

RPA for Human Resource Operations

RPA Technology

Anusha N D, Baishali Rawat,
Renuka J, Sahana S
Computer Science and Engineering,
Bangalore Technological Institute,

Vijayshree H P
Assistant Professor
Computer Science and Engineering
Bangalore Technological Institute

Abstract:- Robotic Process Automation (RPA) is a solution in which a 'robot' can take over standard and repetitive activities that are currently carried out by humans. RPA is not a physical machine. It is software which acts as a virtual (co-) worker in the support of processes. The robot software assists with basic tasks and as such reduces the time and cost spent on processes. An RPA robot is Software which does not replace existing HR or Payroll software. A program that can take over tasks carried out by humans. Very useful in supporting data driven processes. The big advantage of RPA is that robots are able to use the existing systems and processes. Therefore no significant investment in the replacement of HR or Payroll systems is needed. Robots are particularly helpful in processes that require a lot of data processing. Typical tasks for robots include: collecting data from XLS files or systems, running reports, copying data, checking data for completeness, reading, processing and submitting e-mails, entering data in HR or Payroll systems and pre-populating forms.

Keywords—Automation, Bot, Optical Character Recognition, Metabots, Operations, Process

I. INTRODUCTION

Robotic Process Automation (RPA) is a solution in which a 'robot' can take over standard and repetitive activities that are currently carried out by humans. RPA is not a physical machine. The robot software assists with basic tasks and as such reduces the time and cost spent on processes. An RPA robot is Software which does not replace existing HR or Payroll software. The big advantage of RPA is that robots are able to use the existing systems and processes. Therefore no significant investment in the replacement of HR or Payroll systems is needed. Robots are particularly helpful in processes that require a lot of data processing. Typical tasks for robots include: collecting data from XLS files or systems, running reports, copying data, checking data for completeness, reading, processing and submitting e-mails, entering data in HR or Payroll systems and pre-populating forms.

Automation makes your HR checklist that much shorter. Instead of having to manually update the applicant tracking system after a new hire, make a new employee record for your employee database, gather employee documentation and create a new employee in your payroll system, RPA can act on your behalf to complete these tasks in other systems. It makes it possible for your software systems to communicate with each other. With RPA integration, these systems can become instantly

responsive from the moment a new employee is welcomed into a company. In human resources operations, RPA doesn't mean that robots are making decisions. Quite the contrary. RPA HR use cases involve automating the simplest, most repetitive administrative and clerical actions at the keystroke level. HR operations processes that can be simplified using RPA include employee relations, training and development, recruiting and hiring, benefits and compensation, and HR generalist activities.

II. PROBLEM STATEMENT

A) Existing System

The existing system humans work on interpretation and decision making, but also on tasks related to collecting, copying, checking of data files, it also consumes time for Imagine you're a human resources employee at a large, global company. The organization is growing rapidly, and talent acquisition is the priority.

As an HR representative, your job is to evaluate candidates — vet them, interview them, train them — and to hire the best possible people for the roles your company is filling. Your company is hiring — that means you're growing smartly and speedily.

Your talent recruitment role is just the beginning of the work. As an HR professional, you're likely working with multiple other people in your department throughout the recruiting and onboarding processes. Bringing a new employee into a company involves large amounts of paperwork, processes and management that can be repetitive and time-consuming for both the hiring department and the new employee.

That's where automation — with its ability to transform HR departments and the processes that are completed through them — comes in.

People physically work on collecting, copying and checking of data.

HR in the existing system will physically works on collecting the data and copying the data from one place to other and also check the data validation in the system.

Time-Consuming

HR will physically sit and do the work therefore it consumes lot of time to accomplish the task.

Error rate is reduced

HR is the human doing it the task therefore there will be lot of error when compared to the software replacing the work.

B) Proposed System

High performing HR departments are turning to technology to solve these issues.

By allowing robotic process automation (RPA) to perform highly repetitive, mundane tasks, HR is able to focus on its strategic, value-added work such as managing recruiting and hiring employees, coordinating employee benefits and suggesting employee training and development strategies. RPA also enables HR to better manage the horde of administrative tasks connected to the HR department, like automating payroll, benefits administration, compliance reporting, etc.

A better way to run payroll tasks Most payroll processes are highly repeatable and rule-based which makes it a classic use case for RPA. Even in the best structured departments, HR staff invests a fair share of time administering employee payroll related records. Most of that work is getting information from one system to the next, making updates, changes, and administering it to work as smoothly as possible.

A better way to manage data Just think of all the data that human resource management (HRM) professionals must manage regarding: current employees, past employees, applicants, new hires, compliance and regulatory requirements, payroll and benefits. This amount of HR data can be difficult to track within even small to medium-sized organizations, let alone large companies with multiple offices, languages, laws, and locations.

A better way to ensure compliance and reduce liability risk Constant changes in government regulations have a big impact on HR processes and activities, such as benefits administration and compliance reporting. This problem intensifies many times over if the company operates in different states and countries, each with its own sets of laws and regulations. Using RPA, you ensure that the process is executed in accordance with policy. The result is not only adherence to compliance requirement, but also faster execution of processes and elimination of human error.

All large human resources departments today are facing the same challenges that you are. RPA is here to bridge the gaps that other solutions have left behind. Now, let's review the onboarding process after RPA has been layered on top. RPA reduces the processing time from 138 minutes to 3 minutes, or 98%.

- RPA emails forms to the new hire for completion.
- The new hire returns completed forms and attachments.
- RPA checks for emails and completes related activities.
- The new hire receives an email for any incomplete or missing information.
- RPA receives the new hire's supplemental information.

III DESIGN

- RPA enters the new hire's information into the HR system.
- RPA validates data for inclusion.
- A manager prepares for start date and business activity.
- RPA deploys new-hire notifications to internal and external third-parties.
- The new hire commences work on Day 1.

IV APPLICATIONS

Healthcare

Healthcare process can also be automated as how nowadays healthcare operations are getting automated by use of physical robots. Similar way taking of appointments instant messages to patients can be automatically sent through automation.

Customer Service

Customer Services has already started using robot in some countries for food delivery etc., in the same way taking orders, sending related advertisements to the purchase made earlier, cancellation of orders related messages to the customers can also be automated.

Accounting

Maintaining records like employee onboarding, offboarding, leave requests storing all these in the database, related instant messages to the customers can also be automated.

Financial Services

Financial Sector as that of banking sector operations can also be automated like creating of bank accounts upon which request they need to create.

Business Enterprise can be automated

Any business enterprise that deals with the repetitive tasks that consumes day to day time and energy can be automated, according to the business needs the tasks or the process can be automated,

V CONCLUSION

The proposed system which is designed shows the simulation output of automation, as how the tasks or the process that is done by the human can be replaced by the robots and how the work is carried out easily by the software that is implemented the platform as also how accurately the work is done, the productivity of each output is high and also the cost that is spent on the process is also very less and how the required task is completed by the bot efficiently and errorlessly done.

REFERENCES

- [1] Ruchi Issac, Riva Muni Kenali Desai, "Delinited Analysis of RPA tools", Harvard Business Review Online June 2019.
- [2] Sun Vasarshelyi, "RPA for Auditing", Journal 2016 .
- [3] Markus Alberth, Michael Matt. "Understanding RPA tools", Journal 2017.

- [4] Damon yans , Ssuehieh Lian, "RPA in semiconductor and smart manufacturing", Journal 2018.
- [5] Aini Aman , Fernandez, 'Impact of RPA on global accounting services",Journal Paper 2018.
- [6] Hendrik Lund, Luilgi Palgrian , "The future of robotics technology", April 2017
- [7] Miklos Andrea, Rozario , "RPA in transforming Accounting and Auditing", June 2018, Journal Paper.
- [8] Frank Casale , "Introduction to RPA", June 2018
- [9] MaryLacity , LeslieWillcocks,"The next transformation of Robotics" , June 2018.
- [10] Aini Aman ,Fernandez, "RPA is transforming auditing and banking sector",June 2018
- [11] Google
- [12] IEEEExplore
- [13] Edureka