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Applying Thought

Know Your Customer

Evoking Super Powers to Solve Super Problems

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Introduction

For finance professionals and institutions, Know Your Customer (KYC) is an obsession. It is driven by regulatory obligations and by a professional disposition for survival. Does the customer deal in bullion? Run casinos? Sitting on a Ponzi scheme? Knowing these facts and more could help financial institutions avoid taking on customer-driven risks that may lead to reputational damage and vulnerability to fraud. Expectedly, the number of documents to be examined to meet mandated KYC requirements is so hefty as to resemble a Hulk-sized spectacle in the data universe. We believe that for financial institutions keen on building a gold policy to tame the KYC challenge, cognitive computing is the answer.

Customer due diligence and KYC are intensely manual processes. Before a financial institution can have a customer on-board, it must have a precise picture of the customer's financial standing and reputation. Related information for this is tucked away in numerous documents. The documents have no predictable structure and range from government identification papers, tax filings, annual reports and legal submissions to media mentions.

A majority of data identification, aggregation, extraction, verification and capture is done manually by analysts. This would have been acceptable were it not for the fact that it takes several weeks to complete the process. Unfortunately, information technology has not kept pace with the changing face of the documentary and audit trail heavy KYC landscape. Meanwhile, every week lost in acquiring the data translates into potential loss of business—leading us to question the manual approach.

Human checkers find an unusual ally in maker-bots

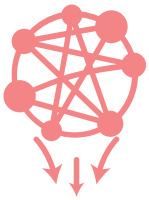
Cognitive systems combine machine learning, artificial intelligence and sophisticated computing techniques. It is the future for financial institutions besieged by KYC hurdles.

Typically, a cognitive system would create a number of investigation, aggregation, extraction and verification bots with the ability to mimic the makers - currently armies of human analysts - of the data that help complete the KYC process. This means 80% of the data required for KYC processes that is currently unstructured can be processed by a super-intelligent, super-fast and super-efficient set of KYC maker-bots with 20% the effort. Once the data is created by the marker-bots, it is pushed to human checkers who can then arrive at their own decisions.

Typically, large banks with greater than US$500 billion in assets deploy 15 to 20 analysts (FTEs) on the KYC process for every billion dollar asset size. A cognitive system can reduce the FTE count creating direct cost savings. Estimates suggest that the cost savings and efficiencies can be as high as 30 to 40%.

The 1-2-3 of Cognitive KYC

The cognitive KYC system works in three steps that also provides a clear audit trail (see Figure: 1).



1 Data Aggregation

- Acquires and aggregates internal and external source of data
- Tracks down data freely available from the web, regulatory bodies and publicly available paid sources

2 Extracting Intelligence

- Rapid extraction of information from unstructured documents and intelligent connection of dots between seemingly disparate pieces of data
- Identification of relationships between different parties, entities, owners, directors, signatories, stakeholders, individuals and events that form a narrative of customers business and background

3 Augmenting Intelligence

- Brings together all types of news and information sources related to negative mentions
- Synthesizes the information and examines it in the context
- Assigns level of trust and relevance based on the sources
- Leads to an accurate risk rating report

Figure 1: KYC Process

Change Once, Stay Relevant

KYC just isn't about meeting compliance requirements or managing growing volumes of data. It isn't a simple check-box activity. Its accuracy determines how sustainable an organization will be.

We haven't seen the end of compliance requirements. If anything, these are going to grow in complexity and granularity. How feasible is it to create and integrate new technology and systems each time a change or an addition in compliance, business processes or workflow is mandated? A cognitive computing system that keeps evolving appears to be the simple answer (see Figure 2).

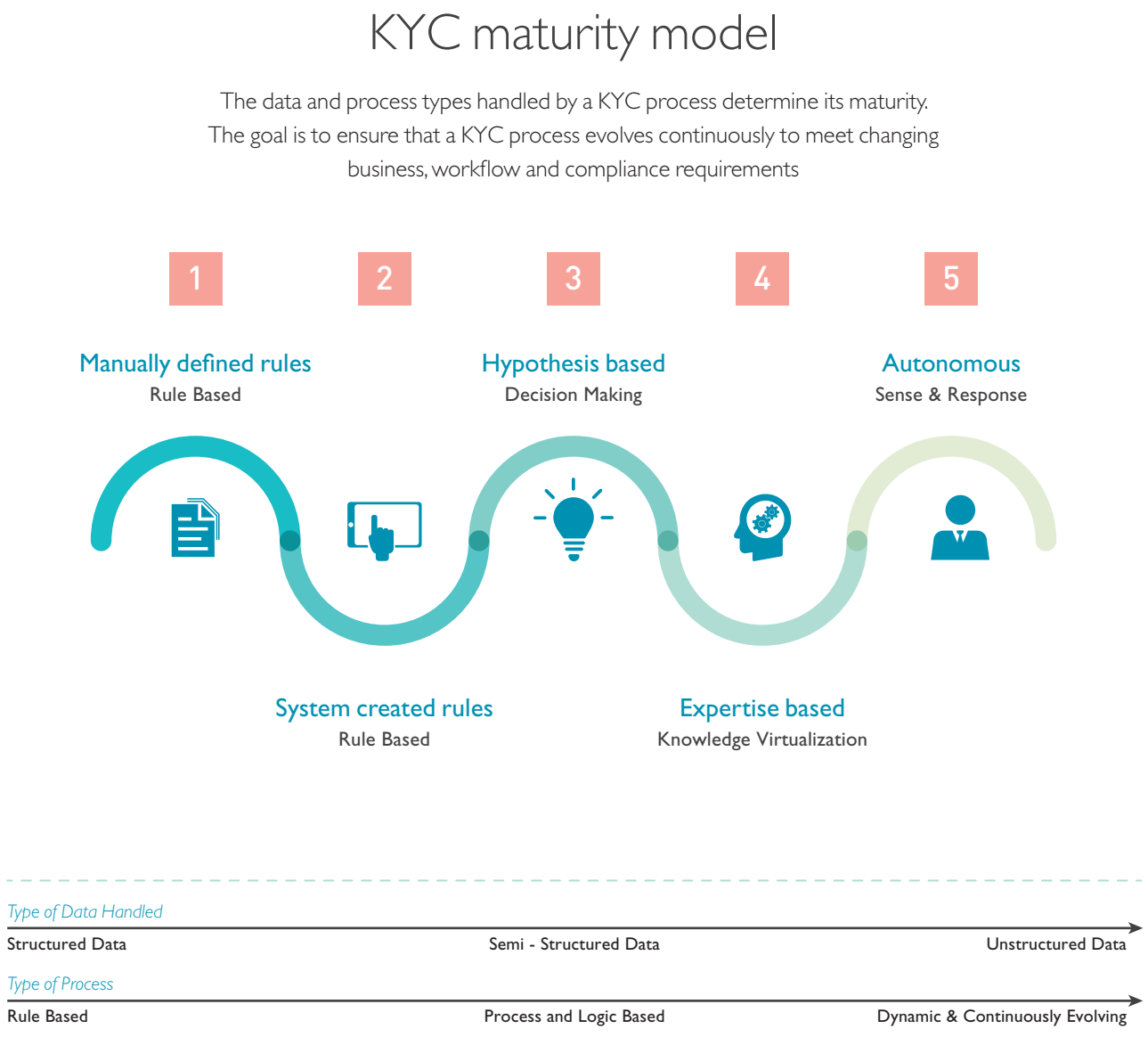


Figure 2: KYC Maturity Model

The maturity model moves processes across three distinct levels which we call AAA+ (see figure 3).

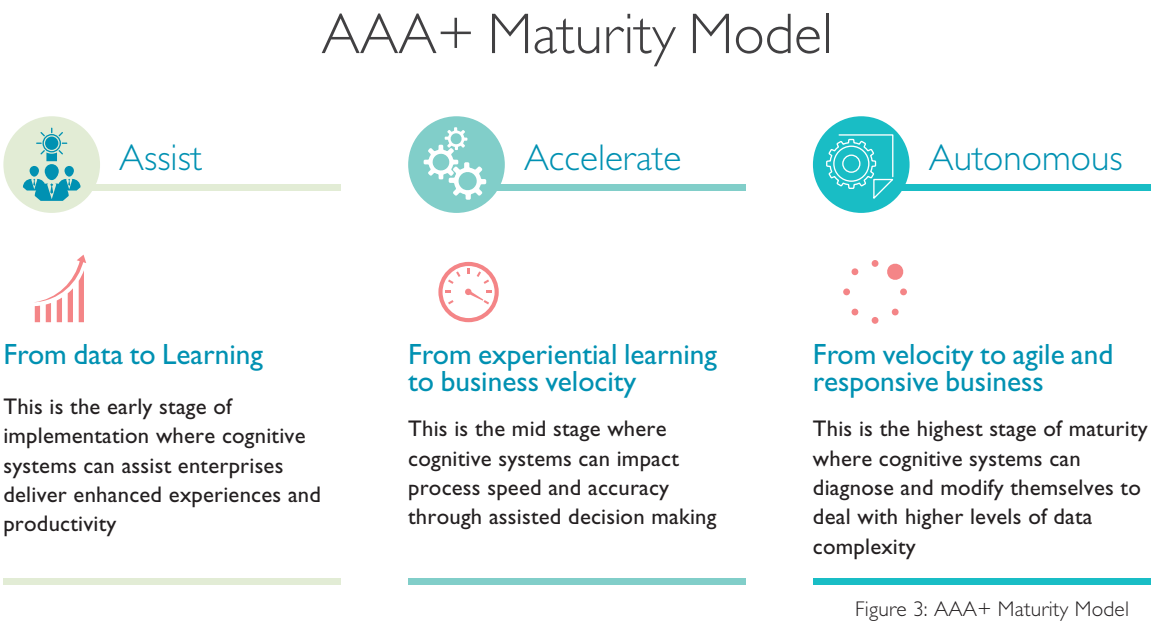


Figure 3: AAA+ Maturity Model

The AAA+ journey, for most businesses, should span about 18 months. Achieving high reliability and accuracy in the first two stages could take a year and the last stage 6 months. The systems learn and improvise with new data and continuous usage and retraining using new data types can lead to very high levels of productivity and experience within a year of production deployments. Clearly, this is not a large cycle and is within the grasp of most large organizations. And, perhaps sensing this, businesses have begun to seriously look at CPA implementations to upgrade their KYC processes.

CPA implementations will be in the form of cognitive agents called software robots that can dramatically change the speed, accuracy and efficiency with which tasks and processes are carried out, reduce the cycle time of processes and impact the way people think, behave and respond.

The real kicker for some cognitive systems[1] is this: They work with one degree of separation from core IT. The bots created by the cognitive system assist analysts without being intrusive or without bringing existing IT systems and processes to a standstill.

An IDC report states that the Financial Services Industry will continue to make investments in Risk IT. Worldwide, IDC estimates that the capital markets, banking and insurance sectors will spend approximately US$83.0 billion on risk information technologies and services (RITS) in 2016. IDC estimates that this worldwide spending will grow to US$101.5 billion by 2019. Be sure, quite of few of those billions will be diverted to cognitive computing systems that will form the backbone of tomorrow's KYC processes.

[1] Such as Wipro's HOLMES (Heuristic and Ontology based Learning Machine and Experiential System), an AI platform completely developed using open source technologies as a set of loosely coupled services with key capabilities required for enterprise AI applications.

About the Authors

Ramprasad K R - RamPrasad K R is the Chief Technologist for Artificial Intelligence and he created the vision for the AI platform and heads the HOLMES platform engineering and solutions development. A long-timer at Wipro, Mr. RamPrasad has built teams with unique skills, passion and commitment. Known for his technology leadership and inventive ability to create breakthrough solutions. Rampi has incubated several new technology competencies in Wipro which have become mainstream practices. Early stage incubation discovering and creating technology applications and solutions to the various problems faced in this era of massive urbanization is his hobby. He works closely with Academia on several next generation technology projects and joint researches. RamPrasad has been part of review panel for global research organizations and is a frequent speaker in business and technical forums.

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