



## DNA of Digital in Financial Institutions

Total read time: approx. 4-5 minutes.

The Financial industry in the contemporary landscape stands as one of the most dynamic and transformative industries. Technological advancements, evolving regulations, cybersecurity threats, and fluctuating global economic conditions have collectively reshaped the operational framework and strategic outlook of this sector.



Two decades ago, Financial Institutions were reliant on archaic ledger systems, manually recording transactions. This laborious process meant daily operations were bogged down by manual entries, leading to an annual reconciliation task of gargantuan proportions. Audit officers would seclude themselves for days on end, halting operations until the meticulous reconciliation process was completed.

Not only that it was the era of **Brick-and-Mortar** Dominance. Physical bank branches were the primary interface for customers. Most banking transactions, from deposits to withdrawals, required a visit to a branch location. Online banking was in its infancy, and mobile banking was virtually non-existent.

Many banking processes, including account opening, loan applications, and account maintenance, relied heavily on manual paperwork. This led to slower processing times and increased the likelihood of errors.

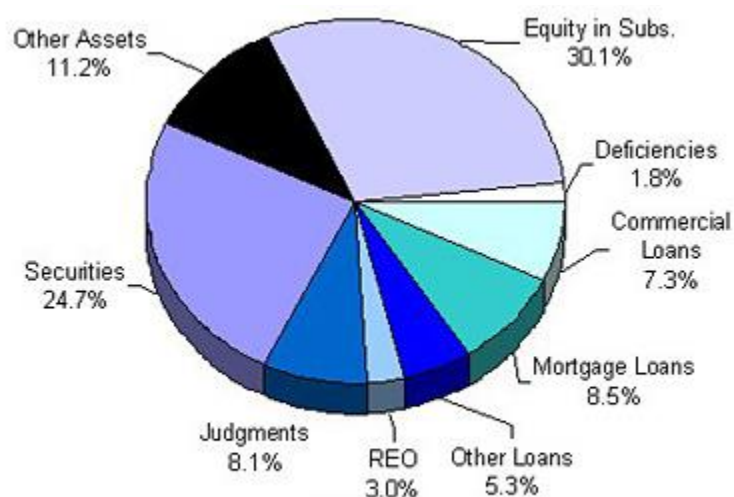
Looking at digital presence, very few financial institutions offered basic online banking services, such as checking balances and transferring funds, the digital presence of financial institutions was limited compared to today. The internet was

primarily used for information dissemination rather than comprehensive financial transactions.

Due to limited exposure to technology financial institutions predominantly offered traditional banking products such as savings accounts, checking accounts, mortgages, and personal loans. Complex financial products such as derivatives and structured products were typically reserved for institutional clients.

Following picture shows the asset mix for year 2000.

(Source: [FDIC](#))



Source: Reports from FDIC Division of Finance.

While **Globalization** was underway, the operations of financial institutions were often more localized. International transactions and cross-border banking services were available but were not seamless. On top of that **Regulatory Frameworks** existed to oversee financial institutions, but they were less stringent compared to the post-2008 financial crisis era. Regulatory compliance was still a priority, but the regulatory landscape was not as complex.

Financial Institutions were not using data analytics and big data in decision-making process. Customer data collection and analysis were less sophisticated, leading to less personalized banking experiences. Likewise, security measures were primarily focused on physical security at bank branches and basic encryption for online transactions. Cybersecurity threats were present but not as sophisticated or prevalent as they are today.

## Fast Forward to 2024

Let's fast forward to 2024 and visualize the journey covered so far and the impact of changing the Digital DNA in Financial Industry.

Digitalization has reshaped the way financial institutions operate today. Online and mobile banking have become ubiquitous, offering customers convenient access to a wide range of banking services, including account management, fund transfers, bill payments, and loan applications.

Financial institutions are progressively leveraging advanced technologies such as artificial intelligence (AI), machine learning (ML), big data analytics, and robotic process automation (RPA) to streamline operations, enhance customer experiences, manage risks, and develop innovative products and services.

There's a heightened emphasis on providing personalized and seamless customer experiences. Financial institutions not only use data analytics to understand customer needs better, offer tailored products and services, and deliver targeted marketing campaigns but also leveraging the tool for making informed decisions.

In addition to traditional banking products, financial institutions now offer a broader range of financial services, including investment management, insurance, wealth management, and digital asset services, catering to assorted customer needs and preferences.

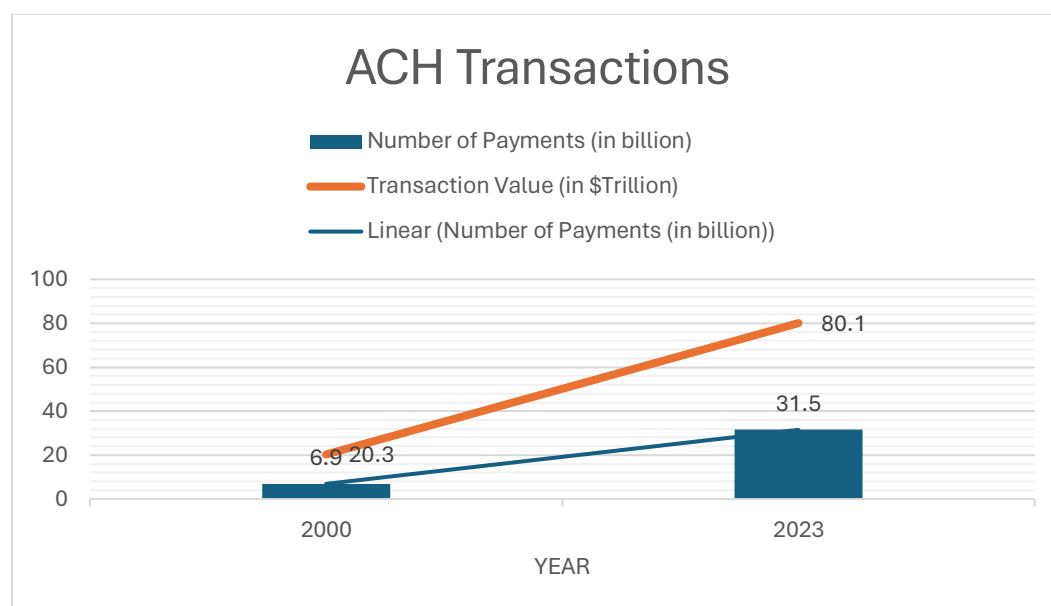
Regulatory scrutiny and compliance requirements have increased significantly in the aftermath of the global financial crisis. Financial institutions now adhere to a complex web of regulations aimed at safeguarding financial stability, protecting consumers, and preventing financial crimes. This regulatory and compliance requirement has also catalyzed the effort of cybersecurity.

Financial institutions have ramped up their cybersecurity efforts to protect sensitive customer data and prevent unauthorized access to financial systems. Investments in cybersecurity technologies and protocols are a top priority for most institutions.

Financial institutions now have expand their horizons and operate in an interconnected global economy, providing cross-border banking services, facilitating international trade and investments, and managing foreign exchange and risk exposures.

Following figure is an example of how digital transformation has reshaped the entire Financial Industry. ACH a payment system in US has seen a exponential growth in the scale of operations. Looking at ACH transactions in US and the impact of digital

transformation in Financial Industry, the % change in the number of payments has risen to 457% in 2 decades while Transaction value has gone up by 395%.



(Data Source\*: [NACHA](#) & [KansasCity](#))

The significant increase in the number and value of ACH transactions over the past two decades is a testament to the profound impact of digital transformation on the financial industry.

Financial institutions are now partnering with fintech startups and technology firms to drive innovation, improve operational efficiency, and develop new products and services. Collaborations range from joint ventures and strategic alliances to investments and acquisitions.

## How can we help in digital transformation?