RANKING BANKING.

MOST INNOVATIVE BANKS



wo factors drive bank technology strategies, according to Bank Director's 2021 Technology Survey: generating efficiencies and improving the customer experience. Pursuing these goals — along with the recent digital acceleration driven by the pandemic — has many traditional, community banks scrambling to compete with big, global institutions, challenger banks and digital, nonbank lenders — all of which have positioned themselves to leverage technology to attract market share.

In fact, some bank CEOs now refer to their organizations as technology companies.

"We're clearly a technology company," Bank of

America Corp. CEO Brian Moynihan told Yahoo Finance in October 2021. "We spend about \$3.5 billion a year on new code implementation; new products and services are driven by technology."

Bank of America spent roughly \$8.7 billion on technology in 2020, according to an estimate calculated by Bank Director based on the bank's annual report. Of this, roughly 40% went to new initiatives. These include projects such as Balance Assist, a payday loan alternative, application programming interfaces (APIs) that add new features to its commercial banking app, and Life Plan, which launched in late 2020 and had provided personalized insights to more than 4 million clients as of August 2021 — the bank's most rapidly adopted feature to date, according to the company.

Doing all this requires money and know-how. In addition to executives and employees focused on areas such as digital delivery and data science, Bank of America has staff focused on cryptocurrency and digital assets. The big bank has collaborated with and invested in fintech companies, including Axia Technologies, a health care payments company that it ac-

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Brian Moynihan / CEO, Bank of America Corp.

quired in April 2021. "We are adding a talented team that brings great domain expertise and technology," said Bank of America executive Mark Monaco in a release announcing the transaction. "Working together, we can leverage our joint expertise and capabilities to deliver a comprehensive range of payment and settlement solutions to our [health care] clients and their patients."

And Bank of America employs inventors such as Manu Kurian, who has filed more than 360 patents since 2014, putting him among the top 300 patent holders worldwide, according to the company. This talent led Bank of America to a company-record 227 patents granted by the U.S. Patent Office in the first half of 2021, covering areas such as artificial intelligence and machine learning, information security, data analytics, payments and mobile banking.

These dedicated efforts put Bank of America at the top of Bank Director's list of the most innovative banks in the 2022 RankingBanking study, followed by two other large institutions at second and third, respectively: U.S. Bancorp and JPMorgan Chase & Co.

The big banks were investing in technology to improve products and processes before the various fintech players emerged as competitive threats, notes Rick Childs, a partner at Crowe LLP. "A strong part of their growth strategy is to be innovative."

To determine the most innovative banks, Bank Director ranked each institution based on disclosed initiatives and projects in 2020 and midway through 2021; this scoring received a double weight as it's based on actual results. We also considered expertise: internal staffing focused on data, digital, innovation and similar areas; technology, cybersecurity and digital skills in the boardroom; and disclosed partnerships with fintechs, including investments and acquisitions. We also calculated technology spend as a percentage of noninterest expense. Banks don't often share this information in a consistent, transparent manner; Bank Director relied on information disclosed under the noninterest expense breakdown in each bank's 2020 annual filing.

HIGHEST TECHNOLOGY SPEND, 2020

JPMorgan Chase & Co. \$10.3B

MOST ACTIVE TECH COLLABORATOR

SVB Financial Group 28 Known Relationships

U.S. Bancorp's initiatives in 2020 included a voice assistant that mimics interactions with a human teller, enhancements to its freight payment platform and real-time payments capabilities for business owners, with 10,000 merchants using these features as of June 2021. Roughly a third of these clients were new to the bank.

David Ness, U.S. Bank's vice president of innovation and R&D, leads a "dedicated fintech engagement unit" that scouts out potential partnerships that help the bank "innovate, challenge the status quo and think big about what's possible," according to a blog post.

Just one smaller institution ranked among the most innovative of the 50 best banks in our study: Axos Financial, based in Las Vegas. The digital pioneer ranked eighth for its approach to innovation due in part to its acquisition of E-Trade Advisor Services and subsequent integration of what's been rebranded as Axos Invest into its mobile app. It also white labels its technology to independent financial advisors.

"You have to be able to address — not just how do you build the technology or the innovation — but also how you execute on it and make sure it's exactly what your customers are looking for," says Crowe Partner Kara Baldwin. Banks can't afford to lag behind. "If you turn your blinders on completely to innovation, I do think that is short sighted."

How They Ranked: Most Innovative Banks

			TICKER	SCORE	ESTIMATED TECH SPEND, 2020 (000)	NOTABLE INITIATIVE
CATEGO! WINNE	RY 1	Bank of America Corp.	BAC	3.00	\$8,655,000	"LifePlan" personalized financial advice
	2	U.S. Bancorp	USB	4.33	\$1,294,000	Real-time payments for merchants
	3	JPMorgan Chase & Co.	JPM	6.50	\$10,338,000	"My Chase Plan" buy now, pay later option
	4	Fifth Third Bancorp	FITB	7.78	\$362,000	"Early Pay" advance paycheck access
	5	Zions Bancorp.	ZION	8.93	undisclosed	Machine learning helps bankers advise clients
	6	Huntington Bancshares	HBAN	9.89	\$384,000	"The Hub" financial health platform
	7	Synchrony Financial	SYF	10.17	\$492,000	APIs deliver new features to clients
	8	Axos Financial	АХ	10.56	\$40,719	"Axos Invest" investment tool
	9	KeyCorp <i>(TIE)</i>	KEY	11.39	\$246,540	"Laurel Road for Doctors" national digital bank
	9	First Republic Bank (TIE)	FRC	11.39	\$298,632	Gained 150,000 hours through automation

SOURCE: Bank annual reports, Bank Director's FinXTech database, and public information including press releases and LinkedIn