ROBOTIC PROCESS AUTOMATION:
CONCEPT, BENEFITS, CHALLENGES IN BANKING INDUSTRY

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Abstract

The banking and financial industry is in the midst of digital disruption. The industry is further challenged by the need to optimize cost, build scale and deliver swift responses to service requests. However, banks are not able to innovate due to fragmented processes and multiple legacy IT systems that manage these processes. In addition, banks also have to be compliant to regulatory requirements and maintain data privacy while processing a large number of documents and personal data.

Robotic process automation (RPA) or “automation” describes logic driven robots that execute pre-programmed rules on mostly structured and unstructured data to some extent.

The concepts have been around for nearly a decade, and they have advanced quickly. In financial services, insurance carriers have used RPA in claims processing for quite a while. Capital market firms are now turning to automation to reduce costs, provide better service, and even make complex regulatory implementations work more efficiently.

Financial institutions can reduce cost, improve quality of service and scale the existing resources to the major population. All services will be available and operate 24/7 basis. This paper explains the basic concept, advantages, challenges of Robotic process automation in banking with the help of case study method in banking industry.
Objectives

1) To explain concept of RPA
2) To explain benefits of RPA with respect to banking industry
3) Real life case study to explain the benefits
4) Challenges to implement RPA process

Introduction

What is Robotic Process Automation?
Robotic process automation is an emerging form of clerical process automation technology based on the notion of software robots or artificial intelligence (AI) workers.

In traditional workflow, a software developer writes a list of procedure (step by step) to automate a task. Interface is also created for the back-end system using internal application programming interfaces (APIs) or scripting language specifically used for the interface. In contrast, RPA systems develop the action list by watching the user perform that task in the application’s graphical user interface (GUI), and then perform the automation by repeating those tasks directly in the GUI. This encourages the use of automation in products that might not otherwise feature APIs for the purpose of automation.

RPA tools are similar to graphical user interface testing tools. These tools also automate interactions with the GUI. This is achieved by repeating a set of demonstration actions performed by a user. RPA tools are different from such systems in case of features that allow data to be handled in and between multiple applications. For example, receiving email containing an invoice, extracting the data, and then entering that data that into a book-keeping system. The data manipulation aspect is not something one would normally find in a testing tool.
Prerequisites to check suitability of process to convert into robotic process

- The process should be rule based and not depend on human judgment
- The process should be initiated by a digital trigger and be supported by digital data
- The process should be functioning and stable data.
- The process should have bigger volume of executions

RPA and Financial Industry

Over the past two decades, banks and other financial institutions have really had to step up their contribution for technology.

✓ To answer the following demands, robotic process automation has become a powerful and effective tool.
✓ To remain competitive in an increasingly saturated market specially with the more widespread adoption of digital banking
✓ To find a way to deliver the best possible user experience to their customers.
✓ To face the challenge to maximize efficiency and keep costs as low as possible while also maintaining maximum security levels has also increased.

Similar to many other industries, the financial field is heavily reliant upon documents and the many legacy systems that have been employed to help manage them most effectively.

There are a great deal of records of transactions involved in the life cycle of a banking customer. From the initial account opening application to account management documents. It involves deposits, withdrawals, loan documents.

Banking professionals struggled to connect the many legacy systems being used in order to manage and retrieve the information needed to do their jobs most effectively. Introduction of robotic process automation minimizes this struggle of banking professional. And given the large number of mergers and acquisitions in the financial industry, this problem was persistent. One of the greatest advantages of RPA has been the ability this technology to integrate with and
bridge these legacy systems. This creates more uniform approach to data management without having to start from scratch. It has been revolutionary step for financial industry.

Beyond this, robotic process automation has also streamlined a wide variety of back office processes that once bogged down bank workers dramatically. These tedious, manual tasks are shifted from human to machine. Banks significantly reduce the need for human involvement. This approach has had a direct impact on everything from performance and efficiency levels to staffing issues and expenses.

The large volume of documentation required for financial transaction slowed down the processing times. In many examples, a process could be stuck in indefinite loops for days, weeks, even longer as it awaits approval. And with humans involved in every step, errors are unavoidable – some of which could be costly to the institution, both financial base and reputation-wise. By automating these back office processes, these delays and errors can be eliminated. Processes will be more productive, efficient and accurate.

With the help of robotic process automation, bank employees have knowledge about where information is stored. They are able to access it at the click of a button. All these things are possible only because of robot software running behind the scenes. Additionally, employing RPA can create a much more transparent environment in which data for every single transaction is properly recorded, categorized and stored for quick and easy retrieval and review at any time on demand.

RPA is beneficial to the financial industry is in compliance. In case of insurance field, banks and other financial institutions are required to constantly maintain a high level of regulatory compliance. Employees must keep constant watch on information against industry and government regulations; also stay up to date with the speed of changes, which can and do occur quite frequently. Because robotic process automation handles all of the documentation and eliminates errors, audits become much less cumbersome. Furthermore, this technology is capable of being altered rapidly; making it ideal for a field that evolves so often.
Case Study

The example for case study is a British multinational banking and financial services company headquartered in London. Wipro’s team delivers loan operations for the client business.

Business challenge

Indexing is one of the key activities in loans, in which the documents are referenced in the document manager application.

The typical process includes

- More than 1,000 scanned documents are received per day for indexing process, which takes around 1.5 minutes to process a transaction
- Agents pick one document at a time, search for required fields and manually key in the data in to document manager application
- Quality check is performed on these transactions to ensure that all the documents are indexed accurately the client wanted to reduce high level of dependency on agents to perform indexing process and completely eliminate possibility of human errors.

Solution

- Complete process mapping at work instruction (L6) level
- Identification of opportunities through Value Stream Mapping (Wipro’s proprietary BPMS) and DMAIC approach
- Automation code for a robot to pick the document, search for the required key fields (string search), validate and enrich the data, with automatic entry in to the document manager application
- Robot is programmed to search and pick the data, irrespective of the template being used, to handle future changes in templates)
Business benefits

• 100% accuracy in the transactions processed by robot
• 95% of the process is automated post RPA implementation
• 85% time saving per transaction
• Improved capability to handle peak volumes as per predefined SLAs (highly scalable)
• Robot automatically routes the exceptions instead of manual handling to deliver

Benefits of RPA

| SL No. | Opportunity for RPA               | Related benefits                                                                 |
|-------|-----------------------------------|----------------------------------------------------------------------------------|
|       | Use case                          | Enhanced accuracy and quality | Improved speed of operations | Increased staff productivity | Refined audit trail with accurate information | Increased time for strategic tasks |
| 1     | Validating existing customer information | ✔                         | ✔                         | ✔                         | ✔                         | ✔                         |
| 2     | Documentation gathering            | ✔                         | ✔                         |                           | ✔                         |                           |
| 3     | Customer information gathering     | NA                        |                           | ✔                         |                           |                           |
| 4     | Compiling customer information    | NA                        | ✔                         |                           | ✔                         |                           |
| 5     | Customer screening                | ✔                         | ✔                         |                           | ✔                         |                           |
| 6     | Customer servicing                | ✔                         | ✔                         |                           | ✔                         |                           |
| 7     | Regulatory monitoring and data collection | ✔                         | ✔                         |                           | NA                        |                           |
| 8     | Risk assessments                  | ✔                         | ✔                         |                           | ✔                         |                           |
| 9     | Account closure processing        | NA                        | ✔                         |                           | ✔                         |                           |
Future of RPA

Impact of RPA on Employment

According to Harvard Business Review, most organizations adopting RPA have promised their employees that automation would not result in layoffs. Instead, they assured workers that they have been redeployed to do more interesting work.

One academic study proved that knowledge workers should not feel threatened by automation. They embraced it and viewed the robots as team-mates. The same study highlighted that, rather than resulting in a lower "headcount", the technology was deployed in such a way as to achieve more work and greater productivity with the same number of people.

Conversely however, some analysts have proofs that RPA represents a threat to the Business Process Outsourcing (BPO) industry. The thesis behind this notion is that RPA will enable enterprises to "repatriate" processes from offshore locations into local data centers, with the benefit of this new technology. The effect, if true, will be to create high value jobs for skilled process designers in onshore locations (and within the associated supply chain of IT hardware, data centre management, etc.) but to decrease the available opportunity to low skilled workers offshore.
Challenges to implement RPA

- **Employee resistance and on boarding** - Any changes that involves implementation of a new technology can be stressful for employees as they experience major shifts in their daily responsibilities. It is essential that company leaders and executive sponsors should ensure employees with continuous communication. Employees should be fully informed about what is expected of them throughout the implementation process. This approach leads to the essential and successful adoption of new technology. Fostering a culture of innovation within the company will only further accelerate this adoption.

- **Choice of the right processes** - The automation capabilities provided by RPA are ideal for tasks that are repetitive, rules-based, high volume, and do not require human judgment. This can include activities such as data migration and copy-paste tasks. RPA implementation is especially difficult for the business processes that are non-standardized and require frequent human involvement in order to execute. These more complex tasks include interacting with customers and developing human relationships. It is important for organizations to determine which of their processes are suitable for RPA so that automation runs smoothly.

- **Setting realistic expectations** - One of the biggest obstacles when it comes to implementing a new technology such as RPA is setting up realistic outcomes. RPA should not be seen as the panacea for operational problems and broken processes, organizations need to recognize the limits of what RPA can and cannot do. Decisions regarding the technology need to be made on an individual and company-specific basis. RPA’s functionality, implementation timeline, and operational results will vary between different companies. Maintaining company-wide discussions about expected results will allow organizations to make the most of RPA and its benefits.
Conclusion

In conclusion, today’s banking firms are facing increasing demands to maintain as lean an operation as possible while also delivering exceptional client experience at the lowest costs. Robotic process automation is making it possible for financial institutions to achieve these goals and remain competitive in a sometimes-turbulent, ever-changing environment.

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