Robotic Process Automation

N. Kishore[*]

Abstract: A software 'robot' is a software application that replicates the actions of a human being interacting with the user interface of a computer system. The Robotic Process Automation (RPA) is a Framework which is used to configure a software or a "robot" to do work such as data manipulation, Communication with other systems, transaction of money or shares, booking tickets. This white paper gives an overview of RPA, it's advantages, comparison with traditional automation tools and how to select an RPA automation tool. It also explains the feature of RPA and some recommended tools.

1. INTRODUCTION TO RPA

The Robotic Process Automation (RPA) is a Framework which is used to configure a software or a "robot" to do work such as data manipulation, Communication with other systems, transaction of money or shares, booking tickets. A software 'robot' is a software application that replicates the actions of a human being interacting with the user interface of a computer system. The RPA robots "learn" from their human instructors, and collect knowledge that can be built up and extended to other new robots. For Instance, "This framework is very useful in the companies which use a lot of labor for Data manipulation", This framework will reduce the cost for labor work and reduce the time for completing the work. The Robotic Process Automation can be used in various number of fields.

2. RPA VS TRADITIONAL AUTOMATION

The framework Requires no complex integration and also Rolls out faster, due to the above two factors (no complex integration and quick to deploy) Robotic Process Automation costs less, achieves ROI (Return On Investment) more quickly and continues to drive down costs long after launching. While in the traditional automation it is based on the labors skill to complete the work faster.

The Humans are under the era of committing the mathematical and parallax errors while in terms of the RPA the errors are very low.

Even though it might take time to command and to build the framework to do some work, after the process the work can be done faster and efficient from man-hours and man-years to Minutes and Seconds.

3. BENEFITS OF RPA

Lower cost: Robotic Process Automation can save a 25-50% cost saving to the company. It also enables execution of the program $24 \times 7 \times 365$. A software Robot can cost only a one-third of the price to a person.

It has also been estimated that the average provider has achieved a positive return on this investment within six months.

Higher Efficiency: RPA offers an improved service delivery model by increasing production and accuracy, reducing cycle times and decreasing the need for ongoing training. Unlike humans, robots can work 24 hours a day, seven days a week. Typically, one robot can do the work of two to five FTEs.

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[*]   *Email: kishorenkepro@gmail.com, nkishore_newtonl@srmuniv.edu.in*

Advanced ANALYTICS: Process automation makes gathering and organizing data easier so a company can predict future outcomes and optimize their processes. Advanced analytic techniques create a feedback loop. The analysis determines areas of improvement, and the improved processes, in turn, produce more specific data that allows for further improvement of operations and higher levels of efficiency. Advanced analytics is an essential element in achieving regulatory compliance, cost effective growth and optimized operations.

Greater PERFORMANCE & QUALITY: Out of every 100 steps, a human is likely to make 10 errors, even when carrying out somewhat redundant work. Robots are trustworthy, consistent and tireless. They can perform the same task the same way every time without error or fraudulence. RPA optimizes capabilities that grow organizational capacity.

After deploying automation software to support a number of IT processes, one company was able to increase organizational productivity and capacity without extra recruiting or training. They achieved payback in approximately 15 months with a calculated return on investment of 141 percent and concluded that they could expect greater returns as they continued to automate more workflows.

4.   TOOL SELECTION

There are various and numerous number of tools available in Robotic Process Automation (RPA). The most of the types of tools are used in IT, BPO and Business management field.

A Good RPA tools must have following qualities:

- **Scalability:** Workforce on a real-time basis should be at the minimal costs. It should Enhance productivity through advanced record and play capabilities.

- **Rapid Deployment:** It should enable users to easily manage automation tasks and no programming requirements, thereby speeding up deployment. It should also enable users to automate any action on any interface without scripting.

- **Control Management/Security:** Real-time centrally management command & control center (cloud based) system to monitor and measure robot performance. Surveillance capabilities covering all users, logs and ongoing tasks, with extensive access management controls. On-demand Auditability of robot tasks, with advanced analytical.

- **Tech/Training Support:** It should provide a 24×7 tech support.

5.   EXAMPLES OF ROBOTIC AUTOMATION TECHNOLOGY

- Robotic Process Automation software, performing repetitive, back office data-driven processes

- Foxtrot [Robotic Process Automation software] performing data- and business-related tasks and processes just like a human employee

- Voice recognition and digital dictation software linked to joined up business processes for straight through processing without manual intervention

- Specialized Remote Infrastructure Management software featuring automated investigation and resolution of problems, using robots for first line IT support

- The use of Chatterbots by internet retailers and service providers to service customer requests for information

- Presentation layer automation software, increasingly used by Business Process Outsourcers to displace human labor

- IVR systems incorporating intelligent interaction with callers

6. THE FUTURE OF RPA

The future of RPA is subject to much speculation, as the early majority adopt the technology and discover new uses and new synergies. Possible future trends may include:

- A convergence of BPM and RPA tools, much in the way that the distinction between BPM and workflow tools is now blurred

- Greater incorporation of artificial intelligence (AI) for advanced decision making and inferencing.

7. CONCLUSION

The ability to automate manual tasks for improved process and cost efficiencies is driving robotics to gain prominence across industries, and enterprises can only ignore it at their own peril. That said, there are specific issues and areas in the financial services sector that will need to be carefully examined before deployment of robotic processes, to ensure minimal disruptions to business and full compliance with regulatory standards. The only dictum to remember is that if it can be written down as a set of rules, then there is no need for human intervention other than to write the rules!

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