



*Accounting for Implementation Uncertainty in the
Analysis of
Strategic Decisions*

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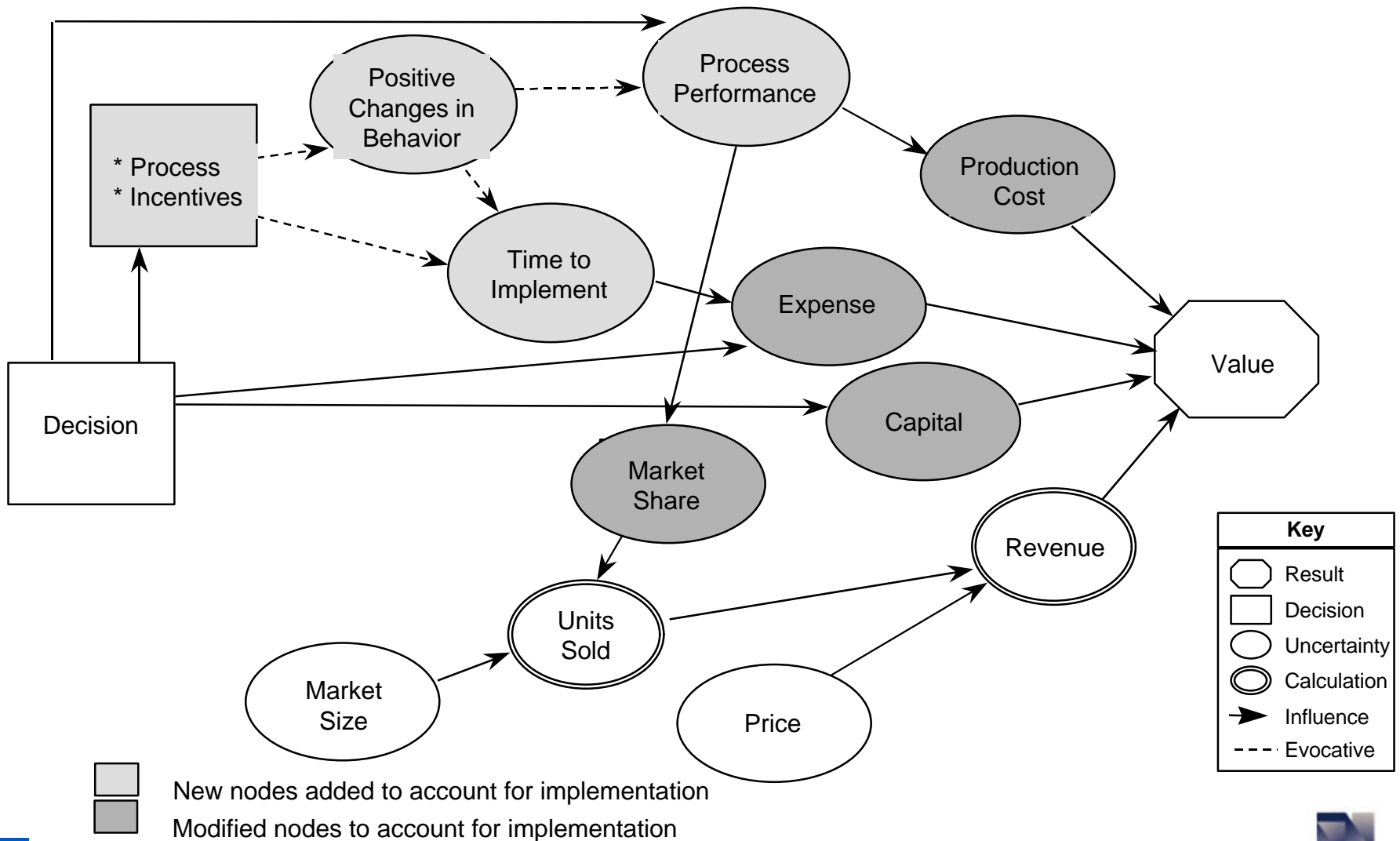
Brian Hagen, Navigant Consulting

May 7, 2000

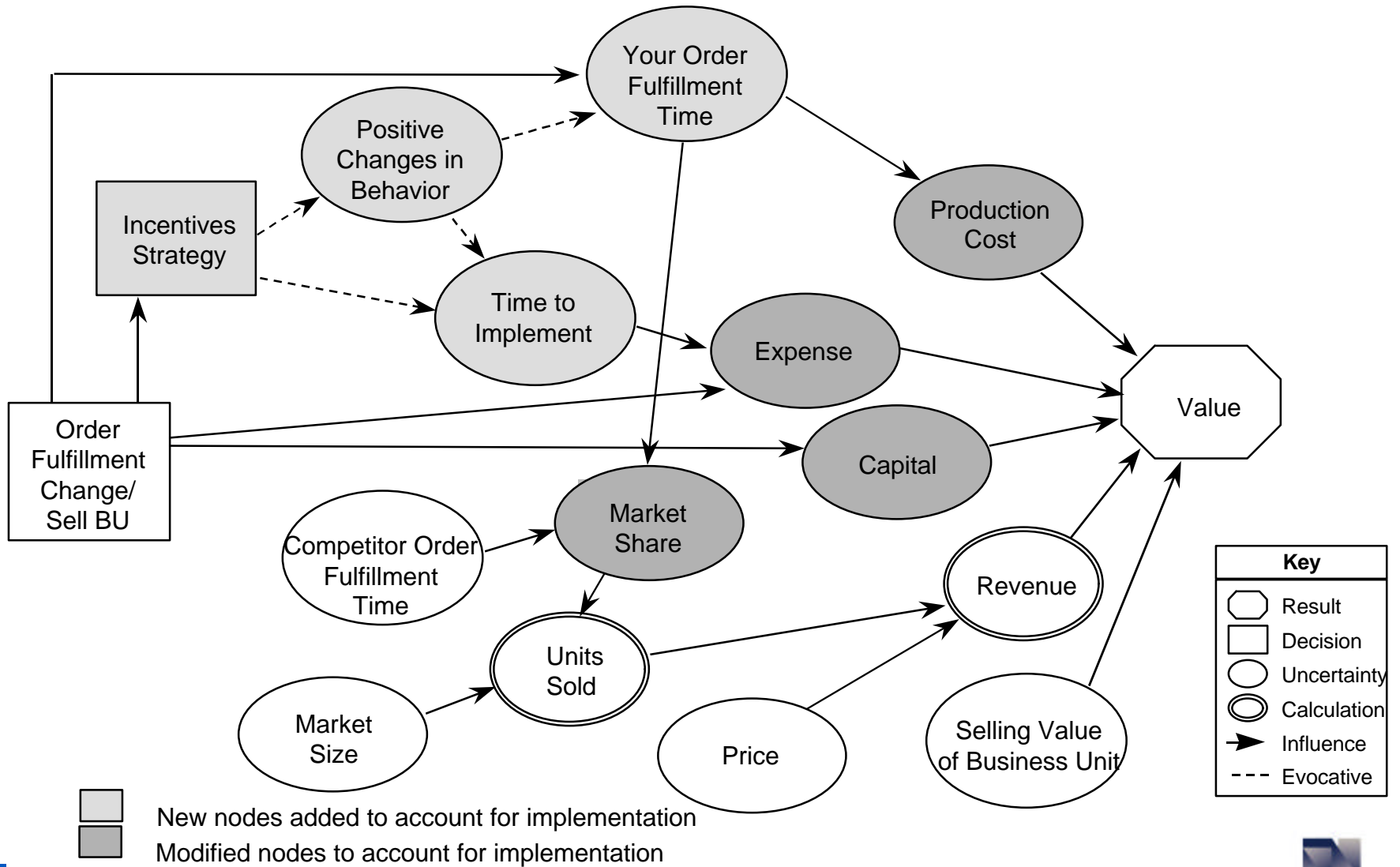
Implementation uncertainty has several sources.

- Making needed changes can be difficult—or even a complete failure.
- Having made organizational/process changes, performance can be significantly different from what was expected.
- Implementing changes can take longer than expected.
- Implementing changes can cost more than expected.

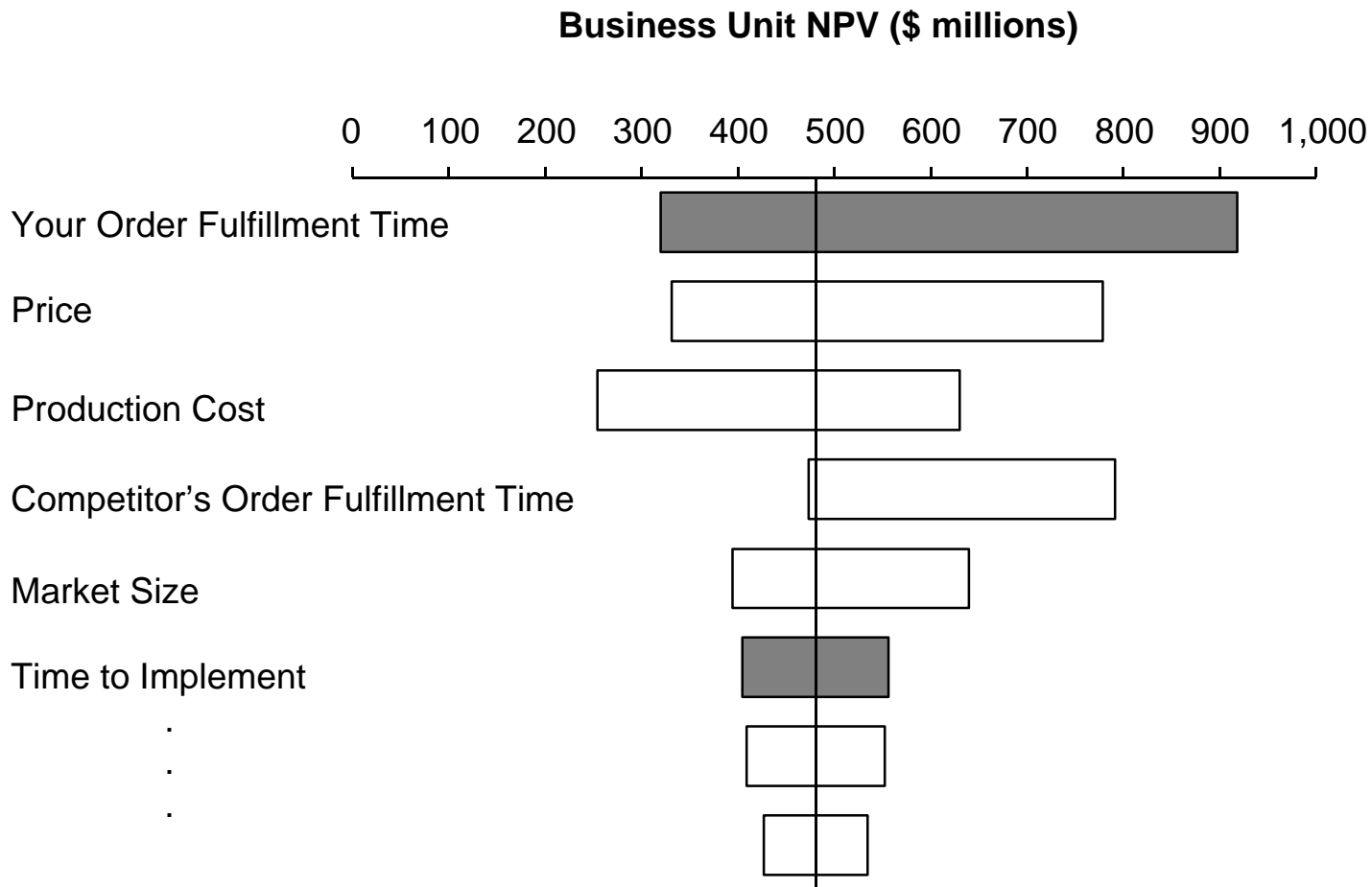
An influence diagram that accounts for implementation uncertainty has this fundamental structure.



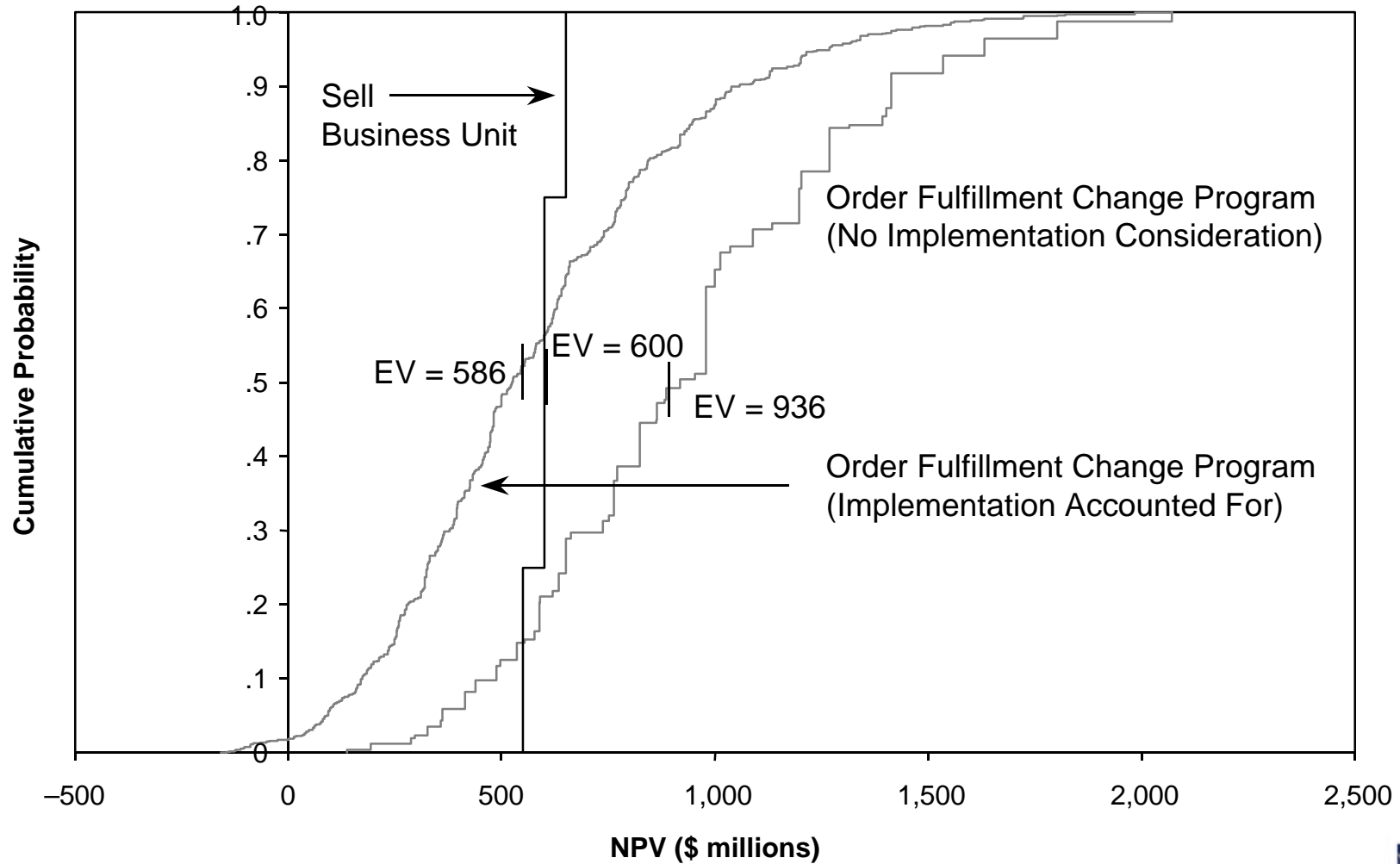
As an example, consider the decision of whether to sell a business unit or reengineer its key business process.



Implementation uncertainties such as order fulfillment time and time to implement can have a major influence on value.



Neglecting key implementation uncertainties can ultimately lead to the wrong decision!

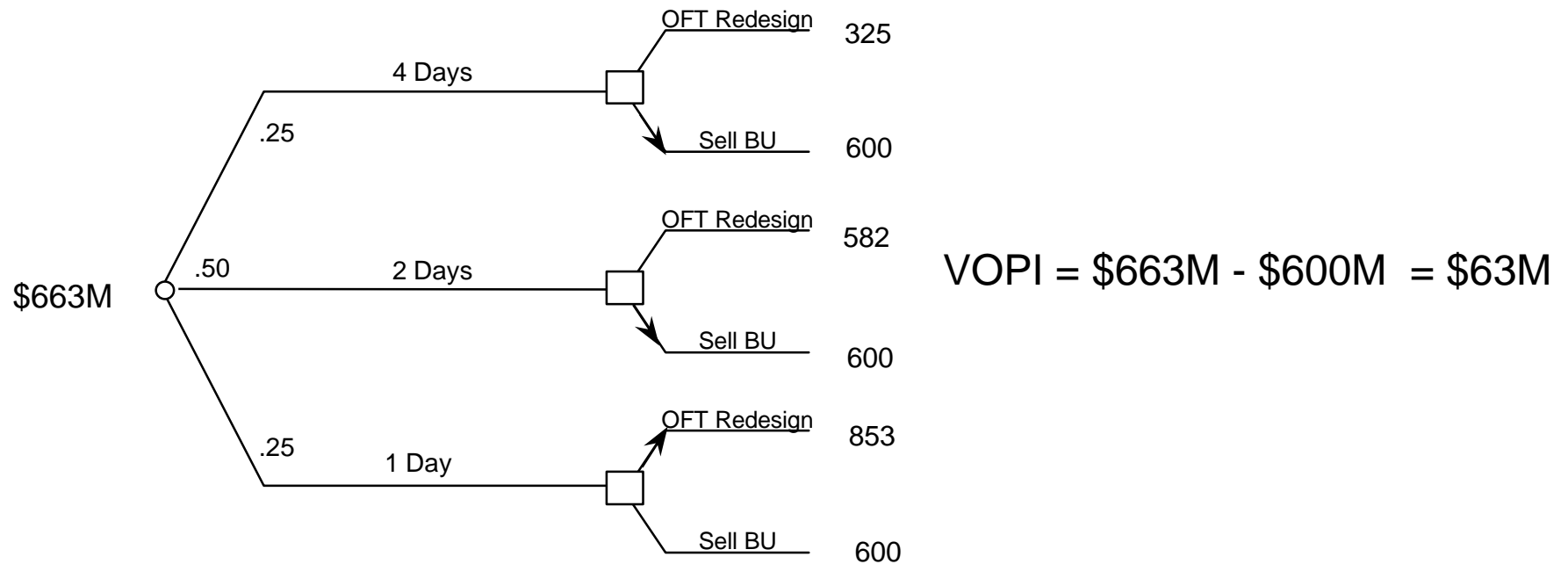


Value of information analysis has several relevant interpretations for implementation uncertainty.

- The value of perfect information (VOPI) can be interpreted as an upper bound for spending on initiatives before deciding to implement a change program.
- Initiatives such as:
 - Prototyping systems
 - Piloting processes
 - Additional analysis
 - Surveys of leadership and staff on implementation issues.

In our example, the VOPI for Order Fulfillment Time is \$63 million.

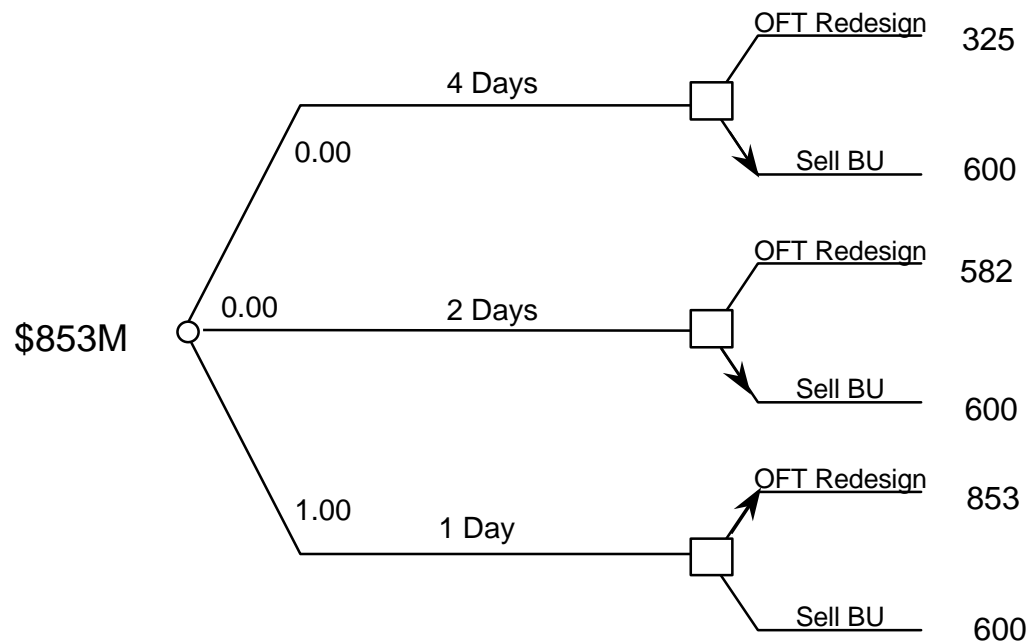
Order Fulfillment Time (OFT) Design/Sell Decision



Since the VOPI for OFT is significantly positive, the organization should determine the plausibility of a 1-day OFT before committing to any OFT change programs.

The value of perfect control (VOPC) provides an upper bound on the value of effective change leadership and management of the change program.

Order Fulfillment Time (OFT) Design/Sell Decision



$$\text{VOPC} = \$853\text{M} - \$600\text{M} = \$253\text{M}$$

Implementation uncertainty should be considered in all our projects.

- Implementation uncertainty reflects the ability of an organization (and its business partners) to do what they intend to do.
- The uncertainty comes primarily from the fact that no one has ever made precisely this change before.
- Implementation risks can be identified and assessed, which can lead to implementation risk mitigation.