

AI Discovery for Leaders

A Practical Guide to Identifying High-Value AI Opportunities

AI success begins with asking better business questions.

Strategic AI Advisory

Executive Summary

Artificial Intelligence is rapidly becoming a strategic capability across industries. Yet many organizations struggle to move beyond experimentation and isolated pilot projects.

The challenge is rarely the technology itself. The real challenge is identifying where AI can create measurable business value.

Organizations often begin their AI journey by exploring tools, platforms, and models. However, successful AI initiatives start elsewhere: with business problems, operational priorities, and strategic objectives.

Why AI Initiatives Fail

Many AI projects fail to scale because they begin with technology rather than business needs. Common challenges include:

- Unclear business objectives
- Poor alignment with strategic priorities
- Limited understanding of available data
- Lack of executive ownership
- Difficulty quantifying business value
- Insufficient organizational readiness

As a result, organizations often invest significant effort in pilots that never progress to production. Successful AI adoption requires a different approach.

Start with the Business Problem

Before discussing algorithms, machine learning models, agents, or generative AI, leaders should answer one fundamental question:

What business outcome are we trying to improve?

Potential objectives include:

Revenue Growth Increasing revenue through better targeting and market responsiveness	Cost Reduction Eliminating waste, automating manual processes, and reducing overhead
Productivity Improving throughput and operational efficiency across functions	Customer Experience Faster response, personalization, and improved satisfaction scores
Risk Reduction Improving compliance, safety, and operational risk management	Decision-Making Speed Accelerating insights and reducing time to confident decisions

The AI Discovery Framework

A structured approach to identifying, validating, and prioritizing AI opportunities aligned with business goals.

Step 1: Identify the Business Challenge

Focus on operational pain points, bottlenecks, inefficiencies, and missed opportunities.

Common Business Challenges

- › Equipment downtime & unplanned maintenance
- › Supply chain delays & inventory imbalances
- › Customer churn & declining retention
- › Long cycle times & quality variability
- › Forecasting inaccuracies

Step 2: Identify the Decision

AI creates value by improving decisions. Ask:

- What decision is currently difficult?
- What information is missing or unreliable?
- What uncertainty exists in the process?
- What would better visibility enable?

Step 3: Understand the Data

AI depends on data availability and quality. Potential sources include ERP systems, CRM platforms, manufacturing systems, sensor and IoT data, financial systems, and external market data.

Available?	Accessible?	Reliable & Detailed?
Does the data exist in a usable form?	Can it be extracted without major effort?	Is it accurate and granular enough to train models?

Step 4: Determine the AI Capability

Different business problems require different AI approaches:

Capability	Description	Examples
Prediction	Forecasting future outcomes	Demand forecasting, Failure

		prediction, Churn prediction
Classification	Categorizing information automatically	Document classification, Defect categorization, Spend classification
Optimization	Identifying the best possible outcome	Scheduling, Route optimization, Inventory optimization
Recommendation	Providing actionable guidance	Product, Maintenance & Procurement recommendations
Automation	Reducing manual effort	Workflow automation, Document processing, Customer support

Step 5: Define Business Value

Every opportunity should be evaluated against measurable outcomes:

Financial Impact Revenue growth, Cost reduction, Margin improvement	Operational Impact Throughput, Productivity gains, Reduced downtime	Customer Impact Satisfaction, Faster response times, Retention	Risk Impact Compliance, Operational risk, Enhanced safety
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Common AI Opportunity Areas

<p> Operations & Manufacturing</p> <p>Process optimization · Throughput improvement · Yield enhancement · Quality prediction</p> <p><i>Outcomes: Increased productivity, reduced waste, improved consistency</i></p>	<p> Asset Reliability</p> <p>Predictive maintenance · Failure forecasting · Asset health monitoring · Prioritization</p> <p><i>Outcomes: Higher availability, lower costs, reduced downtime</i></p>
<p> Supply Chain & Procurement</p> <p>Demand forecasting · Inventory optimization · Supplier analytics · Spend visibility</p> <p><i>Outcomes: Lower working capital, improved reliability, faster cycles</i></p>	<p> Commercial Growth</p> <p>Customer segmentation · Opportunity identification · Pricing optimization · Forecasting</p> <p><i>Outcomes: Revenue growth, better acquisition, market responsiveness</i></p>

Prioritizing AI Opportunities

Not every opportunity should be pursued immediately. Evaluate opportunities based on five dimensions:

Business Value	What is the potential financial, operational, or strategic impact?
Feasibility	Can the solution realistically be designed, built, and deployed?
Data Readiness	Is sufficient, quality data available to train and validate models?
Org. Readiness	Are stakeholders aligned, committed, and prepared for change?
Time to Value	How quickly can measurable results be achieved and demonstrated?

Organizations often benefit from pursuing a balanced portfolio of quick wins, strategic initiatives, and long-term transformation opportunities.

The AI Opportunity Funnel

Awareness	Understanding AI capabilities and limitations across the organization
Opportunity Discovery	Identifying potential business use cases aligned with strategy
Prioritization	Evaluating value, feasibility, data readiness, and organizational readiness
Validation	Assessing data quality and confirming business cases with stakeholders
Pilot	Testing and refining solutions in a controlled environment
Scale	Embedding AI into business processes and operating models

Characteristics of Successful AI Organizations

Organizations that consistently generate value from AI typically:

- ✓ Start with business priorities, not technology
- ✓ Focus on measurable, quantifiable outcomes
- ✓ Build strong executive sponsorship and ownership
- ✓ Develop robust data foundations before deploying models
- ✓ Encourage cross-functional collaboration across IT, operations, and business
- ✓ Scale successful initiatives systematically and strategically
- ✓ Treat AI as a business transformation capability, not a technology project

Final Thought

Artificial Intelligence is no longer a future capability—it is becoming a competitive necessity.

The organizations that create the greatest value from AI will not necessarily be those with the most advanced technology. They will be the organizations that identify the right opportunities, align them with strategic objectives, and execute with discipline.

AI success begins with asking better business questions. The journey starts with discovery.
