The Analytic Hierarchy Process (AHP)

The analytic hierarchy process (AHP) is a structured technique for organizing and analyzing complex decisions, based on mathematics and psychology. It was developed by Thomas L. Saaty in the 1970s and has been extensively studied and refined since then (Wikipedia). AHP helps overcome the limitations and counterproductive strategies of decision making to reach decisions that are defensible, auditable, transparent, and that utilize a consistent process.

Using AHP involves the mathematical synthesis of numerous judgments about the decision problem at hand. It is not uncommon for these judgments to number in the dozens or even the hundreds. While the math can be done by hand or with a calculator, it is far more common to use one of several computerized methods for entering and synthesizing the judgments. The simplest of these involve standard spreadsheet software, while the most complex use custom software, often augmented by special devices for acquiring the judgments of decision makers gathered in a meeting room.

Executives rate decision-making ability as the most important business skill, but few people have the training they need to make good decisions consistently. INFORMS has a paper titled "Exercises for Teaching the Analytic Hierarchy Process".

Next: Validating experiments

¹ Lawrence Bodin, Saul I. Gass, (2004) Exercises for Teaching the Analytic Hierarchy Process. INFORMS Transactions on Education 4(2):1-13. https://doi.org/10.1287/ited.4.2.1