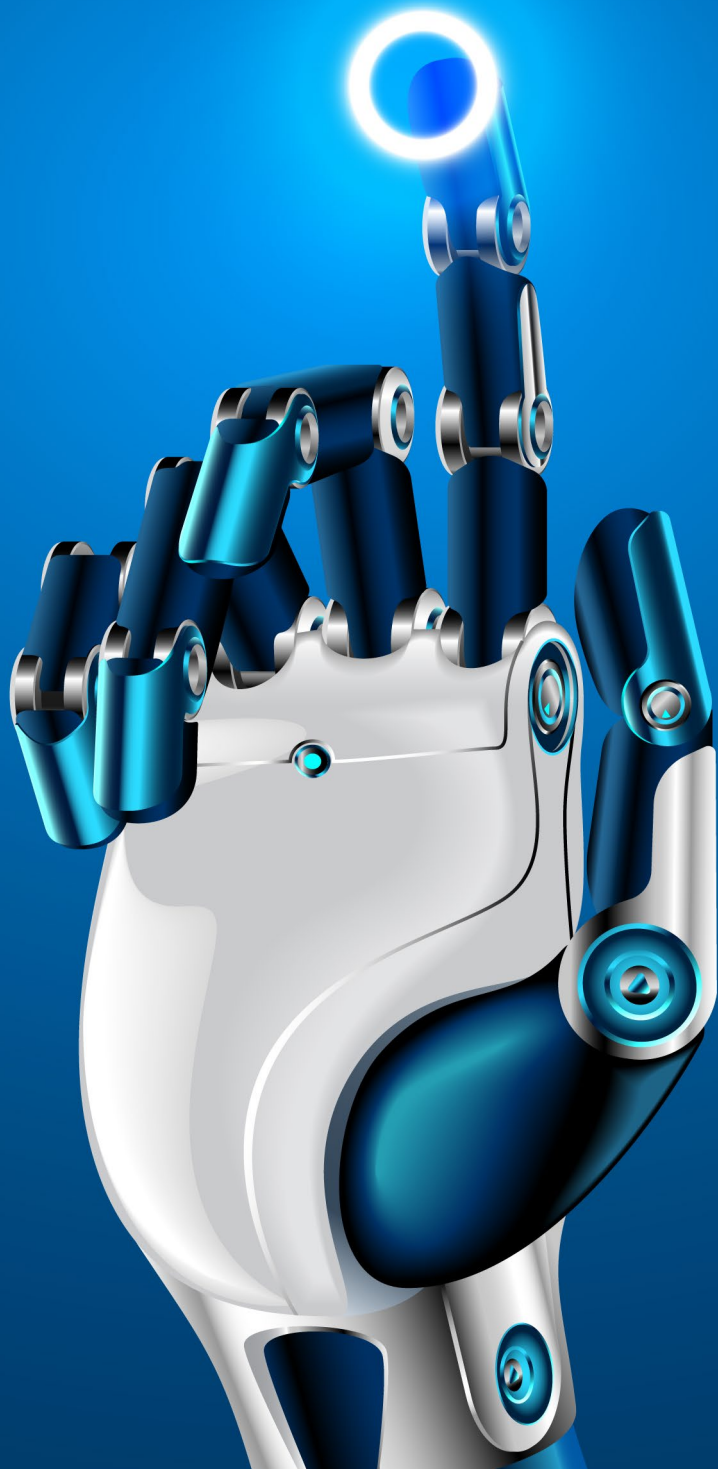


Automation Use Cases in Banking

Thought paper



Automation Use Cases in Banking

RPA and AI today offer extensive opportunities for banks to streamline, optimize and automate a wide range of complex business processes. They serve as essential tools to enable significant efficiency gains, reducing costs, and unlock the true potential of cognitive intelligence. Banks can leverage these technologies across a wide range of use cases across the front, middle, and back-office operations, in key areas such as customer acquisition, servicing, data processing, and verification, audit and compliance etc.

While it is no secret that RPA has tremendous power to revitalize banks' operations and processes – streamlining processes, relieving resources from tedious work, reducing time up to 90%, and saving costs by up to 80%¹ - banks must chart out a strategic plan before hopping on the bandwagon. An optimal journey would be to carefully select the use cases crucial for the organization and map out an implementation plan. Successful implementation of the use cases will bolster the organization's support and motivate resources. This is essential as an automation transformation will be a long journey, and a committed workforce and talent pool will be critical

This whitepaper discusses the evolution of RPA in banking, highlighting key examples and the best models for the implementation of successful use-cases.

Evolution of RPA

While the term RPA (Robotic Process Automation) term came into force at the start of this century, the foundational technologies it's built upon such as screen scraping, workflow automation, AI, have been around for many decades. A combination of these evolutionary technologies gave rise to the modern concept of RPA - different automation tools are packaged for different automation processes involving more than one software application. Automation has taken a giant leap today with the emergence of cognitive systems that learns automatically as the processes are executed. Enhanced computing power has allowed the processing of unstructured data like natural language, which has added AI- and ML-related transformative capabilities in the RPA arsenal, making it more robust.

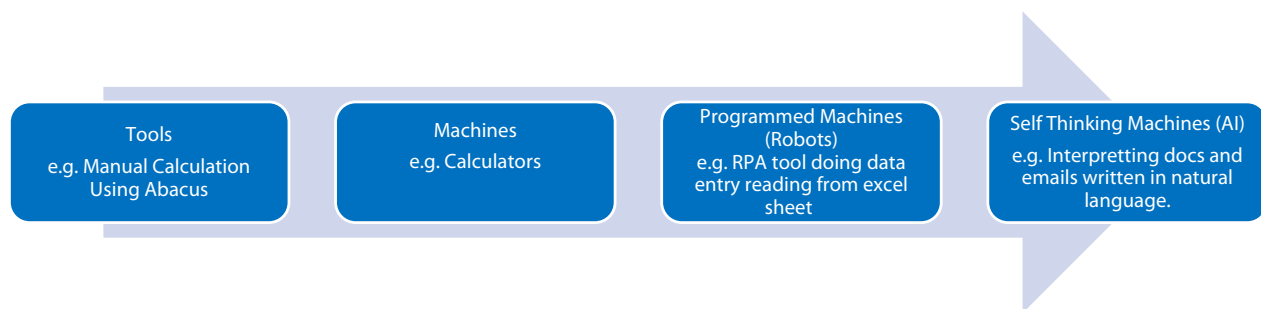


Fig 1: Evolution of automation- tools, machines, robots, and AI.

Applicability in Banking

The evolution of robotics from rule-based to cognitive automation has allowed for a broad spectrum of use cases emerging as a good fit for automating banking processes. Most of the banking processes involve a flow of information across various applications requiring human effort to toggle and switch to bring up the right system needed for the business process at a point in time. Robotics allows for seamless patching of different systems without the need to get into complicated coding. Such robots, being multifunctional, can be easily configured to automate processes across various functions within the bank.

Apart from rule-based automation, advances in AI/ML now allow for cognitive and human-like abilities to be part of the skill armor of robots. Earlier, where only rule-based steps could be part of robotic automation, today, processes involving decision making, vision, or human language processing/generation can be automated.

With the emergence of AI/ML and robotic automation, there might be many steps in existing banking processes that would have become redundant or better managed using new technology. Hence it is imperative to analyze and, if required, re-design current business processes with a robotics hat rather than blindly trying to automate existing processes.

Robotics makes a compelling case to automate processes both in established banks with legacy systems and new entrants with open infrastructure and API play. RPA players available in the market today can automate screen-based processes as well as the ability to call APIs from within or outside the bank. They can orchestrate a complicated process involving reading from a document, entering data on a screen, and validating information through services.

Robotics and intelligent automation provide an opportunity to automate a wide range of current banking processes. These processes can be segregated as ones allowing the bank to manage acquisition better and other buckets, which allow for better control on servicing cost. Based on what a bank sees as their strategic priority, for instance, to grow customer base or revenue generation or manage cost, relevant use cases can be picked up for execution. Automation thus can become an essential pillar in supporting the bank's overall strategy.

Implementation Strategy and Models

Though RPA adoption programs have been figured as one of the most visible programs being executed by banks worldwide, overall adoption remains cosmetic for most banks. Due to the lack of a proper organization-wide automation strategy, such programs- though after showing initial successes- have not resulted in true organization-wide automation-related transformation within the bank. Implementation has been transactional in nature, focusing on automating few processes rather than carrying on and propagating benefits to propel a complete transformation.

Any such transformation journey should keep in mind cultural and human resource aspects and must communicate the true value of automation in the long term. For example, a common point of contention among the operations team is related to loss of headcounts once automation kicks in. It needs to be communicated that understanding the processes is paramount to implementing successful automation practices, which cannot be replaced by Robots. So rather than employing time at mundane activities, operation teams with domain expertise can utilize their time in collaborating to define an optimal business process because of the availability of new technologies.



Hence choosing the right use case for implementation, which can garner the right support and interest from operations and the management team, becomes paramount. Also, the transformation process shouldn't just stop at the successful implementation of initial use cases. It should form a cross-functional team of analysts, operations team, and management that become champions of value reaped through automation of pilot use cases and propel the organization in the right direction as per automation strategy.

The selection of right partners is pertinent to a successful transformation strategy. Partners should understand the overall automation strategy and the systems and processes involved. Since an RPA is a tool-agnostic technology, any available partner within the organization with capability in line with the bank's need should be capable of aligning to a different application. For example, if the bank already has an RPA partner to streamline financial processes, the same partner should be capable of delivering automation of processes around core banking processes.

Here, a partnership of any universal banking solution with knowledge of processes within the bank and an RPA player might be beneficial for a bank foraying on journey of automation.

Knowledge of trends and the latest features clubbed with knowledge of existing bank-specific processes would give a full view of any process optimization required for automation.

A core banking solution with capability to integrate with leading RPA players in the market would give a launchpad for quick automation of banking processes. In that manner, an existing RPA player being utilized in other domains within the bank can be utilized to continue with automation for banking-related processes.

USE CASES

To allow for the selection of use cases aligned to the bank's strategy, an attempt has been made to classify process which can be automated in two categories-

- 1) Acquisition-related (Revenue Enhancers)- Typical candidate business processes, which, if automated effectively, can help the bank create new or enhance existing revenue streams.
- 2) Servicing related (Cost Savers)- Such bank processes might not directly acquire new customer's/revenue streams but can increase the efficiency of current servicing or IT operations related processes.

Further, use cases have been categorized as per the above classification. The objective here is to provide a few proven use cases with different banks and RPA partners in collaboration with Finacle universal banking solution. If this triggers interest, we can be contacted and can together explore a more exhaustive list of use cases for robotic automation implementation at your bank.



Acquisition-related (Revenue Enhancers)-

S. No.	Use Case	Description/ Benefits
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Payments Area

1	Payment Screening- SWIFT MT 400 transactions monitoring	Bots worked continuously through the bank operation hours from 6 am to 8 pm.
2	Cover Checking Process - Maker-Checker process for FIN.202/ FIN.950/FIN.940/FIN.910	Pilot implementation for the bank
3	Employee Salary Processing- Salary Processing for employees, based on data received	95% automation in less than 3 months. Processing over 99% of the current total requests' efficiency of their human counterparts Manual Effort Eliminated (~100%), Improved UX
4	Corporate Salary Payment through bulk file upload for funds to be credited to identified counterparties within and outside the bank	Corporate customer loads a mixed payment file which contains within the bank credit as well as outside bank credit. RPA would read the file. The file would be split, one with debit/credit information for accounts within the bank, the other with payment details, network details to effect payment outside the bank using the ACH mechanism. RPA can also enter data to create payment orders through on-screen menu options.
5	Payment Engine- Automatic File Repair	The system should be able to repair and process bulk payment files on a real-time basis so that more files can be processed via the STP route. The system should pre-validate the files after uploading and then fix any errors in the file after looking at the historical data and failure reasons. The files would then be processed through the STP queue instead of being placed in the error/suspense queue.
6	Payment Engine- Analyzing Payments Data	The system should be able to analyze and model all the successful and repetitive transactions e.g., if a corporate is sending salary files to the bank at specific intervals with fixed amount and creditors, then the system should be able to recognize the pattern and then set up a recurring payment/standing instruction based on this pattern.



Trade Finance

7	Exchange Rate Update- Extracting the Exchange rate from third party portal and update it in Bank systems	Unattended automation available 24X7
8	Inward Remittance Automation: Maker-Checker process for Inward Remittance for MT 103/202	Approx. 100 Remittances/day with a success rate of 90%.
9	Import Collection Settlement and reporting- check the customer account balance or loan facility and perform the various actions in Trade transaction	The efficiency of their human counterparts Average of 50% FTE savings across use cases
10	WM Treasury Products Reporting: Data export and validation for trade transactions	<ul style="list-style-type: none">• 90-95% increase in accuracy• Swift Integration with complex legacy systems of Bank
11	Trade Finance - Export Bill Lodgment	RPA reads and interprets export collection document submission form, and cross validates with the information provided in the submitted scanned documents. If validations pass, the export bill is lodged in Finacle by RPA bot.
12	Trade Finance - LC Issuance Application processing	RPA reads and interprets the LC issuance application form. Based on the information provided in the application form, data is entered in Finacle by the RPA bot to issue LC.





Loans

13	External Payment Reconciliation: The use case covers the reconciliation of payments from external parties by means of GIRO	Unattended automation available 24X7
14	HR Income Verification: Validating the income of employees for credit card limit upgrade or application	Unattended automation available 24X7
15	Home Loans Repricing & case mgmt	The process covers 4 different tasks involved in attending Housing Loan repricing
16	Commercial Loans- Covenants tracking	Collateral value erosion- <ul style="list-style-type: none">• Value of a Collateral erodes• Debit freeze on accounts/limits is done (currently supported)• Covenant is triggered for generating a Monitoring item• Monitoring item is assigned to a user• User assigned with Monitoring item has to secure additional Collateral for securing exposure (Manual)
17	Loan - Risk	Auto Pre-processing/ Approval of Loan with Real-time Eligibility Assessment. Customer Risk Profiling along with Loan Eligibility, Pre-Approved Loan Offers
18	Loans- Evaluation	Home Loans Repricing & case mgmt.- The process covers 4 different tasks involved in attending Housing Loan repricing requests from the customers.
19	CRIB Calling- Credit Score check from the Government Portal	Unattended automation available 24X7





Fraud Monitoring

20	Transaction Monitoring: The objective of the use case is to auto Suspicious Transaction Reporting: Compile information for reported suspicious transactions by the branches. Customer details are sent by the front office; RPA gathers the customer info from bank systems mate the Adverse news screening	Unattended automation available 24X7
21	Enhanced Due Diligence – Alert based on Transaction Pattern Anomaly	POC involves automated account inquiry based on suspicious account numbers received from the up-stream system. Bank users will select a range of 6 months and get transaction details on account for the period. Post this, various transactions are clubbed based on whether they are cash transactions, incoming payment, outgoing payment, involve international payment through SWIFT. POC was completed using UI automation as well as by using APIs to get required data for due diligence reporting.
22	AML Trend Analysis- Report generation for the AML for multiple segments of business by Segment Classification	Average of over 70% savings in average handling time across all use case processes



Accounts and Cards

23	Cards Merchant Invoicing: Cards Merchant Invoicing is the process of generating invoices for maintenance fee (MF) chargeable by Bank to cards merchants	Unattended automation available 24X7
24	Retail customer onboarding and account opening	RPA reads and interprets account opening documents (identity/ address related documents) and enters data in the CRM system to create CIF. Post that it opens a savings account for a new customer. This use case is relevant for direct banking channel where the new user fills in details through the online channel and uploads documents.
25	Global Rewards System: Update the GRS system with updated information	Unattended automation available 24X7

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About Infosys Finacle

Finacle is the industry-leading digital banking solution suite from EdgeVerve Systems, a wholly owned product subsidiary of Infosys. Finacle helps traditional and emerging financial institutions drive truly digital transformation to achieve frictionless customer experiences, larger ecosystem play, insights-driven interactions and ubiquitous automation. Today, banks in over 100 countries rely on Finacle to service more than a billion consumers and 1.3 billion accounts.

Finacle solutions address the core banking, omnichannel banking, payments, treasury, origination, liquidity management, Islamic banking, wealth management, analytics, artificial intelligence, and blockchain requirements of financial institutions to drive business excellence. An assessment of the top 1250 banks in the world reveals that institutions powered by the Finacle Core Banking solution, on average, enjoy 7.2% points lower costs-to-income ratio than others.



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