# Decision Analysis – Making the Big Decisions

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## Overview

You probably face a lot of tough decisions running your business unit or functional area. And you are good at it. But what happens when you encounter a big, strategic decision outside your normal decision-making realm, say, around a new direction for the business? Think of situations that have particularly high stakes, offering both large upside value and significant risk of loss, requiring support from both inside and outside stakeholders. Can you afford to bet the company by making such a decision based on a routine justification or "gut feel"? With so much at risk, will the stakeholders support your decision?

Endeavor understands that companies must make strategic choices to sustain and grow their business. Endeavor uses the Decision Analysis (DA) process and tools to support companies making these major strategic decisions. These decisions require processes to address questions like "How can I . . ."

- **Better Understand the Opportunity** so that the bounds, scope, objectives, preferences, risks, and key decisions are clear and agreed upon
- **Engage Stakeholders** to capture their inputs and perspectives for problem structuring and to maintain their engagement throughout the process
- **Incorporate Risk, Uncertainty, and Divergent Perspectives** to understand options and key information gaps
- **Create Alternative Solution Approaches** that test a broad range of divergent perspectives on the "right" solution and different ideas for value creation
- **Analyze Alternatives** incorporating both uncertainty and divergent stakeholder perspectives in a compelling, side-by-side comparison focused on learning about value creation and risk mitigation
- **Create a Win-Win Approach to Alternative Selection** that uses analytical insights to build a "hybrid" approach that all stakeholders can agree will be best at creating value and managing risk
- **Achieve a Shared Vision and Alignment** among all stakeholders around the hybrid approach and the value proposition
- **Realize Value** from successful implementation

Even for more routine decisions, applying basic decision analysis principles can add value and avoid biases and blind spots.

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## Endeavor Management Approach to Decision Analysis (DA)

Endeavor has extensive experience and deep expertise in applying DA to a wide variety of major strategic decisions across diverse industries, including oil and gas, chemicals, IT, manufacturing, finance, health care, and retail. Available services include developing and implementing strategies for oil and gas field development, technology selection, cost reduction, new work processes, IT services, new product development, and new business models. And the services are scaled to fit the need.

The Endeavor approach to DA divides the process for addressing the above issues into five phases of activity: Frame, Discover, Analyze, Design, and Implement:
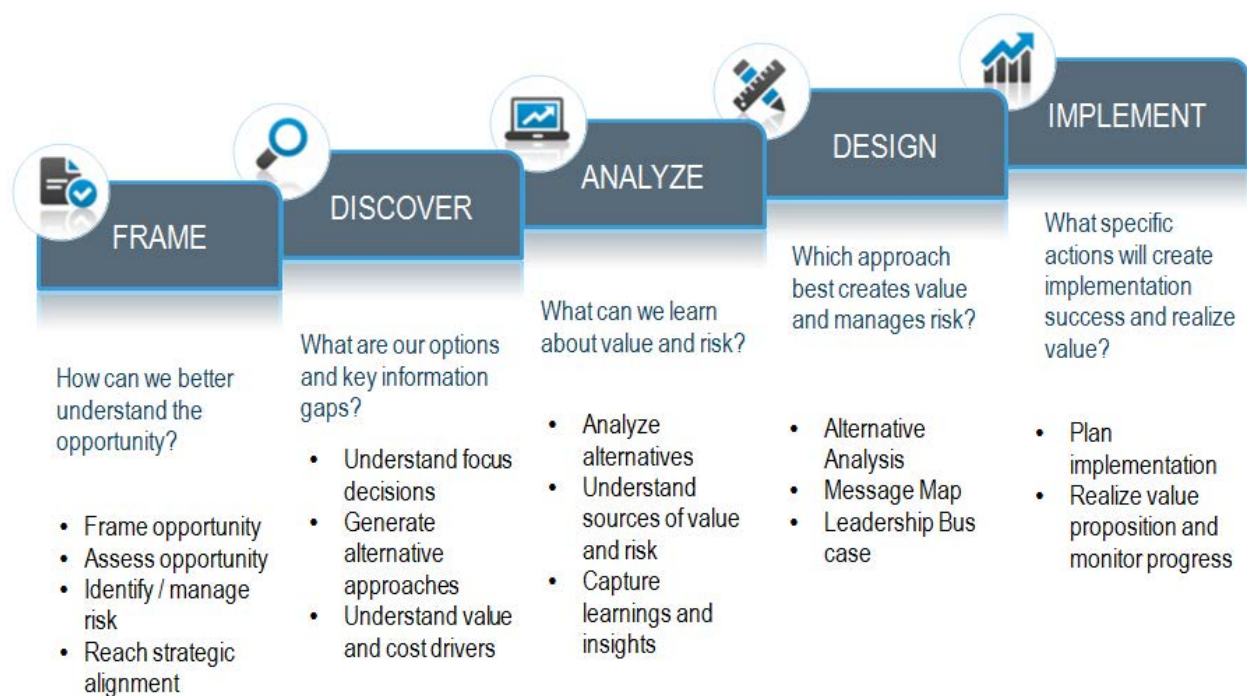


### Frame

A good Frame provides agreement on problem definition, bounds, scope, and criteria for a decision. It facilitates inclusion of different perspectives with dialogue and (ultimately) alignment among stakeholders. This leads to understanding of key decisions, risks, and issues. It promotes efficiency by solving the high level problem first so that the focus is on the right big picture solution before working second- order issues.

There are two keys to achieving a **better understanding of the opportunity**. First, collect input from a broad variety of key decision makers, stakeholders, and expert resources. This can be in the form of open-ended interviews or team brainstorming exercises. Second, structure these inputs in a clear, transparent fashion. DA provides processes for a team to organize ideas into simple charts to succinctly summarize:

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- Actions "in scope" vs. "out of scope"
- "Givens" clarifying what approaches are not feasible or acceptable
- Objectives and their relationships, including conflicting objectives
- Criteria for deciding which strategies or approaches are preferred
- Key decisions
- Key value drivers and risks

The decision maker(s) and the executives controlling the key supporting resources can now review, debate, and refine this structure in a Framing Review. The desired output is simple documentation that can be shared with others plus a clear, shared understanding of the problem to be solved.

**Stakeholder engagement** comes from several components of the DA process. First, key stakeholders can provide their perspectives, inputs, and issues as data for the Framing process via a simple interview where the facilitator draws out their information and records it in a non-adversarial fashion. Second, these stakeholder perspectives are captured within the structuring or framing process. This is an inclusive process that maintains divergent views, highlighting rather than suppressing differences. Third, key stakeholders are fully engaged in the reviews throughout the decision process.

**Risk, uncertainty, and divergent perspectives** are incorporated as a natural part of the DA process. In Framing, these are simply captured as part of differing perspectives with risks and differences made visible. Later, the DA process leverages these differences to build a higher value decision, mitigating risks and incorporating differing perspectives and objectives.

## Discover

This phase of the DA process is about **creating alternative solution approaches** to test different approaches to value creation, risk mitigation, and divergent stakeholder preferences.

The first tool in Discover is called a *Decision Hierarchy*, which helps separate decisions into "givens" (decisions that have already been made and cannot be changed, which thus constrain our solutions), "focus" decisions (decisions we want to focus on now), and "tactical" decisions (important decisions that can be postponed until later). The point is to sort down to the small number of decisions that matter now to determine the solution approach. The key is to avoid endless analysis and wasted effort on decisions that may turn out to be minor or moot.



The second tool in Discover is called a *Strategy Table*. This is a way to define and structure the focus decisions by describing the range of choices for each. In the table the column headings articulate each focus decision with the

available, feasible choices listed underneath each heading, providing a valuable visual aid to help everyone understand the range of available choices for each focus decision.

**Strategy Table**

| Focus Decision | Decision 1 | Decision 2 | Decision 3 |
|---|---|---|---|
| Alternative Choices | Choice 1-1 | Choice 2-2 | Choice 3-1 |
| | Choice 1-2 | Choice 2-2 | Choice 3-2 |
| | Choice 1-3 | Choice 2-3 | Choice 3-3 |
| | Choice 1-4 | Choice 2-4 | Choice 3-4 |
| | Choice 1-5 | Choice 2-5 | Choice 3-5 |

The third process in Discover is actually to develop creative and doable alternative strategies or approaches. This usually starts with a "divergent thinking" brainstorming exercise.[1]  It is important to create a broad range of potential alternative strategies, e.g. those that might achieve key objectives, focus on realizing key value drivers, mitigate important risks, or capture differing stakeholder-preferred solutions. The experts then spend some time fleshing out each potential alternative strategy, articulate the rationale for it, and describe it in the Strategy Table as a consistent set of focus decision choices that follow its particular rationale.

Describing alternative strategies involves choosing an option from each column in the strategy table – similar to a Chinese menu.  This defines a preliminary set of alternative strategies.  As this process ensues, it is not unusual to revisit the strategy table to include the additional insights and choices identified during this process.

The team (with help from decision makers) winnows these potential alternative strategies down to a manageable number that are feasible, creative, and stretch the "solution space" for further study.

The end step of Discover is an Alternatives Review of the key decisions (givens, focus decisions, strategy table) and alternative strategies.  The purpose is to obtain feedback, direction, and alignment among the decision maker(s) and key stakeholders to be sure the right study basis has been defined prior to moving into data collection and analysis.



Alternative Strategies

What decision paths result in creative and workable alternatives?

**Analyze**

The focus of analysis in the DA process is around learning about sources of value and risk.  The objective is not to pick the best of the pre-defined alternatives but, rather, to use the analytical

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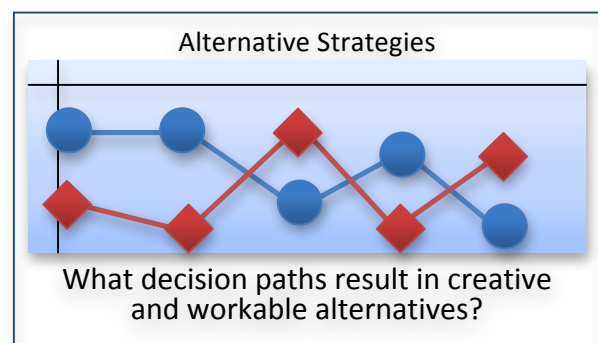
[1] *While there are lots of methods for facilitating divergent thinking, see the Endeavor white paper "Beyond the Box – Disrupting the Strategic Thinking Process" for a very novel approach.*

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learnings to design a "hybrid" solution superior to any of the starting alternatives. This enables building value creation and risk mitigation into the hybrid solution.

Typically, the analysis uses an Excel spreadsheet model. Two important ideas are the natural incorporation of uncertainty to enable understanding of risk and the side-by-side comparison of different alternatives. The exact same calculation engine is used for every alternative, only changing the case-specific input data.

This facilitates comparison of alternatives and the breakdown of the components of each alternative for value creation. By incorporating assessments of how uncertain the model inputs are, sensitivity analysis can identify the few uncertainties that really matter and are worth the effort required for a deeper understanding. Common DA tools for assessing uncertainty include Tornado Charts and Risk Profiles.

**Tornado Chart**

Strategy, NVP, M$

■ High
■ Low

What uncertainties are the most important?
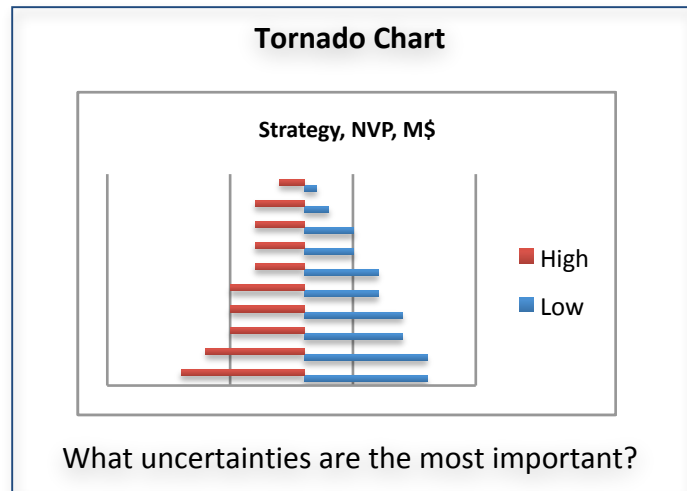
## Design

The Design phase is all about taking everything learned in Analyze and using it to design a superior hybrid strategy. The starting point is usually the highest value alternative or a blend of several high value alternatives, putting together high value / low risk components. This is followed by a brainstorm around how this straw man can be improved. Where the sensitivity analysis (Tornado Chart) indicates a critical input with a high value upside uncertainty, participants think about how to make the upside happen. Where the Tornado Chart indicates a critical input with risk of a major downside in value, participants think about what could cause this to happen and what actions might mitigate this risk.

Frequently, the tension among different stakeholders with differing perspectives becomes clear here because they are focused on differing objectives or risks. This illuminates their preferences for different alternatives. For example, the apparently best alternative may have a high failure risk due to a potential implementation problem or a different future scenario. By understanding how these risks can jeopardize realization of the value proposition, it is usually possible to find a hybrid to achieve a "best of both worlds" balance between risk and reward.

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Sometimes, the differences involve consideration of factors that cannot be adequately quantified in a financial model, e.g. strategic alignment, safety, or quality. A facilitated discussion addressing the non-financial qualitative decision criteria in the context of the quantitative (profit or market value) analysis results helps the team understand qualitative weaknesses of the best quantitative alternative, assess methods for mitigating the qualitative weakness and figure out how to judge the best balance of qualitative and quantitative influences.

By facilitating open, transparent discussion of these issues, all decision makers and stakeholders gain a better understanding of the basis for differing preferences and can see how to design a solution meeting all their objectives. This process generally leads to a higher value, lower risk solution viewed as superior by all stakeholders. Combined with a carefully documented "value story," this leads to a shared vision and alignment around the recommended strategy and its value proposition.

**<u>Implement</u>**

Endeavor's DA process incorporates implementers and implementation issues throughout the process. The people who will have to implement any strategy are key stakeholders. They have an opportunity to raise potential implementation issues, risks, and opportunities early in the Frame. They participate in reviews to be sure their concerns are addressed and resolved. For example, the process of building a hybrid strategy frequently improves the design of the strategy by building in actions to ease implementation and improve the chances of successful implementation and rapid adoption. It might even select a strategy that has a slightly smaller theoretical value, but is much easier to implement.

One output of Design is an explicit implementation plan. This provides a clear roadmap for the implementation team. They are part of the shared vision and alignment because they were part of the strategy creation. The implementation plan includes specific metrics and processes for monitoring status and progress. This includes metrics for realization of the value proposition, not just schedule and budget.

As part of Design, decision makers explicitly consider resources needed for implementation. The hybrid strategy explicitly accounts for the resources required and these resources are included in the financial evaluation. Planning on more resources to improve implementation success (e.g. local unit implementation champions and "bubble support" - extra local resources on site to smooth the transition by providing mentoring and lead experts) can add significant value. The analysis can highlight these resource trade-off decisions during Design.

All of this effort in Implement is to ensure the value proposition driving the hybrid strategy selection is actually realized.

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## Graphical Overview

The Decision Analysis process described in this white paper is summarized by the following flow chart:
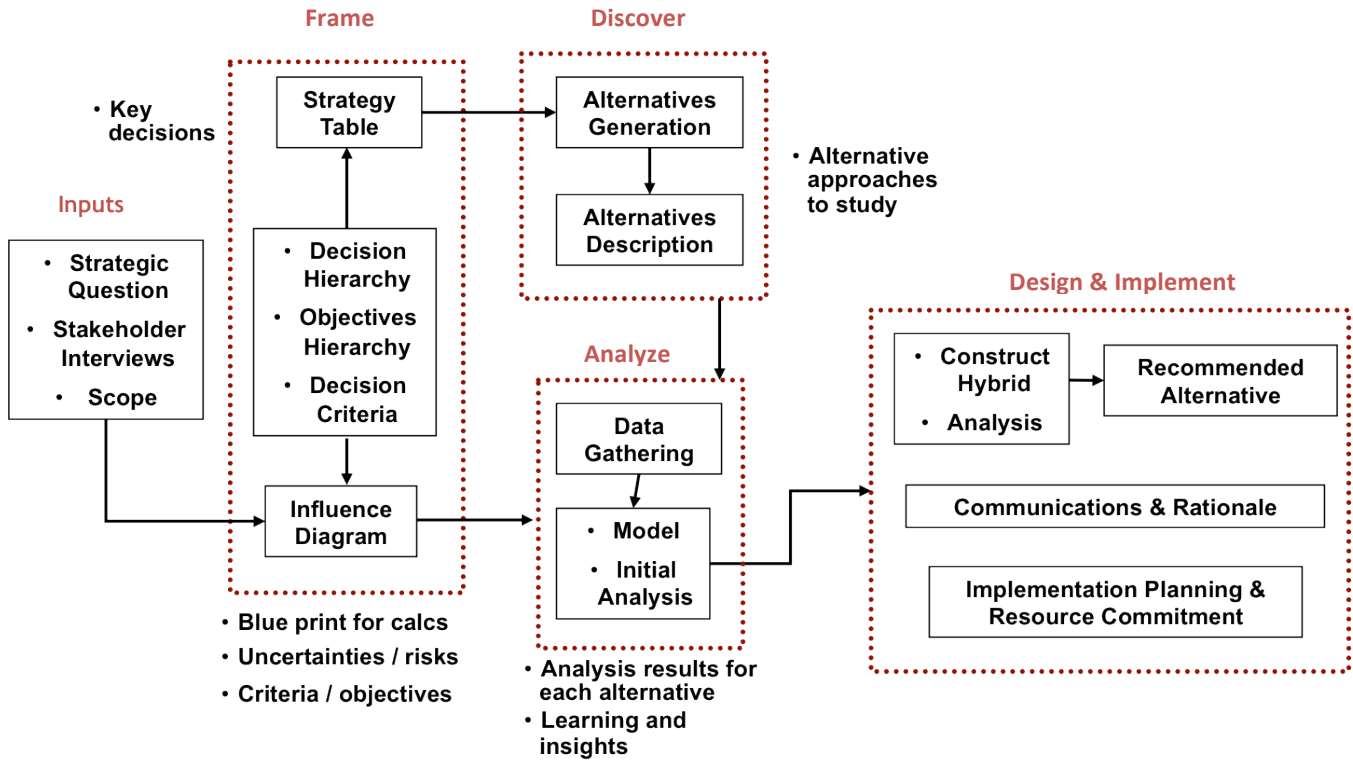
## About Endeavor

Endeavor Management, is an international management consulting firm that collaboratively works with their clients to achieve greater value from their transformational business initiatives. Endeavor serves as a catalyst by providing pragmatic methodologies and industry expertise in Transformational Strategies, Operational Excellence, Organizational Effectiveness, and Transformational Leadership.

Our clients include those responsible for:
- Business Strategy
- Marketing and Brand Strategy
- Operations
- Technology Deployment
- Strategic Human Capital
- Corporate Finance

The firm's 40 year heritage has produced a substantial portfolio of proven methodologies, deep operational insight and broad industry experience.  This experience enables our team to quickly understand the dynamics of client companies and markets.  Endeavor's clients span the globe and are typically leaders in their industry.

Gelb Consulting Group, a wholly owned subsidiary, monitors organizational performance and designs winning marketing strategies.  Gelb helps organizations focus their marketing initiatives by fully understanding customer needs through proven strategic frameworks to guide marketing strategies, build trusted brands, deliver exceptional experiences and launch new products.

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