

Hard Data and Judgment

Important decisions and resource allocations involve some combination of hard data and judgment. Expert Choice has effective ways for you to synthesize hard data and judgment into rational, defensible, convincing decisions. This is accomplished by structuring complexity into a hierarchy of objectives, identifying alternatives, measuring the relative importance of the objectives towards the organization's goal(s), synthesizing, allocating resources, and iterating.

The amount of data that is available in making a decision or allocating resources can vary widely. In some cases, such as establishing a new venture, there may be little or no hard data in a preliminary evaluation of alternatives. The entire process can be conducted based solely on the knowledge and experience of those making the decision. In other cases, there may be some hard data available, and in other cases a great deal of hard data, some of which is stored in large computerized data bases. The basic approach using Expert Choice is the same in each of these cases, with slight variations.

For those cases where a decision is to be made based only on the decision maker's knowledge and experience -- with no hard data -- pairwise comparisons can be used to derive the relative importance of the objectives as well as the relative preferences of the alternatives with respect to each objective. A synthesis of these priorities, along with some sensitivity analysis and iteration, will produce a result that is both intuitively appealing, easily communicated, defensible, as well as mathematically sound.

For those cases where hard data is also available, the decision maker's knowledge and experience can be applied to develop formulas that translate the hard data into ratio scale priorities using utility curves or step functions. If the data is contained in one or more tables or databases, the patented Expert Choice Desktop data mapping capability can be employed to map the data in the external data bases.

It is important to realize, however, that regardless of the quantity or quality of data that is available, as long as the decision or resource allocation has more than one dimension (multi-objective) and *all* important decisions are of this type, data alone will not produce a rational choice. Judgment is always required to prioritize objectives.
