TRANSFORMING FINANCIAL SERVICES TO A CUSTOMER-CENTRIC BUSINESS

A Data-driven Approach to an Enhanced Customer Experience

Financial services customers today expect a high-quality, more personalized, 24x7 available experience across multiple channels. Driven by these changing expectations and the increased competition from Fintech and Big Tech players, financial services providers are increasingly focused on capitalizing on the vast amounts of data they have at their disposal to provide an enhanced customer experience and gain competitive advantage. According to a McKinsey & Company analysis of the 50 largest global banks, three out of four are committed to undertaking some form of customer-experience transformation.[1]

50%

Across most persona types, over 50% are consistently interested in personalized financial services offers and advice.

Customer Expectations

The demand for an enhanced, personalized experience is driven by the always-connected, instant experiences taking place across the digital consumer landscape. As real-time, personalized digital experiences become the norm, consumers expect this same level of responsiveness from financial services providers.

A recent Accenture Global Financial Services Consumer Study[2] reveals that consumers have a strong appetite for increased personalization from banks and insurers. Across most persona types, over 50% are consistently interested in personalized financial services offers and advice.

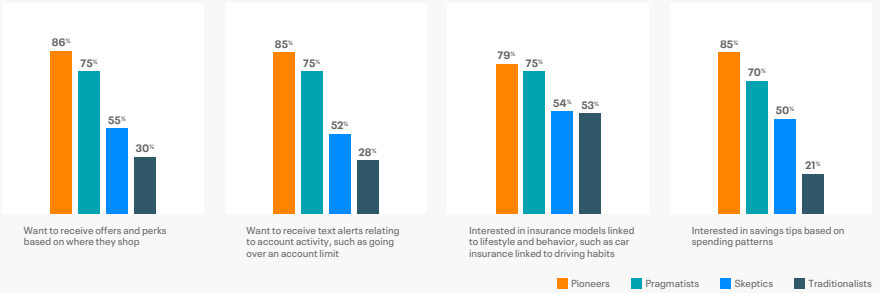
Of these same respondents, 75% indicated a willingness to share more data in order to receive more personalized offers, intuitive services and more competitive pricing.

CUSTOMER ATTITUDES AND PREFERENCES

Appetite for personalization of services

ENGAGING THROUGH PERSONALIZATION

This shows the percentage of each persona that expressed an interest in different types of personalization.



Source: Accenture

As customers choose to interact more digitally, and personal interaction declines, the need for a better overall experience intensifies and can only be achieved by better understanding the customer. This is further perpetuated across business lines as those individuals that have had enhanced experiences expect the same level of service in their interactions—small business, commercial, capital markets, and insurance.

CUSTOMER ATTITUDES AND PREFERENCES

Willingness to share data for reciprocal benefits

ATTIDUES TOWARD DATA SHARING	PIONEERS	PRAGMATISTS	SKEPTICS	TRADITIONALISTS
Willing to share data in return for advice that is more relevant to your personal circumstances	95%	87%	81%	58%
Willing to share data in return for receiving faster, easier services (e.g., rapid loan approval)	95%	87%	82%	59%
Willing to share data to receive personalized offers based on your current location	94%	82%	76%	50%
Willing to share data to receive a priority service (e.g., fast-tracked claims settlement)	95%	87%	82%	59%
Willing to share data to receive discounts on non-insurance related products or services	94%	79%	77%	45%
Willing to share data to receive more competitive/lower prices (e.g., based on health, driving behavior, exercise habits, etc.)	96%	89%	84%	63%
Willing to share data to receive personalized services/ information that helps to reduce the risk of injury, loss, etc.	95%	86%	81%	54%

Source: Accenture

Customer Experience Defined

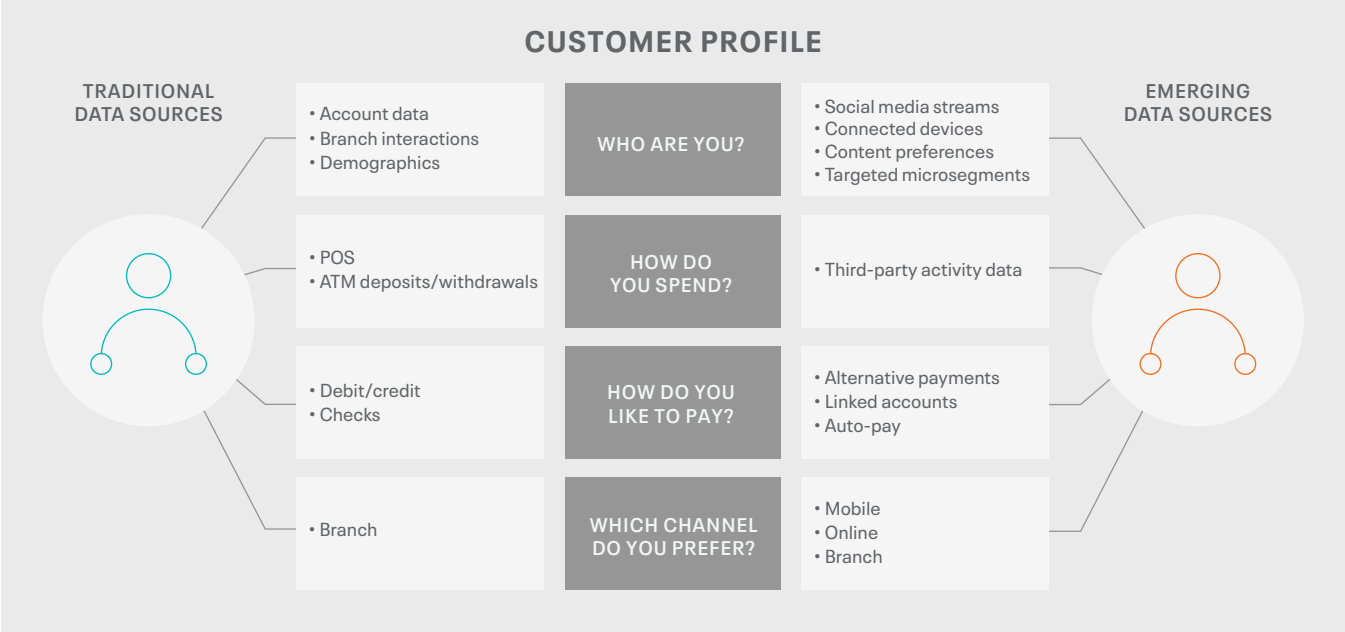
Improving customer experience requires organizations to build their offerings around a complete customer profile. It's an approach based on understanding the customer's needs and providing services and products relevant and meaningful to them. As digital transactions and interactions continue to grow, additional information is supplied about the customer that influence the next experience. These new data sources—social media streams, connected devices—empower financial services organizations to better cultivate customer relationships and anticipate future needs.

WHAT IS CUSTOMER 360 IN FINANCIAL SERVICES?

- A holistic real-time view of individual customers, their preferences and behaviors
- Linked across all products, systems, lines of businesses, and interaction channels
- With a view of the past, the present, and analytics to predict the future
- In order to deliver a consistent, personalized, context-specific and relevant customer experience

MEET KEY BUSINESS GOALS

- Acquire new customers
- Expand existing relationships
- Drive loyalty and customer retention



This data-centric, individualized approach helps financial organizations to meet three key business goals.

- By focusing on the customer experience, they are better able to acquire new customers, leveraging techniques such as segmentation and targeting to fine-tune their outreach.
- It opens up new opportunities to expand existing business, discovering new avenues by which to cross-sell, up-sell and extend the next best offer.
- Drive customer loyalty and long-term retention through the use of analytics-driven customer engagement tools including digital assistants, customer surveys, and feedback analysis.

Data is Everywhere

The effort to deliver a personalized experience across a large base of customers is a massive undertaking for financial services companies. While there is ample data available to drive such a program, it is a complex problem.

Longstanding financial services organizations still have the familiar historical challenges of data silos and sensitive data that create challenges in getting a holistic view of the customer.

DATA SILOS	DATA PRIVACY
In financial services, data tends to reside in silos. Much of it is unstructured, and it may reside in multiple, redundant repositories across business lines. Often the data lives in a legacy mainframe environment, which can make it difficult to access and utilize effectively.	Sensitive data proliferates in the financial space, and companies must be thoughtful about these concerns as they look to make the best and most relevant use of the data available in order to craft that complete view of the customer.

55%

Higher Returns

Banks with a high customer satisfaction score delivered 55% higher returns to shareholders from 2009 to 2019 according to a McKinsey study[4] of US banks.

At the same time, new data sets are available and real-time data offers capabilities for more timely action.

STREAMING DATA: MOBILE, SOCIAL MEDIA, IOT	ADVANCED ANALYTICS AND MACHINE LEARNING
To enable "right time" information and advice, financial services organizations must incorporate data from new and emerging sources including clickstream data, location data, data from connected devices, social media streams and alternative data from external sources.	As data volumes multiply, traditional techniques of rules-based analytics are becoming more challenging. Advanced Analytics and Machine Learning is proving effective in its ability to assist in processing and analyzing vast quantities of data.

The Benefits of an Enterprise Data and Analytics Platform

Given the complexity and variety of traditional and newer sources of data, financial services providers are reinventing their data management and analytics strategy—transitioning to a multi-function open platform that is optimized for the massive scale and security of the data that the industry demands.

Financial Services organizations need the ability to collect, process, store, analyze, and model any type of data (structured, unstructured, or semi-structured data), regardless of where it lands—at the edge, on premise at a branch, in the data center, or in any public, private, or hybrid cloud. They need a path to the flexibility and scalability the cloud offers while maintaining strict security and governance.

PROVEN DATA LEADERSHIP IN FINANCIAL SERVICES

Over 520 Financial Services firms globally run on Cloudera to support their data and analytics strategies including:

- **82 of the top 100** Global Banks
- **4 Largest** Credit Card Networks
- **8 of the 10** Largest Wealth Mangement Firms
- **12 out of 15** Top Insurance Firms
- **80%** of the Largest Stock Exchanges

End-to-End Financial Services Data Management with Cloudera

Today, leading financial services organizations worldwide are adopting an enterprise data cloud strategy using the Cloudera Data Platform (CDP) to manage the end-to-end data journey, taking in raw data at the source, to drive actionable insights and enhance the customer experience by implementing a suite of compelling use cases.

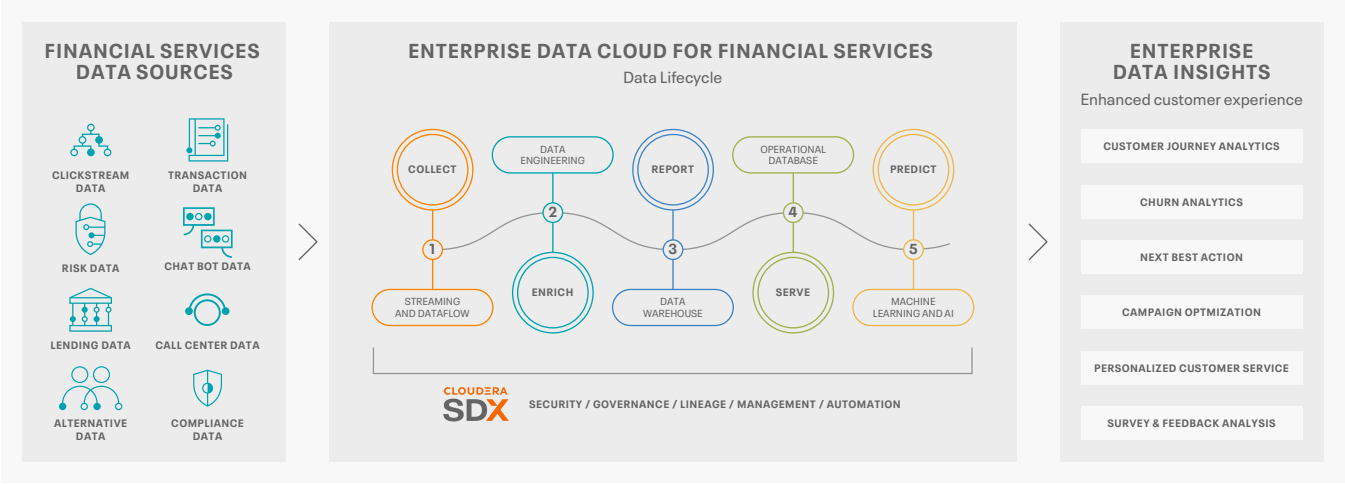
CDP is the industry's first enterprise data cloud, offering a full range of analytic capabilities from the Edge to AI. CDP delivers powerful self-service analytics across hybrid and multi-cloud environments, along with sophisticated and granular security and governance policies that IT and data leaders demand. It's built 100% on open source to more easily enable integration with existing system investments.

With CDP, financial services organizations can collect data from multiple sources, including both traditional and new data sources such as market data, transaction data, FX rates, mobile banking, chatbots, enterprise data sources (core banking, origination platforms, ATMs, investment, loan or call center systems), etc.

This varied data is enriched and cleansed to make it easier to create and execute end-to-end data pipelines. Depending on the business needs, organizations can report against and analyze data in a variety of ways including—interactive SQL, text search, integration with leading BI and visualization tools, or perform advanced analytics and machine learning.

CDP serves traditional structured data alongside new unstructured data ensuring the latest data and analysis can be injected into decision making. To close the loop on the data lifecycle, machine learning is used to predict and drive key business insights that can be actioned.

This is done while maintaining strict enterprise data security, governance, and audit trails across on-premise and cloud hybrid environments. CDP facilitates PCI and sensitive data compliance, mandatory for regulated organizations.



Cloudera SDX provides enterprise-grade security and governance on all data including metadata, with dedicated, integrated interfaces to manage it. Data security, governance, and control policies can be set once and consistently enforced everywhere, reducing operational costs and business risks while also enabling complete infrastructure choice and flexibility.

CDP also includes a unified control plane to manage infrastructure, data, and analytic workloads across hybrid and multi-cloud environments. The platform can also connect and power all your in-house or best-of-breed applications.

Customer Experience Use Cases

CDP's data warehouse and machine learning services facilitate quickly and effectively building business applications around the emerging, more fully realized customer profile. By combining data from across the organization with unstructured and alternative data sources, new use cases can be developed to better engage with customers and prospects.

Campaign optimization—Create personalized product offerings and specific upsell/cross-sell opportunities by analyzing customer attributes including payment, borrowing and deposit patterns, channel preferences as well as demographic information and spending locations. Defining target micro-segments can lead to improved acquisition rates and reduced marketing costs.

Customer journey analytics—Capitalize on real-time analytics that map the customer journey and generate actionable insights. Providers can quickly respond to customers with a "next-best action" and convert interested prospects into customers by combining data on demographics, spending behavior and clickstreams with location and channel preferences. Providers can also map a specific customer's interactions at various stages in their financial lifecycle (financing a car or college loan, getting a home mortgage, etc.) to promote tailored offering and campaigns.

Personalized customer service—Using big data, financial service providers can employ business intelligence and analytics tools that help identify issues or recurring questions and address them before they negatively affect the customer experience. They can enhance customer satisfaction and reduce calls to customer care centers with applications such as chat bots that are continuously learning and improving, to reduce support costs.[3] McKinsey cites an example where a financial services firm reduced repeat calls by 15% using advanced analytics to examine repeat call behavior.

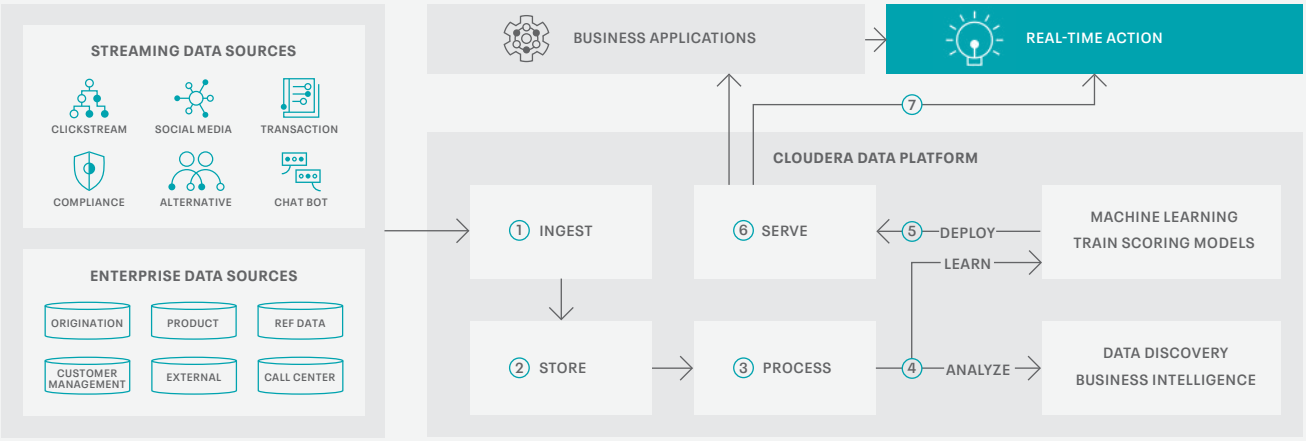
These use cases are just a small subset of those enabled by Cloudera. Financial services providers can also conduct customer lifetime value analytics, personal financial management analytics, customer feedback analysis and more.

CASE STUDY

Next Best Action—Customer Spotlight

As increasing amounts of customer data are collected and analyzed, financial services organizations can leverage this data and take next best actions in the form of real-time recommendations or automated actions via the optimal channel for the customer, resulting in a better customer experience. A large Australian bank introduced the use case "next best conversation" into its customer workflow. The result was **a revenue increase of AUD 1 million per day.**

FINANCIAL SERVICES NEXT BEST ACTION WORKFLOW



CHALLENGE

Improve customer experience by engaging in timely and relevant conversations while driving incremental revenue and reducing operational costs.

SOLUTION

Build a data and analytics platform to better maintain Customer 360 data.

OUTCOME

A data-driven solution that transforms the way the bank interacts with its customer. It is a modern customer engagement platform that makes personalized offers through the customer's preferred channel. The bank continues to enhance the customer experience by connecting AI directly with customer-facing roles and guiding improved interactions.

Next Best Action Wokflow

With Cloudera, Financial Services organizations can easily ingest data from multiple sources, including both traditional as well as new and streaming data sources such as IoT and connected devices. Any type of data can be ingested and loaded into Cloudera without altering its format or fidelity, while preserving data integrity and enabling security and governance.

- The data is stored and processed to be available in a usable format. Cloudera provides massively distributed storage and processing engines for large data sets across clusters. It can store and process any kind of data including unstructured data, semi-structured data and structured data (i.e., account activity, borrowing history, call center data, mobile banking, etc.) and provides the ability to execute a wide range of data processing workloads, including both batch and real-time stream processing.
- Data is then made available for analysis and business intelligence. The platform offers the flexibility to run multiple analytical options to drive insights, intelligence, and action from the data.
- Machine learning can be applied against the data in the cluster to identify the right offer and the right time for the right customer. Data scientists can build, test, iterate, and deploy machine learning models and perform advanced analytics and AI on petabytes of data to identify patterns, detect anomalies, and predict the next best action. The Next Best Action recommendation is served to the front line using the relevant business application.
- The customer is then presented with a contextually relevant offer via their preferred delivery channel (online, branch agent, etc.).

Why Cloudera

Cloudera Data Platform enables financial services providers to effectively execute their data and analytics strategy to address current and evolving customer expectations.

EDGE TO AI ANALYTICS

All the functions needed to ingest, transform, query, optimize, and make predictions from data are integrated, eliminating the need for costly point products.

DATA SECURITY & COMPLIANCE

Maintains strict enterprise data security, governance, and control across all environments.

HYBRID AND MULTI-CLOUD

Delivers the same data management capabilities across data centers, private, and public clouds.

100% OPEN SOURCE

Open compute and open storage ensures zero vendor lock-in and maximum interoperability.

Delight your Customers

A data-driven approach empowers financial services to better understand their customers and provide timely advice.

- **Bank Danamon** improved customer experience dramatically by consolidating its data for a holistic view across the enterprise. By presenting offers at the right time to the right customer, the bank is realizing conversion rates of 300 percent, along with improved retention.
- **A large US bank** has transformed and modernized its customer service options by introducing a chatbot powered by the Cloudera data platform.
- **Santander** implemented a single data platform that could support all of its workloads, including self-service analytics, operational analytics, and data science. New customer insight analytics drawing from millions of customer records, streaming transaction data, and historical data have led to greater personalization and relevancy.
- **Royal Bank of Scotland** has seen greater staff engagement as a result of more insightful performance feedback, while targeted training has improved operational efficiency. The platform enables easier identification and resolution of issues across 250,000 web chats per month.

Cloudera Data Platform offers the tools to help financial services companies embrace both the present opportunity around data, as well as the emerging sources of new information, all towards the goal of a more responsive and more personalized customer experience.

Learn more about the Cloudera Data Platform and how Cloudera is transforming financial services.

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises.

Learn more at cloudera.com

Source

1. McKinsey & Company, Managing a customer-experience transformation in banking, Oct 9 2018
2. 2019 Accenture Global Financial Services Consumer Study
3. McKinsey & Company, How advanced analytics can help contact centers put the customer first, Feb 1 2019
4. McKinsey & Company, Remaking banking customer experience in response to coronavirus, April 7 2020

CLOUDERA

Cloudera, Inc. 395 Page Mill Road Palo Alto, CA 94306 USA cloudera.com