Embedded finance

The voice of the makers

BIAN Banking Industry Architecture Network

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Modern financial institutions demand modularity, security, openness, AI-driven capabilities, and collaboration on a hybrid cloud. At IBM, we empower you to elevate customer experiences, modernize core banking infrastructures, pioneer innovative payment solutions, and transform enterprise risk management. Learn more at ibm.com/industries/banking-financial-markets.

BIAN

Financial institutions use BIAN as a starting point to help define and organize their IT software and services needs in a standard, rationalized way around the BIAN service landscape. This in turn increases the agility of the organization to deliver the needs of its business. BIAN provides an industry model for creating an architectural framework that makes integration of software and services capabilities easier and faster through a standard set of definitions. The model is supported by 250 pre-defined APIs. Learn more at bian.org.

Red Hat

Banks need modern platforms and approaches to compete in our ever-changing world. Red Hat helps to simplify operations, accelerate delivery, and unlock new revenue streams across any cloud environment. Learn more at redhat.com/en/solutions/financial-services.

A new way to bank

Although banking is one of the oldest industries in the world, a new generation of financial thinkers and makers is reimagining the conventional bank. Empowered by technology and a youthful hunger for change, they're determined to make banking easier, more accessible, and more impactful for individuals and businesses across the financial spectrum.

Their *modus operandi* is embedded finance, a nascent yet growing banking approach with transformational potential that is sowing seeds of significant opportunity not only for banks, but also for their wholesale and retail clients.

Their vision couldn't come at a better time. Socially and economically, the world is becoming progressively more digital and interconnected. End consumers are rapidly adapting to technology while small and medium-sized businesses are developing a growing appetite for seamless access to financial services.

Financial institutions are struggling to keep pace...

Yet, amid complex macroeconomic conditions that challenge traditional banking revenue models, they can extract new business value by eliminating friction both across and within entire industry verticals. In the process, they can redefine banking as we know it.

Digital-savvy financial institutions are pragmatically investing in business culture transformation, new operating models, and exponential technology to future-proof their business foundations on digital platform economies.

The ubiquity of mobile access has afforded financial institutions with the proximity needed to stay relevant at the time and location of their clients' needs. Institutions are leveraging secured APIs on banking-as-a-service (BaaS) architectures to integrate with third-party engagement models. It's therefore no surprise that 70% of banking executives say embedded finance is either core or complementary to their business strategy, not just an initial bet (see Figure 1).

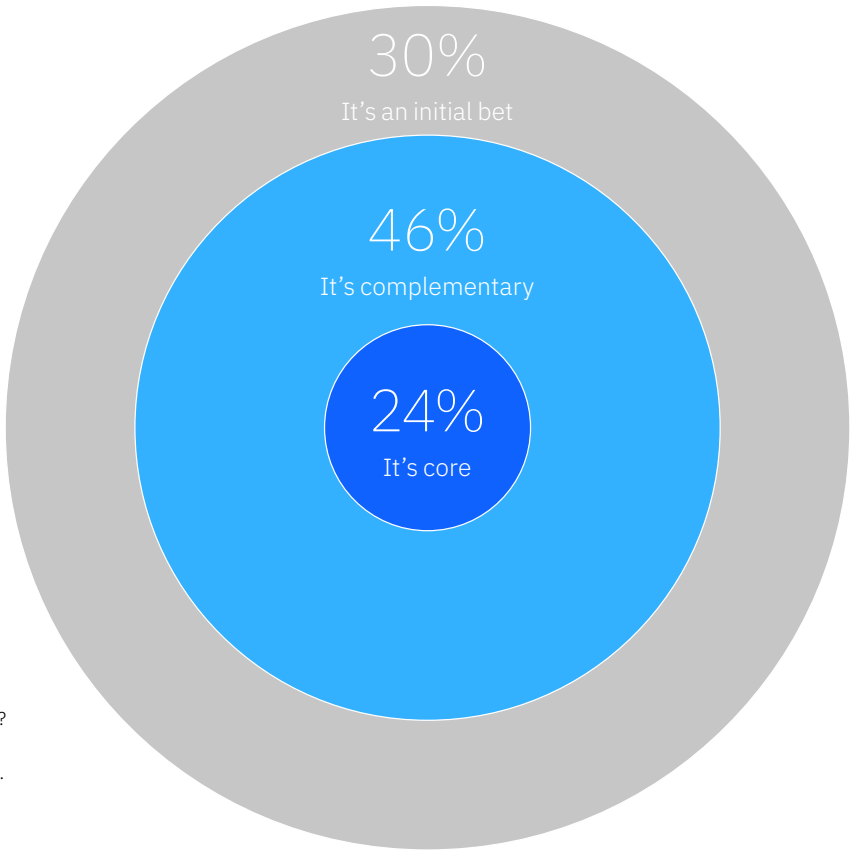
While the term "embedded finance" may be a recent addition to our lexicon, it's not novel. For decades, banking customers have been able to access financial products on non-banking channels and with non-banking partners. What's new is the radical shift in the way clients consume banking and insurance services in the moment and location of their need.

In collaboration with Red Hat and the Banking Industry Architecture Network (BIAN), the IBM Institute for Business Value (IBV) has conducted extensive market research on this strategic topic. We surveyed 12,000 consumers worldwide to understand changes in habits and preferences related to consuming financial services via in-person or digital channels. We also surveyed 1,000 executives working in retail and wholesale banking to learn how their institutions are responding to embedded finance opportunities.

FIGURE 1

Not a nice-to-have

Embedded finance is now central to 1 in 4 banks' business strategies.



Q: How important is embedded finance as part of your overall business strategy?
Source: *Embedded finance: Creating the everywhere, everyday bank.* IBM Institute for Business Value. September 2023.

Enriching this research is a series of thought-provoking conversations with a panoply of experts and makers whose commentary substantiated our research by grounding it in everyday business reality. They shared their personal perspective from privileged viewpoints inside and outside financial services.

These insightful dialogues shed light on the opportunities and challenges that embedded finance brings to the banking industry, to non-banking partners, and to fintech and techfin competitors.

Across our conversations with this diverse international ecosystem of experts, six themes are recurrent: decoding embedded finance; the tension between short-term ROI and long-term vision; modern architecture and exponential technology; risk and compliance issues; changing customer expectations; and the inertia of existing culture and mindset.

In the following report, we share the interviews we conducted with our experts, preceded by an executive summary with highlights that link them across the six recurrent themes.

We conducted in-depth interviews with 17 subject matter experts who are leaders in their field:

Bancolombia: Maria Cristina Arrastia Uribe, Business Vice President

BBVA: Carmela Gómez Castelao, Head of Open Banking

Bradesco: Fernando Freitas, Head of Innovation

DBS Hong Kong and China: Alfian Sharifuddin, Head of Technology and Operations

DOKU: Sujit Unni, Growth Advisor

Enel: Giovanni Vattani, Global Customer Operations

HSBC: Shayan Hazir, Chief Digital Officer for ASEAN

ING: Brendan Donovan, Global CIO of Wholesale Banking

Lloyds Banking Group: Jasjyot Singh, CEO, Consumer Lending

Mizuho Bank: Andy Nam, CIO for Asia and Oceania

Raffles Medical Group: Quek Sin (QS) Kwok, Chief Digital Officer

Raiffeisen Bank International: Sudip Khan, Open Banking Leader

SEB: Christoffer Malmer, Head of SEB Embedded Finance

Standard Bank: Jorg Fischer, Group CIO

Starling Bank: Sam Everington, CEO, Engine by Starling

Stripe: Kevin Dowling, Head of Partner Solution Engineering for EMEA and APAC

Unipol: Giacomo Lovati, Chief Beyond Insurance Officer

Five more esteemed experts furnished valuable insights:

BMO Financial Group: Lawrence Wan, Chief Architect and Innovation Officer

JPMC: Timothy Ness, Vice President and Senior Manager, Digital and Open Banking

TD Bank: Gina Stille, Vice President of Business Architecture

UOB: Arvid Swartsenburg, Head of Digital Strategy and Transformation

Wells Fargo: Steve Hagerman, CIO for Consumer Technology

Decoding the significance of embedded finance

For many institutions, embedded finance has slowly transitioned from being a visionary buzzword to being a tangible reality. In those institutions, embedded finance is impacting the way financial services executives define their business. As UOB's Arvid Swartsenburg asserts, "Embedded finance has already found its place in many real-life scenarios."

Executives across all latitudes concur that embedding financial services in the context of clients' personal and business lives is indispensable. Unlocking the value of customer data and being relevant in the moment and location of need strengthens client relationships and helps secure a competitive edge. Referring to Unipol's car insurance and mobility business, Giacomo Lovati underscores this success with the value of customer data: "Understanding our customer movements allowed us to enter new markets."

Capturing behavioral data informs approaches to constructing ecosystem-based value propositions. That's why Starling Bank's Sam Everington portrays embedded finance as a tool for banks to be more proactive and responsive to their clients' needs. "Ultimately, [embedded finance is] access to another distribution channel for the bank, finding people in those moments of real need."

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Embedded finance opens doors for banks to connect with a diverse range of individuals, transcending traditional consumer and business boundaries.

And embedded finance is more than a fad. Lloyds Banking Group's Jasjyot Singh reinforces that: "Embedded finance is not a passing trend. It broadens the ways to engage with other people who are not just stand alone consumers and businesses." This highlights how embedded finance opens doors for banks to connect with a diverse range of individuals, transcending traditional consumer and business boundaries.

But embedded finance cannot flourish in isolation. The whole organization must share in the vision and adapt by instantly enabling risk management, expanding compliance beyond traditional firms' borders, onboarding new talent on a transformed operating model, improving merchants' engagement, and redefining clients—as well as what it means to serve them.

Enel's Giovanni Vattani also reminds us that financial institutions must expand their thinking beyond transactional terms. He suggests that embedded finance encompasses more than product definitions and can revolutionize the whole relationship between banks and partners. "It's about co-creating new solutions that truly enhance the client journey."

Indeed, embedded finance isn't just about disseminating products. It's also about collaborating with partners to devise innovative solutions that significantly improve the client experience. "Embedding financial services capabilities such as lending [...] [changes] the paradigm for merchants from a way to sell products to a place to grow their business," DOKU's Sujit Unni says. He underscores the ongoing need for active involvement and tailored assistance during the entire business journey, making certain that the financial solutions incorporated offer custom-fit benefits and long-term value for each unique enterprise.

These insights from Swartsenburg, Lovati, Everington, Singh, Vattani, and Unni bring into sharp focus the transformative impact for entire industries. Embedded finance is much more than just a new product-offering platform. It's about fostering collaborative relationships and co-creating solutions that uplift the client experience. Additionally, it empowers banks to engage with a wider spectrum of stakeholders, breaking away from the confines of traditional customer segments.

Unlocking value through strategic long-term vision

It is clear that embedded finance is a long-term strategy made of intermediate value-generating checkpoints. As Mizuho Bank's Andy Nam puts it: "Banks have an advantage over fintechs in some aspects, such as clients recognize the value of an established relationship that is based on trust and reliability. But this trust is not to be taken for granted, as clients have learned to look elsewhere for convenience. This is the reason why incumbents can't stand still but must learn how to work with other financial institutions and non-banking partners."

Banks must shift from a tactical mindset to review short-term gains and pains as part of a more long-term, strategic journey. "If the focus is on the end game, banks might never get started," explains Singh, who says institutions must strike the right balance between short-term value and long-term viability.

On that note, it's essential to enable a value office to engage all parties and build a shared value-generation perspective that reconciles short-term expectations with long-term sustained value. This perspective should be based on a well-defined business product taxonomy and the alignment of goals across the organization—including external partners. It's important to integrate, if not replace, transactional measures with a different business expectation that prioritizes the depth and quality of relationships with clients as markers of success.

HSBC's Shayan Hazir accentuates banks' need for a new strategic approach. "To effectively navigate these changes and capitalize on the opportunity, banks must embrace a strategic mindset and build the necessary infrastructure." He emphasizes the need to adopt a proactive and long-term approach to adeptly maneuver the changing dynamics of embedded finance.

In a separate but complementary view, Vattani observes, "Beyond acquiring standard services that are already in place, it is essential to perceive a will to co-create and innovate new services." His comments underscore the importance of adopting a client-centered perspective that is integrated across the organization.

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Also necessary are strong leadership and collaboration, which can help institutions stay the course on multiyear journeys. “We could have easily chosen not to change and to do banking in the traditional way,” says DBS’s Alfian Sharifuddin. Fortunately, we didn’t do that [...] It’s not just vision. It’s real people who made it happen.”

In light of the perspectives shared by Nam, Singh, Hazir, Vattani, and Sharifuddin, it’s evident that the effective integration of embedded finance involves more than superficial business and technical modifications. Success requires a transformed, multifaceted business view encompassing impact to financial management, depth of customer engagement, volume growth, activity rates, and compliance fulfillment. In the world of BaaS offerings, resilience is vital.

“The sustained success of embedded finance initiatives should not be determined by revenue alone,” notes Raiffeisen Bank International’s Sudip Khan, who emphasizes that increased engagement with end customers also should be considered. He underscores the significance of a customer-centric focus and the development of meaningful interactions and experiences. While financial products evolve at a slow pace, customer needs and preference are more dynamic. As the pandemic demonstrated, they can swing wildly, forcing banks to move quickly to remain client-centric.

Bradesco’s Fernando Freitas further emphasizes the characteristics of effective embedded finance: “Successful deployment goes beyond the realm of technology. It encompasses a rich understanding of the commercial landscape, which needs to be considered as we forge ahead with technological innovation.” This sentiment highlights the importance of integrating business acumen with technological proficiency throughout the implementation process, helping ensure that the developed solutions not only possess advanced functionalities, but also address market demands and business intricacies in a way that provides lasting value.

Embedded finance also unlocks relevant value in the risk management domain. A bank can better manage its risk appetite by leveraging new data and fostering a more direct relationship between the financial services it provides and its end clients in the context of their personal and business journeys.

To attain success, financial institutions must consider more than financial metrics alone, according to Freitas and Khan. They also must prioritize speed of development, depth of customer engagement, architectural innovation, and collaborative endeavors. By emphasizing these multidimensional facets, banks can deliver resilient, customer-centric embedded finance solutions that meet customer expectations and drive growth. This comprehensive approach helps ensure that embedded finance initiatives deliver value not only to the banks themselves, but also to their end customers.

The indispensable role of modern architecture and exponential technology

In institutions that embrace embedded finance, business lines leverage technology to engage with clients and partners in new ways. Investing in modern infrastructure and architectures is a key priority. This requires utilizing large-scale platforms, improving API capabilities, modernizing core systems, and adopting architectural principles that promote flexibility and scalability.

As Wells Fargo's Steve Hagerman reminds us, "Technology-only solutions will never be enough; your architecture must be synonymous with a clear business product taxonomy." This implies that an organization's technological framework should seamlessly integrate with its strategic goals and product offerings.

"Banking isn't as straightforward as digitalization, simplicity, and instant access to credits and debits [...] To succeed in the new realm of digital marketplaces and embedded finance, time to market is of the essence [...] The banking industry and regulators must continue to lower the barriers that slow progress," explains ING's Brendan Donovan, who underlines how important it is that banks invest in up-to-date technological infrastructure to promote flexibility, scalability, and interoperability.

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Investing in technology and making thoughtful architectural choices is crucial for unlocking the potential of embedded finance.

This perspective accentuates the significance of aligning financial acumen with tech savvy, reinforcing the notion that integrating finance and technology requires partners who are inherently adaptable and forward-thinking.

Being ready for seamless financial interactions is critical, according to Stripe's Kevin Dowling. "Money movement doesn't happen in isolation. Being agnostic and API-first enables you to embed payments rapidly wherever partners see the next use case emerging."

BMO's Lawrence Wan similarly refers to the importance of architectural thinking. "I would distill everything into speed. To be fast you need to be much more thoughtful, and that's where the concept of architecture comes in."

Echoes Vattani, "What matters is time to market, which is monitored very carefully. That means finding not only the best technical solution, but also the partner capable of accompanying integration and development quickly."

Paired with their peers' perspectives, the insights offered by Hagerman, Donovan, Dowling, Wan, and Vattani is evidence of the industry's collective agreement that investing in technology and making thoughtful architectural choices is crucial for unlocking the potential of embedded finance and fostering innovation in the banking sector. These considerations not only support practical implementations, but also lay the groundwork for continuous innovation and adaptation within the banking industry.

Promoting industry standards to mitigate ecosystem risk and compliance hurdles

Future-proofing banks with embedded finance strategies is about not only technology and business solutions, but also compliance posture and adherence to industry standards. After all, banking is a trust-based industry that is built on regulation. “Trust is the key issue, and trust is not just a cool brand,” says BBVA’s Carmela Gómez Castelao.

Trust is especially important in light of shifting markets and the rise of new use cases that leverage exponential technology. In fact, we encountered a broad consensus in our conversations: it’s important to create trust by embracing radical transparency in data protection and by building continuous alignment with regulatory bodies.

Europe sits at the forefront of regulatory discussions about standards and compliance both inside and beyond financial services. “It’s time to think about how to unlock the potential of embedded finance beyond open banking. The technology is here, but what is missing is standardization,” Vattani says.

TD Bank’s Gina Stille refers to the importance of having a common taxonomy across stakeholder groups. “What language do we all want to speak together?” she asks. “We don’t want to just speak a common language internally; we want to be able to speak a common language externally with service providers. And if we think about open banking and all the reasons why we are going to be able to interact with other third parties, it makes sense for us to go with an industry standard.”

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It's important to create trust by embracing radical transparency in data protection.

JPMC's Timothy Ness echoes the importance of common standards. "'Selfie' is the only word that is the same across the globe in all spoken languages. The nut to crack is to build a common language across the enterprise." He underlines the value of effective communication and mutual understanding within an enterprise and driving home the need for a universally comprehensible "business language."

And recognizing that European regulation kickstarted open banking—now evolving into embedded finance—and a broader debate about API standards, Khan welcomes regulation. "To speed things up, more regulation is welcome."

These reflections from Castelao, Vattani, Stille, Ness, and Khan underscore the importance of finding a common ground for integration and collaboration within financial services and across open banking gates. This extends beyond mere compliance. It delivers business value by fostering efficiency and accelerating time to market by creating integrated systems and frictionless services.

The rising tide of customer expectations in today's market

The goal of embedded finance is eliminating ecosystem friction by offering services when and where customers need them, at convenient prices, within secure digital frameworks. Financial institutions that want to achieve this goal understand the need to prioritize customer engagement by embedding services into seamless user journeys orchestrated by diverse third-party associates.

This customer-first approach demands a shift of financial engineering toward simplicity, with a strong technical foundation that helps ensure an effortless experience for both distributors and customers. It is grounded in a profound comprehension of different customer needs and segmentation to align and balance the delivery of client value between banks and non-banking partners.

An exceptional user experience is foundational. "Providers of embedded finance must be obsessed with the user experience of distributors," says SEB's Christoffer Malmer.

Raffles Medical Group's Quek Sin Kwok discusses how embedded finance can improve the user experience in the fields of payments and healthcare financing, in particular. "Addressing this challenge is crucial to enhance the user experience," he says. "It is crucial to extend user support beyond these moments and provide ongoing guidance to individuals and their families."

This underlines the necessity for persistent support and guidance throughout the customer journey, helping ensure that the solutions offered via embedded finance meet the unique needs of users and offer sustained value.

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Seamless partnerships with third-party entities enhance the overall user experience.

Standard Bank's Jorg Fischer stresses the importance of a purposeful, client-oriented approach in the platform business. "Organizations need to operate with a clear purpose while also finding a feasible commercial model as they step into the platform business," he says. "Banks need to be truly client-centric and think about the day in the life of the client, not the day in the life of a bank."

This highlights the shift from a bank-centric perspective to one that places the customer at the heart of operations. Only adopting a holistic perspective—tearing down data barriers among lines of business and industries—can foster real and effective client centricity.

"Focusing on customer relationships means understanding the needs of clients holistically," explains Bancolombia's Maria Cristina Arrastia Uribe. "Solving their needs holistically means going beyond financial services, because they don't wake up dreaming of a mortgage. They wake up dreaming of a new home."

By internalizing a customer-focused mindset, banks can craft user journeys that place simplicity, convenience, and value at the forefront. Seamless partnerships with third-party entities and continued support beyond particular touchpoints enhance the overall user experience. These insights from Malmer, Kwok, Fischer, and Uribe emphasize that a customer-centric approach allows banks to meet their customers' evolving needs, providing them with consistent value throughout their financial journey.

Overcoming cultural and mindset inertia to enable transformation

Based on our dialogues with industry executives, it's clear to see that banks need a new mindset and a cultural transformation to flourish in the world of embedded finance. This requires embracing change, empowering employees, and establishing partnerships that break down conventional barriers, all centered on sustained growth.

Singh advocates for aligning interests and priorities rather than making structural adjustments. "I have always believed that structures, in themselves, do not have a significant impact. We all get super excited by boxes on a piece of paper. What really makes a difference is the alignment of interests and alignment of priorities."

A successful change in operating model encompasses the way of working, how incentives are built, and how technology is deployed and accessed in the development process.

Banks must act as technology-first companies, according to Malmer. "What we are building with embedded finance and BaaS is effectively a software product. We must operate as a software development organization, which is something totally different than a traditional bank." Banks should therefore adopt an agile and innovative mindset similar to that of software development organizations to excel in the changing landscape of embedded finance.

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By empowering talented individuals and embracing their ideas, banks can stay ahead of the curve in technology.

Everington echoes this perspective and highlights that what matters is building teams that are receptive to change and ready to grab market opportunities, placing trust in and enabling the bright minds spearheading technological advancements. “You have to trust and empower smart individuals without necessarily knowing what you’re going to get and in what time frame.”

This emphasizes the need to create an atmosphere that’s conducive to innovation, collaboration, and adaptability. By empowering talented individuals and embracing their ideas, banks can stay ahead of the curve in technology and provide innovative solutions in embedded finance.

Castelao also stresses the significance of workforce development. “Funding and development of embedded finance will only materialize if we seriously consider the changing behavior of our clients, and therefore the change in people’s skills.”

She highlights the importance of upskilling employees and aligning their capabilities with the emerging demands of embedded finance. It calls for a proactive approach to cultivating talent, promoting continuous learning, and adapting to industry dynamism.

The perspectives shared by Singh, Malmer, Everington, and Castelao suggest that embedded finance requires banks to cultivate a culture that encourages innovation, adaptability, and collaboration. By embracing a software development mentality, investing in employee skill development, and preemptively addressing the evolving needs of clients, banks can successfully navigate the transforming landscape of embedded finance, stimulate sustainable growth, and offer superior value to customers.

Delve deeper with banking experts

Our conversations with industry experts and makers confirm that financial institutions can successfully complete the journey to embedded finance. However, doing so requires a complex interplay of adaptation and adoption, harnessing the transformative potential of embedded finance to create enduring value.

The path isn't easy, but it can be rewarding. To fully understand what embedded finance is today and how it can shape the future of financial services, continue reading for full-length interviews with our experts. As you ingest their insights, keep in mind the thematic pillars that we've just highlighted:

- Decoding the significance of embedded finance
- Unlocking value through strategic long-term vision
- The indispensable role of modern architecture and exponential technology
- Promoting industry standards to mitigate ecosystem risk and compliance hurdles
- The rising tide of customer expectations in today's market
- Overcoming cultural and mindset inertia to enable transformation

Using these as the foundation for your learning will help you connect the dots among this diverse set of intriguing perspectives, thereby turning our experts' collective wisdom into a plan of action for pursuing the many fruits of embedded finance.

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Learn more about embedded finance by reading our main research report:

Embedded finance

Creating the everywhere, everyday bank

The platform economy has transformed how consumers experience the digital world, with dramatic implications for financial institutions. Learn how banks can serve their clients whenever and wherever a financial need may arise.

Embedded finance is essential for modern banking strategies.

70% of banking executives say embedded finance is either core or complementary to their business strategy.

Ecosystem-based business models are rising.

Financial institutions are increasingly investing in the platform economy, with 20% of organizations already offering embedded finance solutions.

Yet, bank executives' priorities don't align with consumer demands.

Bankers underappreciate the value of mobile wallets, personalized rewards, and satisfying customer services.

Monolithic architectures and processes hinder banking ambitions.

Foundational gaps in modernization and API standardization are hampering embedded finance outcomes.

Privacy and security challenges slow innovation across open ecosystems.

CEOs of financial institutions cite privacy and cybersecurity as the top two barriers to generative AI deployment—more than CEOs from any other sector.

ibm.co/embedded-finance

Our conversations

The conversations with our experts have been edited for clarity; all opinions expressed therein are the experts' personal opinions.

Bancolombia
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Bancolombia

Maria Cristina Arrastia Uribe

Business Vice President

The transition to embedded finance in the banking industry marks a strategic evolution, focusing on enhancing customer experiences and maintaining relevance in an increasingly digital marketplace. Such a transformation requires overcoming internal alignment challenges and nurturing a culture of collaboration with third parties to offer more holistic, customer-centric solutions. In this conversation with IBM's Paolo Sironi, Bancolombia's Maria Cristina Arrastia Uribe discusses a future financial landscape that's democratized and hyper-personalized, with banks evolving into platforms that provide a diverse array of services.

How is Bancolombia thinking about embedded finance?

Historically, we have been a very transactional bank, gaining access to many touchpoints with clients. We started asking ourselves how we could improve quality and value of client engagement. As we chose a platform model for the development of our bank strategy, we started integrating third-party services on our digital channels and exposing API solutions on our platform. The variety of our API-led ecosystem provided multiple engagement points and user journeys through our channels, which at the same time allowed us to solve client needs holistically.

We learned a step at a time the value of providing financial services to our clients also via competitors' proportions with the goals to always help our clients to develop their businesses or fulfill their personal goals. This strategic imperative has facilitated numerous internal conversations that were initially challenging the bank. Initially, many colleagues didn't grasp the strategic value of our ideas. But as we started explaining the concept and the purpose, it became easier for us to gain acceptance.

What is your perspective on embedded finance?

To begin with, it is crucial to grasp the significance of our strategic definition of embedded finance, as it serves as the cornerstone of our journey. Just over five years ago, we made the customer relationship our primary objective and decided to work around five segments: individuals, freelancers, SMEs, companies, and corporates. Focusing on customer relationships means understanding the needs of clients holistically.

The word "holistic" carries a lot of weight if you want to solve client needs. Solving their needs holistically means going beyond financial services, because they don't wake up dreaming of a mortgage. They wake up dreaming of a new home. We worked on individuals' needs, such as daily life, mobility, environment, retiring, and protecting inheritance. And we worked on companies' needs, including evolution, growth, transformation, and optimization of their business. Given that context, art begins. And that's where technology starts.

Do you think banks lose relevance with embedded finance?

On the contrary. It is by building our own ecosystem and exposing third-party services that our bank remains relevant. We prefer to overlap than to leave gaps in the market, obsessive about developing methods of payment and collection. We cannibalized ourselves and didn't care. And what is more important: our purpose. We believe that this is something good for customers, so we do it.

What is the next bet the bank must make so that it continues to be relevant to customers every day?

Embedded finance doesn't take away from your strategy. It is additive because the digital channels that have relevance can be your competitors, but they are also your corporate clients. The strategy worked for us, because in the last five years we added 48% of new clients. Today, 56% percent of banking transactions from the Colombian market go through Bancolombia, and such a transactional share helped us to defend our relevance and grow it.

What's the challenge in aligning the business, the technology, and the control functions when third parties are involved?

I would say it's a perfect marriage. When we started five years ago, we also adopted agile as a work methodology combining business and technology. It hasn't been easy. Some areas were transformed, and some were causing friction because there was no strategic understanding and alignment. Friction became evident in the middle of the pandemic. But we felt committed to scale agility in the organization, with each tribe pairing a technical and a functional leader aligned on the strategy with the same KPIs.

We also learned the importance of including a security and cybersecurity leader in each tribe. After much work, the tribes now work with the same objectives and are very synchronized. Certainly, we continue to refine our strategy, but we are all aligned on the same goals and performance measures where security, profitable growth, and customer experience are the pillars. There can still be friction, as in every marriage, but all parties work and row at the same time.

A good operating system is difficult to achieve. A very important topic is the bank's way of working and how core technology, business, and control functions are working in tandem. In the context of embedded finance, how do you see the banking core operations working, and how would you measure success?

As a 155-year-old bank, legacy accompanies us. But we didn't sit back and wait for the perfect technology to improve our business. We developed new platforms and new architectures integrating with the technology we have. Right now, we are a little ambidextrous. We are in both worlds. The central element is that any new solution had to be part of a process of "amplifying" the whole bank. While we operate on our original core and more modern platform solutions supporting embedded finance, we also started migrating to the cloud. That is easier said than done because it's necessary to uncouple many things that were coupled due to their history. Innovation comes with new risks and refreshed compliance. The open banking and open data movement helped to add clarity in our journey via the definition of standards to make our APIs more easily accessible.

What are your main embedded finance use cases?

We generated great traction in embedding payments with the launch of our QR solution and the integration with our client ecosystem. And we introduced a housing finance solution. Currently, we are expanding with digital wallets to enable clients with easier handling of their bank accounts.

Is there a perfect partner to accelerate your strategy?

First of all, we look for partners with the same level of ambition, a portfolio of products having the functionalities needed, and shared values and principles. A good partner is not necessarily the fastest one, but the one guaranteeing our business sustainability over time with a good level of support.

What would be the success factors?

There are four factors: have a clear strategy, understand that this is a business done in cooperation with third parties, become expert in key capabilities, and change mindset. First, there cannot be success without a clear definition of embedded finance. Second, all must keep an open mind to run a new way of doing business in which there is a high level of collaboration with third parties that are often also competitors. Success is based on shared work methodology, ambition, values, functionalities, and experience. Third, I think that for us it has been a winner to be very consistent, coherent, and persistent in that we have an API-led producer-consumer model that everyone understands. Fourth, a change of mindset—of culture—is paramount. All colleagues must understand the reason for what we do, how to constantly do it, and how to do it with security.

Where do you see the industry going next with embedded finance?

We've asked ourselves that question a lot. I think that in 10 years the bank will be very different from what it is today. We have a genuine purpose that moves us with everything we do. We want to work on sustainable development, seeking the well-being of society and people. The democratization of financial services means to give more access to more people, and help improving well-being. How to do that? Banks will end up being a platform that exposes services for others to consume, where hyper-personalization becomes a fundamental thing for differentiation in the market. The first three years in our platform journey helped us prepare to succeed in a market in which the barriers and borders among industries are over.

BBVA

Carmela Gómez Castelao

Head of Open Banking

In a world that becomes socially and economically more interconnected, the expanding digital disintermediation of financial services heightens the opportunity to adjust traditional business models and harvest new value at the intersection of banking with other industries. Across open banking, embedded finance emerges as a strategic enabler to discover new ways of accessing new client pools based on virtual proximity and digital convenience. It's no surprise that digital-savvy institutions like BBVA—and their competitors operating outside financial services—are pressing on embedded finance strategies. In this conversation with IBM's Paolo Sironi, BBVA's Carmela Gómez Castelao discusses all key aspects of embedded finance strategies.

As a banker at the forefront of business model transformation, what is your understanding of embedded finance?

Banks have always looked to deliver products in a more convenient way for customers, like consumer finance through third-party agents in the physical world. This is what I call "traditional embedded finance." What digital economy and open banking brings anew is the ability to do this in the digital world, which means convenience and immediacy for final customers.

To what extent does the concern of losing customer relationships influence the preference of bankers between "traditional approaches to embedded finance" and "digital embedded finance," such as utilizing agents for consumer lending?

Through embedded finance we are not losing the relationship with clients, but bringing the financial service to the place where clients are doing their daily journeys through an open funnel created in a third party. Client capture is much more expensive for banks than for e-commerce companies or travel websites. Embedded finance empowers us to attract a broader market and provide convenient access to financial products where the customer needs it and when the customer needs it. The customer-facing privileges are shared with our partners and the end customer relationship remains with the bank.

Is the effectiveness of this funnel consistent across different client segments—for example, retail clients, small and medium-sized businesses, and corporate clients?

Retail and SME clients look for third-party portals where they conduct their day-to-day activities. This digital behavior allows us to collaborate with third-party portals to make finance services available in the most convenient way. On the other hand, acquiring and managing relationships with large corporate clients is more complex and traditionally relies on professional services. Embedded finance enables these companies to digitally manage relationships, as business decisions occur in various contexts. I cannot imagine a treasurer of the future, who is now in university, not thinking of having embedded finance solutions for managing costs, taxes, accounting [...] It's something that is going to happen.

What's the appropriate first step when embarking on an embedded finance journey, and what potential pitfalls or actions should be avoided along the way?

The first step is carefully identifying which verticals to serve. This is essential to design a customer-centric approach. The partner helps you understand deeply the vertical you want to tackle, and that will lead to the creation of products that will serve their customers better, bringing the necessary financial solutions into client journeys and events. In some sectors, it's not easy to gain that level of customer understanding to leverage financial needs if you don't have the full context. That's the main value of embedding finance now. That's the main value of partnering.

You said partners, not buyers. Is embedded finance about exposing APIs for a third party that consumes them autonomously? Or is a partnership model necessary?

I think learning how to partner is the main value that embedded finance brings to the industry. Many companies which don't aspire to become banks want to offer excellent financial solutions inside their client journeys. Simultaneously, many banks strive to target these companies' customers, who are unlikely to visit the bank's website. So, partnering is a win-win for everyone.

One of the first things you need to do—the one step you need to get right—is understanding which partners you want to work with, and what is the value that we can jointly offer to the final customers. This is not about one big business case or building a product that suits just one big client. This new way of banking needs to grow with small learning steps which will help us adjust systems and services and transform processes as a whole. Connecting to clients outside banks' traditional perimeters has many challenges in terms of processes and contracts.

To play that back, your main point is that banks need a long-term strategy, and opportunistic approaches won't enable banks with the foundations they need to build for the future?

That's right. In their pursuit of catering to small business clients, banks run the risk of overlooking critical elements that may emerge later and potentially strain the client relationship. This is a common mistake that arises when delving into the realm of embedded finance. Neglecting to grasp the strategic understanding of the overall context in which clients operate is like setting up mobile banking just as one service on a little mobile screen instead of a bigger laptop screen, and forgetting to consider business continuity, new vulnerabilities, need of tailored processes, and new approach to clients.

What is the most significant lesson learned from your experience with embedded finance initiatives?

I think the first lesson learned is about addressing regulators' concerns and requirements. It has taught us a lot. European regulators, for example, have many fintechs talking to them about open banking, while many banks are fairly disengaged because they think they cannot monetize on open banking requirements. Current regulation does not allow fair play, does not promote standards, and does not motivate banks to invest in offering good-quality APIs. However, embedded finance is something that is going to happen. It's not only about disruptive innovation, but a joint transformation of the whole financial and non-financial ecosystem. All the community must have a voice in discussing future regulation.

The second major learning is about data. I don't see yet many embedded finance solutions that are really leveraging data correctly either in the banking or non-banking world. How can we leverage data considering privacy, and how to explain to the customer for what are we going to use your data and which benefits will bring for them? And how are you going to get value here? Those are the main challenges I see looking forward.

Banks have their own closed verticals, and integrating embedded finance would inevitably intersect with these. Are you inferring that banks need to open up internally to effectively support an embedded finance system, and thus cater to external clients?

Banks need to open—or more than that, need to change—the way we have looked at financial services until now. Managing an internal customer funnel is not the same as helping partners manage their funnel, including the financial part of it. This requires not only a different sales approach much more based in discovering together with the partner what works well, but also a different approach to sell banking products.

A clear example is selling credit products. Learning how to use external data to improve the risk scoring could be very interesting for both, but the client consent to use their data is critical and needs to be managed. It could be very interesting for the partner because they will have more satisfied customers. It could be very interesting for the final clients, because they will get more opportunities to finance their goods or whatever they are looking for. And, of course, it's advantageous for the bank, as it drives more business.

The question arises: How can we combine these three elements? How do we explain to regulators the new models we wish to implement? How do we test these models in a regulatory sandbox to gain acceptance? It's essential to find a way to navigate these questions because managing risks in non-traditional financial ways requires careful analysis and consideration, and of course a different selling and operating approach.

In the context of embedded finance, how important is the relationship between business and technology?

It's not just business and technology. For me, it's a square that considers business models, new technology, transformed processes, and secured access to data. Technology plays a crucial role in determining what can be done. I appreciate it when technical experts say that we can do anything, and it's true. We do have endless possibilities. However, we must consider the cost, time frame, and associated risks. At BBVA, we call these elements "shapers" which mold the development of technology—for example, legal, compliance, risks. We as a business would love to do many things. We might have 25 ideas. Of those 25, maybe 20 are viable on technical terms. Fifteen more are excluded by regulatory or risk constraint. And once we define the valuable use cases that remain, we need to consider how can we explain our value to the end users.

Should banks adopt existing infrastructure to enhance embedded finance architectures? Or is it more advantageous to start from scratch with a greenfield approach?

For years, we've had a wide range of proprietary APIs that we use internally to access BBVA's back-end services. However, there is a major difference between internal use and exposing APIs externally to a non-owned channel. At BBVA we use third-party tools to facilitate API exposure and orchestration. But for us, the best approach is a mix of both. Some banks may opt for a greenfield approach, aiming to start from scratch to avoid any constraints. While I understand the appeal of such a strategy from a business perspective, it also carries the risk of losing ground. As an incumbent, we possess a unique opportunity to leverage our existing suite of value-added internal services. While smaller competitors may initially focus on one or two services in a greenfield setting, as incumbents we should adopt a long-term strategy aimed at embedding a wide range of financial products and solutions. A logical approach involves blending new infrastructure with the modernization of our traditional core systems.

To what degree does resolving talent and culture gaps help embedded finance initiatives succeed?

The challenge in organizations is moving the whole structure to explore new ways of doing banking when they are happy with the business they do today. And as we discussed before, open banking requires a different approach to sales and operations. Funding and development of embedded finance will only materialize if we seriously consider the changing behavior of our clients, and therefore the change in people skills. We must consider the pace of their digital adoption as well as how they expect to interact with financial services within their digital experiences. I don't know if it's going to take three, seven, or 10 years' time. But I believe that banking as we know it today won't be there soon. That's why we need to fund this transformation now.

Are the CEO's and board's commitments essential?

Embedded finance won't be a reality at any bank without board and C-level commitment.

What stands at the intersection between standards, regulation, and quality APIs?

Regarding standards, PSD2 is an excellent example. Many intermediaries build their business case by offering their own set of standards, which results in multiple conflicting standards in the industry. This affects the speed and clarity by which non-banking companies can embed financial services. The industry should agree upon a common set of standards to promote as a foundational component of embedded finance. In business history, I don't know of any case in which standards didn't help to grow businesses exponentially.

Leading the competitive landscape are those who establish and control the standards, whether they are intermediaries or jurisdictions. Which regions do you perceive as being the most advanced in terms of embedded finance development?

Asia is a leading market in embedded finance. The main reason is a combination of technology adoption by businesses, digital behavior of the population requesting financial services to be embedded, and regulation. Their banks want to be active players in the ecosystem.

We talked about how critical the top-down mandate is to change the bank mindset to transform how products are developed and offered. There are also many examples in the US where smaller companies are offering embedded services. The US benefits from a single market with a single language, and the possibility to offer the same API functionality across many local states. Adequate ROI is more complicated in smaller markets like some Latin American countries, parts of Asia, or even Europe because of the need for passporting from one country to another, which also takes time. Forward-looking regulation is also a key driver, and some countries such as Australia and Brazil are making fast inroads benefitting from all the lessons learned from countries who started earlier.

One example of regulatory advantage is digital onboarding. Jurisdictions that enable small business representatives to utilize a power of attorney for online onboarding provide embedded finance players with a clear advantage. This allows clients to onboard and start utilizing services without friction. Otherwise, banks would need to maintain a dedicated registry for powers of attorney to facilitate onboarding for users from third-party companies.

Given the central role of banks as trust agents, what factors contribute to a bank being perceived as more trustworthy? Can a cool brand alone suffice?

Trust is the key issue, and trust is not just a cool brand. Financial education plays a relevant role to answer key questions such as, "Is my money safe?" In this regard, trust is a big asset for us. Our partners often choose to collaborate with BBVA because they recognize our strengths and the trust we instill in users when it comes to secure payments and opening accounts.

When non-banking firms seek partnerships with banks to embed financial services into their client journeys, what do they value the most when selecting which banks to collaborate with?

What the ecosystem of partners want is easy integration, from clear technical documentation to state-of-the-art sandbox capabilities. They want monetization options as agents. And they also demand security and resilience. For example, systems must not fail on Black Friday, no matter how much the transaction volumes spike. What they demand is frictionless journeys for their clients. Banks are in the financial business, and partners are in another business; embedded finance is just a component of the journey.

Turning the question around, what do banks value most about embedded finance partners?

First, the value for the bank is opening the funnel to connect with a cohort of clients who would never come to the bank website or app. Second, but not less important, partners provide better understanding of cohort needs, enhancing the bank's capability to ideate new products or solutions that fit.

Considering the time required to deliver value for most embedded finance initiatives, what is the most effective approach for reporting progress to top management?

Embedded finance is not an easy journey, and it takes several levels of conversations to reach same understanding and strategic consensus. The best way to do this is demonstrating that clients are changing their behaviors and want to do business through third parties. Half of existing clients of our embedded finance solutions are already BBVA clients, but the other half are clients that are difficult and more expensive to attract with traditional channels.

You referred to embedded finance as a square made of business, technology, processes, and data. If we add the ecosystem, it becomes a cube featuring the interest of partners, lines of banking business, technology departments, and regulators. How important is the concept of value orchestration—and, furthermore, the construct of a value office taking center stage inside this cube?

It is more than relevant. This is critical. You must transform your way of seeing the market and the ecosystem. Unless you understand that you are part of that ecosystem, you can't grasp the potential value that embedded finance brings.

Bradesco

Fernando Freitas

Head of Innovation

As entire economies go digital and foster new economic interactions among participants, banks are tasked with leveraging technology to change their commercial approaches. By embedding themselves into ecosystem platforms, they can create new distribution channels through third-party partnerships. Or they can leverage their full range of business expertise and technical capabilities to invest in orchestrating user ecosystems. Bradesco faced this new banking paradigm recently when it launched an agri-farm solution as a digital strategy to embed its added value into 50% of the Brazilian economy. In this conversation with IBM's Paolo Sironi, Bradesco's Fernando Freitas discusses his embedded finance experience at the inflection point of banking and entire economies.

What's your perspective on embedded finance strategies in the context of a well-established financial institution?

The competition landscape is evolving, asking banks to excel on three fronts:

First, banks develop their own financial products and solutions, distributing them through their channels. They constantly strive to enhance client experiences and align customer needs with added value. I would say that banks have a clear understanding about what works and what doesn't work with this approach.

Second, banks see the value to complement their core services with third-party offers through business partnerships. Bancassurance is an example, in which banks integrate their portfolios with products which are not owned but are still adjacent to their main business.

Third, banks are asked to be way more accurate to meet client needs in the moment and location when client needs emerge. And here is where understanding embedded finance is really crucial, because banks would own the user journey yet need to be contextualized.

How would a bank contextualize its services in non-banking ecosystems?

Embedded finance works on two levels. The first level is transactional: banking services can be directly coupled to the user journey on third-party platforms via secured API services. The second level is empowering: third parties don't only require access to an API-enabled catalog of products. Some may seek to establish their own financial services operation and seek BaaS services to operate under a banking license.

Do banks fear losing the customer relationship when embedding into third-party user journeys?

I don't think so. Essentially, banks already worked with their clients under someone else's brand and platform without fear of losing strategic relevance. Think of private-label credit cards as an example. What they now understand is that new technology generates new opportunities and business models that can target new segments beyond payments. For example, large retail and telco companies are looking to provide financial services directly to their suppliers to eliminate friction from sophisticated structures, like cash management and credit operations. And there are many more segments occupied by startups, which mainly own the experience layer but do not have the core banking capability to make further progress. Although it is difficult to assess the size of the embedded finance market, there is an understanding that it is a relevant opportunity for banks that have the assets and competence to compete.

Amidst all market opportunities and complexities, do you think there is a first-mover advantage?

On the one side, every product owner inside a bank already understands that the distribution of their product cannot be restricted to the organization's channels and customers, but it needs to be consumable wherever clients are in their personal and business journey. That is why banks are investing to make all products consumable via APIs on digital marketplaces. A well-constructed API marketplace will make most banking consumable on-demand by third-party businesses and partners. Banks decide in different forms the level of openness or permission to access their API marketplace.

On the other side, BaaS offerings can be more demanding, as they require deeper integration levels and more complex service-level agreements. This is where banks are acting more cautiously to understand how to better position.

Is embedded finance a technology or a business strategy?

An embedded finance strategy encompasses more than just technology. It also requires deep understanding of commercial elements that must be in place as the technology is developed. Most of our 500 APIs lie on a simple commercial structure for external consumption. And once all bricks and commercial structures are in place, it is relatively easy to bundle for multiple case studies like collections of payments and through real estate credit.

In general, our understanding is to have a technology that is extremely plug-and-play leveraging the resilience and scalability of the bank's infrastructure and operations. Seamless scalability is essential for processing at scale because embedded finance is not limited to niche markets but extends to large-scale ecosystem engagement. Fintechs have been in this market for quite some time, and incumbent banks started making inroads more recently. The more the market grows, the more security, compliance, and high-quality accessibility become key and differentiating attributes. And that is what we target.

What is the key metric for success?

There is not much mystery. What matters is the future revenue stream looking at a three-year horizon. To add, banks must carefully assess the readiness of the competitive IT attributes to enter the embedded finance market. In this regard, I believe we are halfway in our journey. The first half gave us the most business-critical attributes. What comes next is to deepen our relevance in all market segments. We are carefully monitoring the percentage of revenue coming from third-party channels and its different dynamics. For example, we strive to improve market share in the collection processes [...] driven by the consumption of our APIs. Instead, on the credit side we monitor the number of leads and portfolio change that comes from partnerships.

Do you think this will be a market for only a few large players?

I think there is space for a more niche market in which fintechs and digital banks can differentiate their value propositions. However, there is an increasing demand for mass-market offerings that deliver consistent value to the ecosystem of small and medium-sized companies that interact in the supply chains of large corporations. There is a need to close the loop of these services in a frictionless mode. There is no doubt about the emergence of dominant platforms and marketplaces that will drive and shape most of the behavioral consumption of financial services from consumers and small to medium businesses.

DBS Hong Kong and China

Alfian Sharifuddin

Managing Director, Head of Technology and Operations

The banking experience in Greater China is radically different from that in most other parts of the world. People no longer bank on the bank's app or online; there is simply no need. Instead, everyone accesses their money through super-apps. It's a remarkable experience that frees access to savings and pushes banking to be what it ought to be—an enabler of people and businesses. It's a massive transformation. In this conversation with IBM's Paolo Sironi, DBS Hong Kong and China's Alfian Sharifuddin discusses the key aspects of emerging embedded finance strategies across the region.

How would you define embedded finance?

Broadly speaking, I would define it as the integration of financial services into non-financial products, made possible by the increasing availability of APIs between organizations. My first introduction to the concept of embedded finance was back in 2016, when I held a leadership role in DBS technology in India. At DBS, one of our mottos is to "make banking joyful," and to make banking invisible whenever possible to "live more, bank less," "holiday more, bank less," or "party more, bank less." Embedded finance centers around becoming more integrated into your client's daily life. The reason why we are pursuing this is that we believe banking is not something you do because you want to; it's something you do because you have to. Fundamentally, what we want is to help our customers achieve their life goals and ambitions.

What are the key steps for getting started with an embedded finance initiative?

From a technological enablement standpoint, security is the first important step. Let's say business leaders define customer journeys they want to improve or create, whether it be integrating with a transport company or a medical company. The first step is to look at the security of the data exchange between organizations.

The second step is defining the right governance for data ownership and data exchange. It's critical to establish an understanding of what data banks are receiving and what data banks are giving up to third parties, and how to leverage with permission the value of data exchanges. This is crucial, and it is often a showstopper. All this must be reflected in a slightly different architecture and different skills. People need to be aware of the boundaries of the systems.

What is the role of regulation?

I believe it is very important because it can help harmonize approaches across the entire industry and beyond. Let me present an example and compare Hong Kong and Singapore, where both markets' regulators have been very progressive to promote open banking following the UK example.

Singapore adopted an interesting approach as MAS promoted the Singapore Financial Data Exchange (SGFinDex). Based on the national digital identity and centrally managed online consent system, it allows individuals secure consolidated access to their financial information held across different government agencies and financial institutions. Since the data federation was centrally governed, the industry was quick to develop solutions around it. It helped launching quite quickly. When you log in to a Singapore bank account and give the consent to share your data, you can see the federated data from all your other institutions.

On the other hand, Hong Kong worked on a similar idea, but they chose not to implement a central consent layer. They only established federation with a set of standards. If you sign up for this open banking federated layer, the consent to share data needs to be agreed bilaterally with each entity that you want to enter an agreement with. What this means is that in Singapore, if I join, they automatically see mine and I see theirs. It's very safe and simple. In Hong Kong, if I join, it doesn't necessarily mean that people can see my data, or I can see other people's data. I still have to individually approach banks and discuss data exchange and attributes.

All in all, setting the right governance is essential, like having a central party that helps to coordinate the consent layer. Now, Hong Kong has gone one step further and invited non-financial entities to join this data federated layer. They've invited a transport payment instrument company, a large online retailer, and several other large companies such as telecoms to join.

How do you define success with embedded finance?

My definition of success is when our customer service metrics increase, irrespective of the digital or physical channel in which clients make their journeys. For example, an account opening journey has many pathways. A student might want to open an account simply through an app, from the comfort of their school. Instead, high-net-worth individuals might prefer to meet in person at a branch. We don't really mind whether it is delivered through a digital channel or a face-to-face channel. If it delights our customers, we're satisfied. And if the journey has an embedded finance element to it, then it goes towards the embedded finance definition of success metric. For each customer journey, whether it involves using a credit card or buying a house, we define a customer satisfaction metric normalized on a scale of 0 to 5. So, a score of 4.8 is desirable, while anything below 4 is not considered desirable.

How does the organization change?

Roughly five years ago, we embarked on the first stage of transformation where we created platforms rather than departments. We established a platform for consumer credit, a platform for mortgage, an investment platform, and insurance platforms. When we created the platforms, we also created a horizontal organization, grouping various functions together to break siloes. We made them an autonomous unit with their CEO and mini operations allowing people to make autonomous decisions and move quickly. We discovered that decision-making speed significantly increased. Everybody was co-located. They had the same information, they had the same KPIs, and they had the same compensation drivers.

Around three years ago we started the second phase of transformation, which was a data-driven operating model. Generally speaking, what we do is encourage our teams to not make decisions based on assumptions, but by leveraging real-time data. So, we create a control tower for each horizontal organization and give them the flexibility to decide what they need to see. For instance, the person managing the credit card platform might want to track the total number of cards opened or closed each day, the total outstanding revolving balances, or the total number of transactions. The information is available to the whole team along with the leadership as a single and powerful source of truth.

How would you define your strategy with digital transformations and embedded finance?

At DBS, we focus on creation, participation, and orchestration. Creation is where the bank owns the journey. Participation is where the bank is inside the journey of others. Orchestration is where the bank invites business partners and customers to come on our journey. And we believe we need to excel in all three, though very different.

One thing they all have in common is internal ecosystems. For every interaction with a partner, a consortium, or a third party, we try to rationalize in our mind what type of engagement it is— whether more of a creation, participation, or orchestration type. And depending on which of these three models, we assign different types of resources. If it aligns more with the “create” model, it would be more inward-facing, employing more of our internal requirements. And the skills would be a little different.

Participate tends to be the simplest, at least in my experience. The orchestrate is the hardest because you have to convince a lot of people who come and create. And create is also hard because most is done by us.

I can give you an example of create. Our digital bank is our application for our customers using and buying our products within our ecosystem. We built it from scratch. For orchestrate, we have a product and service that is basically a wallet, where you can store some money or link a debit or credit card to your account. We’ve invited a lot of merchants, food suppliers, and transport companies to live on our application. The customer can conduct his life using our app. This is probably the best example of “orchestrate” and it is among the most successful products in Singapore. Then participate, there are many examples, such as websites that need a payment gateway. We can provide that checkout button and customers run through our gateway to credit your account.

These three models require different skills and different teams. However, we don’t perceive ourselves as a traditional bank but as an 8,000-person startup. Different skills are required for each of these models of interaction with other entities.

Can you provide some examples about the skillset needed?

While the requisite skills might not vary significantly, the assembly of the team to carry out the work differs quite a bit. The focus is not the same. In an "orchestrate" situation, you may need industry network specialists who can bring together different organizations to become part of your platform. For "create," it primarily involves internal personnel, including product specialists, all collaborating under a steering committee to deliver. And for "participate," it would require partnership experts capable of promoting your checkout button or other tools, such as a loan disbursement tool or an accounting tool.

Is innovation bottom-up or top-down?

Organizations need to continue to transform. One of the fortunate things we've had is a leader who really pushes the envelope in terms of not staying stagnant and not resting on laurels.

DBS is the dominant bank in Singapore. Even 10 to 15 years ago, we could have easily chosen not to change and to do banking in the traditional way. Fortunately, we didn't do that. We underwent an extensive transformation process over the last 12 to 13 years under our CEO's leadership.

It's not just vision. It's real people who made it happen. We need to keep moving with the times. It comes down to the individual and to continuous learning, and that's something in terms of our culture that we've pushed out to all our employees in a very positive way. Everyone from the CEO down to the frontline employees at our branches has the opportunity to grow along with the organization. As soon as the organization transforms and upgrades itself to equip itself to move forward, we believe our employees should be equipped with the skills to come along with the organization. We've successfully executed this cultural transformation, to the extent that each one of us at the bank has an element of learning embedded in our DNA.

DOKU

Sujit Unni

Growth Advisor

Travel can be a significant and unpredictable expense for many households. Prices for airline tickets are volatile, for example. Insurance is needed for long-haul destinations. Even exchange rates can make budgeting for vacations difficult. This is one reason why travel is becoming an increasingly valuable industry for embedded finance. In this conversation with IBM's Paolo Sironi, Sujit Unni of DOKU discusses what truly matters for the travel industry as it strives to create frictionless and added-value client journeys using embedded financial services that consider value generation for both consumers and merchants.

Can you share some initial insights about DOKU and about your experience with embedded finance?

Of course. DOKU is Indonesia's first payment gateway, which has now transformed into a paytech company as we grow our product stacks. We are one of the few firms in the region that offers a payment gateway, a digital wallet, and a cash-to-digital ecosystem to enable closed-loop and open-loop payments that is targeted at serving the platform economies in the region.

Over the past two decades, I've been responsible for building out financial platforms globally and have observed four phases in the evolution of embedded finance. Initially, the priority was migrating payments from physical stores to e-commerce. Then, lending moved to the point of sale as online payments grew and banks faced challenges attracting customers for lending products. The pandemic catalyzed the third phase, with embedded finance becoming prominent in emerging economies as cash rapidly digitized. The current, fourth phase sees current accounts, savings, and investing services being integrated into platform economies, aiming to keep customers within their ecosystem for all financial needs.

How have you seen digital platforms leverage financial services to enhance user engagement and support merchants' business growth?

Most digital platforms are constantly aiming for deep user engagement, which is very challenging for most to accomplish. Generally speaking, financial services are instrumental in two ways. They are levers to drive more customer acquisition and they help to improve customer retention.

Many merchants often see online marketplaces as a necessary evil: they pay a service fee for using an Amazon facility to reach their customers. But embedding financial services capabilities such as lending into these marketplaces allows changing the paradigm for merchants from a way to sell products to a place to grow their business. The more merchants sell, the better they are known and the more timely, frictionless, and personalized is lending supporting growth.

Platforms like Shopify are a good example. On the consumer side, there is a clear shift toward flexible payment options beyond traditional cards, such as account-to-account transfers or buy-now-pay-later (BNPL). In a multi-sided market, this payment flexibility attracts more customers while lending and other banking functions are bolstering merchant activity.

What motivates marketplaces to embed financial services?

Most marketplaces are looking for three things. First, they're looking for improved repeatability. They want customers to keep coming back because the cost of acquisition is very high, and returning customers are more profitable over time. Second, they look for preferential treatment from the businesses operating on the platform. This happens when the businesses see the platform as helping them grow. For example, on the one side, embedding payments in a food delivery solution would encourage customers to return because of the frictionless experience. On the other side, restaurants can receive lending from the platform and be incentivized to channel customers' activity to the platform itself. Letting the platform know about their transactions gives them an information advantage when needing to borrow more money for a better rate. Last, platforms also appreciate to diversify their revenue base through fees on the back of these embedded financial services.

Should platforms partner with banks or insource financial services?

The engagement model for financial services is varied and complex. Central to these services is active risk management, which banks traditionally excel at compared to platforms. Typically, platforms initially partner with banks, leveraging their expertise in underwriting risk and lending decisions while offering valuable customer data. As the platform matures, it may choose to assume underwriting risk or handle credit scoring, depending on various factors such as the cost of funds. When costs are low, platforms have a higher risk appetite. As costs rise, this appetite decreases. As such, new platforms start with banks and later consider the extent of internal versus external management based on how things play out and market conditions.

Have you seen banks effectively utilize the extensive data from platforms to enhance profiling and risk management?

Most banks follow a data utilization hierarchy. They first look to their own data, such as savings, investment, credit, and mortgage information. When this data is lacking, they turn to third-party sources like credit bureaus and, finally, to alternate channels such as social media if needed.

Platforms can of course supplement this with their unique first-party customer data, which traditional banks and credit bureaus lack. This includes location data and transaction history, which can certainly reduce fraud risk. While traditional banks might be lagging in leveraging such data, neo-banks and digital banks are more adept at gathering and utilizing first-party data. This said, fintechs often lack the modeling heritage of traditional banks to underwrite loans effectively.

Both sides have unique opportunities and advantages in this space. For platform customers, the maximum benefit is receiving multiple offers from lenders when seeking a loan. The platform long-term advantage is creating a reverse marketplace where they can present hyper-personalized offers and give customers a choice of financial service providers. Instead of banks and fintech offering products they want to sell and sourcing clients, it is the platform users who express their financial needs while banks and fintechs meet their demand with personalized offers.

The biggest challenge is how to get to that common set of data to effectively allow multiple financial services providers to be able to underwrite a customer and do so in a more personalized way. Our ability to be able to standardize what information these banks need is critical. For a platform, it's a massive overhead. Open banking is getting there quickly. As open banking becomes more standardized, that friction point will go away.

What is core to add value in a partnership?

Three elements are crucial: architecture, the KYC/AML process, and data. First, ease of integration driven by an architecture with standardized APIs is key. Traditional banks struggle with this compared to neo-banks. Second, refining the KYC/AML process is essential. Due to regulation, banks often redo the platform's KYC asking for more information, which can be a major point of friction. If banks can streamline these processes, platforms may consider opting to use the bank's KYC services. This would require an active risk management strategy that works for digital transactions. Finally, reducing friction across the user experience is imperative. Forcing a customer to leave a platform to log into a bank app to process a payment is a friction point. What banks should be able to do is embed servicing aspects into platforms. From the platform perspective, I never want my customer to leave my real estate and go somewhere else.

Do banks offer an adequate portfolio of products, and does this portfolio meet the current market needs?

Well, I'll say adequate banking products must be interoperable and must be channel-agnostic. The same product exposed in the bank's branded channels must also be ready to be embedded on non-branded channels. While this is something that platforms have done historically very well, banks, I sense, are still struggling to even understand the value. They might offer you a product for one channel but not for another. Instead, platforms have always been very channel-agnostic by design.

How do differing financial regulations and practices across various jurisdictions impact digital platforms?

Most global platforms operating across multiple geographies and segments encounter distinct regulatory environments and also very different consumer behaviors.

Thinking of consumers, 90% of US customer transactions are credit cards. In Europe, that whole ecosystem changes to 80% of transactions being account-to-account transfers. If you are a platform and you did not support open banking in Europe, you just lost 80% of your customers because they traditionally transact account to account. Instead, in Nigeria or Indonesia more than half the transactions are cash-based, so you must be able to support the ability to buy something digitally while using cash. Firms like DOKU take the payment capability to the point of sale so platform customers can buy online but pay in cash. The other aspect is currency volatility in countries like Argentina, making forex protection a relevant capability.

On the merchant side, a key aspect is the liability shifts across regions. In the US, you are expected to be responsible to not borrow more than you can repay. The liability of being able to figure out if the customer can pay for what is borrowed largely sits with the customer. As you move into the European and the UK ecosystem, the liability to ensure that customers are not borrowing more than they can repay sits with the financial institution to a large extent. This is why the KYC need is much more important.

It's hard to find any financial services provider that can support an entire global system. Platforms must partner with specific regional players, both for payments as well as expanded financial services.

What could banks do to better support platforms?

What would help any platform is to learn how banks are thinking of embedded finance. What are the other use cases that embedded finance can offer that platforms may not be thinking about? Many platforms are thinking about lending. Many are starting to think about embedded finance in terms of helping customers grow their business. Even small things like the ability to partner. I believe banks will have to solve the same problem that we are trying to solve for our customers. We want the customer to see us as a way for them to grow their business. The customer wants to move to a place where they believe their money is well-spent because they are growing their business. I feel like banks should also be thinking the same way. They can help grow our business in some way. Then you have a partnership.

What is your special message to your peers in banking?

I believe embedded finance is where the world is going. Over the next several years, the world will become more digitized. Business will be conducted within large platform economies. If they want to stay competitive, banks will have to embrace embedded finance. In my view, traditional banks have a lot of advantages that newcomers don't. What banks need to do quickly is take those advantages and start to democratize them into these platforms. Fintechs provide great products, but they don't necessarily provide the ability to scale to address the complexity that is needed for offering financial products and services. Banks have great products, the scale, and the financial acumen to deal with complexity; they just don't have the open architecture for quick adoption. That's where the opportunity is today.

Enel

Giovanni Vattani

Global Customer Operations

Embedded finance transforms the relationship between banks and partners beyond product definitions. The core of the relationship is not distribution, but rather co-creation of new solutions that improve client journeys. For that to happen, banks must deepen their understanding of what drives value for third parties operating in other industries. It is a change of mindset from banks viewing partners as the next distribution channel and shifting to a new way of working to grow together successfully on digital economies. In this conversation with IBM's Paolo Sironi, Enel's Giovanni Vattani touches on partnership decisions and success metrics that define the collaboration of utility firms with fintechs and financial institutions.

How is Enel, a prominent manufacturer and distributor of electricity and gas, thinking about the implication of embedded finance within the utilities market?

Enel X Financial Services well represents our vision of digital transformation that embraces embedded finance. It serves as an electronic money institution offering a comprehensive banking solution, including the Enel X Pay card. Launched in 2020, the initiative aimed to engage mass market customers and expand our service offerings beyond electricity and gas sales.

In the utilities market, the provision of microcredits to facilitate bill payments holds great appeal for customers in the sector. Typically, when invoices are issued, a significant portion of the credit is assigned to a financial intermediary, which earns a fee in the process. However, by enabling customers to easily pay their bills without incurring the costs associated with credit transfers, the utility-customer relationship can be revolutionized through embedded finance.

What were the key factors that motivated Enel to pioneer embedded finance within the utilities industry?

Our ambition to integrate financial services dates to 2013-2014. At that time, the notion of becoming an electronic money institution was hard to imagine given the absence of a clear legislative framework. However, with the introduction of the European PSD2 regulation, many of the initial obstacles were eliminated. From a business point of view, the primary motivation was a need to strengthen customer bonds. Why? Well, Enel is the Italian leader for electricity supply. However, competition has grown fierce and no longer takes place on the price of electricity. Instead, customers have shown to be very sensitive to additional services. They don't simply want to turn on the light and see that it turns on today. It is this awareness that made us take our first steps with embedded finance.

What are the important choices you had to contend with during the start of this journey?

The first choice was between buying or building. We decided to buy the payment technology in 2020. In-sourcing a payment method has been an accelerator that allowed us, if not to bring home an advantage over the whole strategic thinking, then to gain immediate economic benefits such as lowering transaction costs compared to the market. This became clear when we connected to pagoPA, the national platform to pay taxes, duties, or fees to the Public Administration. The value of in-sourcing does not exclude the value of partnerships, which is the route taken by ENI with payment provider Nexi.

What success metrics should management consider when developing embedded finance initiatives?

More than metrics, our management set the expectation bar at a strategic level. Going into a field outside our core business—selling energy or gas–was not seen as a tactical effort, but a request to become either first or second in the market. This was our challenging KPI, expressed in words more than numbers.

Embedded finance is an opportunity for both financial institutions and utility firms. Who has been first to pursue this value?

This is a very interesting question. Sometimes we struggled to make our potential partners understand where we were going with this and what we were doing. In general, the problem we faced was more about understanding the value to be shared. Approaching financial services players who are leaders in their market—where we are beginners—makes it more difficult to define the scope of a profitable collaboration. Instead, starting with smarter players in sectors where there is, perhaps, even greater competition seems simpler. For example, talking about collaboration with the world of fuel cards was not easy. Instead, it was easier to approach an insurtech player because they were already more inclined to accept partnerships of this kind. Ultimately, all the parties we worked with understood what we wanted to do, the benefits we could bring together to our customers, and the needs we were going to intercept.

Is there a difference in the approach of fintechs and financial institutions?

All have a great desire to work in this space, and even more to achieve concrete results. However, relationships with fintechs are simpler. Having a partnership or contract with a leading company means they can validate their solution on volumes. On the other hand, it's important to thoroughly examine fintech proposals, as it's not easy to find a partner who doesn't only pursues numbers, but sincerely desires a partnership based on a continuous co-creation relationship that is competitive and differentiating.

How would you approach partnership decisions?

Well, there is an obvious tendency to look more closely at collaboration with partners who don't start from scratch. But what matters is time to market, which is monitored very carefully. That means finding not only the best technical solution, but also the partner capable of accompanying integration and development quickly. Furthermore, another element that tips the balance one way or the other is the possibility of developing something new together at that moment. Therefore, beyond acquiring standard services that are already in place, it is essential to perceive a will to co-create and innovate new services.

How relevant is it to work with a varied ecosystem of providers versus finding a partner capable of providing a full stack of financial services?

It certainly makes sense to work with a diverse ecosystem, as taking multiple different interfaces allows for more vertical specialization. There is clear value in a multiplatform approach, with some preconditions. While much has happened in recent years, it's time to think about how to unlock the potential of embedded finance beyond open banking. The technology is here, but what is missing is standardization. It's a mantra that we all tell each other in the payment ecosystem, hoping that PSD3 regulation can generate positive change. The big question mark is from potential partners who will say, "OK, that's great, we do everything via API. But we connect with 60% of the banks only." Or, "We don't connect with that bank." For a utility firm, it becomes complicated and expensive. There is a need for a financial ecosystem in which participants can say, "I have no problem connecting with anyone."

What is missing today in embedded finance offerings from financial services intuitions?

Today the BaaS offerings are quite good. But one thing could be advantageous: powering instant payments at no cost is a service that all banks should offer. It would be a highway toward the explosion of open banking payments. In many countries, the only way customers can pay is with a bank transfer. Digital instant payment solutions would grant two advantages: ascertaining that payments take place within a given time frame expectation and simplifying processes by no longer having to chase the reason for payment, who made it, and in which credit account to land it. Reducing transfer costs and related operations is a clear opportunity that needs no fireworks. But what matters the most is that it is the right time to take B2B customers by the hand and make them understand that utility firms are not simply a supplier of something, but also seek to provide it in the best possible way.

What's the most relevant embedded finance use case for a utility firm?

In my opinion, the most important opportunity can be found in the electric mobility ecosystem because it is gaining ground at all latitudes: cars, scooters, all those vehicles that need an electric recharge. In Latin America we are very active in bus-type mobility. We are the main provider of local mobility in Lima. Mobility is an umbilical cord that unites all types of B2C, B2B, and B2B2C customers. The customer who goes to recharge their electric car must be insured and will need micro finance to pay the bill or the car. The strategic idea is to create a positive circle around these multiple needs.

How relevant are regional differences for international firms?

First, firms need to have a 360-degree view of all the businesses in all the countries where they operate. Then, they must scale down needs and ambitions differently from country to country. It's necessary to start from a minimum common denominator—to meet customers and offer the best possibilities to pay the bill, or to meet them if they cannot pay it, wherever they are. This scales geographically. Then, additional solutions can be offered in countries that are more developed from a digital perspective, as in Brazil, building partnerships with local providers of embedded finance services. Obviously, there is value in working with multinational players. But often, the greatest value comes from doing a country vertical.

What would you suggest banks, insurance companies, and fintechs do to better serve third parties with embedded finance strategies?

Deepening their understanding around what third parties would like to do. In the sense that often players—especially the big banks and large tech firms—are very clear about what they can sell, but not always clear about what non-banking firms can bring to them as added value. This can limit understanding of the new value we can create together. Increased willingness to study business cases together would be welcome. In short: third parties want to be seen not only as a distribution channel, but as a growth opportunity.

HSBC

Shayan Hazir

Chief Digital Officer for ASEAN

The fourth industrial revolution is about platforms and exponential technologies like data and AI, which interact to reorganize entire ecosystems made up of companies, citizens, and public institutions. Well-orchestrated platforms generate new data not only about individual clients, but also about entire ecosystem interactions. This is an opportunity for banks to enhance risk management as part of their embedded finance strategies while serving the economy under uncertain market conditions. In this conversation with IBM's Paolo Sironi, HSBC's Shayan Hazir discusses all key aspects of banking transformations with embedded finance.

Has the industry achieved a consensus on the definition of embedded finance?

I have encountered several accepted definitions of the term "embedded finance," one of which being financial institutions establishing basic partnership agreements to provide services to third-party customers. Another which demands higher levels of integrations wherein banking services are openly exposed to final consumers via API capabilities, allowing for free information flow. And another wherein all back-end financial services capabilities are provided to third-party platforms without being visible at the front end or customer experience level.

Is there a sense of concern among your peers regarding the possibility of embedded finance resulting in the loss of client relationships?

Two distinct camps have emerged. One fully embraces embedded finance as the future of financial services. Another holds onto traditional banking in the belief that shareholder value lies in short-term goals, year after year. And the pendulum swings.

This said, HSBC is committed to excel in platform economies, and we recently appointed a global head of platforms who looks after our platform strategy overall, with embedded finance being a core component.

In addition, HSBC is at the forefront of the embedded banking revolution. In 2022, to help organizations address time-consuming and labor-intensive accounts payable processes, we partnered with Oracle NetSuite to launch a solution that embeds banking services into a cloud enterprise resource planning system. This was the largest fully embedded banking-as-a-service deployment into a globally recognized cloud ERP system.

Regarding global banks, where do you see the emergence of embedded finance becoming most evident?

Embedded finance is equally relevant in all client relationships. And as such, only holistic perspectives will bring needed competitive advantages. Organizations that can think and develop holistically can better engage the last mile made of small merchants and supply chain firms. They can better understand how they can help corporate clients optimize their supply chain. And this is where the great potential of embedded finance lies. However, large institutions tend to have internal barriers separating retail, wholesale, global banking, and other segments. But the innovation happening in any silo almost always can bring mutual benefit to the others. Only openness can accelerate innovation. As a chief digital officer, full visibility is needed to promote efficiency across the organization and advance new business models.

What is the most logical starting point for banks as they approach design of embedded finance strategies?

Traditional organizations often rely on proofs of concept to demonstrate value before embarking on major innovation journeys. What I love about today's world is the availability of platforms that generate a vast amount of data on retail clients and small-medium merchants. There's no better place to start.

For example, large-scale platforms could benefit to embed banks' trade finance solutions. They could ring-fence the working capital of their entire supply chain to guarantee vendors' capability to receive timely payments. These corporate clients will not deal anymore with a traditional bank. Instead, they will deal with banking platforms in which traditional trade finance and supply chain banking products are a direct extension of the services that they can offer to their respective vendors and their suppliers. And this is advantageous for banks integrating ecosystem operations with BaaS platforms to improve risk management of banking operations by accessing much more data on a much larger client base.

What value can a bank gain from embedded finance, and what is the risk associated with taking half measures?

Banks' primary role is risk management. When macroeconomic conditions become uncertain, banks need to tightly manage their risk profile. This often leads to reduced credit access for many SMEs precisely when they require additional support. However, digitally integrated ecosystems present an opportunity for banks to find a better equilibrium between risks and opportunities.

Embedded finance allows banks to engage more frequently with clients through platform interactions, including smaller and geographically distant ones. They can access improved data and gain holistic perspectives on entire ecosystems while maintaining granularity. Enhanced visibility into smaller companies—those which are the first to be hit and excluded in economic downturns—improve bank capacity to validate borrowers' credibility. Enhanced risk pricing capabilities creates better client relationships to protect and expand the business while supporting the economy in uncertain times.

Banks that limit embedded finance to basic open banking use cases and function as passive API platforms run the risk of becoming utilities. To be economically sustainable and attract a large volume of client transactions, utilities must constantly refresh their offerings, remain relevant, and achieve widespread adoption. Most of the open banking offers in the Asian market haven't cracked that ubiquity issue in a consistent way. A more proactive approach is for banks to embed banking capabilities within corporate platforms. Corporations benefit to eliminate ecosystem friction among platform participants, and banks can embed deeper in the transaction cycles that platforms operate starting from payments.

What factors should banks consider when evaluating the benefits of taking on a platform orchestrator role?

Bank proprietary open banking platforms typically lack sufficient convening power. Small and medium-sized enterprises go where they can find money. They won't change their banking relationships simply to find better accounting software. Therefore, any ecosystem platform that banks aim to partner with or orchestrate must prioritize funding as its core component. Crowdsourcing, peer-to-peer (P2P) lending, and investment solutions can generate the necessary convening power.

Do you have a good example you can share?

For example, P2P lending is not native to banks. What role does the bank play if Paolo is lending money to Shayan? Both Paolo and Shayan are bank customers who meet on the banking P2P platform. Possibly, the bank takes a subscription fee to orchestrate the transactions. But then, banks are just a trust agent. Embedding in this platform simply means being the trust agent that brings the parties together. But it gets interesting when there's a transaction, when funds flow, when investments occur. That is when the bank really kicks in to really build user confidence in utilization of the platform. Banks should look for partners where they can truly leverage their unique added value about trust and risk.

What steps can banks take to enhance their approach to third-party onboarding and maximize the quality of partnership outcomes?

The onboarding process must evolve from traditional procurement, such as asking third parties undifferentiated questions: "How do you manage your data? And governance? And risk? And what about the integrity of your system?" Instead, modern onboarding includes procuring standard software subscription models, establishing pilot relationships, and forming fintech partnerships.

It's no longer about back-office conversations. Instead, it's about evolving into the governance of partnerships. Modern onboarding relies on the competence of very dynamic procurement executives who know how to assess new companies that we are going to be working with to make sure that they meet the bank standards.

For a typical financial institution, what are the most common competency gaps and how are they being addressed?

Financial institutions have gotten progressively better at building strong partnerships with fintechs. Additionally, integrating new technology within the business has begun to factor into most of our customers' conversations. However, there needs to be sustained efforts and competency development through holistic training programs to continuously improve and optimize the use of new and emerging technology.

The world hasn't fully figured out how to deal with ethics of AI, let alone somebody sitting in procurement or risk management. Banks require the agility to proactively address potential governance and risk management challenges. Maintaining minimum standards is a continuous learning process that involves internal and external efforts and a consortium mindset shift where central banks, regulators, and competing institutions are permanently engaged in collaboration.

What do partners look for when considering embedded finance offers from banks?

Speed, agility, and flexibility in a continuous iteration mode. Characteristics arguably are even more critical than technology itself. Banks can have the most amazing technology, but if their processes aren't defined by these characteristics, they lack the required speed to market for successful embedded finance initiatives. Not all banks understand this urgency and risk being left behind.

Why do you think there is a lack of urgency despite the significant implications of embedded finance?

Predicting the future is challenging, and 15 years ago there were only a few technologies with potential impact. Banks then could be more tactical, with more bandwidth to absorb the shock. But today we are experiencing several tectonic shifts simultaneously. Banks must adopt a strategic approach to navigate these changes effectively and seize the opportunity to build the necessary infrastructure.

Tesla Motors is a good example. They open sourced their battery and plug design, as they knew they could not build out the entire electric vehicle infrastructure on their own. Similarly, financial institutions are living unique times in history where they can be promoters of a new infrastructure design spanning across industries—infrastructure for asset tokenization, for AI policies, and for quantum computing, to name a few. The time to invest is now. Of course, these are difficult conversations with a shareholder wanting immediate return on investments, especially in the current macroeconomic environment.

What's an appropriate way to measure the success of embedded finance?

It's something I've thought about a lot, to be honest, because this measure needs to be a motivator for so many different aspects of the bank. When I was part of the product team in transaction banking, we'd measure outputs as product penetration numbers. However, as we look at embedded finance, the depth of relationship is extremely important and, ultimately, is what should deliver greater revenue.

By depth I am referring to the value of a multidimensional relationship. Banks can act as a service provider, a partner, or a service provider to our client's clients further down the value chain. Since embedded finance strategies are long-term initiatives, banks must look to relationship depth and product penetration per customer as key measures of success. This evaluation allows them to validate the effectiveness of embedded finance use cases, which goes beyond just looking at service revenue.

The fact that banks are now embedded into clients' operations holds far more significance. Imagine building an index for reporting to shareholders the trajectory of how the bank is positioning itself deeper into our clients' business. Effectively measuring the bank's relevance? That's a check. That's a validation.

ING

Brendan Donovan

Global CIO of Wholesale Banking

Managing a bank's economic model is a balancing act between client centricity, prudent risk management, and sustainable cost efficiency. As banks are progressively opening up to third parties and direct ecosystem engagement, a clear understating of the business model foundations of banking is essential to navigate change while embracing co-opetition and addressing ethical considerations in the search for data monetization. In this discussion with IBM's Paolo Sironi, ING's Brendan Donovan discusses key aspects of the business and technology interplay promoting viable banking transformation.

What is your perspective on the future of banking?

Well, throughout history, every industry—including banking—has had its share of defining moments. I'm reminded of Bill Gates' famous quote from 1994: "Banking is necessary, banks are not." It was one of the first signals of a major shift in how financial services of the future would be consumed. Since then, we've moved from owning standalone PCs to an interconnected internet world, and then to today's world of mobile hyperconnectivity. During these inflection points, innovators seized the opportunity to disrupt and build new value, with the common thread being a shift from analog to digital.

But let me be clear: banking isn't as straightforward as digitalization, simplicity, and instant access to credits and debits. The reality is that banks must be good at dealing with macroeconomic pressures, risk and liquidity management, and even balance sheet operations. This makes it harder for anyone in banking to think about innovation compared to other industries.

Regulatory protections also play a role. Despite this, and also thanks to new regulation, the industry is opening up to new engagement models with clients. I am of course referring to open banking and the following trend of open finance, which has catalyzed a wave of new competitors who are gradually chipping away at traditional banking revenues. As such, in my view it is strategic for banks to use business acumen to meet with tech our clients' growing needs for connectivity across B2B and B2B2C ecosystems. To succeed in the new realm of digital marketplaces and embedded finance, time to market is of the essence. That's one of the roles of technology—the banking industry and regulators must continue to lower the barriers that slow progress at sustainable costs.

Aside from the new competition you mentioned, what other factors are driving industry change?

During my tenure in banking, the biggest drivers for change have always been cost efficiency and customer centricity. The top spot shifts between the two in a constant cycle.

Let's use a simple example. Banks launched their ATM network to provide cash outside branch hours when people were not working. However, over a 20-year period, as the associated branding value minimized, banks concluded that the cost of cash movement outweighed its benefits. We now see a rise of brandless ATM points. This constant shift between customer centricity and cost efficiency is likely an inevitable cycle business will have to go through, and the ATM is the perfect example. You're providing a customer capability. Then you think about the next generation and want to move to internet banking. Then internet needs to be the channel as you see the cost opportunity of closing branches. And then you see the counter movement of saying, "Branchless banks lose retention to their customer and differentiation. They are being disenfranchised and moved away from their customers." So banks started to open new branches that looked like cafes to attract people to reengage on that relationship side. And then they reversed course, and on and on.

What are some examples of successful innovation models that banks employ?

In recognition that banks are regulated markets ring-fenced by national boundaries, the most successful model for bank innovation is the co-opetition model that is based on improving the cost model to make operations sustainable industry-wide. And that changes over time.

For example, you can think of removing paper checks from the Dutch banking system, then creating a payment utility which is co-owned by the banks, then spin it out as an e-commerce-oriented payment mechanism that can be acquired by a global player. Over time you see this kind of sequencing.

The most solid model that seems to exist is the one when banks spin out part of the value chain in a competition based on the cost driver. Of course, the other part of the value chain that gets disrupted is the whole payment side, and trying to pick up slices of payments of intermediate and disintermediation of the whole payment value chain.

And what about co-opetition with techfins—technology companies that build financial solutions?

I've seen a lot of experimental collaboration with non-banking players start and fail. The main reason is the lack of shared technology standards. It takes a long time to produce a technology standard. It's only when there is harmonized value for everybody, like a permanent kind of platform ecosystem, that everybody can benefit. Only then can platforms generate value. If only one party benefits, then you'll see the platform deteriorate. It has been very difficult so far to find that balance across industries.

Can you think of any examples of successful co-opetition?

There is certainly a counter movement to my argument, which is the emergence of instant payments in the European market, where there is both regulation and society pressure. There is first-mover advantage to provide instant payment capability, pressuring other banks to step up to it. Then you see a pan-European movement to address the same ambition, which drives the standardization in the industry across organizations. And there is also a consumer drive, adding pressure to save on transaction costs, demanding for frictionless experiences on marketplaces like the Amazons of the world.

What about banks attempting to orchestrate their own non-banking ecosystem platforms?

It depends on where banks want to see themselves in the life product and client cycle. Ultimately, I think bankers' motivation should be to create more stickiness. Thinking back to the analog world, the reason why we went into universities to meet clients early in their life cycle was the business gravity around first choices.

But there is no value having clients to open a bank account in 10 minutes if you don't know how to stay relevant. This is an even more delicate act when intermediaries are in the equation. Take, for example, intermediaries selling mortgages. They can drive profitability adding good credit to banks' portfolios, but they can also act irresponsibly adding unwanted credit risk.

Facing this duality, banks might be motivated to expand beyond their traditional banking definitions for two reasons. They might want to disenfranchise their intermediaries, or they might want to gain more risk control of intermediaries and pull them into their direct value chain. It's the delicate balance of understanding how the credit risk relationship with clients can change over time that intermediaries might not understand. The strategic question that should motivate bankers with embedded finance or any other strategy becomes, "Does the third party add value in terms of client stickiness, or to help bankers understand clients with better information to reduce risks?"

How complex is it to generate value from the growing volume of customer data inherent in these platforms?

Here we're touching a very sensitive topic. In the last 15 years, the amount of information that banks can access about clients' life and preferences skyrocketed. The question is: do banks and their partners leverage client data in line with the purpose for which it was received, or not?

Lack of understating can backfire years after damaging the bank reputation. Easy access to investment opportunities, without a solid understanding of the risks involved, can lead to significant financial losses.

Sometimes, a bit of friction can add value to clients. We all see how people behave on social media platforms, just ticking a box to grant consent without really reading the conditions of what they're signing up for. Banks must ask for higher and more transparent engagement standards instead of selling themselves on the social media platform to chase transactions. Maybe it's OK when you're just posting photographs of yourself eating in a restaurant. But when it concerns your money, then it becomes invasive. We expect and trust that our banks are ethical and they're going to actually act not only in the profitability interest but contributing to societal and economic interest of entire ecosystems. Innovators must be an honest broker between the two. When it comes to data monetization, there is a higher obligation to our clients which supersedes profit for shareholders.

Keeping in mind these ethical obligations, in what ways can banks add value to corporate clients and ecosystems?

Three areas come to mind. First, banks are asked to assess the legitimacy of corporate relationships. They must do it in the most accurate and least invasive way. Handling manual documentation is cumbersome and creates friction. While governments are advancing digital identity initiatives, corporations often have very complex legal entity structures that are hard to understand. Automating these aspects of understanding is the first component of an added-value connection.

Second, improving cash and liquidity management in B2B operations adds value to corporate clients. It requires embedding into this exchange of value among counterparts.

Last, improving the availability of working capital to fund projects requires acting with a holistic and timely understanding of the corporate business life cycle. Banks should not stop at the level of managing the day-to-day cash transactions, but act within their client liquidity, their client balance sheet, and thus their client-specific funding needs. All of these aspects can be deeply connected in a more automated way. Since wholesale banking tends to be highly manual, there is a huge opportunity to unlock value by bringing more automation to that.

What are your thoughts on the interplay between business and technology?

Tension between business and technology is a pendulum, as the issue is rooted in the way technology moves and disruption happens. I studied this problem in my master thesis back in 2000. In 2023, we are still seeing the pendulum swing. There is a process of synchronization of understanding between both parties, willing to speak the same language. But technology moves continuously. Then we move the needle further in terms of the change of technology, and then we start again. We invent new things that can actually enhance the business, and then the business needs to catch up and see the value of it. Then we implement and execute it—but we've already moved to the next thing.

As technology moves faster than ever, what are the key skills or talents needed to future-proof banking?

It's a very hard question to answer. First, technologies that have been pervasive in the past and are still pervasive today are likely to be pervasive tomorrow. It's a Lindy effect: the future life expectancy of technology or an idea is proportional to its current age. So, it is strategic to maintain a capability to do your own coding and development, somehow constraining yourself to manage value for a period of time. Banks must carefully ponder the feasibility and viability to always chase the latest languages of programming without a clear strategy for maintainability and transportability of knowledge.

Second, we also see the rise of exponential technology and the challenges posed facing new opportunities. Generative AI can be a good enhancement of human capabilities and skills to make us more effective in terms of what we are doing. Cloud technology also adds the ability to transport massive amounts of data to handle workloads. And then, quantum computing will have a big role to play in banking. How quickly generative AI can help get to quantum could be a big enhancement in terms of how we're programming.

Do you see major differences in the way banks face digital transformation and innovation globally?

Quite often, emerging and newly developed markets are just different parts of the same innovation challenges. However, I do see a difference in the challenges faced by banks operating in massive-scale economies like India and China, while I don't necessarily see different challenges between Argentina and Brazil compared to Spain and Italy, where the key element is just being in a different part of the economic cycle.

China and India are at the forefront in terms of automation and business model innovation because of the scale opportunity. Even Africa sprang strong business model innovation because of the lack of pervasive IT capabilities. Just think of where they're innovating with micro-finance. And the way that payment innovation has exploded in India is fabulously interesting. The guys selling fruits in the street are now enabled to receive payments with QR codes. They're not constrained by the fact that banks lack containerized cloud capabilities. Banks there are using whatever technology available to bank the unbanked situation.

What's the likelihood of banking getting disrupted in the next five to 10 years?

My contrarian view says that even with all these enhancements in technology, such as generative AI, the fundamentals of banking will remain because it's a trust factor, not a technology issue. It's hard to tell if we are really at an inflection point where new business models will emerge to make banking extinct. Still, it's worth watching carefully to be ready.

Lloyds Banking Group

Jasjyot Singh

CEO, Consumer Lending

In the realm of embedded finance, there is no scarcity of ideas or opportunities, and it is easy for everyone to convince themselves that they should participate and succeed. Indeed, innovation is a process of imagination and creation. But it also benefits from understanding where value is to be found, and banks' role in the discovery process. In this conversation with IBM's Paolo Sironi, Lloyds Banking Group's Jasjyot Singh discusses the importance of business clarity in the embedded finance journey.

What has been your involvement in embedded finance initiatives at Lloyds?

I look after the consumer lending businesses for Lloyds Banking Group. My role with respect to embedded finance is to shape strategy surrounding involvement in channels such as cards, loans, mortgages, and non-traditional financial experiences. While our main focus is on individuals and families, our approach to embedded finance aims to unite various teams within our organization, including our go-to-market strategy for small businesses, and to establish connections between them and our consumers. We see the potential to connect 1 million small businesses with 20 million consumers in a responsible fashion—a tremendous opportunity.

How would you define the emerging business opportunities in this space?

Broadly speaking, there are three participation choices with embedded finance. In no order, we primarily distinguish embedded banking, insurance, payments, and lending. Embedded banking is either a version of BaaS or a platform that allows third parties to provide financial services to other non-financial service players.

Embedded payments are the most common example: Klarna and PayPal provide ways to embed payments into the consumer's buying journey and pair it with the merchant experience.

Embedded insurance is about helping consumers get protection for their purchases. For example, we can buy tickets for a show on Live Nation and get insurance for a refund if the event is cancelled.

Embedded lending is the third one. Already in the UK almost all cars are bought with some part of embedded financing or lending. Today, you go to a car dealer to get a car, and as part of that experience you can choose to finance the purchase. All these business models have in common the fundamental opportunity to eliminate friction for both businesses and consumers. Hence, the common thread on where success might reside in considering embedded finance as an enhanced service focusing on friction-free experiences.

Do you sense that top management in the industry is recognizing the strategic importance of embedded finance?

Absolutely. Lloyds has publicly talked about the fact that we are exploring opportunities in embedded finance. This holds a prominent place on our priority list and we are actively seeking the best approach for participation. When we started thinking about embedded finance, we wanted to be clear about the true value proposition: value needs to be relevant to consumers and businesses. Given our history, heritage, and stature in UK banking, it is crucial for us to ensure that our approach is responsible and capable of withstanding market cycles.

Embedded finance is not a passing trend. It broadens the ways to engage with other people who are not just standalone consumers and businesses. To succeed, we must consider ecosystems, which necessitate different skills and capabilities. It's important to recognize that embedded finance is not simply an extension of past practices. It genuinely demands a different mindset and approach.

Can you elaborate on this new mindset and approach?

First, with consumer banking—which has been traditionally thought about as designing and manufacturing propositions for pricing and products offered via owned channels—to succeed with embedded finance banks must rely on the product or service being delivered by others as part of the full value proposition. There is a reliance on others for how your proposition shows up in a channel and experience that the bank does not completely control.

Additionally, embedded finance is about fostering an "eco-system" not an "ego-system." For the latter, the measure of success is determined by each party's level of profit relative to others. Ecosystems on the other hand thrive when multiple parties benefit simultaneously. This requires a distinct mindset and approach in the embedded finance space, emphasizing the importance of mutual success and long-term viability.

What are the key criteria that partners consider when selecting a bank to collaborate with on embedded finance initiatives?

Third-party platforms face several important considerations when choosing banking providers. The first criterion for choosing banking providers is their technology ability to integrate and their responsiveness to a changing environment.

The second criterion is about how they operate and flex their model to accommodate platform customers. They look for a center of competence inside the bank that understands the difference between platform consumers and can tweak services to support customized value proposition end-to-end.

Then the third is about who minimizes the friction in a client journey. If you think about embedded lending, third-party platform providers don't want any client to get declined. Amazon or Expedia might expect 100% acceptance. Providers on the one side, and banks on the other side, will have different levels of risk appetite, which defines if and how they can participate.

What sets embedded finance apart from other business models?

Today, the currency of the embedded finance provider might be different from the currency of the platform provider. This currency can be segmentation, how to think about value of different customers, how to think about where to invest in the proposition. While this is evolving, a lot of what we're talking about is not brand-new. Co-branded credit cards have existed forever. What is unique or differentiating going forward are friction-free experiences and the desire to have a seamless homogenous experience. These factors will increasingly shape the definition and success of embedded finance. In the past, both businesses—platform providers and merchants—and consumers may have tolerated a certain level of friction as acceptable. However, moving forward this tolerance for friction will decrease significantly.

Is the choice between eliminating friction and upselling financial products for a rebate binary?

The choice is not necessarily an either-or decision. It depends on the platform's stage of evolution and the business's current state of evolution. As embedded finance starts to evolve, different operating models will emerge. Some will focus more on high-volume, high-frequency types of activities; others will target low-volume, low-frequency activities.

So far, most realizations are about high-transaction, high-volume, low-impact decisions. However, there are significant frictions in other journeys, such as real estate. Consider the scenario where users are browsing a realtor's website. Can we make it easier for them to access financing options right at the moment of need? In this case, more friction might be tolerated due to the transaction value involved. Therefore, platform providers may find it sufficient to adopt a partnership model that emphasizes upselling financing rather than solely focusing on friction removal.

What measures do banks use to evaluate the success of embedded finance initiatives?

It will be different for each bank depending on their participation strategy. In the framework I described about embedded banking, the KPI is largely about throughput and volume of activity going through the platform from a banking perspective, whereas the KPI for embedded lending might be about volume. The other thing to think about might be deepening relationships with sets of consumers, such as how much does the bank own of the consumer wallet directly and in channels outside of traditional banking.

Where are you in your embedded finance journey, and where did it begin?

We are still in the early stages of our journey in embedded finance, and my ambitions extend far beyond our current position. At the start we had two important debates. First, we thoroughly discussed and wanted to be clear about what's our reason for being relevant in the embedded finance space. Second, we wanted to be clear about how far our embedded finance ambitions should go, and with which priorities. We cannot do everything. There are certain segments in certain parts that we should be more successful in.

Currently, some of the concerns under evaluation are how comfortable we are with partnering with a broader set of parties, who are going to deliver the value proposition, how comfortable we are from the responsible lending perspective, and how compliance will be fulfilled. It's imperative to make sure we conduct our compliance oversight beyond immediate banking borders looking at the end-to-end engagement with clients and assess that good client outcomes are effectively generated.

Do you believe banks have the option to pursue direct platform orchestration?

Some banks are trying to become orchestrators of consumer conversations, especially in Asian markets. To my previous point, banks need to be very clear about their ambitions, especially if they want to enter some form of orchestration. There is no shortage of views in the market for creating your own version of a super-app, and it's easy to claim we should do the orchestration for everything. Instead, it's strategic to be clear about what we should be doing and where we will be better at orchestrating.

To illustrate this point, let's consider our strong presence in helping consumers achieve homeownership. This provides us with compelling reasons and relevance to act as orchestrators, assisting homeowners in extracting more value from their properties. Beyond financing, we can explore avenues to support sustainability efforts and aid homeowners in transitioning to cleaner homes. This serves as a rationale for orchestrating a platform with an ecosystem centered around these initiatives, as we have the permission and expertise to engage in such conversations with clients.

If orchestration comes with everyone trying to do everything, you might find consumers get turned off because they probably can't see the forest for the trees. There's lots of stuff coming at them and many people are talking to consumers about the same thing. Just because mere possession of an app doesn't guarantee consumer interest of loyalty or what consumers care about. It is vital to focus on what truly matters to consumers and deliver value in a relevant manner.

Would you advise banks to get started immediately with smaller use cases, or first establish a comprehensive and long-term embedded finance strategy?

My short answer is going to be, it depends. In some cases, it may be necessary to consider the entire end-to-end participation opportunity and explore various possibilities with a particular partner. But for most platforms and embedded finance providers, it will almost certainly have to start with a one-to-one proposition—one consumer problem, one opportunity—and then expand over time. If the focus is on the end game, banks might never get started.

I'll give you an example, which is now live for the whole Lloyds group. As mentioned, one of our key priorities is how we can help more consumers transition to more sustainable homes. Given that we've got about 20% of UK mortgages, we feel it's our responsibility to think about helping more people achieve a more sustainable home. We recently announced a partnership with Octopus Energy, one of the more modern energy providers in the UK. If you are applying for a mortgage, we would make it easier for you to install heat pumps. Octopus will evaluate your home infrastructure and offer installation for an agreed discount.

When we started down that conversation, we did not know the macro set of opportunities for us to engage with Octopus. We thought this was a good use case which allowed us to prove that there's consumer demand and help our customers reduce the carbon emission from their homes. By starting with a specific proposition that addresses consumer needs, we have successfully demonstrated the value of such a partnership. As we progress, we can explore additional opportunities and leverage the partnership to achieve broader objectives.

How should banks prioritize investment to accelerate their embedded finance journeys?

For me, the biggest investment is to change mindset and approach. People talk about many things, but for me the No. 1 investment is in the mindset—and with that, in some sense, culture. I've invested my time to make sure I think about our participation choices. I've invested my time making sure I think about the team and the people who are involved and the costs integrating in that space. How do we think about working in partnership alongside other people who will also have significant value to offer to their consumers, or to the end buyer?

This is the starting point because this is different from how we've thought about culture's and people's role within banking. Bankers require a bit of imagination to think differently about opportunities of things that don't exist today. It also necessitates holistic thinking, considering the sustainability and success of other businesses, rather than solely focusing on the survival and prosperity of our own banking enterprise.

Alongside this mindset shift, additional investments become important. Depending on each bank's specific participation strategy, modernizing the core platform may be necessary to meet current standards. Some banks may also need to develop a comprehensive suite of API capabilities to seamlessly integrate with various entities, whether they are orchestrators or providers.

You emphasized investing in culture change. Does this hold true for both business and technology?

Yes, and that's not unique to embedded finance. We're trying to make sure business owners and business leaders are more deeply connected to and possess deeper understanding of technology. By reducing the time and conversations between those who generate ideas and those who execute them, we gain a competitive advantage. For example, it starts by collapsing intermediate levels between engineers and product owners systematically.

With regards to operating model investments, how critical is organizational restructuring?

I have always believed that structures, in themselves, do not have a significant impact. We all get super excited by boxes on a piece of paper. What really makes a difference is the alignment of interests and alignment of priorities.

Everyone has their own version of the impact platforms are making. We all need to care as much about the technology of the future as the shiny propositions in the future. As banks start from scratch without a very modern and differentiated embedded finance business, they have the luxury of setting new ways of working and embedding what they're learning from the rest of the world at an accelerated pace.

A clear alignment of interests and of priorities is foundational because embedded finance is a fast-moving, fast-evolving journey. Being successful at reducing friction in client journeys requires a more integrated business and technology mindset, because no longer will it be good enough to say, "I've got an interesting business idea," and, "I'm not sure that it's going to have the same outcome as I thought it would." Bankers must be quick to adapt and learn as they navigate this changing landscape.

What's the role of regulation?

Well-written and effective regulation should always be an enabler for financial services. At the heart of our business, we are custodians of customers' financial health and well-being. Well-written regulation can turbocharge progress and promote consistency of outcomes that final consumers get from different experiences of different journeys.

One of the challenges that regulators face is that embedded finance is an evolving space in which different models and ways of working appear. They now more than ever need to address emerging risks and consider the evolving nature of operating models to create an environment where embedded finance can thrive. This may require an expansion of their understanding of their own roles and responsibilities. Additionally, regulators will need to bridge different segments and sectors as governments start contemplating how to regulate cross-sector businesses and propositions.

Is there a major lesson learned from your experience that can help others as they embark on their own embedded finance journeys?

The greatest benefit for us is being clear about where we have the right to participate and prioritizing those areas. In the realm of embedded finance, there is no scarcity of ideas or opportunities, and it is easy for everyone to convince themselves that they should participate and succeed. The greatest value has been being very clear internally.

Mizuho Bank

Andy Nam

CIO for Asia and Oceania

Super-apps are expanding fast in Southeast Asia, Africa, and other parts of the world. They challenge incumbent institutions by steering client attention away from established and trusted relationships by means of convenience and frictionless engagement. Banks can't stand still. Yet, transformation requires proper risk management to maintain security and compliance with the fiduciary standards expected by final consumers. Banks navigate uncharted waters between well-defined strategies for digital transformation and the reality of complex operations. In this conversation with IBM's Paolo Sironi, Mizuho Bank's Andy Nam discusses key aspects of the architectural changes needed to open the bank for more contextualized and embedded financial models.

As the ASEAN CIO of a Japanese institution, what regional differences do you encounter?

I believe there are several factors that differ, one of which is the digital maturity of the particular region. Another is the quality of the local infrastructure. And a third is the local regulatory requirements and government policies. Some countries like Singapore stand out as advanced countries in terms of digitization. The government is promoting bank regulations to enforce a higher level of cooperation among established financial institutions and new participants with the aim of benefitting citizens' easier and cheaper access to financial opportunities.

CIOs are more and more instrumental to business transformation and success. How do you see business and technology changing to address embedded finance strategies?

Both technology and business need be more aligned than ever. Clearly, business leaders have greater focus on transforming applications to tailor services for engaging a broader community of non-banking partners. The vision here is to improve quality of services while lowering cost of access for final clients. At the same time, leaders need to upgrade their technology stack toward open banking architectures enabled with an API layer to orchestrate the flow of data internally and externally. Importantly, security is of course a precondition to perform with the needed speed to succeed in digital economies.

Where should banks start to build a fit-for-purpose architecture?

For banks, it's essential to own an end-to-end architectural view that can reconcile internal processes and compliance requirements with the external need for openness and responsiveness. Internal and external components must work together to generate frictionless experiences and power embedded finance partnerships. Modernization is key to gain the needed flexibility to participate in these integrated and frictionless journeys.

That said, transformation doesn't happen overnight, and there are risks involved in the process. Banks who are typically conservative in nature tend toward caution when pursuing new strategies such as embedded finance. This is understandable, due to their fiduciary responsibilities and regulatory accountability. Therefore, a potential starting point might be to take a greenfield approach, freeing the bank from legacy systems so it can embrace new ways of working. The bank can start fresh experimenting as a separate entity, organization, or teams. This is a good approach and the easier option. The organization can run a pilot program and study the results, making it possible to make decisions quickly on whether to pursue the new strategy with minimal risk and positive impact for the legacy bank to learn and adapt to change.

Colleagues who work with the new technologies and new architectures have a different mindset. From the people perspective, a different skillset is needed to support the newer systems resulting in a refreshed operating model and simpler process.

Are banks at a disadvantage compared to fintechs that engage clients on digital with greater speed?

I don't think so, though the competitive landscape is shifting. Banks have an advantage over fintechs in some aspects, such as clients recognize the value of an established relationship that is based on trust and reliability. But this trust is not to be taken for granted, as clients have learned to look elsewhere for convenience. This is the reason why incumbents can't stand still but must learn how to work with other financial institutions and non-banking partners and fintechs.

Some banks are also making further inroads beyond their borders by orchestrating platform ecosystems. Is this viable?

A very good question, actually—the idea versus the reality. There are a lot of opportunities outside of the traditional banking sector. The idea to leverage our trusted customer relationships and our financial management competencies and expertise is our greatest advantage. However, there are challenges—such as cultural differences and current operating model—that make pursuing new strategies hard for banks. It takes time to adapt, which requires vision and commitment from top management to stay the course.

What do you think about the rising power of super-apps?

There is a lot of debate for a simplified/focused app versus a super-app. Which one is more attractive to the customers? Which one is better? Evidence is there suggesting that consumers are more attracted to a super-app engagement model, as we see more and more from everyday life. The reason is ease and convenience for accessing services in one place. However, we also need to remember a super-app is not a catalog of undifferentiated services. What is critical is the super-app must be recognized as very good in at least one domain to gain the trust and credibility needed from mass customer adoption. Once that trust is gained, they can expand to other areas.

Raffles Medical Group

Quek Sin (QS) Kwok

Chief Digital Officer

The healthcare journey is a delicate journey for patients, who must often deal with complex issues related to financing and insurance. Embedded finance can simplify healthcare financing and improve patients' experience by helping to resolve interoperability barriers in the healthcare ecosystem, helping to facilitate collaboration with regulators and governments, and helping to improve healthcare providers' ability to adopt new technology. In this conversation with IBM's Paolo Sironi, Raffles Medical Group's Quek Sin (QS) Kwok discusses key aspects of embedded finance strategies from a healthcare provider perspective.

Can you give me a snapshot of what Raffles Medical does and what your role there is?

Absolutely. Raffles Medical is at the heart of private healthcare in Singapore and 14 other cities across Asia. We provide services from inpatient and outpatient care to specialized treatments and health checkups. Besides being a medical provider, we also provide insurance and benefits coverage for our corporate clients and individuals.

As for me, I wear two hats at Raffles. As the chief digital officer and the product chief for our digital health platform, my job is to pave the way for our digital product development. I focus on how to engage patients better and work with our corporate clients to promote health and well-being at work.

Why would healthcare providers consider integrating financial services into their platforms?

Expanding beyond existing services opens new opportunities to provide additional value to our clients. We can explore and offer a wider range of services that align with client needs. Singapore is shifting as a nation towards a proactive approach to healthcare through the Healthier SG initiative. This aligns with our vision to enhance our engagement with patients across a wider spectrum of services from preventive to curative medicine and post-treatment care. It's about nurturing more robust connections between doctors and patients, as increasing patient engagement leads to better customer satisfaction. This way, they see us not just as their healthcare provider, but as a comprehensive care platform. We're all about creating a superior experience via our omnichannel platform, tailoring our services to suit both their digital and face-to-face preferences.

Can you share insights about your patient-oriented perspective and related areas of focus?

Generally, people interact with healthcare on a needs basis—they seek medical help when they're ill and get on with their lives when they're well. We believe, however, that it's essential to stay engaged with individuals throughout their health journey, covering both sickness and wellness. Our mission goes beyond just reactive care. We aim to be proactive, encouraging practices that maintain good health and delay the onset of medical problems as people get older. The rapid advancement of healthcare technology calls for a nimble and agile approach, but will still require us to be able to mesh well with the established procedures and rigorous processes required as a healthcare organization. To cater to our customers throughout their entire lives and offer more holistic care, it will require us to look beyond traditional healthcare and enter into the connected world of wellness and preventive care.

Is the Raffles Connect platform open to the general public, both within and outside of Singapore?

Our initial audience are our individual customers, but we have started to extend our platform to address the needs of our corporate clients and their employees, giving us a B2B and B2B2C focus. The corporate setting provides us with a platform to deliver targeted initiatives and interventions in a more concentrated and purposeful manner.

For now, our efforts are concentrated in Singapore before we consider branching out to other countries. Each market has its unique characteristics and user dynamics, so it's important to tailor our strategy accordingly. Some countries might put a lot of emphasis on primary healthcare, while others are more oriented toward pharmaceuticals and acute care. Understanding these nuances is crucial because they shape how people use and access medical services.

Additionally, the insurance landscape in each country plays a vital role in determining healthcare consumption patterns. Insurance policies and coverage options vary from one country to another, influencing the preferences and behaviors of consumers. By initially concentrating on Singapore, we can better understand and navigate the local market intricacies, fine-tune our product offerings, and optimize our business operations. This strategy will give us the insights we need to set a strong foundation so that when we're ready to expand into other countries in the future, we'll be well-prepared.

What is the role of embedded finance within the healthcare sector?

I'd say there are two main facets here. One is payments and the other is healthcare financing. Payments are a fundamental service across all sectors, being involved in both online and offline transactions. Healthcare financing, which encompasses government subsidies and insurance involving different layers of coverage, is particularly significant in the healthcare sector. Financing support, along with the complexity of payment processes, can make it challenging and confusing for individuals.

Addressing this challenge is crucial to enhance the user experience. Insurance companies today focus primarily on assessing payouts and coverage, and may not fully consider the end-user perspective. End users are required to navigate and understand the various components of their healthcare financing independently. This often leaves users to figure out and understand their healthcare financing on their own, leading to a less-than-optimal user experience.

The onus to enhance the user journey is also on medical providers, to focus beyond collecting payments and verifying payouts to providing a seamless experience for the users, including simplifying the healthcare financing process. While medical providers may have support teams to assist in-person interactions during hospital admissions, it is crucial to extend user support beyond these moments and provide ongoing guidance to individuals and their families. This involves leveraging technology to provide accessible and personalized guidance throughout their healthcare journey.

Insurance plays a large role in the healthcare industry. What opportunities exist in this space?

In countries where insurance coverage is limited, out-of-pocket payments for medical services can be a burden for individuals. One potential contribution could involve embedding lending services into the healthcare journey to provide financial assistance for such payments. However, the applicability in Singapore may be limited due to the relatively comprehensive insurance coverage available.

Another aspect to reimagine is how insurance is offered. Exploring opportunities to integrate insurance provision into the healthcare journey could be beneficial. Focusing on keeping individuals healthy and incentivizing them through activities that contribute to their well-being could lead to the purchase of insurance. This approach could potentially have implications for the premium individuals pay, as their commitment to maintaining good health may result in lower premiums.

Overall, integrating health, wellness, and insurance more closely offers avenues for innovation and improved services in the healthcare sector.

What is the main hurdle for healthcare providers in terms of deploying their business strategy?

There are several factors at play when comparing the adoption of technology in the banking and healthcare sectors. Firstly, regulations significantly influence the willingness and ability of institutions to experiment with new technologies. Financial institutions often face pressure to be more progressive and are more open to creating regulatory sandboxes for experimentation. In contrast, the healthcare sector, due to its critical nature involving life and death, is more cautious and less ready to explore diverse regulatory approaches.

Secondly, legacy systems pose a challenge in the healthcare sector. Over the past two decades, banks have undergone significant changes and have become more agile in adopting newer technologies. However, the healthcare sector contends with numerous legacy systems, which restricts its agility in implementing new technologies.

Lastly is the challenge of developing a compelling business case for technology adoption. Healthcare organizations need to demonstrate the proof of a viable business case, which can be a complex task. For example, implementing remote patient monitoring systems to reduce hospital stays and provide better remote care sounds promising. However, healthcare organizations will also need to assess the business case of adopting these technologies, especially considering rising healthcare costs. Justifying the implementation of new technology and its impact to healthcare expenses is critical, and may be more challenging during the initial phase of adoption.

How important is it to think in ecosystem terms to identify the right business case?

Great question. Thinking ecosystems is the same mindset I adopted in my previous role with the Singapore public sector overseeing Singapore's national digital identity program. It is important to create interoperability across different parties—for which, in my opinion, there could be three different approaches.

The first is point-to-point integration with key players. This approach is easier to get things started, but harder to scale to a larger network. The second involves bringing key players together on a common interoperable platform. This requires a consortium or coordination efforts to establish the platform and address considerations such as commercial arrangements, data sharing, and participation criteria. The third is a distributed model where multiple parties can participate without a centralized body controlling the technology. Coordination is still necessary, albeit with a more independent technological framework coupled with a robust regulatory framework where necessary.

In my previous experience about the interoperability of digital identities, we adopted the first approach exploring country-to-country links. Although not efficient in building the network quickly, it provides a quick way to proof-of-value based on mutual agreement about standards and technology among all stakeholders. Essentially, the success of achieving interoperability will rely on the collaboration and alignment of all involved parties, considering the standards, technology, and alignment required for seamless information exchange.

Have regulators and governments been proactive in fostering a collaborative approach?

That's a bit of a complex question, as government involvement in achieving interoperability comes with both advantages and drawbacks. Personally, I believe the government can be instrumental as a facilitator, but it needs to also adopt an industry mindset and create a supportive business model. This means there must be economic incentives for the various stakeholders involved in building and operating the network.

A notable example of successful interoperability achieved through a business-driven approach is the credit card network. Standards are critical to achieving interoperability within the healthcare ecosystem. By adopting interoperability standards, we can realize immediate benefits like streamlined onboarding processes.

Even in a relatively small market like Singapore, there is a need for further alignment and coordination in terms of interoperability for medical records. In Singapore, government agencies are taking the lead in initiatives that aim to bring together insurance companies and healthcare providers. Net-net, it aligns with our goal of revolutionizing the healthcare experience, making it more comprehensive, seamless, and user-focused. A concerted effort from all stakeholders, a commitment to aligning strategies across different markets, and a readiness to embrace the opportunities brought by technology will be required. It's an exciting journey ahead for all of us.

Raiffeisen Bank International

Sudip Khan

Open Banking Leader

Although the term “embedded finance” is relatively new, the concept is not. Traditional financial products have been offered for many decades via alternative channels or partners, as a cross-selling or up-selling opportunity. But embedded finance is not a new form of up-selling or cross-selling. Instead, it is a radical shift in the way financial services are consumed “in the moment and location” of clients’ need. The instant and seamless availability of financial services in even non-banking environments is a game-changing ability that is powered by BaaS architectures across APIs rails. In this conversation with IBM’s Paolo Sironi, Raiffeisen Bank International’s Sudip Khan discusses key aspects of embedded finance strategies.

In your view, what are the key distinctions between open banking and embedded finance?

Open banking in our European market is commonly mentioned in the context of compliance with PSD2 regulatory requirements. This said, it has served as a convenient stepping stone for European banks to develop data-driven use cases and offer financial products within client journeys not owned by the bank. This is embedded finance.

At Raiffeisen Bank International, we are live with two embedded finance solutions. The first is a leasing API solution, which connects our bank to clients of major car manufacturers and dealers. The second is a buy-now-pay-later (BNPL) solution called “Cashpresso,” which is currently live in Germany and Austria.

Given your international experience, how does the tone of embedded finance discussions vary across countries?

In Europe, the awareness and understanding of embedded finance is relatively low compared to other regions worldwide. For example, Asian banks have demonstrated a stronger grasp of the business potential and the technological requirements involved. Similarly, in the US I have seen a significantly higher level of activity in this domain when compared to Europe.

In my view, the pace of change in the embedded finance landscape is primarily driven by customer demand and subsequent adoption. In Europe, the driving force behind this change has been regulation, aiming to keep pace with other geographies and safeguard against global players dominating the market. This regulatory focus has played a crucial role in shaping the European embedded finance ecosystem and ensuring a level playing field for both traditional and innovative financial institutions.

What key steps do you consider to be crucial for banks to undertake when implementing an embedded finance strategy?

Initially, our focus on embedded finance revolved around understanding how to externalize our in-house digital products. Very quickly, it became evident that there were business-critical gaps between traditional architectures and what was required to power the digitalization of banking. To bridge these gaps, we are investigating potential partnerships with specialized BaaS platform providers, accelerating our journey toward the future of banking.

However, the real starting point is transforming the way banks work. First, driving a change in strategic mindset—not easy for such a highly regulated industry. For instance, the notion of orchestrating platforms where clients can access products from competitor banks is foreign for most bankers. Second, there is usually a cultural hurdle in the way people work. Lines of business tend to be configured to compete against each other, sometimes for the same clients' attention with different products. This blinds them from the bigger threat from outside, which requires a unified business response.

Taking a step back, why should banks care about embedded finance in the first place?

Facing complex macroeconomic and market conditions, the banking business is changing. This is going to be a lingering death—happening gradually over time—and they need to prepare their organization accordingly to survive and thrive again. However, given the demands of day-to-day operations, banks are struggling to anticipate and act on future developments. Regardless of difficulty, it is imperative that banks establish a clear vision of the future landscape and strategy for their role in this landscape.

One vision to consider is that of a bank resembling an Amazon-like entity, not only selling its own products, but also identifying areas where it can compete effectively, add greater value, or gather more valuable data. Embracing a marketplace concept, the strategy would involve orchestrating an entire ecosystem through collaborative efforts, co-innovating with specialized partners that complement the bank's offerings. Looking beyond the banking industry, the WeChat model serves as a compelling source of inspiration.

What technological advancements or changes are necessary to fully realize the vision of embedded finance?

As a banking group operating across 13 different countries within and outside the European Union, achieving uniformity is a key priority for us. For example, we are focused on leveraging cloud services with a consistent approach and transitioning to a unified API gateway and shared core banking system.

Another key priority is ensuring that the moment internal products are externalized, we adopt the standards shared by all market participants. For example, we can offer loans digitally to residents inside and outside the European Union. Without shared standards in the development of digital offers, it would be extremely difficult to scale our innovation.

Another example was our strategic initiative started in 2020 called "Product as a Service" (PaaS). The initiative was all about harmonizing infrastructure and APIs, ensuring a unified and seamless banking experience when we externalized our solutions. The success of PaaS is heavily reliant on adoption of the shared standards I mentioned earlier.

What methods or approaches do you recommend for reporting the progress and success of embedded finance initiatives to bank management?

For banks it's usually challenging because of the business siloes. For example, a leasing agreement might be owned by a corporate division, whereas the final transaction sits in the retail division where there's a touchpoint with the final client.

End-to-end visibility of the whole revenue-generating process is required, as well. It is not enough to report what's happening on the APIs—like how many calls are being made and how many drop-offs—without tracking how much revenue a particular API truly generates.

FinOps adds great value and transparency to the economic elements around embedded finance initiatives. Creating a direct economic link between technology consumption and business results is what feeds leadership attention. This changes the relationship between technology and business from technology being an enabler to being a partner.

We've discussed the value of embedded finance for banks. What about partners?

There can often be a divergence between the priorities of bankers and the expectations of third parties. Account managers may focus on outputs metrics, such as revenue generated for the distributor. However, the sustained success of embedded finance initiatives should not be determined by revenue alone. It is crucial to also factor in improvements to engagement levels with the end customer, as from a third-party standpoint, the true value of embedded finance lies in enhancing platform engagement. The real value question is, "How can we potentially help them deepen engagement?" It is the quality and depth of the engagement model that fuels sustained revenue.

What is your perspective on the role of regulation when it comes to embedded finance?

To speed things up, more regulation is welcome. As strange as it may sound to many, I think regulation can help to spotlight the need of a mindset change. This is what PSD2 and open banking regulations triggered.

Do banks have the necessary talent and competencies to execute successful embedded finance initiatives?

There is a gap. While bankers understand well how to talk to larger corporate clients, they often don't know how to turn those clients into partners and make banking products available beyond banking borders. That's a partnership model that features a third party in between the bank and final consumers, which also requires understanding of technology that powers all interactions. And then also the understanding of what this means from a retail perspective. Essentially, there is a need to forge relationship and business development managers.

Considering all that we discussed, what's your key message regarding embedded finance?

My key message is the imperative for a cultural change and a mindset shift to achieve sustainable growth, because the current way of growing through customer acquisition is very expensive. That means opening to this idea that the traditional way of doing banking will lose relevance in the future. Banks must move to work in partnership not only among business lines, but also with third parties beyond banking walls. This necessitates a completely different mindset and should serve as a catalyst for profound cultural shift.

SEB Group

Christoffer Malmer

Head of SEB Embedded Finance

A shift in business perspective is needed for embedded finance strategies. It requires a change in ways of working and different usage of technology. Top management commitment is an advantageous prerequisite for providing the business environment that enables teams to create beyond banking borders. Modular capabilities for digital development increase speed in people's areas of responsibility while striving for successful value-sharing across ecosystems. In this conversation with IBM's Paolo Sironi, SEB's Christoffer Malmer discusses the power of integrating financial services into user journeys. It touches on the importance of clear business sponsorship and the adoption of a software development mindset.

How did you start your journey in embedded finance?

Currently, I lead a business unit called SEB Embedded, which is SEB Group's BaaS offering. It sprung from our innovation studio SEBX, which I got the opportunity to start in 2018 after co-heading our retail division. The studio began as a generic initiative for building new products and experimenting with new business models leveraging new tech and acting legacy-free as a fringe organization. We rapidly realized the opportunity to use this new tech stack to allow distributors to embed financial services into their user journeys. As we built this tech stack from scratch, it was designed with an open architecture enabled by APIs and microservices. The scope of our journey now extends beyond client relationships originated and managed inside the SEB Group, and our ambition is to bring banking to where it's needed.

What were the pivotal decisions made at the outset of this journey?

There were two key decision points, or rather two key enablers, of our BaaS offerings. First, we needed a strategic conversation with top management and the board about offering financial services capabilities to anyone who wants to offer them to their customers. Theoretically, this means empowering competitors.

Second, we needed to invest in the technical capabilities of a modern IT banking platform designed for multi-tenancy based on APIs. A two-sided model where we also allow our distributors to access our data. There's a lot of configuration and enablement that goes into that platform. So two dimensions—strategic and technical—have been important enablers.

More recently, we decided to move the tech stack and offering out of the SEBX innovation lab and form a new business unit. We acknowledged that now is the time to scale with a commercial offering. As such, SEB Embedded was born in 2023.

What points of integration exist between SEB Embedded and the originating financial institution?

We're part of the same legal entity and report directly to the bank CEO to ensure speed and fast decision-making. The leverage we have from the rest of the group is very important because we have access to a strong balance sheet, capital funding liquidity, licenses, and data. This value can be accessed synergically with minimal technical integration, as we built a tech stack on cloud that runs in parallel with the traditional tech stack. While we are part of the same regulatory reporting from a financial statement perspective, we redesigned key business and regulatory processes such as the KYC/AML onboarding. We have also built our own data models, considering that with BaaS customers can enter the bank through multiple distribution channels. We also work very closely with our distributors to ensure they get the opportunity to leverage the value of their customers' data.

Will traditional banks as we currently know them continue to coexist alongside embedded finance, or will embedded finance become the dominant consumption model in the future?

Embedded finance is happening and there's an increasing conviction that this is a very convenient way to grow a banking business. However, it's not an either-or decision for a bank. There are always new customer shifts and new business needs. Rather than losing both customer and business opportunities, there's an opportunity here. We have created an infrastructure that allows us to offer BaaS to whichever brand wants to build on it. If customers chose to stay with the banking interface—because that's what they're comfortable with—then we will continue to provide that as SEB through our advisors, branches, mobile apps, or internet banking capabilities. Ideally, a good tech stack from an infrastructure perspective allows delivering BaaS both internally and externally.

What type of BaaS business users operate in the embedded finance market?

There's a broad range of categories. On the one hand, we encounter distributors who know exactly what they want. They have a user journey now where there is a credit demand that can be embedded to eliminate friction. On the other hand, some providers have yet to form a clear idea on how to innovate with embedded finance.

Also, we encounter financial services institutions who might want to broaden their offering by adding new products without having to build out all the capabilities. They are clearly very familiar with regulations like KYC and AML. Other companies have never dealt with financial services; for them, GDPR, KYC, and AML are just new abbreviations. As more clear use cases that add value to end customers start to emerge, increased comfort and awareness will follow.

You mentioned four different type of actors that might interact with you. What characteristics might a distributor look for when choosing a banking partner?

In our experience, four aspects really matter: brand, balance sheet, holistic services, and technical onboarding. First, teaming up with an established brand is very helpful when venturing into something new. Second, the stronger our standing as a regulated financial institution, the better terms our distributors can offer to their end customers. So, they benefit from the quality of the bank balance sheet, its capital, and funding costs. Third, distributors appreciate dealing with one BaaS provider where access is provided to a broad range of financial services products through one point of contact. Finally, smooth technical onboarding is crucial. Providers of embedded finance must be obsessed with the user experience of distributors, as this impacts the quality of what they offer to their customers. They need to onboard swiftly while easily accessing available APIs to configure products.

How should a good support function be configured?

From a technical perspective, we believe it's important to design and build the system from the beginning, such that the distributor should always be able to access their customer's data—provided that's what they want and are equipped to do so from a regulatory perspective. It's a B2B customer service skill. Distributors must be empowered to have and own a full conversation with the end customer. Client relationship managers at the distributor level must have access to everything needed for all first-line customer services. The second line is embedded to interact with a customer service person that logs a ticket for something more complicated without having to interact with the end customer.

What are the elements that allows the provider of back-end services to be more efficient?

Distributors should be able to onboard themselves rapidly and efficiently. For this, good API documentation is critical.

There is also an important regulatory element. In our operating model, the BaaS provider is outsourcing distribution to the distributor, which means there are functions that distributors do in the name of the BaaS provider. For these outsourcing relationships, there are onboarding aspects that matter, such as enforcing proper treatment of data, proper compliance with regulations, and proper joint delivery model with clear responsibilities.

There is a strong alignment of interests here because the distributors are also putting their brand at stake. This is particularly important for those who haven't dealt with financial services before. An alignment of interests is needed in everything from credit losses to anti-money laundering and fraud prevention when dealing with financial services products in a distributor's name with the end customer. That's why we take very seriously not only compliance with regulations, but also our efforts to ensure distributors are comfortable and clear on the business model.

How can value be defined by embedded finance actors?

From my experience, the ultimate yardstick is the same for all of us: are we creating shareholder value in terms of return on equity and return on investments? We evaluate embedded finance and BaaS as a business unit just like we evaluate our retail division or investment bank: how are we creating value as a part of our business, and for the capital we consume?

From a customer perspective, we are very conscious that our distributors have a business case. They are paying us for the products and for the platform, so we need to make sure that they have a good business case on their end. Some look at new revenue streams, such as embedding credit that was not previously available. Others look at loyalty programs to increase cross-selling or up-selling. Reducing costs is also sought for. By building your own closed-loop or different ecosystem, you might be more cost-efficient by using a different type of payment rails.

But there is one last component of value, which is about data and insights. We are very conscious that our distributors can own their own data. As a BaaS provider, we will use the data for regulatory compliance, and we will file required reports, but we will never use the data to cross-sell any products or use it for any of the other distributors. The data we have is exclusively available for the distributor. That's something that's also important because that allows a distributor to access data they never had before around financial patterns and financial behaviors to see a much bigger picture of final customers. That also allows third parties to drive their business development in a completely new way that's more calibrated and accurate.

Are there external factors that accelerate value generation with embedded finance?

A country's financial infrastructure is a key enabler: high penetration of mobile, high availability of digital data for KYC of individuals and corporations, high degree of digitization of payments such as authentication and identification.

Sweden possesses most of these elements. Across Europe, there's different degrees of maturity. Looking further afield at countries like India, they really jumped a couple of hoops in terms of building an advanced digital infrastructure starting around digital payments, identification, and authentication.

It's more about digital maturity than economic development. Where data is more difficult to share, where there is less harmonization around authentication models, and where there are more local adaptations around payments infrastructure, it might take a little bit longer to unlock value with embedded finance. In my opinion, it's more a question of how fast this will move rather than if it will happen.

In your experience, what are the most critical factors for successful embedded finance initiatives?

Having the privilege to work with a brave and deeply strategic CEO and board fully committed to disruptive innovation, I must first recognize just how important having clear business sponsorship is.

Second, and perhaps my biggest learning, is that what we are building with embedded finance and BaaS is effectively a software product. We must operate as a software development organization, which is something totally different than a traditional bank. I've been working in financial institutions all my life and I'm fascinated by the industry. But there are some fundamental traits that are different if you're optimizing for software development compared how banks typically operate. Now these worlds are intersecting, and you need to find the crossroad between the two.

Regulatory compliance needs to be there, and financial risks managed professionally. But that does not mean the traditional ways of working of a financial institution will be applied. Combining the two worlds fruitfully means everything from new skillsets to new ways of working to how teams are built, what culture is needed, how success is evaluated, and how people get incentivized.

From a technical perspective, cognitive load must be reduced by making things independent and autonomous, increasing speed across individual teams' areas of responsibility. In that sense, creating an organization designed for software development, and leveraging to the full extent what the API-type infrastructure can give, means designing the organization and the operating model in a very different way.

Standard Bank

Jorg Fischer

Group CIO

The African continent has a once-in-a-lifetime opportunity to leverage fintech innovation for economic growth. The rapid proliferation of digital platforms and services, particularly mobile money, has been a key driver of financial inclusion progress across the region. Local and international investors are taking notice, bringing jobs and growth to African economies. This trend is boosted by improved mobile penetration, engaging a young, rapidly urbanizing population. In this conversation with IBM's Paolo Sironi, Standard Bank's Jorg Fischer discusses all key aspects of embedded finance strategies on the African continent.

How did Standard Bank initially approach the topic of embedded finance?

Platform businesses are part of Standard Bank's strategy. Three years ago, our current group CEO and the group executive committee openly discussed the relevance of tilting the bank toward a platform business after exploring the business concept with the Massachusetts Institute of Technology. The driving force behind this movement was thought leadership, from the top management down to the businesses. Technology, of course, also had a role to play, but the strategic direction was set by the business. Our initiatives focused on how to encapsulate clients into doing much more banking using different digital products, capturing more revenue opportunities from non-traditional banking, and improving market share or client shared wallet.

Looking back, the approach may have been a bit too broad, because we started with a high-level definition of what the platform business would be. More recently, we sharpened our focus, pinpointing exactly where we want to play and where we prefer to stay away.

How did your business strategy influence your technology agenda?

While embedded finance does necessitate technological innovation, it's not solely about driving technology. It's more about how technology can bolster the strategies of different business units. The real enabler was rethinking our approach with the business lines, figuring out how to be more open, deciding which APIs to expose, and ensuring platform security.

To me, the most significant technology shift driven by business strategy was a change in our approach to architecture: the need for simplification, interconnectivity through API, operational resilience, and realizing we don't have to build everything ourselves. Banks need a very open mindset, and we've also been very clear with technology teams that not all solutions need to be homegrown. Technology is not the difficult part, because the API world is an easier world. The real challenge is embracing the necessary cultural change.

Can modern architecture help enable this cultural shift?

Well-designed enterprise architectures have taken on a greater role in harmonizing business and technology efforts. Facilitating agile workflows and encouraging more cross-functional collaboration breaks down silos. Modern channel systems need to connect the app to multiple back-ends versus what was previously rendered as monolithic. Feature teams must be enabled to communicate with each other, leveraging better program management with a holistic view of how all these components fit together.

As we navigate this new landscape, how does the interaction between business and technology evolve?

The key to success lies in a more integrated relationship between business units and the technological aspect of business. Gone are the days when business units would just toss requirements over the fence and expect the technology team to deliver. Today, business leaders are actively participating in day-to-day tech operations and in turn are gaining a better understanding of how to prioritize tasks and decide on feature delivery more effectively. From a business unit perspective, there is more accountability for funding decision and prioritization. Technology is not a separate utility anymore; it's intertwined with the business. We've become a business unit-driven technology shop.

Do you believe banks should focus on evolving their existing core systems, or should they explore the route of fresh, greenfield architectures?

I see it as a blend, leaning more toward the evolution of a bank's own architectures rather than a complete shift toward greenfield. Why a blend? Well, in our case, we have operations across various African countries where the technological maturity differs from that of South Africa, which is more established. Being a leading bank in the region, we initially undertook a substantial modernization program for our core banking to transition our architecture towards a service-oriented model. Following that, we further modernized our service-oriented architecture to an API-led structure to widen our accessibility to third parties. Yet in certain countries, we also opted for a greener approach to seize unique opportunities, such as in agricultural finance.

What role do third parties play in shaping your business and technical decisions?

I don't see third parties as external elements, but as crucial components of the teams that contribute to our success. They don't only bring market views, but also knowledge about how to do things. And they need to understand our environment and how to enable it here. So, what's needed is an understanding of an organization's standards, policies, and governance, especially when venturing into the cloud world.

How do industry standards influence communication between banking and non-banking partners within the ecosystem?

I would argue industry standards are important. There are conventional industry standards that we must adhere to, like ISO when interfacing with MasterCard for payments. In the new open-API world, there are also industry standards that provide a domain-driven architectural perspective to work with. And then there are internal standards based on what the organization wants to achieve.

As a group CIO, it's important to establish internal standards because we've come from a very centralized technology shop to a much more federated technology shop that is business unit-driven and puts accountability on the business. Such standards create clear guidelines on what's up for negotiation and what isn't. Take, for example, the security practices to open an API on the marketplace, or the testing standards to complete all compliance checks. Standards help to strengthen reliability and reduce reputational risk when services are published externally and must always work.

Although embedded finance is about banking services offered from third parties, our reputation is on the line because customers would still look to us for reliability—even though they might access a financial service from an electric company, or from an e-commerce operator.

From a technology perspective, what does competition look like in the world of embedded finance strategies?

In a world where you are always competing, banks competing on platform economies must adopt the Google mindset. That's a 24/7 service. In this economy, while being a pioneer with a new service can give you an edge, eventually most services commoditize and the playing field levels. That's the economy we are entering. So, what is critical over and above everything else is the reliability of the services. The reliability engineering perspective is a key differentiator to compete continuously, especially when considering the need of scalability for volumes arriving from third parties.

Do you think banks should be participants in third-party platforms, or can they become ecosystem orchestrators?

By orchestrating an ecosystem platform with embedded finance components, a bank evolves from merely providing loans to utilizing technology for analytics and insights. This adds to the understanding of the whole ecosystem interplay to help users grow their business. The bank comes to you, and it becomes relevant to you more than a deposit or money withdrawal facility. As such, existing relationships with corporate clients can be enhanced by helping them to better connect with their supply chain and client ecosystem.

We've front-run it, and two examples might be relevant. There are many rural areas in Africa where subsistence farming lacks good exposure to markets. As a financial institution, if you place yourself in the middle, you can really change the lives of these subsistence farmers by providing financial assistance with the right technology, like satellite-driven insights for growing crops.

Another example are small trader businesses in various African countries. Small merchants can't really leave their shop to go banking, but we provide funding or bring a banking opportunity to them to supply their store. You learn together that you can achieve much more by offering help precisely when and where it's needed versus being a bank down the road.

Given everything we've discussed, what is your central message?

Ultimately, two key aspects are truly relevant. Organizations need to operate with a clear purpose while also finding a feasible commercial model as they step into the platform business. For that to happen, it's critical to grasp not only the bank's value chain, but also that of your clients. Banks need to be truly client-centric and think about the day in the life of the client, not the day in the life of a bank. Only then comes the second aspect, which is about leveraging technology to enable frictionless access to services with the needed reliability. Clients first, and then it's about business with technology to enable it.

Starling Bank

Sam Everington

CEO, Engine by Starling

Neobanks are shaking up the banking industry with their digital-first approach. These new competitors offer a more compelling banking experience than traditional banks. As they gain traction, they bring world-class technology to financial services offerings. In this discussion with IBM's Paolo Sironi, Starling Bank's Sam Everington shares the key aspects of emerging embedded finance strategies.

How would you define the concept of embedded finance?

Starling Bank has been a pioneer in supplying BaaS in the UK. Initially, we developed APIs and events on the real-time payment network, providing agency payments access, a service currently offered by only a few banks. As banks approached us seeking real-time access to UK faster payments, we commercialized our APIs, leading us to ask the question, "Can we run fully white-labeled accounts and services?"

This led us to enter the BaaS space supporting other financial institutions in their digital journeys. For example, a large German investment platform was one of our first partners. They use APIs to originate accounts on Starling's license, including the whole deposits process, or payments in and out. While this partner is a financial institution, our thought was that part of the market interest would come from embedded finance propositions with non-financial institutions and retailers having brand recognition and customer loyalty. Some have been struggling behind the scenes with banking APIs to embed financial-like products into some part of their consumer journey to deliver their proposition effectively.

How has Starling benefited from exploring opportunities beyond traditional banking boundaries?

People have loyalty to brands, so we can see a potential for embedded finance. But there is a real challenge regarding which kinds of embedded banking services can generate meaningful margins.

It's incredibly difficult to make money on payment account wallets and deposit taking. Only 10 to 15 of almost 400 more recent digital banks are making profits at all, with Starling being one of them. Transaction banking is often unprofitable for most entities, but with embedded finance both the brand and the financial institution need to be able to make a margin. It is difficult to envision a scenario where a retailer can offer payment account or wallet functionalities while generating margins for the supporting bank.

Lending products more clearly make money. That is where it makes sense for a bank to embed themselves. I see a world where more institutions offer their own branded loans and credit products to finance customers' purchasing as part of the checkout experience. That's where you've got a customer in a moment of need and there's a financial product that the regulated entity can provide. There's margin for both the regulated entity and the retailer, both in terms of the sale of the goods and, potentially, sharing the interest margin in the lending process. I think this goes further than buy-now-pay-later (BNPL), with bigger credit products and longer-term lending relationships.

Is lending primarily linked to payment transactions, or can it be offered as separate solutions?

Embedded finance can work quite well as pure lending or insurance, while the payment account could live somewhere else. I can't see many embedded finance brands taking on payment accounts, partly because of costs involved and partly because of the complexity.

Why would a bank consider implementing embedded lending?

Because it's no different than using a broker. Ultimately, it's access to another distribution channel for the bank, finding people in those moments of real need and making them aware of your bank's lending proposition. This is a costly sales exercise for banks.

You mentioned BaaS earlier. How would you define this business model?

It's a platform that supports this embedded finance with APIs and events that are capable of making decisions in real time. Typically, you need a digital origination journey because you're not going to get the person to walk into a branch to process this kind of thing. A lot of lending is digitally originated, and you need to be able to operate and surface services into someone else's branded app. Most banks still have very proprietary digital channels, limiting their ability to fully embrace embedded finance and collaborate effectively in the digital ecosystem on client events.

How can traditional banks, without the ability to build a greenfield architecture, modernize and compete in the digital economy?

Without real investment, I'm skeptical it is possible. In Europe, banks have been mandated to establish API capabilities for account access and payment initiation. Once the infrastructure gateway is established, there is potential to expand functionality, provided there are proper internal connections to the core systems. While it is technically feasible, it can be costly for banks to implement. Legacy core systems often struggle to provide data at the required speed. For a core system that often still takes more than 24 hours to update balances—simply adding two numbers together—operating a real-time lending platform is out of the question.

What is the most crucial first step for these banks?

You start with an ambition and empower a small team of suitable individuals. The traditional approach of executing tech transformations through rigid control processes, fixed cost, scope, and timelines has proven ineffective for technology projects in banks. You have to trust and empower smart individuals without necessarily knowing what you're going to get and in what time frame. You can control the cost because you can control the capacity of resources that is available to that function. Essentially, you give employees capacity, resources, and a budget to build—quite reactively and responsibly—a basic version of the product to try and sell something to customers, and enhance it later.

How would banks support the third parties who access a BaaS platform?

There are two types of support to consider. Firstly, technical support for developers: portal documentation, testing tools, and sandboxes. Sandbox support, in particular, is often overlooked but crucial. While API documentation is valuable, having an integrated system that can stimulate various scenarios within the third-party ecosystem is essential for gaining confidence before going to market.

Secondly, there is product support for customers. Who sits at the end of the phone when the customer calls and has a problem with their embedded finance product? Is it the brand, or is it the license holder? Are those people sufficiently trained? Are they sufficiently available at the right times? What happens when you have complaints? Ultimately, you could end up with a financial services-independent ombudsman that is ruling on the licensed entity, not the brand holder. Licensed entities have real risks to consider. But if it gets to the point where you're providing all the support directly, all you've really done is stick someone else's logo on top of your banking proposition.

What is the main objective for third parties seeking partnerships in the context of embedded finance?

If we're speaking on economics, typically it's a mix of growth and diversification of their existing business. Think of an airline ticket—something that people often use as an example. The airline wants to sell more tickets. Those tickets are quite expensive now, but they are also often low-margin products because of the competition with low-cost carriers. Customers need access to money to make a purchase. If airlines can gain a margin from consumer credit options and a margin on the sale of the ticket, they can build a better revenue stream without having to grow in the highly cost-competitive airline industry.

Are banks equipped to become orchestrators of non-financial client journeys?

I think there will be different answers for different banks. Not all banks can become technology businesses, which is effectively what you're doing here. It depends on the skills of the individuals of the management team in place at the bank. Some are brilliant with lending, credit risk, and that kind of decisioning. But running a technology business may not be their strength. Meanwhile, some banks may have very capable technology functions to support third-party businesses, as it is an area they've been investing in for a long time.

Looking ahead three to five years, do you expect all banks to be offering embedded finance propositions?

The market doesn't need 20 banks in each country doing embedded finance. If all 20 banks built a BaaS proposition, I think a lot would struggle to make money because the first few to prove it would have reference clients in the market. They're going to have a much stronger case in any selection process than the follower brands that bring a new, unproven proposition to market. Ultimately, you will see no more than two or three vendors in each market.

Is establishing a separate bank under a different brand a viable strategy for addressing the challenges of business transformation through technology?

It can be, but equally you don't have to create your own competitor. You can do it on your own brand. Banks' strategy must go beyond cost cutting. The business case and the risk will never stack up if cost saving is the only reason to transform. The new platform might be cheaper to run, but the cost of change will likely be too high. You need some kind of growth story behind it that would be a better proposition, such as enhancing features, providing a differentiated solution in your current segments, or branching out into a new one. If you've already got a platform that can do retail, it could be about going into SME markets. If you've got a platform that can do both, it could be about going into embedded finance. I think you need some element of a growth story to justify the cost of re-platforming in a bank, and embedded finance could be that answer—particularly if there isn't a good offering in the local market yet.

How does open banking regulation influence and impact the concept of embedded finance?

Irrelevant. It doesn't really make much difference either way for this journey. Clearly, it's made some banks more technically capable because they've had to put in APIs and such for the first time. Others have just treated it as a compliance exercise and bolted a package onto the edge of their estate, in which case they haven't really gained anything. Some have received no value from it at all. Others have taken it as a chance to start to restructure core systems. Ultimately, it primarily depends on how the bank dealt with open banking, what investment they made, and what kind of platform for growth they have for themselves.

In a global landscape without common standards, what strategies can be implemented to minimize duplication and avoid code wastage?

Starling is a real oddity of an organization in the way it runs engineering. We run a very consistent platform, so we specify the kind of languages, the technology tools, the architectural patterns, and the way these services work internally so that any engineer can work on any component of our system. We don't enforce the use of particular industry API standards, but leave it up to the individual engineers and teams to negotiate between them.

There are more than 90 services to run the bank's functional systems that are all built in the same way. They run through the APIs—through the pipelines—and they've got the same foundations. Every time we change a library or the way we do something, we do it across the whole bank, from the card authorization to the ledgers to the financial crimes systems. If a development team needs a change from another group, they can just go and change the other group systems without having to request a change. They don't have to negotiate the API specifications, but can just change the caller and the receiver because at a technical level all the code is identical.

This is a unique position because we don't have vendors and we've never allowed ourselves to end up with decades-old systems. That's why industry API standards aren't as important for us. This is back to that investment case I was talking about earlier. In every other financial firm I have worked in, once the project completes, the change is done and then the system is left to run for a while. We deliberately don't separate change and run. All our systems are being changed—even if there is no business reason to do so—to keep that consistency, because we think it will save us money in the long term.

Are there limitations in a bank's technology capabilities that make it difficult to adopt new ways of working?

On the one side, banks are trying to become a technology business. But on the other side, most banks see technology as a cost to be minimized. If you are a technology business, you need to give a decent amount of control and investment decisions over to people who understand the technology. They can make those ongoing investments and constant improvements to platforms that are necessary to stop them from becoming legacy in a matter of years. That's the transition for the bank. Some boards and executives are struggling to get their heads around whether they are a technology business. And if they're a technology business, they need to start putting technologists in charge of a lot of the money.

When promoting your BaaS offering, which KPIs or measures are most relevant and meaningful for your customers?

Resilience is probably one of the most important things, like the uptime and the availability of the service. Older banks have long periods of maintenance and downtime. If you're an embedded finance brand, and the bank's core systems are off from 9 p.m. to 6 a.m., that's just not going to meet your needs. Customers expect to be able to do things 24/7. How reliable is the system? How often is it having incidents? How available is it? Can you even operate 24/7? Most brands launching something new want to make it available the whole time. An airline is not going to be willing to not sell tickets at 2 a.m. because your core system is running the nightly batch.

Have you experienced constraints or customization needs when collaborating with regulatory bodies in another country?

No, it's not really a constraint. Most regulators now permit the use of cloud, and we have seen cases of banks running on cloud that are more reliable than banks that are running on traditional data centers. Cloud infrastructure in most markets is an option if it's managed the right way, with the right level of ability to move between cloud providers. As Starling has always been regulated, we've designed and built our technology platform with those regulatory concerns in mind. We're our own regulated entity and we've always made technology choices that are cloud provider-agnostic. Full portability is a challenge for everyone, but we run a very simple infrastructure. It's that we can get that from all of the main cloud providers. There is always vendor-specific effort required, though—particularly on the account setup, such as the identity access management for the cloud accounts themselves, because that is not standardized between providers.

What does it entail for a system or application to be considered cloud-native?

It means it's designed specifically for cloud infrastructure. It's not that you've taken applications from on-premises and stuck the legacy elements into a cloud-hosted machine. To get the benefits of cloud, you need immutable, stateless infrastructure that can be self-healing. To be instance termination-safe is probably one of my biggest tests of being cloud-native. You don't need to worry if a specific machine is running; it can disappear and be replaced seconds later with minimal impact. Chaos engineering techniques means we don't even alert when a machine fails. We just monitor for the total available capacity being within tolerance.

To go cloud-native often requires a fundamental rethink on how your system works. If you've got things like sticky sessions that are everywhere, you've already got a problem. Proper cloud-native solutions generally respond to API requests in milliseconds. If things are taking seconds again, there'll be a real impact from a failure of infrastructure.

Amazon Prime Video recently decided to transition from a microservice architecture to a monolithic infrastructure to improve performance and reduce costs. What do you make of this U-turn?

I don't have real insights, but that's quite interesting. I wouldn't go as far as monolithic, but I probably agree. Starling isn't microservice-based, even though it's cloud-native. There are probably 90 to 100 different mini services that run a functional area. But they host a whole number of APIs from a single machine with a common database. We have found that to be more efficient, both for development performance and the operating of the infrastructure.

Given everything we've discussed, what's your key message?

If you're going into BaaS, you need to understand the business case of your end customers. Too often I see BaaS propositions designed for how the bank will make money from the bank's service proposition. But if the end clients aren't going to be profitable, and profitable within your risk appetite, you're never going to build a successful embedded finance business. You've got to understand the business case of the people you're selling to and where they're marginalized. Otherwise, there won't be any sense in partnering with you to set up the proposition in the first place.

Stripe

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As digital economies rapidly evolve, the need for seamless financial interactions within them becomes more crucial than ever. The strategic solution is using easily integrated APIs to embed financial infrastructure within platforms. This not only opens new channels for businesses to leverage, but also brings potential for enhanced customer experiences. Using the power of embedded finance enables partners to architect user ecosystems, capitalizing on their unique business competencies and technological capabilities. In this conversation with IBM's Paolo Sironi, Stripe's Kevin Dowling explains the transformative power of embedded payments.

What role does Stripe play in embedded finance?

The easiest way to contextualize Stripe is to think of the complexities hidden in the foundational layer of global finance. There are both global and local payment rails, different tax regimes and regulations, and, of course, a lot of technology. This means deep understanding is required for anyone who wants to embed financial services and move across the multiple rails.

Stripe's job is to take all that complexity and articulate it through an API layer. Our go-to-market message is you can deploy Stripe with seven lines of code, and those seven lines of code are integrating Stripe into partners' products, services, and websites.

There is value in giving access to as many of those rails as we possibly can. Most businesses struggle from a money movement or finance perspective when launching new products or entering a new market. They see strong value in easier access to financial networks.

How would you define the current landscape with regard to embedded finance?

Looking at the last 10 to 15 years, there's been a big move toward SaaS and subscriptions. Everything is a digital product. You can subscribe to razor blades, your television, cars, and services in cars. Thinking about subscriptions, people are accustomed to the idea of splitting payments, so the next phase of this will be how do you embed the core financial layer into that digitalized subscription-based world.

Currently, most people have a main bank account. As they get paid into that, they disburse money into different places. But we are seeing a change where people are more used to their money being dispersed in different places or at the same time. They still have a bank account where they pay the mortgage or pay for school for the kids. But then there's a whole different account for storing money associated with mobility needs as connected vehicles enable in-car transactions. This is starting with toll payments, petrol, and electric vehicle charging.

And what is the difference with having your car as a wallet instead of adding a card as a payment method?

Why not just skip the middleman and have the car be the wallet itself? Tesla owners have access to the Tesla network. The car is authorized with a Tesla account and when drivers plug in at a Tesla supercharger, they don't have to do anything. This means not only convenience of usage, but also more financial information to personalize opportunities like better deals for paying most relevant toll bridges. This is already reasonably common in the trucking industry as vehicles are getting electrified. There might be a company who owns or leases the truck fleet, and there might be an independent truck driver who goes through many toll bridges but hardly visits the company's premises. What if the truck pays for the toll, and accounting is reconciled later against whoever is the recipient of the delivery and ultimately pays for that? There's a lot going on here.

When it comes to embedded finance partnerships, what is most critical for successful collaboration?

Minimizing the cost of integrating is the most obvious answer. However, I'd stress the importance of providing a low-code or no-code experience. There is no loss in customer experience by not having a developer write the code.

The other thing that's important to a business partner is to understand how all things come together. Partners don't release embedded payments in a vacuum. They need to look at the overall customer experience consisting of Stripe, e-commerce, and in-store activity. Having a consistent understanding and good level of services in all these domains of experience is essential.

There is a two-fold perspective to be reconciled. From a product perspective, there is value to being agnostic—an API-first company with lots of no- or low-code solutions. However, from a go-to-market perspective, that's not how people think. So, it's important to embed in third-party products like SAP and Salesforce to better integrate with the unique workflows associated with a business and not only orchestrate payments. We're super keen on making it easier for people to interact with businesses and for businesses to interact with their customer. And making all this just as easy and obvious as possible so you can layer services into whatever it is that you're doing.

Have you thought of moving out of B2B and into B2B2C?

Money movement doesn't happen in isolation. Being agnostic and API-first enables you to embed payments rapidly wherever partners see the next use case emerging. We started our conversation talking about subscription services and how much people are now used to the process. What we're now seeing is the follow-up to this behavior.

Take, for example, one of our major partners: Ford, a large global automotive manufacturer who has an impressive supply chain and customer base. Typically, car buyers would step into a licensed dealership to order a car with specific features. The customer interaction is never with the carmaker; it's with an intermediary. There is value in connecting the dots by making sure the carmaker has instant information about what happens at the car dealer level, how people pay, and what to look for. This is essential as the industry moves toward electric vehicles, which have a longer life span. This might require a change in the way carmakers book assets to stay directly connected with the client after the car is delivered, being essential in a connected subscription economy. Knowledge about client behavior is paramount to add post-trade revenue streams.

What do partners most ask for with regard to leveraging the value of payment data?

They need near-real-time and easy access to data. Especially startups that are growing fast, which don't have time to wait 90 days to reconcile the books.

Integrating data seamlessly into whatever financial tools used is also a core need. If you think about embedded payments and BaaS, the main persona that's concerned with this data is the CFO. What are they doing? What are they worried about? Ultimately, it doesn't matter what's happening in the products; if you can't report on them, the whole thing is pointless.

There is a second space in which data must be leveraged, which is the enterprise space where large data models are run. As data is available and accurate about what happened at any transaction point, CMOs and COOs can marry genuine user data and genuine product data with marketing data.

What do you think is in the future of banking?

When I was growing up, I used to see the phone booths where people used to use coins to place a call. They'd put lots more money when calling abroad. Nowadays, red phone boxes in London are for holiday selfies. I am thinking about ATMs. What's happening with them? I've got two very young kids; will they ever know what ATM machines were for? I usually cycle in the office ever morning, and I never ever bring my wallet. I don't have cash. I don't even bring my cards. They're on my phone.

As a technologist, seeing the future unfolding in front of my eyes is super exciting. However, I also worry about the unintended consequences of reducing the influence of cash. I worry about people who can't get access to cards and who can't get access to credit. What are they going to do to interact with society when society moves so far away from cash? Today, even when you tap your phone, it's basically just faking cash. So, we all need to consider the full picture to embed financial services, making sure they remain inclusive and accessible under all personal, economic, and unexpected conditions.

Unipol

Giacomo Lovati

Chief Beyond Insurance Officer

As financial institutions evolve their business models on platform economies, they center on orchestrating ecosystems to harvest economic advantages while increasing costumers' experience beyond traditional product propositions. Ecosystem strategies are all but easy, requiring strategic vision, focus on execution, and business acumen nurtured by new data. In this discussion, IBM's Paolo Sironi explores the unique perspective and business experience of Unipol's Giacomo Lovati to learn how his industry is benefitting from embedding financial services.

Can you please what your role is at Unipol, and what "beyond insurance" is?

I am the chief beyond insurance officer of Unipol, leading a division that manages our ecosystems of mobility, property, and welfare. Our mission, "beyond insurance," is about building new services and extending existing offerings to provide a comprehensive and integrated set of opportunities that are relevant to our insurance clients, but for which insurance is only a part. We strive to embed insurance into new value chains without going too far from our core business. We leverage on our assets, capabilities, and customer portfolio to be effective.

How would you describe your "beyond insurance" strategy?

It revolves around our unique approach to constructing ecosystem-based value propositions. So far, we focused on three ecosystems: mobility, healthcare, and real estate.

Let's start with mobility, being the most mature. Unipol began as a car insurance company and now owns 25% of market share in Italy. We were the first in the world 15 years ago to create a telematic offering that bundled an insurance policy with an IoT device installed in the client's car, known as the "black box." The device streamed a lot of data, which gave us an edge in understanding client behaviors. From this learning process we connected new services, starting with an improved claims process. For example, we directly manage car repairs, end-to-end claims, and purchase parts to repair for a total of over 200,000 claims per year. We enriched our portfolio with a company managing and repairing windshields, making over 160,000 interventions per year. Additionally, we have a fleet of trucks that makes 600,000 interventions yearly.

Thanks to the orchestration and management of this enriched ecosystem, data started pouring in, helping us to improve our insurance products. Understanding our customer movements allowed us to enter new markets. For example, some three years ago we acquired a startup to manage a marketplace to sell cars, and we acquired a long-term rental company. Our network of insurance agents has been empowered to propose car sales, leveraging the trusted relationship they've built with their clients over time. They have talked with clients about car insurance for 20 years and feel entrusted to help them choose the car they want to buy.

This proved to be an incredible success, along with our long-term mobility product, which includes insurance coverage. We totally shifted the paradigm. Instead of embedding insurance in cars, we did the opposite: we embedded cars inside our insurance business.

What success measures were established at the beginning of this initiative?

We prefer grounded business solutions over storytelling. Providing mobility to our customers required a laser focus on economic margins. Just think of our car sales: we created a new channel in Italy with 46,000 units sold by our insurance agents in two and a half years. We can sell a car or propose a long-term rental, personalizing on client needs. And this powers two digital marketplaces for secondhand cars: to get a long-term rental and to resell it at the end of the contract. Not only do we provide insurance, but we also provide a connected device for drive-through paying of highway tolls and for paying for parking spaces, car taxes, or fines. From our mobility app, clients can access maintenance across 2,700 branded shops, change tires, get certifications, and renew driving licenses. At the end of the cycle, we can help the customer sell the car and start the loop again. We truly cover the full vehicle life cycle for our customers.

What is the role of data?

We launched the "black boxes" offering a discount to our customers that wanted installation as part of their insurance contract. Italians tend to experience above-average premiums for car insurance, so giving a 20% discount was very appealing. In the beginning, we used these devices to estimate more personalized premiums, but also to better manage claims assisting for the settler in a very detailed way. This killer application in Italy became the engine of a saving model: better information allowed decreasing costs for claim settlement.

As a side product, we also populated a huge database of mobility data. And this database became very important to better understand how often clients change cars, what's their favorite model, how many kilometers are driven, and where they are driven. Out of this data, the electric mobility use case emerged, as we understand who is more suitable for electric mobility and who's not. For example, out of 9.5 million customers, we know that 48% never made a trip longer than 300 kilometers in the last five years. This means that 48% of customer can move to an electric car due to much lower travel range anxiety. Moreover, since we also provide long-term rental cars, we can offer clients an upgrade with an electric car and offer an end-to-end service for setting up personal charging stations in our clients' homes.

How do you stay relevant in front of clients and help them access end-to-end opportunities?

Because we work across three ecosystems, we chose to create independent ecosystem apps and not a super-app. If a customer needs to move, we want them to use an app that is configured with the specific mindset of mobility.

Let me share an example to explain why it matters. We recently launched UnipolMove, a car transmitter that allows drive-through payment of highways. In this case, we thought margins were not the key aspect, since the product is a market commodity. However, as we gained 600,000 users in 14 months, 90% of them also downloaded our mobility app. And the vast majority uses the app weekly. The frequency of usage is key in platform economies. If you are not driving your car, you can still use the same app to share a car, to get on public transport, to book a taxi, or to buy a train ticket. Owning a car means a lot of boring stuff. If someone manages the boring stuff for you, it's much better because you have time to do better things.

Would you also share your experience in healthcare?

Our strategic approach in the healthcare space is motivated by the understanding that, as an insurance group, we observe at the same moment in time the demand and the offer. For healthcare, we created more than 25 years ago a company called UniSalute, which services more than 12 million customers, mainly corporate policies. UniSalute pays out €90 million every year for blood tests covered in the insurance policies. We now own 45 medical centers covering the major Italian cities, and they operate beyond our captive market, as most of the revenue comes from clients who are not yet covered by our insurance policies.

Our strategy about embedded insurance is always putting together demand and offer to accelerate business initiatives and to reach breakeven faster than anyone else. A key benefit is lowering the cost of client acquisition compared to the competition. Every time we want to launch a new initiative, we ask the question, "Why should we do it?" The answer—"because we have money, and we have a big client portfolio"—is not enough. The key is not a larger portfolio of offers. The key is to identify how each initiative contributes to higher synergies, because that is the real competitive advantage.

Can you recall a case in which you decided not to proceed?

Whenever we want to launch a product or a service, we have developed a model where we calculate the margin per minute for the agent. They understand very quickly if the time they spend to sell a product is good compared to what they get for the product. We know the business of our agents very well because we have people that have the competencies to understand and help us in translating what will be the real effort for the agents. We need to know exactly how it works to understand the level of motivation for the agency itself. Therefore, we made a pilot for distributing light and gas through our agent network. For a certain period, we tried to understand if there was a possible position to move upstream. The question for this product was, "Can we provide our agents something which has a good margin and is easy to sell?" Light and gas has very low margins compared to the time the agent spends to sell this product. So, we decided it was not fitting our strategy.

What is the relationship between digital engagement and in-person agent-to-client relationships?

It's very important to develop a physical network. As an insurer, we must move upstream in the value chain, from a company that gives money after something has happened to a company that provides the solution to the problem in real time. That is why we added medical diagnostic centers. That is why we started providing spare parts and car repair centers. Instead of giving money for the claims, we can repair cars and close the circle more efficiently.

What about the property ecosystem?

We launched the property platform two years ago, targeting the 2 million customers that have a house covered with us. We started to study what we can do for them, and again we followed the same approach we used with cars. We set up a company and created a network of plumbers, electricians, and others that we send to the homes of our customer to offer services when they open a claim. Instead of simply sending the money for the claim, we send a task force to repair the damage.

Creating such a platform was not easy. Our platform orchestrates a free market of professional workers that is not fully ring-fenced. We are aware that users could use the app to find an electrician, book, and pay directly for intervention. Yet, we started providing other services that are not related to the management of our insurance policy but are useful for customers. We are now providing maintenance of refrigerators and other appliances, and we see that users appreciate the experience. We don't always own the end service. We often create commercial partnerships, selecting the best possible organization in the area. Our network provides volume and the commercial partner works to solve the problems in a straightforward revenue-sharing relationship.

How would you distill the essence of your strategic mindset?

Since we started 15 years ago, my strategic steps are always the same. Step one is about managing our clients by setting up initiatives for the captive internal market. This allows us to save or make money very quickly. Step two, this financing accelerates the move to the open market where we create our network. Now, we are managing clients for fleet managers selling spare parts. If you start from the captive, you do not have to invest to convince the market because you are channeling your internal opportunities. If you can do it for your business, then you proved you can expand beyond insurance on broader markets.

What special message would you like to share with peers who are in your position?

Financial services must learn how to think about platforms and network strategies. It is imperative to understand how to create ecosystems in which users can find and share different services in a complete network approach. We strive as much as possible to create valuable products internally because we want to source the margins, but we also cooperate with many partners for specific products. And when discussing the approach to enter a new market for services, we always ponder the tradeoff between creating a greenfield or buying an existing provider. I think that very often there is value in cooperating with startups. Too often I see marketing-led deals in financial services around the startup world. We don't do that. Our strategy is very grounded in business. We're interested in making something that works from an industrial point of view. When we invest in startups, it's because we believe there is reciprocal value and they can also grow with us.

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