

# The Power of the Semantic Layer in Financial Services

The financial services industry is navigating unprecedented challenges, driven by rapidly evolving customer expectations, stricter regulatory requirements, and the critical need for data-driven decision-making. Financial institutions face significant hurdles in managing vast data, often in siloed systems across disparate platforms. This fragmentation hampers their ability to gain a unified view of operations, customers, and market trends. Data preparation and analysis complexity also create bottlenecks, requiring significant time, technical expertise, and resources to transform raw data into actionable insights. Moreover, inconsistent reporting and a lack of governance over metrics lead to conflicting conclusions, undermining trust in analytics.

Financial institutions must address these data challenges to thrive in this dynamic environment while delivering exceptional customer experiences, maintaining regulatory compliance, and fostering innovation. The semantic layer emerges as a critical tool, simplifying data access, instilling trust in analytics, and enabling self-service capabilities to meet these demands head-on.

## 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](http://www.atscale.com) and follow us on [LinkedIn](#).