DataRobot

5 AI SOLUTIONS EVERY WEALTH MANAGER NEEDS

INTRODUCTION

Providing banking and investment services to high net worth individuals and families is a business rich in history and tradition, but one that is changing rapidly. The business is deeply personal, with clients and advisors building relationships that may span generations. A high level of personal service is integral to the business but can result in high costs.

The battle for profitable clients is intensifying, as is the demand for increasingly sophisticated services by those clients. Another challenge for wealth managers is that the number of eligible, potentially profitable clients is much smaller than other lines of business. Traditional wealth management firms are being further challenged by upstart fintech providers and the rise of "do-it-yourself" investing using exchange-traded funds. Because of all these challenges, a key danger for today's wealth managers is complacency.

The most innovative wealth management firms are exploring artificial intelligence (AI) using machine learning as a means of keeping ahead of a rapidly changing marketplace. Effective applications of AI can help wealth management firms target new client prospects, develop new investment products, increase client profitability by deepening relationships, eliminate operational inefficiencies, and more effectively manage risk. In other words, a wealth management firm's experience and data can be used to optimize the business model.

The following outlines the five most important AI solutions that every wealth manager should explore, build, and deploy in order to optimize their business.

A HIGH LEVEL OF PERSONAL SERVICE IS INTEGRAL TO THE BUSINESS BUT CAN RESULT IN HIGH COSTS

GENERATING NEW BUSINESS THROUGH TARGETED MARKETING

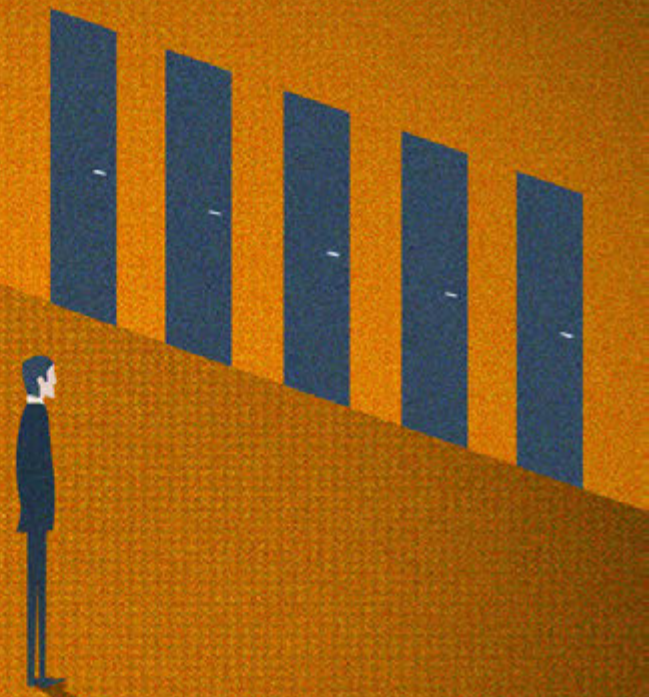
The most profitable wealth management prospects likely have existing relationships with competing firms. These relationships can be very challenging and costly to replace, and efforts to convince clients to switch may not be successful. A parallel strategy to build the customer base is to look for prospects who are likely to be profitable in, say, 3-5 years. These clients may be loss leaders for the bank in the short term, but are likely to become the cornerstone of future profitability. Fortunately, identifying which customers are likely to become profitable is precisely the type of problem that machine learning solves.

AI can learn the relationship between the historical characteristics – e.g., from 3 years ago – of a firm's existing clients and those clients' profitability. Wealth managers can then use those models to predict the future profitability of today's prospects — or even how long it will take them to become profitable – which means better targeting and, ultimately, increased revenue.

In addition to predictive targeting of prospects, machine learning can reveal the key drivers of profitability, resulting in unique insights into strategies and approaches that might not otherwise have been detected.

Continually estimating and tracking the expected value of a customer can provide early warnings of potential profitability challenges or even a natural way to identify which relationships will (or will not) materialize into profitability.

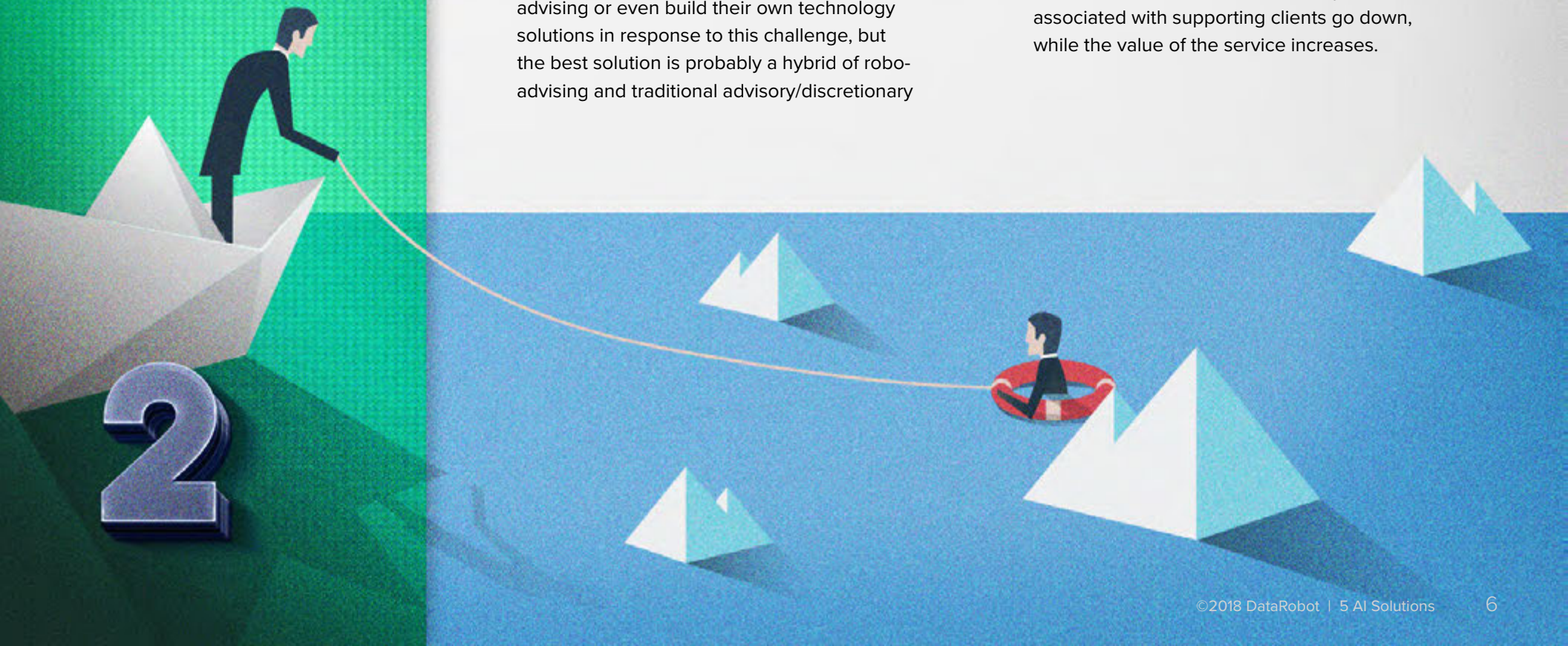
IDENTIFYING WHICH CUSTOMERS ARE LIKELY TO BECOME PROFITABLE IS PRECISELY THE TYPE OF PROBLEM THAT MACHINE LEARNING SOLVES



NEEDS-BASED PRODUCTS AND SERVICES FOR RELATIONSHIP DEEPENING

The rise of robo-advisors in the late 2000s opened up the world of complex investing to a much larger number of people, offering automated investment management at much lower costs than traditional wealth management firms can provide. Such models, however, do not provide the same level of individualized service as wealth managers and may not build the strong relationships that many wealth management clients have grown to expect, trust, and rely upon.

Some firms have opted to white-label robo-advising or even build their own technology solutions in response to this challenge, but the best solution is probably a hybrid of robo-advising and traditional advisory/discretionary wealth management services. Machine learning approaches can make helpful recommendations on the types of investments a particular client may be interested in based on their past trading behavior, risk appetite, income needs, and other characteristics. Financial planners can use these predictions to augment their ability to recommend an individualized plan and to supplement robo-advisors that algorithmically manage asset allocation, maximize tax efficiency, and the like. Because AI derives the recommendations automatically, the costs associated with supporting clients go down, while the value of the service increases.



FINANCIAL PLANNERS CAN USE PREDICTIONS TO AUGMENT THEIR ABILITY TO RECOMMEND AN INDIVIDUALIZED PLAN

CASH MANAGEMENT AND LIQUIDITY FORECASTING

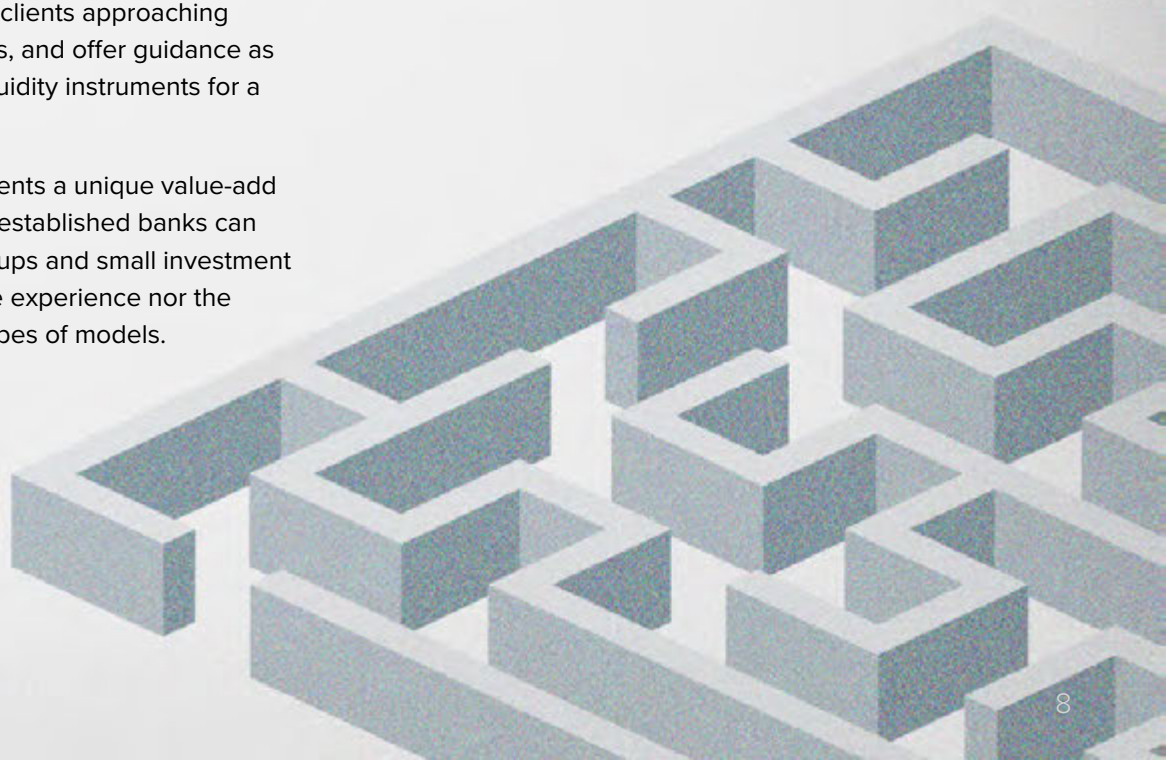
Managing liquidity is a daily concern for organizations and individuals alike. An overly conservative approach can result in suboptimal investment returns, as clients keep cash on-hand that might more profitably have been invested. Conversely, too little cash on hand can result in unplanned cash shortages and necessitate the poorly-timed liquidation of assets.

Using machine learning, wealth managers apply their extensive experience (and data) with transactions and daily balances to build customized liquidity forecasts, on a client-by-client basis. These forecasts can provide warnings of liquidity requirements, anticipate balance shortfalls for clients approaching investment thresholds, and offer guidance as to the appropriate liquidity instruments for a particular client.

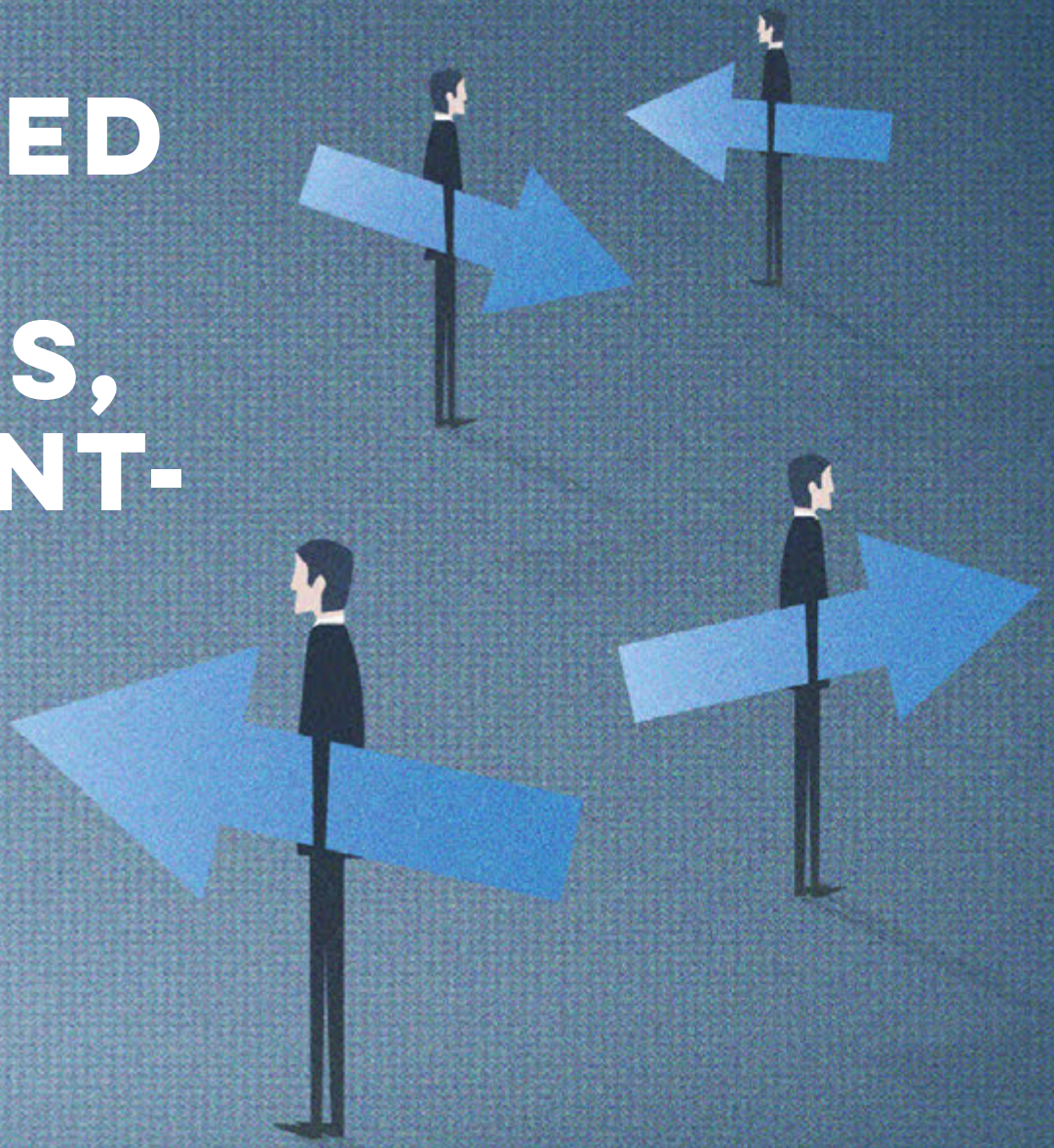
This capability represents a unique value-add that only full-service, established banks can provide. Fintech startups and small investment firms have neither the experience nor the data to build these types of models.

What's more, in order to get the most value out of this cash forecasting service, high net worth individuals may be much more likely to consolidate their assets into a single private bank rather than spread them across multiple institutions.

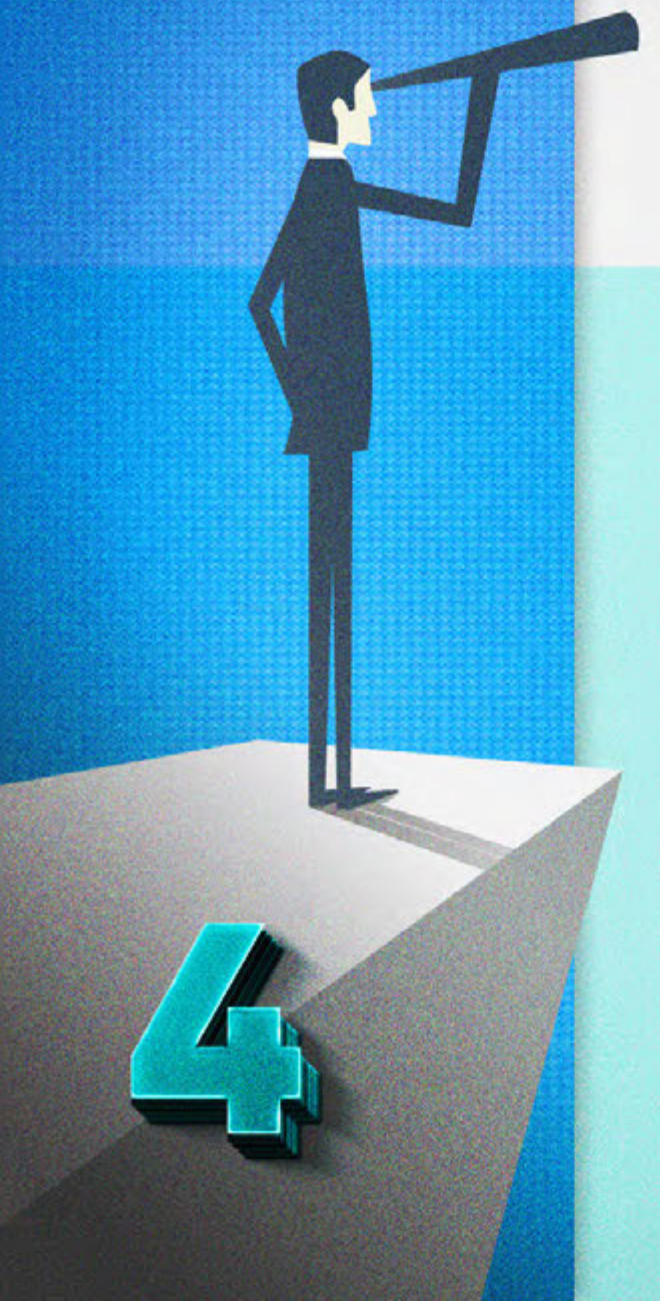
Alternatively, this kind of service could provide a strong incentive for clients to use open banking API's to connect their third-party accounts to the wealth management relationship to achieve a holistic view. This provides an opportunity for private bankers to position themselves as central to their clients' financial management and gain a greater share of that business over time.



BUILD CUSTOMIZED LIQUIDITY FORECASTS, ON A CLIENT-BY-CLIENT BASIS



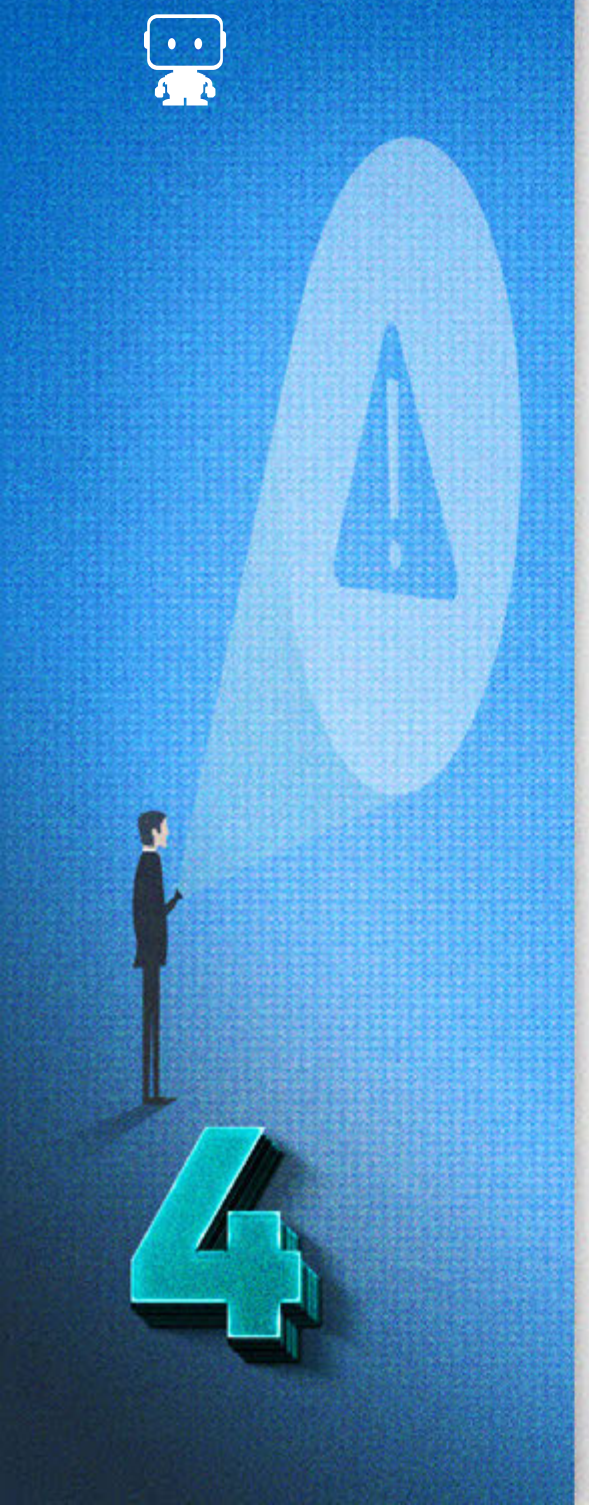
REGULATORY DUE DILIGENCE



Every year banks spend millions of dollars on detecting, investigating, and reporting potential money laundering — and for good reason. It's not uncommon for regulators to levy fines for inadequate or lax anti-money laundering (AML) monitoring on the order of hundreds of millions of dollars or euros.

Consequently, banks have built highly complex Transaction Monitoring Systems (TMS) — mostly rule-based systems — that are designed to identify transactions that might be indicative of money laundering. These systems are optimized to avoid missing potential money laundering activity (false negatives) at any cost. Consequently, banks must spin up large investigative teams to handle all of the alerts, the vast majority of which do not result in Suspicious Activity Reports (SARs).

Machine learning models can be used to rank alerts based on how likely they are to actually result in a SAR filing, allowing better prioritization of new alerts. The bank has complete control over how conservatively this system performs so that the number of false negatives can be reduced to practically zero. Furthermore, machine learning has the capability to explain how these predictions are made. Investigators are told not only that a transaction merits further investigation, but the features of the transaction or customer that make it risky. This means more focused investigations and a potentially shorter time to clear lower risk alerts.



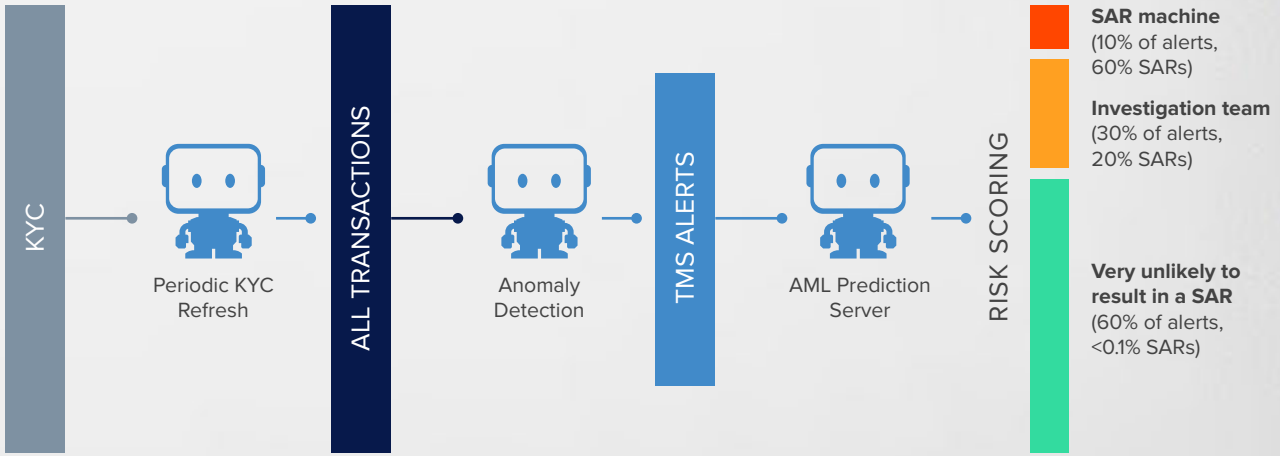
REGULATORY DUE DILIGENCE

Upstream in the AML workflow, rules that produce alerts can also be refined with machine learning techniques. Learning from the entire universe of transactions, AI can determine which rules are most effective at identifying high-risk transactions and provide dynamic ways to improve them as behaviors and transactional patterns change.

It is in the nature of the business that wealth management clients execute high-value transactions, often involving cash. They also frequently have significant political influence and international exposure. The Know-Your-Customer (KYC) process is, therefore, especially important for wealth managers, both when onboarding new clients and periodically reviewing client profiles to ensure continued compliance.

Machine learning can help banks determine which aspects of their KYC program actually correlate with potential money laundering, enabling them to reduce friction in the new client onboarding process. Such techniques not only increase a bank's ability to target the right accounts for heightened scrutiny but also supply a quantitative justification for regulators.

OPTIMIZING THE KYC/AML PROCESS



AI CAN DETERMINE WHICH RULES ARE MOST EFFECTIVE AT IDENTIFYING HIGH-RISK TRANSACTIONS

OPERATIONAL EFFICIENCY

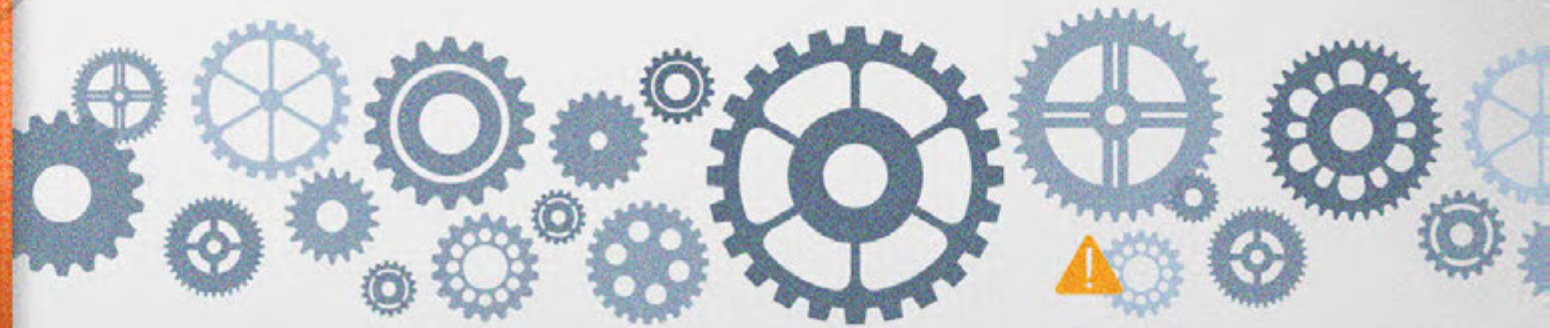
Wealth management is a complex business with many moving parts. When something goes wrong, it can delay operations, cause financial losses to the client, damage the relationship with the client, and even harm the reputation of the firm. Machine learning is an excellent tool for spotting costly operational errors.

For example, suppose a wealth management firm does its own trade processing. Client trades sometimes don't settle as expected, resulting in failures in straight-through processing (STP). These failures must be manually investigated, and resolving them sometimes even requires contacting the client.

AI is the perfect tool for identifying at-risk trades before they clog up the system. Proactively looking for trades that are likely to cause problems gives the organization an opportunity to fix them before they're delayed — or even as they're being placed — reducing processing costs and helping direct operational resources.

Another example is asset valuation and servicing. Errors in valuations due to pricing errors can actively damage client confidence and undermine existing relationships as well as delay reporting and reconciliations, consuming valuable time to resolve. Machine learning models can support pricing and valuation teams by spotting these irregularities and alerting them to fix the issue before it impacts standard processing. Such models learn from actual past pricing issues and by monitoring for anomalies and can outperform conventional rule-based approaches.

These are just two examples of how operating expenses can be reduced by using AI to identify inefficiencies, create alerts, and even prevent issues before they happen. Any operational process which generates records of its outcomes and incurs a cost to rectify anomalies or exceptions is a good candidate for such an approach.



IDENTIFY AT-RISK TRADES BEFORE THEY CLOG UP THE SYSTEM

CONCLUSION: MACHINE LEARNING IMPROVES HUMAN RELATIONSHIPS

Robo-advisors may be eating up the lower end of the market, but there will always be a demand for high-touch, complex wealth management services by trusted, expert advisors. The cornerstone of this business is the relationship between banker and client, and AI can help bankers make these interactions more responsive and better tailored to individual needs. In fact, relationship-led business lines, such as wealth management, provide some of the best opportunities to leverage for these techniques. Their benefits become apparent in the short term from greater operational efficiency and persist over the long term as future profitable relationships are nurtured.

The use cases described above represent five of the biggest opportunities that wealth management firms must take advantage of in the coming years if they want to remain competitive and provide the best products and services to their customers as efficiently as possible.

DataRobot has helped many global and regional financial institutions improve their ability to build and deploy AI solutions like the ones described above. DataRobot's automated machine learning platform allows organizations to increase their capacity and speed-to-market without having to scale or build expensive data science teams. By combining modern machine learning technology with automation, transparency, documentation, and flexibility, DataRobot enables banks to increase revenue, drive down waste, and reduce risk.