programs. For example,

the contrary series rule (do not extrapolate trends that are contrary to prespecified domain knowledge) can be easily applied

to other trend-based extrapolation models. RBF also provides a test bed for new or modified forecasting rules.
