

The Power of the Semantic Layer in Financial Services

The financial services industry is facing unprecedented change, driven by evolving customer expectations, regulatory pressures, and the growing importance of data-driven decision-making. To thrive in this environment, financial institutions must leverage their data to deliver exceptional customer experiences, gain a competitive edge, and foster innovation. The **semantic layer** emerges as a critical tool, simplifying data access, fostering trust in analytics, and enabling self-service capabilities.

The Role of a Semantic Layer

A [semantic layer](#) provides a unified, business-friendly representation of data, enabling organizations to simplify data complexity, enhance decision-making, and drive collaboration.

Financial Institutions leverage a semantic layer to instill trust in Generative AI and analytics-driven KPIs. A semantic layer can yield:

\$2 MM

Analytics project cost savings

3X ROI

IT investments

EXPERT INSIGHTS

"Customer experience is critical. Customers demand diverse, flexible options, and organizations must leverage data to meet these needs."

– Ramdas Narayanan, Bank of America

Use Cases for Financial Services



Portfolio Management and Research: Combine diverse data sources to identify trends, backtest strategies, and deliver personalized investment solutions.



Risk and Regulatory Analytics: Use integrated datasets to assess risk exposure, run models, and ensure compliance with regulatory requirements.



Customer 360 and Marketing: Create a comprehensive customer view by integrating internal and external data to personalize products, optimize journeys, and drive retention.



Fraud Detection: Semantic layers integrate AML, KYC, and transaction data to enhance anomaly detection and prevent financial crime.

ROI of Semantic Layers in Financial Services

A semantic layer offers several benefits to retailers, including:

- **Optimized Cloud Costs:** Semantic layers [reduce cloud analytics costs over 3x](#) by optimizing compute usage, improving query performance, eliminating redundant data copies, and streamlining data preparation.
- **Optimized Human Capital Costs:** Using a semantic layer reduces the effort for a typical 1,000-hour analytics project by nearly half. An average organization has 25 such projects annually, estimating [savings of \\$2.3 million annually](#).
- **Trusted Results through Data Governance:** AtScale's semantic layer delivers result consistency and improves text-to-SQL performance, [achieving nearly 100% accuracy](#) by providing analysts and LLMs with a common business language mapping diverse data into familiar terms like "product," "customer," and "revenue."
- **Improved Customer Outcomes:** [Accelerate time-to-insight by 4x](#), enabling proactive decision-making that enhances customer experiences.

EXPERT INSIGHTS

"Driving an analytics transformation requires both technical capabilities and a strong data-driven culture within the organization."

– Jon Francis, PayPal

Related Resources

- [Practical Guide to a Semantic Layer](#)
- [The Business Impact of Using a Semantic Layer for AI and BI](#)
- [Buyer's Guide to a Semantic Layer](#)

ABOUT ATSCALE

AtScale transforms the way financial institutions leverage data by enabling smarter, data-driven decisions. Its **Universal Semantic Layer** simplifies data complexities, promotes governance, and empowers self-service analytics for AI and BI initiatives. To learn more, visit www.atscale.com and follow us on [LinkedIn](#).