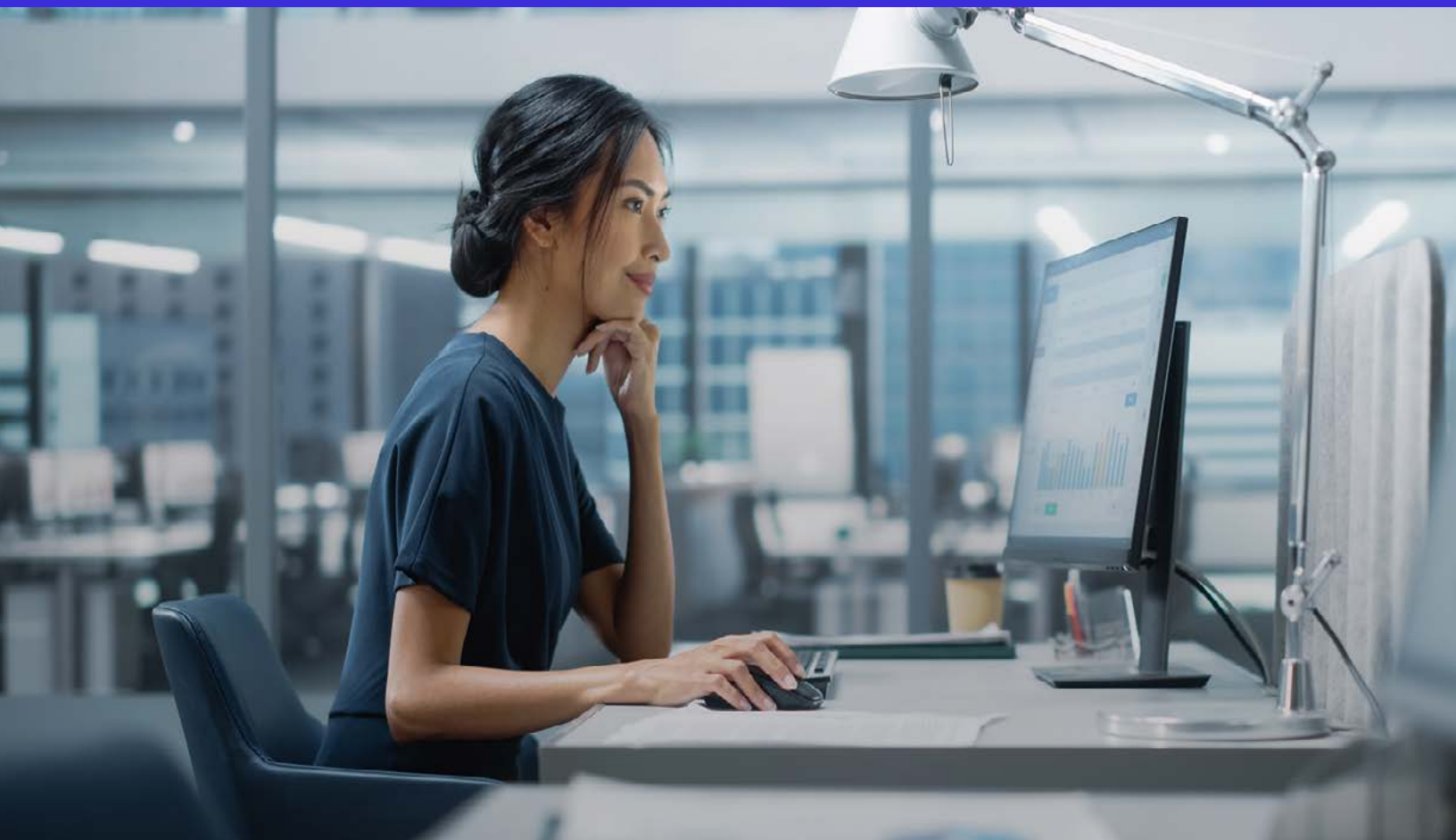


Whitepaper

November 2023

Data Management Trends in Financial Services: Navigating Opportunities and Challenges

Leveraging data insights for competitive advantage and regulatory compliance



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Introduction

01

Global data creation is estimated to reach more than 180 zettabytes by 2025, according to Statista. The financial services industry is the biggest consumer of data and is highly dependent on it. Data management in financial services involves analyzing data from several systems, clients, market feeds, transactions, sales, product purchases, audits, legal, data of logs, emails, and other unstructured data like audio, video, images, and social media in a timely, efficient, and accurate manner for making informed decisions and at the same time to gain a competitive edge. This deluge of data, often called "big data," has presented opportunities and challenges for financial institutions worldwide.

Efficiently managing this extensive and diverse data is pivotal for the success and longevity of financial service providers. The task can be challenging, prompting companies to seek novel data-driven opportunities. Financial firms must handle on-premises data while leveraging cloud storage to extract valuable insights. Simultaneously, it is essential to maintain a clear understanding of the data being processed and ensure transparency across systems and tools, to uphold data quality, origin, and traceability.

Data Management in Financial Services

Over the past decade, the financial services sector has witnessed a digital revolution that has significantly transformed business operations. With the advent of new technologies and platforms, financial institutions have access to an immense amount of data, offering valuable insights into customer behavior, market trends, and risk analysis. This data has the potential to provide a competitive advantage and drive strategic decision-making, helping institutions tailor their products and services to meet evolving customer demands.

Data management refers to the process of collecting, storing, organizing, securing, and analyzing data to derive meaningful and actionable information. In financial services, data management is pivotal in driving innovation, mitigating risks, enhancing operational efficiency, and complying with regulatory requirements.

Importance of Data Management

Enhanced customer insights: Data management enables financial institutions to gain a comprehensive view of their customers' preferences, behaviors, and needs. By harnessing customer data, institutions can create personalized offerings, enhance customer experiences, and build stronger, long-lasting relationships.

Risk management and compliance: With regulatory bodies placing increasing emphasis on data-driven risk management, data management practices become critical for compliance. Proper data management helps financial institutions monitor and report risks accurately, ensuring adherence to regulatory guidelines and safeguarding against financial and reputational damage.

Real-time decision-making: Timely access to accurate and relevant data allows financial institutions to make informed decisions swiftly. Whether it is identifying market opportunities, detecting fraudulent activities, or optimizing investment strategies, data management empowers organizations to act promptly in dynamic market conditions.

Operational efficiency: Streamlined data management processes lead to improved operational efficiency by reducing data redundancies, eliminating data silos, and promoting collaboration across various departments. This efficiency can result in cost savings and improved overall performance.

Innovation and business growth: Leveraging data insights can lead to the development of innovative financial products and services. Financial institutions that capitalize on data-driven innovations can gain a competitive edge, attracting new customers and expanding their market share.

Data security and privacy: As cyber threats continue to grow, ensuring data security and privacy has become paramount for financial institutions. Proper data management practices include robust security measures to safeguard sensitive information from breaches and unauthorized access.

To fulfill these needs, companies require a comprehensive data management strategy that aligns with their overall approach.

Objectives of the Whitepaper

This whitepaper explores current data management trends and best practices in the financial services industry. By understanding the challenges, trends, and strategies, financial institutions can develop a comprehensive data management framework that harnesses the full potential of data to drive growth, innovation, and sustainable success in the ever-evolving financial landscape.

Data Trends in the Financial Services Industry

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1. The financial services industry has witnessed remarkable technological advancements, with a focus on artificial intelligence (AI), machine learning (ML), blockchain and distributed ledger technology (DLT), and augmented data analytics, among others. Forward-thinking financial firms are proactively adopting innovative technologies like cloud computing, AI, data science, and DLT to future-proof their operations and enhance overall efficiency.
2. Financial institutions now have increased accessibility to alternative datasets, including unstructured data such as images, audio, video, and emails, enabling deeper insights and analysis. To support diverse datasets and streamline data management, companies are turning to cloud-based solutions, which offer enhanced storage capacity and computational power, facilitating seamless analytics.



3. An expanding number of financial services companies are venturing into alternative investments, concentrating on diverse asset classes and skillfully managing complex portfolios.
4. Regulatory reporting and compliance demands have grown significantly following the 2008 financial crisis, prompting institutions to prioritize accurate and timely data reporting.
5. Stakeholders' expectations for transparency necessitate robust metadata and data connections at various levels to enhance accountability and understanding of data sources.
6. The COVID-19 pandemic has expedited digitalization and digital innovation within the financial industry, leading to a surge in digital transactions, mobile banking, online payments, and remote trading. This shift has prompted financial institutions to reevaluate their technology and data strategies.
7. As digitalization accelerates, real-time data becomes crucial for various financial services activities, compelling firms to modernize legacy systems to accommodate complex data structures.
8. Financial firms are actively modernizing applications and data platforms in pursuit of next-gen technology and data strategies, transitioning from legacy systems to cloud-based solutions. This transformation underscores the importance of efficient data integration platforms in achieving seamless operations and maximizing the potential of emerging technologies.

Challenges in Data Management for Financial Services

03

Despite the myriad advantages, data management in the financial services sector is not without its challenges.

One of the biggest challenges that financial services still face is having a single source of truth. The available practices often fail to integrate data across different systems, thus creating difficulties in implementing the latest technologies and deriving valuable insights from analytics. The data is often in silos across many systems – clients, partners, markets, financial performance, transactions, accounting, etc.

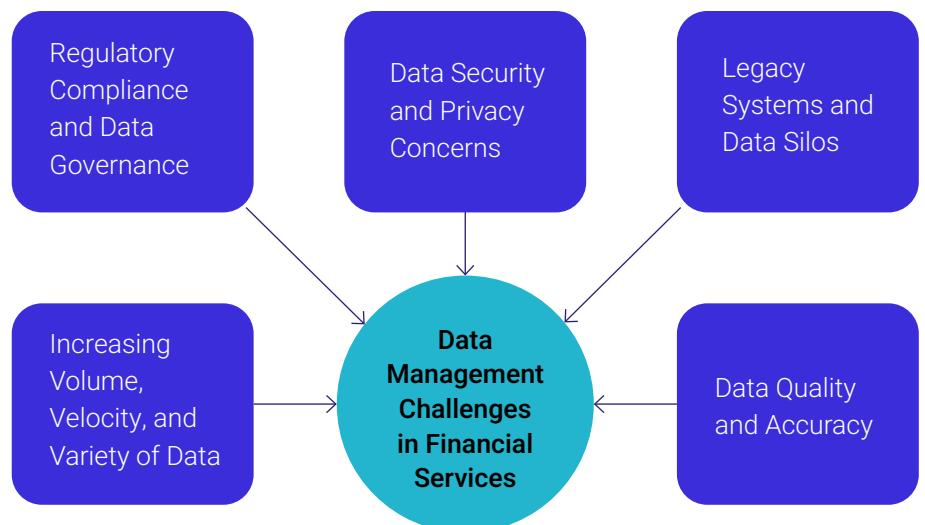
Additionally, various technology teams may use different technologies and tools, making it inconvenient to interact with each other. Large data warehouses that are considered a solution add to the complexity if they are unable to keep up with the business' analytical requirements.

The increasing number of downstream systems consuming data, the increase in business processes, and various analytical solutions that require access to customized and real-time data for supporting decision-making only magnify these challenges.

Financial institutions must navigate the complexities of integrating legacy systems and managing data across diverse platforms while maintaining data accuracy and consistency.

In the financial services sector, regulatory compliance and data governance present significant challenges due to the complex web of regulations imposed by various authorities. Financial institutions must navigate compliance requirements on anti-money laundering, know your customer, general data protection regulations, and more. Establishing robust data governance best practices in financial services becomes essential to ensure data accuracy, accountability, and adherence to regulatory guidelines.

With the increasing frequency and sophistication of cyber threats, data security and privacy have become paramount for financial services firms. To safeguard sensitive customer and financial data, organizations must implement stringent security measures, encryption protocols, and access controls while also educating employees about data security best practices.



Maintaining high data quality and accuracy is a persistent challenge in the financial services industry. Data inconsistencies, errors, and duplication can lead to flawed analysis, inaccurate reporting, and faulty decision-making. Financial institutions must invest in data validation processes, automated data quality checks, and continuous monitoring to ensure the reliability and integrity of their data assets.

The increasing volume, velocity, and variety of data, coupled with evolving regulatory requirements, demand sophisticated data management strategies.

Current Trends and Focus
Areas in Data Management for
Financial Services

04

Along with technology-centric elements like AI/ML, blockchain and DLT, augmented data analytics, etc., customers are inclined towards ease of access and low-code, no-code platforms that can help achieve the expected solutions.

The following areas are likely to witness maximum impetus in data management:

Immersive user experience

The financial services industry is now prioritizing not just the services they offer but also the quality and value delivered to their clients. This encompasses a wide range of services, from personalizing client needs to fulfilling ad-hoc reporting requests, customizing dashboards, providing user-friendly UI and UX platforms, offering minimal and one-time configurations, and utilizing low code no-code platforms to deliver end-to-end data management solutions. With the rise of online services, such as digital KYC, account and portfolio openings, digital trade orders, and fund subscriptions, immersive customer experiences have taken center stage.

Emphasizing transparency

Customers are increasingly conscious of how enterprises collect, store, and distribute their private data. Prioritizing transparency builds customer trust and can turn regulatory compliance into a business advantage.

Customer and solution-centric approach

Financial institutions are now focused on providing personalized and tailored recommendations to meet customers' needs. Implementing data governance strategies that protect and make customer data available wherever they are, forms the foundation of fostering long-term relationships.

Recommendations for hyper-personalization services, such as chatbots and digital assistants, are becoming commonplace. Additionally, advanced AI/ML techniques are employed to suggest portfolios based on individual risk appetite and economic factors.

Streamlining regulatory reporting

The increasing number of regulatory requirements, including MiFID II, necessitates firms to review and align their reporting capabilities to the latest standards. A centralized hub for various regulatory standards that enables data coordination, standardization, and efficient reporting, is crucial.

Domain-focused data management

As financial firms gain access to various forms of data like never before, they are expanding their portfolio to include Alternative Investments (private markets). This entails managing complex data structures, integrating Environmental, Social, and Governance (ESG) services for sustainable investments, and implementing Direct Indexing, allowing customers to customize their portfolios according to their needs. Robust systems and tools are essential to cater to these diverse data specifications.



Modern Data Management Framework for Financial Institutions

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In the dynamic landscape of the financial industry, a modern data management framework is essential for financial institutions to leverage the full potential of their data assets efficiently. Embracing new strategies and domain-specific enterprise data management (EDM) solutions have become paramount to tackling this digital era's growing data complexities.



UI/UX

One of the critical aspects of the modern data management framework is making data more accessible and user-friendly. Financial firms are increasingly recognizing the value of self-service features, an intuitive and business-friendly user interface/user experience (UI/UX), and collaborative capabilities in their EDM tools. These enhancements empower business users to interact with data directly, accelerating decision-making processes and reducing reliance on IT departments.



Cloud

Cloud capabilities have emerged as a game-changer in data management, offering scalability, flexibility, and cost-effectiveness. Integrating cloud capabilities into the EDM solution allows financial institutions to handle vast volumes of data efficiently and enables seamless data processing and analysis.



Data fabric architecture:

To establish a standardized and comprehensive approach to data management, financial institutions are adopting data fabric architecture. This architecture addresses crucial aspects such as data access, discovery, transformation, integration, security, governance, lineage, and orchestration. By consolidating these functions under a cohesive framework, data fabric simplifies the management of complex data ecosystems, leading to improved efficiency and data reliability.



Data hub

In response to the growing challenge of managing various silos of operational and transactional data, many institutions are adopting a 'data hub' approach. The data hub acts as a central repository, providing end-to-end management of data ecosystems. It streamlines data integration, eliminates data silos, and enhances data accessibility and visibility, contributing to more robust and unified data management practices.



BYOD

Another emerging trend in the financial services industry is the concept of 'bring your own data' (BYOD). With BYOD, financial institutions allow data owners to integrate their data into the EDM tool, which sits atop existing databases and warehouses. This approach fosters a sense of ownership and empowerment among data owners as they gain complete control over their data. Additionally, BYOD promotes a self-service data culture, where data owners can access and analyze their data independently, leading to time and cost savings. Moreover, the reduced compliance and security overheads further add to the appeal of BYOD.

Best Practices for Data Management
in Financial Services

06

Establishing a Data-Centric Culture

Fostering a data-centric culture is essential for successful data management in financial services. This involves promoting a mindset where data is seen as a valuable asset, encouraging employees at all levels to prioritize data-driven decision-making, and investing in data literacy and training initiatives.

Cross-Functional Collaboration and Communication

Effective data management requires seamless collaboration and communication between different departments and stakeholders within the organization. Breaking down data silos and encouraging open communication facilitates a holistic understanding of data needs, promotes knowledge sharing, and enhances the overall data management process.

Data Standardization and Master Data Management

Standardizing data formats and definitions and implementing a robust master data management (MDM) system ensures consistency and accuracy across the organization's data. By having a single source of truth for critical data, financial institutions can reduce errors, improve data quality, and enable better decision-making.

Implementing Robust Data Governance Policies

Establishing and enforcing data governance policies are fundamental to maintaining data integrity and complying with regulatory requirements. Robust data governance frameworks define data ownership, access controls, data privacy rules, and data lifecycle management, instilling confidence in data quality and security.

Utilizing Data Analytics for Decision-Making

Leveraging data analytics tools and techniques enables financial services firms to extract actionable insights from their data, supporting strategic decision-making and identifying opportunities and risks. Data analytics empowers organizations to stay competitive, optimize operations, and deliver enhanced customer experiences.

Continuous Monitoring and Improvement

Data management is an ongoing process that requires continuous monitoring and improvement. Regular data audits, quality assessments, and performance evaluations help identify areas for enhancement, enabling financial institutions to evolve and adapt their data management practices to meet changing business needs and industry standards.

Case Studies: Successful
 Data Management in Financial
 Institutions

07

Client	Problem Statement	Hexaware Solution
Global custodian bank	The absence of an enterprise-wide view of credit risk data posed challenges in complying with Basel II and Undertakings for the Collective Investment in Transferable Securities (UCITS) IV mandates.	Hexaware addressed this issue by creating an integrated finance and risk data warehouse. This involved consolidating data from various business lines, facilitating aggregated credit risk reporting, a sandbox for stress testing, asset and liability management (ALM) analysis, and portfolio management analytics.
Leading asset manager	The need for platform consolidation to streamline private alternative investment data into a unified data source and devising a plan for establishing a scalable infrastructure.	Hexaware provided a solution by implementing an integrated technology platform to centralize position, transaction, cash, and security-level data. This also included systematic tracking of restructured debt and its transfer between sub-accounts.
Leading investment adviser	The client sought a consolidated and integrated data solution across various data feeds, including security, position, transaction, trades, and more. They aimed to break down data silos, enhance data mining and analytics capabilities, expedite time-to-market, and establish a robust operating platform for planned enhancements.	Hexaware introduced a solution that involved implementing the Markit EDM Warehouse for historical data access and regulatory compliance. They also integrated the Markit EDM platform to validate and manage financial and customer data.

Future Directions and
Emerging Technologies

08

Data management can benefit from emerging technologies such as AI, ML, and generative AI (Gen AI), offering various improvements in data management practices.

Data cleansing and integration: Gen AI can assist in automating data cleansing, transforming messy data into structured formats, and integrating diverse data sources for better data quality.

Predictive analytics: AI can analyze historical data patterns and predict future trends, enabling more informed decision-making.

Natural language interfaces: Gen AI can provide a natural language interface for querying and interacting with data, making it easier for non-technical users to access and analyze data.

Automation and optimization: AI can automate routine data management tasks, improving efficiency and reducing errors. It can also optimize data storage and retrieval processes.

Personalized data insights: Gen AI can offer personalized insights and recommendations on financial planning or health, based on an individual's data.

Data security: AI can enhance data security by identifying and mitigating potential threats and vulnerabilities.

Real-time data processing: AI can process and analyze data in real time, enabling businesses to respond quickly to changing conditions.

Ethical considerations: As AI handles sensitive data, ethical and privacy concerns become more critical. Ensuring responsible and secure data management will be a key aspect of the future.

Conclusion

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A data-centric approach, supported by emerging technologies, is crucial for financial institutions to thrive in a data-driven era. Advanced data management practices, including AI/ML applications, data standardization, and robust data governance, enable organizations to harness the true potential of their data assets.

Financial services firms must recognize that a standardized and transparent approach to data governance can effectively mitigate the risks associated with different data management areas – sourcing, storing, processing, loading, transforming, and reporting data. Embracing an enterprise data management framework, which includes a single source of truth for standardized reference data that can be securely shared while complying with cross-border regulations, empowers firms to make well-informed operational and strategic decisions.

The Road Ahead: Navigating Data Management Challenges

As data's significance continues to grow, the future of data management will also involve tackling its associated challenges. The convergence of technology, data, and regulatory requirements will necessitate continual adaptation and innovation. Financial institutions must proactively embrace new technologies and invest in robust data security and privacy measures to stay ahead in a competitive landscape.

Apart from continuously evolving its data management practices, the financial services industry must foster a data-driven culture and prioritize collaboration across departments to maximize data's value. A data-centric approach, combined with the right technologies and frameworks, will lead to enriched insights, improved reporting practices, and better decision-making capabilities, thus steering financial institutions toward success in the digital age. By navigating these data management challenges, financial services firms can unlock the full potential of their data assets, driving innovation, competitiveness, and sustainable growth.

About Hexaware

Hexaware is a global technology and business process services company. Our 27,000 Hexawarians wake up every day with a singular purpose; to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With 40+ offices in 19 countries, we empower enterprises worldwide to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at www.hexaware.com

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