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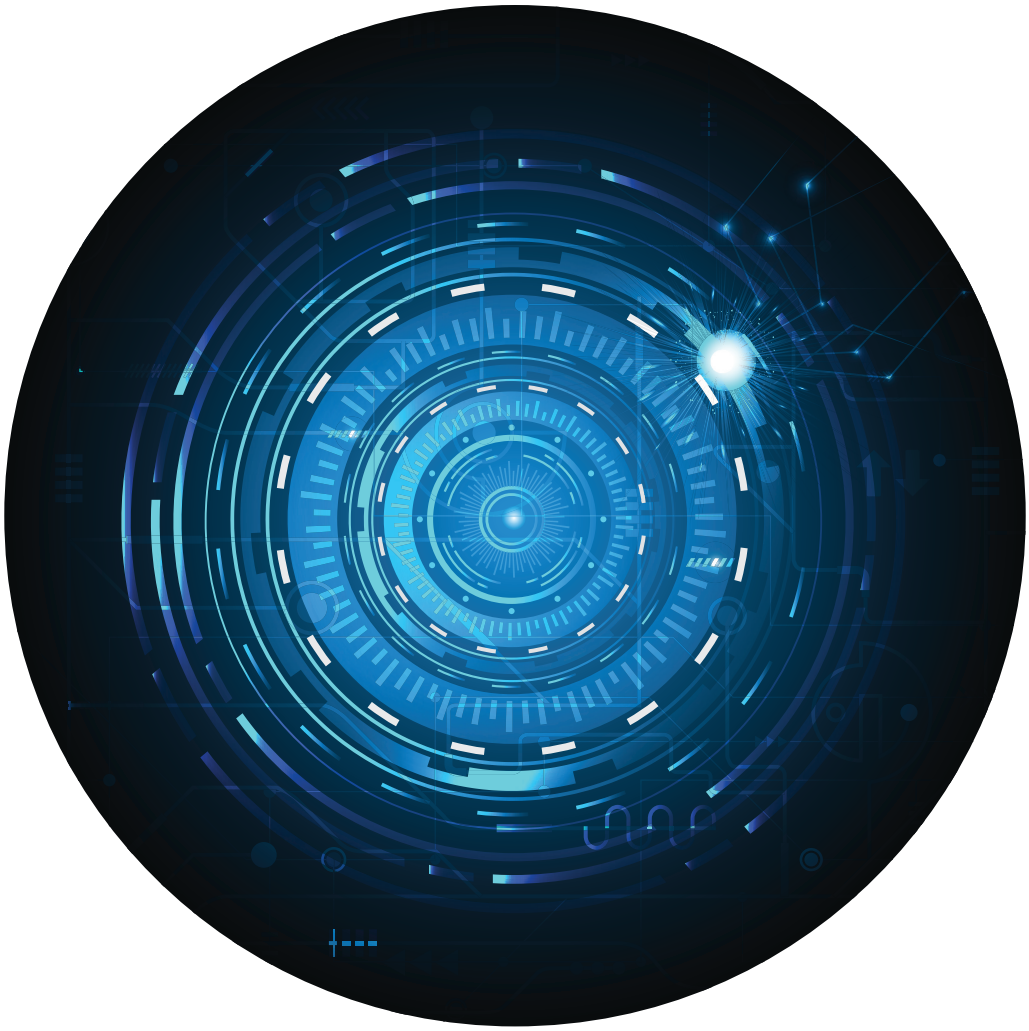

Automation in Onboarding and Ongoing Servicing of Commercial Banking Clients

Streamlining processes and costs with Robotic Process Automation (RPA) and cognitive technologies

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Executive summary

The process of on-boarding commercial banking clients can be a long and expensive one. Typically, it consists of an eight step process: soliciting and confirming new clients, collecting account owner data, validating client data, setting up credit lines and limits, completing legal due diligence (including term negotiations), setting up accounts, tracking and archiving data, and completing ongoing reporting and analytics for compliance and cross-selling purposes.[1] This process can take as long as 16 weeks to complete, often hampering the customer experience.[2] Banks may end up investing as much as $20,000[3] - $30,000 to on-board a new client.

While banks have traditionally needed a large workforce to complete the many manual processes required for on-boarding, that need is quickly diminishing with the development of Robotic Process Automation and other cognitive technologies. With the capabilities to automate rules-based, repeatable processes and to process natural language, Robotic Process Automation (RPA) and cognitive technologies align well with the on-boarding processes used to bring on new clients in commercial banking. And the financial gains can be significant. A company can realize savings to the tune of five times the investment, a number that can also translate to 50% savings on current processes.[2] These kinds of savings have huge implications for on-boarding and servicing commercial banking clients.

Our extensive research helped us produce the following illustrative example. Note that actual savings depend on the individual organization and its goals, automation requirements, appetite for risk, and other factors. A typical bank has anywhere from 100,000 to 400,000 commercial bank accounts and typically brings in ~3% of their existing customer base as new clients year over year; in addition, banks provide a subset of services to ~6% - 7% of their clients each year who expand their credit and loan portfolios.[2] As such, a bank with 125,000 existing customers that brings in around 3,800 new customers a year and expands services for another ~9,000 customers could see on-boarding costs of $200 million every year. With RPA and cognitive technology implementation, this bank could realize up to $100 million in savings, or 50% efficiency. In addition to one-time on-boarding savings, a bank could see up to $100 million in savings every three years from the automation of ongoing monitoring processes.[2]

Furthermore, banks could see the length of on-boarding processing shrink to a fraction of its current timeframe, likely improving overall client experience.

Implementation of RPA and basic cognitive technologies also sets the stage for later addition of more sophisticated automation technologies, i.e., intelligent automation, which can add even greater value to banks. Intelligent automation can recognize patterns in unstructured data and duplicate judgment-based tasks. And eventually, artificial intelligence will be able to work with unstructured data sets to complete hypothesis-based predictive analysis.

With early investment, a return can be realized quickly. New technologies are developing to help banks take advantage of ever-evolving, data-driven solutions.

Introduction

The process of on-boarding a banking client requires many steps, including gathering comprehensive financial and personal data, verifying that data using approved sources across government agencies or industry standard third-party data providers, completing credit and legal due diligence and term negotiations, setting up accounts, and conducting ongoing reporting and monitoring to ensure compliance. Regulations require banks to do a thorough vetting process of potential retail customers, and stricter regulations on commercial clients require an even higher level of scrutiny on those clients. Commercial clients can be required to provide certified articles of incorporation, government-issued business licenses, and partnership agreements or trust formation records.[4] The process of bringing on highly-monitored commercial clients is typically a painstaking, cumbersome, and expensive process for banks.

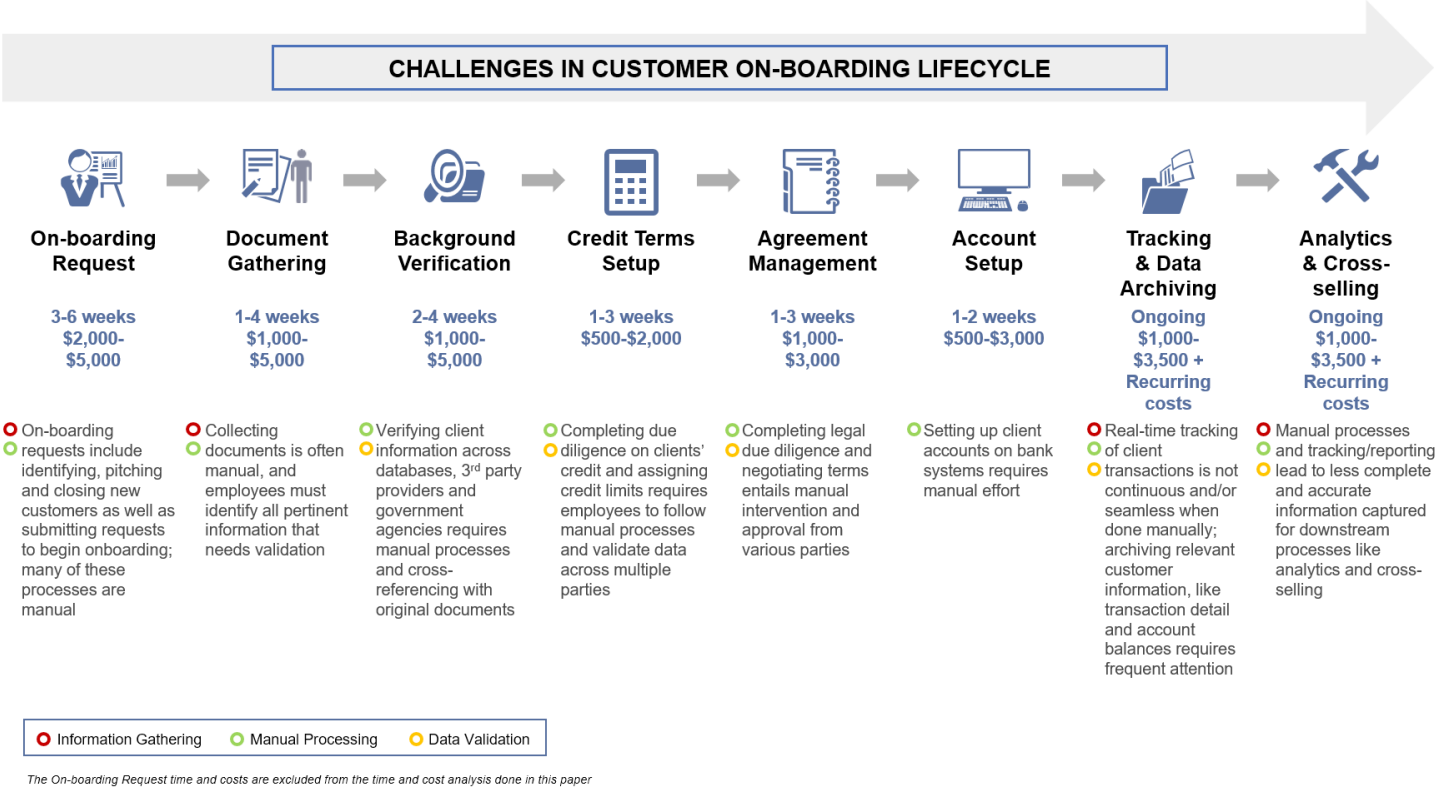
At present, most of these on-boarding processes are carried out manually. In recent years, however, the rise of RPA and cognitive technologies has enabled many processes to be automated, resulting in up to 50% reduction in on-boarding costs. A typical bank with 125,000 customers, that on-boards ~3% new customers and expands services for another ~6% - 7% of its customers each year, could see a one-time savings of $100 million during on-boarding and could see another $100 million in savings every three years from automation of ongoing monitoring processes.[2]

This paper outlines how the implementation of RPA and cognitive technologies – already used at some banks – can be applied to commercial banking on-boarding processes. Implementation of RPA and cognitive technologies in on-boarding processes has the potential to save banks time and money, reduce errors, allow employees to work on more engaging and higher value-add activities, and help banks to build better client relationships.

Current on-boarding challenges

The process of on-boarding commercial banking clients can be broken into eight steps: (1) On-boarding Request, i.e. soliciting client prospects, confirming client prospects and submitting requests for on-boarding; (2) Document Gathering, i.e. finding and organizing relevant client documents; (3) Background Verification, i.e. running client information through appropriate databases to confirm that all information provided is correct and that the client is not a risk; (4) Credit Terms Setup, i.e. performing due diligence on client credit-worthiness and assigning credit ratings; (5) Agreement Management, i.e. performing legal due diligence and negotiating terms of legal agreements with the client; (6) Account Setup, i.e. opening the necessary accounts to cover the client's banking needs; (7) Tracking and Data Archiving, i.e. real-time tracking and monitoring of client transactions for continued Know Your Customer (KYC) and Anti-Money Laundering (AML) checks; and (8) Analytics and Cross-selling, i.e. using data collected during the regular course of business for downstream analytics and identifying potential cross-selling opportunities.[1] Figure 1 shows these high-level steps and the three most common challenges faced during these processes: information gathering, manual processing, and data validation.

Figure 1: On-boarding Challenges Related to Commercial Banking Clients



Source: Cognizant Data, Deloitte Analysis

Information gathering

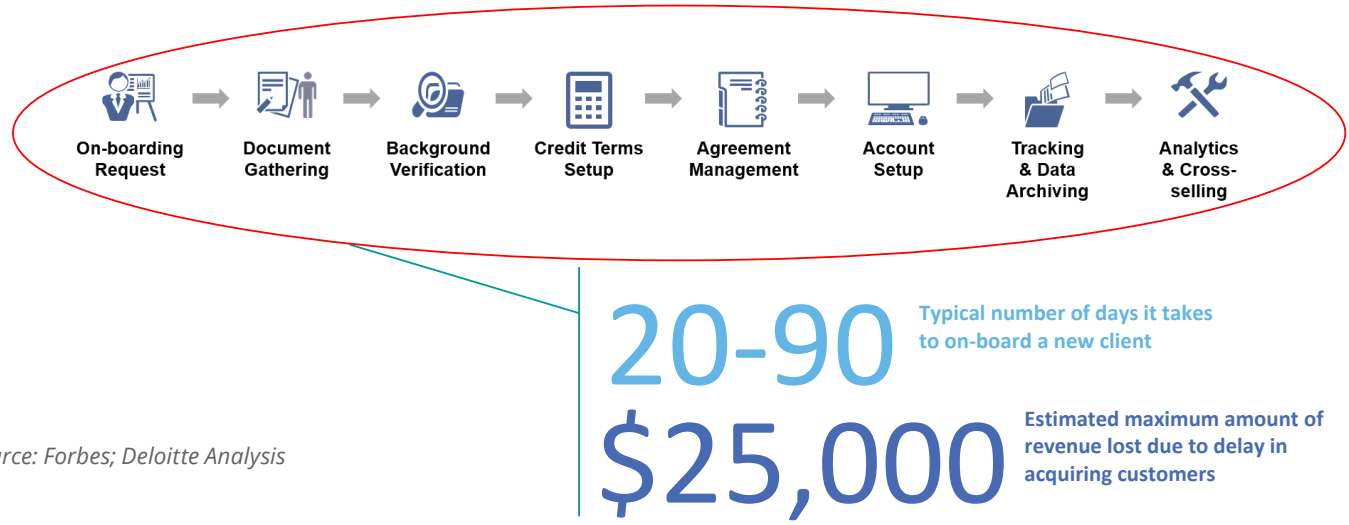
A variety of information must be collected to properly on-board a commercial banking client. Required documents like business licenses, partnership agreements and credit histories must be pulled from many sources, requiring significant staffing investment, time, and training. Employees must manually search for or collect the documents from clients, verify them, and upload them into bank systems before any additional analysis may be completed. This process can take significant amounts of time and can delay the on-boarding process.

Additionally, while information gathering may appear to be relevant only during the on-boarding process, it remains crucial throughout the client lifecycle. Banks must engage in continuous client monitoring and reporting to ensure ongoing compliance.

Manual processing

Currently, on-boarding a commercial banking client requires engaging in a significant number of manual processes. One of the outcomes of utilizing manual processes is that it takes significantly more time to complete an on-boarding step manually than it does to complete a step using automation technology; completing steps manually can also lead to errors. Typically, it takes 20-90 days to on-board a new client,[5] but it can take as long as 16 weeks.[2] The length of these processes poses challenges to banks bringing on new commercial clients. Figure 2 highlights some challenges, including potential loss of clients that can result from using manual processes.

Figure 2: Automation in On-Boarding and Ongoing Servicing of Commercial Banking Clients



Source: Forbes; Deloitte Analysis

All eight steps of the customer on-boarding lifecycle contain manual components that can significantly slow down the on-boarding process (see Figure 3). A few examples follow: (1) during the Document Gathering process, bank employees must collect a company's formation documents, document its source of funds, and compile information on geographies served and products and services offered; (2) during the Background Verification Process, bank employees must validate the information collected, screen the customer for adverse events, conduct a Politically Exposed Person screening, and assign the customer a risk rating; (3) during Account Setup many processes must also be completed manually, including developing client reporting. Additionally, processes that need continuing maintenance, like Tracking and Data Archiving and Analytics and Cross-selling, require bank employees to conduct ongoing reviews that involve manual intervention.

Data validation

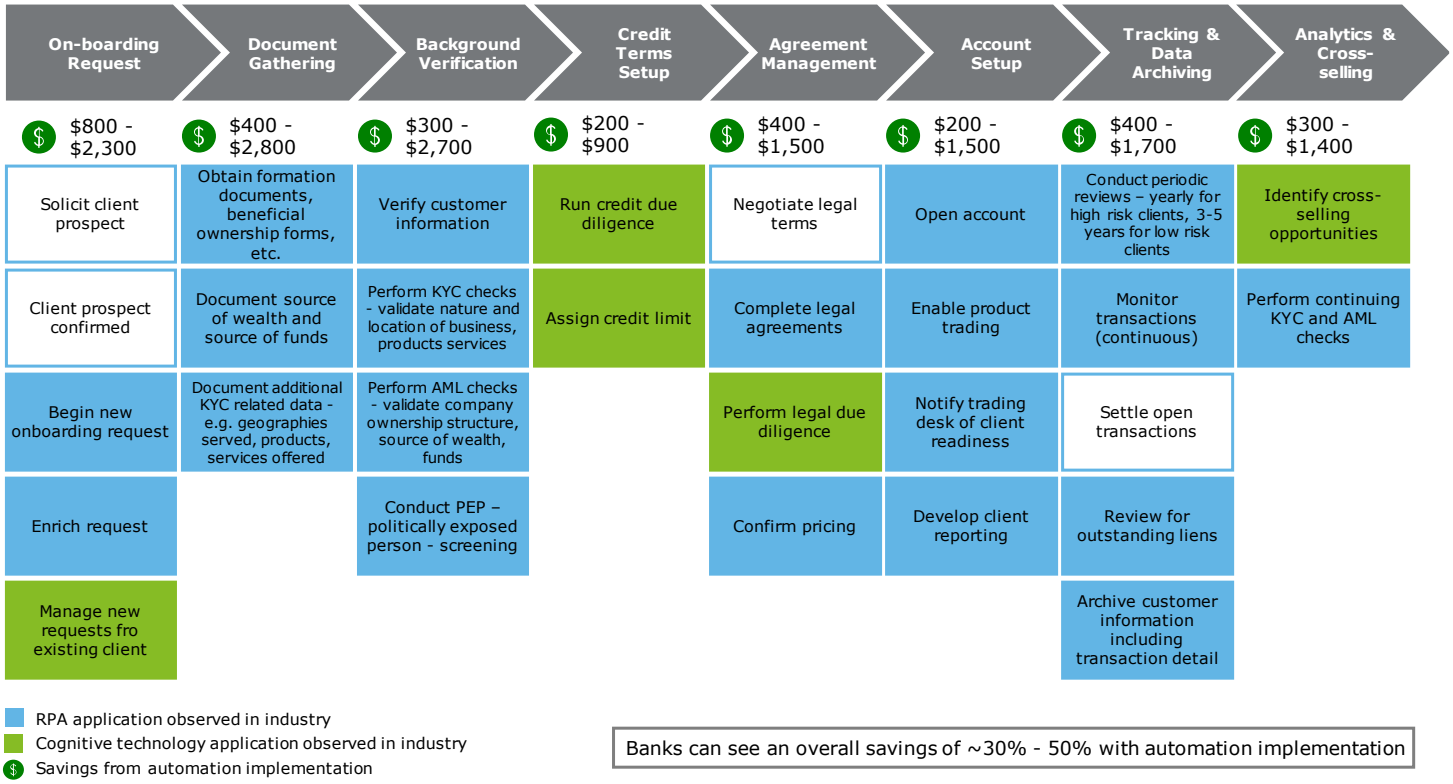
The data collected during client on-boarding and subsequent client activities is used by downstream processes like analytics for cross-selling and for performance of regulatory checks. Since multiple teams interact with the client at different stages of the on-boarding process, there is significant room for errors to be made, which could lead to the possibility of maintaining flawed client data. The repercussions of having unreliable client data can be significant. Erroneous or fraudulent information can lead to major difficulties like regulatory non-compliance or poor customer experiences.

Current on-boarding processes are plagued with information gathering, manual data processing, and data validation challenges that can lead to an overall process that is costly, slow, and can lead to inconsistent results that have an immediate impact on a business's bottom line. In the past, banks have increased their workforce to address the high workload required during the client on-boarding process. This approach, however, has proven to be a costly one, and many banks are now looking for other ways to tackle this challenge.

Addressing on-boarding challenges

This is where automation comes into play; RPA and cognitive technologies can help banks address on-boarding challenges. RPA's rules-based process automation can be described as "a virtual workforce assigned to middle and back-office processing centers" [6] and cognitive technologies "offer ways to transform beyond traditional banking functions... to understand more about the enterprise, customers and competitors." [7] Together, these technologies can strongly improve the on-boarding process and potentially, a bank's bottom line. Deloitte has identified 25 parts of the on-boarding process that can benefit from this advanced virtual workforce. The processes highlighted below in Figure 3 are on-boarding steps where RPA and cognitive technologies can be (and have been) applied in commercial banks.

Figure 3: Commercial Banking On-boarding Value Chain



Source: Cognizant, Deloitte Analysis

It has become more common for companies to use robots to complete business processes as technology has evolved to more successfully mirror human interaction with software applications. These human-like interactions are possible when RPA and cognitive technologies are used together, as a team. Specifically, cognitive technologies such as speech recognition, natural language processing, and machine learning build on RPA to enable automation of some tasks that would otherwise need to be done manually. This team of technologies has significant implications for the future of banking operations and relationship management.[6]

The following section explores RPA and cognitive technology implementation solutions for common on-boarding challenges.

Robotic Process Automation (RPA)

RPA technology can be broadly applied across many of the manual information gathering and verification processes required in the initial phases of on-boarding clients. For example, obtaining mandatory documentation can be simplified by requiring clients to upload their documents to a portal where they can be processed automatically. Once documents are uploaded to a portal, RPA technology can scan and analyze documents, upload them to bank systems, and kick back any exceptions that may exist. The time needed to complete many on-boarding tasks can be significantly reduced when utilizing RPA capabilities like logging into web or enterprise applications and extracting data from reports and various documents. Other processes, like confirming client prospects and archiving customer information can be automated using the capabilities of reading and writing to databases. Additionally, other screening processes can be automated using RPA's "if/then" decisions and rules capabilities.

Consider a trucking company that wants to get a loan from a commercial bank in the US. To do this, the company would have to collect and provide the bank with many documents for compliance and on-boarding checks like company incorporation documents, business licenses, partnership agreements, and trust formation documents. Currently, bank employees would manually search the documents for required information and cross-reference that information with the appropriate databases. If this process were to be automated, however, the client could upload the required documents to a shared secured site. Then, a robot could scan these documents to find relevant details and verify them across various databases. Once the details were verified, the robot could document that the client's KYC process has been completed. As such, a process which used to take weeks could be completed in few days, if not a few hours. In addition to identifying and verifying client details, the robot could pre-populate the bank's client database with the verified information, even further reducing on-boarding time.

Tasks that can be automated using RPA

Figure 4: RPA Capabilities

- Opening emails and attachments
- Filling in forms
- Merging data from multiple places
- Copying and pasting data
- Following "if/then" decisions and rules
- Extracting and reformatting data into reports or dashboards
- Moving files and folders
- Extracting structured data from documents
- Connecting systems to APIs
- Reading and writing to databases
- Making calculations
- Scraping data from the web
- Logging into web/enterprise applications

Source: Deloitte Analysis

The power of RPA is evidenced in the case study below:

Prior to implementing RPA technology, a bank used its skilled analysts to compile the necessary information to begin the KYC process, which took two hours to complete. With the implementation of RPA, this information gathering was completely automated, reducing process time from two hours to two minutes. In addition to the decrease in time, the RPA processes allowed employees to spend more time executing the important analyses for which they were trained, and RPA led to more informed and timely decision making.[8]

RPA and cognitive technologies

The combined use of RPA and cognitive technologies can allow for powerful uses of automation in activities that need to replicate human-like tasks, including judgment and prioritization. RPA can automate the straightforward, rules-based steps of an activity, whereas cognitive technologies can automate the judgment-based and predictive steps. These valuable cognitive technologies include natural language processing and speech recognition, but they also include chat-bot and computer vision technologies that allow for the identification and structuring of information from speech audio, text, and images. And, learning capabilities allow bots to find patterns and make predictions about outcomes, leading to prioritization capabilities.[6]

Possible examples of RPA and cognitive technology teaming include using natural language processing capabilities to take client-provided documentation, extract the appropriate data, and run a credit check.[6] Next, other cognitive technology could use the findings from the credit check to assign a credit limit and a pricing schedule to the client.

Another possible RPA and cognitive technology use is monitoring and following up on transaction activities. Consider the trucking company from our previous example. If the trucking company's bank used RPA to monitor client transactions for unusual activities, it could also layer on cognitive technologies that could use the RPA-identified information about unusual activity to create and send an inquiry to the company to gain clarification about that activity. Next, cognitive technology could receive and analyze clarifying information from the client and forward it to the relevant contact at the bank who resolves or escalates unusual activity issues. The bank would then be armed with the information necessary to determine if additional action is required.

These technologies can help reduce large IT infrastructure investments and the need to re-engineer processes. Implementing automation tools is a faster, easier, and less expensive alternative to building IT systems to support dedicated platforms.[6]

Cognitive technology can also help to identify cross-selling opportunities. Cognitive technologies could analyze a company's current investments and account activity to identify any potential gaps in the company's needs and current services, thereby helping the bank determine additional products that may be pitched to the company. And finally, another opportunity would be to use cognitive technologies to analyze accounts for low activity and cleanse any old accounts if need be.

It is possible to achieve greater customer satisfaction, increase the bottom line, and lower client turnover with the help of RPA and cognitive technologies. Using cognitive capabilities enables banks to utilize available data to perform sophisticated analysis and offers an opportunity to provide valuable insights. These insights can be tailored to each customer and allow for a more targeted product sales approach. Additionally, a deeper understanding of your client base as a whole can lead to operational and organizational efficiencies.[7]

The case study below provides a tangible example of how cognitive capabilities were used to achieve operational efficiencies:

In a constantly changing, multi-jurisdictional regulatory environment, one financial services firm adopted cognitive technologies to stay ahead of the game. A proof-of-concept implementation was carried out by the firm for a cognitive platform designed to review thousands of regulatory documents using technologies like natural language processing to identify regulatory obligations. With a self-learning capability, the technology worked to improve accuracy and recorded an accuracy rate as high as 72%. This same solution could also help reduce costs while ensuring regulatory compliance and for regular required KYC/AML.[7]

It is also important to note that the future of automation is expected to grow to include Artificial Intelligence, whose capabilities will include the ability to work with unstructured super data sets and hypothesis-based predictive analysis. With Artificial Intelligence, solutions could increase learning capabilities and be able to self-learn and continuously rewrite rules to improve performance. These potential capabilities can have huge savings implications for commercial banks.

Automation adoption

So, how does a bank begin its automation journey? Deloitte has identified the following six-step process to help banks get started:

1. Current State Assessment

The first step to automating client on-boarding processes is to complete a current state assessment. Banks need to have a strong understanding of what their processes look like, which steps take the most time, which steps cost the most money, where any bottlenecks lie, and where friction exists with customers. While there will be general areas of improvement that apply to all banks, each institution will have its idiosyncratic issues that must be identified and targeted for automation. A pinpointed approach will allow for a quicker and more effective implementation.

2. Identify Automation Targets

Once a bank has an understanding of its pain points, it's time to decide which steps to automate first. One way to identify these processes is to group them by complexity. A bank can do this by applying a number, from 1 to 3 (or on any desired scale), to each process based on complexity, number of internal and external systems that the process needs to access, the kind of action that the process performs (i.e. does the process do a simple read of data, access a system and upload or download data – or, does the process need to apply rules and logic to modify data?), volume of work, and time it takes to complete the process.

Once each process has been classified into a low, medium, or high complexity category, it should be easier to prioritize projects and the timelines on which these processes will be automated. Banks should start with the automation of low complexity processes and work toward automating higher complexity processes as resources allow.

3. Choose a Technology Partner

After a current state assessment has been completed and candidates for automation have been identified, a bank needs to find the right technology company to help make those plans a reality. There are many companies in the automation space, and

it's important to choose an appropriate vendor. When choosing a vendor, banks should consider not only cost and RPA and cognitive functionality, but also ongoing vendor support, vendor experience, and development (i.e. what technology can be implemented, how – and by whom – will the technology be maintained, and who will be responsible for development of any additional capabilities?.) In addition, it's important to account for integration with current architecture.

4. Complete a Pilot Program

Once a technology vendor has been chosen, it's important to start small. Running a pilot program is a good way for banks to see what an automated system would look like and the kind of system access needed to automate the identified processes. A pilot program allows the bank and technology partner to create a mutually agreed-upon process design document and solution design document detailing the process flows to be automated. And, since running a pilot program also involves unit and functional testing of in-scope processes, banks can see how effective bots will be in a live production environment.

By implementing automation technology in a controlled setting for a short period of time, banks can better understand the results they can potentially expect to see, and they can scope the next phase of the project accordingly.

5. Development and Automation Go-Live

After successful completion of a pilot program, banks can begin automation implementation on entire processes. This implementation can be carried out in a phased manner following detailed "as-is" and "to-be" process documents prepared by the technology partner and approved by the bank. After future state processes are laid out, the technology partner will develop, test and modify code, and bots can be deployed.

6. Scale up Automation Activities

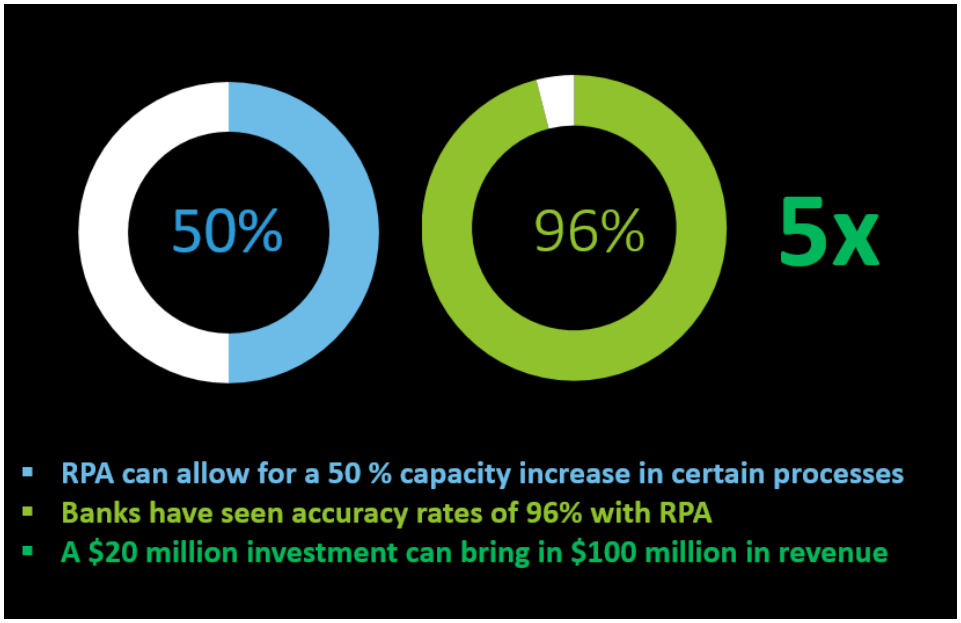
The work of the bots deployed in the previous phase can now be analyzed, and more bots can be deployed elsewhere in the bank. In addition, more complex technologies may be layered in to achieve greater efficiencies and savings. As technologies evolve, so can a bank's automated workforce.

Sustainable savings

RPA and cognitive technology implementation gives banks the opportunity to do the same work for a fraction of the cost, time, and labor. Integration costs are typically reasonable; a company can automate a process within weeks, and the payback period is often short. With RPA, companies can realize up to 50% in cost reduction while reducing process time from many minutes to a few seconds.[2]

Furthermore, these savings don't just occur after the original implementation, but rather, they can be realized over many years. Regulatory-related client information must be updated yearly for high-risk clients and every 3 to 5 years for low-risk clients, providing many opportunities to realize additional savings.

Figure 5: Potential RPA Benefits and ROI



Source: Deloitte Analysis

Additional potential benefits

In addition to saving time and expenses, other potential benefits are possible from implementing RPA and cognitive technologies in client on-boarding activities. These technologies can help banks to provide a better client experience. A client, on average, will have eight different interactions with a bank during the on-boarding process [9], and it's important that each interaction is smooth. An inefficient on-boarding process can be devastating to a client relationship. In a survey with 800 financial institution respondents, 89 percent had poor on-boarding experiences with their banks and 13 percent of respondents switched banks as a result.[9] With an increase in speed, decrease in cost, and reduction of errors, there should be less friction in the on-boarding process, which could result in lower risk in the on-boarding process.

It should be noted that decreasing friction in the on-boarding process and increasing customer satisfaction has the potential to lead to the sale of add-on services and products. Cross-selling may become even more likely given the digitized set of client data created when using automation during the on-boarding process.

Finally, implementing RPA and cognitive technologies could help banks with staffing challenges. Finding and retaining employees skilled in regulation best practices is a huge concern for banks.[9] It is hard to find candidates with the right skills, especially in an environment where regulations change regularly. Reducing or eliminating many manual and specialized tasks in on-boarding can also reduce the need to find more regulatory-trained employees.

Other considerations

Change management will be necessary when introducing automation technology into the workplace, and can help banks realize greater potential for cost savings from an RPA or cognitive technology implementation. It will be important for banks to bust the myth that bots will take the place of employees. Without the support of employees, a large scale implementation cannot take place and automation benefits cannot be realized. Banks need to prioritize communicating RPA and cognitive technology benefits to employees, training employees on new systems and thoughtfully identifying high value-add tasks to direct employee efforts to when specific on-boarding tasks become redundant.

Conclusion

Commercial banks currently spend much time and money on-boarding new clients, and new and modified regulations around on-boarding require banks to spend even more time and resources on these processes. RPA and cognitive technologies have the potential to help banks save time and money as well as reduce errors by automating processes. In addition, automated client on-boarding enables banks to capture client data in a standardized digital format that can be used for cross-selling products.

Deloitte has already assisted banks and other financial institutions with the implementation of RPA technology to decrease process complexity and increase productivity in processes like data extraction, searching third-party websites, and creating automated workflows. Automation has allowed these companies to reduce time and cost by up to 50% and see a significant increase in the accuracy of work completed. All of this can be done with the ability to scale up or down based on need – potentially making the risk of implementation low and the possible rewards high.

All of these benefits can contribute to a better on-boarding experience for clients, potentially helping banks build long-term relationships with them.

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