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MAY 2022 Embedded Finance Tracker[®]

EMBEDDED FINANCE



ACKNOWLEDGMENT

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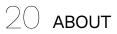
An interview with Michael Tannenbaum, chief operating officer of cash management solution company Brex, about why embedded finance needs to be customerfocused to succeed



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An in-depth analysis of the shift to digital banking and how embedded finance can help traditional banks regain their competitive edge





Information on PYMNTS.com and Galileo



igital services became table stakes for financial institutions (FIs) of all types since thousands of physical branches shut down or reduced their hours in response to the pandemic. The added convenience of banking from home or on the go has made digital the predominant channel through which a majority of Americans now interact with their primary FIs, with a recent study finding that 78% of Americans prefer to bank on mobile apps or websites instead of visiting branches in person.

This shift to digital has presented a golden opportunity for FinTechs to disrupt the financial services field, much to the chagrin of traditional banks and credit unions (CUs). A recent survey found that 70% of FI CEOs consider FinTechs to be their top competitors, with another study finding that 75% of consumers are drawn to FinTechs' cost-effective and seamless services. Moreover, 52% of consumers said that banking with a traditional FI was no "fun," and nearly half said their current banking relationships were unrewarding or lacking an emotional connection. Regaining this competitive edge will involve a serious effort to implement embedded finance solutions into banking systems, and many banks are already well on their way. PYMNTS' research found that 92% of FIs are currently innovating or have plans to innovate embedded finance experiences to improve their digital suites, with the most common improvements being seen in loans and cash flow management. Buy now, pay later (BNPL) solutions are also popular, with 47% of FIs having more than \$50 billion in assets saying they plan to introduce BNPL options within the next 18 months.

This edition of the Embedded Finance Tracker[®], a PYMNTS and Galileo collaboration, examines the current state of the financial services field and how FinTechs are quickly gaining market share. It also explores how embedded finance solutions can help banks and CUs offer new digital services and how these FIs are partnering with FinTechs to make embedded finance a reality.



THOUGHT LEADERSHIP TEAM PYMNTS.com Feature Story

Brex On Leveling The Playing Field With **Embedded Finance**



THE PANDEMIC HAS PERMANENTLY ALTERED HOW MANY CONSUMERS INTERACT WITH THEIR BANKS.

Digital services are being used in record numbers in place of in-branch visits that became impractical during the onset of the pandemic. Many of these consumers continued to prefer newly adopted digital banking habits even as pandemic-related restrictions lifted, favoring the convenience of banking from home or on the go.

Some consumers are questioning the need for an in-branch banking experience at all, choosing instead to bank with digital-native options, such as FinTechs or challenger banks. This shift has put traditional FIs on the back foot, according to Michael Tannenbaum, chief operating officer for cash management solution company Brex.

"People are going digital-first," Tannenbaum said. "They're not really asking, 'Does this financial provider or bank have a digital offering?' They think of that bank or financial company as the digital offering [itself]."

Embedded finance solutions can help level this playing field for traditional banks, however. In a recent PYMNTS interview, Tannenbaum offered an inside look at how the advantages these systems provide can give FIs a competitive edge.

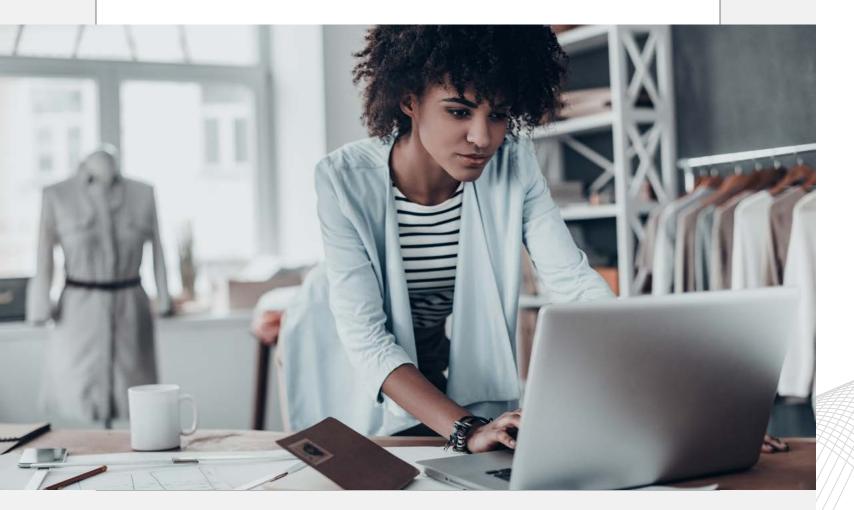
THE SHIFT TO DIGITAL-FIRST BANKING

Consumers are flocking to digital banking in record numbers, in large part because many of the services traditionally offered in-branch were made available online. Even more complex operations, such as account opening or loan applications, can now be done remotely, kneecapping any incentive to visit a physical branch.

"What people liked about the branch is that you can get somebody to help you. If you go in with whatever request you have, they'll address it," said Tannenbaum. "But the [banking-as-a-]service model doesn't require in-person [visits], so increasingly you're seeing digital providers, whether they're legacy or not legacy, investing [in remote services]." Individuals' expectations for digital banking have become so high, he said, that the separation between in-branch and digital banking has become obsolete. Digital offerings are the default, with in-branch services becoming a bonus that consumers can leverage if they prefer.

"The physical nature of financial services, whether it be branches or paper, has gone away," Tannenbaum explained. "Even the word digital has become somewhat obsolete."

This has driven consumers to flock to digital-first FinTechs, as they no longer need in-branch services of any kind. Banks are thus turning to embedded finance to get the tools they need to compete with these FinTechs.



HOW EMBEDDED FINANCE CAN HELP FIS COMPETE

Embedded finance helps traditional FIs by leveling the playing field between them and digital-native competitors by offering them similar capabilities at a fraction of the price and effort, said Tannenbaum. Building offerings such as digital payments or BNPL programs from the ground up is a massive undertaking, so outsourcing this work to a third party means a vastly reduced workload placed on existing IT staff and legacy systems.

"They can bring their offerings and user experiences to parity with modern systems," he said. "Say you're a legacy mortgage originator and you don't have the resources to invest in that front end, so you partner with somebody else and you get that full experience for your customers."

The story does not begin and end with this partnership, however. FIs need to be cognizant of their customers' particular needs and cater the embedded finance experience to provide that, ensuring that the embedded finance provider is the right fit for their particular industry and systems.

"You have got to work backwards from the customer experience that you want, rather than the business goal," said Tannenbum. "The business goal could be something simple like an embedded [registered investment advisor] or trading account for customers, but what does that actually mean? What do you want the customer experience to be like? What parts are managed by the embedded partner and what parts are managed by yourself?"

Entering the embedded finance experience with clear eyes and an end goal is the key to success, rather than simply to save money or keep up with other banks or FinTechs. As in all industries, the customer is king — and the embedded finance experience should reflect that.





JEFF CURRIER Chief Technology Officer

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A recent study found that 78% of Americans prefer to bank via mobile app rather than visiting branches in person. How has this led to banks losing ground to FinTechs and challenger banks?

Challenger banks and FinTechs designed and built their service models from the ground up with a digital-first ethos, focusing on optimizing the user experience for digital channels. While more established banks have generally done an admirable job of building their own digital apps and websites, it's not surprising their offerings in this area often lag behind those of digital-native providers when it comes to how they look and feel and what they can do.

For established financial institutions, digital offerings are just one part of a much larger ecosystem, which includes dozens or hundreds or even thousands of physical branches. Meanwhile, a lot of those FIs' tech stacks still run on legacy core systems. That all makes it harder to make the business case for developing new digital services, which requires a lot of time, effort and cost, with no guarantee of return on that investment. Whereas for a digital-only bank or FinTech, digital is their entire business, so it's never a question of whether investment in that area is worth it or not. Meanwhile, newer entrants' cloud-based tech stacks make it easier and cheaper to develop new services, and the lower overhead from having no physical branches means they can devote a larger share of capital to digital innovation.

And as those digital services continue to improve and do more things for customers, it makes the value proposition of the digital channel as a whole that much stronger, further accelerating the shift in user preference toward digital. Because this shift is only going to continue, it's vital for established banks to figure out how to compete by building up their own digital offerings. Otherwise they risk being left behind as banking becomes more and more digital.

Eighty percent of bank customers say that the latest financial technology will make transacting easier. How can banks leverage this technology to attract new customers?

Established banks have some key competitive advantages over newer entrants, including name recognition, consumer trust, security, experience and a more resilient business model overall. So banks that can combine these traditional strong suits with the ability to offer the tech-based financial services that customers increasingly demand can deliver a very compelling value proposition.

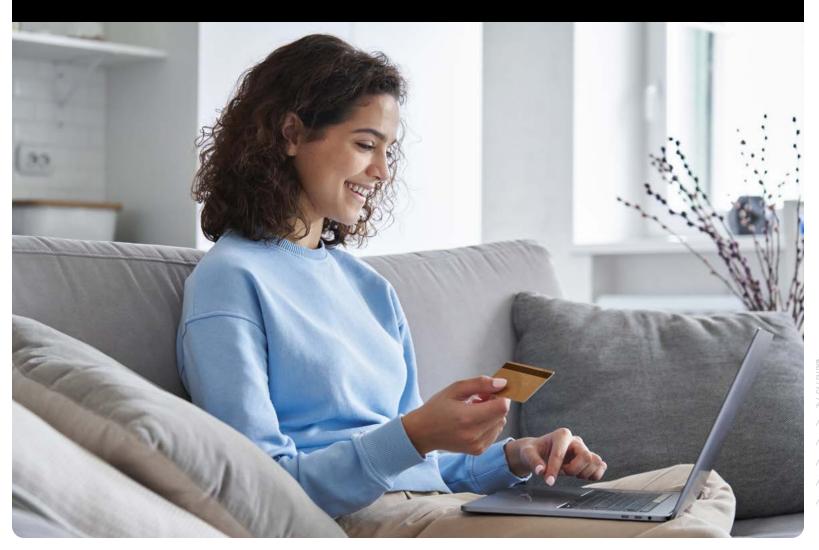
As discussed, banks face some real challenges in developing these types of digital services themselves. But the good news is, they don't have to. Instead, they can explore the idea of embedding third-party FinTech services into their own app or web platform. That way, instead of banks competing with FinTechs in an area where they're at a disadvantage — for the reasons described above — banks can partner with FinTechs and integrate specific digital services, such as bill negotiation, data breach and ID protection service or crypto investing tools. Banks can embed those services into their own digital offerings to bolster utility and create new revenue streams, while maintaining a central role in their customers' financial lives. And banks can leverage the customer data they already have on hand to ensure the third-party services being offered are relevant and tailored to a particular customer's needs and wants, and delivered in a compelling way within the context of day-to-day banking activities taking place over digital channels.

For their part, many FinTechs are more than willing to play ball for access to banks' customer bases and gaining access to a distribution channel that is much more efficient than a direct-to-consumer model. So both parties — banks and FinTechs — have much to gain by joining forces to offer users what each type of provider does best, and ultimately, the customer benefits as well.



PYMNTS Intelligence

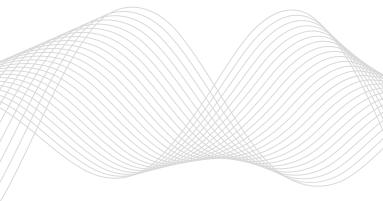
How Embedded Finance Can Help Banks Compete With FinTechs



PERSONAL BANKING HAS BECOME MORE DIGITAL THAN EVER SINCE THE PANDEMIC'S ONSET, WHEN PHYSICAL BANK BRANCHES SHUT DOWN, LEADING CONSUMERS TO DEVELOP A PENCHANT FOR ONLINE SERVICES.

A recent study found that 78% of Americans prefer to bank via mobile app or website rather than visiting branches in person, thanks to the added convenience of being able to bank from anywhere.

This digital push has opened the door for FinTechs, challenger banks and digital-native FIs to disrupt the industry as bank customers question the need for traditional banks. Two-thirds of consumers now say they need FinTech solutions to manage their daily finances, giving traditional FIs reason to worry about their long-term future. This month, PYMNTS Intelligence examines why banks are concerned about FinTechs' upheaval of the financial industry and how embedded finance can help FIs catch up to their younger digital cousins.

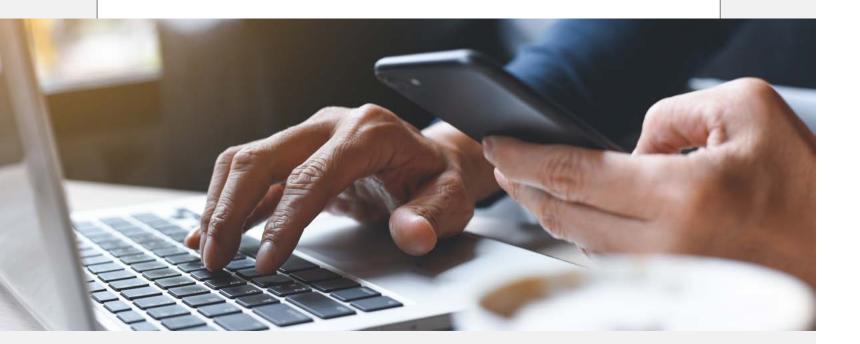


WHY BANKS ARE LOSING TO FINTECHS

Digital banking is the new normal for most of the United States population, so it is not surprising for consumers to feel that a digital-native FinTech can address their financial needs better than a traditional bank. Sixty-seven percent of consumers in a recent survey said they are finished with visiting brick-and-mortar bank branches for good — up from 46% in 2020 — and 80% believe that cutting-edge financial technology will make them better off with easier, less costly and more accessible transactions. All these factors have led 66% of consumers to the conclusion that FinTechs are a necessity for personal finance rather than simply a bonus, up from 41% who said so in 2020.

Banks are taking notice of this challenge to their status in the financial pecking order. A recent survey found that 70% of FI CEOs thought that FinTechs were their biggest competitors, followed by Big Tech companies at 53%. These CEOs said that enhancing digital offerings was a top priority to regain a competitive edge, but they face an uphill battle in trying to recapture a customer base that is now more digitally entrenched than ever. Another study found that 75% of consumers are drawn to FinTechs' cost-effective and seamless services. In addition, 52% said that banking with a traditional FI was not "fun," while 49% said their current banking relationship was unrewarding and 48% said it lacked an emotional connection.

These factors could spell trouble for the traditional banking industry if left unchecked, as FinTechs continue to poach customers from FIs. To keep up, banks must turn to new tools. One in particular that can help them stand out from the crowd is embedding more FinTech services into their digital offerings.



HOW EMBEDDED FINTECH CAN LEVEL THE PLAYING FIELD

Embedded FinTech has the power to level the playing field for traditional banks by allowing them to offer specific, branded digital experiences. By incorporating FinTech innovations into their own offerings without disrupting the customer experience, this embedded service model provides a level of differentiation that can essentially make any bank appear to be its own FinTech.

PYMNTS' research found that 92% of FIs are currently innovating or have plans to innovate embedded FinTech experiences to improve their digital suites, with large FIs taking the lead in these endeavors. More than three-quarters of large international banks are currently implementing embedded services, with just 9.5% of credit unions and 24% of community banks doing the same. The most common areas in which embedded solutions are helping are loans and cash flow management, according to the research.

BNPL embedded solutions are another common area of innovation. While just 14% of FIs currently offer a BNPL product, 25% expect to launch one in the next 12 to 18 months. Large banks are again leading the charge when it comes to this innovation, with 47% of FIs having more than \$50 billion in assets saying they plan to introduce BNPL options within the next 18 months.

Banks need not conduct these innovations alone, however. Instead, most are turning to partnerships with FinTechs themselves to curate embedded solutions. More than two-thirds of FIs leverage these partnerships rather than develop solutions in-house to permit faster product rollouts and easier integration. Working with a third party also can reduce risk, a substantial worry for banks looking to implement new services. Almost one-third of banks said fraud prevention was their top concern, and 60% of respondents ranked regulatory problems highly as well.

The financial industry is competitive even in the best of times, and the growing popularity of digital-native FIs is creating especially stiff odds for traditional banks. Embedded FinTech could be the key to evening those odds.



EMBEDDED FINTECH TRENDS

FOUR IN FIVE BANKS PLAN TO MOVE MAINFRAMES TO THE CLOUD, STUDY FINDS

Banks are innovating quickly in response to challenges from FinTechs and other newcomers to the financial scene. One step many banks are taking is migrating portions of their mainframe workloads to the cloud, which 82% of banks report is in their plans for the near future. The vast majority of these banks plan to make this migration within the next two to five years. Many banks already have their customer-facing systems on the cloud but still rely on physical mainframe technology for back-of-house procedures. Cloud mainframes have several advantages over their legacy counterparts. Forty-three percent of banks said that cloud systems have added speed and agility, 41% reported improved security and 37% said it was easier to add new capabilities. Three in five executives surveyed said they expect a return on investment of more than 10% due to the improved efficiencies of cloud mainframes.



BANKS ARE LAGGING WHEN IT COMES TO CLOUD MIGRATION, STUDY FINDS

While banks might talk about moving their infrastructure to the cloud, most have not put their words into action just yet. A recent study found that just about one-third of banks have migrated more than 30% of their applications to the cloud, but many more plan to in the future. Around 60% of banks in North America plan to increase their cloud investments over the next three years, along with 83% of banks in the Asia-Pacific region and 82% of banks in Europe, the Middle East and Africa.

Just 44% of respondents said their banks' leaders fully comprehend the potential benefits of cloud migration. More than two-thirds said their bank already leads the competition when it comes to innovation, likely a key factor in their hesitation to invest in cloud technologies, as they view this step as unnecessary.



MANY SHIFT TO DIGITAL-ONLY BANKS AS THEIR PRIMARY FIS

Generation Z, millennials and Generation X consumers are moving away from national bank chains and toward digital-first options, with a recent study finding that 12% of these consumers have chosen a FinTech as their primary FI, double the percentage in 2020. Gen Z is particularly digitally savvy, with just 25% of these consumers using a megabank for their primary checking account. These trends have led 47% of bank and CU executives to label FinTechs as a "significant threat" over the next 10 years.

FinTechs command \$132 billion in assets as of last year, much of it due to this digital shift among younger consumers. Experts attribute a large part of this movement to the shutdown of bank branches in the early months of the pandemic, which caused customers to shift to digital-only options as an alternative.

BANKING TECH **DEVELOPMENTS**

U.S. BANK INTRODUCES SPANISH LANGUAGE VOICE ASSISTANT FOR ITS MOBILE BANKING APP

Ensuring that mobile banking is accessible to all customers is a key facet of digital integrations. U.S. Bank recently took a step in this direct by enabling a Spanish language voice assistant for its mobile app, the first of its kind in the U.S. Approximately 44% of Americans say that mobile banking is their preferred channel, and 25% of Latinos say they are smartphone-only internet users, making the Spanish option a natural choice to encourage usage among Spanish speakers. This proportion is far larger than that of either white or Black adults, at 12% and 17%, respectively.

Spanish language capability is the second-highest priority for Latinos when choosing a bank, following only branch location. The voice assistant was tested by Latino employees in the U.S. Bank Nostros Latinos Business Resource Group to ensure its accuracy, according to a press release.

GALILEO AND MASTERCARD ENTER PARTNERSHIP TO SERVE UNDERBANKED SEGMENTS IN LATIN AMERICA

Digital financial service provider Galileo recently unveiled a strategic partnership with payment card giant Mastercard aimed at providing financial services to unbanked and underbanked individuals in the Caribbean and Latin America. The partnership plans to offer embedded finance solutions to Latin American FinTechs and issuers, with the goal of making services more accessible to those without access to a traditional bank. Nearly 70% of consumers in the region have access to smartphones or the internet, making FinTechs a viable avenue for providing these services.

Galileo currently has 100 million end-user accounts and Mastercard has more than 100 million digital cards in the region, enabling broad access to their services. The alliance aims to provide its services to 2,000 different FinTechs in the region.

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Galileo is a leading financial technology company whose platform, open API technology and proven expertise enable FinTechs and emerging and established brands to create differentiated financial solutions that expand the financial frontier. Galileo removes the complexity from payments and financial services innovation by providing flexible, open API building blocks and a secure, scalable, future-proof platform. Trusted by digital banking heavyweights, early stage innovators and enterprise clients alike, Galileo supports issuing physical and virtual payment cards, mobile push provisioning and more, across industries and geographies. Headquartered in Salt Lake City, Galileo has offices in Mexico City, New York City, San Francisco and Seattle. Learn more at galileo-ft.com.

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