

Driving Value from Open Banking



A Look into Successful
Fintech Use Cases

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Foreword

**Eyal Sivan**

*Mr. Open Banking,
Head of Open Banking, Axway*

Open banking is a global movement that's driving banks to compete in new and innovative ways. At its core, open banking enables the opening of financial services via official, standardized and secure technology channels. This opening up enables banks to create new experiences, partnerships, and ecosystems of financial services by enhancing their capabilities, partnering with other financial institutions, as well as with third party financial technology "fintech" companies.

Open banking is radically changing the way financial services work and presents a massive opportunity for all parties involved – financial institutions, fintechs, consumers and commercial clients. According to a 2021 report by Accenture, the global market opportunity of open banking is estimated at US \$416 billion. In this paper, we are exploring opportunities for banks to leverage open banking through enhancements of their capabilities, partnerships with fintechs, and the creation of new financial services.

Open banking is gaining traction in North America. Although the push in the US and Canada is industry-driven, there are many learnings in terms of frameworks, business models and best practices that we can adopt from other regions such as the European Union, the UK, Brazil and Australia, in which open banking took a regulatory-driven approach. In all cases, we see that banks are turning towards common tools and frameworks that enable the integration of multiple participants, thus creating ecosystems in financial services.

As we compiled this report, we were inspired by the creative ways in which banks and fintechs around the world used their data to gain a competitive edge and deliver superior customer experiences. We are genuinely excited about the opportunities that open banking will unlock in North America and the benefits it will create for all industry participants.

**Reuben Piryatinsky**

CEO, Altitude Consulting

We hope you find tremendous value in the information in this document.

Executive Summary

This whitepaper examines 15 use cases through which fintech companies drive real value, enhance banking functionality, and build new ways of servicing clients through open banking. While some of the use cases are driven by standarized open banking APIs, others are driven by proprietary methods and are expected to move towards open banking in the future.

This document is written for senior leaders at US and Canadian financial institutions, with the purpose of visualizing the art of the possible in open banking and igniting the imagination with new ways to grow your organization's capabilities, gain a competitive edge, and deliver superior customer experiences.

Summary of Findings

- All of the use cases covered in this whitepaper are live examples. Some of the products covered are powered by open banking APIs, while others are anticipated to be powered by open banking in the future.
- Account aggregation must be done first, as it forms the basis for all of the subsequent use cases, increases security in data exchange, and provides transparency and insights into the usage of account data by third parties.
- Use cases that streamline onboarding or account opening represent high value, combined with relatively low time-to-market, complexity and risk; as a result, we recommend that banks implement them first.
- Payments-related use cases, although complex and involving high risk, need to be prioritized due to the disruption in the space combined with the ever-increasing client demand for choice and real-time capabilities.
- Use cases that involve complex data analysis and enrichment provide significant opportunities for banks to deliver highly tailored customer experiences through a deeper understanding of their customers in multiple dimensions.
- Creation of new product categories such as Treasury on Demand will create new revenue streams and enable banks to capture a share in previously untapped spaces.

Use Case Categories

The use cases in this whitepaper are categorized by the type of participant whom they would benefit.

- **Consumer:** Driven by experiences, personalization, and options for services and products.
- **Business:** Driven by tools for managing and monitoring financial aspects such as liquidity, accounting and KPIs.
- **Capability:** Driven by automation and AI/ML-based improvements of customer-facing functions and the back office.



Guide to Document

This whitepaper lists 15 open banking use cases and uses examples from fintechs to illustrate how each was implemented in the real world. As a reader from a financial institution, you will likely wonder about the repercussions of these examples to your organization. You can take one of three strategic approaches to the use cases in this document:

1. Leverage

Some of the bank's digital services may be expensive to build and maintain, in which case you may choose to replace your in-house capabilities with those offered by vendors, and instead focus on building deeper customer relationships around those services. One such use case is financial planning, where in-house-built tools can be replaced with vendor platforms, while the customer relationships would continue to be driven by highly skilled financial advisors.

2. Partner

Many of your digital services may be built and maintained in-house and will continue to be home-grown. Some of these experiences, such as streamlined account opening or linking external accounts, may be enhanced through partnerships with fintechs that leverage open banking to provide a better, frictionless customer experience. In some cases, entering into exclusive partnerships where capabilities are combined can create unique market advantages.

3. Compete

Banks have vast amounts of data and expertise, often combined with enormous scale and reach, which can be valuable to other participants in the industry. Some of these capabilities can be packaged in clever ways and sold as new services to existing or new types of clients, thereby entering into competition with the fintechs in these use cases. For example, a bank's Treasury function can be opened up as a new product category: Treasury on Demand.

Organizing Principles

The use cases in this whitepaper are categorized by the type of participant who would benefit from each: Consumer (consumer banking clients), Business (business banking clients) and Capability (operational efficiencies realized by the bank). Some use cases belong to multiple categories.

For each use case, we've conducted an opportunity assessment based on four pillars:

- **Value:** The business value or potential impact of the opportunity on real revenue.
- **Complexity:** How complex is the use case from an internal execution or partnership perspective.
- **Risk:** The level of risk involved in implementing the use case across a variety of risk factors.
- **Time-to-Market:** Estimated effort to bring solution to production, based on formal research*.

Methodology

The following methodology was used to compile this whitepaper:

- Fifteen popular use cases were investigated. The use cases and fintechs examined were chosen for the North American market (US and Canada), although some examples from other geographies such as the European Union or United Kingdom are also used.
- Some of the use cases are presently powered by open banking APIs in the North American market, while others utilize proprietary bank APIs and are anticipated to be powered by open banking in the future. The status of each is indicated in the Solution section of the use case.
- Research was conducted through interviews with select fintechs, publicly available information on company websites, product collateral, articles, and whitepapers. The sources used are listed in the References section of this document.

*Time to Market is based on the Leverage or Partner strategic approaches. The effort required to build a solution in-house to compete will vary depending on your organization's capabilities and the readiness of existing systems.

The following table lists the use cases examined and their classification in Consumer, Business and Capability enhancements.

 Consumer  Business  Capability

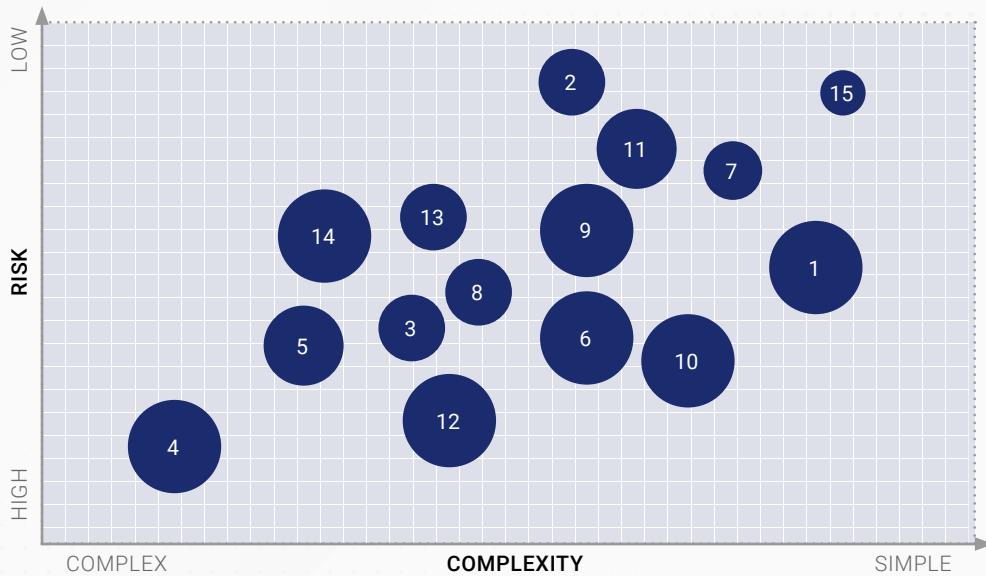
#	USE CASE	DESCRIPTION
1	Account Aggregation	   Retrieval of financial account data via official APIs for the purpose of usage and displaying all account information in one place.
2	Consumer Spending Insights	 Consumer spending insights are obtained through receipt management platforms that capture SKU-level data and deliver value-add services such as warranty tracking.
3	Buy Now Pay Later	 Buy Now Pay Later platforms enable consumers to split their payments for goods and services into multiple payments in online purchases or at brick and mortar locations.
4	Wealth Management	 Wealth Management platforms provide individuals and families with services that include investment advice, estate planning, accounting, retirement, and tax advice.
5	Insurance Sales	  Embedded sales and enhancement of business and personal insurance products based on financial, life event, behavioral and location data.
6	Personalizing Products and Experiences	  Personalization of products, services and experiences through advanced segmentation based on relevant, contextual and time-specific data.
7	Bill Payment and Management	  Facilitating real-time bill payments for consumers, payees, and financial institutions, including partial payments, payment arrangements, and analytics.
8	Tax Preparation	   Retrieving financial data from multiple sources and institutions for the purpose of tax preparation, and submitting returns to the IRS or CRA.
9	Payment Initiation	   Payment Initiation enables and simplifies the transfer of funds between accounts within, or across, financial institutions, often in support of other use cases.
10	Streamlining Account Opening	   Streamlining the opening of financial accounts and KYC process, thereby reducing friction, increasing conversion and growing deposits for financial institutions.
11	Document Processing for Onboarding	   Retrieving data from forms and unstructured text to facilitate account opening, transfers and financial product rollovers in order to reduce processing time.
12	Enhanced KYC/AML Monitoring	   Enhanced AI/ML monitoring and reporting of fraud and anti-money laundering activity, including suspicious activity and financial crime.
13	Expanding Credit Models	   Enhancing credit models with traditional and non-traditional data, as well as unstructured text extraction from documents and financial statements.
14	Treasury on Demand	  Packaging the bank's Treasury Department's capabilities via an API to provide treasury services to corporations in a modular, consumable manner.
15	Accounting Data Aggregation	  Retrieving data from multiple accounting platforms for the purpose of standardization and aggregation across data packaged in different applications.

Visual Summary

The use cases examined for this whitepaper were evaluated based on their respective complexity, risk and value. The following visual representations may be used to assess their impact on your organization.

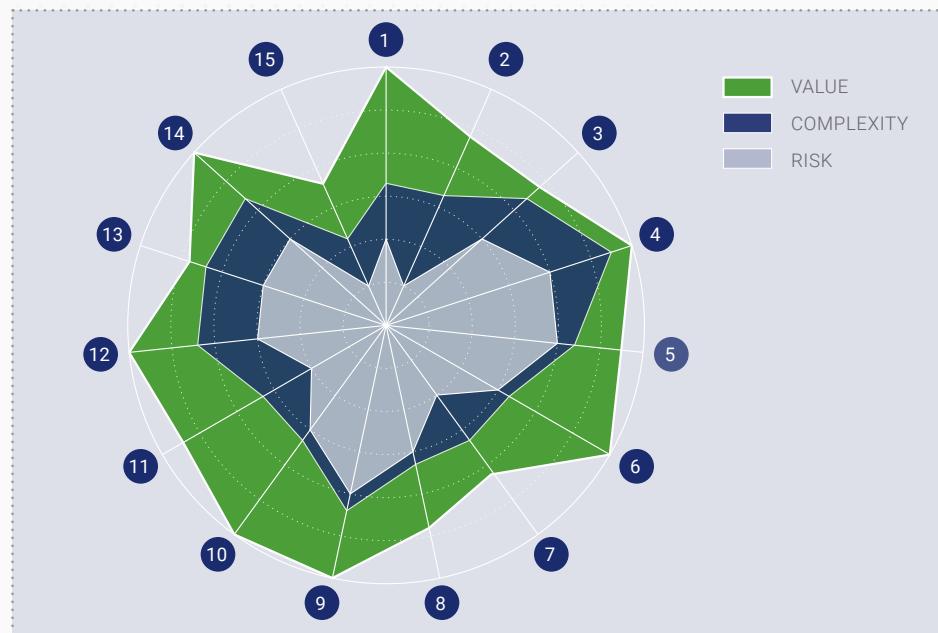
Opportunity Assessment

The chart below depicts the use cases on the complexity and risk axes. The size of the bubbles represents the magnitude of the value of each use case.



Radar Chart

The chart below stacks the value on top of complexity and risk. It demonstrates the relativity between the criteria such that strong opportunities can be easily identified.



1. Account Aggregation

CHALLENGE

Account aggregation, defined as accessing data from multiple accounts and collecting or displaying them in one place is the base use case for all other use cases of open banking. Traditionally, aggregation of financial data from multiple accounts was done by fintechs that stored users' login credentials, emulated user logins into online banking portals, used screen scraping to retrieve account data, and finally returned that data through an API. This approach is prone to security risks since it exposes login credentials, is prone to flaky connectivity, and can break if the bank changes the structure of its website. It also creates unnecessary load on the bank's systems and provides no transparency on how the data is being used after they are accessed. In most cases, sharing login credentials also violates banks' terms and conditions. And yet, millions of accounts are still aggregated using screen scraping each day. All this changes with open banking.

SOLUTION

Open banking provides secure, official APIs for accessing financial account data. Providing access to account data via official APIs has multiple benefits to all parties involved: banks, account owners, and fintechs. With open banking, banks have much greater control and visibility into the third parties that are accessing their clients' financial data, and the purpose for which the data is being used. Account owners provide informed consent to third parties for data access, down to the data field level, and can revoke that consent if they choose to. There is traceability of the path that the data takes after leaving the bank. Data is accessed without storing users' login credentials, and requesting parties are required to have industry standard security policies in place. Account aggregation via open banking also provides access to the account owner's identity information, assets, liabilities and payment routing data – all of which enable the other use cases described in this whitepaper.

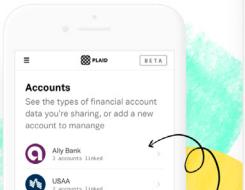
FINTECH IN FOCUS: PLAID



Plaid enables account owners to securely connect their financial accounts to the fintech services they choose. Plaid's platform supports over 11,000 financial institutions and over 5,000 digital finance services. Plaid started with screen scraping, and is currently moving to open banking.

Securely manage the financial data you've shared

Plaid provides the technology that powers many financial apps. View and manage your app connections through Plaid Portal.



We found these apps and accounts

Your phone number is connected to your accounts with these apps and financial institutions. Continue to learn more about how to manage your data.

APPS
 Acorns
 Chime
 Expensify

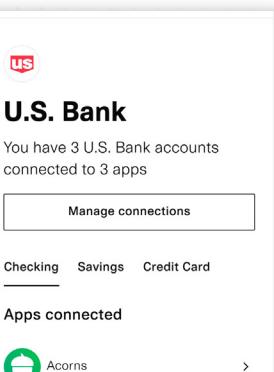
U.S. Bank

You have 3 U.S. Bank accounts connected to 3 apps

Manage connections

Checking Savings Credit Card

Apps connected

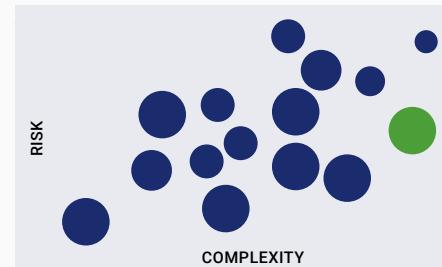


OPPORTUNITY

11,000
connected financial institutions

5,000
digital finance services

Source: Plaid



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET



2. Consumer Spending Insights

CHALLENGE

Some financial institutions are struggling to transform their data into actionable insights that drive personalization. While financial institutions understand there's a need for differentiated and more human experiences, they need help making this attainable and actionable. Although large amounts of transaction data is available, they usually consist of purchase amounts, dates and merchants, and lack visibility into deeper customer spend data, which doesn't provide a full view of spend habits, lifestyles and needs. This makes it difficult for financial institutions to action this data to engage customers in meaningful ways, personalize the customer experience, and offer the right product to the right customer at the right time.

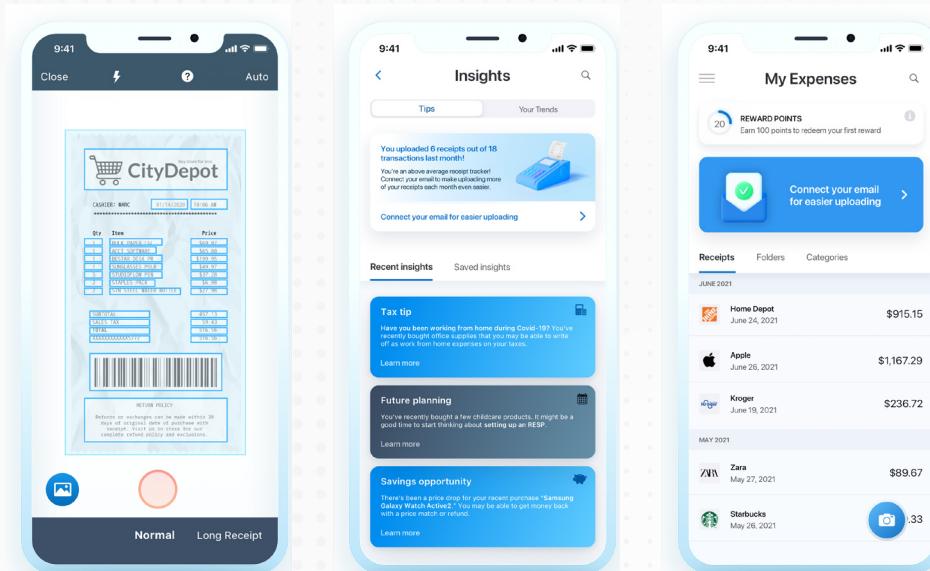
SOLUTION

Financial documents like receipt uploads, combined with data aggregated from external credit and bank accounts, can bridge the gap between banking and buying, uncovering new opportunities for banks to proactively engage and service their customers. By enriching customer spend data such as SKU-level and transaction data, financial institutions can identify customers' life stages, psychographics, brand loyalties, current financial needs and relevant triggers. Such intelligence enables them to create personalized customer profiles and experiences. This helps financial institutions drive profitability, enhance digital experiences, and cement loyalty, while helping their customers meet their individual financial health goals and optimizing their everyday spend.

FINTECH IN FOCUS: SENSIBILL



Sensibill provides a customer data platform designed specifically for the financial services industry. Sensibill has amassed a database of more than 220,000 merchants worldwide, including 96 of the top 100 merchants in the U.S., and more than 6 million unique SKUs (barcodes), which translates into 6,000 unique product categories.



OPPORTUNITY

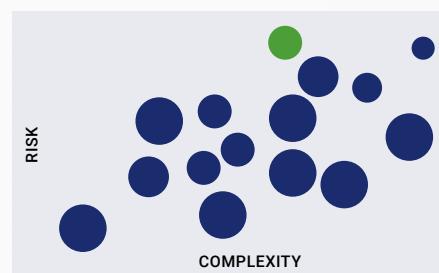
3x
more transaction activity

1.9x
more financial products purchased

50%
increase in mobile logins

3.8x
higher digital engagement

Source: Sensibill



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

2-4 months

3. Buy Now Pay Later

CHALLENGE

Buy Now Pay Later (BNPL) programs are not a new concept. For the past five decades, consumers have been using credit cards to buy products and pay off the balance at a later date. The latest wave of BNPL are fintechs that provide point-of-sale financing (brick and mortar or online) and more flexible payment options, such as paying in 4 equal monthly installments or over a longer term, at an affordable interest rate. Making fast credit decisions is essential for BNPL to work – and that requires many inputs about the consumer. It's also in the best interest of both the lender and the borrower to accurately assess the borrower's ability to repay – according to fintech Credit Karma, a third of US consumers who used BNPL services have fallen behind one or more of their payments, and 72% of those said that their credit score declined. In addition, BNPL is delivered via embedded finance or a standalone marketplace app, which creates challenges in interfacing with other systems.

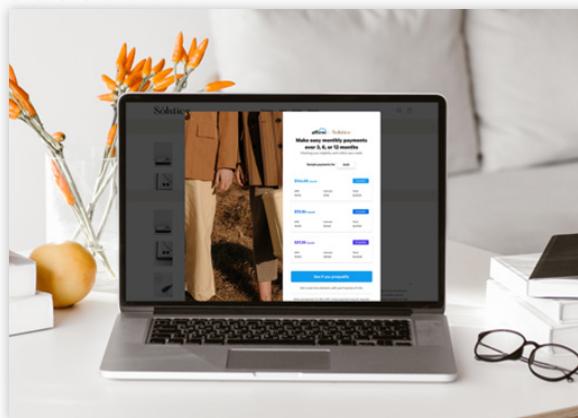
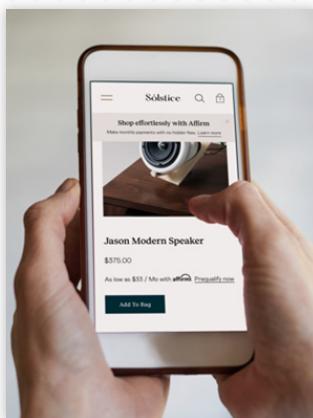
SOLUTION

BNPL fintechs use open banking to verify consumers' identity, retrieve their financial information, verify accounts, conduct KYC checks and make lending decisions. The use of consent management to gain data about loan applicants and instant credit approvals helps keep high conversion rates. Data on spending habits and repayment history are used to assess lending limits and rates, which is essential to ensuring affordability while delivering a positive experience to borrowers. BNPL also uses open banking to initiate payments, and some BNPL platforms may be able to provide A2A (account to account) processing, which are instant and often less expensive for merchants compared to interchange fees. The BNPL customer experience doesn't stop at the point of sale. Consumers using a BNPL app can get highly personalized financial coaching, which can reduce the probability of delinquency and can help improve the user's credit score.

FINTECH IN FOCUS: AFFIRM



Affirm is a BNPL lender which provides loans for consumers at point of sale to finance purchases. Affirm has a number of partnerships with prominent retailers, including Walmart, Amazon, and ecommerce platforms including Shopify, BigCommerce and Zen-Cart.



OPPORTUNITY

50%

increase in average annual transactions per account

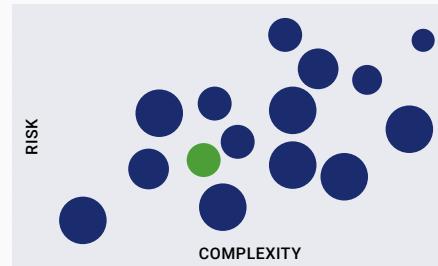
22%

increase in customer engagement 12 months after acquisition

25%-30%

Return on Assets

Source: McKinsey & Company



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

4. Wealth Management

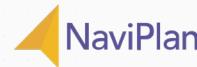
CHALLENGE

Traditional wealth management processes are time-consuming, involve a lot of manual work for financial advisors, and has a poor follow-through rate for clients, resulting in inefficiencies, missed opportunities, and customer frustration. Many high net worth and mass market customers hold accounts and products at multiple financial institutions. This makes customer onboarding challenging, as clients often have to gather their financial information from every institution and bring it to their financial advisor to manually enter into a wealth management platform. This creates friction in customer onboarding and risks in data accuracy. Account top-ups and withdrawals can be cumbersome and costly, depending on the payment methods used. Onboarding for new financial products based on the advisor's recommendations usually involves filling out additional paperwork. Finally, not having an aggregate view of all financial accounts makes it challenging for clients to track their progress and net worth.

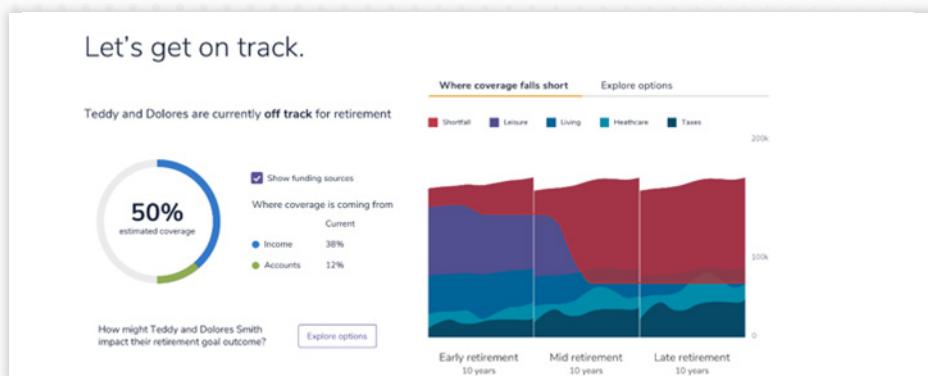
SOLUTION

Wealth management software enabled with open banking capabilities allows banks to serve more customers more efficiently and increase their assets under management. Empowering customers to permission the bank to retrieve data from their external financial accounts and perform a digital KYC creates a frictionless onboarding experience for new customers, as well as existing clients looking to take advantage of the bank's financial planning services. It also makes onboarding onto new recommended financial products quick and easy, thereby increasing product sales. Integration with multiple payment rails makes it easier and faster for clients to transfer money into the bank from external sources, without having to worry about complex routing instructions. Finally, providing the client an aggregate view of all of their financial accounts helps them track their progress and net worth in real time, which increases transparency and immediacy of action. It also provides the bank with advanced insights about their clients based on data from external financial institutions, which can be used to drive a more tailored digital and in-person customer experience. From the efficiency perspective, a connected financial planning experience speeds up financial plan creation, which increases financial advisors' capacity to serve more clients.

FINTECH IN FOCUS: NAVIPLAN



NaviPlan from Advicent Solutions is a financial planning platform that enables financial advisors at banks and credit unions to provide accurate financial assessment and planning to their customers. NaviPlan's platform is being used by 8 of the top 10 North American banks.



OPPORTUNITY

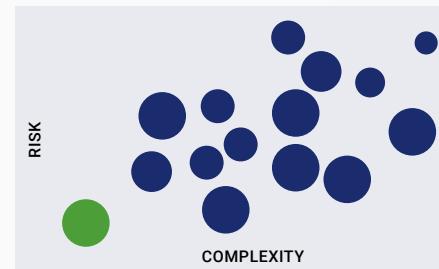
240%
increase in prospect-to-client conversion rate

100%
increase in Wealth Management AUM

15%
increase in annual revenue per client

35%
faster financial plan creation

Source: NaviPlan



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

12-24 months

5. Insurance Sales

CHALLENGE

Banks have tremendous amounts of data on their clients' life stages, purchases and life events, and that information is often underutilized. However, a lot of the data available to banks can be used to detect patterns that have insurance repercussions. Although many banks offer insurance policies, as many as 37% of consumers are unaware of them, and 30% of consumers believe that buying insurance should be easier according to PYMNTS.com. Many consumers would purchase insurance from their bank if offered the option.

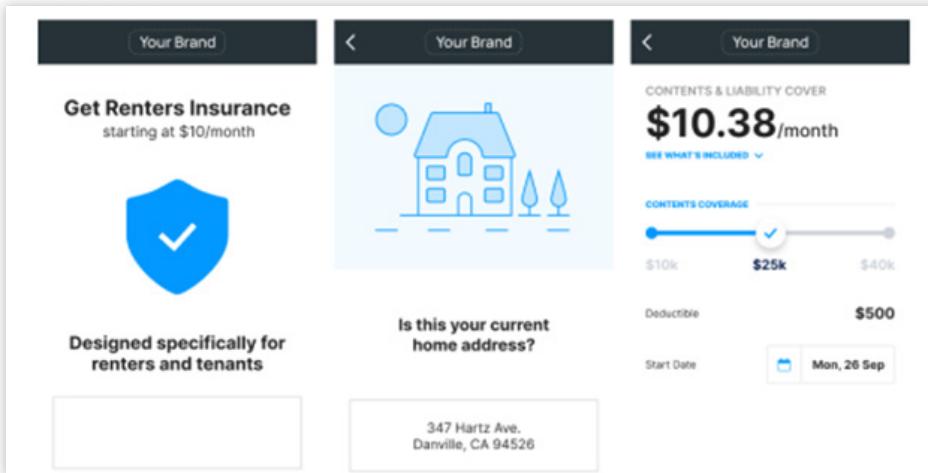
SOLUTION

Banks can analyze customer data for insurance triggers and present to their customers personalized insurance offers through online banking and mobile channels. Triggers for insurance opportunities can be found in personal information updates, purchase data from receipts or external cards aggregated through open banking, and location data from transactions or the bank's mobile app. For example, a change of address can lead to a tenant or auto insurance sale, becoming a new parent to life insurance, renovation or home improvement to home insurance, and electronics purchases to device insurance. For banks that don't have an insurance arm, insurance sales can be accomplished through partnerships. Similarly to open banking, insurance partnerships can be executed through open insurance, which is the practice of insurers sharing and consuming data and services through open APIs. Consumers can consent to sharing their data with insurers in order to get personalized insurance offers that make sense for them. Moreover, by using insights from transaction data, banks and insurance companies may offer lower premiums to their clients and can even assess where there is overinsurance and underinsurance, and make appropriate recommendations. This can lead to more insurance products sold or referral revenue from insurers.

FINTECH IN FOCUS: TROV



Trov is an Insurtech company offering an embedded insurance platform that enables financial institutions to embed insurance products within their digital experiences. Trov enables embedded insurance distribution and carrier partnerships.



The screenshots show the following features:

- Get Renters Insurance**: Starting at \$10/month. Includes a large blue shield icon with a checkmark.
- Is this your current home address?**: A question with a placeholder for "347 Hartz Ave, Danville, CA 94526".
- CONTENTS & LIABILITY COVER**: \$10.38/month. Shows a slider for **CONTENTS COVERAGE** ranging from \$10k to \$40k, with \$25k selected.
- Deductible**: \$500.
- Start Date**: Mon, 26 Sep.

OPPORTUNITY

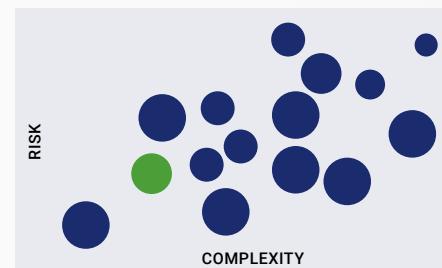
40%
US consumers without life insurance

63%
US renters without rental insurance

\$1.28 T
total US insurance industry premiums

\$1.1 T
private health insurance premiums

Source: PYMNTS, Insurance Information Institute, 2020



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

6. Personalizing Products & Experiences

CHALLENGE

Traditionally, banks relied on delivering a nearly identical set of products and capabilities to all clients. Today, with increasing diversity in clients' ethnicities, lifestyles, consumer behavior and preferences, that no longer works – customers expect high personalization similar to what they get from Amazon and Apple. Traditional segmentation based on demographics, geography, occupation and financial parameters does not capture the level of personalization that's expected today. This is especially true for millennials and Gen Z, a group that will be managing \$68 trillion in wealth by 2030 according to Coldwell Banker. In that group, 38% consider the digital experience as the most important factor when choosing a financial institution and 14% consider themselves underbanked. Therefore, falling behind on personalized experiences and product offerings can lead to client attrition.

SOLUTION

Banks can personalize their offerings to service specific client segments in meaningful and impactful ways. Open banking allows banks to aggregate information from external sources, including other banks, brokerages, credit issuers and investment managers and combine it with first party data that includes buying history, credit score, income, age and location, to build a deep understanding of each client's unique needs. These insights can be used in three ways:

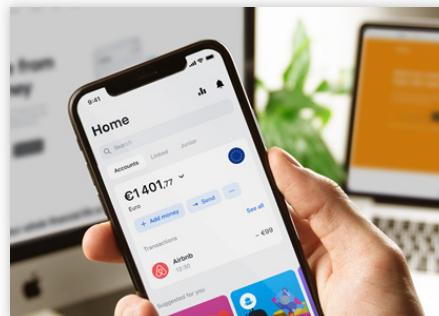
1. Hyper-personalized digital experiences, providing real-time contextual communication, such as an offer on an auto loan when it detects the customer is at a car dealership.
2. Gamification for financial outcomes, such as behavioral nudges to make larger deposits into savings on weeks where recreational shopping was low.
3. Creation of new products, such as investment accounts that offer fractional share trading, to increase financial inclusion and service underbanked segments.

By creating highly personalized experiences and products, banks can increase customer utility, grow deposits and product sales, and service underbanked customer segments.

FINTECH IN FOCUS: REVOLUT



Revolut is a neobank that provides an all-in-one super app for managing customers' financial lives. Revolut's app offers hyper-personalization of the user experience, third party integrations, and financial inclusion capabilities such as fractional stock trading.



OPPORTUNITY

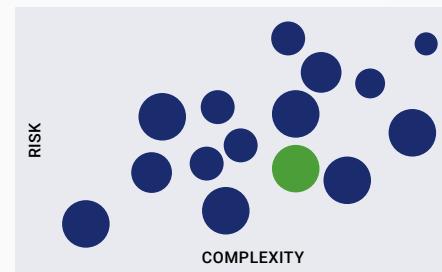
40%

higher satisfaction
due to better customer
experience

46%

higher deposit CAGR
at banks highest in
customer satisfaction

Source:
McKinsey & Company



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

7. Bill Payment and Management

CHALLENGE

Most financial institutions have invested time and resources into their digital experiences, yet for many, the bill payment experience is highly utilitarian, lacks payment choices, offers limited visibility and delivers a substandard user experience. Consumers demand convenience in the way they manage their finances, including bill payments. The bigger role a bank plays in that process, the deeper the bank's relationship with the consumer and the more data the bank will have about consumer behaviour and spend. Despite that, data from 2020 studies reveal that 76% of bill payments are made using biller sites, 22% of bank bill payments are declined, and 21% of US adults would consider switching banks for bill pay features, second only to mobile payments. Further, the standard options of paying bills directly from a bank account don't work for some consumers who prefer to use credit cards. And some billers offer payment options to their clients, such as splitting payments, which are not reflected into the standard bill pay experience that most banks offer. Finally, similar to other payment types, the bank only sees the total amounts paid, and has no access to more granular data.

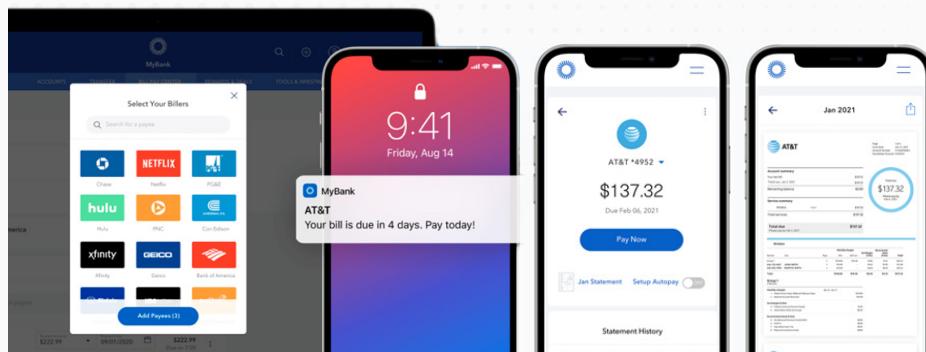
SOLUTION

Improved bill subscription and payment capabilities can deliver a superior customer experience, more payment options, increase engagement with the bank's channels and provide actionable data. Through open banking APIs, banks can enable billers to send bills directly through the bank's channels. This will get them detailed consumer behaviour data which can be used to deepen loyalty and offer the right product at the right time. From the customer experience standpoint, bills are available in a consolidated source, and consumers have a choice of more payment options - some of which are instantaneous. Integrations with billers can also create the ability to have a conversation around a payment, such as making arrangements for payment terms. In addition to billing experience improvements, bill data can be analyzed to find and cancel unused subscriptions and save the freed up cash, which can further improve the financial well-being of clients and increase deposits for the bank.

FINTECH IN FOCUS: BILLGO



BillGO is a platform for managing and paying bills. BillGO integrates into bank mobile and online channels via secure APIs, delivers bills directly from billers, and offers instant payment options.

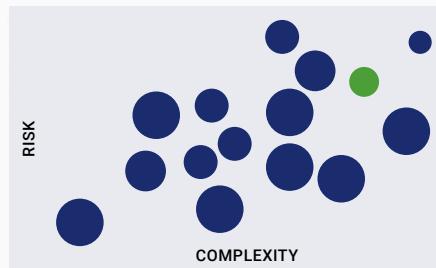


OPPORTUNITY

10%-15%
lower client attrition

22%
reduction in declined
bank bill payments

Source: BillGO



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET



8. Tax Preparation

CHALLENGE

Tax preparation is a complex process that involves multiple types of financial information, including payroll, bank accounts, bills paid, investments, and previous filings. Although accounting and tax software is quite sophisticated in processing the data and applying rules to it, in many cases the input of required data is a manual process in both consumer and corporate settings. In addition, reconciliation with sales data, invoices and payments is often done manually, which introduces the opportunity for errors or tampering. As a result, a big portion of any accounting department's time goes into data entry and ensuring that the data used for tax prep is accurate. This takes away from their time and focus on high value activities.

SOLUTION

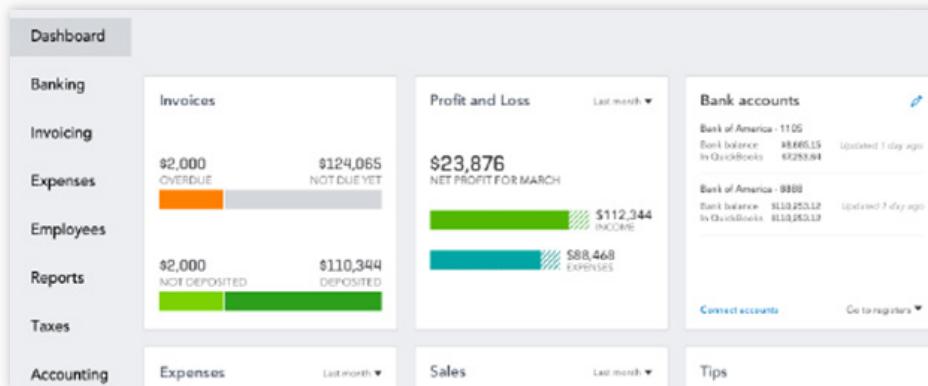
As seen in the accounting data aggregation use case, open banking APIs provide an efficient and reliable way of getting financial data into accounting platforms. When it comes to tax preparation, open banking provides a number of added benefits. Providing a direct connection from bank systems to popular accounting platforms to retrieve tax data such as 1099 forms will create operational efficiencies for the bank, help serve consumer and business clients better, and reduce call volumes during tax season. There are multiple downstream benefits as well:

1. Free up accountants' time from low-value data entry activities to high-value decision-making and advisory, giving accountants more peace of mind that their work is accurate.
2. Allow finance teams at both banks and corporations to impose stricter control over payment and banking processes, helping ensure that financial data cannot be tampered with.
3. Obtain and reconcile all receipt and payment information to identify domestic or international payments, VAT, and currencies.
4. Submit tax information to government bodies such as the Internal Revenue Service (IRS) or Canada Revenue Agency (CRA) reliably and securely via common standards.

FINTECH IN FOCUS: INTUIT



Intuit is a global technology platform that provides corporations, consumers and accountants tools for accounting, tax, payments, and personal financial management.



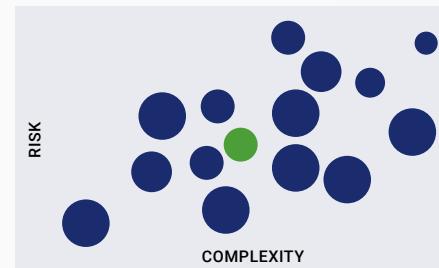
OPPORTUNITY

16 M
paper returns received by
the IRS

40%
individual tax returns
unprocessed by the IRS at
year end

40+
forms require mailing
paper returns

Source:
The Washington Post



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

9. Payment Initiation

CHALLENGE

Payments are complex, and for a good reason. There are many moving parts, including different payment networks, routing data, currency conversion, fraud prevention and settlement times. Although existing payment infrastructure, including the SWIFT network, is being modernized with new standards such as ISO 2022, they are complicated to use for most consumers and small businesses. New and alternative payment methods have emerged, such as Venmo and PayPal for consumers and Square and Stripe for businesses, that further simplify, enhance and reduce the cost of the payments experience. In addition, according to World Bank, 45% of consumers globally use a mobile wallet, and according to a 2021 Statista survey, US digital payments volume is worth \$1.26 T, 22.6% more than a year ago. Globally, digital payments are expected to hit \$66 T, a 40% year over year growth. Sticking to old methods would create a missed opportunity for North American banks.

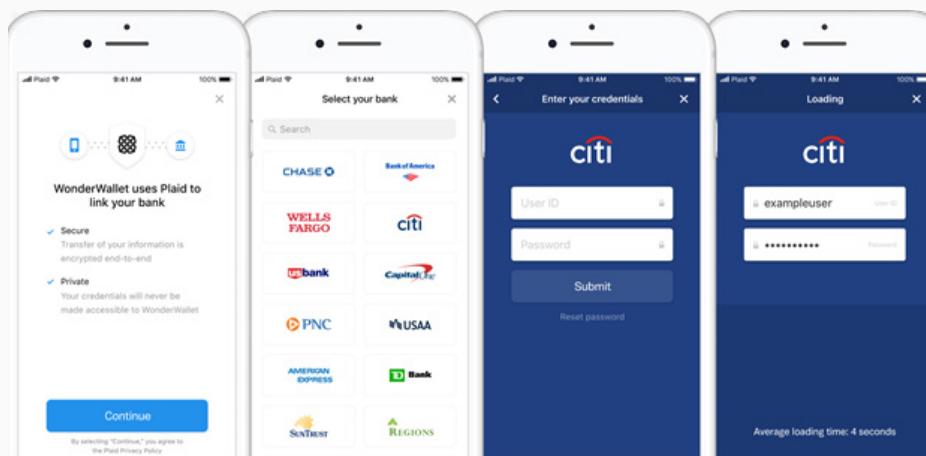
SOLUTION

Open Banking allows consumers and corporations to initiate domestic and international payments directly from their online banking accounts. This simplifies the experience of sending a payment tremendously – there is no longer a need to enter complicated routing data, multiple payment options and rails are available within the same payment interface, and payments are often processed and settled within minutes or up to 24 hours, compared to 1-4 business days on SWIFT. In North America, a number of Payment Services Providers (PSPs) like Stripe are offering real-time payment capabilities that can be integrated with bank infrastructure. Linking payment infrastructure to open banking APIs allows financial institutions to provide a smoother payment experience to their customers, retain a larger share of their clients' money transfers, and support multiple digital wallets and payment options that clients demand.

FINTECH IN FOCUS: STRIPE



Stripe builds electronic payment infrastructure. Stripe accepts all major debit and credit cards, integrates with popular wallets including Apple Pay, Google Pay, WeChat Pay and Alipay, bank debits and transfers including ACH, Wires and SEPA, and supports 135+ currencies. Stripe uses Plaid for account linking and payment initiation in the US.



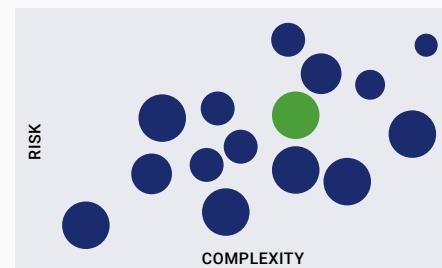
OPPORTUNITY

\$1.26 T
US digital payments volume

22.6%
growth in US digital payments YoY

45%
global consumers using mobile wallets

Source:
Statista, World Bank



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

10. Streamlining Account Opening

CHALLENGE

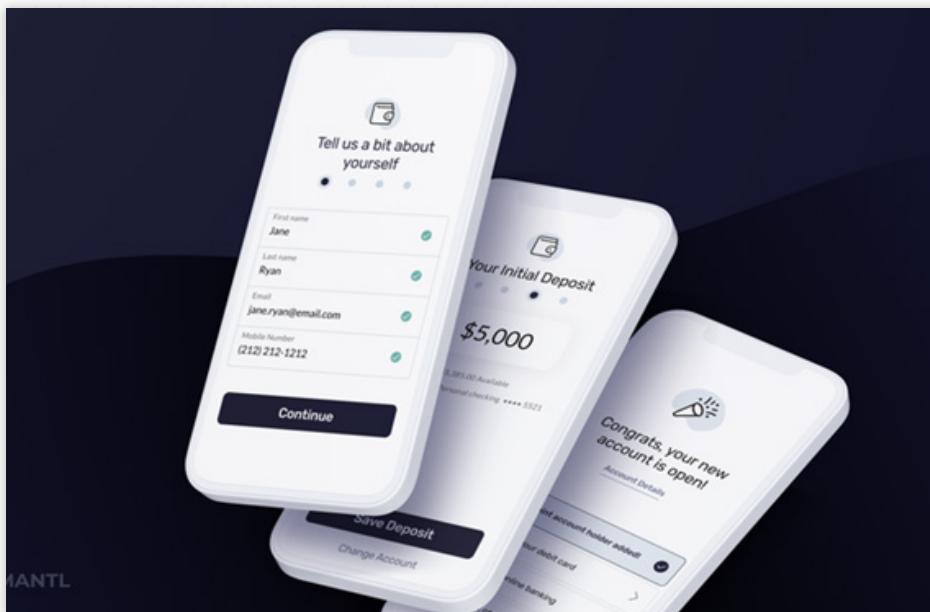
Financial institutions have some of the most stringent KYC (Know Your Customer) requirements in order to open new accounts. Although many big banks support online account opening, the process often requires a lot of manual data entry. Further, KYC decisions often require a human in the loop. Although many banks offer the convenience of funding with credit or debit cards, these methods offer limited funding amounts and may cause overdraft. Digital account opening flows have become more efficient in recent years, yet there is a push for further enhancements due to the COVID-19 pandemic.

SOLUTION

Open banking enables several improvements that increase account opening efficiency. First, digital ID verification and cross-referencing with external accounts can reduce the amount of typing a user has to do and at the same time reduce the risk of identity theft. Second, funding can be enabled directly from another bank account via ACH transfers that are initiated and simplified through external account connectivity – no more entering routing data or waiting for micro-deposits, increasing funding amounts, automatically linking users' external bank accounts for easier transfers, and verifying that the source account has sufficient balance, thereby reducing the risk of overdraft. Third, banks can leverage companies like Payoneer to issue virtual cards to new customers, thereby enabling them to make purchases with their newly created bank account as soon as it's funded, without having to wait for a physical card to arrive.

FINTECH IN FOCUS: MANTL

MANTL is an online account opening platform that offers an end-to-end account opening flow. Its platform performs KYC decisions, digital identity verification, and external account linking via open banking APIs.



MANTL

OPPORTUNITY

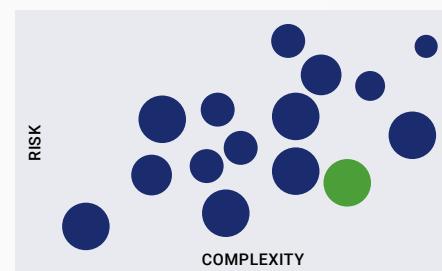
2 min 37 sec
to open an account

92%
of KYC/AML decisions automated

67%
reduction in fraud

\$5,000
average initial funding on checking accounts

Source: MANTL



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET



11. Document Processing for Onboarding

CHALLENGE

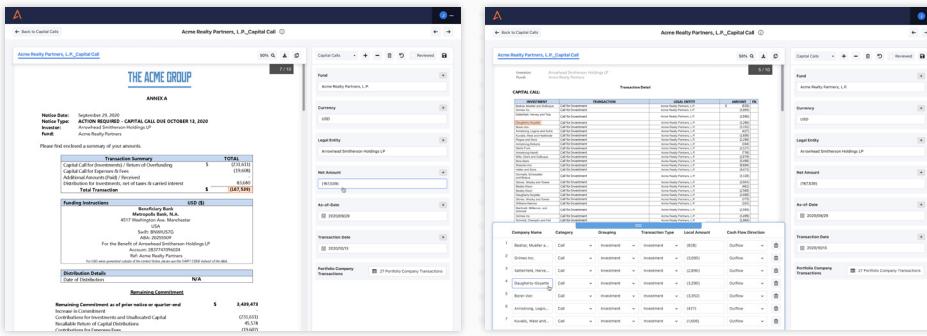
Clients of financial institutions expect rapid onboarding, but when document processing is done by hand, onboarding is slow, tedious and prone to errors. Although some financial institutions support online account opening and digital KYC, supplementary information often has to be provided via documents in PDF or scanned format, which are then reviewed by a human. When done for investment account rollovers such as 401K, human-driven processes can take as long as 60 days due to long processing times and having to restart the onboarding process if the data is bad or inconsistent.

SOLUTION

Data extraction from unstructured documents and financial statements dramatically speeds up onboarding and rollover processes. For onboarding, data can be extracted from government-issued IDs and utility bills to validate identity and address. For rollover, brokerage account statements are analyzed to extract account holder information, account type, holding-level data for each investment, and information from forms authorizing transfers. This data can be combined with account balance, routing, and holder information obtained through open banking to confirm validity. Back office processes can be built around this data, either fully automated, or with a human-in-the-loop to take critical actions such as cross-referencing against prohibited investments. Through automated document processing combined with open banking connectivity, financial institutions and their clients are realizing fast and smooth onboarding, error reduction and fraud reduction.

FINTECH IN FOCUS: ALKymi

Alkymi transforms data from unstructured documents, emails, and even photos into actionable data using machine learning and computer vision. Data is extracted, structured, and delivered via an intuitive interface that also surfaces not in good order (NIGO) data for accelerated exception handling. The powerful yet user-friendly solution empowers business users to build their own workflow automations, giving businesses much-needed agility while keeping costs low.



The screenshots illustrate the Alkymi platform's capabilities in processing and extracting data from financial documents. The left screenshot shows a 'Transaction Summary' for 'THE ACME GROUP' with details like 'Notice Date: September 29, 2020', 'Investment Type: CAPITAL CALL - CAPITAL CALL DUE OCTOBER 12, 2020', and 'Amount: \$1,000,000'. The right screenshot shows a detailed 'Capital Call' transaction table with columns for 'DOCUMENT', 'DESCRIPTION', 'TOTAL', 'AMOUNT', 'CURRENCY', 'Legal Entity', 'Net Amount', 'As of Date', and 'Transaction Date'. It lists various investment types and amounts for different companies.



OPPORTUNITY

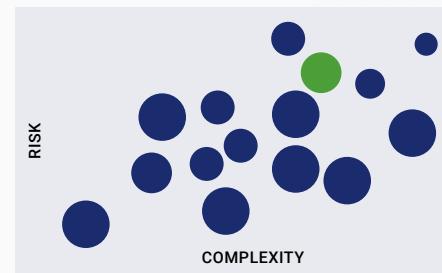
15-minute
onboarding time from
start to funding

98.7%
time reduction for
document processing

15 seconds
seconds or less for data
review

100%
data traceability to source
documents

Source: Alkymi



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET



12. Enhanced KYC/AML Monitoring

CHALLENGE

It is estimated by the UN that \$2 trillion are being laundered worldwide each year, which amounts to two to five percent of global GDP. Since 2011, the amount of money laundered through mainstream financial systems has increased by 62.5%. Although banks have sophisticated AML tools and processes in place, only a small percentage of suspicious activity reports are investigated and as much as 90% have no operational value. As a result, millions of dollars written off as fraud are considered just the cost of doing business. With the increasing unbundling of financial services, banks today have less visibility into their customers' activities outside of the immediate realm of the financial institution. The risk for banks increases further since customers are now onboarded by technology firms that don't have deep experience in financial crime detection. AML processes must be updated with data from additional sources to keep up with the rapid changes in financial services.

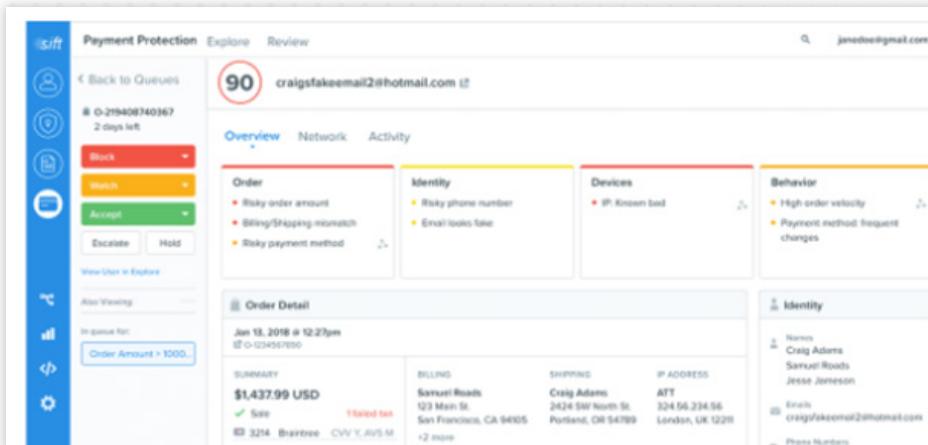
SOLUTION

Open banking will provide financial institutions the ability to meet compliance requirements and manage AML risk better upon onboarding and beyond. Banks that allow their customers to link external accounts will get a comprehensive view of the parties that their clients transact with, where counterparties are based, and what their transactional patterns look like, much earlier in their relationship. With the opening up of additional data sets through open finance, such as insurance, asset management, pension funds, and further with open data initiatives that include utilities and telecommunications (already happening in Australia under Consumer Data Rights), banks will benefit from even deeper analytics that will further help with monitoring. Sharing this data through APIs will also create opportunities for enhanced real-time event monitoring. This will in turn allow banks to stop more money laundering activities before they happen, which will further reduce losses and increase the bank's reputation.

FINTECH IN FOCUS: SIFT



Banks can use software such as Sift to detect and prevent fraud, money laundering, and increase compliance monitoring. Sift uses real-time monitoring, machine learning and a global data network to detect suspicious activity and fraud as it happens.



The screenshot shows the Sift platform's user interface. On the left, there's a sidebar with navigation links like 'Payment Protection', 'Explore', and 'Review'. The main area displays a summary card for a user with the email 'craigfaileemail2@hotmail.com'. The card shows a score of 90 and highlights several risk factors: 'Risky order amount', 'Billing/Shipping mismatch', 'Risky payment method', 'Risky phone number', 'Email looks fake', 'IP Known bad', 'High order velocity', and 'Payment method frequent changes'. Below this, there are sections for 'Order Detail' (listing a recent transaction on Jun 13, 2018) and 'Identity' (listing names like Norma, Craig Adams, Samuel Roads, Jesse Joneson, and emails like craigfaileemail2@hotmail.com). The bottom of the screen shows a summary table with columns for SUMMARY (\$1,437.99 USD), BILLING (Samuel Roads, 123 Main St, San Francisco, CA 94105), SHIPPING (Craig Adams, 2424 SW North St, Portland, OR 97209), and IP ADDRESS (324.56.234.56, London, UK 12211).

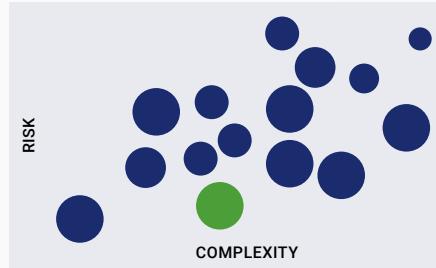
OPPORTUNITY

\$2 T
laundered funds each year

1%
of proceeds of financial crime are seized

90%
of Suspicious Activity Reports are not actionable

Source: UN, PA Consulting



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

13. Expanding Credit Models

CHALLENGE

Large segments of consumers are underserved or not served at all when it comes to extending credit. Most traditional lenders use credit scores from traditional credit bureaus for credit decisions. However, in the US alone, 180 million consumers don't fully meet conventional credit model requirements, and of them 50 million don't meet credit requirements at all, according to PYMNTS.com. As a result, traditional lenders are missing an opportunity to serve a significant portion of the population that currently resorts to alternative lenders, or has no lending options at all.

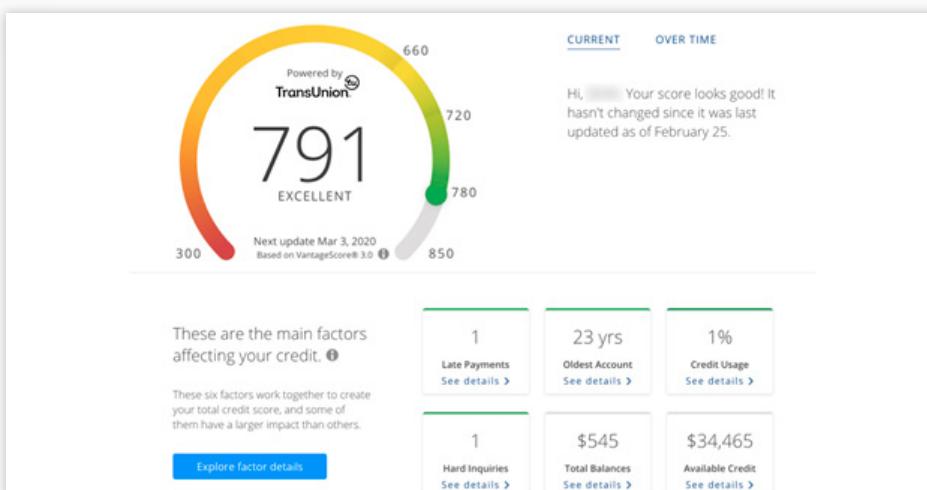
SOLUTION

Direct bank account connectivity combined with alternative data can be used to create new credit models that result in accurate assessments, higher approval rates, and reduced credit risk. Consumer account data can be used to analyze the applicant's income and consumption patterns, and that can aid in credit decisioning. In addition, risk factors such as other payments that limit the applicant's ability to pay can be identified and flagged. Account verification via open banking can also help lenders prevent fraud by ensuring that funds are deposited into the account that matches the data of the person requesting the credit. Lenders can also use non-traditional data, such as utility, rental and telecom payments to create accurate credit models for underserved segments (80 million of US adults live in rental housing and 97% of US adults own a cell phone). Using data from multiple sources, as well as from multiple credit bureaus, can further increase confidence, reduce risk, and increase the total addressable market that a bank can work with.

FINTECH IN FOCUS: VANTAGESCORE



VantageScore develops accurate credit scoring models based on combined data from Equifax, TransUnion and Experian. It enables scoring more types of consumers so that they can gain access to mainstream credit.

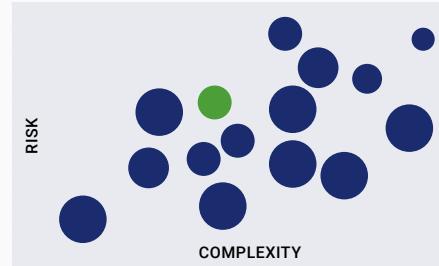


OPPORTUNITY

180 M
US consumers don't
meet conventional model
requirements

49.7%
(up to) risk reduction in
some types of loans

Source: VantageScore



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

6-12 months

14. Treasury on Demand

CHALLENGE

The Treasury function is integral and strategically important to banks and corporations. Treasury's capabilities include cash management, forecasting, reporting and payments. Banks have made a significant investment in technologies such as Robotic Process Automation (RPA), AI/ML, data lakes and business intelligence systems to enhance treasury functions. On the other hand, many companies are forced to make expensive investments in technology to facilitate treasury activities. Even with these investments, reporting often involves manual data manipulation and analysis. Cash management and forecasting are usually done manually by the Treasurer or CFO.

SOLUTION

Treasury on Demand is a service that delivers treasury capabilities for corporate clients. It provides financial institutions the ability to capitalize on their expertise in treasury to deliver solutions that span cash management, forecasting, liquidity management, loans, and reporting. At its heart, Treasury on Demand involves automation, data enrichment, and rules engines. Client data includes real-time payments, financial statements, SKU-level data, and account activity. This data can be combined with industry trends, regulatory movements, and market data to automate treasury functions. Data consumption and output will be handled via open banking APIs. A few examples include:

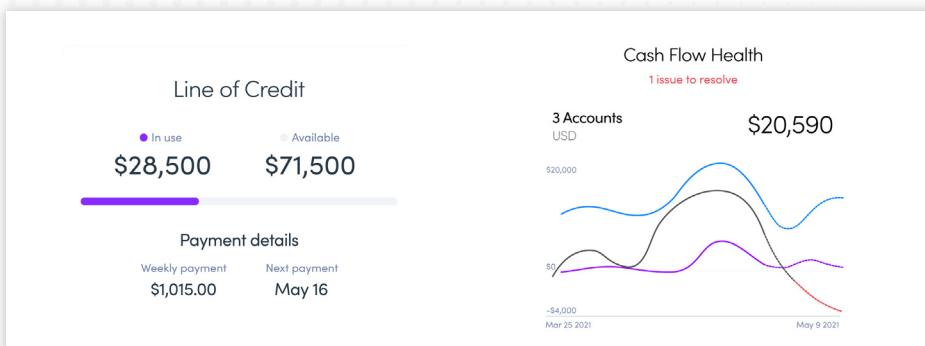
1. Manage liquidity by predicting cash shortfalls and automatically covering them with a line of credit to enable making payroll at month end.
2. Automate payments, increase predictability in settlement times, and reduce days receivables through deep integration with real-time payment rails.
3. Enhance and automate corporate treasury reporting through rich dashboards, real-time analytics, and integrations with ERP and accounting systems.

Banks that develop Treasury on Demand capabilities will benefit from new, untapped revenue streams and deeper customer relationships.

FINTECH IN FOCUS: NUULA



Nuula is a platform empowering small business owners to forecast their cash, monitor credit scores, and bridge liquidity gaps for payroll and investments through an automated line of credit.



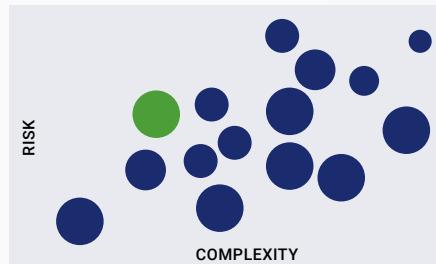
OPPORTUNITY

31.7 M
SMBs in the US

61.8%
of SMBs have unstable
payroll outflows

\$29.48 B
analysis & reporting
spend by 2022

Source: SBA, JPMorgan Chase, Reuters



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET

12-24 months

15. Accounting Data Aggregation

CHALLENGE

Financial information comes in inconsistent formats like PDFs, Excel spreadsheets, even paper documents, which entails a collection and analysis problem. It's difficult to collect all this data on commercial customers, which in particular impacts customers' ability to purchase new products from their bank and access some financial services in a quick and effective manner. For example, the process involved in opening a commercial loan is highly manual and time consuming for both banks and their customers. Further, different accounting platforms export data using different formats and conventions, making reconciliation and aggregating financial statements complex. This complexity makes it difficult for financial institutions to provide instantaneous and accurate financial services.

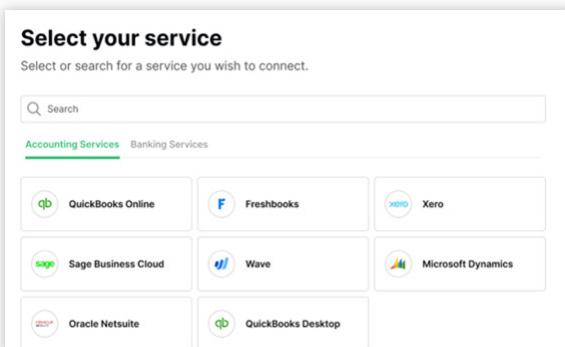
SOLUTION

Open banking is not limited to financial account aggregation. Banks can allow their commercial clients to connect their accounting and ERP platforms to their banking and accounting systems. This helps banks streamline their business banking processes and deliver a better customer experience. This integration also provides banks real-time, on-demand visibility into clients' financial transactions and history for reporting, modeling and credit decisioning. For example, the bank can easily obtain accounting ratios such as Current Ratio and Leverage Ratio, and compare them with industry benchmark data to facilitate a loan approval. Connecting accounting data to banking systems also leads to standardization of accounting data, which makes analysis and reporting more efficient, reduces the amount of manual processing, and also reduces the chance of errors from manual import and export. The benefits of accounting and ERP integration extend to the front office. Using up to date accurate data and insights, financial advisors can have more meaningful conversations with their customers, which can lead to better service and increased sales of relevant products.

FINTECH IN FOCUS: RAILZ



Railz provides a single API to all major accounting and ERP software providers, which includes Quickbook, Xero, Freshbooks, Netsuite, and Microsoft Dynamics. Railz has the ability to push and pull the data with real-time syncing and normalize financial data into a standardized format. Set-up through Railz can be accomplished in a day.



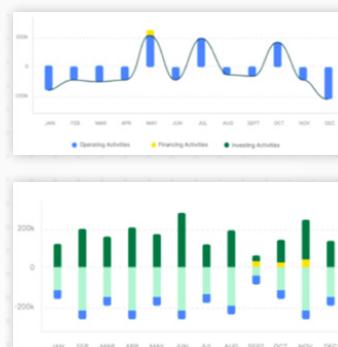
Select your service
Select or search for a service you wish to connect.

Search bar: Search

Category tabs: Accounting Services (highlighted), Banking Services

Service icons:

- QuickBooks Online
- Freshbooks
- Xero
- Sage Business Cloud
- Wave
- Microsoft Dynamics
- Oracle Netsuite
- QuickBooks Desktop

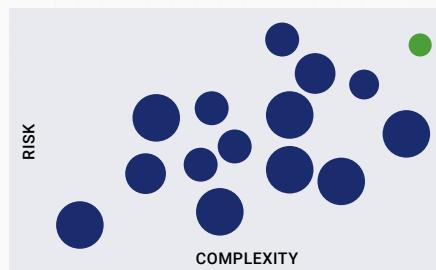


OPPORTUNITY

53%
decrease in cost by automating data collection

75%
reduction in fraud by giving access to the source data

Source: Railz



IMPACT RATING

VALUE



COMPLEXITY



RISK



TIME TO MARKET



Conclusion

In this whitepaper, you've seen 15 use cases that are enabled by open banking. These use cases have been implemented by many banks and fintechs, and we expect additional organizations to follow suit in the near future. As open banking continues to spread across the globe, it is inevitable that these use cases will continue to evolve as they merge with standards-oriented initiatives. Whether you choose to leverage, partner, or compete in any of these domains, rest assured that you cannot sit still because the status quo in our industry is being rapidly disrupted.

Next Steps

You may be considering implementing some of the use cases described in this whitepaper. To help prioritize, we recommend evaluating the use cases in the following order.

1. Account Aggregation

Account Aggregation is the foundation for all other use cases. It contributes to higher security, transparency and efficiency in data exchange. It must be done first.

2. Streamlining Onboarding

Onboarding is critical for growth, and it is the start of the formal relationship with every customer. Use cases include Streamlining Account Opening and Document Processing for Onboarding.

3. Payment Facilitation

Payments-related use cases need to be prioritized next to maintain competitive advantage. This includes Payment Initiation and Buy Now Pay Later.

4. Data and Personalization

Tailored and differentiated experiences will lead to greater growth and customer loyalty. Use cases include Personalized Products and Experiences and Consumer Spending Insights.

5. New Products

New product categories such as Treasury on Demand will create new revenue streams in previously untapped spaces and enable data enrichment.

We hope you've been inspired by the examples and new ways of doing business covered in this document.



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About Us



Axway accelerates the secure sharing of financial data across customer ecosystems and gives heritage IT infrastructure new life by helping more than 11,000 customers digitally transform and drive growth. With the Amplify API Management Platform — the only open platform for managing and governing APIs across teams, the hybrid cloud, and third-party solutions — we help companies move forward faster, reach new markets, and create brilliant digital experiences. Axway enables financial institutions to build on their existing infrastructure by unlocking data and processing from core systems building bridges to discovering new business models. Axway employs over 1,800 people in 18 countries.

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Altitude Consulting is a fintech consultancy dedicated to the adoption of open banking in the US and Canada. Altitude specializes in strategy, implementation of business models, and driving value from partnerships between banks and fintechs. Altitude's team has deep experience in C-suite strategic advisory, digital transformation, operating model implementation, technical delivery, API design and enterprise architecture.

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