Rethinking AI investment

A brief for CxOs

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Why most AI initiatives stall

Ambition around AI is high, but power is often low.

Executives consistently point to a lack of clarity, not a lack of ideas.

The reality:

- Dozens of initiatives, few measurable outcomes
- Funding decisions driven by politics, not impact
- Time-to-value and readiness often ignored

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A shift in thinking:
from wishlist to portfolio

Forward-thinking teams are reframing AI strategy as a
portfolio problem.

Each initiative is evaluated not in isolation, but as part of a
larger system.

The logic: if resources are limited, how do we
pick what to fund now?

Key considerations often include strategic, operational,
and data-related aspects.

Instead of ranking ideas by gut, use **structure** to handle complexity.

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What this looks like in practice

In one case, a national retailer had 19 AI initiatives under consideration.

The total estimated budget: $11.5M.
Available budget: $5M.

They applied constraint-based decision logic to score each initiative based on feasibility and value.

The result: 10 initiatives selected, $6.8M of low-impact noise removed.

The value goes beyond the model. It's in the discipline of applying it.

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A model for better decision-making

STEP 1

Assess value & feasibility

Each initiative is scored across key variables to ensure a consistent comparison. Key considerations include: strategic fit, time-to-value, data maturity, and ROI.

STEP 2

Set constraints

After scoring, the next step is to apply business constraints. These constraints reflect actual limits on budget, delivery timelines, readiness, and dependencies.

STEP 3

Optimize the portfolio

The initiatives are passed into the Knapsack optimization model to maximize strategic value under constraints.

Knapsack optimization model

Maximize V = $\sum x_i \times (v_i - \sigma_i) \times w_i \times d_i$

The formula objective is to maximize strategic value under constraints. It returns a binary decision: invest (1) or don't invest (0).
This allows decision makers to simulate various combinations and select the portfolio that delivers the highest total value while staying within defined parameters.

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Rethinking AI investment at a glance

The challenge
Dozens of ideas,
low clarity,
political funding

The shift
From gut feel to
constraint-based
optimization logic

The impact
Disciplined portfolios,
faster decision-making,
reduced noise

Shared as part of CME's thinking on AI governance and strategic clarity. To read about the model foundation and more insights about AI projects execution, download the white paper.

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