



Automation Through Robots

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Robots, from being figment of imagination in movies, have turned into a reality; today they have even been offered citizenship! Just as Robots that transformed manufacturing lines on a factory floor, their virtual cousins can transform business processes. More and more companies are striving to automate front office and back office operations to bring in speed and accuracy at a lower cost. While adoption of Robotic Process Automation (RPA) is becoming more common, many still find it challenging to identify where to start from, how to scale and how to maximize benefits.

The Insurance Industry has traditionally been very conservative in its IT Strategy, and has opted for Phased IT modernisation over the last couple of decades. This has resulted in siloed systems that do not always talk with each other. Enabling them to automatically interact by building interfaces or redesigning them, would be a time-consuming exercise, with implementation risks, and would also require huge investments. These constraints makes insurance systems ideal candidates for Robotic Process Automation.

The first half of 2017 has seen deterioration of Combined Ratio to 100.7¹, against Combined Ratio of 99.7 in 2016. For the considered period,

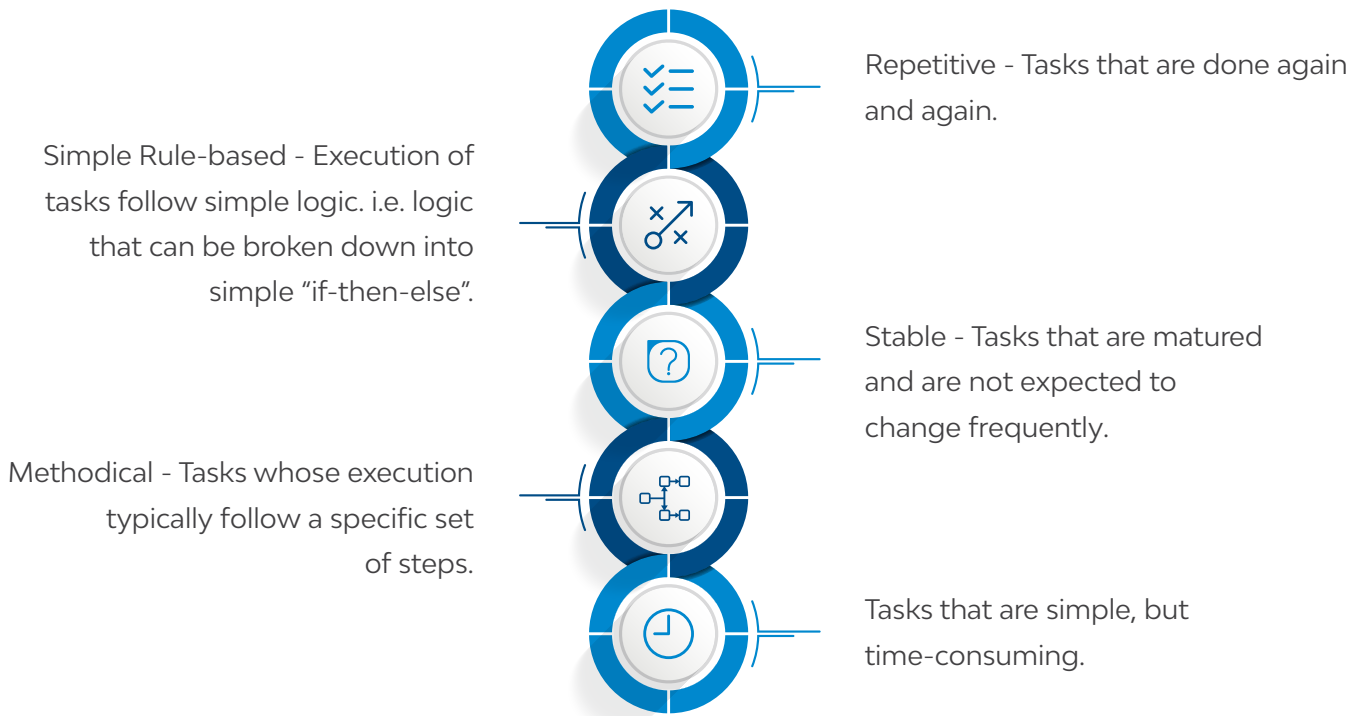
the Loss and Loss Adjustment Expenses grew by 5.7% and Underwriting Expenses by 1.6% in 2017. The deterioration in LLAE has been accentuated by an increase in catastrophic losses in 2017. The industry has reported Net Underwriting loss of USD 4.5 billion for the first half of 2017 – 3 times the underwriting loss in first half of 2016. This erosion of bottom line has brought back the focus on increasing the efficiency and effectiveness of the workforce. Robotic Process Automation will relieve the workforce of routine mundane tasks and enable them to focus on more valuable activities bringing in increased efficiency at lower total cost.

RPA will enable the organization leap frog process efficiency in a short time frame. For a fully matured automated and optimized process, RPA needs to be supplemented with technologies that can mimic human thinking. Cognitive Automation leveraging technologies, such as Natural Language Processing, Machine Vision, Machine learning and Deep learning would enable computers mimic human thinking. Benefits of Cognitive Automation extend well beyond process automation, but for the purpose of this article, we would limit our discussion to process automation using Bots.

Insuring RPA success in Insurance

For successful implementation of RPA, it is imperative to identify good candidates for automation.

Tasks having the following traits are ideal for RPA -



Tasks carrying following characteristics are difficult to automate through RPA, and would require bringing in components of Artificial Intelligence for process automation -

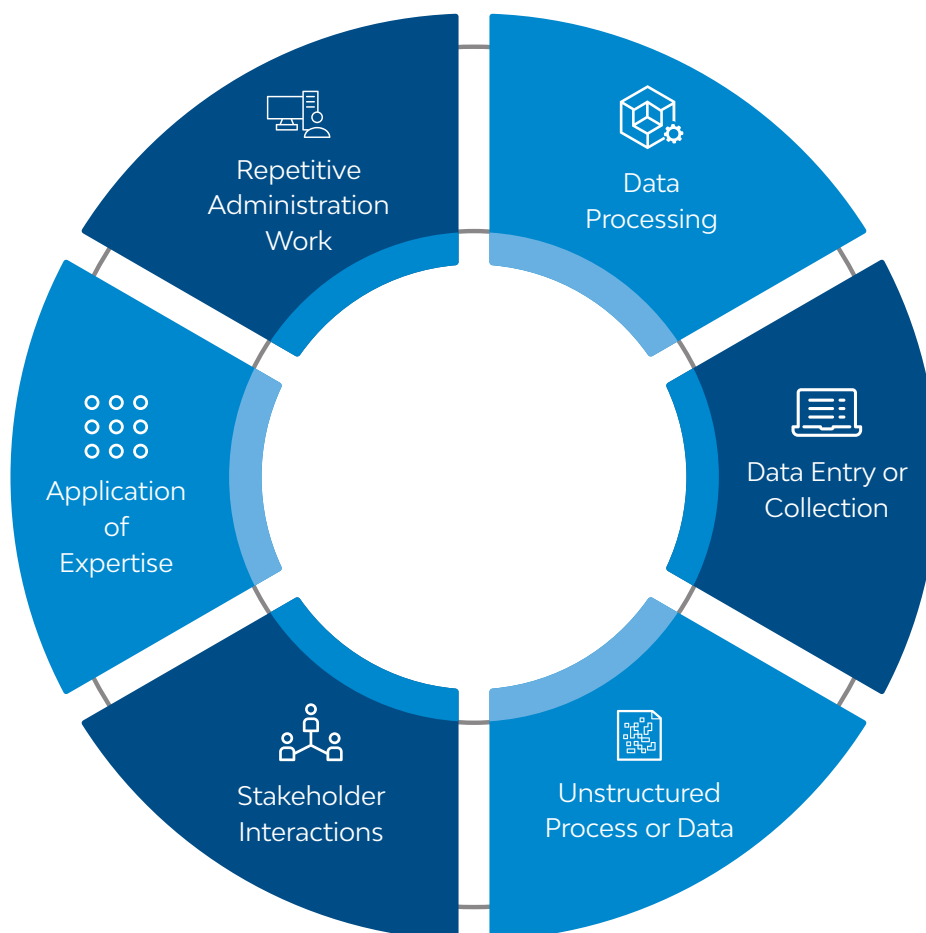


Calculating Automatability Index

RPA has a capability to be disruptive by delivering huge jump in efficiency and lower costs. At the same time, it is also possible for RPA implementation to turn into a very painful experimentation. EY estimates 30 to 50% of initial RPA projects fail². Targeting RPA at wrong process, Automating too much of process or not optimizing processes for RPA, are stated as common traits in failed RPA projects.

To ensure successful implementation of process automation, the focal processes must be analysed in detail to understand its nature, prerequisite traits to perform the task and complexity of task.

We recommend analysing the tasks on the following six dimensions:



Applying Expertise:

Tasks that require the performer to use his discretion in determining the course of actions, or use his judgement to take a decision can be categorized as tasks that require application of expertise. For example, approving acceptance of substandard submission by an underwriter, would require evaluating the risk, determine if the risk should be accepted and if accepted, should it be with higher deductibles or loaded premium, etc. The need to apply deep knowledge-based expertise makes Underwriting as a function poor candidate for RPA.

On the other hand, for underwriting a risk, it might be a standard practice for the Underwriter to request specific additional information for risks that belong to certain class codes (for example Restaurants or Educational Institutions). The request for additional information may be initiated by sending out email communication or by creating tasks for others in the Enterprise workflow system. This activity does not require a deep knowledge to execute, and hence, could be an ideal candidate for RPA.

Stakeholder Interactions:

Certain activities might require the performer to constantly interact with others, either from a perspective of understanding the requirement, or collecting incremental information, or as persuasion to influence decision making, or build consensus, etc. Activities that have high social and emotional interactions, or those require Human Judgement are not suitable for RPA.

For example, responding to enquiries & support are not suitable for automation through

traditional RPA. These could be automated by bringing in Machine Learning, Natural Language Processing and Artificial Intelligence.

Unstructured Process or Data:

Activities, where the process flows branch out into multiple possible sub processes, which in turn could result in many more possible process flows, are difficult to automate using RPA. It might not be feasible from an implementation perspective to ensure that the automation programmatically covers every possible scenario, when there are large number of possible workflows.

Similarly, where the data is unstructured and would not fit into predefined templates, would make automation through RPA difficult.

Data Entry or Data Collection:

Activities which involve gathering of data from people, processes or systems, do not require application of human judgement. Tasks such as - logging into enterprise applications, filling up of forms, scrapping of data from net, downloading and uploading data, are processes that can be automated through RPA.

Data Processing:

Conversion of data from one format to another, merging data from multiple sources, cleaning of data, running arithmetical algorithms, performing reconciliations, Generating reports etc., are examples of standardized rule-based processing of data. Such activities usually carry limited variations and can be automated through RPA.

Repetitive and Administrative:

Tasks that require the performer to follow a specific set of steps requiring little application of intelligence are predictable administrative tasks. When such tasks are frequently performed in a predictable environments they become low hanging fruits to improve efficiency using automation through RPA.

Examples of such tasks are, reading emails, downloading attachments, composing emails with standard set of content, generating periodical reports, etc.

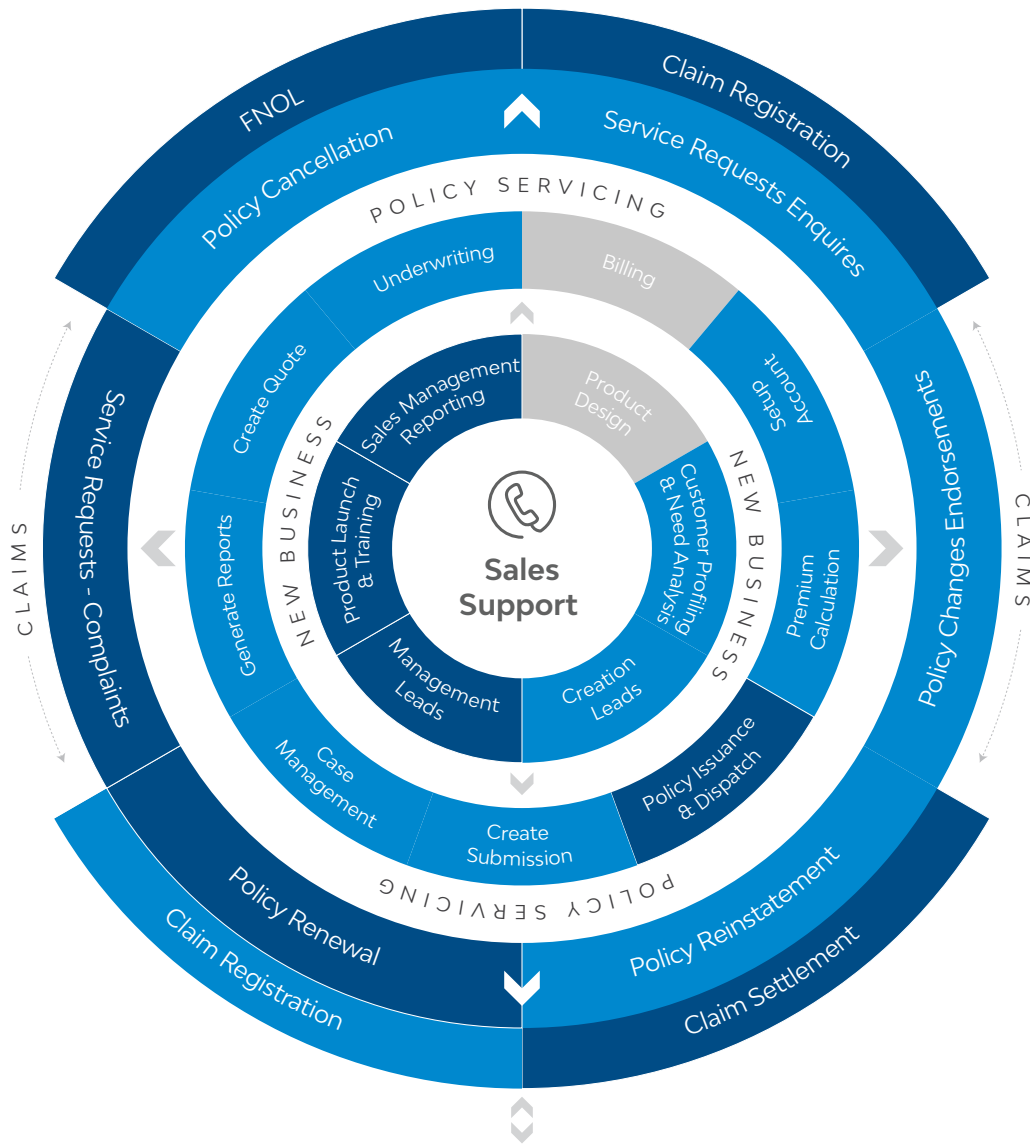
Assigning quantitative scores to each process against the criteria described above, will enable us to swivel away from an abstract, and subjective analysis to an analysis that is more objective with quantitative insights. The first three criteria listed above are impediments to RPA, while the later

three advocate automation through RPA. By using negative scores to the impediments and positive score to factors that advocate advancement of RPA, we can arrive at an Automatability Index that indicates the potential for automation.

The following picture provides a typical heat map for automation using RPA across different insurance processes. These processes have been evaluated for automation using Automatability Scoring.

As you can see from the diagram, processes with key activities requiring application of discretion, or those requiring significant interaction with other stakeholders, or processes that are unstructured, come out as areas with low potential for RPA. As an organization moves up in its learning curve in automation, it could bring in AI and other cognitive technologies to supplement its RPA platform, enabling it to automate these processes as well.

Areas of Robotic Process Automation(RPA) in P&C Insurance



Distribution	Licensing & onboarding	Enquiries & Support	Channel Management (movements)	Compensation management		
	Setup Contract Conditions	Identify Policies Covered Under Reinsurance	Notify Reinsurer on Claims	Generate schedule Bordeaux on Treaty	Reinsurance	
Document Management	Inward Entries of Documents	Segregation & bundling	Scanning	Indexing of Scanned Documents		Electronic Storage

Potential for Automation: **High** | **Medium** | **Low** | Insurance Value Chain Level 0

About the Author



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Senthil is a Principal consultant with Insurance Consulting Practice at LTIMindtree. He is a CPCU and Fellow member of Insurance Institute of India and carries more than 20 years of experience in P&C Insurance. He has worked closely with major US Insurers providing thought leadership and designing solutions across insurance value chain.

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