

DRIVING EFFICIENCY THROUGH RPA

ABSTRACT

Rise of Robotic Process Automation, its technology landscape and emerging opportunities for business process automation through RPA.

Vijesh Nair

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Introduction

With the rise in digital technology, many organizations are adopting digital solutions in all aspects of the business starting from cloud-based solutions, mobile-enabled real-time updates, customer or user experience to reporting and back-office process optimization. **Cloud** computing, business intelligence, analytics, **IoT**, **RPA**, intelligent automation with AI and ML are few of the trending digital technologies. **Amongst these digital technologies, RPA is one of the fastest growing and easily adoptable digital technology.** Many leading research reports show CAGR of over 60% for **RPA** and estimated market size of \$ 2.9 billion by 2021.

RPA is a non-disruptive process automation technology which creates bot to automate repetitive, rule-based processes by mimicking the human activities on the application user interface.

A Brief history of process automation

The 1990s witnessed the business process outsourcing wave. During this, many large organizations started outsourcing their back-office processes to offshore locations in countries such as India, Philippines, China and more. The trend of outsourcing spread like a wildfire and all large organizations started setting up Shared service center or BPO offices. Many key back-office processes such as finance and accounting, human resource processes, Payroll processing and more were outsourced. The low-cost advantage of these countries due to weak currency helped outsourcing organizations in huge cost savings. Further, due to the nature of repetitive, unimagined work, workforce morale typically declines, impacting productivity. In many situations, because of shortage in the workforce, high skilled workers had to work on low-value tasks resulting in poor efficiency and less economic sense to what organizations aspire to achieve. Hiring a new resource is added overhead with long processes for on-boarding, training and high costs of office space, systems, salary benefits and more.

RPA emerged as the most efficient solution to these issues. Organizations can reduce up to 80% of repetitive manual activities, 2x speed in terms of cycle time and bots makes the process more efficient by reducing errors. RPA bots cost 1/3 of onshore resources and around 1/2 of the offshore resource

As per leading research reports, **RPA** will remain the fastest-growing enterprise tech with global RPA market revenues growing at a rapid pace:

Gartner:
\$1.3bn by 2019

Forrester:
\$2.9bn by 2019

KeyBanc Capital Markets:
\$100bn by 2029

RPA Advantage

Boost Productivity

Software robots helped significantly improve process personnel productivity by 40%



24/7 Productivity

Software robots work round the clock without a break



Higher Compliance (SLA)

Robots do not make mistakes and complete tasks flawlessly thereby improving SLA, Incidents were reduced by 30%



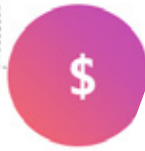
Improved Process Efficiency

Robots could resolve issues in sub-second as result help boost process efficiency with speed



Save on Cost

Estimated to save 25 to 50% cost on FTEs. Software robots cost fraction of the cost of human equivalent.



Optimize resources

Helped optimize FTEs by redeploying them in functions requiring critical thinking and decision making



Derived Business Value

Non-disruptive integration with the existing application

Better Data analytics opportunity on operations

Automation Technology landscape

The automation technologies are constantly evolving, which enables more user friendly and smarter automation of the process. The automation technology landscape can be categorized broadly into three levels:

Level 1: Basic

This level involves automation of simple repetitive tasks using macros and scripting such as VB Scripts, Java scripts, Batch scripting, Python-based scripts and soon. This is the most basic form of automation typically used to automate activities based on MS excel, word, file and folder operations etc.

Level 2: Screen/UI based automation

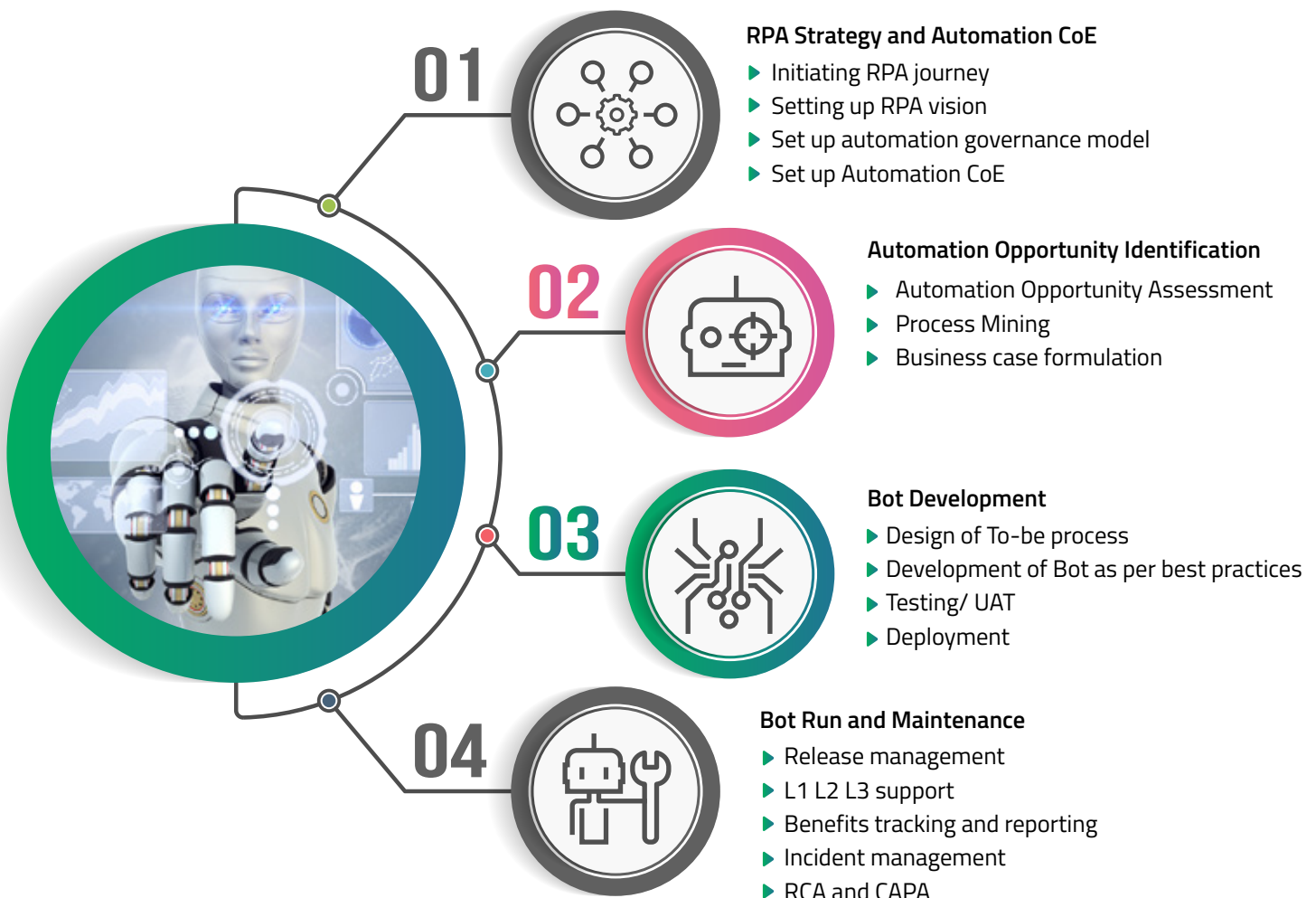
Automation using Bots developed using specialized tools such as UiPath, Automation Anywhere, BluePrism and more. These tools are specifically built to create process automation bots which can mimic the exact steps of a human agent on a desktop performed to complete the activities of a process. As the bot runs on top of the existing applications and web interfaces, this automation technology is non-disruptive and do not cause changes to existing activity procedures or applications. These tools provide easy drag and drop user interface, a low-code platform which makes the creation of bots much easier and faster. This level of automation generally works on structured data.

Level 3: Intelligent automation

Intelligent automation through **Machine Learning and Artificial Intelligence** packages such as **Natural Language Processing (NLP)** and Computer Vision. At this level, RPA integrated with **ML** and **AI** algorithms which enables the bot to automate not only a rule-based, repetitive process but also to read documents, perform text analysis and take intelligent decisions to complete a task. As the automation further matures the bot will have autonomous decision-making capability and provide an opportunity to perform advanced predictive analytics on the operations data generated and further help the decision-makers of the organization with new insights on the process.

Happiest Minds Robotic Process Automation offerings

Happiest Minds provides services for end-to-end RPA journey right from setting up a strategy to the deployment of bots and supporting daily operations. Our offerings are categorized into four areas:





RPA Strategy and Automation CoE

We help to start your RPA journey by helping you define the strategy. Setting long term and short-term automation goals, getting CxOs onboarded with RPA, partnering with the right vendors are some of the key steps to initiate the RPA program. We also help in setting up a centralized CoE in the organization, which can become the custodians and drivers of various automation initiatives in your organization. Defining RPA organization structure, roles and responsibilities, design authority, defining delivery methodology, best practices, RPA asset management, [security](#) and [risk](#) management are key functions of CoE.



Automation Opportunity Identification

Identifying the right process for automation is one of the key success criteria for RPA. At Happiest Minds, we have developed an effective scoring-based framework to identify a list of opportunities across business units to start the automation journey. We consider technical, operational, and financial aspects of each process and score them on a pre-defined scale to determine its automation feasibility. The output of this exhaustive exercise is a long list of procedures to be considered for automation. After this, we further analyze the list based on ease of implementation and business impact to create a prioritized list to begin the RPA program. We also adopt process mining technologies to strengthen this process further.



Bot Development

Bot development is at the core of RPA implementation. Based on the shortlisted candidates for automation, we perform detailed process requirement gathering, design, build and testing of bots. At Happiest Minds, we have a set of highly skilled resources in marquee RPA tools such as UiPath, Blue Prism, Automation Anywhere and Softomotive. We execute RPA development in agile methodology to achieve the objectives of each sprint. Also, we leverage our in-house bot library with reusable codes to expedite bot development.

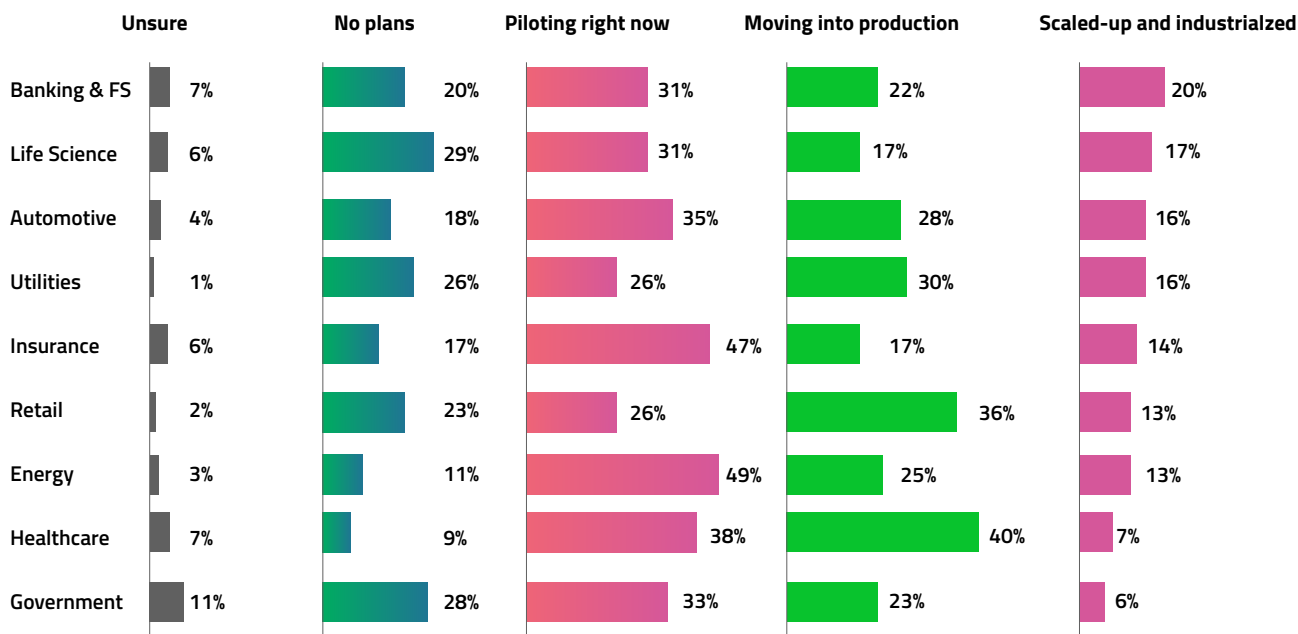


Bot Run and Maintenance

As the automation program matures, the number of bots in production periodically rise. As a result, continuous support and monitoring of these bots are required. Happiest Minds help in running large bot floors with L1, L2 and L3 support model to monitor and maintain the bots regularly. Bot tracking, incident management, query resolution, knowledge management are few of the key features of our Bot support system. Value Measurement is also one of the key aspects of run and maintenance. For this, we define a range of KPIs and metrics and track them regularly to ensure the automation targets are achieved. Various reports are shared with management and key stakeholders to know the status of bots and the overall health of the RPA program.

RPA Industry trends

The latest trends show that the fear of RPA adoption is waning, more and more C-suite across industries are exploring means to start the automation journey, and many have already reached a matured state with many bots in a live environment. As per leading research reports on RPA adoption Banking and financial services are leading with the highest rate of RPA adoption. Health care, Retail and utilities carefully follow this. Other than these Insurance and Energy sectors has also initiated automation projects.



Source: HFS Research - State of Intelligent Automation 2019

With the rising popularity of RPA coupled with ease of implementation, there is a rapid increase in RPA adoption across industries. RPA also helps to automate the cross-functional process such as HR, Finance, Payroll and more. At the same time, and it has shown remarkable results in automating core operations of organizations. The below figure shows some of the best use cases in each of the domain:



Banking

- ▶ Account creation
- ▶ Customer On-boarding
- ▶ Financial crime detection
- ▶ Dispute resolution
- ▶ Loan processing



Retail

- ▶ Returns processing
- ▶ Customer support
- ▶ Consumer behavior analysis
- ▶ In-store planning



Health care

- ▶ Appointment scheduling
- ▶ Billing and settlement
- ▶ Patient medical record maintenance
- ▶ Claims and expense payments



Insurance

- ▶ Quotation validation
- ▶ Policy management
- ▶ Claims Management
- ▶ Fraud detection
- ▶ Customer services



Supply Chain

- ▶ Order processing
- ▶ Inventory management
- ▶ Shipment status communication
- ▶ Supply and demand planning



HR

- ▶ Employee Onboarding
- ▶ Travel and Expense management
- ▶ Payroll
- ▶ Employee data processing



Finance

- ▶ GL Accounting
- ▶ Reconciliations
- ▶ Revenue recognition
- ▶ Accounts payable
- ▶ Vendor management
- ▶ Invoicing
- ▶ Sales order creation

RPA success factors based on our past experiences

Below are a few pointers to ensure your RPA initiative is on the right track:

Define automation strategy and set clear definable long term and short-term goals early in the RPA lifecycle. Ensure C-suite, and all other key stakeholders are on board with the RPA program.

Identifying the right process for automation is one of the first crucial steps to start RPA. Perform a thorough analysis using the right opportunity identification framework to select the most effective method for automation.

Start the RPA program with small POC targeting only a few processes. Build a strong business case based on this POC/POV and scale the automation to enterprise level.

Choosing the right RPA software vendor is another key success criterion. With a lot of hype about RPA in the markets, organizations need to put more effort to choose the right partner for their automation journey.

Deploy a robust change management process along with the RPA journey. Identify the workforce and stakeholders whom the automation will affect and apprise them of the new technology and benefits it is going to bring. Reluctance by the workforce to adopt the technology can become a hindrance to scaling automation journey.

Design an effective governance model to support end-to-end RPA lifecycle, and this will help to maintain quality and better insight to management on the progress of automation journey.

Impact Delivered (Case studies)



Payroll process automation for a multi-national software service provider

Challenge

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Solution

Happiest Minds started with an in-depth study of the as-is process and created a process document with keystroke level details of each activity. Using RPA, we created a bot which automates over 70% of payroll activities. The bot logs in and downloads data from various applications and emails maintains tracker to avoid duplicates and updates each record in database which helps in auditing and compliance. This automation involved screen scrapping, document processing, spreadsheet management and email reading.

Benefits

Key benefits from this automation include improved cycle time, elimination of human interference resulting in less human errors, processing time reduced by over 50% and easing efforts of payroll staff.



Insurance renewal automation for a large Insurance company

Challenge

A leading insurance provider was looking to reduce the operational effort in a renewal of insurance for corporate and HNI clients. All insurance contracts are tracked for expiry and 30 to 60 days in advance renewal request is submitted by the insurance agent. Based on these requests and last year's policy document, inspection report and rate calculator, a new insurance contract needs to be created. This process involved huge volumes, extensive manual, repetitive activities and required quick turnaround time.

Solution

We automated end-to-end renewal process through RPA. The implemented solution was designed in such a way that bot tracks the expiring contracts and intimate the agents. Based on previous records, policy documents and inspection report, the bot created a new insurance contract in the system. The bot logs into the insurance application navigate the screen, and through the screen, scrapping fetches the required information and creates the required new contract.

Benefits

We were able to show around 80% reduction in manual activities and 60% reduction in processing time. Large volumes of insurance renewal are handled more effectively along with a significant decrease in error rate.

Conclusion

We are at a stage today where CXOs of large organizations are not hesitant to take on the automation journey. organizations are not only focusing on cost-cutting, but they realize that innovation and continuous improvement is imperative for sustainable growth. RPA as technology is continuously evolving, and it is already coupled with other emerging cognitive technologies such as chatbot, NLP, Computer vision and more complex AI algorithms.

Business Contact business@happiestminds.com

About Happiest Minds Technologies

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transformation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in the U.S., UK, The Netherlands, Australia and Middle East.



www.happiestminds.com