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Future of RPA in the Tech Industry

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Abstract Robotic Process Automation (RPA) stands for creation, deployment, and management of software robots that mimic human movements when engaging with digital systems and programs. Software robots, like humans, can comprehend what's on a screen, type in the correct sequence of keys, find their way through complex systems, recognize and extract relevant data, and carry out a broad variety of predetermined tasks. The future of RPA has even more promising for improving the outputs in different industries. As a result of the ongoing social distancing requirements and rising economic pressure, RPA usage is evolving. To keep up with the new normal, businesses use this technology to increase productivity, streamline processes, and provide a better digital customer service experience. Robotic process automation (RPA) is all about executing digital operations that are repetitive in nature and can be broken down into smaller, rule-based tasks. Adopting RPA allows businesses to get past challenges like the need for a 4-eye authentication process, the prevalence of errors in transitioning process, the inefficiency of principle, and time-consuming back-office procedures, all while improving operational productivity and overall performance across the board.

Keywords Robotic Process Automation

1. Introduction

Robotic Process Automation (RPA) stands for creation, deployment, and management of software robots that mimic human movements when engaging with digital systems and programs. Software robots, like humans, can comprehend what's on a screen, type in the correct sequence of keys, find their way through complex systems, recognize and extract relevant data, and carry out a broad variety of predetermined tasks. The future of RPA has even more promising for improving the outputs in different industries. As a result of the ongoing social distancing requirements and rising economic pressure, RPA usage is evolving. To keep up with the new normal, businesses use this technology to increase productivity, streamline processes, and provide a better digital customer service experience. Robotic process automation (RPA) is all about executing digital operations that are repetitive in nature and can be broken down into smaller, rule-based tasks. Adopting RPA allows businesses to get past challenges like the need for a 4-eye authentication process, the prevalence of errors in transitioning process, the inefficiency of principle, and time-consuming back-office procedures, all while improving operational productivity and overall performance across the board.

2. Problems of RPA

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Problem 1: Input from Humans Only

The human stakeholders shouldn't be counted on to define any processes since it might cause problems. It leads to muddled thinking, sloppy record-keeping, and flawed procedures (Vijai *et al.,* 2020). However, automation is only useful to a certain extent if the necessary components still need to be included.

Problem 2: Inflexibility

Functionalities and operational processes can be interrupted for various reasons, including regulatory compliance, new technologies, shifting markets, and company mergers. The workforce can adjust to new circumstances, whereas RPA bots require constant human maintenance. Besides lowering productivity, this also lowers the return on investment.

Problem 3: The Failure to Accomplish the Pledges of Automation

Unusual payments, delicate customer service replies, and other judgment-based tasks need human oversight. Some tasks are better left to the human brain, and computers will never be able to replace that.

3. Solution

The tools used in automated processes and the underlying technologies evolve rapidly. Those who plan and act wisely now will benefit from this rapid development for many years. Consider how businesses felt about cloud computing a decade ago. Moving mission-critical data to the cloud was considered a radical and hazardous move. After all, without

physical access, how could one have faith in the data's safety and preservation? However, in today's globalization and dispersed workforces, “the cloud” has come to represent information management and organizational resiliency (Ansari *et al.*, 2019). Those that began using cloud-based methods were better able to adjust to the inevitable shifts that time and circumstance inevitably bring (i.e., the pandemic).

Figure 1. Transformative Potential of RPA (Source: https://www.biz4solutions.com/blog/how-robotic-process-automation-is-shaping-the-future-of-different-businesses/)

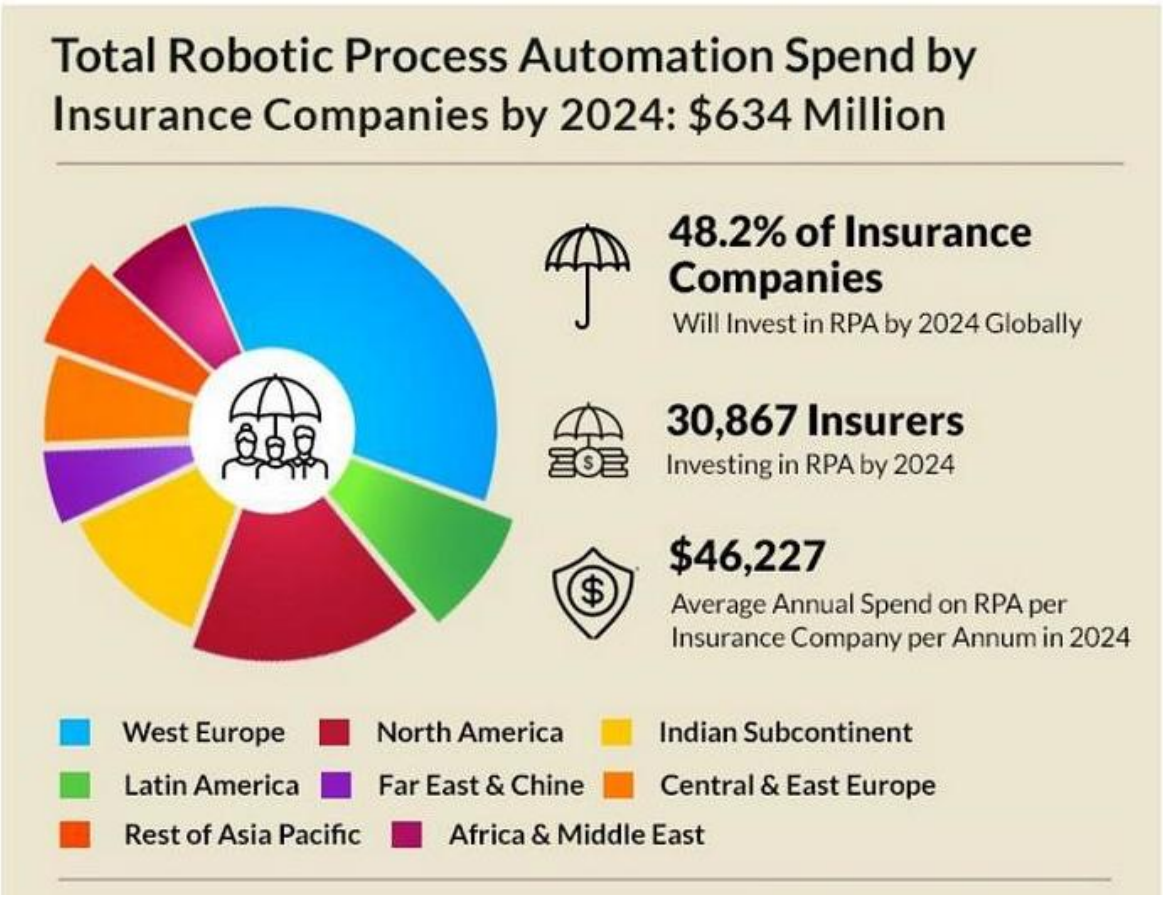

Figure 2. Annual RPA Spent (Source: https://blog.artivatic.ai/p/robotic-process-automation-powers)

Figure 3. Global RPA Evolution (Source: https://www.horsesforsources.com/rpa-marketsize-hfs_061017/)

In the same vein, "process management" will come to be interchangeable with "RPA." With automation as the focal point, every company procedure will be evaluated for ways to improve efficiency, effectiveness, and safety. Integration of RPA into the content universe of an organization is a crucial part of the development of RPA. It is starting to demonstrate its limitations as a standalone tool. Therefore, businesses should go beyond pure-play RPA systems (those that provide RPA solely as a service). Prominent experts in the field of productivity development expect that RPA will soon become a commodity. Differentiating elements will center on how well the RPA tool works with intelligent enterprise automation, a suite of interconnected tools that "may include intelligent capture, AI, ML, CM, workflow, low-code, and cloud-based content services."

Since these other tools will also improve in intelligence alongside RPA, it will be more prudent to invest in a platform that natively interacts with the other technologies that deliver the greatest value and "produce the highest, quickest ROI" (Doguc, 2022). Robotic process automation (RPA) technology stands alone in its ability to analyze, construct, operate, and manage the defined internal operations, and it will remain a pivotal role. However, RPA will be one of several parts of a larger intelligent automation plan.

While RPA automates individual tasks within processes, it is still up to individuals or other technologies to determine which processes need to be automated, how they should be automated, how they should be integrated with other frameworks to solve business problems, how they should analyze data from across systems, and how to make strategic decisions. Practical Implications for the organizations can make the most of their digital transitions by developing a tactical automation plan and implementing integrated solutions that solve their business challenges, boost their productivity, and consistently meet their performance targets.

4. Next Steps

Create a list of all the tasks that could be automated

However, RPA is only a good fit for some business activities. Organizations need a method for selecting the best processes and ranking them according to criteria like complexity and return on investment. It's important to visualize the result of automating these activities, consider the business context, and consider how these fit into the organization's future operations and automation goals (Oza *et al.*, 2020).

Doing a feasibility study.

Determine if and to what degree each process can be automated by conducting a feasibility analysis. Process evaluation and technical feasibility testing are the two phases of this procedure. This evaluation needs to be carried out by the user of the operation, a Subject Matter Specialist (SME), and an RPA expert.

Process Modification

Using the feasibility study results, pinpoint the activities that need to be more well-defined, standardized, optimized, documented, or carried out as expected (Kaya *et al.*, 2019). Now is the time to evaluate the process and see if there are ways to improve it.

Collect Success Tales

A user story is a narrative that details the functionality of a future software product from the user's point of view. Requirements from the user's perspective are laid out in great detail. A comprehensive description of each task that will be automated is also essential. Create an RPA workflow definition document for the development team based on this

information.

Developmental Processes

Developers use RPA technologies like UiPath, Blue Prism, and so on to develop automated scripts and code and to start the development process based on the RPA (Pramod, 2021). Since each RPA solution offers its own benefits, one must be selective when settling on one.

Test the Robotic Process Automation

Carry out extensive testing to investigate the process's behavior in every conceivable setting and identify any flaws. Notify the programmers of any problems or glitches that might affect performance.

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