

# Automation in Banking and Insurance - A Comparative Study use Cases in RPA

Abhishek Manik Ashtikar<sup>1</sup> and Vikas Mohan Humbad<sup>2</sup>

Students, Department of MCA

Late Bhausaheb Hiray S S Trust's Hiray Institute of Computer Application, Mumbai, India

**Abstract:** *The goal of this study is to emphasize the importance of robotic process automation technology and its advantages over similar technologies. Robotic Process Automation aids in attaining the best possible outcomes. This article will assist different firms and banks in effectively implementing Robotic Process Automation. It takes existing programs and interprets them in order to automate specific processes. In banks and financial sectors, RPA has recently become a valuable tool. RPA has demonstrated a wide range of benefits for a variety of businesses. In banking, the major goal of robotic process automation is to eliminate repetitive operations. RPA has helped cut operational expenses by 30 percent to 70 percent in banks and other organizations; RPA helps minimize the workforce by using Bot workers in charge, which lowers operating costs and improves task efficiency and accuracy. For banks to preserve a competitive advantage and boost profitability, robotic process automation (RPA) is becoming a strategic goal. The main advantage of using RPA services in retail banking is that it allows banks to automate regular and repetitive procedures, allowing them to improve efficiency, and accuracy, operate 24 hours a day, decrease costs, and provide innovative services and a better consumer experience. The sharing economy has developed to give consumers more power. The research focuses on the elements that influence the customer experience in RPA-delivered retail banking & Insurance services. Several factors, according to the research, are propelling RPA implementation in the retail banking market in particular.*

**Keywords:** Robotic Process Automation, RPA Implementation in Banking & Insurance Industry, Technology Adoption.

## I. INTRODUCTION

The way businesses work has changed as a result of technological advancements. To improve customer experience and reduce operating expenses, business procedures have been converted into a more efficient and upgraded format. Organizations can attain these goals with the use of robotic process automation (RPA). RPA is a tool that works on a computer's user interface in the same way that human workers do. Banking and financial services, health and insurance, telecommunications and utilities, and retail and commercial are among the industries that are eager to use Robotic Process Automation. Automation has a huge business opportunity all around the world.

Robotic Process Automation (RPA) is the rule-based automation of business processes by software bots to mimic human behavior in doing various repetitive tasks, hence reducing the amount of time humans spend doing tiresome labor. Software bots, often known as artificial intelligence workers, are used to implement RPA. AI workers like these help to create a digital workforce.

RPA can be used to automate a wide range of tasks, including front-end tasks, back-end tasks, end-to-end procedures, and giving daily details or updates, among others. If such repetitive duties are delegated to a digital workforce, human resources can be used to perform more sophisticated and value-added work. SBI, Federal Bank, ICICI Bank, Axis Bank, and HDFC are among India's leading banks that have implemented Robotic Method Automation for faster and easier service.

The major purpose of robotic process automation in the banking business is to automate the banking industry's processes. High scalability, greater operational efficiency, improved accuracy, cost-effectiveness, risk and compliance reporting, and business growth are all advantages of automation in banking and financial services.

### **1.1 Research Objective**

The main objective of the analysis is to analyze the impacts of robotic method automation within the banking and Insurance sector. The event of the banking sector relies on client satisfaction and also the accuracy of operating workers. The manual method of the banking sector prices extremely for workers development and guaranteeing client satisfaction. There are measure perpetually probabilities of human error that disrupt correct operating and build the method long. Robotic method automation is that the digital transformation of the banking sector with restricted sources. Client satisfaction is increased by transportation technology innovation into the sector. . RPA could be a tool that permits fast automation processes and needs a centralized IT department.

It saves cost required to build a system. The number of workers required to complete the task are reduced and hence the cost to the company in case of salaries to the workers is also reduced. The work is also done quickly and accurately which reduces human efforts. It helps to streamline an organization's workflow. It also increases the quality of service which in turn helps rapid growth of the organization.

### **1.2 Scope:**

Robotic method Automation is one of the tools which will play a very important role in larger automation. The application brings technologically- advanced solutions to businesses around the world.

Robotic process automation will be widely used in a variety of fields and businesses, including BFSI, manufacturing, retail, analytics, aviation, oil and gas, and legal, due to the breadth of its use. This technology will be used to handle all computer-assisted procedures that are subject to a set of protocols. This technology will be used to handle all computer-assisted procedures that are subject to a set of protocols.

Bots will work 24/7, which is something that human workers cannot accomplish. RPA allowed banks to minimize their headcount and prevent human engagement by transferring repetitive manual activities from humans to bots. We can avoid manual human errors via Robotic Process Automation (RPA). As a result, RPA can improve the customer experience.

## **II. LITERATURE REVIEW**

RPA is that the automation of traditional, rule-based operations with the goal of rising potency and lowering prices. Method automation in business is extraordinarily necessary, therefore RPA is additionally gaining additional interest within the Banking and Insurance domain. .Any task that is determinable, repeatable and rule primarily based could be a smart candidate of automation by RPA like closing and gap of bank accounts and handling numerous processes within the client service department. RPA leads to economical and error free service, improves compliance management, expedites repetitive workplace tasks at a far quicker rate and improves business method beside service quality. Hence, value is reduced and client expertise is increased.[9][10]

This chapter's goal is to provide a thorough review of prior research on robotic process automation (RPA), followed by an introduction to the theoretical IT frameworks that are most frequently used. These frameworks will serve as the foundation for this study's evaluation of the effectiveness of RPA adoption in relation to work productivity. How much the adoption of robotic process automation (RPA) will benefit the banking and insurance industries

### **2.1 Industries That Benefit from RPA**

Robotic method automation will add to any sector with repetitive digital tasks, however many industry's expertise even larger advantages. Cordial reception, retail, health care, insurance, and banking and monetary services area unit simply some industries that area unit well served by RPA.

For example, the insurance, banking, and monetary services industries area unit seeing a positive impact on client relations and price reduction thanks to the speed and potency that RPA provides.

### **2.2 Banking and Financial Services**

In banking and money services, client-facing tasks like customer on boarding and account gap, mortgage disposition, and loan process area unit notable for the extended length of your time it takes to finish. With RPA, the process times for these function area units are considerably reduced, which ends up in multiplied client satisfaction.

Anti-money laundage and compliance problems additionally usually accept the manual process. RPA helps to cut back the chance of human error, therefore by implementing it in such processes alerts is delivered faster, and compliance standards are met while not failing or crucial errors. The general time and energy saved by RPA in banking will increase potency and productivity, reduces worker mental fatigue, and enhances the client's expertise.

### **2.3 Insurance**

The insurance industry's repetitive methods conjointly show a rise in productivity and client satisfaction once robotic process automation is incorporated. Like banking, several functions like onboarding and registration forms in insurance area unit long and need repetitive routine tasks. The trade has seen enhancements in each areas, further as enhanced information accuracy and quicker turn-around times in claims process, underwriting, policy management, and restrictive compliance.

Another space automation is reworking Insurance organizations is mainframe automation. These kinds of bequest systems play a significant role in operations for insurance and money firms and RPA platforms like Open Bots accounted for this by having integrations and pre-built commands for mainframe automation engineered into their development tools.

Impact on employment in insurance: Automation can eliminate many roles, whereas conjointly making new ones. Staff free of tedious copy-paste and data-entry tasks are ready to deliver a lot of personalized and higher-quality client service  
Technological transformation: Automation tools are designed into existing IT infrastructure to confirm higher integration between numerous systems.

Improved and a lot of personalized client experience: For instance, client onboarding can amendment as bots will perform long activities like anti-money wash. This technology will facilitate bridging the gap between staff and customers and permit a lot of personalized services.

## **III. METHODOLOGY AND APPLICATIONS**

### **3.1 Use Cases for RPA in Banking**

Numerous use cases exist where RPA can aid in the banking and financial industry's digital transformation. Listed below are a few RPA's potential applications in banking:

### **3.2 Customer Service**

Banks are expected to respond to a wide range of client inquiries, including those about accounts, loans, and fraudulent transactions. Every day, the customer service personnel must process as many inquiries as possible in the shortest amount of time. If RPA is available, banks can make sure that bots can answer basic inquiries, freeing up the customer care personnel to focus on more complicated inquiries that call for human intervention. In addition, RPA speeds up client verification, provides them with enough data from a number of sources, and submits it quickly. With such shorter wait times and adaptable plans, financial institutions have been able to improve client relations.

### **3.3 Compliance**

For banks, complying with too many limitations can be a difficult and time-consuming undertaking. Using robotic process automation, banks can easily meet. Research indicates that 73% of compliance officers believe that following the RPA will have a significant impact over the next three years. RPA helps to improve compliance by reducing expensive FTEs and raising compliance quality, in addition to promoting productivity by eliminating boring tasks and involving employees in work that requires human intelligence.

### **3.4 KYC Procedure**

Another significant and successful application of RPA in the banking and financial sector is KYC (Know Your Customer). Banks are using RPA bots more and more to collect, test, and validate client data due to the high expenses involved in the KYC process. Robotic process automation in banking enables banks to execute tasks with a minimum amount of staff and mistake.

### **3.5 Mortgage Loan Processing**

Mortgage processing is one of the labor- and time-intensive procedures for both consumers and employees in the banking industry. The bank must go through a number of procedures before authorizing a mortgage loan, including inspection, credit verification, and job status verification. The entire process can be slowed considerably by a small error either by the bank or the customer. However, the adoption of RPA in banks helps to speed up the process. It follows established guidelines and removes any obstacles, which quickens the mortgage application procedure.

### **3.6 Credit Card Process**

The traditional credit card application process might take weeks to verify client data and approve credit cards. The long wait typically resulted in client discontent and expense to the banks. With the introduction of RPA, banks square measure able to method the applying procedures inside hours. Moreover, RPA will move with several systems at a similar time to verify data like essential documents, credit checks, and background checks and to create choices that supported the foundations for approving or rejecting an application.

### **3.7 Detection of Fraud**

With the introduction of digital technology, fraud has become a significant concern for the financial industry. It is very difficult for banks to monitor all transactions for signs of potential fraud. Additionally, RPA can track transactions, spot potential fraudulent transaction patterns, and pinpoint them, all of which help to speed up real-time responses. In rare circumstances, RPA is able to restrict accounts and halt transactions to thwart fraud.

### **3.8 Automated Reporting**

Banks get numerous requests from customers to close their accounts each month. Similar to this, banks may have to shut a customer's account if they cannot provide proof of payment. Banks can send automated reminders to consumers even if they neglect to present the required documentation thanks to robotic process automation. On the basis of predetermined rules, RPA can prioritize and handle requests for account cancellation.

### **Best use cases for automation in the insurance sector**

RPA is a wonderful match for the insurance industry because it can integrate front-end technologies with back-office systems to automate whole lifecycle procedures. Let's go through the main areas in the insurance industry where RPA may be used:

#### **Registration and processing of claims**

For the purpose of processing claims, businesses must gather a lot of data from many sources, creating comprehensive data. Existing claim systems are too manual since they are neither useful nor flexible enough and have reached their practical limits. As a result, efficiency and flexibility are reduced, which delays the service and detracts from client pleasure. In the insurance sector, robotic process automation combines disparate information about claim processing from numerous sources. It allows for the automation of many tasks, such as data extraction, challenging error tracking, claims validation, and the unification of claim-relevant data sources. As a consequence, the process is sped up and creates a better customer experience.

#### **Underwriting**

Before making a decision, underwriting must first identify, evaluate, and establish the risks involved, which often takes more than two to three weeks. Robotic process automation makes it possible to automate a procedure that calls for data collection from several internal and external sources, cutting down on the amount of time required for underwriting. RPA assists in automating the underpinnings of product underwriting and pricing by supplying relevant data to various areas in internal systems, preparing reports or making suggestions while reviewing run losses.

#### **Regulatory Compliance**

The insurance sector follows stringent guidelines when creating audit trails and keeping documents. Automation is important because it removes the need to send out humans to carry out tasks in order to manually enforce regulatory

compliance, which helps businesses improve the regulatory process. A few of the processes that are automated with the use of RPA include checking the information of current clients, producing regulatory reports, and sending letters to process account closures.

#### **Analyses of processes and businesses**

It is challenging to track performance, quantify it, or identify innovative areas in insurance firms because of a variety of functional and paper-based processes. With the aid of automation, it is simple to keep an eye on how software bots are performing. The audit trail provided by RPA helps process improvement in addition to regulatory compliance. Enhancing customer service responses and claims.

#### **Integration with legacy applications**

Insurance firms rely heavily on legacy software to execute business activities efficiently. Implementing Enterprise Resource Planning (ERPs) or Business Process Management (BPM) can be extremely difficult since they require integration with legacy systems. RPA can adapt to any system that is available for well-structured RPA implementation since it can adapt to the present workflow of insurance businesses.

### **IV. CHALLENGES AND INSPIRATIONS**

The following are a number of the numerous reasons for implementing robotic method automation.

#### **A) Scalable**

Since robots are very ascendible, we will handle high volumes throughout peak business hours by adding additional robots and responding to any situation during a timely manner. What is more, by releasing workers from repetitive duties, RPA implementation helps banks to focus additional on innovative methods to create their business.[2]

#### **B) Cost-effectiveness**

RPA's self-made implementation edges banks in reducing operational prices. in step with studies conducted by many researchers, implementing RPA in banking establishments helps banks scale back in operation prices and save time and cash by 25-50 p.c.[3]

#### **C) Rising Client Satisfaction**

With the assistance of associate RPA chat larva or automatic email communication, RPA improves the client expertise by responding to consumer requests and queries additional quickly and with higher quality. RPA permits employees to urge to understand their customers higher and establish effective communication with them.

#### **D) Improved Worker Morale**

Employees are on the market additionally on participating, intersect ant work.[4]

#### **E) Improved Operational Efficiency**

Banks that used RPA bots experience higher operational efficiency. RPA makes the operations faster and makes the processes productive.

#### **F) Straight Forward Implementation and No Maintenance Value**

Employees are trained to make, run and manage RPA bots. RPA in banking establishments doesn't would like any changes thanks to its user-interface automation capabilities. Cloud-based RPA additional reduces the hardware prices for developing a bank's RPA platform.

#### **G) Improve Processes**

The conversion of knowledge has allowed banks to scale back work. RPA will quickly scan through relevant info and pull together strategic analytical knowledge. There are numerous RPA tools that give drag-and-drop technology to automatized processes with very little to no development. Likewise, bots continue operating 24/7 to require care of

knowledge entry, payroll, and different mundane tasks, permitting humans to concentrate on additional strategic or inventive work.

#### **H) Enhance Human employees with a Digital Workforce**

The construct of a "digital workforce" is rising of late because of the advancement of digital technologies. Human employees will have their banking robots facilitate them gather info and method knowledge quickly therefore humans will complete their work with higher potency. The human manpower will look out of knowledge entry, payroll, and different processing tasks.[5]

Installing and change banking processes will take as very little as per week - and that they will be tested in brief cycle iterations, creating it straightforward for banks to "test-and-learn" regarding however humans and robots ac.

#### **V. RESEARCH FINDING**

Robotic Process Automation (RPA) implementation in the banking and insurance industries how it reduces manual tasks that are repetitive in efforts to progress the BFSI industry's digital transition and provide people opportunity to perform meaningful, higher-value work.

#### **VI. CONCLUSION**

Robotic process automation offers a superior solution for outsourcing that lowers costs, reduced lead cycle times, and boosts production. It can also be employed in situations where repetitive tasks need to be carried out so that people can develop their skills and knowledge in other areas.

In order to maintain their competitive advantage and boost profitability, banks are placing more and more strategic importance on robotic process automation (RPA). The study suggests and evaluates the use of RPA in the banking and insurance industry to improve customer experience. The conceptualization of things influencing the adoption intention provides direction to banks, IT professionals and senior management decision-makers, technology practitioners, and researchers to specialize in the client perspective. The structural model analysis also confirmed the link between several proposed parameters and the intention to implement RPA. The paper offers various recommendations for further research in this field, which focuses on the adoption, application, and use cases in BFSI sector of useful RPA technology. An individual can learn a great deal about robotic process automation by reading this paper.

#### **VII. ACKNOWLEDGMENT**

I would like to acknowledge the University of Mumbai, Mumbai, India to give me the opportunity to do the research work under the title "Automation in Banking and Insurance" I would like to acknowledge the college L.B.H.S.S Trust's Institute of Computer Application, Mumbai, India to support me during the research process.

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