



APRIL 2023

PAYMENTS MODERNIZATION AND TECHNOLOGY

PRIORITIES, CHALLENGES, AND
PARTNERSHIPS

ERIKA BAUMANN

IMPACT REPORT

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PAYMENTS MODERNIZATION AND TECHNOLOGY

SUB PRIORITIES,
CHALLENGES, AND
PARTNERSHIPS TITLE

ERIKA BAUMANN

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SUMMARY AND KEY FINDINGS

Business end-users demand more efficient, automated, and robust payment capabilities. Banks have to prioritize initiatives to meet these demands. For all banks, this means continued investment in infrastructure and critical decisions in selecting the right priorities and partners to execute long- and short-term strategies. Banks not investing in more robust payments capabilities, such as real-time payments, cross-border payments, payments automation, and the infrastructure to support these initiatives, will quickly find themselves at a grave disadvantage in customer retention and new customer acquisition. This report is based on research on the strategies, priorities, and challenges of 108 banks in North America, Europe, and the Asia-Pacific. These are some key findings:

- **Fintech is a big threat to banks:** Financial institutions (FIs) don't just need to be concerned about competition from other banks; they must also contend with fintech. Almost half of banks believe that 10% or more of their payments volume has already moved to a fintech provider.
- **Modernization takes investment:** With bank customer demand for better payment capabilities continuing to increase, the urgency to invest in payments technology is critical. Only 6% of banks are not planning to invest in payments technology, and those banks will certainly find themselves in a more challenging position over time.
- **Legacy infrastructure is a major hurdle:** About 40% of banks believe that the technical challenges of integrating with legacy systems are a major obstacle to rolling out new products and services. That number increases to 57% when considering real-time payments specifically.
- **Cross-border payments need more attention:** Cross-border payments are still rife with friction; businesses need better solutions. The biggest challenges for banks around cross-border payments are compliance and security. Over half of banks report these to be extremely or very challenging.
- **New technology options are key strategy components:** Cloud implementations and Payments-as-a-Service (PaaS) solutions level the playing field of accessibility. Currently, only 9% of banks have rejected moving some payments processing to the cloud.

- **Vendor partnerships are critical to success:** Even the largest banks have technology partners that enable and aid in modernization efforts. Benefits include deep IT expertise, quicker time to market, and cost savings vs. an internal build.

INTRODUCTION

Payments modernization is critical to the success of FIs of all sizes around the globe. No banks are immune to the changes in the industry, and the pressure to adapt will only increase. The primary driver of modernization efforts is business end-user demand for faster, more automated, and more transparent payment capabilities. Critical components and considerations within a payments modernization journey include appropriate levels of investment in payments technology, implementation of real-time payment capabilities, abilities to leverage payments data, the need to improve cross-border payments, higher levels of accessibility to robust capabilities through new technology options like the cloud and PaaS, the role of ISO 20022 in innovation, and the importance of vendor partners.

During a time of critical technological change and innovation in payments, this report is written to help FIs understand and prioritize payments modernization initiatives and how to recognize and overcome challenges likely to be encountered. It also examines the benefit of utilizing vendor partners to accelerate and ease the challenges.

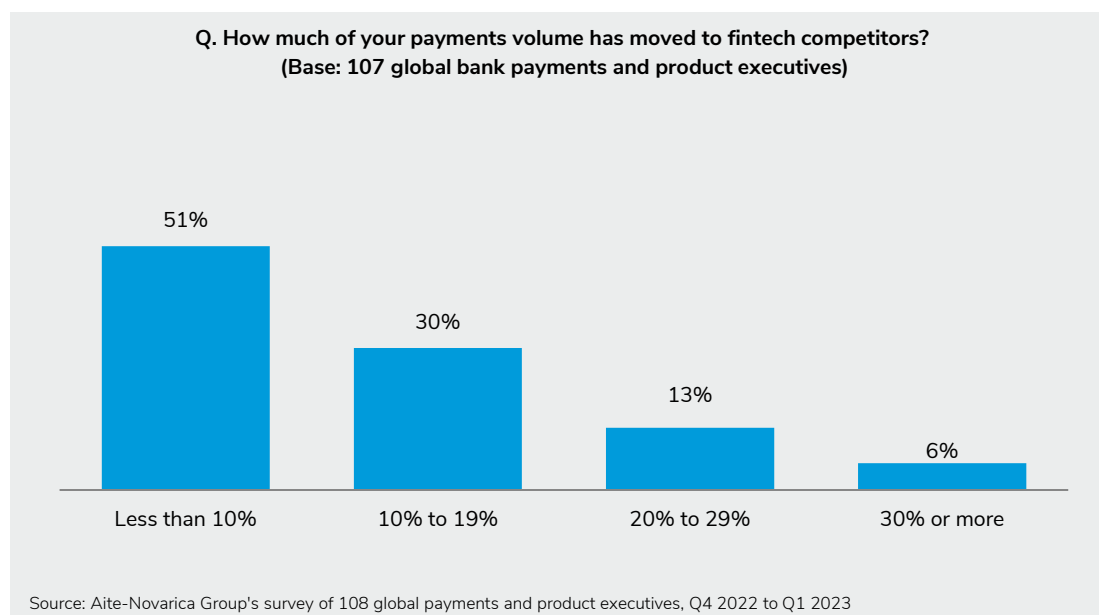
METHODOLOGY

This report is based on a survey of 108 global bank payments and product executives in North American, European, and Asian-Pacific countries Aite-Novarica Group undertook in Q4 2022 and Q1 2023. Survey respondents represented a near-even distribution of FIs by size, including 36 lower-tier (US\$3 billion to US\$30 billion), 38 mid-tier (US\$30 billion to US\$100 billion), and 34 top-tier (over US\$100 billion) banks. The FIs have commercial clients ranging in number from 2,000 to 350,000, with an average of 30,000. Respondents were all qualified senior leaders with significant knowledge of treasury, cash management, payments, product strategy, and products at their FIs. The report also leverages the author's extensive knowledge of the payments industry.

PAYMENT TECHNOLOGY AS DRIVER OF CHANGE

Payments is an important area of growth and innovation within the commercial banking space. Legacy systems and batch processes cannot support new technology capabilities, forcing FIs of all sizes to modernize infrastructure to meet end-user demands for better payment capabilities. This dynamic has also created significant volatility as businesses are actively seeking financial services partners that can help them automate and digitize payments end-to-end processes, as well as have access to more and faster payment options. If lagging in capabilities, banks have to worry about competition from other banks and from fintech providers directly. Almost half of banks report that they believe that 10% or more of their payments volume has already moved to a fintech provider (Figure 1).

FIGURE 1: PAYMENT VOLUME SHIFTING TO FINTECH PROVIDERS

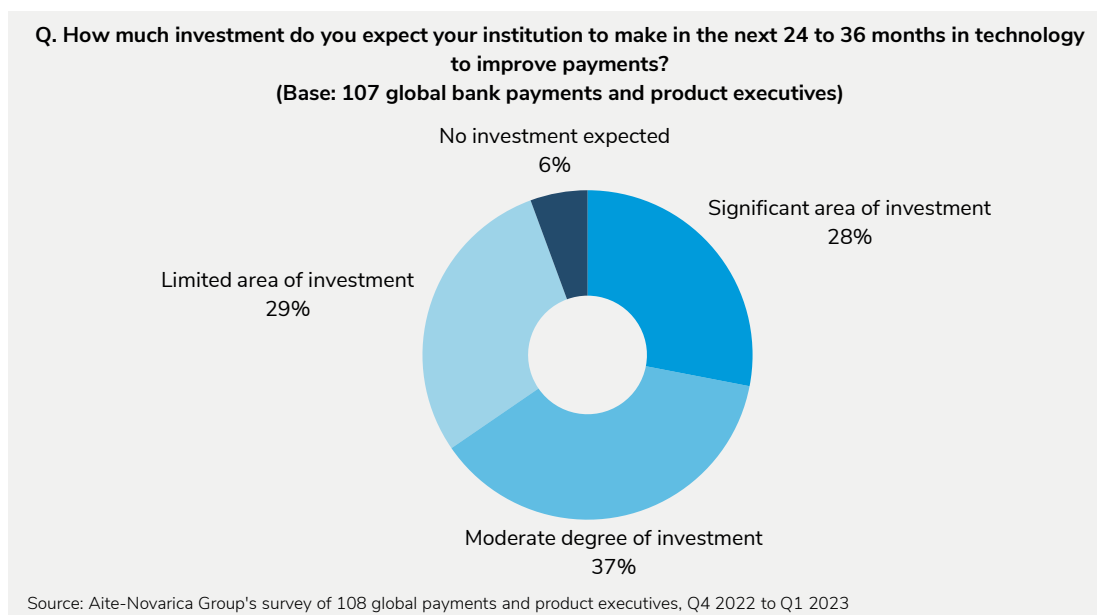


Some banks even report that over 30% of payments volume has already moved to a fintech competitor. This is quite an alarming trend for banks. To combat this loss of business, volume, and revenue, banks must invest in infrastructure changes that will allow them to offer greater payment choice, automation, and messaging capabilities. Currently, banks not investing in payments technology are in the minority. It is the strategy behind the investment that differentiates.

CONTINUED GROWTH IN INVESTMENT

Spending has been strong in recent years. Banks have been investing in infrastructure to enable real-time payments, including settlement and reporting; services such as automated payables and integrated receivables; and better reporting and forecasting tools. A majority of banks expect their investment to remain the same or increase—maintaining and, in many cases, growing the investment levels of recent years. The modernization journey is neither short nor easy: it is a complex, multi-year process with no definite end that must be broken down into smaller parts to be successful. With the demand for better payment capabilities continuing to increase, many FIs recognize the urgency to invest in payments technology (Figure 2). Those banks that are not investing will fall behind.

FIGURE 2: INVESTMENT IN TECHNOLOGY TO IMPROVE PAYMENTS

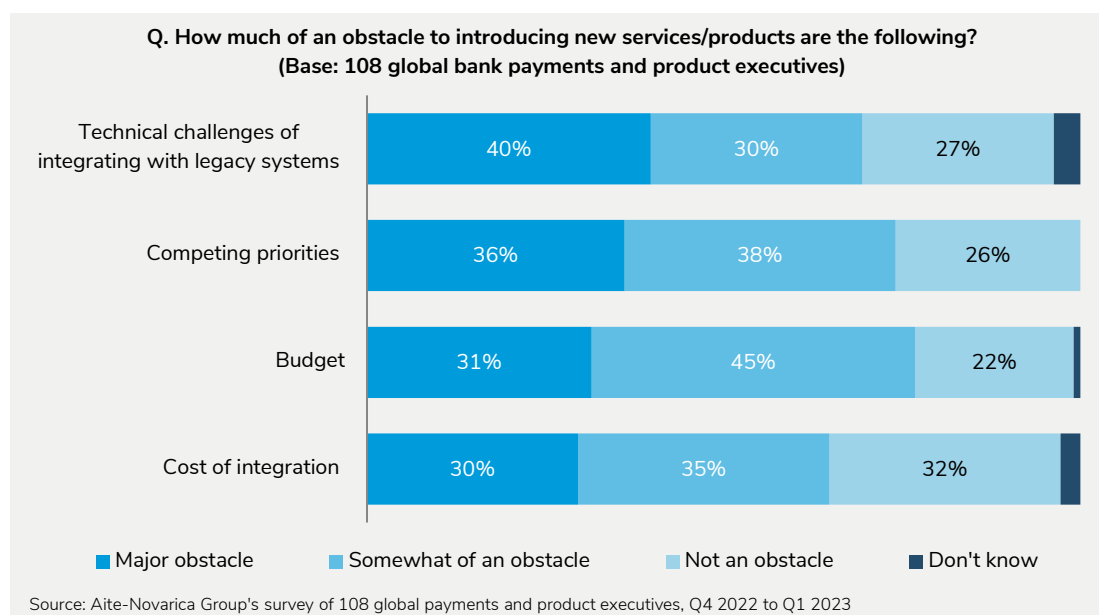


Unfortunately, competing priorities and tough economic conditions can impact banks, particularly smaller banks. The latter is more likely to be forced into limited investment levels. This, against most top-tier banks capable of even larger investments in payments, is widening the divide between the capabilities of the larger and smaller banks.

MODERNIZATION OBSTACLES

In addition to competing priorities and finite budget dollars being barriers to introducing new products and services, integration with legacy systems is difficult from a technical perspective. Many banks report that they lack the resources to understand legacy systems and the new technology, making modernization efforts even more complex and demanding. About 40% of banks believe that the technical challenges of integrating with legacy systems are a major obstacle (Figure 3).

FIGURE 3: OBSTACLES TO INTRODUCING NEW SERVICES AND PRODUCTS



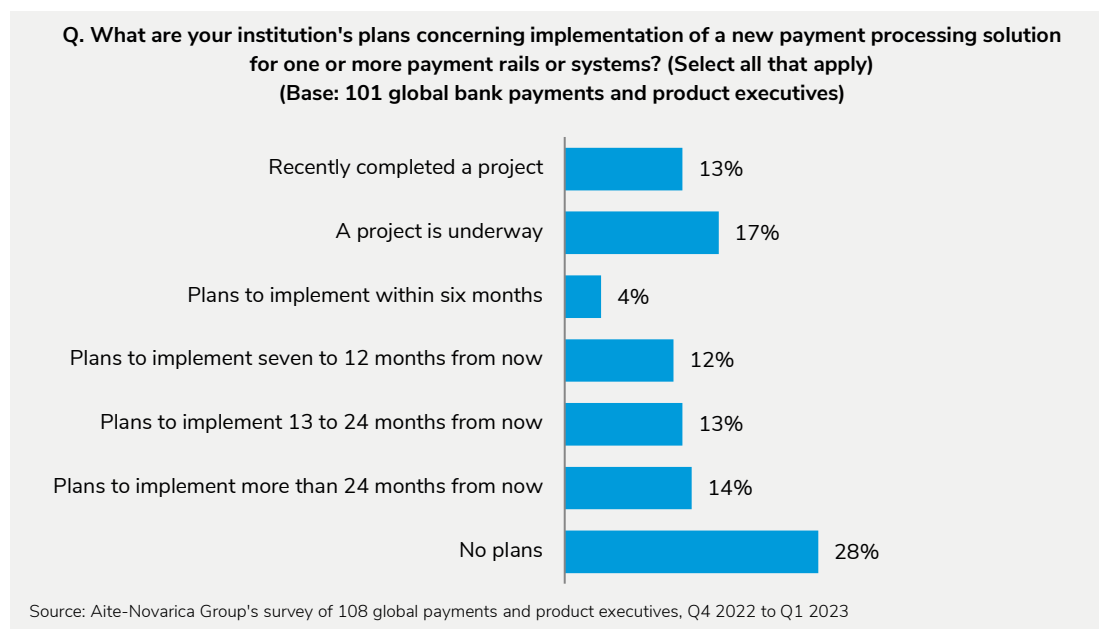
It is critical for banks to find ways to overcome these technical challenges, as they make the other challenges around budget, competing priorities, and cost of integration even more burdensome. Selecting the right solutions is a big part of making the technical challenges easier, and that also means selecting the right vendor partners. With proven expertise and experience with prior implementations, vendor partners can help banks ease at least some of the obstacles in developing and launching new services and products.

THE IMPORTANT ROLE OF REAL-TIME PAYMENTS

One of the biggest drivers of payments modernization has been and remains real-time payments. All critical processes and systems at banks have historically been batch based. With expectations, and in some cases mandates, around real-time settlement and availability came new infrastructure and processing capability demands to accommodate. With this need for change, banks have had to modernize and update critical systems at the bank. Some banks have welcomed modernization as an opportunity to differentiate and innovate. However, most have had at least some difficulties executing such a major change and securing funding. At this point, it has become table stakes. Banks that are not at least accommodating the receipt of real-time payments are at a point of inflection where there is a more limited set of clients that they can accommodate.

Because of the criticality of real-time payments and an increasing number of payment channels available, many FIs are somewhere in the process of implementing new rails. About 72% of banks have recently completed a project, have one in flight, or have plans to implement one (Figure 4).

FIGURE 4: IMPLEMENTATION OF NEW PAYMENT PROCESSING SOLUTION



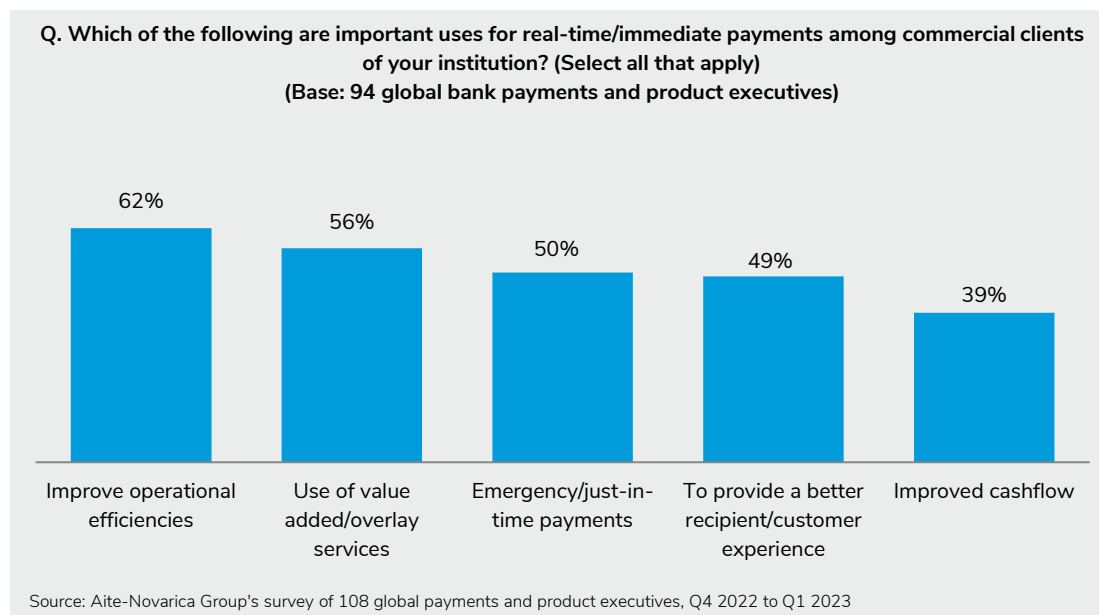
This constant cycle of banks going live with new payment rails provides increasing market opportunity and an evolving competitive environment. Banks with no plans to go live with real-time payment rails that have not already implemented real-time payments capabilities will become increasingly disadvantaged in the market. While it may not be too late yet, that time very well may be coming sooner rather than later.

BUSINESS CUSTOMER USES OF IMMEDIATE PAYMENTS

User demand is the biggest driver for offering real-time payments (outside of mandates). Consumers have come to expect the real-time transfer and availability of funds; this is also becoming true of business end-users. Even with the number of FIs offering real-time payments, banks and end-users report the speed of settlement as the biggest gap in bank payment offerings. In fact, while the number of FIs in North America that offer real-time payments is significantly less than in Europe, the gap in the speed of settlement is the same in all regions.

For smaller institutions, the gap in real-time offerings widens even more; the obstacles to offering new products and services are amplified with fewer resources and smaller budgets. Regardless of where a business selects to bank, the outcomes and uses of real-time payments are the same. The majority of commercial clients recognize the value of the operational efficiencies created by real-time payments (Figure 5).

FIGURE 5: USES OF IMMEDIATE PAYMENTS BY COMMERCIAL CLIENTS



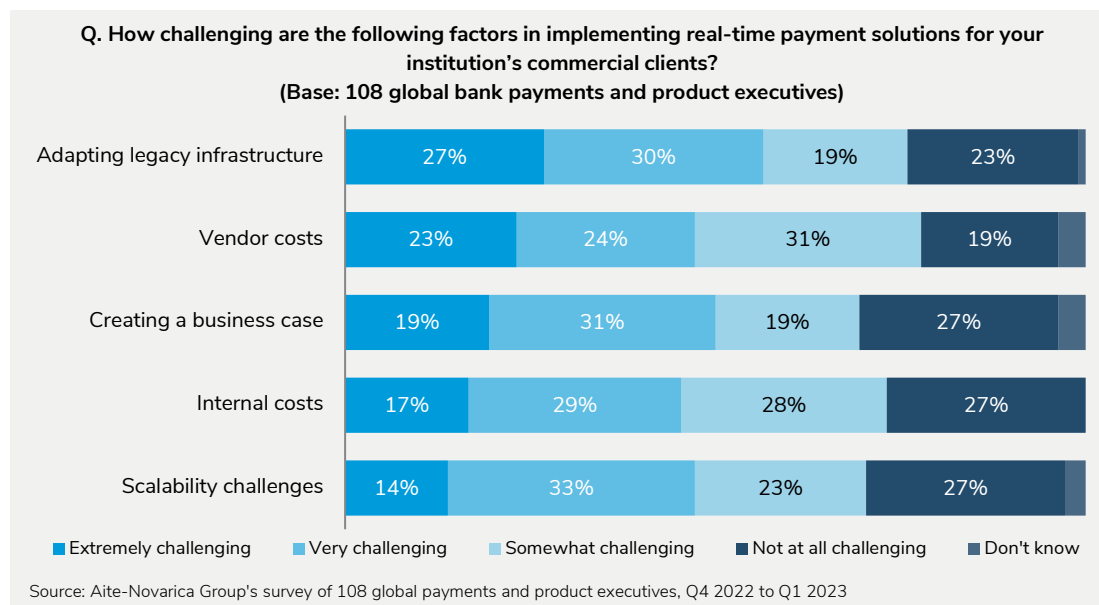
Emergency or just-in-time payments were once the most prevalent use case. However, as real-time payments have become less exotic, other benefits have begun to overshadow this most obvious use. Value-added or overlay services, such as the ability to view remittance documents, are important. This is related to the drive for operational efficiencies, as viewing the remittance documents within the payment message aids in payment application and inquiry resolution.

While improved cash flow appears to have less importance, it is arguably the most important. The ability to receive a real-time payment, particularly in the small and midsize business space, can be critical, as can the ability to control when a payment is released. As real-time transactions become even more embedded in business processes, the importance of these usages will continue to grow.

CHALLENGES OF IMPLEMENTING REAL-TIME SOLUTIONS

As with coming to market with other new products and services, there would not be such a lag in the market (particularly with smaller FIs) if the process was easy. When considering real-time payment solutions specifically, legacy infrastructure continues to plague modernization efforts: 57% of banks report it is extremely or very challenging (Figure 6).

FIGURE 6: CHALLENGES OF IMPLEMENTING REAL-TIME SOLUTIONS



Smaller banks are more sensitive to these hurdles than their larger counterparts. Research shows they are particularly susceptible to challenges with overcoming cost hurdles in addition to the technical complexities. Selecting the most appropriate vendor partner or partners is even more important for them; the right partnership can mitigate some of these challenges at least slightly. With proven demand and growth in the market of real-time payments, creating a business case should not be the considerable challenge that it is. A solid partner can assist banks with the most effective ways to take current infrastructure and prioritize modernization in the most cost-effective way.

FOCUS ON CROSS-BORDER PAYMENTS

There has been much innovation and focus on removing friction points in domestic payment schemes. However, cross-border is an area of focus that is only catching up to the improvement in domestic payments.

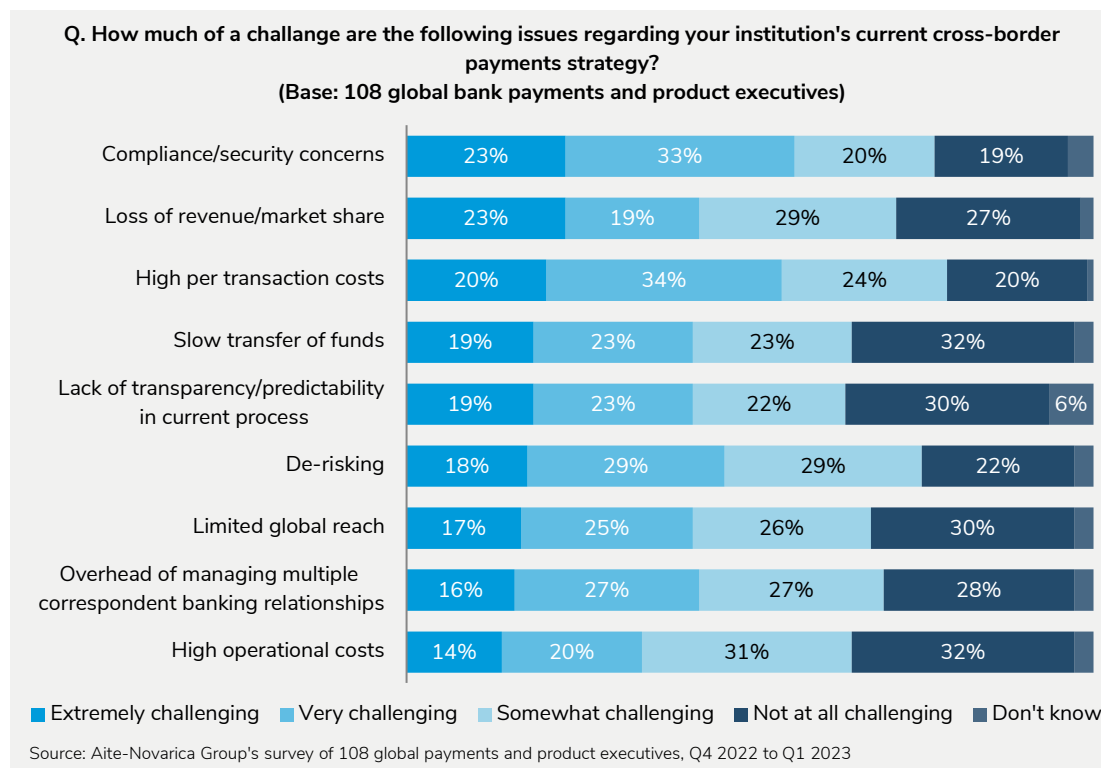
Cross-border payment volume has been rebounding in the post-pandemic environment. However, it is still rife with issues, including unpredictable and unconfirmed settlement, variable fees, and final payment amounts different than the amount disbursed. SWIFT gpi is the most prominent go-to cross-border payment network, but it does not solve these problems for all payments and regions.

Other options for cross-border payments are being utilized in the market, such as Mastercard Cross-Border Services, Visa Direct, Ripple, and Thunes. There is also a current pilot program launched through the cooperative efforts of The Clearing House, EBA Clearing, and SWIFT for Immediate Cross-Border Payments that is also quite promising and indicative of the continued need to improve cross-border payments.

BIGGEST CHALLENGES IN CROSS-BORDER PAYMENTS

Helping businesses overcome their hurdles with cross-border payments can be difficult and expensive for banks. Smaller banks have less volume, creating an environment in which competing priorities can overshadow cross-border initiatives. For all banks, the biggest challenges around cross-border payments are compliance and security concerns. Fifty-six percent of banks report compliance and security to be extremely or very challenging (Figure 7).

FIGURE 7: CHALLENGES TO CROSS-BORDER PAYMENTS STRATEGY



Lower volume and high transaction costs are also quite difficult to overcome. Other challenges include the slow settlement of funds, lack of transparency, de-risking and management of correspondent banking relationships, and high costs. In some cases, banks report that they don't even fully know the impact of some of these factors. It seems, with so many challenges, that it would be an obvious area of focus for modernization efforts. Still, as with any initiative, there is a need to prioritize, and legacy infrastructure and processes are standing in the way.

Aite-Novarica Group research indicates that cross-border payments are a key area for which businesses seek out providers outside their primary FIs, making it even more important to find ways to focus on improvements in cross-border payments.

FACTORS OF MODERNIZING CROSS-BORDER PAYMENTS

When banks consider improving cross-border payments, there are many critical factors. When modernizing cross-border payments, 56% of banks consider lowering costs and enabling profitability and the ability to access hard-to-reach markets/greater global

reach as important factors. These are followed very closely by the need to generate more revenue and create faster, more transparent, and more predictable processes (Figure 8).

FIGURE 8: MODERNIZING CROSS-BORDER STRATEGY



It is difficult for some FIs to justify the investment because cross-border volume is lower than domestic volume. However, cross-border payments are generally high-value, high-stakes payments that are critical to business operations. Consequently, they are a gateway to businesses seeking more robust solutions to satisfy a large business problem, even if it is seemingly small in volume. This area will continue to demand more attention as cross-border volume continues to rise in importance, and it should be a consideration in bank modernization strategy efforts.

CHANGES IN TECHNOLOGY AND IMPLEMENTATION OPTIONS

One of the most exciting aspects of the financial services industry today is the accessibility of technology. It seemed there was once an almost unavoidable gap between what the largest banks, smaller banks, and FIs could offer. With fintech and vendor service offerings creating so much innovation and best-in-breed options for banks, FIs of all sizes can execute modernization strategies that may have been otherwise unattainable. For the largest FIs, there is more pressure to lead the market and create differentiation than ever before. The cloud plays a major role in this dynamic of accessibility.

SHIFTING VIEWS ON THE CLOUD

The cloud was taboo in many bank strategy meetings not so long ago. There was an overwhelming fear of potential unknowns and gaps in security. The cloud has become a prominent component of large bank implementations and has proven safe with the proper structure and guards in place. The need and effectiveness of the cloud are cemented in the financial services industry. Only 9% of banks have rejected moving some part of their payment processing to the cloud (Figure 9).

FIGURE 9: MOVING PAYMENTS PROCESSING TO THE CLOUD



Similar to the variable timing of in-flight plans to implement a real-time payments solution, so is the state of implementing a move to the cloud. Twenty-three percent of banks have already moved payments processing to the cloud, but most of these are top-tier banks that led the way for the projects that are currently planned and in process. It should be noted that early cloud implementations focused on noncritical systems, and that has since shifted.

Smaller banks have more challenges around security concerns and perceptions of the cloud. Continued investment in the cloud by large banks and the vendor partner landscape of cloud offerings are chipping away at any remaining concerns.

PAYMENTS-AS-A-SERVICE

Another trend impacting accessibility is PaaS offerings. Similar to other Software-as-a-Service offerings, PaaS offerings focus on moving away from owning to consuming the payments processing software and the underlining IT technology on which it runs. PaaS vendors often provide assured and SLA-backed service availability and mandated regulatory and compliance updates.

PaaS allows banks to select best-in-breed solutions for a specific payment offering with a quicker time to market. The concept is more prominent in North American banks, but banks around the globe are also starting to embrace it as a means to modernize capabilities to meet specific user demands. FIs can also adopt a Payments-Hub-as-a-Service solution to consolidate the processing of multiple payment types (high value/RTGS, bulk/ACH, real-time/instant, and cross-border) onto a central, standardized solution running on the cloud and achieve even greater benefits.

A centralized hub solution improves processing efficiency and reduces operating costs. It can also be a foundation for competitive differentiation, enabling FIs to deliver faster time to market for new products and value-added services. Using a Payments-Hub-as-a-Service solution, FIs can take a phased approach, moving a single type or a few payments type processing to the cloud at a time, per their business and operational needs and priorities.

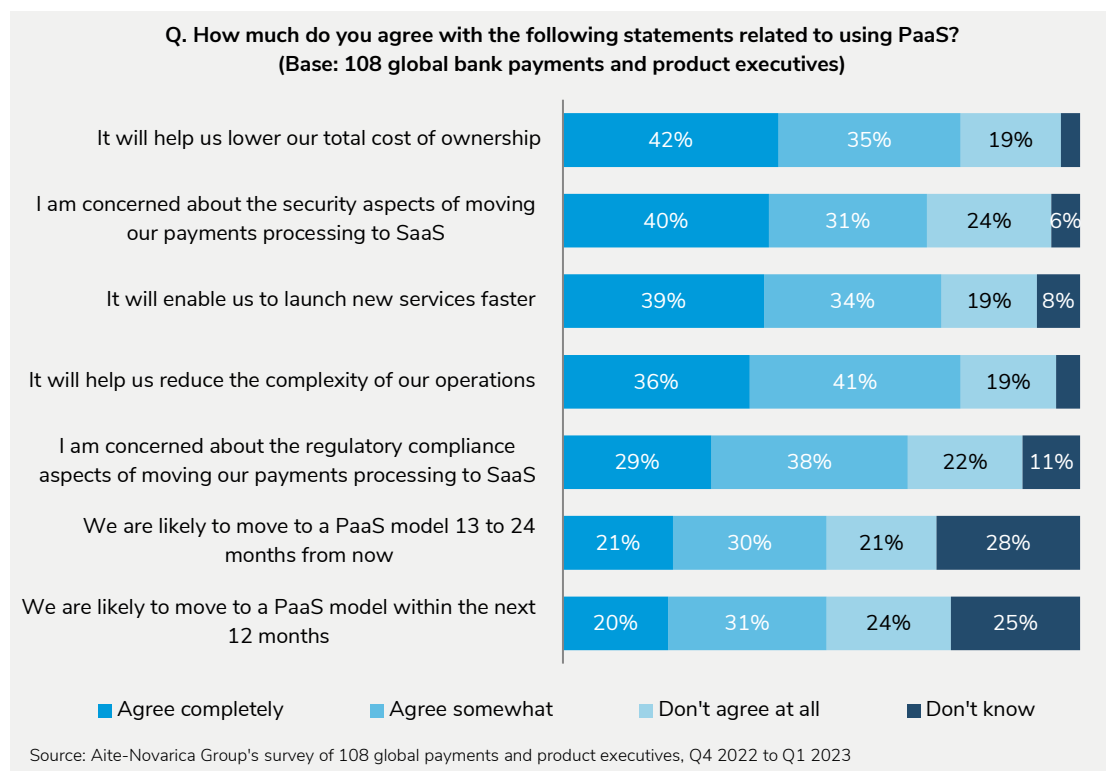
PaaS offerings leverage cloud infrastructure and modern technologies. They can bypass the hurdles of legacy on-premises infrastructure since the vendor maintains and keeps it up to date, ensuring its availability and scalability. While it can be argued that when done without proper consideration, PaaS solutions can be a short-term solution to an

otherwise long-term problem, there are benefits to taking advantage of greater accessibility of PaaS offerings. Solutions can include real-time payments, reporting capabilities, intelligent payment routing, and payment automation tools—all critical components of payments modernization needs.

The Perceived Benefits of PaaS

Not long ago, payments modernization equated to limited options of expensive, monolithic, on-premises payment hub solutions. The good news is that this does not have to be the case with PaaS and cloud implementations. Lower-tier banks specifically are more likely to be moving to a PaaS model to compete with larger banks, creating a more even playing field. FIs of all sizes recognize the potential benefits of PaaS, including the lower total cost of ownership that plays a large part in this market leveling (Figure 10).

FIGURE 10: PAAS BENEFITS



Overall, there is strong market perception and belief in the ability of PaaS to reduce time to market and offer businesses more robust payment capabilities. Many banks,

particularly smaller FIs, are in the process of moving to a PaaS model, stiffening the competition and evening the accessibility across all sectors of the financial services market. There is a danger created by piecemealing solutions haphazardly on legacy infrastructure, but this can easily be overcome with proper planning and execution. Selecting a vendor partner that can help with a phased comprehensive payments modernization through a journey over time is of particular value.

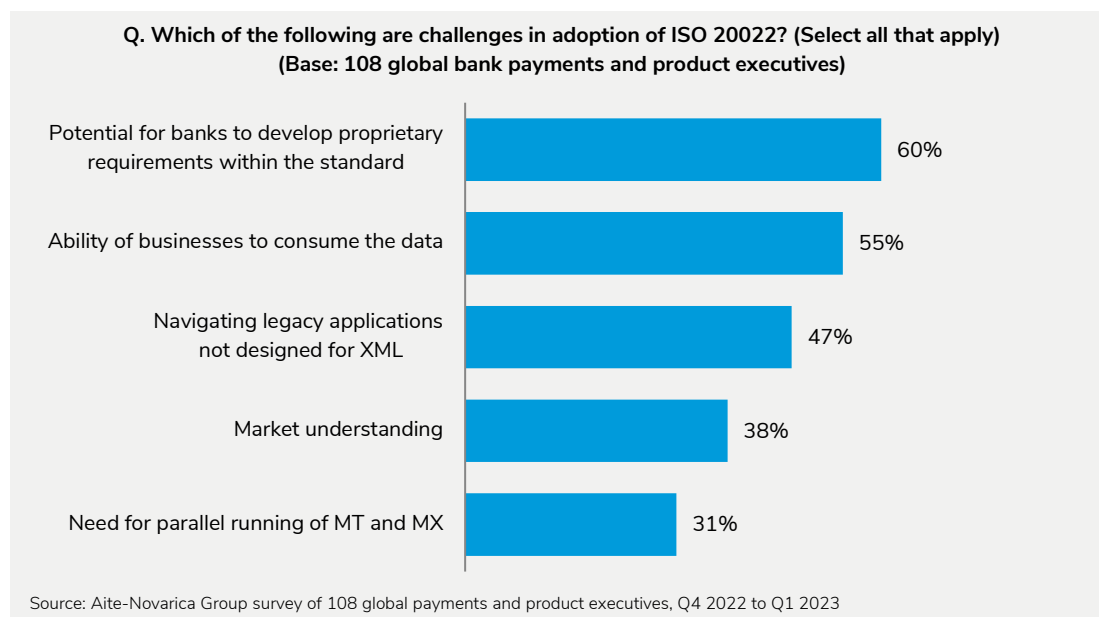
IMPACTS OF ISO 20022

Another consideration in modernization efforts is ISO 20022, a global open messaging standard designed to provide a common messaging language across banks and geographies. Higher-quality data should equate to better payment execution, transparency, and reconciliation. The more that banks incorporate ISO 20022 messaging, the closer to a ubiquitous payment language the industry can reach. Theoretically, it sounds ideal to have a global standard for payments data and messaging, but in reality, achieving this poses some challenges.

CHALLENGES IN ADOPTION

When it comes to ISO 20022, banks are resistant to doing more than required because of the challenges surrounding message standardization. As with previous attempts at messaging standardization, banks inevitably create proprietary fields. Primarily, this is to create differentiation, overcome internal processing requirements, or decrease interoperability to create more “stickiness” with their business customers. Banks fear this happening with ISO 20022, with 60% reporting the potential for banks to create proprietary requirements with the standard as a concern (Figure 11).

FIGURE 11: CHALLENGES IN THE ADOPTION OF ISO 20022



Another important concern is for bank customers to be able to consume the data and create ISO 20022 formatted files. Many enterprise resource planning (ERP) systems are lagging in supporting ISO 20022, and it is often inconvenient for business customers to modify their processes. Add to this the technical complexities of new messaging on old technology, and the hurdles become even bigger for banks. Many banks report that they will only adopt ISO 20022 as mandated because of the challenges around adoption; this is particularly true of smaller and midsize banks.

ROLE IN PRODUCT INNOVATION

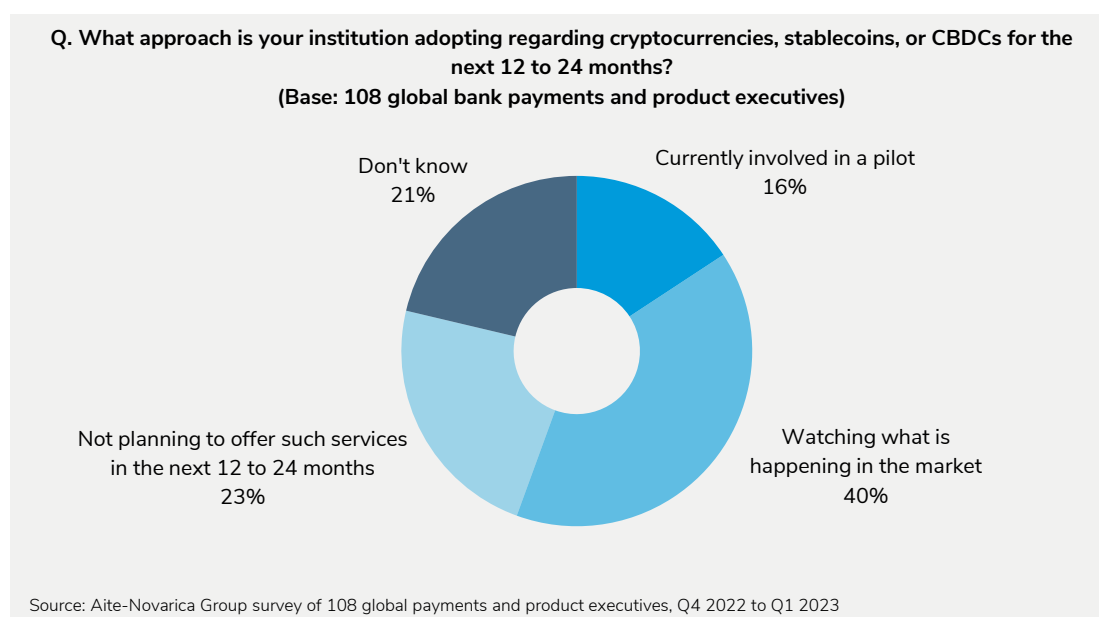
Even with the challenges, the well-intentioned efforts to create market harmonization have quite a few benefits. Enriched data and data verification are among the most popular benefits. Innovations that can be created from standardization are also important to note. One example is in the cross-border space. Given the need to solve for points of friction and interoperability in cross-border payments, pilots like IXB are possible when built using ISO 20022 messaging standards that allow all parties to have transparency into more robust data with faster settlement.

Another example is automated payables. With a single payment file combining all payment rails in that file using ISO 20022 standards, the ability to automate payables and incorporate intelligent routing becomes a reality. While banks may attempt to create and protect differentiation through proprietary requirements within the standard, this is actually hindering true differentiation through robust and next-generation payments capabilities. ISO 20022 messaging will continue to play an important role in payments modernization and hopefully will help the market reach new heights of innovation through ubiquity.

THE FUTURE AND DIGITAL CURRENCIES

There is a future yet unknown beyond the known needs around real-time, cross-border, and ISO messaging and data capabilities. There is significant curiosity around central bank digital currencies (CBDCs), cryptocurrency, and stablecoins as the next evolution of payments technology and digital currencies. No banks currently have any offerings around CBDCs, cryptocurrency, or stablecoins, but over half of banks are involved in a pilot directly or steadfastly observing what is happening in the market (Figure 12).

FIGURE 12: DIGITAL ASSET APPROACHES



Many obstacles exist around digital asset usage and acceptance. Low demand is the primary reason for the lack of market options. While there is much banter around digital currencies, there is not much concrete action pressing banks to move forward with product launches. This lack of business cases from low demand combined with fear around fraud and compliance unknowns creates an environment in which most banks do not want to take a leadership role.

Despite the lack of current use cases and demand, digital currencies are an area for banks to continue to watch and, most importantly, create modernization strategies that will allow for future flexibility in emerging technologies—whatever they may be. Banks must consider how to future-proof infrastructure by implementing flexible and scalable

solutions. For most banks, this will also mean seeking out vendor partners with forward-looking roadmaps and resources to research and accommodate the technologies of the future to accompany them on this journey. Those banks that are executing today with tomorrow's technology in mind will have fewer obstacles in meeting the yet unknown user demands of the future.

THE ROLE OF VENDOR PARTNERSHIPS

Vendor partnerships are an important component of bank modernization efforts. Even the largest global banks work with partners, often many different partners within a single bank. Through cloud implementation and PaaS offerings, accessibility of technology has reached previously unprecedented levels. For banks, building payment functionality in-house is now often unnecessary and, in many cases, much more expensive and inefficient than finding an effective partner.

For banks with more limited investment budgets, particularly for smaller banks, partnering is the most effective way to execute a wider range of initiatives to maintain current systems and invest in new infrastructure and services. Even with a very limited budget, moving forward on at least one initiative a little bit is better than doing nothing. The following are some of the benefits of working with vendor partners:

- Quicker time to market with new functionality and regulatory compliance
- The ability to leverage the extensive lessons learned and best practices from past implementations
- Less burden on internal resources, particularly in the complexities of integration, leveraging modern and open APIs
- Utilization of the cloud in a proven and secure environment
- Adoption of ISO 20022 message standard already built into a solution
- Adopting PaaS solutions to reduce costs and operational complexities as a first step to a full hub solution
- Leverage the payment solution vendor ecosystem to simplify and accelerate service innovation and improve operational efficiencies
- Take advantage of built-in payments data analytics and reporting to gain actionable insights, optimize operational costs, improve customer service, and increase revenue

After committing to meeting market demands and prioritizing business customer needs around payments, selecting the right partners and building strong vendor relationships should be the first step in executing payments modernization plans.

CONCLUSION

Payments modernization can be an all-encompassing term that means different things to different banks. The common theme is creating a better suite of payment services for business customers and creating infrastructure capable of meeting the demands of a real-time environment. There are several key takeaways from this research:

- **The majority of banks are investing in payments technology.** Important drivers for that investment include growing payment volume, real-time payments and payment automation demand, and concerns over disintermediation from fintech challengers.
- **Legacy infrastructure, competing priorities, and budget constraints can all be major obstacles to modernization efforts.** However, the burdens can be more manageable by selecting the right vendor partners to help a bank on the journey.
- **Real-time payment volume continues to grow—a trend that will not reverse.** The value of real-time payment has moved beyond emergency and urgent payments and expanded into the ancillary benefits of improving operational efficiencies, the use of overlay services, and providing a better recipient/customer experience. Banks that are not offering real-time payments are quickly becoming outliers in the market.
- **The lower volume and high transaction costs of cross-border payments can impede a bank from focusing on improving these payments.** However, these payments are critical for businesses and banks that are committed to improving cross-border capabilities and can create differentiation and competitive advantage.
- **How banks approach technology has to change and adapt to embrace new ways of implementing services.** This includes cloud implementations and considerations of PaaS offerings as a means to more efficient and cost-effective payments modernization. Access to technology is leveling the playing field between large and small banks.
- **Banks are concerned that ISO 20022 messaging standards will fall victim to proprietary requirements developed by individual banks.** Even with this, the opportunities for enriched data and data verification and product innovation and improvement from ISO 20022 messaging standards are becoming a key foundation of payments capabilities and expectations.

- **Banks are not currently seeing high demand for digital currencies like CBDCs, cryptocurrency, and stablecoins, but a lot of piloting and experimentation is happening in the market.** Although yet to be defined, the future will include more emerging payments. The modernization efforts of today should be flexible and scalable to meet the demands of tomorrow.
- **Vendor partnerships play a critical role in the payments modernization landscape.** Vendors should have deep IT knowledge, a forward-looking roadmap, proven market expertise, and options for short- and long-term solutions to meet end-user demand and infrastructure changes. Vendor partners should share the burden of roadmap development and implementation challenges to create a more efficient process to modernize payment capabilities.

RELATED AITE-NOVARICA GROUP RESEARCH

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[The Importance of RTP Payments: Making RTP Payments Work for Small Businesses](#), July 2022

[Digital Transformation and Payments: Business Attitudes and Expectations](#), December 2021

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Aite-Novarica Group is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

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