

# How to Avoid Bad IT Investments

8 Steps to Prioritize, Analyze and Optimize IT Investment Decisions

A Definitive Pro eBook

### **Improve Decision Making Processes**

Why do organizations invest in the wrong IT projects? Because many often lack formal IT investment decisionmaking processes, rely on faulty spreadsheet calculations or build financial projections with false assumptions.

Without standardizing the decision-making process, organizations are forced to guess which IT investments align with strategic objectives, struggle to build consensus and have trouble justifying investment decisions.

This eBook provides an overview of decision science "best practices" to help organizations clearly articulate strategic goals, consistently evaluate decision criteria and easily gain stakeholder buy-in for every IT investment decision.



Modern Strategic Investment Selection Methodology

#### What You Will Learn About:

- Common decision-making challenges
- Modern decision-making methodology
- Benefits of decision-making tools

"Making good decisions with poorly-structured processes and unclear roles is difficult, if not impossible."

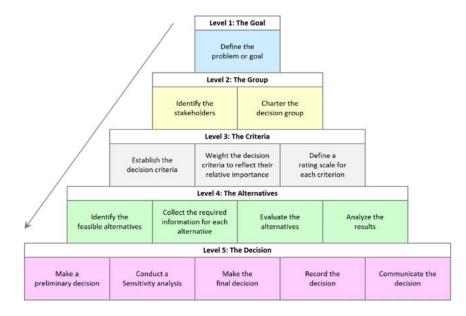


## 1. Establish Governance Systems

The strategic investment selection process is collaborative by nature and the methodology for making decisions should promote teamwork, align stakeholders and build consensus across a range of investment proposals.

It is important to first establish a governance system, such as an **investment review board (IRB)**, comprised of cross-functional leaders who will set and maintain the investment strategy, selection process and procedures.

This team will be responsible for approving investments that deliver the most value, allocating resources for investment recommendations and reviewing investment implementation performance at periodic checkpoints.





### Investment Review Responsibilities:

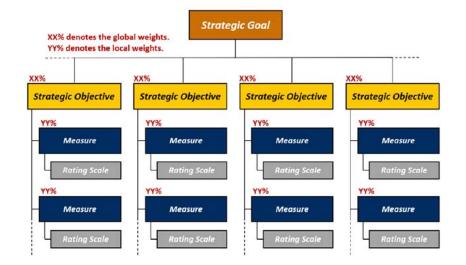
- Approve investments that deliver the most value
- Allocate resources for investment recommendations
- Review investment implementation plans & performance
- "A governance system increases accountability and promotes collaboration and teamwork."

# **2. Build Decision Models**

Decision models help stakeholders consistently assess the strategic value of competing investments using scoring models, strategic goals and objectives, as well as other optional measures and associated rating scales.

Organizations should establish between four-to-seven strategic objectives, along with a consistent rating scale that allows stakeholders to evaluate and score investment proposals against each strategic objective.

It is important to prioritize the relative importance of strategic objectives in order to build an effective scoring model with accurate weighting to create alignment, build buy-in and gain consensus among group members.

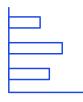


Structure of a Weighted Decision Model

### Advantages of Decision Models:

- Evaluate quantitative & qualitative factors
- Improve decison making vs. financial metrics alone
- Enable quick re-prioritization to changes

"The use of three compelling and plausible scenarios are an effective method to measure benefit, deal with uncertainty and manage risk."

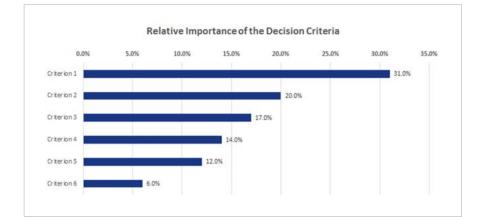


## **The Analytic Hierarchy Process**

The Analytic Hierarchy Process (AHP) was introduced in the 1970's by Dr. Thomas Saaty while at the Wharton Business School and is considered the world's leading multi-criteria, decision-making methodology, per Gartner.

AHP is based on mathematics and psychology and was developed to help organizations work through complicated, real-world prioritization scenarios and simplify the process of weighting decision criteria.

Organizations are able to use **pairwise comparisons** to compare two criteria at a time to determine which is more important — and by how much — with respect to the decision goal using AHP mathematical calculations.





### **Benefits of Pairwise Comparisons:**

- Derive weighting factors
- Incorporate scenario-driven scoring models
- Manage investment decision risk

"Without AHP, decision-makers are left to simply guess their relative importance, which has proven to be highly inaccurate."

# 7 3. Collect Investment Proposals

Once the governance system and weighted scoring model(s) have been established, it is important to share this criteria with the stakeholder community to keep everyone current on the strategic goals and objectives.

Inviting a diverse group of stakeholders to prepare and submit investment proposals ensures that organizations receive the best ideas from those who are closest to the "problem" throughout the idea generation process.

The proposal intake form should be as lean as possible, including the submitter's name, investment description, sponsoring organization and the funding request to provide the IRB enough information to evalute proposals.

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#### Investment Proposal Intake Form

#### **Questions to Answer:**

- What problem is being solved?
- What solution will be delivered?
- How does the solution support the strategy?

*"It is best practice to defer cost discussions until after the IRB determines if the proposal sufficiently aligns to the strategy."* 

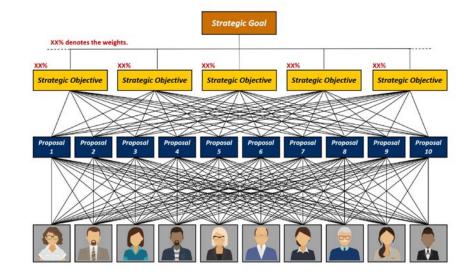


### 4. Score Investment Proposals

To build the most consensus, all investment proposals should be evaluated against all strategic objectives to avoid partial evaluations and ensure the entire IRB team will ultimately embrace the final investment decision.

After a short presentation, every IRB member should score each investment proposal on a 4-to-7-point rating scale based on its contribution toward each strategic objective, ranging from zero to a pre-established upper limit.

All ratings are aggregated to arrive at a group score that is expressed as a numeric score and as a group rating (e.g., High, Medium-High, Medium, Medium-Low, and Low) for each strategic objective as well as the overall score.



Scoring Investment Proposals

### **Decision Support System Benefits:**

- Quickly evaluate data-driven strategic objectives
- Collect IRB member judgments in 15-20 minutes
- Score 3-4 investment proposals per hour

"An IRB session involving 10 members, 10 investment proposals and a scoring model with 5 strategic objectives requires 500 judgments."



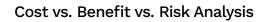
### 5. Review Business Cases

A business case provides justification for undertaking a project, program or portfolio by evaluating the cost, benefit and risk of submitted investment proposals against alternatives to provide a rationale for investment.

Effective business cases adhere to a proven, underlying methodology that is clear to evaluators and establishes credibility among all stakeholders, submitters and sponsoring organizations preparing investment proposals.

This process helps evaluators make critical decisions by reviewing time-phased financial business cases and key financial metrics against established hurdle rates to determine which proposals meet designated thresholds.





#### Financial Business Cases:

- Create 5-year cost and benefit projections
- Calculate Return, ROI, IRR, NPV & Payback Periods
- Visualize "pass/fail" indicators vs. hurdle rates

"Financial business cases provide organizations with an accurate trade-off of benefit, cost and risk to achieve the best value."

# 6. Visualize & Analyze Results

Investment scoring sessions can often generate a significant amount of data, so its helpful to have access to tools that can automatically generate charts, graphs and analytics to streamline the evaluation process.

By visualizing and analyzing the data with a variety of heatmaps, stacked bar charts or scatter charts, organizations gain insight into how each investment proposal compares based on its strategic value and cost.

This process allows organizations to automatically evaluate alternatives, consider trade-offs and analyze all investment proposals to identify, prioritize and deliver the maximum benefit based on its strategic objectives.



Strategic Value Analysis of Investment Proposals

### **Business Questions Answered:**

- Do we have the right portfolio mix and balance?
- What are the relative strengths and weaknesses?
- What is the strategic benefit, cost and risk?

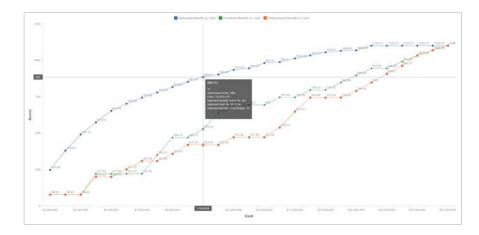
"How do we determine which investments contribute the most or the least to our strategic objectives?"

## **7. Optimize Resource Allocation**

Organizations that need to evaluate multiple investment proposals could further benefit from prescriptive analytic tools that are capable of analyzing all possible investment combinations in seconds to prioritize decision making.

By running these resource optimization scenarios, IRB groups are able to easily identify the most favorable set of investments that deliver on their strategic objectives while satisfying all requirements, dependencies and constraints.

These advanced decision-making tools help organizations select the most preferred combination of investments to deliver the maximum benefit across all strategic objectives to achieve the most "bang for their buck."



**Budget & Resource Optimization** 

### Advantages of Optimization:

- Set constraints for must "include" or "exclude"
- Indicate whether "partial funding" is allowed
- Assign dependencies between proposal "A" or "B"

"A 'Pareto Curve' displays which investment proposals should be selected at incremental funding levels to optimize resource allocation."

## 8. Finalize Investment Decisions

Before finalizing investment decisions, a sensitivity analysis is often conducted to determine the degree to which investment recommendations are sensitive to subtle variations in the weighting of strategic objectives.

This process provides the IRB with confidence in its decision to mark investment proposals as "Approved," "On-Hold," or "Not Approved," which can include relevant notes to provide a historical record of decisions over time.

After final investment decisions are made, the IRB promptly informs submitters and sponsoring organizations and may communicate decisions via document uploads to the system of record, meeting minutes or press releases.

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#### **Investment Decisions**

#### **Benefits of Decision Making Tools:**

- Improve stakeholder engagement
- Optimize resource allocation
- Increase Return on Investment

"Better decision making processes allow organizations to align stakeholders, build consensus and justify investment decisions consistently over time."

### Make the Best IT Decisions Faster

Request a demo of Definitive Pro, the only project portfolio management (PPM) solution built with AI to prioritize IT projects, optimize budgets and justify investment decisions.

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174	Develop a Cyber Security Polic		Medium-High	Medium-Low	Medium-Low	70.35%	Mealum
		Assessment		Low	Medium-High	88.90%	Medium

### Request Demo



#### **John Sammarco** President, Definitive Business Solutions

John Sammarco has 40 years of experience leading, managing, and consulting to top public and private sector organizations, including the U.S. Treasury Department, Accenture, Bank of America, Fannie Mae and GMAC.

In 2003, John founded Definitive Business Solutions, which provides world-class decision-making solutions to help organizations build consensus, reduce risk and increase the ROI of business & technology investments.

John also serves as an adjunct faculty member in the Decision, Operations and Information Technologies (DO&IT) department in the Robert H. Smith School of Business at the University of Maryland.



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