

HOW CAN BANKS COMPETE WITH FINTECHS THROUGH AUTOMATION?



Whitepaper

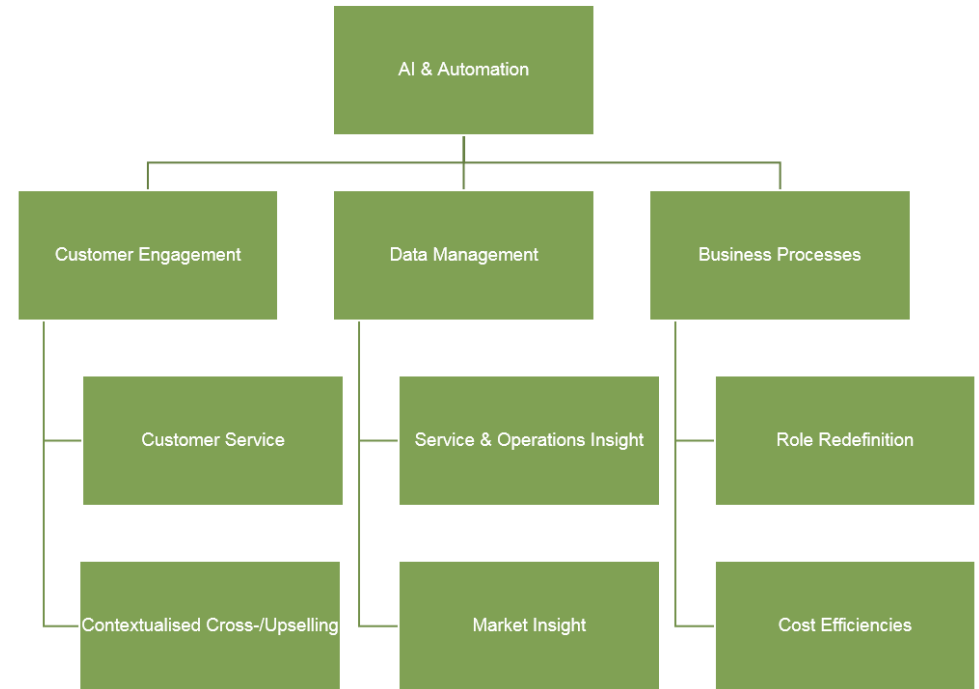
1.1 Introduction

The banking industry will, in future, be defined by the rise of 2 supporting technologies: AI (Artificial Intelligence) and RPA (Robotic Process Automation). These technologies, already widely accepted outside the financial industry as efficient business tools, will, in Juniper’s opinion, ultimately prove their worth when combined, realising cost-savings, improved customer engagement and fundamental changes to the structure of FIs’ (Financial Institutions) operations.

At the outset, it is important to separate the terms ‘AI’ and automation; they are not dependent on one another. For instance, RPA has existed for some time, allowing customers to record repetitive actions (including keystrokes and mousetaps) for a software agent to execute autonomously. Meanwhile, AI is often used as a tool to predict future market performance for roboadvisory services (digital wealth management platforms), although humans executing actions based on those insights is far more common than software autonomy. That said, AI is most useful when it is used to drive autonomy. Likewise, autonomy is most useful when it becomes adaptive, rather than rigid.

The following figure shows key operational and service areas likely to be transformed through a combination of AI and automation.

Figure 1: AI & Automation in Banking: Operations & Service Layers Impacted



Source: Juniper Research

1.2 Business Processes

Interlinking the service and operations areas impacted by the potential of automation will result in a fundamental transformation of business processes. The largest driver of this transformation will be through RPA

(robotic process automation) as a mechanism for acting upon information derived through improved customer engagement or data insights.

1.2.1 RPA Impacts

RPA can be thought of as an advanced form of 'macro recording' in Excel. Essentially, the aim of RPA is to reduce operational inefficiency created by tedious, repetitive tasks which, when executed by human operatives, suffer an increased probability of error. RPA also allows the customer to potentially extend its hours of operations beyond the constraints of a human workforce, classically defined by '9 to 5' working hours.

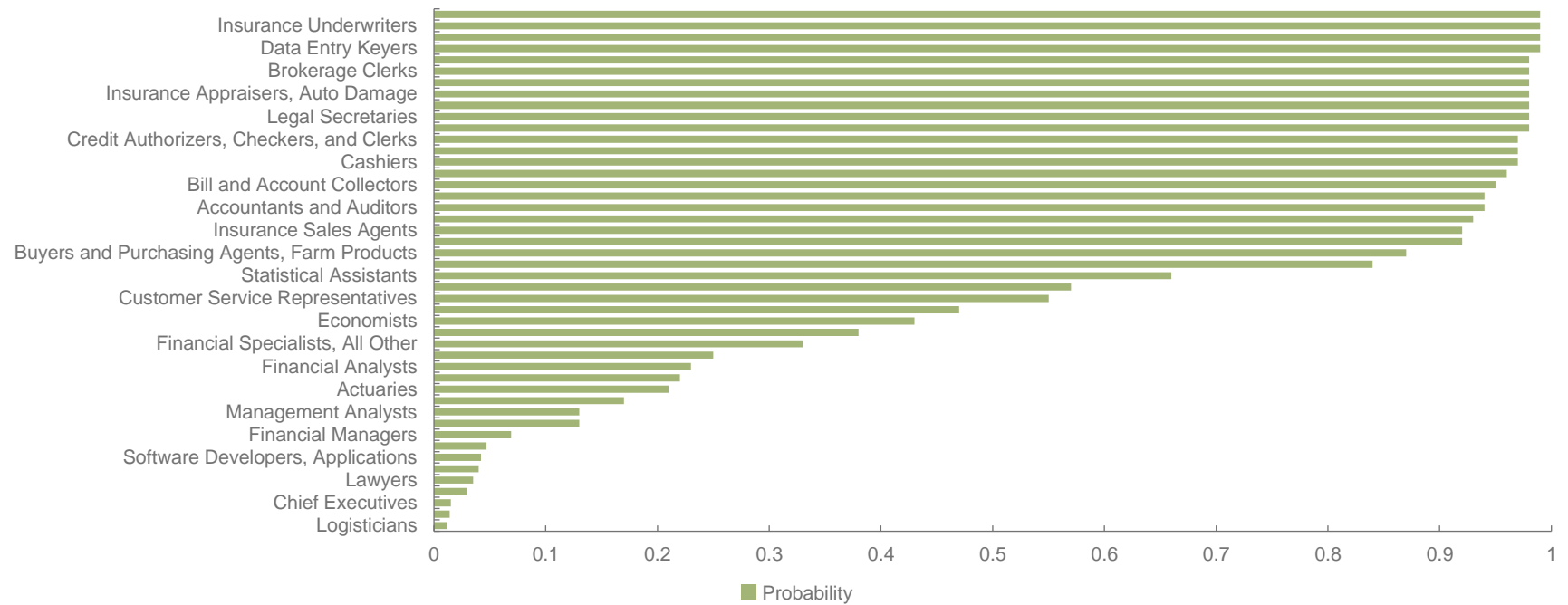
Process automation software has been on the market for some time. However, the absence of AI supporting process automation constrained such solutions to a limited number of use cases. Additionally, the absence of widespread Big Data or AI-driven applications meant that the business case for system integration, that is to say the need for operational change, had not been defined as concretely as in this whitepaper's associated study.

The desire to integrate data across several systems is beginning to gather traction across the financial industry, so it is likely that this will result in a substantial acceleration in the RPA market. The greatest driver behind this demand, as opposed to true systems integration, is the fact that RPA requires no change to infrastructure; software agents simply use the same interfaces as human operatives. Therefore, deployment costs can be substantially reduced.

The impact of AI-driven automation on the workforce is often discussed in terms of its implications. It is certainly an accepted viewpoint that jobs that require a great deal of routine can more efficiently, in terms of cost and

speed, be replaced by sophisticated algorithms. There are a number of such jobs extant in the financial industry today; meanwhile, the fact that much of the industry is data-driven means that the scope for automation in terms of impact is broad. Indeed, a 2013 study conducted by the Oxford Martin School at the University of Oxford calculated the probability of 'computerisation' impacting a range of jobs. Juniper has collated the data, as shown in the following figure:

Figure 2: Probability of 'Computerisation' Impact on Financial Industry Workforce (1=Maximum)



Source: Juniper Research, adapted from Oxford Martin School

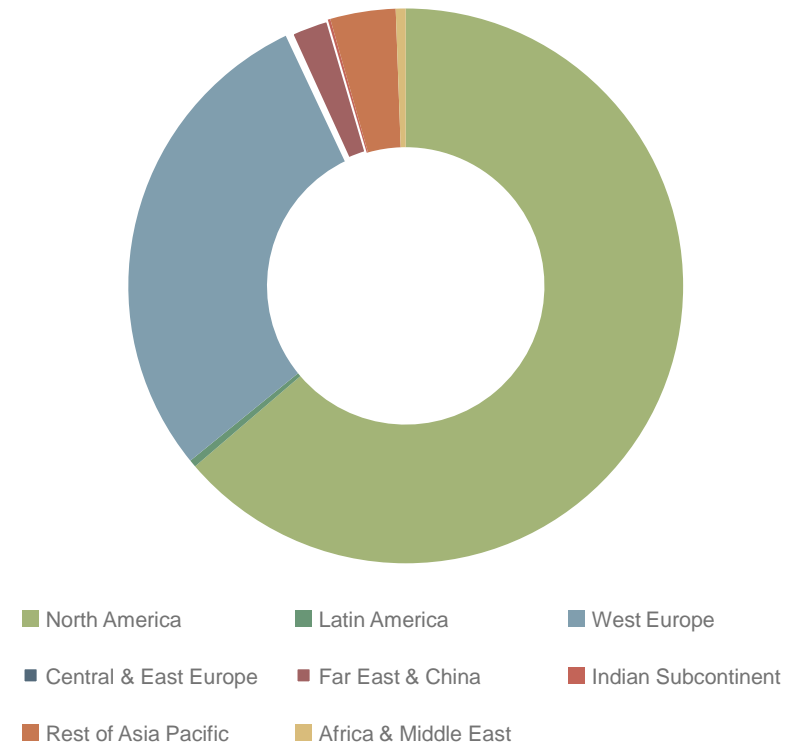
Offshore outsourcing, which has gathered steam over the last 20 years, will inevitably be disrupted through the emergence of advanced automation software. Offshore outsourcing has traditionally been used as a means of reducing operational costs; however, automation will enable customers to save an additional 20-40% on operational costs over offshoring, while simultaneously improving production quality. This is driven not only by the improvement in RPA solutions since 2014, but also by rapidly increasing IT services wages in stalwart offshore nations.

1.3 Forecast Summary

Juniper Research found that banking RPA software and services revenue will reach close to \$900 million by 2022. Juniper expects the market value, estimated at \$214 million in 2018, to expand over 4 times by 2022.

- The research found that where AI is combined with automation tools, the potential for RPA in the banking industry is far-reaching. Use cases include compliance, digital on-boarding, and personalised cross- or upsell opportunities.
- North America has heavy burdens in terms of compliance requirements impose on the financial services industry since 2008. This can be considered a key factor in driving RPA spend, in addition to the desire to increase competitiveness versus agile fintech companies. In addition to this, there has been an industry trend to reducing offshoring for some time, which has naturally increased costs. The ability to reduce operational costs is a key goal for many financial services players.
- Toward the end of the forecast period, Juniper Research expects chatbots to become a key component of process automation as players seek an ‘anytime, anywhere’ strategy for their customers.

Figure 3: Robotic Process Automation Software & Service Revenue from Banking & Financial Services in 2022: \$877 million



Source: Juniper Research

Order the Full Research

Juniper's ground-breaking new **Banking Automation & Roboadvisors** research explores how the financial industry will be transformed by the dramatic efficiencies created by software and AI (Artificial Intelligence) automation, through incisive analysis of deployment and operational cost scenarios, key market forces and strategic opportunities.

Key Features

- **Sector Dynamics:** Market status and impact assessment alongside strategic opportunities and recommendations for RPA (Robotic Process Automation), Roboadvisors and Chatbots.
- **Multi-scenario Cost Analyses:** Including deployment and operational costs for Customer Service Chatbots and RPA replicating offshore outsourcing.
- **Juniper Positioning Index:** Innovation and agility assessment for 12 key RPA vendors.
- **Benchmark Industry Forecasts:** Market segment forecasts for financial services automation, including RPA, Customer Service Chatbots and Roboadvisors.

What's in This Research?

- **Market Trends & Opportunities** – Key market trends, allied to an analysis of the present landscape, also near- and long-term outlook for the market. Impact analysis of automation on customer engagement, business processes and wealth management. Key market opportunity analysis for stakeholders (PDF).

- **Key Market Forecasts** – 5 year forecasts covering Banking Automation & Roboadvisors, including RPA revenues from banking and financial services; Customer service chatbot cost savings; Roboadvisor AUM (Assets Under Management); Roboadvisor AUM split according to deployment type; Roboadvisor platform revenues (PDF).
- **Interactive Forecast Excel** – Highly granular dataset comprising more than 2,260 datapoints, allied to an Interactive Scenario Tool giving users the ability to manipulate Juniper's data (IFxl).

Publications Details

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