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Data Strategy in Retail: The Gen AI Tipping Point

A Q&A on the need for an enterprise-wide approach to data and analytics.

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At a Glance

▶ Data is the fuel of the generative AI era, but many retailers still use it in an unsystematic way that will limit AI gains.

▶ A more strategic approach can unlock growth, increase operational savings, and improve cybersecurity.

▶ Balancing the overhaul of existing data infrastructure with quick wins is critical to data strategy success.

A data strategy is one of the must-have items in global retail today. Retailers that can systematically maximize the usefulness of their data will unlock core business growth and productivity gains—through superior merchandising decisions, fulfillment optimization, targeted cost reduction, and other improvements.

Retail's data strategy leaders will be more likely to find strong growth beyond their current core businesses, in areas such as data monetization, retail media, and online marketplaces. They'll also be best placed to harness artificial intelligence to personalize customer experiences, transform marketing capabilities, and automate their way to greater efficiency.

But while most executive teams in retail will feel like they are making progress in harnessing data for individual use cases, many will feel less certain that their efforts across the company amount to a compelling data strategy, not yet at least.

That lack of conviction is understandable. Operational considerations, such as ensuring that data analytics tools are rolled out and adopted, have been more urgent for retailers in recent years. In the early part of this decade, for instance, Bain & Company research shows that retailers viewed their data operating model as the top priority for data investment, just edging out data and analytics strategy.

The industry's focus is changing, however. When we asked retailers about their data investment priorities for 2024–26, data and analytics strategy had a clear lead as the top priority, with data architecture surging to second. Even more significantly, the continued rollout of generative AI, now in its third year, is creating a tipping point for data strategy. Quite simply, data is the fuel of the generative AI era. Retailers will increasingly struggle if they can't put the right enablers in place to create value efficiently from data.

Despite the mounting urgency, there is still time for retailers to define a data strategy—or sharpen an existing one. Bain Expert Partner and Senior Advisor Bill Groves led one of the largest data and AI transformations in retail history when he was Walmart's chief data and analytics officer. He has also served as Honeywell's chief data scientist and AI officer. In this Q&A, he examines some of the components needed for a data strategy that can rapidly succeed at scale in retail, boosting both sales and profit and leading to a durable competitive advantage.

Q: How does retail compare to other industries on data strategy?

Groves: Retail is a data-heavy business, due to its scale and customer-facing nature, so the data strategy opportunity is big. It's an industry that has been operationally minded, very focused on improving marketing and the running of stores. Data and analytics can add precision to that operational focus, boosting even the most streamlined retailers, which are maybe facing a dwindling pool of traditional savings opportunities due to being so efficient already. In almost all cases, efficiency plans can be even better when teamed with an effective data strategy.

Data strategy isn't just about pursuing opportunities, though. There's a lot of defense as well as offense involved, in areas such as guarding against data breaches and ensuring that access to more sensitive information is restricted. There are some exceptionally data-rich industries that are more advanced on the defensive side than retail—financial services, for instance. That high level of data protection and defensive resilience should be the norm for any company.

Q: How well are retailers scaling up data initiatives across their businesses?

Groves: Across all industries, the scaling of data projects used to be very hit-and-miss, with 75% to 80% failing to scale. That's improving. For instance, the latest Bain research suggests

that the vast majority of companies rolling out data-fueled generative AI solutions find that it exceeds their expectations at every stage, from prototyping to full deployment at scale. The scaling progress in retail is roughly in line with the broader trend, but I don't think we're at the point yet where the majority of data projects make it through to production. There's a huge opportunity still there for retailers to capture significant value through better scaling and other key elements of data strategy. And it's worth bearing in mind that the retailers that are seeing more value from data and AI have often had a compelling data strategy in place for as much as five years. There's no time to lose.

Q: What does a compelling data strategy look like?

Groves: Companies that are good at data strategy have a clear vision for how data will help them achieve business goals, underpinned by consistent governance of data sourcing and management. That vision translates into a ruthlessly prioritized roadmap for data-enabled use cases, backed by the right KPIs. They know exactly what data capabilities they need to build to turn that roadmap into a reality. The architecture and design of their data technology is also adaptable to future needs.

Crafting and following a successful data strategy relies on a range of enabling components. Many are human factors, such as the talent you already have and can recruit in the future, your operating model, and your culture. Others are more about process and technology, such as the state of your infrastructure and analytical tools. Every company is on a journey here. Some companies have all the necessary enablers in place. Others have none, but they are most likely thinking about it, at least.

Q: What's the right cadence for data strategy implementation?

Groves: Retailers need to strike the right balance between fixing the foundations and securing quick wins. You can't focus on one to the exclusion of the other. Yet some companies still spend years and enormous sums carrying out long-term remedial work on their data infrastructure that somehow doesn't connect with their frontline operations. The pressure for quicker wins is one reason why chief data officers often don't last more than two to three years in their role. You simply must create value while you fix the foundations. Likewise, some companies focus too narrowly on use cases and miss the more transformational big picture. Data strategy is an enterprise function, not a use case function.

Q: What else has stopped retailers from crafting and following an effective data strategy?

Groves: Human factors are often a big stumbling block. Most companies don't fully adopt data science or analytics because of their culture and operating model. How the business and tech teams work together is a particular weak point. The tension is understandable. Scenarios

like a 30-year veteran of merchandising being told that they could do the job better with the latest analytics tools—those are always going to be difficult conversations. However, it is possible to collaborate in a way that allows analytics to augment that deep retailing expertise without creating a lot of friction.

Dispelling some misconceptions can help that collaboration. For instance, a lot of people still think of analytics as being about reporting only. It's way beyond that now. Tech teams are now able to do things they could only have dreamed about five years ago. Overall, this means that tech is no longer the frequent limiting factor for creative business ideas. Instead, new technologies are driving creative business ideas. We're in new territory.

Q: How can retailers find capacity to raise their game on data strategy amid so many competing priorities?

Groves: A hallmark of a good data strategy is that it leads to companies stopping work as well as starting it. For instance, retailers may need to shut down systems that aren't essential to their roadmap of use cases. Stopping work can create funding for investment behind the data strategy. That's all part of the larger goal of being business-led and tech-enabled, not the other way around.

Q: What practical steps could retail executive teams take today to start emulating data strategy leaders?

Groves: Two actions stand out. The first is to build self-awareness. That means honestly answering a series of questions about where your company is today. Are you getting maximum value from data across your organization? Where are the biggest shortfalls? How do you stack up against rival retailers? After answering these and other questions, the second action is to formulate a clear ambition of what your goals are for data and AI. These two answers can become the cornerstone of a good data strategy, supporting a successful data and AI capability that drives broader and deeper changes.

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