A leader's guide to compounding AI ROI in Retail and CPG

How Retail, CPG, and QSR enterprises can sequence AI investments, prove value early, and scale what delivers sustained impact.

AI investment across Retail, CPG, and QSR has crossed a critical threshold. This whitepaper combines two forms of intelligence: public market signals and the Brillio 'practitioner' experience with enterprise clients across Retail, CPG, and QSR. Client insights are presented as anonymized patterns, not attributed examples. Together, these inputs point to one clear conclusion: the winners in 2026 will not be the companies chasing the most advanced AI use cases first. They will be the companies that sequence AI investment with discipline.

The mandate is straightforward.

Build the foundation. Prove the economics. Scale what compounds.

‘Compounding AI advantage’ in retail: Who wins?

- Client conversations have shifted from “should we invest in AI?” to “how do we sequence it for measurable, compounding ROI?”
- Committed capital implies accelerated budget momentum (nine in ten retailers expect to increase AI budgets this year, and half expect double-digit growth).
- AI pilots are over. The next phase will reward strategic sequencing instead of indiscriminate spending (which investments deserve capital now and in what order).
- The strongest contenders don’t chase headline-grabbing uses cases but build structural advantage.
- How? They pair a robust data foundation with operational wins and clear visibility into adoption risk and scale only after validating value.

What’s covered in this white paper?

We examine six executive questions shaping AI investment in 2026:

1. **Where is capital flowing?**
2. **Which use cases are earning board-level funding?**
3. **Is 2026 an inflection point?**
4. **Build vs. buy: What should enterprises build, buy, or hybridize?**
5. **Which capabilities are table stakes vs. high-value AI differentiators?**
6. **Where are decision-makers ready to spend now, and where are they still cautious?**

The central point is simple: AI advantage will not come from isolated pilots. It will come from disciplined capital allocation across three categories:

a. **Table stakes:** Capabilities every competitor will soon have.
b. **Near-term ROI engines:** Use cases with fast proof-of-value and measurable impact.
c. **Strategic differentiators:** AI capabilities that improve with proprietary data, scale, and adoption.

1. The 2026 investment map: Five budget buckets that matter

Based on public earnings disclosures and partnerships, enterprise AI spending across Retail, CPG, and QSR is concentrating in five categories. These are not speculative bets. They reflect where leaders see measurable impact on cost, growth, productivity, and resilience.

1.1 Supply chain AI: The margin protection layer

Supply chain AI is drawing the largest share of investment because it directly affects cost of goods sold, inventory write-downs, working capital, and service levels. Priority investments include demand forecasting, replenishment optimization, cold chain automation, and inventory optimization

1.2 Customer intelligence: The revenue expansion layer

Customer intelligence ranks second, driven by personalization's proven revenue impact. Active priorities include loyalty AI, basket optimization, AI-powered search, and agentic shopping assistants.

1.3 Edge and in-store AI

Both are gaining momentum as franchise-level economics become clearer. Computer vision, predictive maintenance, and queue analytics have moved from pilots to rollout budgets.

1.4 Data and platform foundations: The enabling layer

Data modernization is no longer viewed as basic IT spend. It is now treated as the foundation for AI competitiveness. Strategic investment areas include cloud data platforms, ERP modernization, vector databases, and MLOps.

1.5 Workforce AI: The productivity layer

Workforce AI rounds out the investment map, driven by labor cost pressure, retention challenges, and frontline complexity.

What public budget signals reveal

Public investment patterns ahead of 2026 point to a clear shift: AI spending has moved from exploration to commitment. Recent signals include:

- A major grocery operator committing roughly **$485 million** in quarterly capital expenditure toward technology platforms spanning cloud AI, agentic commerce, data platforms, and workforce AI.
- A leading QSR operator defining 2025–2027 as a major AI investment phase, with emphasis on edge infrastructure and supply chain scenario planning.
- A European grocery leader pairing a multi-year AI partnership with a **$2 billion** annual technology budget and live AI-driven pricing.
- A cold chain logistics operator committing more than **$1 billion** to automated facilities anchored by warehouse intelligence and computer vision.
- A global beauty and CPG company setting a productivity and cost-savings target of **$200 million** under an enterprise AI agreement.

2. The use cases earning board-level funding

Four use cases are commanding outsized attention in 2026 because they address urgent business pain and have clear P&L pathways.

2.1 Demand forecasting and inventory intelligence

Forecasting is one of the clearest AI investment priorities because the economic leakage is large. Retailers lose an estimated **8–10%** of revenue to out-of-stocks and **2–3%** of inventory value to overstock write-downs. Traditional models struggle with volatility. They often fail to account for weather shocks, local demand signals, geopolitical shifts, social trends, tariffs, and sudden changes in consumer behavior.

AI changes the forecasting model from static prediction to continuous demand sensing. Advanced systems can ingest external signals, detect shifts earlier, and reduce forecast error by **20–40%.** The most advanced enterprises are moving beyond annual, rule-based forecasting. They are building multi-agent planning frameworks that support rolling 24-month projections, scenario modeling, and faster alignment between top-down and bottom-up forecasts.

In one QSR engagement, fragmented source systems and spreadsheet-based planning limited visibility and slowed decision cycles. A multi-agent orchestration framework improved planning accuracy beyond the roughly **80%** industry benchmark, reduced turnaround time from weeks to hours, and unified planning assumptions in one system.

> **Implication:** The winning design isn't a better forecasting model. It is an orchestrated planning system that connects data, scenarios, decisions, and execution.

2.2 Agentic shopping and personalized commerce

Digital grocery customers often spend **2–3x** more than store-only shoppers. Yet traditional basket building remains slow and cumbersome. Agentic shopping assistants can compress a full-shop journey from roughly **46 minutes** to about **4 minutes**. Early proof points show basket increases of **10%** or more. As digital penetration grows, the data loop strengthens. It's cyclical. Better behavioral data improves the assistant. A better assistant drives higher engagement. Higher engagement creates more data. That is how personalization becomes a compounding advantage.

2.3 Operational AI: Predictive maintenance and computer vision

In QSR, grocery, and cold chain operations, downtime equates to lost revenue, wasted product, labor disruption, and customer dissatisfaction. Predictive maintenance can reduce unplanned downtime by **30–50%.** Computer vision can improve order accuracy, quality control, freshness monitoring, and kitchen execution. This is why several QSR operators are shifting emphasis from consumer-facing voice AI to behind-the-counter operational AI. The ROI is clearer. The workflows are more controlled. The business case is easier to measure.

> **Implication:** The fastest AI returns may not come from what customers see. They may come from the operational systems customers never notice.

2.4 AI-driven revenue growth management

CPG companies often spend **15–20%** of gross revenue on trade promotions. Yet **30–50%** of that spend may deliver no measurable ROI. That makes revenue growth management a board-level AI priority. AI can improve trade promotion ROI by **15–30%** by connecting sales, weather, economic, marketing, retailer execution, and point-of-sale data. The best systems move beyond post-event reporting and toward real-time optimization. Projected media gains of **15–50%** and sales uplift of **4–6%** make this one of the most financially compelling AI use cases in CPG.

> **Implication:** AI-driven revenue growth management turns promotion planning from a backward-looking exercise into a predictive performance system.

2026: An inflection point (solving what the previous decade couldn't)

Many of the problems now attracting AI investment are not new. What changed is not just model performance. The full operating environment matured.

Long-standing problem	Why it was hard to solve	What changed?
Real-time personalization at scale	Data silos, batch latency, and high inference costs	Generative AI, vector stores, and cloud-native data platforms
SKU-level forecasting under volatile conditions	Statistical models struggled with new products, shocks, and trend breaks	AI models can ingest external demand signals
Drive-through and in-store order accuracy	Computer vision was too slow or expensive for store-level deployment	Edge AI enables low-latency inference
Cold chain energy efficiency	Sensor data was collected but rarely actioned in real time	IoT sensor fusion and machine learning improve predictive control
Trade promotion ROI attribution	Lagging point-of-sale data made causality difficult	Near-real-time retailer data improves attribution
Enterprise workforce scheduling	Rule-based systems could not balance demand, labor laws, and preferences	Generative AI can synthesize constraints and forecasts

> **These problems are being cracked now not only because the technology matured, but because the underlying data infrastructure finally did.**

3. Build vs. Buy: The hybrid model is winning

3.1 Consistent patterns we're seeing

In practice, build-versus-buy is a hybrid decision, with the split varying by use case and AI maturity. Enterprises are buying foundational capabilities while building the proprietary layers that determine differentiation.

What enterprises are building in-house

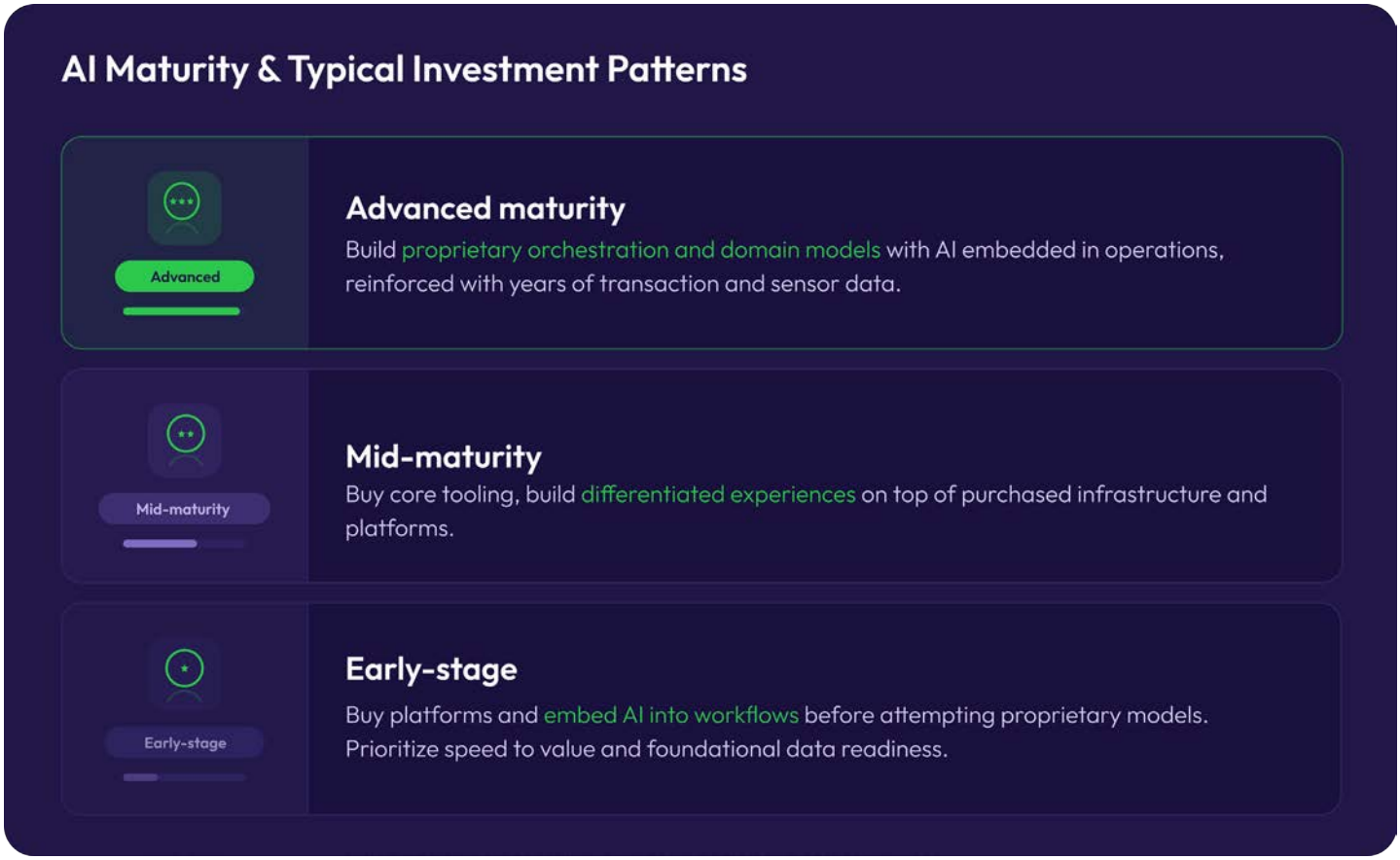
- Proprietary demand and domain models
- Custom orchestration logic
- Data integration layers
- Domain tuning for catalogs, workflows, and operating rules
- Internal governance and execution frameworks

What enterprises are buying or licensing

- Foundation models
- Cloud AI infrastructure
- AI-ready data platform tooling
- Out-of-the-box agent frameworks, APIs, and tooling
- Enterprise AI embedded in ERP and CRM platforms

> **The strategic distinction is clear:** Buy what is becoming commoditized; build what reflects proprietary data, operating context, and business logic.

3.2 What differentiates the maturity levels?



A common failure mode is trying to build proprietary AI before stabilizing data foundations. Fragmented legacy data produces fragmented, unreliable AI outputs.

4. Table stakes vs. high-value AI: The investment filter that matters

Not every AI investment deserves the same strategic weight. Some capabilities are necessary to stay competitive. Others create durable advantage. Leaders need to separate the two.

4.1 Table-stakes AI: Necessary, but not defensible long-term

These 'buy-not-build' capabilities matter, but they are unlikely to create long-term differentiation because they are becoming widely available through enterprise platforms.

- GenAI productivity tools already exceed **40%** industry penetration and are approaching universal adoption by H2 2026.
- Basic chatbot and customer service automation is already deployed across **60–70%** of large retailers.
- AI-powered product search and recommendations are near-universal among e-commerce leaders and increasingly commoditized by platform vendors.
- Standard ML demand forecasting is now packaged in major planning platforms such as SAP IBP, Blue Yonder, and o9.
- Basic loyalty personalization via email and push segmentation is standard in mainstream CRM platforms.

Being behind in these areas creates risk. Being ahead may create short-term efficiency. But these are not where durable moats are built.

4.2 High-value AI: Where compounding returns accumulate

High-value AI is different. It improves as proprietary data, usage, workflow integration, and operating scale increase.

High-value use case	P&L impact	Why it is defensible
Agentic shopping assistants	+10% basket size 2–3× digital engagement multiplier	Requires proprietary catalog, loyalty data, and multi-agent orchestration
Real-time individualized loyalty pricing	Higher redemption and spend; loyalty members often spend 2–3× more than non-members	Improves with first-party transaction data and behavioral signals
AI-driven trade promotion optimization	15–30% ROI improvement across a major spend category	Depends on retailer data-sharing, attribution models, and execution history
Predictive maintenance with edge AI	30–50% less downtime reduction in unplanned downtime	Benefits from dense IoT deployments and proprietary operational data
Demand-driven cold chain optimization	Reduced food waste and energy savings	Requires thermodynamic models, sensor data, and network-level demand integration
Autonomous inventory rebalancing	Reduces out-of-stocks and overstock at the same time	Requires real-time inventory visibility across locations and distribution centers

> **Strategic question for leaders:** Is this AI capability simply improving efficiency, or does it become more valuable as our data, customers, stores, suppliers, and workflows scale? That question should guide where to build, where to buy, and where to wait.

5. What we see in enterprise implementations

Public market data shows where money is flowing. Enterprise implementation patterns show what it takes to convert spend into value. Across Retail, CPG, and QSR engagements, we see four recurring lessons.

5.1 The best AI roadmaps are phased by ROI

Leading enterprises are not asking for the most advanced use case first. They are asking for the right investment sequence. In one global QSR engagement, the roadmap prioritized self-service insights and developer productivity first. It then moved into data foundations, supply chain transparency, lineage, governance, and autonomous operations. With roughly 80% of operations dependent on external vendor tools, the company chose to layer intelligence onto legacy systems rather than rip and replace. That decision mattered. It reduced disruption while creating a path to scale.

Implication for solution providers: Clients want sequencing logic, credible adoption plans, and ROI by phase. A bold AI vision only works when the path to value is operationally realistic.

5.2 Legacy code conversion is a high-ROI AI use case

In one retail financial services engagement, the enterprise faced a hard migration deadline. It needed to move a SAS-based analytics estate to a modern cloud platform. Agentic AI automated SAS-to-PySpark conversion, formatting, linting, and unit test generation. About **95%** of conversion was automated. Data processing speed improved by **80%.** The migration met its deadline.

Implication: Legacy modernization is a practical AI entry point. It delivers measurable ROI while de-risking the foundation for future AI use cases.

5.3 Natural language interfaces are removing the BI bottleneck

In another engagement, sales, purchase, and inventory data existed across systems, but business users still needed manual reconciliation to answer basic questions. A retrieval-augmented assistant with auto-SQL generation and smart schema retrieval reduced manual analysis by more than 80% and delivered responses in under 30 seconds. The assistant was trained on the organization's terminology and benchmarked against existing BI outputs, making it easier for finance, sales, and branch teams to trust the results.

Implication: High-adoption AI often removes friction from high-frequency workflows. Natural language access to operational data can improve decision speed without forcing business users into complex analytics tools.

5.4 Labor transformation is bigger than labor scheduling

In grocery and QSR, scheduling optimization is important. But the larger strategic question is labor transformation. AI can change who does the work, how decisions are made, and where human judgment matters most.

6. Where decision-makers are ready to spend now

AI budgets are increasing, but capital is not moving evenly. Decision-makers are prioritizing use cases with visible economics, shorter proof cycles, and stronger alignment to strategic goals.

6.1 Legacy code conversion is a high-ROI AI use case

These categories have moved from roadmap discussion to committed investment:

- Supply chain AI for scenario planning and 24-month demand horizons
- Agentic commerce for full-basket shopping and natural language discovery
- Edge AI for predictive maintenance and operational quality control
- Data platform modernization as the enabling layer for enterprise AI
- Workforce-scale generative AI productivity tools

6.2 Fastest decision cycles

The fastest approvals are going to use cases with three traits:

- Available data foundations
- 30–90-day proof-of-value potential
- Clear ROI ownership

The strongest examples include:

- Digital conversion
- Supply chain visibility
- Frontline productivity

6.3 Areas where spend remains cautious

Not every AI category is ready for aggressive scale. Spend is still cautious in three areas:

- **Consumer-facing voice AI in QSR:** Investment depends on stronger accuracy, consistency, and customer acceptance.
- **Fully autonomous cashier-less grocery:** Franchise-scale economics remain difficult, shifting attention toward shrink reduction, queue management, and freshness monitoring.
- **Generative AI for CPG product formulation:** Regulatory, liability, and quality-control frameworks are still maturing.

6.4 Emerging category: Tariff-driven margin defense

A fast-growing 2026 category is tariff-driven margin defense: AI for rerouting, near-shoring optimization, supplier stress testing, and pricing response under 5–8% cost headwinds.

7. The agentic threshold: From decision support to execution

The defining AI narrative of 2026 is the shift from decision support to execution. Agentic AI systems do more than generate insights. They reason, plan, and execute multi-step tasks within governed workflows. Early production use cases include:

- Shopping assistants that build baskets end to end
- Scheduling engines that generate compliant staffing rosters
- Inventory agents that trigger inter-store transfers
- Pricing systems that adjust based on demand, weather, competition, and inventory

The enterprises succeeding with agentic AI are not the ones that started there. They first built reliable data pipelines, validated single agent use cases, and only then orchestrated multiple agents into governed workflows. Companies that deploy agentic AI in high-leverage workflows over the next 18 months can build a compounding unit-economics advantage. But the path to agentic transformation still runs through strong data foundations.

8. AI investments in 2026: What are the imperatives for retail leaders?

- Less rhetoric, more disciplined sequencing—these enterprises will build lasting advantage.
- Table stakes vs strategic differentiators: which capabilities to buy, build, and defer. Fund the use cases with clear ROI paths before the next wave of capital.
- Data before intelligence. Operational wins before transformational bets. Adoption plans before technology deployments. Governance before autonomous scale.

Note: This whitepaper combines public industry research with anonymized Brillio client-engagement patterns across Retail, CPG, and QSR.

About Brillio

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise.

Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.

https://www.brillio.com/
Contact Us: info@brillio.com

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