Data and Analytics Executive Briefing

Empowering Dynamic Retailers and CPGs with Data

Retailers and CPGs Require Industrialized AI and Machine Learning

Unprecedented changes in consumer behavior, intensified pressure on margins, the changing role of stores, and a radically changed competitive landscape for both online and offline channels are driving a retail and consumer packaged goods (CPG) transformation. Customers now expect retailers, CPGs, and brands to provide them with hyper-personalized offers and a hyper-localized assortment to stay relevant and competitive compared to all of the other options customers now have available to them.

This transformation requires an unprecedented understanding of customers' needs and aspirations. This can only be achieved through large scale advanced analytics and industrialized artificial intelligence (AI) and machine learning. However, despite high investments, organizations are struggling to reach these levels of sophistication.
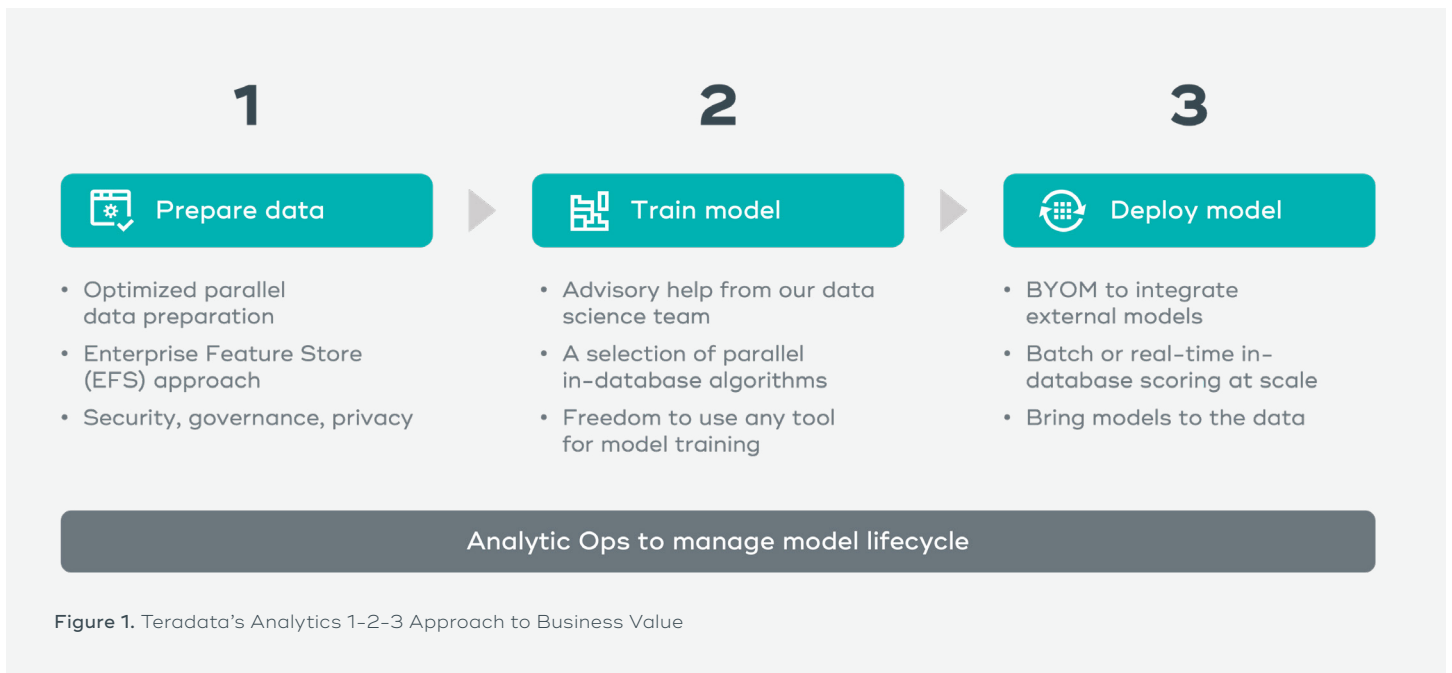
What is behind this discrepancy between the necessity and the ability to deliver the required analytics and AI capabilities? The answer lies in the technology and processes that enable companies to deploy analytics at speed and scale. To compete today, let alone survive, organizations must act now to build flexible, repeatable, and accountable data workflows that provide solid foundations for analytics and AI.

Teradata's analytics strategy and technology expertise bring these capabilities for both business and analytics leaders, creating robust, efficient, and cost-effective machine learning and AI products.

What Can Teradata Help You Accomplish?

Here are some examples of how leading companies are using Teradata Vantage™ and advanced analytics to achieve transformational outcomes:

- Build a roadmap for data and analytics. Use a **proven framework** to implement an effective roadmap. Create a new roadmap or re-examine and re-work an existing one.

- Enable enterprise AI at scale with Analytics 1-2-3. Teradata's strategy for business and analytics leaders creates robust, efficient, and easily deployed processes to ensure machine learning and AI projects **deliver real business value**.

- Gain efficiency, productivity, and speed to deployment. **Use Teradata Enterprise Feature Store** (EFS) to improve machine learning and AI implementation. See how Enterprise Feature Stores significantly reduce the time and costs to create, maintain, and use machine learning and AI models at scale.

- Benefit from a Bring Your Own Model approach. Create and/or re-use your own models to successfully build and deploy **predictive analytics at scale**. Use the simplicity of the Bring Your Own Model to solve complex business issues.

- Automate advanced AI at scale. Use Teradata Vantage and AnalyticOps to **gain sustainable value** from advanced analytics.

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1		**2**		**3**
Prepare data		**Train model**		**Deploy model**
• Optimized parallel data preparation		• Advisory help from our data science team		• BYOM to integrate external models
• Enterprise Feature Store (EFS) approach		• A selection of parallel in-database algorithms		• Batch or real-time in-database scoring at scale
• Security, governance, privacy		• Freedom to use any tool for model training		• Bring models to the data

Analytic Ops to manage model lifecycle

Figure 1. Teradata's Analytics 1-2-3 Approach to Business Value

Overcoming Problems and Seizing Opportunities

As the demand for predictive and prescriptive analytics rises, "data wrangling overhead" is simply unstainable. With the EFS and a trained model in place, everything needed for analytics will exist in-database; no data movement to or from external systems is required. This reduces time, complexity, and resource requirements — moving retailers and CPGs toward achieving one version of the truth.

At the same time, this also allows organizations to advance from deploying a few million predictive models in production to hundreds of millions of predictive models, supporting ubiquitous machine learning and the depth of analysis now required to remain competitive.

Gartner research shows that the reality today is that very few organizations are currently capable of widespread deployments of machine learning and AI solutions, either in production or at scale. Data wrangling still accounts for up to 80% of the cost and effort of analytics projects, leading to poor data scientist productivity and time-to-market issues.

Gartner estimates that analytic failure rates exceed 80%; even where a useful predictive model is produced. Furthermore, in 65% of cases, the model is not even deployed in production.

Teradata, on the other hand, has a long history of helping retailers and CPGs build advanced analytic strategies to deliver real business value (Figure 1).

Increase Revenue and Drive Efficiency

Teradata offers advanced retail/CPG analytics, operationalized at scale, for high-impact business outcomes. These analytics help boost revenue and increase efficiency at a time when unprecedented changes in consumer behavior, intensified pressure on margins, the changing role of stores, and a radically changed competitive landscape are driving transformation.
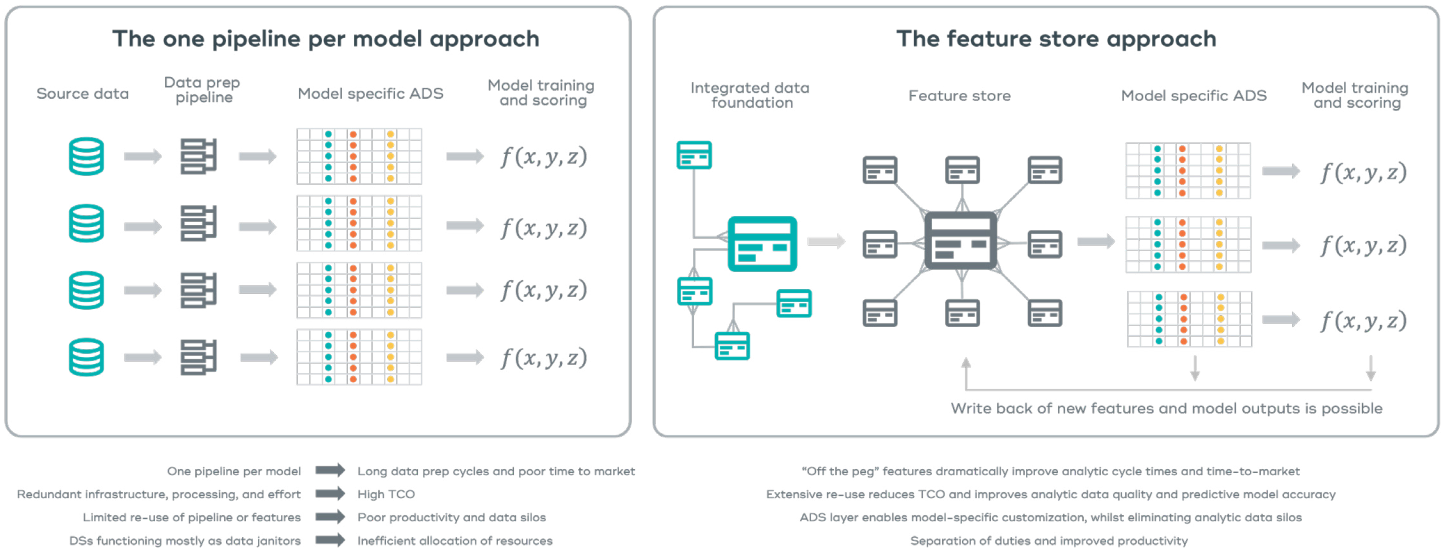
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Figure 2. Feature Store Approach to Improve AI Implementation

Teradata can also support you and your organization to deliver advanced data management for AI (Figure 2).

The most successful organizations deploy world–class analytics, AI, and an enterprise data architecture so future operating models are empowered to:

- Grow omnichannel revenue by optimizing customer journeys
- Crack the final mile and deliver the promise to customers
- Improve efficiency and automation across multichannel processes
- Combat the dual threats of decreased store footprints and increased competition

About Teradata

Teradata is the connected multi-cloud data platform company. Our enterprise analytics solve business challenges from start to scale. Only Teradata gives you the flexibility to handle the massive and mixed data workloads of the future, today. The Teradata Vantage architecture is cloud native, delivered as-a-service, and built on an open ecosystem. These design features make Vantage the ideal platform to optimize price performance in a multi–cloud environment. Learn more at **Teradata.com**.