

## Advantages

### Over Mental Models Alone

***The human mind excels at “big thinking” such as creative leaps, but is incapable of detailed numerical analysis of the effects of billions of different future outcomes.***

Mental models rely on human judgment and intuition to evaluate all known information when making a decision. While human judgment and intuition will always remain essential, a mental model alone cannot thoroughly assess the many factors involved in a corporate decision and its outcomes may change with the mood or immediate focus of the decision maker.

Computers are capable of handling nearly any number of variables, uncertainties, and billions of possibilities. Computer modeling frees the decision maker to focus on what humans do best: deciding which information is relevant, creatively developing strategies, and judging the quality of available information.

### Over Common Analyses

There are many common analyses used for justification of a decision in the corporate world: ROI, NPV, ROA, etc. These analyses are even more oversimplified than mental models. They are least harmful when viewed with skepticism and set to match the preferred choices of mental models. Many highly respected companies rely on single-point forecasting in combination with a single discount rate to set strategy and make budget decisions. For example, to decide whether to invest in a new project, a company may make their best estimate of the future cash flows and discount these cash flows at 20%. This technique ignores significant information that is essential and fails to maximize shareholder value. Alternatively, a company may choose a less analytical approach and merely include margins for error. For example, to determine how much to produce, a company may make an estimate of next year's sales figures and add 30%.

The Provisdom Decision Platform lets you include all of the relevant information you know and account for information you know you don't know. By accounting for uncertainties and shareholder risk, your model can match and even improve your intuition.

### Over Spreadsheets

***It is estimated that 80% of spreadsheets contain errors<sup>1</sup>.***

Spreadsheets are powerful tools when used for their intended use-case: manipulating tabular data. As analytical platforms they tend to be considerably more limited. Spreadsheets operate at a fairly primitive level, and require custom software to be written for modeling. This software is often complex, difficult to understand, and not subject to enterprise control. Further, such spreadsheets are generally

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<sup>1</sup> Source: [http://cio.com/article/131500/Eight\\_of\\_the\\_Worst\\_Spreadsheet\\_Blunders](http://cio.com/article/131500/Eight_of_the_Worst_Spreadsheet_Blunders)

unverified: as much as 7 percent of all data found in Excel spreadsheets is wrong<sup>2</sup>, and custom spreadsheet software is rarely developed with requirements or subjected to a quality assurance process.

### **Over Other Decision Frameworks**

Various decision frameworks are available in software form. Many of these tools simply attempt to help you organize your thinking, without an underlying framework to evaluate the impact on shareholder value (e.g., assignment of an arbitrary “risk score” from 1 to 5). Such approaches usually operate as though you have more information than is actually available.

Decision Analysis uses a single “utility function” as a coarse approximation of shareholder risk preferences, ignoring proper discounting and essential market information. Decision Analysis models are generally limited to variables with discrete outcomes.

Real Options brings the rigor of Wall Street stock option pricing to valuing options in the “real” world. Unfortunately, Real Options functionality is usually limited to one or two tradable assets (e.g. “price of oil”) and an extremely narrow problem type. The Provisdom Decision Platform extends the rigor of Wall Street to virtually every corporate decision.

Only the Provisdom Decision Platform has the flexibility and rigor to maximize shareholder value consistently across all levels and areas of your organization, using information likely already in your possession. Other solutions force modification of your problem to fit their framework and require additional or non-existent information.

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<sup>2</sup> Source: [http://www.informationbuilders.com/products/whitepapers/pdf/Worstpractices\\_R4.pdf](http://www.informationbuilders.com/products/whitepapers/pdf/Worstpractices_R4.pdf)