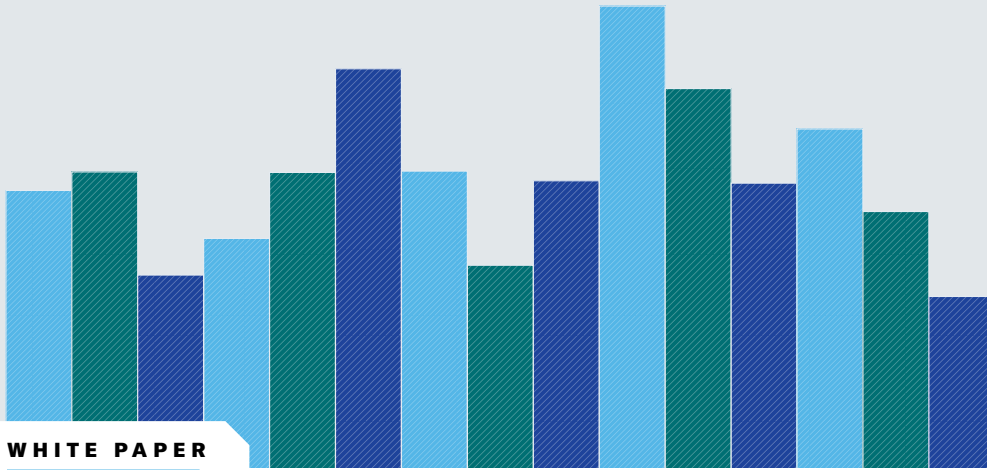




**Harvard
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ANALYTIC SERVICES



The Human Factor:

AI-Powered Customer-First Strategies in Banking and Financial Services



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In today's fast-paced world, where banking and financial services firms need automation and artificial intelligence (AI) to drive efficiency, they also understand that customers want services that feel personalized, not robotic. This applies to both enterprise customers and retail customers and is true across all segments, whether Millennials, Boomers, small and medium-sized businesses, or institutional clients. In today's customer-focused environment, financial firms need to forge emotional bonds and foster deep relationships to drive customer loyalty and fuel growth.

When we talk to financial institutions about the future of their customer experience, we focus on three areas: financial advisory, financial wellness, and trust.

Many firms offer a range of advisory services. The challenge lies in presenting the appropriate services to the right customers and then delivering a highly personalized advisory experience. To succeed, they need to understand their customers' financial situation even better than the customers themselves do. Fortunately, this no longer needs to be a completely manual approach. Firms can now utilize AI algorithms to unlock their data and offer insightful financial advisory at scale. We're collaborating with some of the world's most innovative AI and fintech companies to build a more curated approach to advisory that leverages data and AI for hyper-personalization.

Looking ahead, we know that financial institutions are also seeking to attract customers with new financial wellness tools, such as spend analytics, goals-based savings, and personal finance education. It's a deeply collaborative effort that pulls data and technology together from across the financial ecosystem. In collaboration with Capco, Designit, and our engineering teams, we are identifying exciting opportunities to codevelop financial wellness products with our clients.

Let's not underestimate the trust and security aspects. With generative AI (gen AI) coming to the fore, customers are more concerned than ever about security—particularly given the stories about major fraud driven by gen AI deepfakes. Robust cybersecurity and fraud mitigation are integral to a human-centric banking experience. It will become a real competitive differentiator. Customers want assurance that their bank truly cares about protecting their assets. That's why Wipro's cybersecurity and risk and compliance practices are actively working with our banking and financial services clients to combat AI-driven fraud using cutting-edge AI-powered anti-fraud tools.

We see tremendous opportunities for our clients to embrace new technologies in ways that strengthen customer relationships. Technology doesn't need to translate into a robotic, impersonal banking experience. At the end of the day, customers want to bank with a brand they can trust and a team that genuinely understands their personal needs. Financial institutions that are ready to deliver on these promises will succeed in the coming decade.

At Wipro, we are dedicated to helping banks and financial services firms create innovative experiences, products, and services for their customers by empowering them with the tools and knowledge needed to thrive in an AI-driven world. We invite you to dive into the unique insights provided by industry leaders and practitioners in this report as you pursue your own transformation journey.

The Human Factor:

AI-Powered Customer-First Strategies in Banking and Financial Services

In the era of artificial intelligence (AI), consumers expect their financial institutions to provide them with innovative products for financial wellness, recognize their behavioral patterns, and proactively cater to their needs. Traditional segmentation methods—which divide customers into groups based on demographic, geographic, psychographic, and behavioral attributes—offer a starting point by allowing banks to personalize their outreach strategies. But today's banks must delve deeper.

Hyper-personalization initiatives—the practice of leveraging broader internal and external data to tailor experiences to individual needs and expectations—have become crucial to targeting customers with pertinent offers. AI technology takes these initiatives to a new level, especially with the potential of generative AI (gen AI) to analyze vast amounts of customer data and suggest specific products and services day-to-day, hour-to-hour, and minute-to-minute. This allows financial institutions to deliver more-engaging experiences to their customers, fostering stronger relationships and driving growth. McKinsey Global Institute estimates that gen AI could bolster banks' operating profits by as much as 15%.¹

“AI is a critical part of our strategy to empower customers with deeper insights into their financial decisions as they make everyday purchases or prepare for big life moments,” says Greg Keeley, senior executive vice president of platforms and technology at TD Bank Group, a multinational banking and financial services corporation headquartered in Toronto. “It's also a tremendous opportunity to augment colleague intelligence so we can deliver better and faster services to our customers.”

HIGHLIGHTS

In an industry where most banking products have long since been commoditized, **what differentiates today's market leaders** is their ability to offer relevant, **personalized products and services**.

By **offering personalized wellness tools and resources** for financial counseling, debt management, retirement planning, and other day-to-day needs, banks can empower customers to achieve their financial goals, **creating a strong sense of trust and loyalty**.

In the era of artificial intelligence, the **financial services organizations that will thrive** are not just the ones with the most-advanced technology but those that **prioritize the human element**.



“You wouldn’t think of a Mercedes as an extension of your banking environment, but through contextual commerce, every connected device is a commerce device. That leads to a whole lot of personalization,” says Ed McLaughlin, president and chief technology officer of Mastercard Inc.

Early adopters of AI models, tools, and applications, such as TD Bank Group, are beginning to roll out innovative products and services, such as algorithmic portfolio optimization, automated customer support, personalized financial planning, and dynamic loan pricing, to solidify customer relationships.

However, as with any new technology, AI comes with a new set of risks, such as compliance risks, data privacy concerns, biases, misinformation, and more. “Our relationship with our customers is based on trust, and as we introduce new technologies, it’s key that we maintain their confidence as we enable innovative products and services,” Keeley adds.

This report explores how financial services organizations can prioritize customer needs as they establish stronger, more personal relationships with clients that help them achieve financial health and wellness. It also describes how banks can pursue AI use cases such as banker/agent productivity, document reading and aggregation, automated loan approvals, contextual shopping experiences, consumer sentiment analysis, and interactive digital assistants to improve productivity and foster lasting customer relationships. Finally, it explains how a knowledgeable service provider can assist financial institutions with digital transformation initiatives by leveraging the service provider’s speed, scale, and expertise.

Asserting Technology Leadership

In an industry where most banking products have long since been commoditized, what differentiates today’s market leaders is their ability to offer relevant, personalized products and services. “If you look at the level of innovation, it’s been more on the customer experience side as opposed to fundamentally changing the products,” says Amit Garg, a senior partner in the financial services and private equity practice at New York City-based McKinsey & Co. “The core services such as banking, lending, and payments are fundamentally the same, but there is continued innovation in how we deliver these services to customers.”

These services are morphing as traditional banks confront competition on new fronts and industry lines blur. For example, auto manufacturers and retailers are entering the financial space with streamlined lending and payment processing

services tied to their core offerings. Nimble fintechs and neobanks offer a broad array of digital banking products, from investment chatbots to gamified savings strategies. By focusing on innovation, traditional financial services companies can stay ahead of these competitors, but they must develop compelling value propositions and offer convenient products and services to minimize customer attrition.

“Our job is to connect consumers through the channels they want to use with zero liability, absolute trust, and unbelievable reliability,” says Ed McLaughlin, president and chief technology officer of Purchase, N.Y.-based Mastercard Inc., which provides payment solutions and technology to financial institutions and businesses worldwide. “Consumers expect instant availability, on demand, through whatever channels they choose to use. Once we have won their basic trust, we can personalize our offers and be more targeted in the things we help them with.”

McLaughlin believes financial services companies have already proven their leadership in the digital realm, and they can build on that momentum to forge stronger customer relationships. “Whether it was Amazon and e-commerce, Apple and digital media, Uber and mobility, or Netflix and streaming, all those great consumer experiences were powered by the monetization engines from financial services companies,” he notes. Banks can build on this “foundation of trust,” he continues, but achieving customer intimacy involves moving beyond traditional payment, lending, and account management services. “Your bank should be right with you—not in the background, but something that you pull into the foreground.”

To that end, the majority of the transactions on the Mastercard network arise not from physical debit and credit cards but rather from embedded contextual experiences, many of them brokered through partners. For example, Mercedes-Benz customers can pay for fuel, tolls, parking, and other third-party services via a fingerprint sensor integrated into the User Experience infotainment system, eliminating the need to enter a PIN or credit card information or to authenticate via a mobile device. “You wouldn’t think of a Mercedes as an extension of your banking environment, but through contextual commerce, every connected device is a commerce device,” McLaughlin adds. “That leads to a whole lot of personalization.”

Another contextual application, called Shopping Muse, uses gen AI to help Mastercard customers search for and discover products in partner retailers' digital catalogs. Retailers can recommend products and services that match each consumer's unique profile, intent, and affinities and enrich these online conversations over time. A store can suggest items that are similar to other things a shopper has bought or looked at, even if the store doesn't have the right labels for those products. Shopping Muse makes predictions about what customers might want to buy by analyzing their session browsing history from moment to moment, along with many other factors. According to McLaughlin, this level of personalized service solidifies relationships and binds consumers to the institution. For example, if you're planning a trip to Tuscany for a wedding and you want insider tips, you simply tell Shopping Muse what you are interested in and it will suggest popular destinations, activities, and even local influencers who can provide personalized recommendations.

"AI is just a big prediction machine," McLaughlin asserts. "The more you can observe patterns of behavior, the better predictions you can make." The sheer volume of transactions processed globally through Mastercard's systems provides a massive data set that enables AI to make highly accurate predictions. "Our real-time analytical models, running on a trillion-parameter in-memory database, can assess the likelihood of each transaction within 50 milliseconds or less," he adds.

Embracing Financial Wellness

Prioritizing customer experiences allows banks to forge emotional bonds with their clients that foster deep relationships and drive sustainable growth. By offering personalized wellness tools and resources for financial counseling, debt management, retirement planning, and other day-to-day needs, banks can empower customers to achieve their financial goals, creating a strong sense of trust and loyalty.

To deepen these emotional bonds and foster long-term relationships, today's leading banks pursue relationship banking strategies: the process of understanding each customer's evolving financial needs so they can build trust, offer personalized services, and help them achieve their financial goals. "A responsive bank presents products and services that are relevant to customers at each stage of their financial journey, from credit cards to loans to targeted savings, investment, and wealth management strategies," says Shadman Zafar, co-chief information officer at New York City-based multinational investment bank Citigroup Inc.

For example, Citi optimizes the product and service mix for each customer by automatically recommending relevant programs that not only increase customer satisfaction but



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also reduce fees. Much of it happens in the background: Instead of requiring customers to figure out whether they qualify for certain benefits, Citi organizes their accounts and adjusts the spectrum of services available to them as they move through life. "We call it simplified banking because customers obtain specific benefits from us depending on what they're doing," Zafar says. "They don't need to organize their financial lives to obtain the best mix of products and services. We do it for them."

For technologists, building these types of digital banking products and formulating the associated personalized banking strategies require a shift in perspective. "We don't look through the lens of the tool," Zafar explains. "We look through the lens of the customer to determine which tool fits best at various times and situations."

Citi customers typically initiate contact with the customer service department, which gathers information and escalates issues as needed. Data is collected and analyzed to identify common problems, leading to the development of specific improvement plans with the goal of resolving customer issues and enhancing the overall customer experience. However, this multi-step process can often result in delays and consequent frustration for customers.

The Evolution of AI in Banking

As McKinsey's Garg points out, AI is not new to banking. For many years, financial services institutions have been using the technology to analyze data for the purpose of segmenting customers. "What's changing is our ability to deliver experiences that are tailored to individuals," he notes.

However, to do this well, banks must actively solicit feedback through multiple channels, including relationship managers, web interactions, chat dialogues, and email responses. Gathering all this data allows banks to stay informed about each customer's changing banking habits. AI-powered

chatbots and virtual assistants can provide personalized customer support, while AI-driven marketing campaigns can increase conversion rates.

Stiene Riemer, global lead for AI developments in financial institutions at Boston Consulting Group Inc. (BCG), a management consulting firm headquartered in Boston, says there are two types of AI-driven customer centricity. The first type generates targeted content, sometimes called hyper-personalized output, based on the attributes of a group or cohort. While these capabilities can be complex to implement, they are rapidly becoming commoditized by off-the-shelf capabilities that can plug into existing marketing and customer management software products.

A more advanced type of customer centricity involves “made just for me” processes that go beyond merely customizing the look and feel of an offer. Riemer uses the example of a loan approval workflow that adjusts the documentation requirements and financial analyses according to the attributes of each customer. “Such AI-driven personalization can massively reduce the workload for low-risk loan applications, allowing credit specialists to focus their time on evaluating applications where their expertise matters most,” she says. “This customer-centric approach to banking lies at the core of many high-value process transformations.”

Emphasizing the Human Touch

Riemer believes the “low-hanging fruit” for gen AI centers on internal, banker-facing processes that drive workflow efficiency in supervised environments, such as synthesizing documents, creating natural language audit trails, generating drafts for reports and prospectuses, and simplifying software coding with the help of a virtual assistant. Many software engineers rely on these productivity tools to automate routine processes such as generating documentation and modernizing legacy code.

TD Bank Group’s Keeley believes that gen AI has the potential to be transformative by streamlining simple tasks, inspiring worker creativity, and ultimately delivering more seamless experiences for customers. For example, at TD, when employees in the contact center need help with a customer inquiry, they seek out advice from other team members who specialize in TD policies and procedures. To support employees, the bank developed an AI-driven virtual assistant that can answer day-to-day banking inquiries in seconds. The virtual assistant has been trained on TD’s policies and procedures, allowing it to quickly provide summarized responses in conversational language, including citations that link back to the source documents. “We’re rolling out this virtual assistant pilot in our contact centers to continuously larger groups and testing it through a phased approach,” Keeley says.



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Most banks agree on the ground rules: Gen AI technologies should not necessarily replace humans but rather should augment their abilities by making people more knowledgeable and personable. For example, a gen AI app can help a wealth management advisor by scanning through recent emails from a client to summarize topics of interest. By doing the preparatory work, it reduces the time that advisors have to spend preparing for each meeting, so they can have more productive and personalized conversations. “Who does a consumer trust with their money?” Garg asks. “At the end of the day, trust is the most important thing. Keeping a human in the loop helps you to maintain that trust with customers.”

BCG’s Riemer agrees. “Customer trust is difficult to win but easy to lose, and banks are very careful about applying AI at the interface to customers,” she notes. “Gen AI applications that interact with customers directly, such as scope-limited customer support bots or text- and image-personalization engines, require very thoughtful guardrails.”

Despite these admonitions, many banks are getting on board the gen AI bandwagon. McKinsey Global Institute estimates that among industries globally, gen AI could add the equivalent of \$2.6 trillion to \$4.4 trillion annually in value across the 63 use cases it analyzed. Among industry sectors, banking is expected to have one of the largest opportunities: an annual potential of \$200 billion to \$340 billion, largely from increased productivity.²

Essential Technologies for Innovation

Banks need a robust technology infrastructure to support these AI initiatives, including powerful servers, high-performance computing clusters, and extensive data storage capacity. While on-premises solutions offer greater control and security, cloud-based infrastructure provides scalability and flexibility.

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“Generally speaking, LLMs are the preferred option for handling complex tasks with large data sets. The drawback to using LLMs is that they can be more difficult to fine-tune and may not be as cost-efficient for use cases involving smaller data sets. Some businesses may determine that small and midsize language models are a better fit in these instances,” says Greg Keeley, senior executive vice president of platforms and technology, TD Bank Group.

The choice between on-premises and the cloud depends on factors such as data sensitivity, regulatory compliance, and each bank’s specific needs, particularly regarding data infrastructure requirements for storing and processing large data sets. “Banks are data-rich, but often at a cost,” Riemer says. “Information systems are often run in silos, and it can be difficult to obtain a comprehensive view across, for instance, all active products for a customer.”

According to Riemer, breaking down these silos and rationalizing data sources require an initial investment in time and IT resources. Once this exercise is completed, however, the consolidated data can inform a comprehensive view across financial and behavioral data that will fuel a diverse range of AI applications. “A one-time investment in customer data pooling for model development can serve as the foundation for a very wide spectrum of AI innovation across the bank,” she notes.

Most gen AI projects pivot on using one or more large language models (LLMs)—a type of artificial intelligence that can generate humanlike text, translate languages, and write different kinds of creative content, as well as answer questions in an informative way. While constructing a custom LLM is beyond the reach of most companies, leveraging preexisting language models for tailored applications is increasingly feasible. Recent advancements in AI, such as fine-tuning, prompt engineering, and parameter-efficient training, have democratized this process, enabling financial services organizations of varying sizes to adapt LLMs to specific tasks.

“We see a future where we can deploy small, midsized, and large language models,” Keeley says. “LLMs are easier to deploy into the market for pilots because they perform well out of the box.” For example, the TD gen AI virtual assistant that has been trained on TD’s policies and procedures is enabled by an AI platform that supports digital transformation initiatives across the organization. The bank’s enterprise AI strategy includes infrastructure, frameworks, and patterns designed to enable AI at scale. “Generally speaking, LLMs are the preferred option for handling complex tasks with large data sets,” he notes. “The drawback to using LLMs is

that they can be more difficult to fine-tune and may not be as cost-efficient for use cases involving smaller data sets. Some businesses may determine that small and midsize language models are a better fit in these instances.”

TD Insurance, part of TD Bank Group, has many machine learning (ML) models in production to simplify data-intensive tasks. ML is a subset of AI that focuses on teaching computers to learn and make predictions or decisions without being explicitly programmed to do so. For example, one of the TD Insurance ML models helps streamline the process of applying for term life insurance policies, resulting in increased approval rates and reduced wait times. Another model provides preapprovals on mortgages and home equity lines of credit in seconds. “We currently have AI solutions applied to every line of business at TD, including our online experiences—both through AI-powered chatbots and through in-app experiences,” Keeley says. For example, users receive “digital nudges” that include personalized insights such as low-balance predictions and notifications for upcoming recurring bills. TD Insurance also expanded its AI fraud prevention program by activating a model to score fraud risks and flag potentially fraudulent claims, improving the speed and accuracy with which it can detect suspicious activity.

Mitigating Risk

While the potential of AI and gen AI is undeniable, enterprises are becoming increasingly mindful of the associated risks, such as data privacy concerns, model biases, and intellectual property infringements. One of the biggest risks centers on the proper use of customer data.

“Winning customer trust requires institutions to be good stewards of the information that people share with them, driven by complete transparency and visibility into how that information is used,” Mastercard’s McLaughlin states. “Demonstrate that you can make things much better for consumers by learning their preferences and reinforcing what they want from you,” he advises. “This gives them comfort in how their information is being used.”

Citi's Zafar says customer trust begins by offering digital services that are simple, personal, and human—without adding complexity. When an unexpected situation develops, such as when a customer's credit card is lost or stolen, banks should move quickly to make the customer feel in control. For example, through its Way Finder program, Citi allows its cardholders to instantly lock their cards, monitor transactions, receive transaction alerts, and obtain temporary replacement cards. According to Zafar, empowering customers to take these proactive measures helps alleviate stress and is a precursor to building trust. These actions also make good financial sense: Since the launch of the Way Finder program, Citi has received 33% fewer calls about replacing a card. More customers are replacing their cards digitally, and they are spending more money throughout the replacement card period.



“Our relationship with our customers is based on trust, and as we introduce new technologies, it's key that we maintain their confidence as we enable innovative products and services,” says TD Bank Group's Keeley.

Obtaining Expert Assistance

When deciding whether to outsource a new project to a service provider or develop it in-house, Garg suggests that banks determine whether each initiative represents their role as a “shaper” or a “taker” within the AI ecosystem. The distinction lies in whether the initiative will convey a unique capability or competitive edge versus one that could be commoditized.

“You want to shape the things that are core to what you do as an institution so you can own those experiences,” he says. “For example, your engagement center might be truly special to how your customers work with you. In cases where the app is not fundamental to your business, you don't need to build the entire tech suite.”

Service providers are especially valuable in helping organizations navigate the rapidly changing landscape of available technologies. “This is all about change management and adoption,” Garg explains. “Vendors can be quite helpful because there's pattern recognition from having done it in many, many places.”

Riemer concurs. “End-to-end transformation can be daunting and complex, and this is where service providers can help most. Transformation specialists and technology partners can help banks be ambitious about the change required and provide critical execution support, such as new HR and talent strategies, to get it right at scale.”

Unlocking Enterprise Value

Of course, formulating an enterprise technology platform, strategy, and framework is just the backdrop for AI innovation. According to Riemer, genuine transformation results from rethinking fundamental business processes. “AI does not change the game when it is inserted into the middle of a workflow that is not designed to be AI-enabled,” she says. “This is where most banks go wrong: They launch dozens of small use

cases—a chatbot here, a document-parsing algorithm there—and hope that one of them turns out to be a game changer. Real value is unlocked when legacy workflows are reconceived and rebuilt end to end such that entire processes—and the roles of human experts—are purpose-built around leveraging the power of AI.”

McLaughlin brings it back to customer centricity. He says the key to workflow automation is not just to create innovative products and services but to rethink the fundamental aspects of banking relationships. “Ultimately, digital technology allows banking products and services to be woven into the fabric of people's lives,” he explains. “Lifestyle becomes life stage—your offerings become situational or episodic as people's lives change. The strongest signal I always look for is repeat usage. People will experiment with anything once. The question is, do they come back? Give them a flawless experience and then you will gain their permission to talk to them about all sorts of other things that they might want to do with your firm.”

Zafar says the banking experience should be not only accurate but easy—and even fun. Citi simplifies online shopping with a browser plug-in called Citi Shop that automatically searches for offers and coupons at cardholders' favorite online stores, allowing them to redeem points and discover offers that are pertinent to their current interests. “Citi Shop empowers customers to focus on their shopping experience without worrying about the financial details,” he says. “In the best digital experiences, the banking capability should disappear into the background. It's not about technology,” he reiterates. “It's about taking care of whatever the customer needs at that moment.”

In other words, technology should be an enabler that streamlines transactions and events without being obtrusive. The Citi Pay digital payment hub is a case in point. This online service consolidates various types of payment mechanisms



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such as wire transfers, Zelle, Venmo, ACH, and bill pay into a single, intuitive platform. Customers click into the hub to send money quickly and easily, without having to sort out the nuances of each payment method. They can specify the cost, time frame, and recipient details and the payment hub selects the best wire transfer technology to use. For businesses, Citi Pay can also be integrated into merchants’ shopping and checkout processes, online or in-store.

For these and other AI-driven services, Zafar reiterates the importance of building trust. “As banks, our products are always in demand,” he concludes. “Differentiation comes with how well we service customers and how much trust

we engender with them. Consumers need to feel like their institutions are supporting them during the important moments of their lives, especially as they acquire, maintain, and build wealth.”

The take-home point is clear: In the era of AI, the financial services organizations that will thrive are not just the ones with the most-advanced technology but those that prioritize the human element. By deeply understanding customer needs and consistently exceeding expectations, these companies will foster lasting loyalty, build trust, and achieve long-term growth. A customer-first approach, rather than merely a technology-driven one, will be the cornerstone of success.

Endnotes

- 1 McKinsey & Co., “The Economic Potential of Generative AI: The Next Productivity Frontier,” June 14, 2023. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier>.
- 2 McKinsey & Co., “The Economic Potential of Generative AI.”



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