

STRATEGY-FIRST FINANCE

# The AI Business Case Playbook

---

A rigorous financial framework for converting AI ambition into funded initiatives. Build the IRR, NPV, and risk-adjusted ROI that finance committees actually approve.

# The Approval Gap: Why AI Initiatives Die in Finance

Roughly 60% of AI initiatives that earn enthusiastic support from operating teams never receive funding. The failure is rarely the idea. It is the business case. Technical and operational sponsors build proposals that answer "is this a good use of AI?" when the finance committee is asking an entirely different question: "is this the best available use of our next dollar of capital?"

Three structural errors account for the overwhelming majority of rejected AI proposals. Each is avoidable, and each is fixed by the frameworks in this playbook.

## STRUCTURAL ERROR 1: EFFICIENCY FRAMING WITHOUT DOLLAR CONVERSION

"This will save 200 hours a month" is an operational metric, not a financial one. The committee cannot allocate capital against hours. Convert every efficiency claim into dollars at a fully loaded labor rate, and then specify whether those dollars are **cashable** (headcount avoided, contracts cancelled) or **non-cashable** (capacity freed). Non-cashable savings are real but must be tied to a revenue or growth outcome to count in an NPV.

## STRUCTURAL ERROR 2: IGNORING THE TRUE COST OF IMPLEMENTATION

Sponsors quote the software license and call it the investment. The CFO knows that license is 10–15% of total cost. The real investment includes integration engineering, data preparation, change management, training, ongoing inference/API spend, model maintenance, and the internal labor consumed during build. A case that understates cost by 5x destroys its own credibility the moment finance models it independently.

## STRUCTURAL ERROR 3: SINGLE-SCENARIO MODELING

A single optimistic projection signals naivety. Finance committees evaluate risk, and a case with one number offers nothing to evaluate. Present a probability-weighted set of conservative, base, and optimistic scenarios. A modeled downside builds more credibility than a hidden one.

## WHAT CFOS ACTUALLY EVALUATE

A finance decision-maker scoring your proposal is silently checking four things: Does the return exceed our cost of capital? Is the payback fast enough to matter given technology risk? Have the downside scenarios been modeled honestly? And what is the cost of *not* doing this? If your case does not answer all four, it will lose to a proposal that does.

# The CFO Lens: AI as a Financial Instrument

To win funding, stop presenting AI as a technology project and start presenting it as a financial instrument that returns capital at a defined rate, over a defined horizon, with a defined risk profile. The finance committee speaks five core metrics. Master them and you speak their language.

METRIC	WHAT IT ANSWERS	DECISION THRESHOLD
<b>NPV</b> Net Present Value	What is the project worth today, after discounting future cash flows for the time value of money?	Must be positive. Fund the highest positive NPV first.
<b>IRR</b> Internal Rate of Return	What annualized return does this investment generate?	Must exceed the firm's WACC (typically 8-12%). AI cases should target 30%+.
<b>Payback</b> Period	How long until cumulative cash flow turns positive?	Under 18 months is strong for AI; under 12 months is exceptional.
<b>Risk-Adjusted Return</b>	What is the expected return once each scenario is weighted by its probability?	Expected value must still clear WACC after weighting downside.
<b>Opportunity Cost</b>	What is the next-best use of this same capital and capacity?	This project must beat the alternative, including "do nothing."

## THE CORE DISCOUNTING LOGIC

A dollar returned in Year 3 is worth less than a dollar today. NPV discounts every future cash flow back to present value using the firm's cost of capital ( $r$ ):

$$NPV = \sum [ \text{Net Cash Flow}_h / (1 + r)^n ] - \text{Initial Investment}$$

Where  $n$  is the year and  $r$  is your WACC. If you do not know your WACC, ask finance directly. Using the wrong discount rate is a fast way to lose credibility.

## THE REFRAME THAT WINS THE ROOM

Technologists say: "We will deploy a retrieval-augmented model to automate contract review." The CFO hears noise. Instead say: "We will invest \$180K to capture \$620K in three-year net cash flow, at a 47% IRR and an 11-month payback, with a modeled downside that still returns 1.8x." That is a sentence a finance committee can act on. The technology is the means; the cash flow is the case.

# The Value Identification Framework: Four Levers

Most AI business cases capture only the most obvious value and leave 40–60% of the legitimate return uncounted. A complete case quantifies all four value levers. Each lever has a defensible formula that finance can verify.

VALUE LEVER	QUANTIFICATION FORMULA	WORKED EXAMPLE
<b>1. Direct Cost Reduction</b> Cashable savings	$(\text{Manual hrs} \times \text{loaded rate} \times \text{automation \%}) + \text{error/rework cost avoided} + \text{vendor spend eliminated}$	$1,800 \text{ hrs/yr} \times \$65 \times 70\% = \mathbf{\$81,900}$ + $\$22\text{K rework avoided} = \mathbf{\$103,900/yr}$
<b>2. Revenue Acceleration</b> Top-line growth	$(\Delta \text{ conversion rate} \times \text{pipeline value}) + (\text{cycle-time reduction} \times \text{deal velocity uplift})$	$+2.5\text{pt conversion on } \$4\text{M pipeline} =$ $\mathbf{\$100K} + 18\% \text{ faster cycle} = \mathbf{\$60K}$ pulled forward
<b>3. Risk Mitigation</b> Expected-loss avoidance	$\Sigma (\text{probability of adverse event} \times \text{cost of event}) \times \text{reduction in probability}$	Compliance miss: $8\% \times \$500\text{K} = \$40\text{K}$ expected loss; cut to 2% = $\mathbf{\$30K/yr}$ avoided
<b>4. Strategic Optionality</b> Future capability value	Value of the option to expand, priced as incremental margin if the option is exercised $\times$ probability	New data capability enables a \$1.2M adjacent product; 25% likelihood = $\mathbf{\$300K}$ option value

## USE-CASE SCORING MATRIX

When multiple use cases compete for the same budget, score each on four weighted dimensions. Multiply each raw score (1–5) by its weight and sum. Fund the highest composite first.

DIMENSION	WEIGHT	WHAT A 5 LOOKS LIKE
<b>Financial Value</b> (size of return)	40%	Three-year NPV exceeds \$500K with clear cashable savings.
<b>Feasibility</b> (data + system readiness)	30%	Clean data exists; integration path is known; low technical risk.
<b>Time to Value</b> (speed of payback)	20%	First measurable return inside 6 months of launch.
<b>Strategic Fit</b> (alignment + optionality)	10%	Advances a board-level priority and opens future options.

### COMPOSITE SCORE FORMULA

$$\text{Composite} = (\text{Value} \times 0.40) + (\text{Feasibility} \times 0.30) + (\text{Time-to-Value} \times 0.20) + (\text{Strategic Fit} \times 0.10)$$

A use case scoring below 3.0 composite should be deferred. Below 2.5, decline it. This converts a subjective debate into a defensible ranking.

# Building the Financial Model: The 3-Year Projection

The model is the engine of the case. Build a three-year cash-flow projection with documented assumptions, three probability-weighted scenarios, and a sensitivity analysis. The structure below is what finance expects to see.

## 3-YEAR PROJECTION TEMPLATE (BASE CASE)

LINE ITEM	YEAR 0	YEAR 1	YEAR 2	YEAR 3
<b>Investment (cash out)</b>	(\$180K)	(\$25K)	(\$25K)	(\$25K)
Build / integration / data prep	(\$140K)	—	—	—
Change mgmt + training	(\$40K)	—	—	—
Run-rate (API, maintenance)	—	(\$25K)	(\$25K)	(\$25K)
<b>Benefits (cash in)</b>	—	\$210K	\$290K	\$320K
Direct cost reduction	—	\$150K	\$185K	\$195K
Revenue acceleration	—	\$45K	\$80K	\$95K
Risk mitigation	—	\$15K	\$25K	\$30K
<b>Net cash flow</b>	<b>(\$180K)</b>	<b>\$185K</b>	<b>\$265K</b>	<b>\$295K</b>

### HEADLINE METRICS (BASE)

3-Yr NPV (10% WACC): **~\$415K**

IRR: **~118%**

Payback: **~11.7 months**

### SCENARIO WEIGHTING

Conservative: **30%** probability

Base: **50%** probability

Optimistic: **20%** probability

## ASSUMPTION DOCUMENTATION DISCIPLINE

Every number in the model must trace to a documented, sourced assumption. Finance will test the inputs, not the outputs. A defensible assumption log records: the value, its source (system data, benchmark, or estimate), the owner, and the confidence level. Label estimates as estimates. Credibility is built by what you flag as uncertain, not by what you claim as certain.

### SENSITIVITY ANALYSIS

Flex the two or three assumptions that move the answer most (typically automation rate and adoption rate) by  $\pm 20\%$  and show the resulting NPV range. If the case stays NPV-positive across the realistic range, you have a robust investment. If a 10% miss on one input turns NPV negative, disclose it and address the mitigation directly.

# Risk-Adjusted ROI: Modeling the Downside

A risk-adjusted return is the single most persuasive number in an AI business case, because it proves you have already stress-tested your own proposal. Compute the expected NPV by weighting each scenario's NPV by its probability.

SCENARIO	PROBABILITY	SCENARIO NPV	WEIGHTED CONTRIBUTION
<b>Conservative</b> (slow adoption, 50% of benefits)	30%	\$120K	\$36K
<b>Base</b> (as modeled)	50%	\$415K	\$207.5K
<b>Optimistic</b> (fast adoption + upsell)	20%	\$680K	\$136K
<b>Risk-Adjusted (Expected) NPV</b>			<b>\$379.5K</b>

Expected NPV =  $\sum$  (Probability  $\times$  Scenario NPV). Even the conservative case remains positive, which is the key signal: the floor is profitable.

## IMPLEMENTATION RISK REGISTER

RISK CATEGORY	DESCRIPTION	SEVERITY	MITIGATION BUDGET
<b>Technology</b>	Model accuracy below threshold; output quality variance.	High	\$15K (eval harness)
<b>Adoption</b>	Operators bypass the system; usage stalls below 60%.	High	\$20K (enablement)
<b>Integration</b>	Legacy system connectors fail or require rework.	Medium	\$10K (contingency)
<b>Vendor</b>	Model deprecation or pricing change disrupts run-rate.	Medium	\$5K (abstraction layer)

### PRESENT RISK AS COMPETENCE, NOT WEAKNESS

A named, budgeted, and mitigated risk register signals that the sponsor has done the work. Fold the mitigation budget (here, \$50K) directly into the investment line, so the model already absorbs the cost of de-risking. Never present risk as an afterthought or a disclaimer; present it as a managed line item with an owner. The committee funds teams that have already thought about what could go wrong.

# The Competitive Framing: The Cost of Inaction

The strongest business cases reframe the decision. The question is not "should we spend this money?" but "can we afford not to?" Inaction is itself an investment decision with a quantifiable cost, and most committees never see it modeled.

## 12-MONTH DELAY COST CALCULATION

Every month of delay forfeits one month of net benefit and pushes payback further out. Quantify it explicitly:

$$\text{Delay Cost} = (\text{Annual Net Benefit} \div 12) \times \text{Months Delayed} + \text{Compounding Competitive Loss}$$

Worked example: A base case delivering \$235K annual net benefit forfeits **~\$19.6K per month** of delay. A 12-month delay surrenders **\$235K in pure forgone benefit**, before counting any competitive erosion.

## COMPETITOR AI ADOPTION BENCHMARKS

BENCHMARK	2026 REALITY	STRATEGIC IMPLICATION
Mid-market firms with at least one AI workflow in production	~55%	The majority have moved; laggards now compete from behind.
Firms reporting measurable cost or revenue impact from AI	~35%	The gap between adopters and value-capturers is the real race.
Average productivity delta, AI-enabled vs. peers	20-40%	Compounds annually; the gap widens, it does not hold steady.

## TALENT RISK FRAMING

There is a second, often-larger cost of inaction: talent. High-performing operators increasingly expect modern, AI-augmented tooling. Firms that delay risk losing their best people to competitors who have already removed the drudgery from the work. Quantify this as a retention and recruiting cost: if delay raises voluntary attrition in a key function by even 5 percentage points, the fully loaded cost of backfilling and ramping replacements frequently exceeds the entire AI investment.

## THE REFRAME

"We are not deciding whether to spend \$180K. We are deciding whether to forfeit \$235K of annual benefit, cede a widening productivity gap to competitors who have already moved, and accept elevated attrition in a critical function. The investment is the low-risk option."

# Presenting to the Board: Lead With the Summary

The model is your backup, not your pitch. Boards decide in the first 90 seconds. Lead with a one-page executive summary, deliver a 10-minute narrative, and hold the full model in reserve to answer questions. The structure below wins approvals.

## The One-Page Summary (Six Lines)

- ✓ **Problem:** the friction, sized in dollars.
- ✓ **Solution:** one sentence, outcome-led.
- ✓ **Investment:** 3-year total, all-in.
- ✓ **Return:** NPV, IRR, payback.
- ✓ **Risk:** top risks + mitigations.
- ✓ **Decision requested:** the specific ask.

## The 10-Minute Format

- ✓ **Min 0-2:** the problem, in their language.
- ✓ **Min 2-4:** the return and payback.
- ✓ **Min 4-6:** risk-adjusted scenarios.
- ✓ **Min 6-8:** cost of inaction.
- ✓ **Min 8-10:** the ask + next step.

## OBJECTION HANDLING: THE TOP 5 CFO OBJECTIONS

OBJECTION	RESPONSE SCRIPT
1. <b>Cost overrun risk</b>	"We have budgeted a \$50K mitigation reserve inside the investment line and built fixed-scope phase gates. Funding releases only after each phase hits its milestone, so exposure is capped at the current phase."
2. <b>Unproven technology</b>	"The conservative scenario assumes only 50% of modeled benefits and still returns positive NPV. We are not betting on best case; we are funding a floor that is already profitable."
3. <b>Data readiness</b>	"We isolated the specific dataset this use case needs and validated its quality in diligence. We are not waiting on an enterprise data-lake; we clean only what this workflow requires."
4. <b>Change-management burden</b>	"40% of the investment is allocated to enablement and training, with adoption tracked as a funded milestone. Adoption risk is the one we have spent the most to retire."
5. <b>Competing priorities</b>	"This scored highest on our weighted use-case matrix and has the fastest payback in the portfolio. Deferring it forfeits ~\$19.6K of benefit every month it waits."

## THE GOLDEN RULE OF BOARD PRESENTATION

Lead with the answer, not the analysis. State the return and the ask in the first two minutes, then earn the right to detail with each subsequent point. Never walk the board through the model build; hold it in the appendix and bring it out only when a specific number is challenged.

# One-Page Business Case Template

This is the deliverable. Complete every field, keep it to a single page, and lead your board presentation with it. Each field maps directly to a question the finance committee will ask.

## PROBLEM (SIZED IN DOLLARS)

---

---

State the friction and its annualized cost. Example: "Manual contract review consumes 1,800 hours/year (\$117K loaded) and delays deal close by an average of 9 days."

## SOLUTION (ONE SENTENCE, OUTCOME-LED)

---

---

What the initiative does and the outcome it produces, not the technology stack. Example: "Automate first-pass contract review to cut cycle time 70% and free senior staff for higher-value work."

## INVESTMENT (3-YEAR TOTAL)

---

---

All-in: build, integration, data, change mgmt, run-rate, + mitigation reserve.

## RETURN (NPV / IRR / PAYBACK)

---

---

Lead with risk-adjusted NPV, then IRR vs. WACC, then payback in months.

## TOP RISKS + MITIGATIONS

---

---

List the two or three highest-severity risks, each with a named mitigation and budget. Example: "Adoption risk — mitigated by \$20K enablement program, tracked as a funded milestone."

## DECISION REQUESTED

---

---

The specific, unambiguous ask. Example: "Approve \$180K Phase 1 funding to begin the 12-week pilot, with Phase 2 funding gated on hitting an 80% adoption and 95% accuracy milestone."