Everest Group® RESEARCH

Creating Business Value Through Next-Generation Smart Digital Workforce

From Task Automation to Digital Capability Creation

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Introduction

Digital transformation has become a necessity for firms to survive in this era of disruptive business models and rapidly changing markets. Undoubtedly, Service Delivery Automation (SDA) solutions such as Robotic Process Automation (RPA) and Artificial Intelligence (AI) can play a significant role to enable this transformation and create value for enterprises. Until recently, most of the automation projects at enterprises have been majorly done in silos, confined to task-level automation, and targeted at achieving some short-term tactical benefits. However, enterprises are now exploring to go beyond such task-level automation and develop digital capabilities for achieving targeted business outcomes. The key is to understand the multitude of applications of automation technologies and leverage them to create distinctive digital capabilities.

The purpose of this study is to help enterprises widen their perspectives on automation technologies and solutions. It also aims to provide an understanding of their applications in building a smart digital workforce that can help organizations achieve strategic business outcomes.

Some of the key questions addressed in this study are:

- What are the key business problems in the traditional workforce model?
- What are the key automation technologies that enable a digital workforce?
- What are the common misconceptions about automation technologies and solutions?
- How can these automation technologies and solutions come together to create a smart digital workforce?
- How can enterprises transform their front- and back-office operations through a smart digital workforce to become future-ready?
- How can enterprises achieve strategic business impact by leveraging digital capabilities?

Case study summaries

Case study 1 (page 6):
Business problem:
The bank was looking at opportunities to improve their customer experience as part of their efforts to digitize bank operations

Business outcomes:
The bank reduced the average time for customer onboarding from **16 days to 9 minutes**

Case Study 2 (page 12);
Business problem:
A global performance management company that provides information about what consumers watch and buy faced challenges in product categorization and SKU management

Business outcomes:
Achieved 98.5% accuracy in product categorization with up to 70% of the process automated and **reduced manual effort by up to 80%**

Case Study 3 (page 16):
Business problem:
A leading multinational software corporation was looking to transform the way they process their customer invoices

Business outcomes:
67% reduction in the number of FTEs needed in the process and improved accuracy with **20% reduction in help desk inquiries**

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Key business problems in the traditional workforce model

The traditional workforce model consisted of humans handling all business processes from repetitive transactional to knowledge-based processes. With evolving customer expectations and business situations in a digital-first world, firms with the traditional workforce model face numerous business challenges today. Some of the common business problems encountered by firms with the traditional workforce model are outlined below:

1. **Processing high volumes of unstructured data:** With increased adoption of omnichannel business models, organizations are witnessing huge volume, variety, and velocity of unstructured data, which requires significant manpower to process it into structured data and extract valuable insights. These processes are also time-consuming and prone to human errors, if handled manually
2. **Handling highly repetitive and transactional business processes:** Transactional business processes, both in front- and back-office operations, are generally handled by human workforce. These processes would normally have highly repetitive tasks such as copy-pasting information, entering data into multiple systems, and accessing multiple applications to consolidate relevant information. These tasks are often done in silos and are also prone to manual errors and inefficiencies
3. **Legacy systems not compatible with modern applications and systems:** While legacy systems that hold valuable data records may be critical for businesses, in many situations they are not compatible with new applications or technologies. This inhibits the efforts of integration, improving operational efficiency, and streamlining processes
4. **Increased customer queries across multiple channels:** Customers are increasingly contacting businesses through multiple touchpoints according to their convenience, and also expect immediate and round-the-clock resolution of their queries. In a traditional agent-only operating model, it is becoming increasingly difficult for firms to meet the expectations of today's digital-savvy consumers. These problems are further intensified with employee attrition and seasonal peaks in demand that pose challenges for firms to delight and retain custom
5. **High turnaround time of agents in handling complex customer queries:** Human agents handling complex customer queries or escalations need to maneuver through different systems and applications to pull relevant data, analyze it to get insights, and solve their queries. This process is generally very time-consuming and increases the Average Handling Time (AHT) for processing inquiries resulting in process inefficiency, inaccuracy, and customer dissatisfaction. Sometimes, new agents may not be aware of the best method to handle a type of escalation or query, which might further increase the AHT

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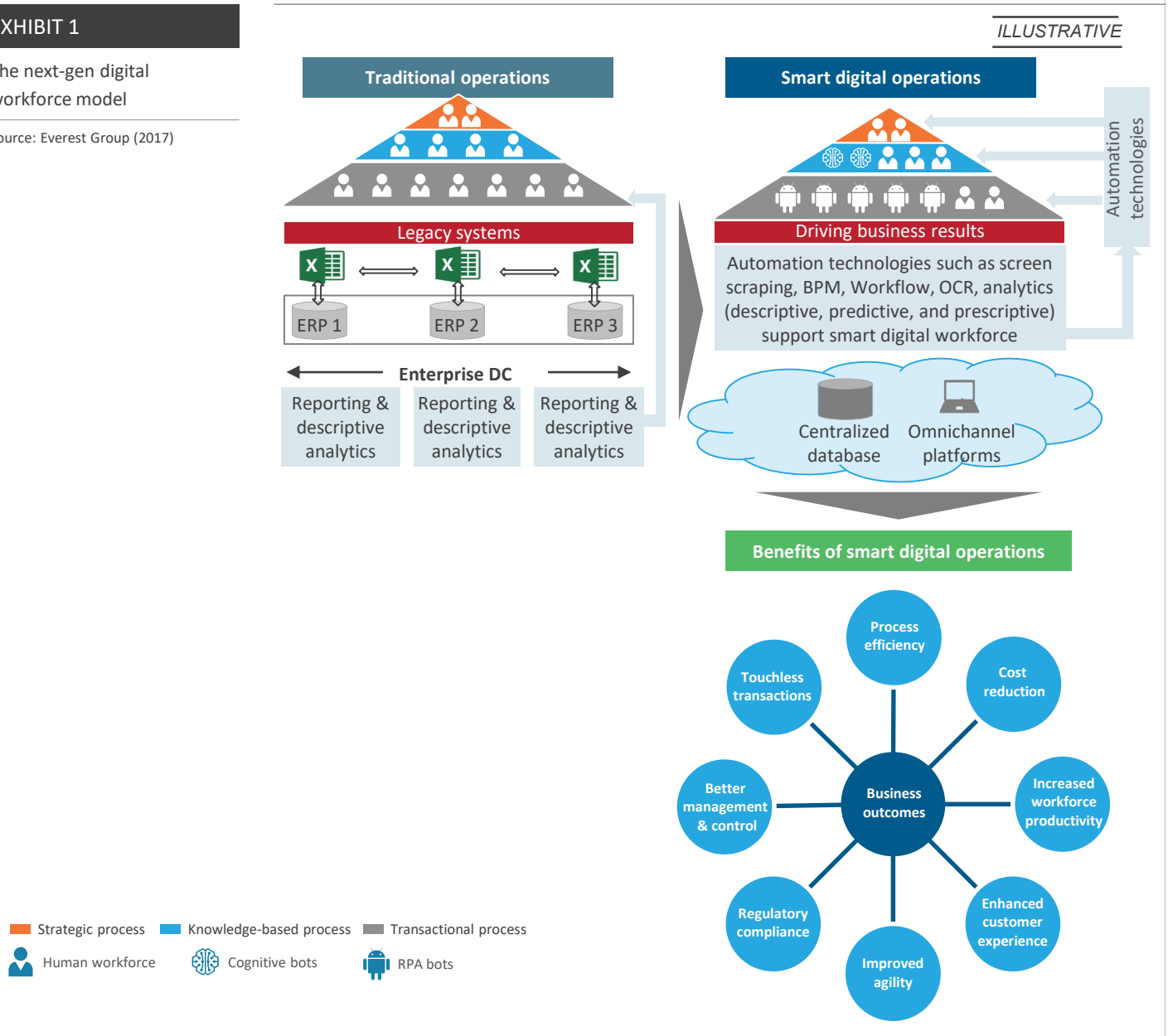
The next-gen digital workforce model for a future-ready enterprise

Business processes in an organization can be classified as strategic, knowledge-based, and transactional processes based on their type, nature, and the complexity involved in execution. The problems faced by the traditional workforce model in handling these business processes can be resolved by deploying a smart digital workforce comprising bots along with human agents. Bots that can handle most of the transactional processes and some knowledge-based processes can significantly free up the time of human agents to handle high-value work. With the increased sophistication of RPA and cognitive automation solutions and ease of implementation, we are witnessing rising adoption of smart digital workforce for managing transactional and knowledge-based processes. The next-generation digital workforce model will have human agents and bots working together, with humans involved more in strategic processes and decision-making. An illustration of the next-generation digital workforce model is given below in Exhibit 1.

EXHIBIT 1

The next-gen digital workforce model

Source: Everest Group (2017)



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Key benefits of next-generation digital workforce model for enterprises:

The increased sophistication of RPA and cognitive automation solutions and ease of implementation has led to the rising adoption of smart digital workforce for managing transactional and knowledge-based business processes. Some of the key benefits of adopting the next-generation digital workforce model are listed below.

- In the next-generation digital workforce model, cognitive bots bring in the capability to process all types of data, including unstructured, with greater speed and higher accuracy than human workforce. The automation rates from using these bots typically range from 20% to as high as 80%. Automation rates and accuracy increase with time, as the bots learn and train themselves with larger data sets
- RPA bots can be deployed to automate transactional processes with less variability in process workflow or data inputs. Some RPA solutions can also automate the routing of exceptions to human agents. This leads to greater process efficiency, accuracy, human workforce productivity, and significant reduction in Total Cost of Operations (TCO)
- Knowledge-based processes with unstructured data can be automated with a combination of RPA and cognitive automation, along with workforce orchestration capabilities, to dynamically distribute tasks in real-time between RPA bots, cognitive bots, and human workforce. Enabling technologies such as robotics, BPM/Workflow, OCR, machine learning, and analytics (especially predictive and prescriptive) support this ecosystem of smart digital operations
- Integrated databases and cloud-based omnichannel platforms empower the digital workforce with the right set of process-relevant to generate actionable insights

In the following sections, we attempt to address in detail how various automation technologies and solutions come together to enable digital capabilities in an enterprise to solve business problems and deliver outcomes.

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EXHIBIT 2

Case study: Leading global bank in South Africa

Source: Everest Group (2017)

Process: Customer onboarding

Business problem:
- The bank was looking at opportunities to improve their customer experience as part of the efforts to digitize bank operations
- One of the processes that required to be optimized was customer onboarding, which typically took 16 days for completion
- The bank had several disparate legacy systems that needed to be integrated to optimize the entire customer onboarding process

Solution:
- The bank engaged with a smart automation solution provider to optimize their customer onboarding process
- The solution implemented was an enterprise-wide automation platform which helped to transform the operations of the bank
- The solution included SDA capabilities such as RPA, OCR, workflow, cognitive automation, and analytics with a process-centric software subscription model (vs. per bot licensing)

Business outcomes:
- The bank reduced the average customer onboarding time from 16 days to 9 minutes
- Achieved STP rates of 60-100% across various processes where solution is implemented
- Customer onboarding process is optimized to be completed when the customer is online and interacting with Standard Bank

Average time for customer onboarding went from 16 days to 9 minutes

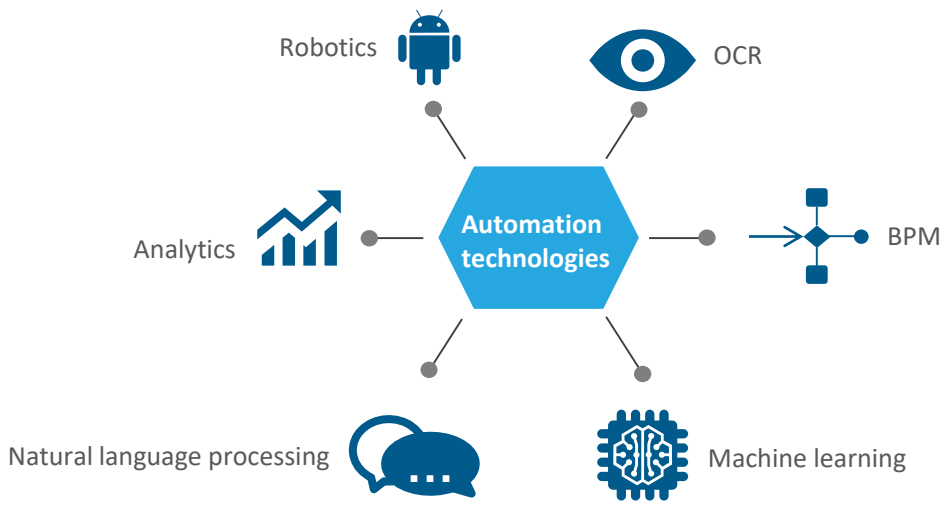
Automation Technologies

Technologies that enable automation solutions have witnessed significant advancements in recent years, enabling the development of scalable enterprise-grade automation solutions and faster & easier implementation. Some of the key technologies that form the underlying systems for Service Delivery Automation (SDA) solutions are discussed below.

EXHIBIT 3

SDA solutions, characteristics, and some of the underlying technologies

Source: Everest Group (2017)



Robotics: In the global services context, robotics refers to an execution engine for processing rules-based tasks such as moving data across disparate systems. Techniques such as surface integration are generally used to communicate with the underlying systems. Robotics is a core capability of RPA.

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Optical Character Recognition (OCR): A tool used to extract information from images, and convert them into a machine-readable format. OCR utilizes descriptions, tagging, and domain-specific knowledge to identify and categorize content. OCR paired with cognitive automation improves the accuracy and rate of automated classification and extraction.

Business Process Management (BPM): Comprises a set of workflow and process designing tools, where the business logic for optimized processes can be configured. BPM orchestrates the flow of work across human tasks, bot tasks, and system tasks to enable end-to-end process automation. BPM capability, when embedded into RPA and cognitive automation systems, reduces time-to-automation, facilitates workflow design, and enables users to elevate from task automation to process automation.

Analytics: This refers to a suite of applications from process/business intelligence to various types of advanced analytics solutions such as predictive, prescriptive, and big data analytics. Automation solutions with embedded analytics allow users to describe, predict, and derive actionable insights for improving business performance.

Machine Learning (ML): A core technology within cognitive automation. ML algorithms such as Random Forest, Hidden Markov, and Deep Learning Neural Net (DNN) use data to learn and improve the output of their work output without the need for manual programming. ML is a core capability for automating knowledge-based business processes. Cognitive automation provides data intake and quality control capabilities and applies this sanitized data to ML algorithms to create models (algorithms that have been trained with data) that can perform more complex knowledge-based work. As people handle exceptions, models learn and adapt, which further reduces manual effort.

Natural Language Processing (NLP): It enables people and software to communicate in human language. NLP is used to build bots that can parse or interpret natural language of humans (Natural Language Understanding), and script responses to their queries in natural language (Natural Language Generation). NLP is the core capability within conversational automation or “chatbots.”

Common misconceptions about RPA and cognitive automation

While SDA solutions have witnessed higher demand and rapid adoption recently, it is important to be aware of certain misconceptions about these solutions that are prevalent in the market. There are two common misconceptions about RPA and cognitive automation solutions.

- RPA and screen scraping are often considered to be the same in terms of functionalities and business applications. In many situations, screen scraping is being repeatedly used for referring to RPA
- Similarly, the other misconception we commonly observe in the market is when machine learning is used interchangeably with cognitive automation

In reality, while screen scraping and machine learning are important components of RPA and cognitive automation solutions respectively, there are a host of other underlying technologies and capabilities that make them consumable and enterprise-grade, with

the potential to deliver significant business outcomes. Hence, enterprises need to have a clear understanding of the various characteristics of SDA solutions and the underlying technologies within each of the solutions as outlined in Exhibit 3, in order to judge the capabilities of SDA offerings available in the market.

Screen scraping ≠ RPA: Screen scraping is a technology that forms a part of RPA. While RPA solutions are capable of screen scraping and capturing data from legacy systems, the applicability of RPA is much wider than screen scraping. RPA solutions use not just screen but web scraping (based on Document Object Model (DOM)) as well as imaging capabilities to interface to business or IT systems. As depicted in Exhibit 3, there are a host of other technologies and capabilities, apart from screen and web scraping, that are necessary for enterprise-grade design, deployment, governance, and maintenance of RPA

- RPA solutions are integrated with native BPM/workflow that enables logic-based decision-making to execute a sequence of tasks
- The task scheduling and queue management capability contributes to efficiently coordinating the execution of various tasks in business processes and can be run in unattended mode on virtual machines hosted on server or cloud infrastructure
- They also come with a centralized control tower to control and monitor the performance of bots to offer enterprise-grade visibility, control, and scalability
- RPA enables organizations to design process execution steps in a user-friendly manner, and, typically provide a no-coding interface for defining automation steps and configuring bots
- Enterprise-grade RPA comes with a range of other capabilities such as debugging capabilities, version control, audit trail, security features such as credential vaults and role-based access, and pre-built connectors and APIs that make it easier to integrate with third-party services and applications

Machine learning ≠ Cognitive automation: Machine learning is a key enabler of cognitive automation. However, there are a host of other technologies and capabilities required to make it consumable and scalable for enterprises, as illustrated in Exhibit 3.

- An enterprise-grade cognitive automation solution provides the capabilities to automatically:
  - Capture the input data and outputs, as processed by human agents
  - Categorize the input data based on its type and identify the best machine learning algorithm for all those categories
  - Train the machine learning algorithm with numerous data sets until the desired accuracy levels are reached
  - Package the trained algorithm into a cognitive bot and add it to the pool of digital resources to automate the tasks it has been trained for
  - Learn from exceptions continuously
- Cognitive automation typically comprises a suite of tools that provides the ability for firms to automate knowledge-based work, control and monitor bots, and observe patterns in complex data, extract, and act on the insights that may not have been discovered manually by humans
- These solutions may also have Natural Language Processing (NLP) to understand human language and emotions

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EXHIBIT 4

SDA solutions, characteristics and underlying technologies

Source: Everest Group (2017)

	RPA	Cognitive Automation
SDA Solutions	Sophistication of SDA solutions	
Key characteristics	• Deterministic • Rules-based automation • Workflows and code are embedded manually • Deployed to automate transactional and repetitive tasks of business processes • Handles structured and semi-structured data	• Probabilistic • Automates knowledge-based processes • Learns by itself and builds knowledge bases over time • Deployed to automate conversational and complex business processes • Handles all types of data including unstructured
Common technologies and capabilities	OCR BPM/Workflow Control tower Exceptions handling Task scheduling and queue management Data validation and audit trail Version control Process management tools Design studio APIs for third-party service integration	
Differentiating technologies and capabilities	• Screen scraping • Rules engine • Basic analytics • Library of pre-built automations • Bot performance analytics	• Machine learning • Natural language processing • Advanced analytics • Data capture • Workplace analytics • Automated training and self-learning • Library of machine learning algorithms • Performance management • Resource management

SDA solutions comprise Robotic Process Automation (RPA) and Cognitive Automation solutions. The various underlying technologies and capabilities within each of these solutions as described in Exhibit 3 are essential to build the key characteristics that provide value for enterprises. The following section aims to clear the two common misconceptions about automation technologies and SDA solutions.

Automation value chain

RPA and cognitive automation have been the latest buzzwords in the market, often touted to disrupt the traditional business models of enterprises. However, it is important to note that automation technologies/solutions, if considered in isolation, may not be sufficient to have a dramatic impact and achieve business outcomes. The key to success lies in establishing the desired business outcomes and using this outcome-based lens to evaluate how SDA technology vendors can help to achieve them.

A digital workforce, comprising RPA and cognitive bots as described in Exhibit 4, can reduce the manual effort and improve the efficiency of human workforce, while enabling organizations to achieve better operational agility in changing business environments.

EXHIBIT 5

Automation technologies come together to build smart digital workforce for various business requirements

Source: Everest Group (2017)

Required Not required

Bot	Automation technologies	Learning	Data type
Agent-assist	Automating various applications on agent's desktop or virtual applications and learning from past customer interactions to suggest the next best action	RPA AI BPM OCR	Yes	**Structured and semi-structured**
Copy-paste	Executing rules-based processes involving copying data from one application to another	RPA AI BPM OCR	No	**Structured**
Reconciliation	Matching transactions across disparate systems including subjective mapping	RPA AI BPM OCR	Yes	**All types of data including unstructured**
Dispatch	Classifying documents, transactions and emails into workflows	RPA AI BPM OCR	Yes	**All types of data including unstructured**
Data entry	Gathering data from unstructured documents and entering into systems	RPA AI BPM OCR	Yes	**All types of data including unstructured**
Chatbot	Identifying the intent and resolving customer inquiries in natural language over voice or text	RPA AI BPM OCR	Yes	**All types of data including unstructured**

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Agent-assist bot: These bots are commonly deployed in customer service function to assist agents handling customer queries. They can automate various applications on the agent's desktop or virtual applications. These bots can also monitor the screen of agents and guide them with the next best action depending upon the context of the call or process requirements

Copy-paste bot: These bots execute rules-based processes that involves moving structured data from one application to another

Reconciliation bot: Reconciliation bots match transactions across disparate systems and detect errors. This task includes subjective mapping and hence such bots also require AI capabilities to process transactions with higher accuracy

Dispatch bot: These type of bots are involved in classifying documents, transactions, or emails, incoming from multiple sources into different categories. Such classification involves screening documents in multiple formats (text, images, etc.) and hence requires automation technologies such as OCR, along with RPA and AI

Data-entry bot: These bots gather relevant information from unstructured documents and enter into relevant systems or applications. Collecting and processing unstructured data requires both AI and OCR capability to read the data in multiple formats and apply judgment. Once the relevant information is extracted, BPM/workflow calls upon RPA bots for entering the information into systems/applications

Chatbot: Chatbots can directly interact with customers in natural language to solve low-complex queries over voice or text. These bots, powered by NLP and ML capabilities, can determine customer intent & sentiments and accordingly respond to customer queries or escalate to concerned departments to be handled by human agents. They can also be integrated seamlessly with an RPA bot to perform transactional tasks such as updating customer information in multiple systems or sending historical bank statements

The degree of complexity and the type of processes will determine the sophistication of automation technologies needed to configure the bots. For example, if chatbots are required to answer standard customer queries, a rule-based engine with BPM and natural language processing would be the key capabilities required. Whereas, when it requires to learn to address ambiguous and unfamiliar customer queries, machine learning capability would be needed as well.

EXHIBIT 6

Case Study: Leading global performance management company

Source: Everest Group (2017)

Reduced manual effort by up to 80%

Process: Retail measurement

Business problem:

- A global performance management company, that provides a comprehensive understanding of what consumers watch and buy, faced challenges in product categorization involving harmonizing product information from global Stock Keeping Units (SKUs) to local SKUs
- They had close to 40 different products across different markets that had different definitions and constituents
- The whole process of categorization was carried out manually by human workforce and was prone to errors and inefficiencies

Solution:

- A smart automation solution was implemented based on established global standards to automate categorization at the local level
- The incoming data from retailers, vendors which consisted of multiple formats such as text, images etc., are processed using cognitive automation capabilities
- The local datasets were matched with global standards and structured data is created

Business outcomes:

- Implementation of cognitive automation helped to achieve 98.5% accuracy in product categorization
- Up to 70% of the process was automated and manual effort was reduced up to 80% through deployment of cognitive automation

Digital transformation of front- and back-office operations

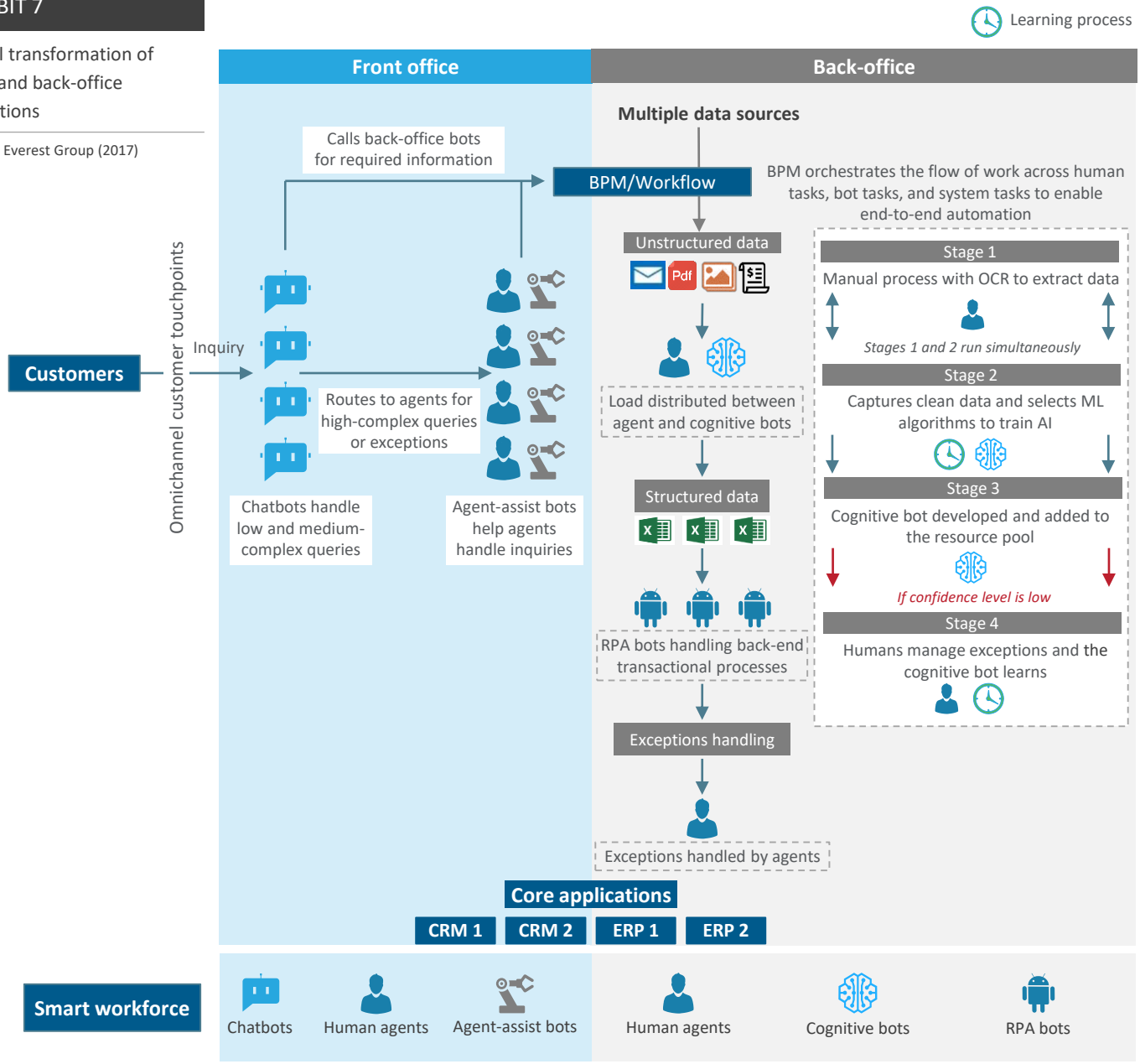
A smart digital workforce comprising RPA and cognitive bots can be deployed in the front- and back-office within operations as depicted in Exhibit 5. The digital front-office would have customer-facing chatbots that address low and medium-complex customer queries directly and agent-assist bots that help agents solve high-complex queries. Depending on vendor capabilities, these bots can be integrated with the other types of bots deployed in back-office operations to extract/enter relevant information based on customer inquiries.

The digital back-office will have a mix of RPA and cognitive bots performing back-end tasks of transactional and knowledge-based processes, respectively. The front- and back-office bots are orchestrated by BPM/workflow capabilities of a smart automation platform for optimal delegation, process continuity, and end-to-end analytics.

EXHIBIT 7

Digital transformation of front and back-office operations

Source: Everest Group (2017)



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In this section, we look at how the various business problems that enterprises face in the traditional workforce model – which has been elucidated earlier in the paper – can be solved by deploying smart digital workforce across front- and back-office operations.

Processing high volumes of unstructured data: The smart digital workforce of the automated back-office consists of human agents, RPA bots, cognitive bots, and an exception management team. Traditionally, back-office processes that involve converting unstructured data into structured data would be carried out by human agents. With the advent of cognitive automation, bots can be deployed and trained to do these tasks accurately and efficiently. The transition from human-only stage to bot-human coordination for process execution involves three stages

- In stage 1, the process of converting unstructured data to structured data is carried out by human agents
- In stage 2, cognitive bots are deployed to observe the process carried out manually by human agents. These bots get trained from observing human actions
- Both stages 1 and 2 , which involves the learning process, happen simultaneously in real-time. OCR technology is required to extract data from most of the unstructured documents
- Once training is completed, in stage 3 the workload is distributed between agents and cognitive bots based on the predicted accuracy rates or confidence level of bots
- In case the confidence level of bots is low, as is the case with exceptions, stage 4 is initiated. The task is routed to the exception management team. Cognitive bots observe how humans handle these exceptions and improve their accuracy accordingly. If the confidence level is above a given threshold and there are no exceptions, the process is completed and structured data is created

Handling highly repetitive and transactional business processes: RPA bots accurately and efficiently pick up structured data produced by cognitive bots or human agents to execute transactions. Exceptions encountered by RPA are routed to the exception handling team

Increased customer queries across multiple channels: The smart digital workforce in the digital front-office may consist of agent assistant bots, human agents, and chatbots. Low-complex inquiries are deflected through self-service channels to chatbots that interact with customers directly. Complex queries and exceptions are routed to human agents

High turnaround time of agents in handling complex customer queries: Agent assistant bots work alongside human agents to help solve queries much faster with greater accuracy. They are triggered by human agents to automate various applications on agent's desktop or virtual applications. They can also learn from past customer interactions to provide the next best action, thus improving agent's productivity and reducing the training time

Legacy systems not compatible with modern applications and systems: RPA bots are non-invasive due to their UI-based integration and work very well with legacy systems. A smart automation platform with BPM/Workflow capabilities governs the end-to-end process flow across front- and back-office and selects the best worker (humans or bots) based on the nature, type, and criticality of the task and routes work to them

Driving business outcomes leveraging smart digital workforce

Smart digital operations comprising RPA bots, cognitive bots, and human workforce would help organizations achieve targeted business outcomes faster with greater efficiency. Some illustrative examples of how these bots can be deployed in various types of business processes involving transactional and knowledge-based tasks and the business outcomes that could be achieved are given below in Exhibit 6.

EXHIBIT 8

Driving business outcomes leveraging smart digital workforce

Source: Everest Group (2017)

Type of business process	Sample use case	Smart digital workforce	Business outcomes
Transactional	Validating customer information in Know Your Customer (KYC) process	RPA bots, humans for exceptions	• Cost reduction • Increased workforce productivity • Increased process efficiency • Regulatory compliance
Transactional	Self-service: Answering FAQs in interactive chat	Chatbots, RPA bots, and human agents for exceptions	• Enhanced customer experience • Increased process efficiency • Improved agility
Transactional	Customer onboarding	RPA bots with OCR for forms screening, and human agents and cognitive bots for exceptions	• Cost reduction • Improved quality and process efficiency • Enhanced customer experience
Knowledge-based	Customer servicing: Answering complex customer queries	Chat-assist bots and human agents	• Increased workforce productivity • Increased process efficiency • Enhanced customer experience
Knowledge-based	Sentiment analysis: Predicting the emotions of customers	Cognitive bots and human agents for actions	• Increased customer satisfaction • Increased workforce productivity
Knowledge-based	Fraud detection in banking and financial services	Cognitive bots and human agents	• Better management and control • Increased process efficiency • Regulatory compliance

RPA bots can be deployed in less time and can provide faster results such as reduction in operating costs and improvement in process efficiency. Though RPA bots can provide quick-wins for organizations to lower costs, it is important to note that including cognitive automation concurrently allows organizations to achieve more impactful benefits over long-term, such as increasing automation rates, improving workforce productivity, increasing customer satisfaction, and transforming business processes. Cognitive bots along with RPA bots can seamlessly handle end-to-end processes at greater accuracy and speed, requiring minimal intervention from people over time. Hence, deploying both RPA and cognitive bots together can more significantly impact business outcomes than RPA-only or cognitive-only deployments.

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EXHIBIT 9

Case study: German multinational software corporation

Source: Everest Group (2017)

Process: Invoice processing

Business problem:
- A leading multinational software corporation was looking to transform the way they processed their customer invoices
- The function received high volumes of documents and unstructured data from customers through various channels, including email, paper, fax, post, social media, and other electronic data streams on a daily basis
- The objective was to reduce manual errors in processing these documents

Solution:
- A smart automation solution was implemented to develop digital capabilities for invoice processing
- Cognitive bots read, interpret, and extract the key data from invoices and validate them against compliance and legal requirements
- The exceptions are automatically routed to human agents and bots learn from the actions of human agent using machine learning capabilities
- Cognitive bots optimize their efficiency with every exception minimizing the need for human intervention
- The validated structured data is delivered to RPA bots for entering into the firm's ERP system

Business outcomes:
- About 67% reduction in the number of FTEs needed in the process
- Reduction in the amount of incorrect data generated due to human errors and considerable increase in process accuracy
- About 20% reduction in the number of helpdesk queries and enhanced customer satisfaction

67% reduction in the number of FTEs need to process invoices

Key success factors for smart automation

1. **Organizational readiness:** Positive alignment is essential across all key stakeholders, including IT. Putting in place a governance structure to clarify roles and responsibilities
2. **Skills:** Sourcing the right skills for developing, managing, and running smart automation solutions
3. **Setting realistic expectations:** Setting realistic expectations from automation initiatives and produce quick to keep the confidence of the program. Time-to-value realization of cognitive automation is usually much longer than that of RPA. It often takes huge volumes of clean data to train machine learning algorithms to attain the required accuracy levels
4. **Agility:** Ensuring that implementation is based on agile methodologies for faster response times
5. **Scale:** Moving beyond pilot and scale up the smart automation initiatives as soon as possible to maximize benefits

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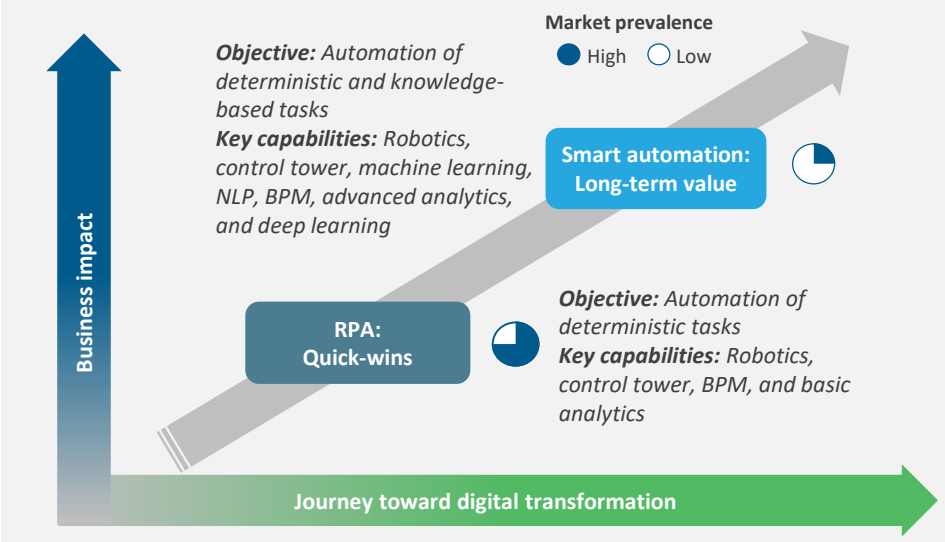
Conclusion

The arrival of RPA democratized the impact of automation across many industries by allowing enterprises to automate rule-based tasks and deliver quick wins. It is emerging as a key enabler for enterprises' digital transformation journey. While RPA addresses a large part of transactional business process automation, the extent of benefits is limited by its inability to handle unstructured data. Cognitive automation capabilities such as ML and NLP present opportunities to expand the scale and scope of automation with their ability to automate work involving unstructured data – enabling more end-to-end process automation. A smart automation solution that combines both RPA and cognitive automation capabilities enabling self-managed and self-learning bots, and orchestrating digital and human workforce from front- to back-office is the key to achieving business transformation and long-term value. It enables organizations to automate work involving both structured & unstructured data, create digital capabilities, and paves way for advanced predictive and prescriptive analytics to deliver more robust business insights for strategic business processes that involve complex decision-making.

EXHIBIT 10

Illustration of potential impact of RPA and smart automation solutions

Source: Everest Group (2017)



It's important to note that cognitive automation is still in the early adoption cycle and the time-to-value realization is usually much longer than that of RPA. However, in order to be future-proof, enterprises should invest in scalable automation solutions that enable them to get quick wins from RPA and long-term term benefits from cognitive automation and advanced analytics.

Firms that are beginning their automation journey tend to look for both RPA and cognitive automation capabilities. Several firms that have adopted RPA are evaluating how to bring in cognitive capabilities alongside their existing deployments. Most forward thinking firms are already reaping the benefits of adopting both RPA and cognitive automation – that promises to provide significant positive impact on their business outcomes, agility, customer satisfaction, and competitiveness in their markets.

About Everest Group

Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. We are trusted advisors to senior executives of leading enterprises, providers, and investors. Our firm helps clients improve operational and financial performance through a hands-on process that supports them in making well-informed decisions that deliver high-impact results and achieve sustained value. Our insight and guidance empowers clients to improve organizational efficiency, effectiveness, agility, and responsiveness. What sets Everest Group apart is the integration of deep sourcing knowledge, problem-solving skills and original research. Details and in-depth content are available at www.everestgrp.com.

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