



The Power of Personalization: Driving Digital Banking Success

Research shows that consumers want their banks to deliver more personalized services. That requires financial institutions to rethink their data layer strategies.

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Using data to offer genuinely personalized banking services

Technology has transformed banking during the past 20 years. Many banks were early adopters of technologies that enabled the development of digital banking services, and by 2000 a majority of banks in advanced economies offered some form of online banking, but these services were slow and very limited. Today, digital banking services are fast, secure, and sophisticated, with payment and other banking functions accessible via a huge range of connected devices. These capabilities are now complemented by a powerful array of other online financial services, including savings, investments, mortgages, insurance, and account aggregation.

Adoption of these services by a mass customer base has increased rapidly in recent years, boosted by smartphone use. For example, in the UK, online banking penetration increased from 41% of customers in 2009 to 73% in 2019. Online banking is now used by a whopping 95% of customers in Norway. And in the United States, three-quarters of consumers now say they prefer banking online to using a branch.

But one element of the ideal digital banking service is still often missing: genuine personalization, tailoring products, services, and customer interactions to match their specific needs and preferences. Banks may offer well-crafted products and useful services, but in many cases the customer experience fails to reflect an individual's circumstances, preferences, or previous interactions with the bank.

That is a real problem in a world where technology-based businesses are disrupting industry after industry, in part because they offer personalized services. Growing numbers of consumers are now accustomed to interacting with a wide variety of vendors offering fast and reliable online services that incorporate some degree of personalization, from retailers to music and video on-demand streaming services. In that context, they may find it difficult to understand why their bank cannot provide the same level of customization. While other businesses treat consumers as individuals, too many banks still make their customers feel as if the bank sees them as a mere number, not a whole person.

Yet banks and financial service institutions have access to a rich trove of customer data, and it appears that banks and fintechs that use this data to successfully personalize their digital services enjoy significant commercial benefits. Research in multiple markets consistently shows that consumers want financial-service providers to deliver more personalized offerings. In 2019, research by KPMG based on the views of 84,000 consumers in 20 countries revealed a clear correlation between personalization and brand loyalty in 18 of those markets, including the U.S., the UK, Australia, Brazil, France, Germany, and Italy. Consumers consistently awarded higher ratings to banks with the best personalization capabilities.

But banks can build desirable personalized services only if they rethink their data layer strategies. They need data infrastructures able to provide the power, speed, flexibility, and scalability to draw useful information out of enormous volumes of customer data—and turn that information into personalized offers and interactions. To achieve this for a mass customer base requires a data layer capable of responding very quickly to very large numbers of processing requests.

Banks that do succeed in building a data layer with the necessary capabilities gain the ability to provide the personal care and attention to a customer's needs that will help that customer make the most of their financial resources and opportunities. That, in turn, will increase customer satisfaction and help the bank attract and retain more customers. But none of this works unless the banks can use customer data effectively.



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Satisfying consumer expectations for banking services

Consumers everywhere are becoming more demanding. As we spend more and more time online at home, at work, and on the move—swiping through mobile apps throughout the day, using social media, shopping online, or streaming TV and movies—we become increasingly accustomed to responsive, easy-to-use consumer-facing digital services that incorporate some degree of personalization.

Retail examples include the personalized recommendations Amazon offers its customers, that Netflix provides to its subscribers, and that Nike delivers with its Nike+ mobile loyalty app, which uses information including a customer’s previous purchases and their favorite sport to personalize interactions. Customers of beauty retailer Sephora can use a virtual try-before-you-buy service to help choose the right product, while the company gathers additional data about their preferences. Ride-hailing app Lyft captures passenger information to build customer profiles, which it then uses to tailor future discount offers to each individual, helping to build loyalty.

Banks, by contrast, have generally sold the same products to very large segments of their customer base. Truly personalized services have been available in the past, but only to a very select group of high-net-worth clients. Today, digital technology makes personalization possible for a much broader set of banking customers, but only a minority of banks actually offer effective personalized digital services to all their customers. Of course, this makes those banks stand out and gives them a better chance to boost market share using that differentiation.



Delivering an effective digital banking service incorporating personalization depends above all on the ability to process and analyze very large datasets at very high speed.

Refreshing the data layer to enable banking personalization

All these services must be supported by a data infrastructure that enables the bank to offer customers a tangible sense of a personalized service. Delivering an effective digital banking service incorporating personalization depends above all on the ability to process and analyze very large datasets at very high speed. New

entrants in the banking sector have the advantage of being able to build such infrastructures from scratch in the cloud, but banks saddled with legacy database architectures that may have been assembled on a piecemeal basis over many years will struggle to deliver the level of performance required. Many existing banks will need to significantly or completely rebuild their data layer to support a genuinely personalized digital banking service.

Ultimately, banks need a more flexible and scalable data infrastructure. Redis Enterprise offers an effective approach, enabling banks to build a data layer based on a NoSQL in-memory database. Critically, Redis Enterprise can be used with multiple data models, drawing on data stored in many different formats in different systems to address multiple use cases. Provision of the service via a secure multi-cloud environment adds further scalability, flexibility, and efficiency.

5 Reasons personalization is critical for banks



1. Customers are becoming more demanding. Growing numbers of consumers are now accustomed to interacting with a wide variety of vendors offering fast and reliable online services that incorporate some degree of personalization.



2. While other businesses treat consumers as individuals, too many banks still make their customers feel as if the bank sees them as a mere number, not a whole person.



3. Consumers pay more attention to communications from a service provider using a personalized approach, spend more money with that service provider, and are more likely to remain loyal to that provider.



4. Online banking is becoming the preferred way for customers to interact with financial institutions.



5. Banks and financial service institutions that use their rich troves of customer data to successfully personalize their digital services enjoy significant benefits in customer satisfaction and retention.



Redis Enterprise: fast and flexible

Redis Enterprise is an in-memory database able to deliver multiple data models with best-in-class performance. It can be used as a highly scalable cache or session store for user profiles, and to store digital identities for each customer, updated in real time to deliver personalization consistently across service channels. Multiple data models are supported with dedicated engines, rather than API adaptations, which accelerates analytics. The solution can also drive social graphing, high-speed statistical analysis, and artificial intelligence (AI) or machine learning (ML) inferences to inform personalization and strategic business decisions.

Redis modules provide a variety of data models applicable to a wide range of use cases to support a full digital banking service—yet they can be implemented in an operationally and architecturally straightforward way. For example, Redis Enterprise supports artificial intelligence-based applications without requiring a complex combination of multiple technology components. A bank using Redis Enterprise can combine multiple Redis data structures and models to build a highly efficient and flexible architecture.

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Powerful, yet highly adaptable

Redis Enterprise can scale up capacity and performance in response to demand from real-time applications, without any need to change application code and without incurring additional costs, downtime, or disruption. Security and disaster recovery capabilities include automated failure detection, failover, and cluster recovery. The order, resilience, and visibility Redis technology brings to the data layer helps ensure the bank meets relevant regulatory and compliance requirements.

Redis Enterprise can be used within a range of multi-cloud and hybrid-cloud environments. It is available on Amazon Web Services, Google Cloud, and Microsoft Azure as a managed service; and it integrates with container and orchestration platforms such as Docker and Kubernetes, which increasingly underpin modern software architectures. It can also be deployed as an Active-Active geo-distributed database, able to handle simultaneous updates from multiple locations, bolstering its ability to power personalized digital banking services around the world without increasing latency or lowering availability.

Redis Enterprise customers testify to the ability to scale up capacity and performance in response to real-time demands, without incurring downtime. That is crucial, because in a genuinely customer-centric bank, positive interactions with customers are mission-critical. As one Redis Enterprise customer puts it: “The importance of sub-millisecond latency and synchronisation across all database instances cannot be emphasized enough.”

Finally, it’s important to note that a data layer capable of supporting personalized digital banking services can also power other valuable real-time use cases, such as anti-fraud measures, through detection of unusual, uncharacteristic customer behavior, and many more.



Harnessing AI to capture customer insights

Redis Enterprise can also support artificial intelligence and machine learning technologies within a digital banking offering. Its RedisAI module enables significantly faster AI inferencing by serving AI/ML models where the data is held, so it doesn’t add delays by having to pull reference data stored in other databases into a separate inference engine. With RedisAI, the analysis takes place where the data is stored, so banks can process and act upon AI-driven customer insights much more quickly. Enabling the swift analysis of much larger volumes of data makes real-time personalization possible.



Redis Enterprise powers the modern data layer

Only the fastest, most robust, and reliable data layer technologies can transform raw customer data into the insights that will fuel growth in market share and profitability in the digital banking sector. Redis Enterprise is a cost-effective yet incredibly fast, flexible, and reliable high-performance data-layer solution that can power a more responsive, more personalized form of digital banking.

The relationships banks have with their customers can last for decades, but too many banks fail to use the data they have to provide personalized digital banking services. Deploying modern data-layer technology gives these institutions an opportunity to

deepen those customer relationships—bringing huge benefits to the banks and their customers through the development of long-term, mutually beneficial partnerships.

To learn more about how Redis Enterprise supports personalized digital banking, visit our [Redis Enterprise for Financial Services page](#), or check out how leading financial institutions like Vetr are already leveraging Redis Enterprise to deliver personalized financial advice to their customers.

To get started yourself, try Redis Enterprise in the cloud, or download Redis Enterprise Software [for a free trial](#) now.

Redis Enterprise is a cost-effective yet incredibly fast, flexible, and reliable high-performance data-layer solution that can power a more responsive, more personalized form of digital banking.



Thank You



To learn more about how financial services firms are leveraging Redis Enterprise to build real-time FinServe applications, visit

[Redis Enterprise](#)

or check out how major financial institutions like Deutsche Börse, Xignite, and Vetr are already using Redis Enterprise.

To get started

Try Redis Enterprise in the cloud or download the Redis Enterprise Software for a free trial now.

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About Redis

Modern businesses depend on the power of real-time data. With Redis, organizations deliver instant experiences in a highly reliable and scalable manner.

Redis is the world's most popular in-memory database, and commercial provider of Redis Enterprise, which delivers superior performance, matchless reliability, and unparalleled flexibility for personalization, machine learning, IoT, search, e-commerce, social, and metering solutions worldwide.

Redis, consistently ranked as a leader in top analyst reports on NoSQL, in-memory databases, operational databases, and database-as-a-service (DBaaS), is trusted by more than 7,400 enterprise customers, including five Fortune 10 companies, three of the four credit card issuers, three of the top five communication companies, three of the top five healthcare companies, six of the top eight technology companies, and four of the top seven retailers.

Redis Enterprise, available as a service in public and private clouds, as downloadable software, in containers, and for hybrid cloud/on-premises deployments, powers popular Redis use cases such as high-speed transactions, job and queue management, user session stores, real time data ingest, notifications, content caching, and time-series data.

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