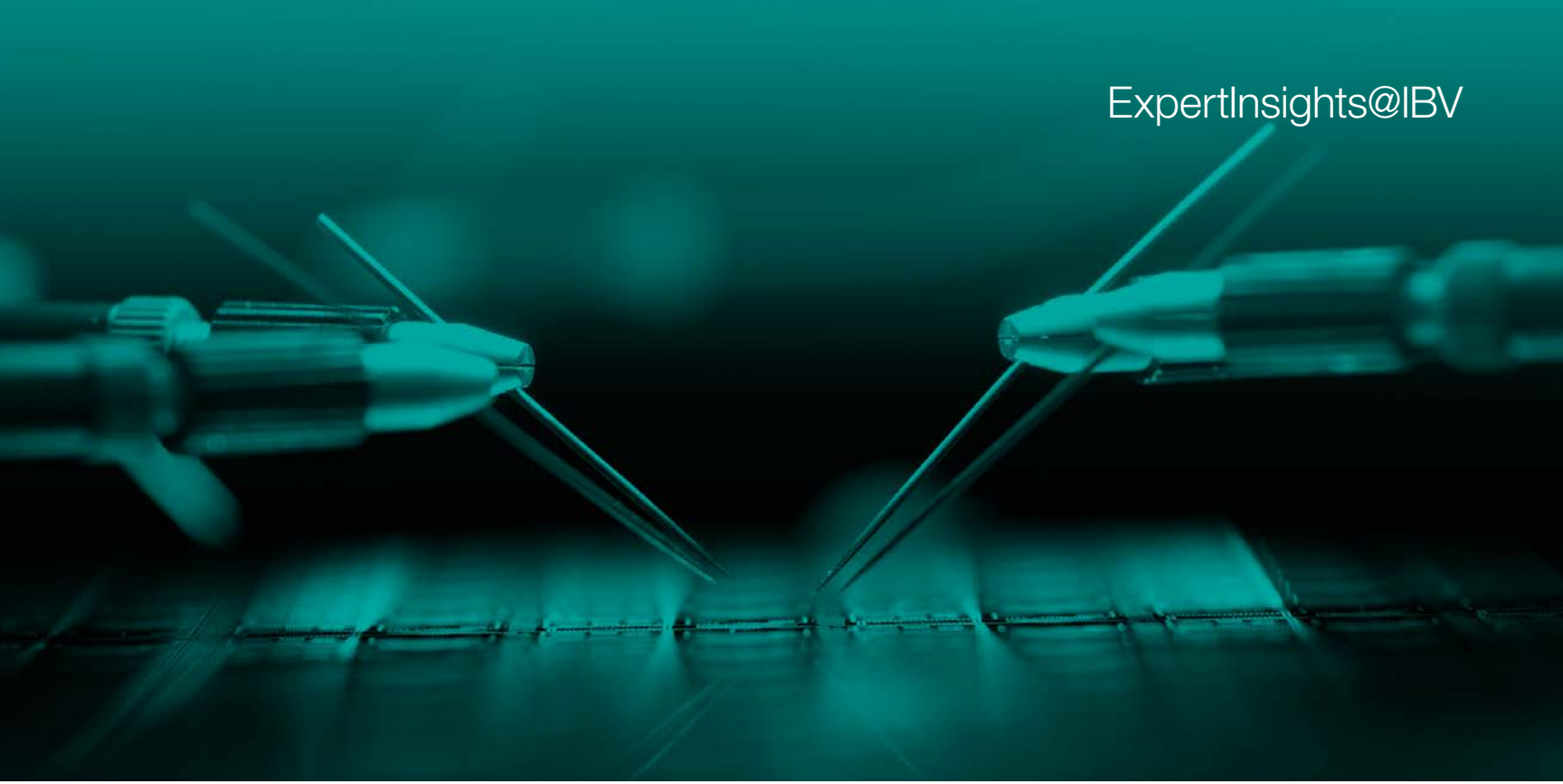

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Banking automation: Designing for “no touch”

IBM Institute for Business Value

Banks set 2020 vision on cognitive automation

A new industrial revolution is happening around us, and the financial services industry will change to reflect it. Bank business models, workforces, processes and services will need to transform radically to reduce costs, reduce risk, and enhance experience and value for customers.

Cognitive computing, combined with advances in robotics, will enable restructuring of banking’s labor force to move to higher-value, customer-focused interactions.

The automated future

The mission is to deliver digital customer journeys and eliminate unnecessary interventions in the most routine, repetitive tasks. After all, manual processing can create delays, lead to error rates as high as 30 percent, and increase rework volumes due to employee fatigue and poor training.

Why is this transformation necessary? Banks must respond quickly to economic and technological advances that are closing their jaws on the industry benchmark cost/income ratio.

- Revenues are under pressure.
- Interest rates remain low.
- New entrants and fintechs erode valuable customer segments, as high-value services – historically the preserve of long-standing global and regional bank brands – are stolen by months-old startups.
- The impact of open banking is felt, as the API economy matures and regulators drive competition.

On the cost dimension, there is a new sense of urgency in the boardroom, focusing on cost takeout and productivity. Regulation continues to expand, adding cost. In some markets, resurfacing inflationary pressures point to additional cost pressures. At the same time, customers expect increasing digital capabilities such as virtual self-service and immediate and transparent execution of transactions. These expectations, coupled with the increasing ubiquity of mobile, often challenge typical bank operating models.

New technologies – such as robotics, machine learning and blockchain – have C-level executives asking, “What should the bank operating model and ambition for a competitive cost base be for 2020 or 2025? What is achievable with these technologies?”

Smashing the productivity ceiling

Until now, banks have pushed against a productivity ceiling, with some retail banks achieving around 52 to 47 percent cost/income ratios (although lower in China and higher in Brazil). Cognitive process automation (CPA), which combines cognitive computing and robotic automation, can help raise that ceiling significantly.

The question, however, remains: What is the winning model for a large retail bank? Is a cost/income of 37 percent achievable and sustainable with these advances in cognitive computing and robotics? The answer is probably yes, but is that enough? Or should banks set a more ambitious objective – perhaps 25 percent?

The cost equation, of course, has many components. Staff costs are significant, but property/asset costs and the cost of capital are also considerable. An aggressive goal for the cost/income ratio drives the imperative for greater efficiencies.

Historically, banks have been very good at “engineered efficiency.” Strategy and key performance indicators are cascaded through budgets to lines of business (LOBs). In turn, LOB executives execute projects in areas such as processes, channels, domains like IT and compliance. We believe many banks will continue this approach by executing cognitive automation programs through these mechanisms in an attempt to sustain a general industry culture of control through product profit and loss.

This engineered efficiency approach, however, has left top-performing banks with cost/income ratios today in their 40s. The same approach will limit the effectiveness of cognitive automation to achieve 35-40 percent because it fails to address optimization or automation synergies across LOBs. It also lacks the integrating initiatives that could squeeze out every last efficiency, which means that less than 30 percent is beyond the new ceiling for most banks.

This lower cost/income ratio requires a new workforce model, a new operating model and a new leadership style of cooperation across business lines for the common good. We call this a “natural efficiency” culture. Smashing through the productivity ceiling first requires a comprehensive baseline assessment of the current operating model to help identify and prioritize automation opportunities.

The second prerequisite is a board room dedicated to a single drum beat of natural efficiency. This drum beat is driven by collaborative investment in cognitive automation assets that are deployable across the enterprise, along with a motivated and rewarded continuous improvement culture.

Cognitive process automation has begun

While 2016 was marked by experimentation and proof-of-concepts, this year there is a rush to scale CPA using chat-bots, robo-advisors, cognitive computing and other artificial intelligence solutions. Mundane tasks in channels and middle office, such as data entry, responding to frequently asked questions and assembly, will become fully automated, freeing people to handle more complex, fulfilling assignments that demand human interaction and engagement.

In the back office, automation will eliminate common manual workarounds often implemented to address regulatory gaps or technology integration failings. These gaps frequently arise when legacy technology is unable to address new requirements but development costs are too great or there are other priorities.

We use CPA to describe a new business model where human intervention in day-to-day processing is discretionary. In this digital journey, human intervention only occurs when it adds value to the customer experience or provides the necessary controls and checks to protect the bank and help ensure quality. The design for a “no-touch” environment is characterized by reduced operational risk; decisions based on fact or high confidence; and a superior experience for customers, colleagues and investors.

CPA will be sufficiently pervasive to eliminate most manual intervention in middle- and back-office banking processes. For colleagues, cognitive and advanced analytics capabilities will deliver insight and decision support through mobile devices designed around a personalized interactive user experience.

The millennials: “Human aids” not “humanoids”

As banks move into this new industrial age heralded by cognitive automation, they will face significant challenges in balancing change leadership implications with the demands for day-to-day business returns.

The transformation will see growing numbers of the millennial workforce migrating away from the hierarchical command and control structures of today’s bank models. They will move to new jobs, working collaboratively in networks and teams with a wider variety of responsibilities. Establishing this new vision will include challenges relating to leadership, organization structure, talent and engagement. In response, many banks will establish strategic partnerships and collaborative ventures to secure the journey.

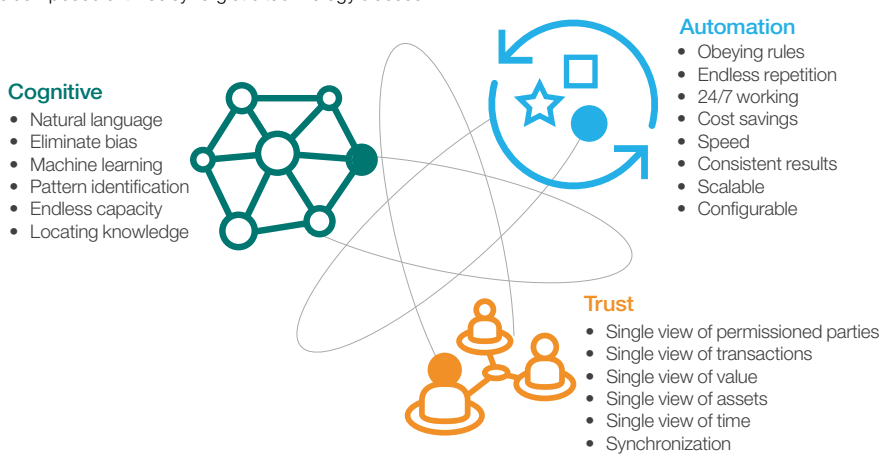
CPA explained

CPA comprises three synergistic technology classes: cognitive computing (such as artificial intelligence and machine learning), automation and trust. If working seamlessly together, they enable automated continuous service improvement (see Figure 1).

These building blocks bring automation capabilities to banking business processes – capabilities not possible even two years ago. And they can do so with wide- and large-scale applicability. It is now possible to:

- Automate conversations with customers and staff
- Automate decision making and insight from unstructured data, including PDFs and photographs
- Automate physical processes where staff are following rote procedures
- Eliminate process inefficiencies and intermediation in value chains.

Figure 1.
CPA is composed of three synergistic technology classes



Source: IBV Institute for Business Value

Designing for no touch

As banks gear up and prepare for the wave of automation, they are focusing on three substantive enterprise capabilities or patterns:

- Cognitive conversation, including automating the customer conversation, determining customer intent, and offering up relevant and personalized solutions.
- Cognitive discovery, which involves extracting valuable insight from the vast pool of both private and public data, including unstructured data such as client meeting records, images and social media.

- Cognitive compare, which includes the ability to determine differences between document versions such as contracts and statements with 100 percent accuracy.

This first capability provides the insight on which an automated or human augmented decision is made. Automation of “arms and legs” occurs through the second capability – robotic process automation, automated workflow or calling APIs.

The third critical element to design for no touch includes a combination of emerging blockchain technologies and data fabric capabilities, which together combine to better enable trust. Data fabric refers to a new open source architecture in which big data is pooled in the bank’s analytical environment, de-duplicated, cleansed and amalgamated with its proprietary knowledge of customers, products and research in analytical models. Blockchain provides a transformational capability in which a single view of legal documents, contracts and assets is provided to all parties to a transaction with the ability to transfer value in both directions in real time.

By 2025, the banking landscape will likely include some of today’s well-known banking brands, along with some new names. Most leading financial institutions will be substantially automated, with customers and clients serving themselves through sophisticated automation, typically engaging with bank experts for more complex or personal financial advice and needs.

Success will be characterized by clear committed leadership, a rigorous baseline plan and a culture of design for re-use that delivers accelerated transition to the new cognitive automated business model. And it will happen quickly. Within two years, intelligent automation and robotics is on course to potentially transform as much as 25 percent of job content with even greater potential reductions in cost.

Experts on this topic

Mike Hobday
Vice President
Cognitive Process Transformation
Practice Leader
IBM Global Business Services - UK and Ireland
linkedin.com/in/mike-hobday-149ba31/
mikehobday@uk.ibm.com

James Cook
Talent Development Practice Leader,
Global Talent and Engagement
IBM Global Business Services
linkedin.com/in/james-cook-a81bb75/
james.cook@uk.ibm.com

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Route 100
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Notes and sources

1 Sondalini, Mike. “Unearth the answers and solve the causes of human error in your company by understanding the hidden truths in human error rate tables.” Lifetime Reliability Solutions. http://www.lifetime-reliability.com/cms/tutorials/reliability-engineering/human_error_rate_table_insights/

2 “CMA issues final order on Open Banking.” Finextra. February 2, 2017. https://www.finextra.com/newsarticle/30077/cma-issues-final-order-on-open-banking

3 Bratton, Ethan, and Francis Ian Garrido. “Cost-to-Income Ratios of Banks Worldwide.” April 7, 2016. http://marketintelligence.spglobal.com/our-thinking/ideas/cost-to-income-ratios-of-banks-worldwide

4 Ibid

5 Ibid

6 IBM analysis based on data from: Bratton, Ethan, and Francis Ian Garrido. “Cost-to-Income Ratios of Banks Worldwide.” April 7, 2016. http://marketintelligence.spglobal.com/our-thinking/ideas/cost-to-income-ratios-of-banks-worldwide

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