

**YEAR 2022 | ISSUE 124** 



# Automation In Banking

#### In collaboration with





#### WeChat

#### Sharvari Patil

FOUNDER AT FINSIGHT, BLOCKCHAIN BUSINESS EXPERT AT BLOCKTICAL



### **MESSAGE FROM THE DIRECTOR**

**Dear Readers**,

It gives me great pride to introduce SAMVAD's edition every month. Our SAMVAD team's efforts seem to be paying off, and our readers seem to be hooked onto our magazine. At WeSchool, we try to acquire as much knowledge as possible and share it with everyone.



Prof. Dr. Uday Salunkhe Group Director

As we begin a new journey with 2022, I sincerely hope that SAMVAD will reach new heights with the unmatched enthusiasm and talent of the entire team.

Here at WeSchool, we believe in the concept of AAA: Acquire Apply and Assimilate. The knowledge you have acquired over the last couple of months will be applied somewhere down the line. When you carry out a process repeatedly, it becomes ingrained in you and eventually tends to come out effortlessly. This is when you have assimilated all the

knowledge that you have gathered.

At WeSchool, we aspire to be the best and unique, and we expect nothing but the extraordinary from all those who join our college. From the point of view of our magazine, we look forward to having more readers and having more contributions from our new readers.

SAMVAD is a platform to share and acquire knowledge and develop ourselves into integrative managers. Our earnest desire is to disseminate our knowledge and experience with not only WeSchool students but also the society at large.

Prof. Dr. Uday Salunkhe, Group Director





### **ABOUT US**



#### **OUR VISION**

"To nurture thought leaders and practitioners through inventive education."

#### **CORE VALUES**

Breakthrough Thinking and Breakthrough Execution Result Oriented, Process Driven Work Ethic We Link and Care Passion

"The illiterate of this century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn." -Alvin Toffler.

At WeSchool, we are deeply inspired by the words of this great American writer and futurist. Undoubtedly, being convinced of the need for a radical change in management education, we decided to tread the path that led to the corporate revolution.

Emerging unarticulated needs and realities require a new approach in both thought and action. Cross-disciplinary learning, discovering, scrutinizing, prototyping, learning to create and destroy the mind's eye needs to be nurtured differently.

WeSchool has chosen the 'design thinking' approach towards management education. All our efforts and manifestations, as a result, stem from the integration of design thinking into management education. We dream of creating an environment conducive to experiential learning.





### FROM THE EDITOR'S DESK

Dear Readers, Welcome to the **124th** Issue of **SAMVAD**!

SAMVAD is a platform for "Inspiring Futuristic Ideas," we constantly strive to provide thought-provoking articles that add value to your management education.

We have an audacious goal of becoming one of the most coveted business magazines for B-school students. We invite articles from all management domains, giving a holistic view and bridging the gap between industry veterans and students through our **WeChat** section.

In this issue of SAMVAD, we bring to you half a dozen articles focusing on 'Automation in Banking' with a section called 'Talk of the town,' where we have got some exclusive deals happening under the nose of our theme.

We worked together on this edition with **FinSight**, our official sponsor, which was founded with the intention of educating young people about all the developments in the financial sector.

Today, every sector in the economy is moving quickly towards a technology driven model to stimulate its growth in accordance with the tech savvy consumers.

Traditional banks are losing market share to new, entirely online banks, FinTech businesses,

Automation, primarily sustains upon personalization which means altering the services for every consumer as per their preferences, making it a viable model. The tech helps to assimilate the decision on the basis of the data and statistics, which gives profound results as they are statically more aligned. Lastly, automation of any industry calls for higher and complex skill building among the workforce. This can bring a biggest high-role skills to make all of this work.

We hope you have a great time reading SAMVAD!

Let's read, share and grow with us! Best Wishes, Team SAMVAD.









### Industry provide a cost-effective substitute for HR?

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### **Sharvari Patil**

#### FOUNDER AT FINSIGHT, BLOCKCHAIN BUSINESS EXPERT AT BLOCKTICAL



1.Could you take us through your journey from being a Welingkarite to date?

worked on various internal & applications of wealth management, which are used by wealth RMs for serving customers. 3.5 years at ICICI helped me understand various wealth management and processes products in depth. After ICICI, I joined Kotak Mahindra Bank as a of the Treasury-Business part Solutions Group. I was managing various system requirements to overseas branches of related Kotak. Then I moved on from corporate life and launched my website related to Fintech blogs-FinSight. I am currently exploring the blockchain space very actively as a blockchain consultant. I am also part of Blocktical, which is focusing on imparting blockchain knowledge to the masses through workshops and webinars.

II have done my post-graduation in Business Design from Welingkar in 2012 with a specialisation in Banking & Finance. Though I am a computer engineer and have previously worked in IT an company, I wanted to work in the banking domain after post-During graduation. campus placements, I was placed with Axis Bank Ltd. While working at Axis, I learned various facets of corporate banking, trade finance, and digital banking, I also got an opportunity to work on the digital wallet of Axis Bank. After a stint of almost 5 years at Axis, I joined the digital team of Wealth Management at ICICI Bank





### WeChat

2. What are the current trends in banking automation? In your opinion, what trends will have a substantial impact on the banking sector in one or two years from now?

Some of the prominent banking automation trends are AI (Artificial Intelligence), Machine Learning (ML), Robotics Process Automation (RPA), and Blockchain. All of these changes will have a big effect on the banking industry in the next few years.

Established banks are facing stiff competition from fintech start-ups, big retailers, and tech giants such as Google, Amazon, and Apple. All are signing up customers for their services, which would have been traditionally done by the banks. So, banks need to use new technologies to keep up with the competition and give customers services that are easy to use.Al helps in risk assessment and fraud detection. while **RPA** can streamline repetitive tasks. Certain manual processes and paperwork can be eliminated with the help of RPA. Roboadvisors will assist customers in better managing their by analysing spending money recommending patterns and investment portfolio balancing based on the customer's risk tolerance.

#### USES OF AL IN BANKING Channel Front office **Back office** Middle office Size of cost \$1998 \$31B savings \$217B opportunity More Anti-fraud & mature KYC / AML Chatbots Credit underwriting risk Key use Complex cases Smart contracts legal & Voice **Biometrics** Monitoring Less compliance infrastructure Assistants mature workflows





### **WeChat**

help of advanced With the analytics and machine learning, banks can achieve personalization. They can reach out to the right customer at the right time with the right message and offer services through the right channel.

Blockchain is an emerging technology for banks and can be applied to banking domains such as investment management, crossborder transactions, trade finance, capital markets. It helps and prevent fraudulent activities, provides transparency and cost reduction, and increases the speed of transactions by reducing the number of intermediary banks.

When compared to FY21, UPI payments more than doubled in both volume (4.59 lakh transactions) and value (Rs.84.16 Lakhs of crores) in FY22.Traditionally, banks led the payments segment and dominated the payments market. However, developments such as UPI, BBPS and Open Banking have aided fintechs in developing their payment capabilities in the marketHence, digital payments made the entire payments ecosystem highly competitive and contestable with large players having access to capital, such as HDFC Bank, SBI, ICICI, Axis, Paytm, RazorPay, Pine Labs, Bharat Pe, PhonePe, Google Pay, Amazon Pay, nimble start-ups such as and Instamojo and Cashfree. The role of NPCI in India's digital payments growth was instrumental. NPCI has built innovative payment systems such as UPI, BBPS, IMPS, NEFT, etc. Recently, RBI proposed linking credit cards to UPI, beginning with NPCI's Rupay credit cards. I think in NPCI may explore the future, blockchain technology for crossborder remittances using UPI.

3. How has the adoption of digital payments accelerated India's banking ecosystem? What else could we expect from **NPCI in the near future?** 

As per the Ministry of Electronics and IT (MeitY), 7,422 crore digital transactions payment were recorded during FY22 (up 33%) more than in FY21). This growth was enabled by the availability of world-class India-first products such as UPI, BBPS, and Bharat QR. UPI played a prominent role here.









4. In comparison to the international banking system how does Indian banking system

When banks faced a shortage of staff during the pandemic, RPA came to the rescue. ICICI Bank became a pioneer in RPA adoption in 2016. Today, the bank has approximately 1,500 RPA projects handling around 700 manpower worth of activities to enhance efficiency and improve response time. Other banks are also not behind in implementing RPA to process efficiency, improve productivity, eliminate manual intervention. reduce risk and enhance service availability. At RBL bank, the bot is handling over 20,000 customer requests per month for the customer debit card servicing process, resulting in a 90% reduction in manual efforts at the bank's back office.

#### fare in terms of automation?

I think the COVID-19 pandemic accelerated automation in the Indian banking system at a faster rate. Indian banks digitised the majority of paper-based processes, demonstrating their ability to adapt to change. Though RBI is very stringent regarding KYC & AML compliance while implementing any automation compared to other countries, the Indian banking system has achieved significant automation in terms of retail and wholesale banking processes such opening, account loan as disbursement etc.







#### What is RPA?



5. What are digital bank units (DBUs), and how are the RBI and government addressing them? As per RBI, each DBU must offer a certain minimum of digital banking products and services. which should be on both the liabilities and assets side of the balance sheet of the digital banking segment. Digitally valueadded services to conventional products would also qualify for this. The Indian Banks' Association says that all state-run banks, 10 privatesector banks and one small finance bank have started work to operationalise 75 digital banking units (DBUs) by July 2022. State Bank of India will set up the highest number of DBUs (12), followed by Punjab National Bank and Union Bank of India (8 each), Bank of Baroda (7), Canara Bank (6), and India Bank (3). Among private lenders, ICICI Bank and Axis Bank will establish three DBUs each, and HDFC Bank two DBUs.

A digital banking unit (DBU) is a fixed-point business unit or hub with specialised digital infrastructure for delivering digital banking products and services and servicing existing financial products and services digitally in self-service mode at any time.

In the Budget for 2022-23, the finance minister declared to set up 75 Digital Banking Units (DBUs) in 75 districts of the country by scheduled commercial banks to commemorate the 75th anniversary of India's independence.





### **WeChat**

#### 6.Could you brief us about NFTs & role of blockchain in India?

Ministry of Electronics and The Information Technology (MeitY) released 'National Strategy on Blockchain' on Dec. 21,2021. It has proposed the creation of the National Blockchain Framework and implementation of the strategy for the next 5 years. MeitY has identified 44 key areas where blockchains can be employed. These include the areas pharmaceutical supply chain, e-Notary services, blockchainenabled e-sign solutions, farm insurance, identity management, ekeeping land voting, records, document validation, etc.Some government-led applications of blockchain are already underway. Gujarat Narmada Valley Fertilizers Chemicals Limited (GNFC) & the with partnered country's planning commission, NITI Aayog,

in June 2018 to develop a proof-ofconcept (PoC) for using blockchain technology for fertiliser subsidy management. Other government bodies. like the Center for Development of Advanced Computing (C-DAC) and the National e-Governance Division (NeGD), are also working on blockchain-based applications. The National Blockchain Framework will serve the purpose of enabling large-scale adoption of blockchains in the country with the help of geographically distributed national-level shared infrastructure. A non-fungible token (NFT) is a non-interchangeable unit of data stored on a blockchain that can be sold and traded. NFTs have a lot of use cases besides digital art and collectibles. It can be used for intellectual property and royalties, identity verification, academic credentials, asset protection, event tickets, gaming, wearables, virtual land, and healthcare.









7.What advice will you give to students looking forward to establishing their careers in this sector?

I would say banking is a vast subject and it is difficult to learn about each banking domain in detail. Hence, whatever the opportunity/role you get in this sector, try to learn from it as much as possible.

Banking is a booming sector, and new technologies are changing its face at an accelerated pace. To keep up with the pace, stay informed about current trends and events in the industry. Explore and learn about new technologies coming up in this sector, like AI, ML, RPA, and blockchain, along with your current role. Build your capabilities to embrace changes in this sector.



### Machine Learning: A Driving Force in Fintech's Data Reporting and Cloud Storage

**National Winner** Sneha Patil MBA (DTM) Symbiosis Institute of Digital Technology and Management, Pune

Automation is gaining importance in strategizing business in banks that are looking for innovative ideas from internal modifications or acquiring or partnering with other organizations. With the use of Integrated Automated Methodologies the banks can streamline the conventional tasks

#### "Application of Automation in Banking Industry:

The global banking industry is keenly focused on automation. While several banks are striving hard to implement the trending automation services and hoping to deliver extreme productivity while saving cost and improving the customer services. These enhancements will transform the banking sector leading to huge gains for those who harness appropriate technology.

which need manual work and hence achieve speed and agility while minimizing error. AI has the biggest value creation capability in the industries as it can unlock \$1 trillion incremental value for banks [1]. By using automation there can be a standard audit procedure to ensure that the access is granted to only the right people and all industrial standards are abided by. Hence automation system brings all the desirable functions together and connect the loose ends to ensure that banking sector delivers the affordability of service as it serves the customers.

Data-driven digital insights	Integrated customer experience	Digital marketing	Digitally enabled operations	Next-gen technology	+	Digital enablers
Comprehensive data ecosystem, including 3rd-party APIs1	Customer- centric experience design	Targeted digital media	Digitized sales and service interactions	Scalable application architecture		Digital taler manage- ment
Robust analytics and data infra- structure	Omnichannel experience delivery	Content marketing	Streamlined and automat- ed fulfillment processes	Cyber- security		Organiza- tion and governance
360-degree single customer view	Customer- decision- journey experience	Digital customer- life-cycle management	Operational- excellence enablers	Agile delivery to market		Innovative test-and- learn culture
Targeted product and service decisioning		Marketing operations		Flexible IT infrastructure		

### Fig 1: extensive set of distinct digital capabilities for banks [5]





There have been tremendous measures taken by the banking of them being sector some installing automated software programs i.e, bots to perform the repeated tasks . Tactical pilot projects are being launched in several regions which intensifies the difficulties in upscaling. Some Financial institutions are training developers but still struggle to bring the solution into a reality. Some have started with the procedure of automation but lack the technology to go further.

The 2nd AI and automation wave will emerge in few years in which machines will contribute in 10 – 25% tasks in banking industry and hence help increasing capacity and freeing employees for other tasks.

#### Application of AI and RPA in Marketing and Finance sectors:

Marketing automation is a tool used by marketers for planning, coordinating, managing and measuring the marketing campaigns online and offline.It leads to increased efficiency and





#### Fig 2: Global Venture capital investments in Fintech

[6]

minimize human error. Mapping softwares are used to enhance customer acquisition, ensure loyalty of customers and retention.

### Some of the areas to implement automation are:

- Customer segmentation: Grouping customers based on similar traits to enhance overall campaigning results.
- Behavioural Triggers: Behvioural like automated triggers responses tospecific behavioural activities are highly effective as they send the offers and messages to customers the results according to achieved from their sentiment analysis.
- Automated nurture methods: This helps in communicating





- to the customers from the knowledge of their current situation and hence helps in being a part of their life .
   Feedback from customers helps in improvising.
- Analytics: Both marketers and clients can use analytics to genetate, interpret and communicate the data rightly to the customers.

According to yahoo finance report, between 2020- 26 the global FinTech market grew at a CARG of 26.8% and big data, RPA, AI have been some of the contributing factors. Big data systems.

 Data analytics in Fintech: customer data is analysed to identify customer behaviour using predictive analysis, evaluate risk assessment

- Customized approach: banking apps largely rely on big data to gather customer data from sources like social media platforms, smart devices and mobile app to provide personalized products.
- Ease of access: big data also inhibits use of newer ways of authentication like biometrics.
- Speedy processing: Big Data techniques enables faster processing of large amount of real time data.
- Improved risk management: By analysing data from diverse sources we can carry out prediction of risk and enhance risk management.

### Banking Automation to save the costs

Artificial intelligence will minimize the operational cost while boosting

strategies and take appropriate decisions, perform targated advertising and recommend products. the profit. It has various advantages one of them being banking on the go using mobile phone irrespective of time and place.



#### Fig 3: Potential annual value of AI and analytics in Global Banking





Cost cutting with Artificial intelligence: AI can detect and prevent fraud and hence help in better compliance. Biometric authentication can improve customer experience and minimize consumer expenses . With the help of chatbots the operating costs can be reduced from 209 million in 2019 to as low as 7.3 billion up to 2023.

#### Chatbots

Good customer service ensures loyal consumers. Scarce time and resources can hamper customer service. Customers expect their issues to be addressed without any ado irrespective of time zones which can be very expensive for multinational banks. Artificial Intelligence enabled chatbots can answer customer requests To carry out repeated, voluminous and time taxing process the banks can implement Robotic Process Automation (RPA). This ensures better resource allocation and higher accuracy while lowering the operational cost thus increasing the efficiency.

#### **Human Resource Analytics**

With the application of Artificial Intelligence, predictive analytics, artificial intelligence and inexpensive computing ability of cloud-based systems to analyse and process the Human Resource data the banking systems can perform predictive analysis.

#### Al powered Human resource analyst will enable banks and insurers to tackle major issues like:

• Hiring newer employees as the

instantaneously and ensure customer satisfaction.

#### **Trend analysis and forecasting**

With the help of past data, Machine learning enables the banks to predict future trends and results. The prediction becomes more accurate with large volume of data. Predictive analysis is used for detection of money laundering patterns, identification of fraud, calculate credit risk and customer retention. This also facilitates prediction of up sell and cross sell.

Process automation using artificial intelligence

older employee base ages and retires.

- Financial institutions like banks and insurers will be more employable places -for employees with technical skillsets like data science.
- Reskilling the workers with latest technologies.
- Enhance productivity and skill retaintion across the firm.





# Banking automation and humans function best together.



### National Winner

Shweta Rohatgi PGDM Management Development Institute, Gurgaon

Before delving deep into the world of bots and wizards, the structural idea of this article will be to first understand automation and its length and breadth in a bit more detail before diving into its scope in the banking industry.

The author has worked in the capacity of an RPA Developer for close to the past two years, so the idea of the author of the article is to break down the complex terminologies and present them in layman's terms. When hear the word you automation, the first thought that instantly crosses your mind is something that can make your life or job easy. Sticking to its dictionary meaning, automation is indeed the technology that performs repetitive tasks and reduces human intervention in those processes.

now able make are to smart decisions while automating the most basic and complex of tasks. Below is an infographic of a use case to explain how much time and effort is saved due the to involvement of automation in some key business process activities.



Automation can be of various types, a few of them namely Process Automation and Artificial Intelligence Automation. With the concept of AI and ML being integrated into automation, robots

#### Fig 1: Benefits of RPA in business In terms of defining a formula, we can use this with a basic UC-COST = time taken x cost x

### frequency (number of times the bot is run in 1 month) \*12

Note: In the above activity, the onetime cost of setting up the environment for an RPA bot to function has not been included.





Also, note that the pricing may vary depending upon the tool that was used for the automation.

If we add up the one-time cost, the formula –

Cost= [time taken x cost x frequency (number of times the bot is run in 1 month) x 12] + onetime set up activity

#### Tools available-

A number of RPA tools are available in the market which could support the design and development process. Choosing the right tool with the right vendor and understanding the complexity is key to having a successful wizard in place. This comparative chart below defines the most viable tools and technologies available in the market.

Note:Softomotive's WinAutomation, a desktop-based automation tool is **Banking Industry and Automation** 

Having gone through the basics of automation, let us now move on to its applications in the banking industry.

When the robots powered by RPA and humans join forces, the power and the dynamics that can work in the industries can be unimaginable.

If we start listing out the advantages of RPA in the banking industry, they can easily outweigh the cons by a huge margin. A few key points are:

- 1. Digitalised processes
- Individualistic human interaction
  Saves time and effort / improves efficiency

4. Scales down the room for error

5. Cost-cutting and easy generation of reports.

now available in and as Microsoft Power Automate.

.The by-product of all these is improved customer experience and



Fig 2: RPA tools list and comparison





#### paperless transactions powered by the integration of AI.



A few key areas in the banking industry wherein RPA is useful-

- 1. Customer services
- 2. Loan and transaction processing
- 3. Fraud detection

4. Account opening and closing procedures

5. Know Your Customer

Popular banks including Axis Bank, Kotak Mahindra Bank, Yes Bank,

- 1. Auto-trigger- As the name suggests, this robot is a selfinduced trigger which means a certain algorithm is pre-defined and the robot is aware as to when to start and perform all the steps.
- 2. Human interaction basis- This is identified as one of the biggest advantages of running a wizard. The fact that I can trigger a robot as per my liking of day and time gives me the autonomy and the "power" to do the tasks as per my suitability.

Consider an example: You have a situation in which a bot has to log in to a website using the existing credentials. As an RPA developer, you will store those credentials in excel/word/notepad file in an a specific space on your local device to ensure reusability and for the making of changes purpose eventually (need basis). The RPA bot has to read those credentials, log in to the website, and check specifically if a particular file is let's there. call it Employee\_Details.pdf. Note that this file is uploaded on the backend by developers and it is not updated daily. You need to ensure that you download the latest version per the date of upload on the website. Now let us understand, how the trigger of robots could affect this scenario. 1.If it is auto-triggered, that means you have set a date and time. Let's assume you have set.

and Deutsche Bank have been in the news for successfully implementing several RPA use cases which could ease out transactions to a huge extent and reduce unnecessary paperwork.

Understanding how important human intervention is one key aspect to moving ahead in this article.

When we had gone through the sample use case through the infographic mentioned at the very beginning, we had used the most basic skeleton of an RPA UC. Now we need to understand, how this bot/wizard (different tools have different generic names to call a





the runtime as once every two days and the time has been set as 9:00 am. Let us understand the situation through this flow diagram now.



2.If human intervention could be used, the job would have been easier with a lot of run time saved. When you are automating a task, you need to understand that a simple UI layout change can cause a major breakdown of the bot and error emails the send to stakeholders involved. Thus, having human who has fair a a understanding of the capabilities of the wizard and knows the basic steps to sort out such an issue is extremely important.

Banking automation in collaboration with Humans can bring out maximum productivity



You could run the bot as and when you think the pdf is uploaded on the backend or when you deem fit. For instance, if the pdf is uploaded during the afternoon, you can run it in the next hour and obtain the desired report which otherwise, you would have to wait for autotriggered bots.

One biggest learning so far as an RPA developer is the fact that "Keeping Machines Honest Requires a Human Touch"!

When the workload is immense, the bot could have a breakdown for running end-to-end continuously and that is when human interaction plays a pivotal role.

#### Conclusion

The collaboration of humans and robots can shape the banking industry in innumerous ways. Gone are the days when financial activities could only be carried out in a one-way one-tool/person mode. If team collaborations can bring out the best of work, then why can't humans and technology work together!

We also need to remember that technology can be the biggest threat to humans, in this term, automation can, because of the





very many disadvantages it presents such as larger initial investment and flexibility getting reduced. But if you can think beyond the textbook ideas of making the world function better, then definitely management, in general, can benefit a great deal from automation!









## Can RPA within the Banking Industry provide a cost-effective substitute for HR?



Didyou know that human error in the financial sector results in 25,000 hours of avoidable reworkon the average per enterprise and costs \$878,000 per year? No wonder financial institutions arewanting toturn things around. One option would be turning to robotic process automation (RPA) development services.consistent with a study by McKinsey, about 60% of occupations can automate over 30% of activities with RPA. So, which tasksare you able to automate in your banking or financial organization? And after deciding on the tasks, the way to get started with RPA in banking?

assist with various HR tasks like onboarding new employees and processing payroll But can RPA really provide an economical substitute for human resources in the banking industry? In this article, we'll take a glance at the pros and cons of using RPA in banking and whether or not it can really help save costs.

In recent years, the banking system has been under immense pressure to cut costs and become more efficient. One area that has been targeted for cost-cutting measures is that the human resources (HR) department. Many banks have turned to using robotic process automation (RPA) to

#### What is RPA?

Robotic RPA or Process Automation is that the technology that enables organizations to automate repetitive, rules-based business their tasks across operations. RPA are often deployed in a wide range of industries, including banking, to assist streamline processes and achieve efficiencies. within the banking industry, RPA are oftenused to automate tasks such as customer onboarding, fraud detection, and loan processing. RPA can provide an economical





substitute for HR in the banking industry by freeing up HR resources to focus on more strategic initiatives. Additionally, RPA can help to enhance accuracy and consistency in the processing of banking transactions.



#### **History of RPA and Banking**

The history of RPA is often traced back days of to the early computing, when banks began automating simple tasks like ledgers and data entry. However, it wasn't until the late 1990s that RPA began to be utilized in earnest in the banking industry. one among first major adopters the was Citigroup, who used RPA to streamline their loan application process. Since then, RPA has been widely adopted by banks and other financial institutions as how to repetitive and timeautomate consuming tasks. In many cases, RPA can provide an economical substitute for human labour, freeing up employees to specialise in more value-added activities.

There are variety of advantages that RPA can offer banks and other financial institutions. Perhaps most significantly , RPA can help to enhance efficiency and accuracy while reducing costs. Additionally, RPA can help to hurry up processes and improve compliance with regulations.

While there are many potential benefits of RPA, it's important to note that there are also some risks associated with its use. for instance , if not implemented properly, RPA can cause errors and may even result in job losses as automated systems begin to replace human workers.

### How do the stats and the news look?

The Banking and Financial industry is seen to be growing exponentially over the past few years with the implementation of technological advancements leading to faster, safer, and reliable services. to stay competitive in an increasingly saturated market - especially with the more widespread adoption of banking – banking firms virtual have had to find a way to deliver the best possible user experience to their customers. As per Gartner, the pandemic has catalysed the business initiatives to adapt to the stress of employees and customers and make digital options the future of banking services.





#### Automation potential in banking and finance

Proportion of tasks within the sub-function, %



Internally, the challenge to maximise efficiency and keep costs as low as possible while also maintaining maximum security levels has also increased. To answer these demands, Robotic Process Automation (RPA) has become a strong and effective tool.

RPA has been significantly adopted during this sector, for creating timeconsuming banking operations more organized and automated. consistent with reports, RPA within the banking sector is expected to reach \$1.12 billion by 2025. Robotic process automation has also dramatically streamlined a good variety of back-office processes that once bogged down bank workers. By shifting much of those tedious, manual tasks from human to machine, banks are able to significantly reduce the need for human involvement, which has had an immediate impact on everything from performance and efficiency levels to staffing issues and expenses.

Recently, the most important banks made for in Japan news implementing robotic process automation to save labour costs and gain operational efficiency. Major banks like Axis Bank and Deutsche Bank have also made news for implementing RPA to automate business processes.

Bank employees cater to voluminous data from customers and manual processes are prone to have errors. Banks round the world are considering RPA to minimize the manual processing of this huge data to avoid errors. Processing data manually is additionally a time-consuming task. Simple validation of customer information from 2 systems can take seconds rather than minutes with bots. Introducing bots for such manual processes can reduce processing by 30% to 70%. Several costs processes within the banks can be up the automated to free manpower to work on more critical tasks.





#### replace HR in How RPA can banking?

The banking system is under pressure to reduce costs and increase efficiency. One area that's often targeted for cost savings is (HR) the human resources department. HR functions are often costly and time-consuming, numerous banks are turning to robotic process automation (RPA) to see if it can provide a costeffective substitute for HR.

RPA may be a form of artificial intelligence (AI) that can be used to automate repetitive tasks. it's the potential to greatly reduce the amount of time and money that banks spend on HR processes such as onboarding new employees, processing payroll, and managing benefits.

#### **The Good**

**RPA can provide variety of benefits** for banks, including reduced costs, improved efficiency, and increased accuracy. By automating repetitive tasks, RPA can help banks save time and money while reducing the probabilities of errors. additionally, RPA can help banks improve service by providing customer faster response times and more accurate information.

One of the most tedious tasks for bank employees is KYC process, which may be a time-consuming process that banks need to perform for every customer. It can eat up to 1000 full-time equivalent (FTE) hours and \$384 million per annum perform this process in a to compliant manner. Alert investigation is additionally timeconsuming, while up to 85% of daily alerts are false positives, and around 25% have to be reviewed by level-two senior analysts. With all the efforts, banks are losing €50 million per annum **KYC** on compliance sanctions. Incorporating robotic process automation in finance into the KYC process will minimize errors, which might otherwise require with unpleasant interactions customers to resolve the problems. Therefore, RPA will accelerate customer onboarding and enhance customer experience.

Banks are still within the early stages of adopting RPA, but some have already seen significant cost savings. for instance, one large bank reported saving \$8 million per annum by using RPA to automate its onboarding process.

If RPA can still prove its worth in the banking industry, it's likely that more and more banks will begin using it to replace HR functions. this might lead to significant cost savings for banks and a more efficient HR department.







#### The Bad, The Ugly

Robotic process automation is getting used in different industries, like healthcare, manufacturing, and insurance. the worldwide RPA market was valued at \$1.57 billion in 2020 and is predicted to rise at a CAGR of 32.8% from 2021 to 2028. There are some potential disadvantages to using RPA in banking. One is that RPA are often expensive, especially if you would like to purchase and maintain multiple software licenses. Additionally, RPA can require significant training and support to urge started, and should not be able to handle more complex tasks. Finally, there's always the potential for errors when using RPA, which could lead on to costly mistakes.

physical space for an RPA system, and you don't have to hire and train staff to operate it.

RPA also can be more efficient than traditional HR methods. for instance, an RPA system can work 24 hours each day, 7 days every week, without having breaks. this suggests that RPA can help you get your work done faster and with fewer errors.

In addition, RPA can facilitate your scale your operations more easily. If you would like to increase or decrease the number of processes being automated, you'll do so quickly and without incurring additional costs.

Overall, RPA are often a costeffective substitute for traditional HR methods. When deciding whether or not.

#### **Comparing costs of RPA and HR**

We often think of RPA (Robotic Process Automation) as a way to automate manual, repetitive tasks. But RPA also can be used to automate more complex processes, those like managed by HR departments in banks. So, what are the prices associated with RPA compared to traditional HR methods?

RPA are often cost-effective because it doesn't require the same level of investment in infrastructure and personnel as traditional HR methods. for instance , you don't have to purchase or maintain a

#### Conclusion

banking system is The under pressure to reduce costs, and RPA by help providing an can economical substitute for HR. RPA can automate many of the tasks currently performed by HR, such as onboarding new employees and processing payroll. this will free up HR staff to focus on more strategic tasks, like employee retention and training. RPA also can help banks improve their customer service levels by automating tasks such as opening accounts and new processing loan applications.





RPA and India is surely a future that is not that hard to predict but subject to lots of resistance given the labour intensive industry and employee market. We hope for the best way out!





### **Robotic Process Automation in the Banking Industry**

### National finalist

Jegannath U & S Sharath Ram Department of Management Studies, IIT Madras 2021-23



If you inquire with an expert in banking about their role in banking operations and financial services, they'll respond being uncomfortable with manual processes. Most of the time, they are correct, as 70 percent of the work involves working with information from 100 old systems that use outdated and inefficient

business models, more spending on technology, and an array of customer channels for financial services, the global financial system is experiencing a massive change. Banks are leveraging the power of RPA to automate manual processes requiring large volumes the of work and to change customer experience in ways they could not have ever imagined. Based on Grand View Research, the global market size for RPA the within banking financial services insurance (BFSI) and sector was forecast to increase by 31.3 percent from 2019 until 2025.

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manual processes. It is why we frequently hear employees saying their work is "repetitive and monotonous", "manual data work", "mind-mumbling", "a dead-end job", and even "SOUL-DESTROYING" With the introduction of new





#### WHY RPA?

The majority of BFSI companies rely on inefficient and outdated processes, from entering of data to access to data. Companies that automatize these processes cut costs and time while also increasing efficiency.

Incorporating RPA into the bank's workflow can reduce operations and labour costs. Additionally, it reduces human error, which helps employees concentrate on more important work.

Software bots are used as RPA tools

to automate repetitive tasks in applications that the organization's employees normally carry out. Logins to the application, including data copying, pasting, or rearranging files or folders and filling out forms, as well as extracting unstructured and structured data from documents, are few of the many jobs that RPA robots can emulate.

KPMG predicts that RPA can cut costs up to 75% for financial services, and for the banking sector, it can reduce the cost of processing by 30 to 70% by reducing processing times.

#### THE BANKING INDUSTRY AND THE POSSIBLE USE CASES:



![](_page_28_Picture_8.jpeg)

![](_page_28_Picture_10.jpeg)

#### **RETAIL BANKING**

While banks around the globe have different customers, they all face the same challenge: accurately and precisely processing transfer applications, ATM, and account details.

In the past, data was managed by humans. As companies grow, so does the volume of data, increasing the chance of errors and delays. Major commercial banks worldwide have implemented RPA make their systems more to efficient and reduce errors in This processing transactions. includes everything, from ATM data processing direct debits to management and fraud detection.

![](_page_29_Picture_3.jpeg)

safeguard customer's banks, it employs a variety of risk detection as well fraud prevention as methods. They typically alert when transactions occur on accounts that are either blocked or marked as a risk. However, they do not reveal any unusual activity on the account. So, employees must be aware of whether there is any suspicious activity. But this is not possible since they are handling a vast amount of data about customers. If they manage such data, minor differences are likely to be discovered, which can lead to permanent holes in the system and massive losses for banks. In these instances, we employ Intelligent automation, which is nothing more than the integration that combines RPA and AI. and a few ML algorithms. This will automate the detection of unusual activity and then report the situation. A timely report of possible cyber threats could spare banks a lot of money help avoid and major financial losses.

![](_page_29_Figure_5.jpeg)

Let's see one of the most important used cases under retail banking.

#### FRAUD DETECTION AND RISK MANAGEMENT:

One of the biggest threats to banks is the growing cyber-attacks. To

#### **COMMERCIAL BANKING:**

Commercial banks refer to a financial institution that accepts deposits, provides check-in services to customers, provides numerous loans, and offers basic financial products, such as CDs (CDs) or savings accounts, to individuals and

![](_page_29_Picture_11.jpeg)

![](_page_29_Picture_13.jpeg)

small-sized companies. This comprises several manual screening for processes applications, making account dealing with services. and customers. These are common situations where RPA takes over these duties from employees.

![](_page_30_Figure_1.jpeg)

In commercial banking Loan operations especially 10 - day loan payoff is an ideal candidate for automation. Let's see that in brief.

#### LOAN PAYOFF: (10-DAY PAYOFF)

occur during weekends. Since this is a repetitive process, it could be automated using an RPA-attended robot.

The robot does the following process without human intervention:

1) Collects the letter requests from the customer

2) Extracts the necessary data from the necessary systems

3) Does the calculation of loan repayment by including predefined conditions

4) Sends the calculated loan repayment mail to the customer.

#### WEALTH MANAGEMENT:

Firms face issues dealing with numerous technology partners, the integration of old systems, and manual activities related to the procedures. The Investment and Asset Services receive a lot of emails, onboarding manual documents, daily MTM ledgers trading confirmations, instructions for clearing and settlement, and the payment process. There has been a greater emphasis on compliance and an increased focus on reporting to regulators in the past two decades due to the aftermath following the financial meltdown of 2008 as well as the collapse of several large institutions. In the past 20 years, many financial companies have had to spend a lot of money on compliance and regulatory

When a consumer wishes to repay or refinance an existing loan, the bank calculates the amount due. It adds any interest to determine the amount to pay off that is in effect for 10 days. This is known as the ten-day loan payment. Searching for data in various systems is required. In addition, the modifications need to be entered into CRM systems.

The process, in general, is timeconsuming and takes between 24-48 hours to send the loan repayment letter, and it can be longer in the event of requests that

![](_page_30_Picture_14.jpeg)

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initiatives. Asset and investment management companies employ many employees. They have two major issues in terms of operational efficiency and rising costs.

New opportunities have arisen with technology like RPA, that can

help in the asset and investment management space by addressing the operations efficiency and cost inefficiencies. Here are a few scenarios of how RPA could be used in the asset management and investment.

![](_page_31_Figure_3.jpeg)

![](_page_31_Picture_4.jpeg)

![](_page_31_Picture_6.jpeg)

#### **CAPITAL MARKETS:**

Financial institutions in the capital markets face enormous challenges due to the ever-changing state regulations, as well as the pressure of margins and increasing transparency and personalization clients. their from Fintech companies with new business models, led to customers requiring, on-the-go services and an omnichannel experience with investment banks.

Companies in the capital market have set out on a mission to offer their customers more efficiency through the best use of technology. Because of the volume of manual or semi-manual procedures throughout the trade lifecycle, investment banks are pressured to operational reduce expenses. capital market Numerous companies are turning to RPA to improve their back-office to reduce increase business costs and efficiency.

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![](_page_32_Picture_4.jpeg)

![](_page_32_Picture_6.jpeg)

# Leveraging Analytics in an automated banking system

### National finalist

Adarsh Keshari & Akshata Desai Symbiosis Institute of Digital & Telecom Management, Pune Specialization- Analytics & Finance 2021-2023

### Shifting to the next-gen technological wave

it. will demand "Consumers Technology will competition necessitate it". Technology has proved to be a transformative force for the banking industry, which has disrupted the industry with pathbreaking innovations over the years. Technology continues to drive unprecedented change across the chain. banking value Transformation was constantly evolving when automation came into the picture. It is making rapid inroads in the banking industry, resetting business models, and shaping customer expectations and regulatory norms. Early adopters of next-generation automation and advanced analytics in this segment are already beginning to reap the benefits of increased revenue, improved customer experience, and reduced costs of operating fees. Although in the front end, the

banking provides system innovative digital solutions and offers an enormous convenience to their customers, reality in the back office is different. Hundreds of paper-based people process customer requests that disconnect between the bank's innovative contact channels and their legacy IT systems often leads to high costs, a delay in response and customer dissatisfaction. has evolved Analytics from something only really sought after by large corporations and governments to something used by businesses of all sizes and in all industries. This is largely because it has become more affordable. Many different industries use analytics and banking is no exception. In the banking industry, a new type of banking is even emerging, thanks to technology, in part thanks to the power of analytics - "the so-called neobanks".

![](_page_33_Picture_6.jpeg)

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Today, many banks have primarily developed unconnected sources of deep analytical expertise within their organization. The challenge is to create analytical strengths that span the entire organization, not just the specialized groups beyond individual businesses.

#### Redefining the Banking Experience

Banking one of the is most efficient providers of analytics banks have services. As huge customer bases and face stiff competition, they leverage analytics to gain a competitive advantage. The banking industry was one of the first to adopt analytics, which was originally used to assess credit ratings. The use of analytical technologies has been accelerated in recent years and now covers many important parts of the industry. Banking services are strictly regulated and require a blend of traditional and style modern Automation frameworks. Banks can integrate Analytics into their operations and decision-making domain to enable the successful adoption of automation and its benefits. McKinsey's report on banking talks about a significant divergence between leaders and laggers, how leaders focus more on analytics and automation, and how leading banks are leveraging

analytics to create an integration to become front-to-end digital banks and attain industry-leading NPS scores.

#### **Incorporating Advanced Analytics**

Customer retention and fraud prevention are among the top priorities of banking institutions. This will provide actual time to bank about inform the the customer's consideration of switching service providers. Banks will also employ data science to stop fraud and money laundering by only lending to people who follow legal requirements. The challenge of the future is to build analytical capacity that extends across the entire organisation, not just specialised departments.

As it lets sales professionals make complementary product and service recommendations that will actually add value to the consumer rather than taking a shot in the dark, banking analytics aids in upselling and cross-selling initiatives in particular. Even more, data analytics in banking may help identify which you of your customers are the most profitable and create high-value customer segments that you can target in upcoming sales and marketing campaigns.

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#### **Use Cases**

#### **•Fraud Detection and Prevention-**

Predictive analytics can assist in identifying fraud by analyzing the most common operational patterns regarding trades, payments and purchases.

•Planning Personal Finances- The predictive analytics model can help clients identify their top expense categories, top cash sources, and cash flow trends. It warns users if they run out of funds or sends reminders to avoid late payments and penalties. This approach can also help banks segment their customers. For example, people who run out of money just before payday may be offered quick loans with better interest rates because it's only a matter of the day. assistance before debt becomes overwhelming. Since hedging is better than reactive behaviour, the use of these analytical tools helps banks build portfolios and hedge risks.

Marketing **Strategies-·Better** Marketing activities become increasingly difficult since financial services are difficult to differentiate by provider. They need messages that are timely delivered. By identifying the customers who are most willing to purchase a product, predictive analytics can assist with this process. For instance, if a client has numerous loans that they find challenging to manage, refinancing may be the best option for them to replace all of their current payments with a single one.

•**Risk Hedging**- Red-flagging clients before they miss three or more payments can save banks money by offering advice and financial

#### What does the future hold?

Banking system will look substantially different in the future than it does now. Banks will need to

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start coming up with strategies now to help them get ready for banking in 2020 due to shifting customer expectations, evolving technologies, and new business models.

As the world moves forward with transformations across all walks of life, banks are preparing to stay relevant. While the first wave of automation enhanced some of the core functions of a bank by replacing machine learning for repetitive tasks, automated applications including conversational banking would be featured in the current wave. Banks that understand and implement

Automation can be sure of longterm success, while those that don't need to choose relevant automation tools to help them stay on top of changing times and customer expectations.

Emerging new banks pose an exciting challenge to traditional banking and, driven by cuttingedge analytics, have the potential to drive industry innovation to the next level. It is not difficult to imagine a near future where hypertargeted services will be made available to us in real-time and it seems many new banks are moving towards something similar to this vision.

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WeAchievers

### Climate Investment Challenge' 2022 - Imperial College London

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#### **Innovation Maestros**

hampion

Satabdi Bhattacharjee

1. Brief description of your competition (up to40 words)\*

Climate Investment Challenge focused on building an investment avenue for climate risk mitigation curated as per the risk aversiveness of an investor. It aims to create a sustainable investment option that can operate globally.

2. There are n no. competitions on D2C. What is your strategy for deciding which ones to apply to?

My primary strategy for applying in competitions hosted by D2C is not only domain-specific but moreover if the competition aims to devise any solution for a challenge specific to any ESG issues or economic feasibility situation. The mentioned factors play a quintessential role in participating in any competition.

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### WeAchievers

#### 3. How does your team manage differences of opinion?

Conflicts are bound to happen when we work on any progressive project. To mitigate the same, we should seek to understand and assess the underlying cause. My team firmly believes in constructive criticism. We listen to our team members' opinions and work on rectifications collaboratively.

#### 4. Briefly describe challenges, if any, that your team faced during this comp<mark>etition and how did your team</mark> handle it?

Our model was on solar energy cash flow at risk. We faced challenges in collecting and understanding solar commodities indexes operating globally and estimating the credit and environmental risk associated with the same. Global acceptance was a prime issue. We had to define a policy adhering to regulatory compliance problems that made us more intrigued about operations.

#### **5. Any Key learnings you would like to share.**

My learnings post participation in the challenge were: It is quintessential to work towards sustainability and ESG compliance because it makes us a better individual for the future. The greatest discovery of our life can be attained by revamping our contributions to well-being which our team aimed to attain through this participation. Smart and judicious investing is all that we need in our lives which comes with hard work.

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### **EDITORIAL TEAM**

![](_page_39_Picture_2.jpeg)

### Sushmita Mudaliar

#### Chief Editor

![](_page_39_Picture_6.jpeg)

### Diksha Maheshwari Co-Editor

![](_page_39_Picture_8.jpeg)

### Ashwin Sajayan Co-Editor

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#### Rohini Patial Head

![](_page_40_Picture_5.jpeg)

**Shalini Balla** Deputy Head

![](_page_40_Picture_7.jpeg)

#### Naomi Fernandes Member

Maharshi Vyas Member

![](_page_40_Picture_11.jpeg)

**Jyoti Honrao** Member

![](_page_40_Picture_13.jpeg)

![](_page_40_Picture_15.jpeg)

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Head Curator

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Shrutika Shrivastava Deputy Curator

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#### Neeraj Deshpande Content Curator

Abhinay Yagnamurty Content Curator

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Sanket Aradhye Content Curator

![](_page_41_Picture_13.jpeg)

![](_page_41_Picture_15.jpeg)

![](_page_42_Picture_0.jpeg)

### **WECHAT MASTERS**

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### Madhav Sharan

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![](_page_42_Picture_6.jpeg)

### Utkarsha Chaudhari Member

![](_page_42_Picture_8.jpeg)

### Amit Dengale Member

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### **PR PROS**

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### Akansha Khatuwala Head

Pritika Sarkar

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#### Deputy Head

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### Jatin Gupta Member

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We invite articles for the next 119th issue of SAMVAD

The theme for the edition: 'Automation in Banking'

The articles can be from Finance, Marketing, Human Resources, Operations, or General Management domains.

**Submission guidelines**:

- Word limit: 800 1200 words.
- The cover page should include your name, institute's name, course details & contact no.
- The references for the images used in the article should be mentioned clearly and explicitly below the images.
- Send in your article in .doc or .docx format, Font size: 12, Font: Arial, Line spacing: 1.05' to samvad.we@gmail.com.
- Please name your file as: \_\_\_\_<section name e.g. Marketing/Finance> Subject line: <Your Name>\_<Course>\_<Year>\_<Institute Name>
- Ensure that there should be no plagiarism of more than 5%, and all references should be mentioned clearly.
- Clearly provide source credit for any images used in the article.<!--EndFragment--> </body> </html>

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