RPA and Process Mining

The Power of Two wins the Automation battles

wipro

Process mining helps understand business processes holistically, enabling analysis of their automation potential

The operations in an enterprise face variations that can be the outcome of factors such as – non-standardization in task execution, iteration of activities due to introduction of errors, regulatory needs of different industries/geographies affecting the processes etc. While enterprises strive to adopt process-enhancing technologies such as automation, the prerequisite is to have a complete knowhow of the variations to make sure processes are holistically analyzed for their automation potential.

Process mining comes in here as an enabler of Robotic Process Automation (RPA). Traditionally, process mining has been an activity of leveraging the event logs generated in enterprise systems such as Enterprise Resource Planning, Customer Relationship Management etc. to analyze process-related information to understand the whole process cycle better and generate process maps. With time, the gamut of process mining activity has expanded, and the new capabilities are able to capture the user's activities on desktops to construct the whole set of processes involved and then generate process maps - this falls under the class of Desktop Process Mining.

With this expanded repertoire, not only the past knowledge of long running processes is being leveraged to look out for avenues to implement RPA but also the present activities, which might be newly introduced.

The need for process mining before RPA implementation

Although RPA is an excellent tool to help with integration of systems, automating certain repetitive tasks etc., the end goal is still automation for its own sake but not the modification of business outcomes. Thus, it somehow is delinked with the vision related to operational efficiencies of businesses. It has been seen in implementations, that if proper due diligence is not done before RPA implementation, projects tend to fail or the results are ephemeral, rather than giving long term return on investment.

Process mining helps understand business processes holistically, as it helps discover inefficiencies and bottlenecks while also allowing assessment of workers' performance. Broadly, the capabilities offered fall under the following brackets:

Diagnose & Optimize – Process mining tools are designed to identify process enhancing opportunities, which may or may not include possibility of automation. Moreover, study of the existing set of processes and its comparison and assessment against the industry standards help in standardizing those optimally. The document processes can further be used for training purposes, maintenance work, handing over in case of outsourcing etc. Another unique proposition provided is in the case of mergers and acquisitions where the unification and standardization is all the more important to get the new entity in sync.

Monitor & Control – Once standards are set, the next set of operations under the process mining purview take note of the worker performance. Here, the aim is not just to look at the efficiencies and mistakes, but also to further study those to design next set of actions aimed at allotting tasks based on the employee capabilities.

These capabilities allow the right set of information for applying RPA as the processes being automated are completely understood throughout the value chain, and benefits of RPA can be truly realized through this holistic viewpoint.
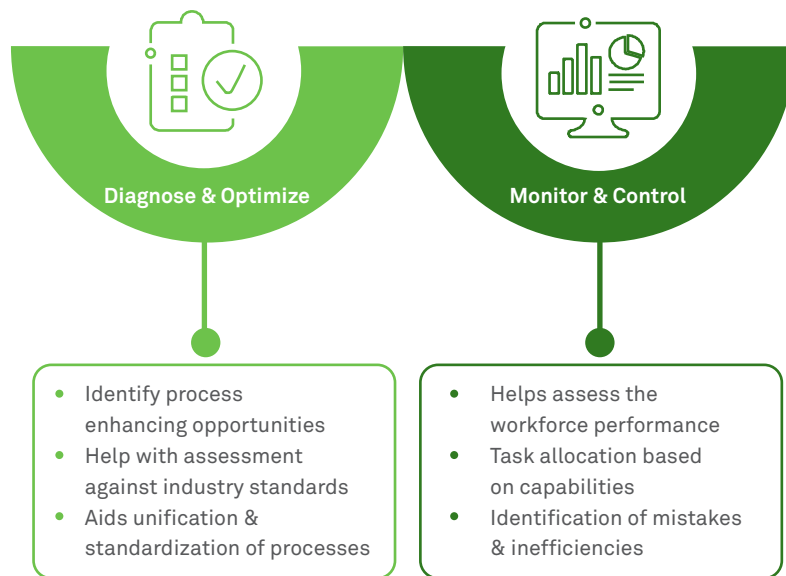
Figure 1. Process mining capabilities

Building business transforming potential with RPA and process mining

Overhaul of supply chain process in industries such as Healthcare, BFSI etc. is going to drive adoption of process mining and RPA technologies in the coming years. Much success has been observed in processes such as mortgage processing, customer onboarding, legal documents, claims etc. and these have remained the drivers of adoption. Vendors of process mining technology have been proactive in making their offerings more wholesome, by identifying the need to have strategic relationships with complementary technology providers, such that the subsequent steps become easy to execute. This is further driving market growth for the technology. As automation is one of the major follow up activities, the presence of RPA vendors in such partnerships is more prevalent. Other complementary technologies include Business Intelligence (BI), Cloud, Business Process Management (BPM) etc.

Another driver of transformational potential for process mining and RPA industries has been development of built-in capabilities such as Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP) to further enhance the handling of data, that can be structured or unstructured. The offering is available both on cloud and on-premise model to give the flexibility in adoption to organizations based on their specific needs.

Lastly, technology providers have understood that awareness about the solutions is one of the major factors in removing the apprehension about adoption. So, they have developed extensive training and certification programs for their customers and partners. They have kept a double-pronged approach here by providing education on online platforms and collaborating with universities to fund research in the field in order to spread awareness.

Amalgamation of process mining & RPA solutions

Discovery – It involves analyzing the past events using process mining tools to come up with a visual model that represents the existing business process and helps in getting clarity and documentation. Here, the visual model can either be used as a document for future references or it can be diagnosed further to gauge its performance based on various industry standard parameters such as quality, cost, flexibility etc., which can help identify blind spots and bottlenecks. It also allows to identify processes which have high automation potential and thus, RPA solutions complement the discovery step.

Enhancement – It encompasses improving or extending the processes that have been discovered through the auditing of event logs. This is done with the aim of optimizing the process cycles by looking out for avenues of improvement where non-optimal scenarios are reduced, iteration cycles are either minimized or automated, and non-value-add tasks are eliminated. Process discovery acts as the starting point for the enhancement activity and industry best practices like six sigma, process reengineering etc. are used to come up with the action items.

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Conformance checking – This is a reality check of the expectations from the processes and what is actually getting executed. Again, process discovery acts as the initial input here. The deviations are noted down, and an internal audit examines the conformance with respect to the standards that the organization aims to maintain. This also gives a clear picture of any automation avenues that can help with the non-conforming processes. It can also be a good pre-external audit exercise, which can help reduce disruptions due to non-conformity issues at the later stages.
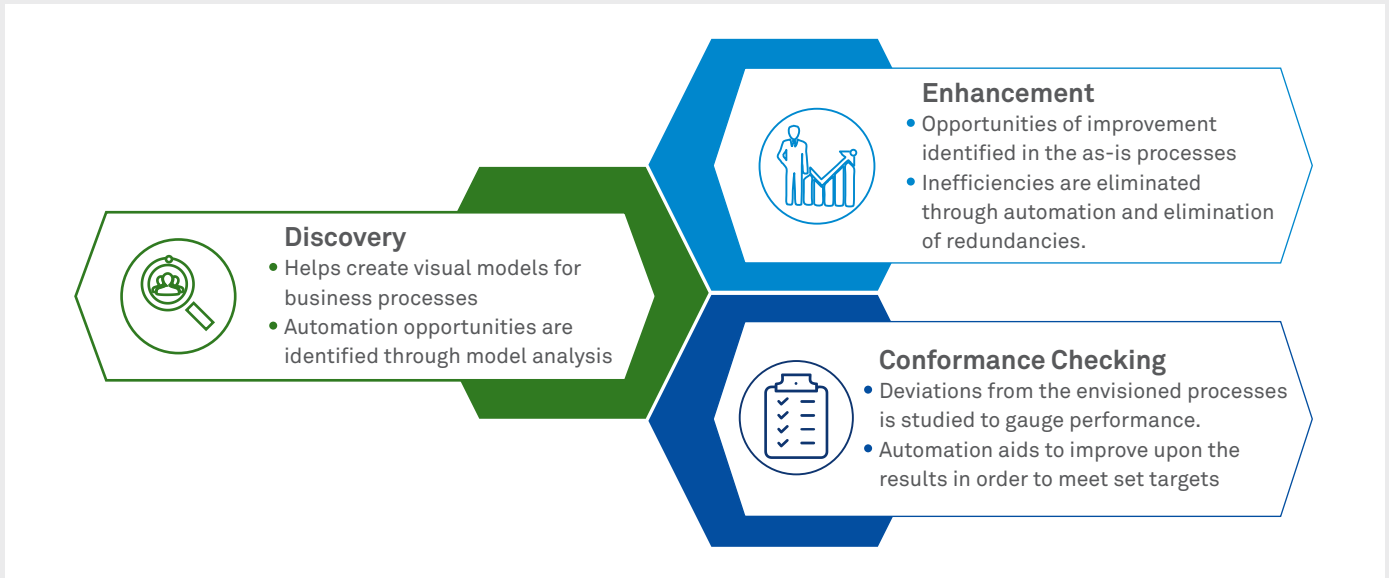

Figure 2. Complementary deployment of process mining and automation

A case study – Understanding the processes to enable transformation

For a major Europe-based multinational corporation active in the fields of health, nutrition and materials, Wipro performed rapid process discovery for 3 weeks, covering 120+ processes across 5 functions. Our process repository was utilized to identify automation potential. Ultimately, Wipro recommended multiple improvement opportunities with implementations encompassing business analytics, hyper-automation and customer experience improvement solutions. $5.7 Million worth of potential savings in Phase 1 and over $2 Million additional annualized savings were projected with a payback period of less than 2 years.

To tackle the challenge at the client's end, we start with understanding the current processes first. Process Mining, thus, becomes an integral part from the very beginning. It helps us understand the as-is processes and once the understanding is established, it becomes a clear guide for executing transformation and automation with the help of RPA.

Wipro has developed in-house capabilities in Process Mining and Robotic Process Automation, and has also forged partnerships with market leaders.

We are

- Recognized as leader in Intelligent Automation in Business Process (IABP) by Everest Group Peak Matrix

- Recognized as leader in Digital Process Automation Service providers by Forrester

- Recognized as leader in RPA Services by Zinnov

- Recognized as leader in Intelligent Automation Services by Avasant RadarView 2020

- Among Top 10 in HFS Triple A Trifecta (Automation, AI & Analytics)

The right approach to automation success

RPA presents easy to implement options that are inexpensive as well as quick to execute. Also, RPA can significantly streamline user interaction by automating tedious and boring activities and at the same time, the unfaltering repetition capability ensures negligible errors. These automations are easy to understand and use, even when complicated systems are involved. But the bottom-line remains that the processes are to be understood in whole before applying any automation, else there is the possibility of having a misaligned implementation, which can defeat the whole purpose of the activity.

About the authors

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Vartul focuses on helping clients accelerate their digital transformation journey. He has 14+ years of global business transformation experience in management consulting and global in-house centers in intelligent automation, advanced analytics and cloud adoption.

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