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# Recognize Candidate task for Robotics Process Automation

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**Abstract:** Innovation is progressing quickly in practically every one of the fields, not in a moment but rather consistently. With this speedy advancement in innovation, huge development has been seen in the worldwide computerization industry. The utilization of robotization strategies is in ceaseless development and it is expected for an anticipated future. Robotic Process Automation is one of the surprises in the computerization business and extends higher likely to the extent that use and staff execution in the approaching year is ordinary. Just like the advantage of making mundane tasks more reliable, quicker, and with greater outcomes. With such distinct advantages, it's hard not to become exuberant with mechanization, but rather bouncing in aimlessly can present huge outcomes while attempting to scale or assess your ROI. Huge undertakings are as yet battling to scale RPA (just 3% of bot arrangements arrive at scale). The business processes they decide to robotize might be a contributor to the issue. Despite the fact that the amazing open doors and possibilities for Robotic Process Automation are adequate, truly, RPA isn't appropriate for each cycle. We've consistently supported that one of the keys to scaling RPA, is picking the right cycles to automate.

**Keywords:** Candidate Task for Automation, Robotics Process Automation, Repetitive Task, Software Bot, Business Process Automation, Software Robots.

## I. INTRODUCTION

Robotic Process Automation (RPA) emerges as software technology that automates rules-based business processes that include routine errands, organized information, and deterministic results. The potential for Robotic Process Automation (RPA) to dispose of the commonplace, tedious assignments so venture ability can zero in on higher-esteem expectations is irrefutable. Ordinary administrative centre representatives, as a matter of fact, spend up to 80 percent of their day on such unremarkable exercises. These laborers are filling in structures, making monotonous computations, and handling orders — everything that is crucial for consumer loyalty yet drawn out for representatives. Robotic Process Automation enables enterprises to create true virtual workforces that drive business agility and efficiency. Robotic Process Automation (RPA) utilizes the most recent programming innovations to consequently deal with PC undertakings that are exceptionally organized, daily practice, and dreary. For undertakings that are generally determined by rules, timetables, or occasions, a robot can jump in the driver's seat and take care of business. Bots complete business processes, similarly to an individual would, however quicker than expected, with more noteworthy exactness, and for a portion of the expense. Bots can do things like mechanizing information passage, information move, and check errands, distinguishing and separating information, and playing out a large number of characterized activities. RPA stands apart for its capacity to affect business results, bringing about critical ROI. However, programming robots can do it faster and more dependably than people.



Robotic Process Automation (RPA) has become immovably settled in banking, protection, and other enormous organizations. In these sorts of associations, it is easy to conclude which cycles ought to be automated first, because of their scale. The case is slightly different for companies in the small or medium-sized segment. Here, it is definitely more difficult to identify such processes and appoint the person responsible for finding them and calculating RPA profitability. With such stark benefits, it's hard not to become overzealous with automation, but jumping in blindly can pose significant consequences when trying to scale or evaluate your ROI. Large enterprises are still struggling to scale RPA (only 3% of bot deployments reach scale). The business processes they choose to automate may be part of the problem.

## II. BACKGROUND

Completely understanding any process that you're thinking about automating is paramount. That means fully understanding every step of the process, the process's objective, and most importantly, its business context or how it fits into the big picture. A common mistake many large enterprises make when implementing RPA is to hasten their approach and automate processes that are flawed to start with. A basic principle of process automation is that only clearly defined, standard, and precise processes are fit for automation. Most large organizations don't have clearly defined, standard processes. If you take something as simple as processing an invoice, I'd wager there are several different ways your organization processes invoices. Automating the same process six times in six different ways is a waste of resources and will only add barriers in any attempt to scale. Understanding your processes is the first step to standardization and then optimization, which lends itself beautifully to automation.

Before we start process identification for RPA There are many ways, technological and otherwise, to optimize processes. The search for the first process for Robotic Process Automation should be based on your answers to some general questions.

What do I want to achieve with robotic process automation

There is a belief that automation is designed to replace humans, or in other words to cut a specific number of jobs. Indeed, this is a more common approach in large RPA projects. In SMB companies, these savings are not directly reflected in the process cost itself, so when considering Robotic Process Automation it is also a good idea to look at the other benefits we can achieve:

### A. Efficiency Improvement

Our goal may be to provide employees with the tools to be more productive.

### B. Error Reduction

If the cost of an error in a process is high in your industry, RPA may be a good idea.

### C. Making The Process Independent Of People

If you recognize the danger of key processes in an organization being dependent on the availability of people, then such independence could be the goal of RPA.

### D. Better Team Satisfaction

You may find that implementing RPA does not reduce costs, but it will increase team satisfaction.

### Benefits of RPA



**Cost Reduction**



**Error Reduction**



**No Human Factor**



**Better Team Satisfaction**

Who is to be responsible for identifying processes for automation:

In large organizations, separate teams are set up to identify processes and develop automation knowledge across departments. So how do you approach this in a smaller organization? Should it be IT, business people, or perhaps a designated person from each department? Here, unfortunately, there is no single answer. It very much depends on what the organization looks like. One thing is certain: it is the business and those in management who should look after the project, as they are the ones able to delegate work effectively and have the broadest view of how it looks from a company-wide perspective.

Is automation of business processes the best way to automate in my case:

RPA is just a tool, one of many, for automation and optimization within the company. However, to be effective, it needs to have the right input data. In the case of RPA, it is about properly defined processes. In addition, these processes should be mature. In addition, we need to be aware that in many cases we will find other tools to deliver the expected results more quickly and easily. A case in point is the combination of RPA and workflow platforms.

### III. APPROACH

#### A. Define your RPA Criteria

- 1) *Repetitive in Nature*: It might seem obvious, but processes that are highly manual and repetitive by nature are necessary to get the payback of automation. There is no point in automating a process that you might do occasionally, as the problem just isn't big enough to solve. Processes that have high transaction volumes, and are frequent, i.e. are (at least) daily or weekly, and not monthly or yearly, and involve plenty of manual work (and are prone to human error) are good candidates for RPA.
- 2) *Digital Data Inputs*: Processes that have a standard readable electronic input type are suitable, as RPA is not (yet) at the stage where its ability to intuitively understand variations in handwriting or interpret a text from images. The inputs should be in the form of readable input types like Excel, Word, XML, readable PDF, etc. Having an OCR capture engine that can convert the document into these formats at the front end is an alternative option.
- 3) *Rules-Driven*: Rules-based processes, with clear processing instructions which are template-driven, and have decision-making that is based on standardized and predictive rules are the best candidates for RPA. If there are too many variations or outcomes with a process it becomes intensive to implement and may not give you payback.
- 4) *Complexity*: The complexity of a process can be defined by the number of applications/systems, the frequency of human intervention, or the number of steps required in order to execute the task. While automation of complex activities is likely to have a greater impact on a company's business operations, these processes are also more difficult to automate and will typically require a greater time and financial investment on behalf of the company. By initially automating the simplest processes, businesses will be able to first learn the ins and outs of their RPA software. After initial small automation successes are achieved, transitioning to automate higher-level tasks will allow companies to maximize the impact their RPA software can have on streamlining and optimizing operations.
- 5) *Volume*: Most online businesses, service providers, and organizations do not have a defined set of opening hours, meaning a high volume of orders, requests, and complaints are received around the clock, regardless of weekends and holidays. When a company is entirely reliant on human employees, this workload can only be addressed when employees are present in the office. In comparison, RPA is the most efficient and productive tool to address these high-volume tasks because software robots are able to work 24 hours per day, 7 days each week, and 365 days each year. Instead of being limited to working at a certain time of day or week, RPA software robots are able to tackle activities quickly and accurately even when employees are out of the office.
- 6) *Standardization and Stability*: RPA is best suited for automating tasks that are highly definable and occur the same way every time. These activities are rules-based, consistent, and data driven. On the other hand, RPA is not meant for automating tasks that are constantly changing, non-standardized, and unstable because they cannot be easily defined. Considerations in this area should address whether the task takes place in the front office or in the back office. Back-office tasks include, for example, claims processing, transaction duplication, or account opening automation. While front-office automation is possible, back-office tasks tend to be more transactional and repetitive, making them more suitable for automation. Activities that occur in the front office, on the other hand, tend to revolve around complex thinking, judgment, and decision-making skills.
- 7) *Differences and Similarities in RPA Utilization*: Even though RPA can be implemented in any company or industry, the technology will be applied differently in every automation scenario. Businesses that are just beginning the RPA journey will have different automation and operational goals than RPA veterans looking to expand the scope and complexity of their already existing automation. Similarly, regional companies that might be using RPA for scaling purposes will leverage the technology

differently than global enterprises looking to enhance their regulatory compliance. At the same time, automated processes all have fundamental characteristics in common, which we've discussed here, that are able to serve as a baseline for organizations wanting to achieve operational improvements and automation success with RPA. Regardless of the specific process automated, leveraging RPA to deliver high business value, drive significant cost benefits, and align with business goals will allow the technology to have a maximum impact on operational activities. Now that you have an idea of what to consider when selecting which processes to automate, let's get more specific.

### B. Define your RPA Objectives

Everyone has the same RPA objectives: to eliminate mundane, repetitive tasks so your workforce can focus on higher-value efforts while making those mundane tasks more reliable, efficient, and with higher-quality results, to deliver business objectives and customer satisfaction.

Are there any processes creating bottlenecks

Are there processes that need more resources in order to be scaled

Are parts of your talented, knowledgeable workforce executing tasks that require no critical thinking skills that consume their time

Have operations suffered from error-prone data entry

### C. What to Avoid When Selecting Automation Candidates

Avoid automating processes that are hosted in or linked to legacy applications that will be depreciated soon, as you are less likely to realize the full ROI and will be incapable of scaling your automation initiative in the long run.

Do not automate a flawed process. While automation may seem like the quickest, easiest, and perhaps even the cheapest way to improve an operation, it is always better to optimize or reengineer a process before (or instead of) automating a broken system.

A process may check all the boxes of what to look for in an RPA candidate and seem to be an ideal process to automate, but if it only takes 30 minutes for an associate-level employee to complete then the cost savings would never provide a return on investment. It is important to understand all the steps in the process as well as the impact it has on the department and/or the organization from end to end. While it may seem obvious, people often overlook the big picture, and increasing the speed and efficiency of a few steps in a process only to get bottlenecked at the next step/phase/department does not really improve your operation.

While using OCR (Optical Character Recognition) software to read, transcribe, and format hand-written documents is a useful and common automation capability, it is another type of automation that is best suited for an experienced automation team and less ideal for an introduction to RPA.

Processes involving human judgment should be avoided for RPA proof of concepts and first-phase implementations as hybrid automation are more successful when implemented when the organization has an established and experienced automation team or with the assistance of RPA implementation consultants.

## IV. CONCLUSION

Robotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate human actions interacting with digital systems and software. The potential for Robotic Process Automation (RPA) to eliminate mundane, repetitive tasks so enterprise talent can focus on higher-value deliverables is undeniable. As is the benefit of making those mundane tasks more reliable, faster, and with higher-quality results. In this paper, we have discussed how to identify candidate tasks which best suitable for Robotic Process Automation. Whether the automating process is a good idea for an organization or not. We discussed the criteria and basic objectives for selecting the candidate process to automate.

## REFERENCES

- [1] Aguirre, S., Rodriguez, A.: Automation of a business process using robotic process automation (rpa): A case study. In: Figueroa-García, J.C., López-Santana, E.R., Villa-Ramírez, J.L., Ferro-Escobar, R. (eds.) Applied Computer Sciences in Engineering. pp. 65–71. Springer International Publishing, Cham (2017).
- [2] H. Leopold, H. van der Aa, and H. A. Reijers, "Identifying candidate tasks for robotic process automation in textual process descriptions," in Enterprise, business-process and information systems modeling. Springer, 2018, pp. 67–81.
- [3] Leopold, H., van der Aa, H., Pitke, F., Raffel, M., Mendling, J., Reijers, H.A.: Searching textual and model-based process descriptions based on a unified data format. Software & Systems Modeling pp. 1–16 (2017)
- [4] Leopold, H., Eid-Sabbagh, R.H., Mendling, J., Azevedo, L.G., Bai'ao, F.A.: Detection of naming convention violations in process models for different languages. Decision Support Systems 56(0), 310–325 (12 2013)
- [5] Leopold, H., Mendling, J.: Automatic derivation of service candidates from business process model repositories. In: Business Information Systems. pp. 84–95 (2012)



- [6] Leopold, H., Niepert, M., Weidlich, M., Mendling, J., Dijkman, R.M., Stuckenschmidt, H.: Probabilistic optimization of semantic process model matching. In: BPM. pp. 319–334 (2012)
- [7] Leopold, H., Smirnov, S., Mendling, J.: On the refactoring of activity labels in business process models. *Information Systems* 37(5), 443–459 (2012).
- [8] Tom Taulli, “The Robotic Process Automation Handbook - A Guide to implanting RPA System”.
- [9] <https://www.smartuigroup.com.au/7-criteria-to-identifying-processes-fit-for-rpa/>, “7 key criteria for Robotic Process Automation (RPA)”.
- [10] Daehyoun Choi, Hind R’bigui, Chiwoon Cho : Candidate Digital Tasks Selection Methodology for Automation with Robotic Process Automation.
- [11] [https://www.rpic.com/blog/rpa\\_selection/](https://www.rpic.com/blog/rpa_selection/), “Selecting the Right RPA Automation Candidates”.
- [12] <https://www.projective.biz/what-type-of-processes-are-suitable-for-rpa/>, “What type of processes are suitable for RPA?”.



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