GAINS
MOVE FORWARD FASTER

Decision Engineering for Real World Supply Chains

Build for Chaos, Not for Comfort.

Principles of Decision Engineering

Before we rethink our systems, we must rethink the ground rules. These principles offer a directional model for how to think, decide, and adapt across the full time-to-plan horizon.

Supply chains are complex, adaptive, distributed systems that are always changing:

Systems must be designed for continuous re-composition and adaptation, with architectures that support composability rather than rigid ERP structures.

1

There are no perfect answers:

Supply chain decisions involve tradeoffs between cost, service, profit, and risk, requiring continuous iteration and revision as conditions change.

2

Embrace volatility & uncertainty:

Account for uncertainty in decision-making by identifying risks, assessing impact, and building confidence intervals for responsive adaptation.

3

Competing stakeholder interests must be reconciled:

Use transparent, collaborative decision-making processes that consider multiple perspectives and document rationale for accountability.

4

Decisions can (should) be engineered and (re) composable:

Choose specific methods for specific problems, combining multiple tools (analytics, AI/ML, optimization) to create tailored solutions.

5

Harness systems dynamics and scientific methods:

Systematically evaluate decision scenarios using scientific approaches to understand cause-and-effect relationships and system impacts.

6

Ethical considerations:

Incorporate ethical implications and moral values into decisions, especially regarding social, environmental, and humanitarian consequences.

7

The Future Belongs to the Decision Engineers

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