ROBOTIC PROCESS AUTOMATION (RPA) IN AML AND KYC

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Overview

The term 'robotics' might remind one of some images from sci-fi movies like 'RoboCop' and 'Star Wars'. However, one would be surprised to know that robots have been around longer than we think, dating back to as early as the 3rd century BC. While many perceive robotics as dangerous technological ventures that could take away our jobs, the reality is that these increase efficiency and effectiveness of the workforce by relieving people of routine tasks.

According to a new market report published by Transparency Market Research[1], "...the market for robotic automation globally is displaying a phenomenal growth of 60.50 percent compound annual growth rate (CAGR) from 2014 to 2020, with the valuation of the market predicted to reach US$5 billion by 2020, increasing from US$0.18 billion in 2013."

Gartner's annual top 10 list of strategic predictions also talks about robotic automation having an expanding role in the years to come[2]. Some of these project the following by 2020:

1. Robots will participate in five percent of all financial transactions.
2. Smart agents will facilitate 40 percent of mobile interactions.

[1]https://globenewswire.com/news-release/2015/03/19/716638/10125555/en/IT-Robotic-Automation-Market-to-Reach-US-4-98-Bn-by-2020-Globally-and-is-forecast-to-grow-at-60-5-CAGR-from-2014-to-2020-Transparency-Market-Research.html

[2]http://cw.com.hk/news/robotics-automation-key-gartners-top-10-predictions

Robotic process automation (RPA) adoption

Financial institutions (FIs) are considering new technology tools to address challenges such as heightened regulatory scrutiny and the increasing cost pressures that are affecting their anti-money laundering (AML) and know your customer (KYC) processes. This white paper tries to analyze how new technology solutions such as robotic process automation (RPA) could help address some of these challenges.

RPA spend to increase to 30%–40% of the total BPM spend by 2025

Cost benefits - 35%–45% in onshore operations and 10%–30% in offshore operations

Return on Investment as short as 6–9 months

78% of GLobal In-house Centers (GIC) are planning RPA pilots or have implemented RPA

10%–30% - Technology FTEs within BPS teams are dedicated to RPA

Robust adoption of RPA in future[3]

Every FI often asks one question – why do we need robots in business processes? Many business processes in every FI are time-consuming, repetitive, and prone to errors. In addition, a majority of the FIs are facing pressures with increased scrutiny from federal and state regulators. According to a survey conducted across Europe and the US covering more than 100 senior banking officials, one in every five banks has made a substantial increase in spending around compliance requirements[4].
RPA is an easy-to-deploy solution that can help reduce manual tasks, streamline workflows, improve compliance, and reduce costs. It is an ideal candidate for a field like compliance that is predominantly rule-based and evolves constantly.

There are different styles of automation that an FI can adopt:

• **Semi-automated processes:** Automate a part of the process by adopting a model of humans and bots working together to complete end-to-end tasks efficiently. For example: customer service desks in any FI have service agents navigating through multiple systems to view customer information whilst interacting with the customer. Bots can be used to help collect and access information from multiple source systems to support human agents servicing client calls. Another example would be processing a change of address on multiple systems. While the initial checks / data can be entered by humans, bots can be used to process customer information changes across multiple source systems.

• **Fully automated processes:** This style of automation would ensure that there are no human touchpoints in the process. For example: updating customer contracts and multi-format message creation.

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[3]http://blogs.nasscom.in/seizing-the-robotic-process-automation-rpa-opportunity/comment-page-1/
[4]https://www.sas.com

Current situation

The financial services industry continues to be plagued by challenges, such as:

Rising costs of AML / KYC compliance	**Plethora of regulations to comply with and steep fines for non-compliance**	**Substantial reliance on manually intensive processes**
The average financial firm spends US$60 million per year on KYC, customer due diligence (CDD), and client onboarding. (Source: Thomson Reuters, 2016 Know Your Customer Survey)	Since 2010, about US$300 billion in fines were paid by FIs towards violations of Bank Secrecy Act (BSA) and AML regulations including US sanctions requirements. (Source: http://www.capco.com/insights/capco-blog)	Many FIs use manual intervention in routine processes such as processing structure and unstructured data. Cost of integrating systems and reliance on traditional methods are some of the reasons why these processes are yet manual and have escaped automation. It is due to these reasons that automation is a compelling case in FIs.

RPA as a solution

Defining opportunities for robotics automation starts with an assessment of processes and identification of the following characteristics:

* Manual processes
* High-volume work
* Repetitive tasks
* Rule-based decisions with minimal deviations
* Probability of error

The following are some of the opportunities for RPA in the financial services industry:

* **KYC processes –** Typically, in most FIs, the costs of running these programs can be significant. According to a recent survey conducted by Thomson Reuters, approx. US$52 million a year (for a bank) is the average spend on KYC compliance and for some banks up to approx. US$384 million on KYC compliance and Customer Due Diligence (CDD). In addition to the huge costs, compliance divisions across FIs have grown in size with compliance teams staffed anywhere from 150 to 1,000+ full-time equivalents (FTEs). Some of the traditional manual activities that are good candidates for RPA include:

  ○ **Setting up customer data:** This is a manual activity where the analyst refers to the uploaded / scanned customer identification documents and enters key customer information into the customer relationship management (CRM) system. Customer identification documents usually include government-issued ID proofs which are standard across a particular geography. With RPA, an FI can automate the activity of identifying and entering customer identification information into the CRM.

  ○ **Validating existing customer information:** RPA can be used to perform validation of customer information (structured / unstructured) by accessing databases, extracting data from documents, collecting social media information, merging data from different places, and filling in forms.

  ○ **Customer information gathering:** Regulations require FIs to collect information from customers at the time of onboarding and then subsequently on a regular basis. This includes details about the customer, credit worthiness, business / activities the customer is involved in, identity information, etc. This is usually done by administering a questionnaire to the customer and collecting the data. The data collected then has to be regularly updated and tracked for any changes. Information can be received in the form of paper, PDFs, etc. There are challenges in managing this information, updating it, and keeping track of future changes as the process is labor-intensive and prone to errors. RPA can be used here to gather, input, and process structured and unstructured data. Bots can also be used to gather additional information about the customer from public domain / databases, which would be beyond what the customers would submit.

  ○ **Compiling customer information:** Often banks have customer information spread across multiple systems depending upon the services sought by the customer, e.g., savings account, brokerage, among others. RPA can be used to compile customer information across disparate systems to give a holistic view of customer data. Banks can then deploy promotional bots to send automatic mails, SMS campaigns of their products and services, and other requirements, thereby reducing marketing expenses significantly.

  ○ **Customer screening:** This activity involves the office of foreign assets control (OFAC) screening, politically exposed persons (PEP) checks, and negative news screening. An integral part of the KYC process is to screen customers against government, internal, and external watch lists to identify any politically exposed personnel, negative / adverse news. This is done for both new and existing clients of the bank. This process can be automated by the use of RPA as the information (i.e., fields) to be verified from customer information against these databases is standard.
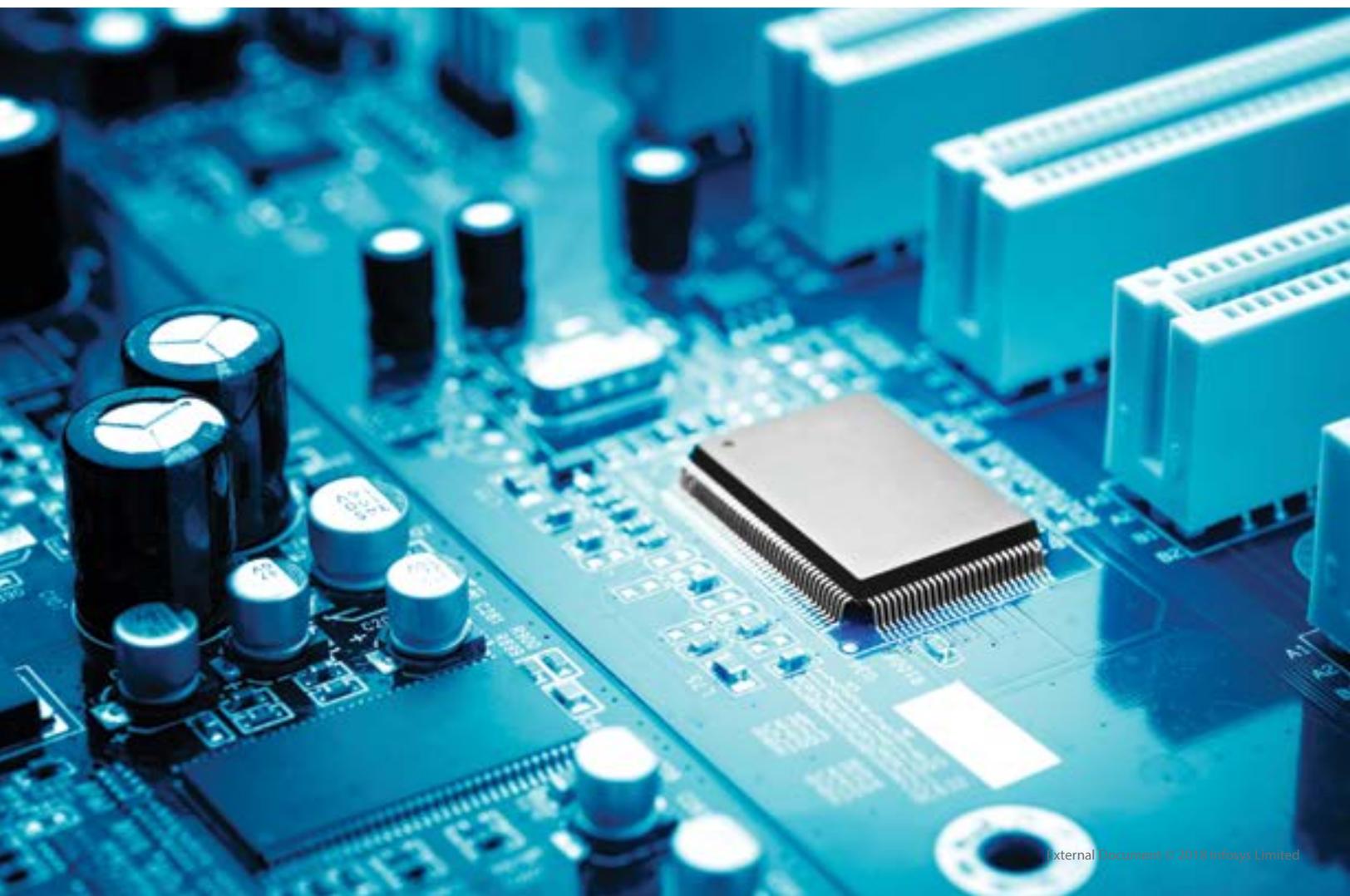
○ **Customer servicing:** One of the earliest adoptions of RPA was in customer servicing. RPA enables banks to improve customer experience, enhance operational speed and accuracy, navigate through large amounts of data, identify patterns, improve learning, and accelerate decision-making. Several banks have started using RPA techniques to deploy IQ bots to answer customer queries, FAQs, and guide the customers appropriately.

IQ bots are advanced RPA systems that apply machine learning based on trained data sets. They are self-learning systems that apply different models using both structured and unstructured data sets.

• **Regulatory monitoring and data collection –** According to industry experts, on an average, human intervention accounts for 2%–5% of total errors per 100 tasks. These errors increase rework, slow down operations, and also lead to the possibility of noncompliance and fines. Keeping updated with changing regulatory requirements can be time-consuming, tedious, and complex. An average compliance officer spends almost 15 percent of time in tracking regulatory developments. RPA can be used here to effectively manage the time of compliance officers while at the same time ensuring updates are received in the most efficient and accurate manner.

• **Risk Assessments –** One of the key steps in assessing customer risk is to gather adverse information / news / data from public domain / external sources. Often analysts spend a large amount of time (on an average 1–2 hours) in accessing a multitude of websites and internal databases to collect information for a case. This also includes collecting data from regulatory bodies (FCA, SEC), government websites, Interpol, FBI, etc. A simple solution to reduce the time spent on this activity would be to deploy bots that would collect information from these websites (updated on a daily basis). Another robot can be used to connect this information to the core AML / KYC system and deliver a quick response to the requested adverse news / information search. Using bots will also ensure that an audit trail is maintained, a key requirement under KYC due diligence.

• **Account closure processing –** As part of alert review and remediation, analysts may send certain routine tasks to support / operations teams. One such example is in the case of account closure which would include sending communications to the customer. In these cases, the support teams reach out to the customer (usually high-risk customers) to complete certain activities. For example, if the client has a money service business, the support team checks whether the relevant agreement (check cashing agreement) is in place in the bank's records. If available, they will update the date and close the alert. If not, a mail is sent to the client requesting for the document. In case, the document is not received till the due date, a notification is sent to the branch manager with details of the alert. Details are updated in the bank's potentially high-risk customers' portal and a request is raised for closure of the customer account. RPA is an effective solution to automate these activities.

Benefits of RPA

Below is an illustrative dashboard that can be created to define, measure, and track benefits of RPA adoption.

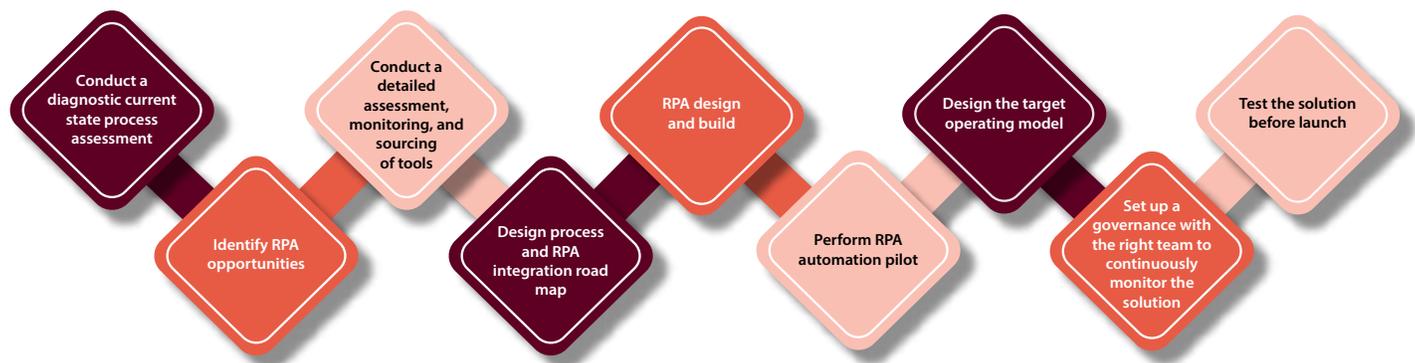| Sl. No.	Opportunity for RPA	Related benefits				
	Use case	Enhanced accuracy and quality	Improved speed of operations	Increased staff productivity	Refined audit trail with accurate information	Increased time for strategic tasks
1	Validating existing customer information	✔	✔	✔	✔	✔
2	Documentation gathering	✔	✔	✔	✔	✔
3	Customer information gathering	NA	✔	✔	NA	✔
4	Compiling customer information	NA	✔	✔	NA	✔
5	Customer screening	✔	✔	✔	✔	✔
6	Customer servicing	✔	✔	✔	✔	✔
7	Regulatory monitoring and data collection	✔	✔	✔	NA	✔
8	Risk assessments	✔	✔	✔	✔	✔
9	Account closure processing	NA	✔	✔	✔	✔

Recommended approach for RPA implementation

Having discussed the opportunities and benefits of deploying RPA in compliance functions, it is important to understand how to bring RPA into your organization.

The figure below gives details on the recommended approach for RPA implementation. It is important to conduct a pilot run of the RPA tool, which can help fine tune the implementation plan and design the target operating model and governance structure.

- Conduct a diagnostic current state process assessment
- Identify RPA opportunities
- Conduct a detailed assessment, monitoring, and sourcing of tools
- Design process and RPA integration road map
- RPA design and build
- Perform RPA automation pilot
- Design the target operating model
- Set up a governance with the right team to continuously monitor the solution
- Test the solution before launch

There is a need to review RPA implementation post deployment to ensure that they align with expectations. This review should address the following considerations:
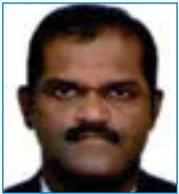
1. Level of satisfaction by the users including specific success factors
2. Features that are used frequently and ones used infrequently
3. Assess the extent of benefits delivered compared to initial estimates
4. Changes required to improve effectiveness of the tool
5. Evaluate if adequate training was imparted on a timely basis to the concerned users and stakeholders

Conclusion

Some FIs have already started implementing RPA in their operations while many others are considering and exploring it. The value proposition of RPA is applicable for all the financial institutions as they serve more like opportunistic and point-based solutions that are easier to implement than large-scale transformations. While challenges faced by these institutions in managing AML / KYC operations is going to continue in future, RPA can bring considerable improvement in managing these challenges.

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Venkatesha has over 20 years of industry experience in leading several large and complex IT consulting projects, process reengineering, system integration, and business transformation programs across marquee clients globally. Over the years, he has built teams and multiple centers of excellence (COEs) to address business needs across industry domains. Currently, he leads the Infosys Financial Services Risk & Compliance practice globally, helping clients meet their immediate needs of addressing regulatory concerns as well as getting them ready to meet future challenges. He is personally involved in guiding teams in adopting latest technologies like RPA, machine learning, and artificial intelligence in the risk and compliance domain.

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Kasmera has over 11 years of consulting experience in governance risk and compliance (GRC), having worked with companies, such as i-flex consulting, Ernst & Young, Deutsche Bank, and Infosys BPO.

She has managed and led several projects in GRC consulting [particularly AML, KYC, communication and trade surveillance, and operational risk management (Basel II implementations)] across global markets such as the US, Australia, UK, Canada, and Latin America. She is also experienced in the forensic investigations space which includes Foreign Corrupt Practices Act of 1977 (FCPA) and UK Border Agency (UKBA) compliance reviews.

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