



Robotic Process Automation Of Implementing Process And Its Adopting Benefits

Dr. M. Jaithoon Bibi^{1*}, Pavithra Roobitha.R², Harish R³, SaiPratab R.B⁴

^{1*}Assistant Professor, Email:-jaithoonbibi@srcas.ac.in

²III – BSc (CSCS), Department of Computer Science with Cognitive Systems, Email:-21124029@srcas.ac.in,

³Sri Ramakrishna College of Arts and Science, Email:-21124009@srcas.ac.in ,

⁴III – BSc (CSCS), Coimbatore. Email:- 21124034@srcas.ac.in ,

***Corresponding Author:-Dr. M. Jaithoon Bibi**

**Assistant Professor, Email:-jaithoonbibi@srcas.ac.in*

Introduction

With RPA, your business can automate processes and tasks to save time and avoid common human errors. RPA software works by configuring bots to perform tasks that would normally be done by humans. Bots can be taught to click and type across applications, as well as be configured to perform more complex tasks, without the need for human intervention. RPA benefits your business by automating various activities, including transferring data, updating customer profiles, data entry, managing stock, and other more complex tasks.

Here are seven key benefits of robotic process automation:

1. Save time

Repetitive administrative tasks are a common part of many business processes. RPA allows your business to automate and perform repetitive tasks with quick, robotic speed. Also, your company and employees benefit from RPA by being able to spend more time on sensitive and complex tasks.

2. Increase ROI

RPA tools are more efficient at managing repetitive tasks than humans, and they help your business improve work productivity. That's why one of the greatest benefits of RPA is its positive impact on ROI. With robotic process automation, your

3. Eliminate human error

Realistically, no matter how skilled a person is in their role, human error and fatigue are always factors to be considered. With RPA, automated bots never get tired, so tasks are performed accurately, as they're meant to, each time.

4. Elevate security

Cybersecurity is extremely important for your business, and RPA solutions help guard against security threats. RPA elevates security by reducing the number of human interactions with sensitive data and information, which helps prevent costly data leaks and breaches. RPA tools help to keep your business secure, whether guarding against access by unauthorised users, or performing triggered account logouts.

5.Increase compliance

Compliance is important for the reliability and sustainability of your business, and RPA solutions adhere to set rules and guidelines with great accuracy and consistency. Typically, most organisations follow various industry and government regulations, and these organisations reap the benefits of RPA with automated, consistent compliance. Additionally, RPA can be audited from a single location, rather than performing multiple application audits—which reduces compliance risks. Robotic process automation can be applied to contract workflows and submissions, form updates, as well compliance-related notifications, and alerts.

1.Scale business process automation

As your company applies an RPA tool to more business activities, the automation of processes and tasks expands throughout your organisation. Robotic process automation also allows your business to scale to meet seasonal increases in demand, and projected targets with greater confidence, whether processing orders, invoices, managing stock, or other forms of production and service.

2.Employee satisfaction

When tedious processes are automated, employees are freed up to focus on more critical needs of your business. As RPA reduces repetitive tasks typically performed by humans, employee satisfaction increases. Employees can then apply their skills to tasks that require strategic thinking, like business planning, public relations, and brainstorming.

RPA for industries and departments

RPA can be adapted to manage tasks for various industries and departments. Here's how the following six industries and departments can use robotic process automation:

1.Information technology

Information technology (IT) departments benefit from RPA tools by attaining increased compliance, workload reduction, and decreased security risk. These departments are regularly flooded with questions, tickets, and security related tasks. RPA reduces the workload experienced by IT departments when implemented to handle tasks that don't require specialist intervention, like triaging tickets, and software update reminders. However, RPA can also manage specialist tasks like compliance checks across applications, and infrastructure setup and management.

1.Human resources

Reduce the time spent on repetitive tasks associated with activities like employee acquisition, and onboarding. Human resources can use RPA software to quickly process applications in search of highly skilled, relevant hires. RPA can also be adapted to perform routine onboarding tasks, like providing new employees with their credentials, such as emails and passwords, as well as necessary onboarding documentation.

1.Finance

For finance teams, data accuracy and record keeping are essential. RPA tools increase the accuracy and reliability of bookkeeping and data management. RPA software can also assist finance departments by performing simple or complex financial calculations, automating communication for receivables, automated consolidation, and reporting, and validating payments.

2.Sales

With an RPA solution, sales processes are made easier. Using automation, sales teams increase the volume of potential business through automated outreach, profile updates, and acquisition of new leads. An RPA tool also reduces the need for expertise in routine, cross-departmental tasks, allowing for better collaboration between sales teams and other departments.

3.Marketing

Marketing teams use robotic process automation to their benefit

in several ways. For example, marketing departments implement RPA for ad buying, triggered guides, workflow management, and analytics. With RPA software, marketing teams avoid creativity drain, and focus on content creation, and delivery.

6. Operations

RPA can streamline and reduce the costs of different operational processes. For example, RPA can be used to quickly assess enquiries, and fulfil requests as a part of procurement processes. And for supply chains, RPA manages order placements, order communications and fulfilment, and payment processing.

Advantages of RPA

1. Efficiency gains. RPA can complete tasks more quickly than humans, and it's able to do so at a lower cost. As a result, organizations can expect productivity boosts without seeing a commensurate increase in costs that would have occurred had they hired new workers to do the same volume of work within the same allotment of time.

"That's just how bots operate -- it's computer code, so it runs 365 [days,] 24/7, unlike us humans who need to take breaks. It's tough to compete with," said Tony Abel, managing director of the supply chain solutions practice and RPA lead at the consulting firm Protiviti.

2.Reduction in errors. "Computers do what they're told. They don't make a lot of errors as humans can sometimes do," Abel said, adding that RPA software also provides a comprehensive audit trail so organizations can see what was done when.

Modern transformation

Roughly 60% of world-class CEOs say RPA is one of the most important parts of digital transformation.

Today RPA adoption is the ideal solution for companies looking to optimize their legacy IT infrastructure to stay competitive.

3. Increased agility. RPA often enables an organization to more easily accommodate business process changes, said Ken Weilerstein, analyst and consultant at The Analyst Syndicate.

Workers can often make quick adjustments within the RPA software, which tends to be lightweight and flexible, rather than request IT staffers carve out time and resources to revise the underlying business systems -- typically, a more time-consuming, complex and costly task.

Similarly, because RPA is layered on top of enterprise systems and not built into them, new RPA deployments or changes to existing bots come with a lower risk of disruption or unintended consequences. Therefore, organizations have the option to use RPA to enable rapid adjustments to processes, further increasing their agility.

How Does RPA Work?

RPA is flexible enough to suit businesses of all sizes, from startups to corporate companies.

Unlike other forms of automation, RPA has good intelligence to decide exactly if a process should happen. It analyzes the submitted data and makes decisions based on the logical parameters set by the developer.

There are two types:

Programmable bots

These define the established rules, and the programmers should determine the parameters before a given bot can start working. It involves step-by-step process planning and it can take much longer for more complex tasks.

Intelligent bots

These types analyze both historical and current data to understand how employees are performing the process. The robot monitors click mouse movements and actions. After a while, when it has analyzed enough data, the bot will complete the process independently.

Robotic Process Automation Benefits

Cost savings

This is the first and one of the crucial benefits of RPA. The big plus is that you don't have to upgrade or replace existing systems for RPA to work, as it's software independent. Robots help you eliminate disparate technologies by reliably connecting all software tools, regardless of function and department, in front and back offices.

Reliable resilience

The global pandemic has shown us the importance of operational resilience to sustaining businesses in difficult times. Developing a robust digital workforce with RPA implementations can help provide additional layers of different circumstances during "uncertain" times.

High accuracy

Despite the digital transformation, employee experience remains essential. Based on data from UiPath, Forrester

Consulting, about 65% of people believe that RPA is a significant change in work and allows employees to interact more with people and pay more attention to meaningful

Healthcare

The current health situation has dramatically accelerated the digital transformation. RPA, together with Artificial Intelligence, performs almost all information-related activities. It retrieves data, categorizes files, and searches for required contact information. Automated robots are also used to register new patients, work with medical records and enter other important data.

How To Use RPA For My Business

Insurance

The bots will use intelligent document processing to extract data from claims forms, damage assessments, physician statements and automatically update claims files. In this case, RPA makes it much easier to check coverage and sort the settlement notification requirements and payment. Intelligent analytics built into the RPA platform provides real-time dashboards and insights into claims volume, frequency, severity, status, and timing.

Banking

Automation with RPA enables banks and financial companies to transform data-intensive manual transactions while following ever-changing regulatory requirements. What's more, organizations can automate new account settings and streamline data collection from internal and external systems for customer verification, welcome emails, and CRM updates with new data.

Manufacturing

Like any other field, the manufacturing industry has many tedious administrative tasks. But reducing the need to do this allows workers to focus on other, more critical work. Thus, office automation provides enormous benefits and helps speed up other processes.

Public Sector

RPA, in this case, makes it possible to reduce the time spent by employees on routine, monotonous tasks to provide more time for interaction with the public. Moreover, RPA also contributes to better data, thereby triggering more efficient management decisions.

Life Sciences

Many life science organizations are already actively using RPA bots to accelerate the delivery of new drugs, gain and expand innovations, and optimize manufacturing operations and supply chains. It also helps increase efficiency, improve workflows and empower your team.

Great Productivity

Performing repetitive tasks often leads to interruptions in employee work. But reallocating them to tasks in which they use high skills can improve their professional experience and increase productivity. Thus, robotic automation can improve your company's performance and avoid employee burnout due to tedious work.

employees

The bots help employees interact with customers by performing system work and data entry, reducing call processing times, and improving customer experience by 51%.

Greater scalability

RPA automation allows you to make large-scale business processes more flexible and adaptable to volatile times and changing conditions. In other words, you can handle any workload faster with an enhanced digital workforce.

RPA has many advantages, it also has its dark sides.

Culture of learning

RPA helps reduce the need for certain roles, but don't forget that it also stimulates the growth of new roles to solve more complex tasks. Be ready to improve your culture of learning and innovation as you change positions. Employee training is always essential to a business, as by improving their skills, you can prepare teams for continual shifts in priorities.

Hard scaling

Based on Forrester data, 51% of customers say they cannot scale their RPA program due to high costs. according to this research, about 98% people reported that the robots' logic requires specific scripts. In addition, 78% of business owners say they have difficulties because their RPA programs require more advanced programming skills.

What Are the Features Essential in RPA Technology?

Transformation of your company

Automation bots help save time spent on routine tasks, resulting in employees engaging in more critical strategies.

Using RPA in combination with artificial intelligence (AI) and other technologies makes it possible to automate your organization and processes completely.

ROI for RPA

Based on data from this Institute, automated solutions help deliver massive savings of 24% to 35% in labor costs.

The company can customize its RPA investment for optimal ROI. To maintain the desired level of success, you need to consider and measure metrics throughout your RPA journey.

Small initial investment

Robotic automation reduces processing costs by up to 75%. The price of such a solution depends on the number of robots and software components to be deployed. On average, the cost of one bot can reach \$5,000 to \$15,000. In less than a year, most companies already have a positive ROI and potential cost savings.

No interruptions in work

Robotic automation doesn't require any intervention in production systems and uses existing infrastructure without disrupting the operation of the underlying systems.

Improved scalability

RPA centre can perform a relatively large number of functions ranging from desktop computers to cloud environments.

Low code assemblies

RPA and business process automation contain low code modules that allow you to take full advantage of robotic automation without the need for additional programming languages.

Automation Software: Use Cases



Marketing and lead generation

As we know, lead generation is one of the most critical marketing components. Your team adds new data from external sources for leads to the CRM system.

Most modern CRM platforms have built-in data loading tools. However, another part of them requires manual input of information about each new lead. This increases the likelihood of errors.

When you implement RPA, workers can quickly import any data from their spreadsheets. It gives teams more time to interact with other customers.

Payment statement

The ongoing processing of payrolls is an uphill task for the HR team.

This often requires a considerable amount of data to be entered, which also leads to errors and causes delays in payment.

By using RPA for HR processes, your employees can automate payment transactions faster, avoid inaccuracies, and check the consistency of employee data across multiple systems.

Financial and accounting

Every end of the month and after quarterly periods are stressful times for the finance departments of any company.

RPA in finance analyses past and current market trends to make accurate forecasts of the company's financial condition. In addition, automated bots download monthly sales data and calculate commission fees.

Recruitment processes

HR department can receive resumes from various platforms, evaluate their value, and eliminate spam using automated robots.

What's more, bots keep track of vital hiring processes from 80% to 90%. It includes checking, evaluating, measuring, and adapting. So, this is also one of the great benefits of RPA.

Conclusion

In conclusion, automation and robotics have significantly impacted industrial processes by enhancing efficiency, precision, and flexibility. The integration of these technologies into manufacturing, healthcare, logistics, agriculture, and other sectors has brought about numerous benefits.

References

1. Marquez, L., & Delgado, M. (2017). Robotic Process Automation: A Comprehensive Review. *IEEE Transactions on Automation Science and Engineering*, 14(2), 481-494.
2. Lee, S. H., & Siau, K. (2019). Robotic Process Automation (RPA) in Business Process Management: A Survey. *Journal of Organizational Computing and Electronic Commerce*, 29(3), 206-225.
3. Davenport, T. H., & Ronanki, R. (2018). Artificial Intelligence for the Real World. *Harvard Business Review*, 97(1), 108-116.
4. Biswas, K., & Awasthi, A. (2019). Robotic Process Automation (RPA) and Its Impact on Business Process Outsourcing (BPO). In *Proceedings of the 2019 IEEE International Conference on Robotics and Automation (ICRA)* (pp. 3264-3269).
5. Schatsky, D., Muraskin, L., & Gurumurthy, K. (2015). The Robots Are Coming. *Deloitte Review*, 17-28.
6. Lacity, M., & Willcocks, L. (2017). Robotic Process Automation at Telefónica O2. *MIS Quarterly Executive*, 16(2), 99-104.
7. Hsieh, S. C., & Lin, B. (2018). The Impact of Robotic Process Automation on the Outsourcing Industry: A Transaction

8. Cost Perspective. *Information Systems Frontiers*, 20(2), 259-272.
9. Choudhury, A., & Lacity, M. (2019). Robotic Process Automation (RPA): A Literature Review and Implications. In *Proceedings of the 40th International Conference on Information Systems (ICIS)*.
10. Bharadwaj, A., & Sawhney, R. (2018). Robotic Process Automation in Finance and Accounting: A Case Study of a Leading Multinational. *Journal of Management Information Systems*, 35(3), 804-841.
11. Maedche, A., & vom Brocke, J. (2020). Opportunities and Risks of Robotic Process Automation: A Delphi Study. *Business & Information Systems Engineering*, 62(2), 221-252.
12. Sutiyo, & Wibisono, Y. (2017). Robotic Process Automation as the Next Era of BPM. In *Proceedings of the 2017 International Conference on Information Management and Technology (ICIMTech)* (pp. 96-101).
13. Dignum, V., & Dignum, F. (2019). Ethical Use of Robotic Process Automation. In *Proceedings of the 2019 IEEE International Conference on Robotic Computing (IRC)* (pp. 97-102).
14. Ince, G. (2016). Robotic Process Automation in Shared Services. In *Proceedings of the 2016 International Conference on Industrial Engineering and Operations Management (IEOM)* (pp. 1-6).
15. Niazi, A., & Hussain, A. (2018). An Empirical Investigation of the Perceived Benefits of Robotic Process Automation (RPA) in Financial Services. In *Proceedings of the 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)* (pp. 1254-1261).
16. Keerthi, S., & Ramakrishnan, M. (2020). A Comprehensive Study on the Benefits and Challenges of Robotic Process Automation (RPA). In *Proceedings of the 2020 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC)* (pp. 1-8).
17. Boland, A., & Sidebottom, A. (2019). Automation in Finance: The Future of Work? *Journal of Corporate Accounting & Finance*, 30(4), 101-105.
18. Thong, J. Y., & Yap, C. S. (2019). Understanding Robotic Process Automation (RPA): A Literature Review. In *Proceedings of the 2019 22nd International Conference on Computer Supported Cooperative Work in Design (CSCWD)* (pp. 73-78).
19. Kraus, S., & Richter, C. (2018). The Benefits of Robotic Process Automation in Logistics. In *Proceedings of the 2018 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)* (pp. 832-836).
20. Barat, S. (2017). Robotic Process Automation: A Disruptive, Emerging Technology. In *Proceedings of the 2017 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)* (pp. 1-4).
21. Bansal, G., & Sharma, V. (2018). Leveraging Robotic Process Automation for Business Process Outsourcing. In *Proceedings of the 2018 IEEE Calcutta Conference (CALCON)* (pp. 128-132).