AiteNovarica

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THE 2022 IMPACT AWARDS IN CASH MANAGEMENT & PAYMENTS

—

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This excerpt provided compliments of:

BANK OF AMERICA

IMPACT REPORT

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INTRODUCTION

Customer needs and expectations continue to evolve faster than ever. FIs must strive to meet expectations and innovate to stay one step ahead. FI capabilities and the breadth of their product portfolios must go beyond traditional offerings to address new market challenges and capture new opportunities.

Aite-Novarica Group's Impact Awards are designed to recognize and celebrate the innovation that FIs have achieved by leveraging technology to surpass the status quo. Award recipients are leading the industry by identifying and implementing new products, capabilities, and levels of automation and effectiveness that are bringing the industry one step closer to next-generation banking. They are the FIs, regardless of size, that others will follow.

QUALIFICATION AND EVALUATION METHODOLOGY

Aite-Novarica Group solicited nominations for its 2022 Impact Awards in Cash Management & Payments from May to July 2022. All nominated initiatives were required to be in production within FIs. Aite-Novarica Group analysts reviewed all nominations and narrowed the field to the top three to four submissions in each category.

A panel of external judges representing leading FIs, industry thought leaders, and consultants/implementers, along with Aite-Novarica Group analysts, determined the winners. Each nomination was evaluated based on eight attributes (Figure 1).

FIGURE 1: EVALUATION CRITERIA FOR IMPACT AWARDS

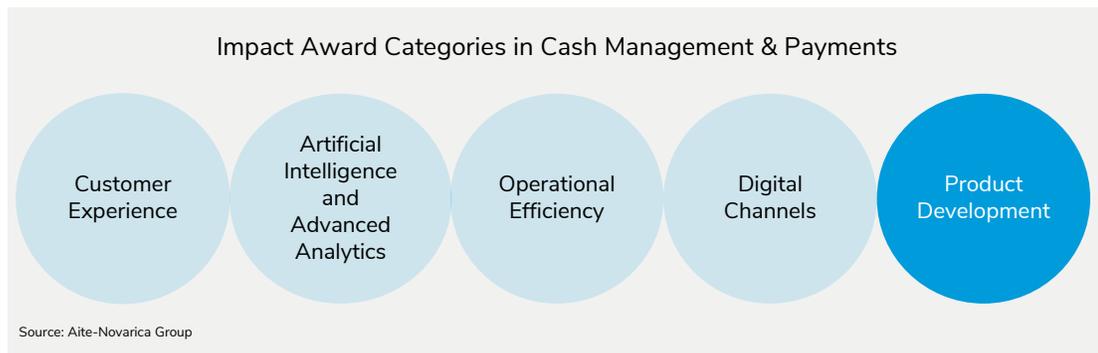| Impact Award Evaluation Criteria			
Level of innovation and competitive advantage	Ability to meet market needs	Impact on customer experience	Impact on customer operational efficiency
Level of new revenue opportunity for the bank	Impact on customer retention/new customer attraction	Level of scalability across customer base	Future roadmap

Source: Aite-Novarica Group

BANK OF AMERICA: CASHPRO FORECASTING

Bank of America, based in Charlotte, North Carolina, is one of the largest FIs in the United States. CashPro, the bank's digital platform for payments, receipts, liquidity, investments, foreign exchange, and trade, serves a broad range of businesses and corporations around the globe. New forecasting capabilities embedded within that platform are what earned Bank of America Aite-Novarica Group's 2022 Impact Innovation Award for Product Development (Figure 2).

Its new CashPro Forecasting module leverages machine learning technology and access to a wealth of client data to automate and replace the manual, time-consuming, repetitive tasks often associated with forecasting processes. It also improves forecasting accuracy and provides more robust analysis and insights.

FIGURE 2: IMPACT AWARD FOR PRODUCT DEVELOPMENT—BANK OF AMERICA

Impact Award Categories in Cash Management & Payments

Customer Experience

Artificial Intelligence and Advanced Analytics

Operational Efficiency

Digital Channels

Product Development

Source: Aite-Novarica Group
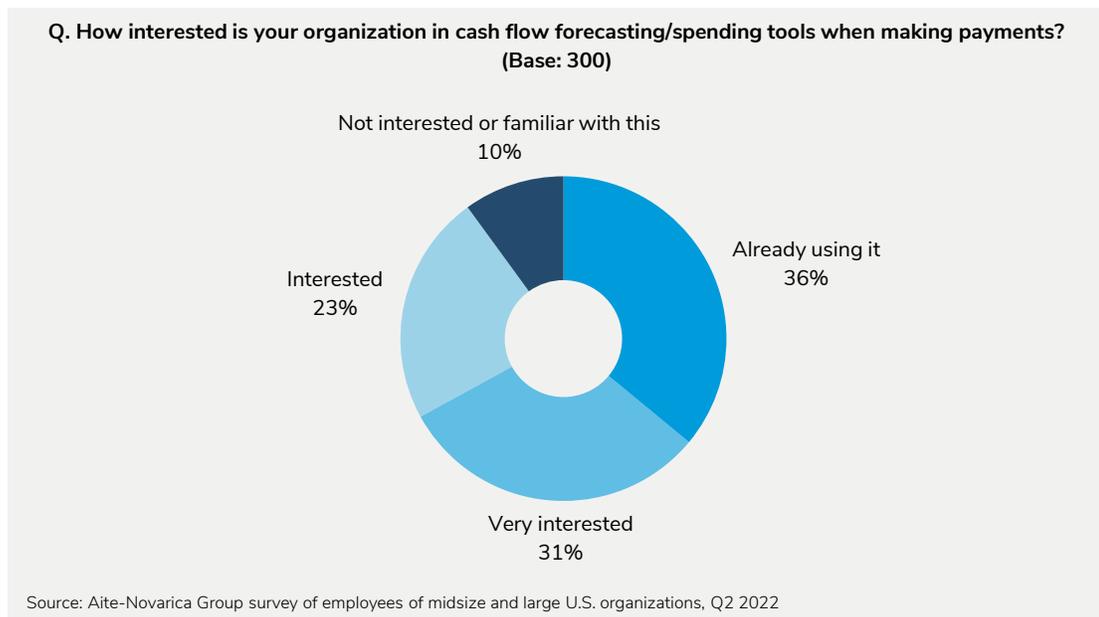
MARKET CHALLENGES AND NEED

Effectively managing cash is critical to a company's success, regardless of size. A key component of this process is accurate cash forecasting to ensure a business precisely anticipates its cash inflows and outflows and implements the right financial strategy. Despite its importance, most companies continue to struggle in this area. Their struggles have intensified over the last few years due to a volatile economic environment and the pandemic.

Cash flow forecasting has not historically been a capability offered by banks. Some third-party fintech companies and ERP providers have tools on the market, but these tools are often expensive or difficult to use. Thus, businesses lacking the funds to afford

those solutions or strong internal IT capabilities often have little choice but to settle for or rely on error-prone Excel spreadsheets. Spreadsheets can make forecasting challenging because they require manual entry and lack sophisticated analytics. Additionally, maintaining and updating manual spreadsheet-based forecasts is time-consuming and forces companies to choose between accepting stale forecasts or tying up key resources to keep them current.

Aite-Novarica Group research consistently finds that most businesses are challenged to perform accurate and efficient forecasting. A Q3 2021 Aite-Novarica Group survey of 1,004 U.S. businesses generating less than US$20 million in annual revenue found that 71% are challenged to forecast cash flows accurately. Further, a Q2 2022 Aite-Novarica Group survey of midsize and large businesses confirmed high levels of interest in using cash flow forecasting/spending tools to make better decisions for tasks such as payment initiation (Figure 3). Making better payment decisions is just one use case for these much-needed tools.

FIGURE 3: INTEREST IN CASH FLOW FORECASTING TOOLS BY MIDSIZE AND LARGE BUSINESSES

Q. How interested is your organization in cash flow forecasting/spending tools when making payments? (Base: 300)

Not interested or familiar with this
10%

Interested
23%

Already using it
36%

Very interested
31%

Source: Aite-Novarica Group survey of employees of midsize and large U.S. organizations, Q2 2022

INNOVATION: CASHPRO FORECASTING

CashPro Forecasting leverages machine learning technology to automate clients' forecasting processes and increase speed and accuracy. It was built to provide

customers with robust and needed forecasting capabilities and analysis dependent on Excel and other labor-intensive forecasting methods. It enables viewing all cash inflows and outflows in a single location without manual consolidation while eliminating the need to download transaction data manually to make informed decisions.

Table A lists key information about this initiative.

TABLE A: INITIATIVE AT A GLANCE

CATEGORY	DETAILS
FI	Bank of America
Key vendor partner	Confidential
Innovation	CashPro Forecasting
Implementation time	No implementation needed: bank users can self-enroll through the CashPro digital banking platform.
Official launch date	Piloted in April 2021, with a full launch in November 2021
How it works	The tool is embedded within the bank's CashPro digital platform and leverages machine learning and APIs to pull client data automatically.
Key benefits	Faster and more accurate forecasting for more optimal working capital decisions while releasing key staff from performing manual and time-consuming tasks
Future roadmap	Several enhancements are planned, including allowing users to share and collaborate on their forecasts with other users in their company, the addition of current-day reporting data, variance analysis, and the inclusion of additional data.

Source: Bank of America, Aite-Novarica Group

Target Market

CashPro Forecasting is available to all CashPro digital banking clients. These clients typically range from US$5 million in annual revenue to global multinational corporations

with revenue in the billions. Despite its broad availability and wide-ranging adoption, the solution tends to be most attractive to those customers ranging in size from US$50 million to US$2 billion in revenue without an ERP or third-party forecasting system. However, it is worth noting that even businesses actively using an ERP or third-party forecasting application can benefit from specific uses of CashPro Forecasting, such as forecasting cash flows for specific business units or regions.

How It Works

CashPro Forecasting is embedded within Bank of America's CashPro digital platform. Bank customers interested in using it can self-enroll directly through CashPro for immediate access without additional implementation. Cash positions and forecasts are automatically generated based on up to two years of historical balance and transaction information at Bank of America and other bank accounts around the globe. While initial forecasts are already strong given the historical data, they continue to improve over time through machine learning capabilities and the ability for the end user to enter additional information and insights.

Rules are set up within the application to classify transactions into user-defined categories (e.g., collections, accounts payable, payroll) to allow end users to customize their forecasts to only include the transaction types and accounts most important to them. Additionally, forecasts can be generated for various periods (e.g., one day, one week, up to one year out), and the user determines the level of granularity. Accuracy levels for each forecast are also shared to provide transparency into the reliability of the forecast and improve it. Clients are presented with confidence indicators evaluating the confidence level through a red, amber, and green status.

A key feature of the solution is the ability for users to perform and test the implications of various scenarios. Users can enter different assumptions, such as varying growth rates, to see their impact and enhance their ability to make the right business decisions and investments.

Finally, as with other machine learning applications, CashPro Forecasting has learning capabilities and gets more powerful the more it is used. Models are rerun daily, enabling the application to learn constantly and improve its forecasts. It utilizes a variety of algorithms to learn from the client's historical transactions and data and picks the most accurate model for each account to forecast cash flows and balances.

Solution Development

Several fintech companies in the market offer various types of forecasting capabilities and levels of robustness. Rather than create a new solution from scratch, Bank of America partnered with an innovative fintech company to refine and enhance its cash forecasting technology for use with its clients. Doing so enabled greater speed to market and the ability to focus on gaps in existing offerings to meet specific client needs.

After a robust request-for-proposal process, Bank of America selected its partner based on several criteria:

- Product capabilities

- Innovation and use of machine learning

- Ease of use and overall user experience

- Ability to deliver a roadmap of product enhancements defined by the Bank of America team

Once the vendor was selected, Bank of America conducted a six-month proof of concept during which several clients used the vendor's existing forecasting solution and provided feedback. This feedback, coupled with feedback from the bank's IT and product team, was critical in building the Bank of America version of the product. Thus, while CashPro Forecasting is based on vendor technology, it received extensive enhancements during a 12-month development phase beginning in September 2020.

During the development phase, the bank's product team worked with the fintech company to deploy its technology on-premises within the bank and integrate it with the CashPro digital platform and the bank's data systems. Some redesign work was done as well as the addition of several key features to make it more valuable for its corporate treasury clients. All development and implementation occurred through collaboration between the bank product team, clients, and the vendor without outside help from an external consultant or IT services provider.

In April 2021, the bank launched a pilot of the product involving 75 clients before its official launch in November 2021. Almost a year later, the product is seeing tremendous success and strong adoption across its client base.

Key Quantitative and Qualitative Results

The bank has been able to measure the success of CashPro Forecasting by tracking the number of companies enrolled, the number actively using it each month, the number of individual users, and the number of accounts forecast daily via its machine learning process. These numbers are confidential but were shared with Aite-Novarica Group and demonstrate strong adoption in a short period. On average, the bank is experiencing approximately 12% growth each month. These numbers confirm the need for the product and its ability to meet those needs.

Future Roadmap

The next major release of CashPro Forecasting will be in October 2022. That release will include several key enhancements based on direct and ongoing customer feedback. Customer feedback has and continues to play a critical role in the application's development. The bank regularly engages with clients through one-on-one and focus group arrangements to understand how clients use and will use the product to replace current processes. It leverages its broader CashPro advisory board and a community more specific to this product for feedback, enhancement direction, and design validation. The bank also regularly runs webinars for its entire client base to educate them about the product.

The following are some of the major roadmap items for upcoming releases:

- **Shared forecast/workspace:** This allows multiple users in the same company to collaborate on a single forecast. Users can be permissioned for view-only capabilities and the ability to make edits.

- **Current-day reporting:** Balances and transactions will be updated throughout the day to provide more real-time information instead of only end-of-day reports.

- **Variance analysis:** This will allow clients to compare the historical accuracy of their forecasts to build credibility and continually improve future forecasts.

The bank is committed to quarterly enhancements. In addition to the October 2022 release, additional releases are planned for 2023.

AITE-NOVARICA GROUP'S TAKE

CashPro Forecasting addresses a clear gap in the market and critical pain points that many businesses and corporate customers face. Several factors make the offering innovative:

- **Market need:** This product is focused on delivering value to the client. Forecasting is a task that all businesses, regardless of size, must perform to be successful, but it also continues to challenge most. CashPro Forecasting delivers an easy-to-use tool that is not widely available in the market at a price point that makes it accessible to all businesses. This free-of-charge module within CashPro fulfills a need and helps replace less effective, manual processes.

- **Bank and client benefits:** Multibank reporting enables forecasts based on internal and external bank accounts for the most inclusive forecasts. Scenario testing and transparency into the accuracy of each forecast also enhance the value to customers and enable the highest-quality insights. They also position the bank as a critical partner providing insights and the ability to provide advice to help the client be as successful as possible.

- **Forward-looking:** The product continues to evolve with regular quarterly enhancements based on client input. This will enable the product to evolve alongside and sometimes ahead of client needs.

In summary, CashPro Forecasting offers the market a long-needed capability. It embraces client desires for accurate forecasting and actionable advice, and arms the bank with a tool that can be further leveraged to deepen relationships and provide advice as new challenges are inevitably introduced to the market.

ABOUT AITE-NOVARICA GROUP

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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