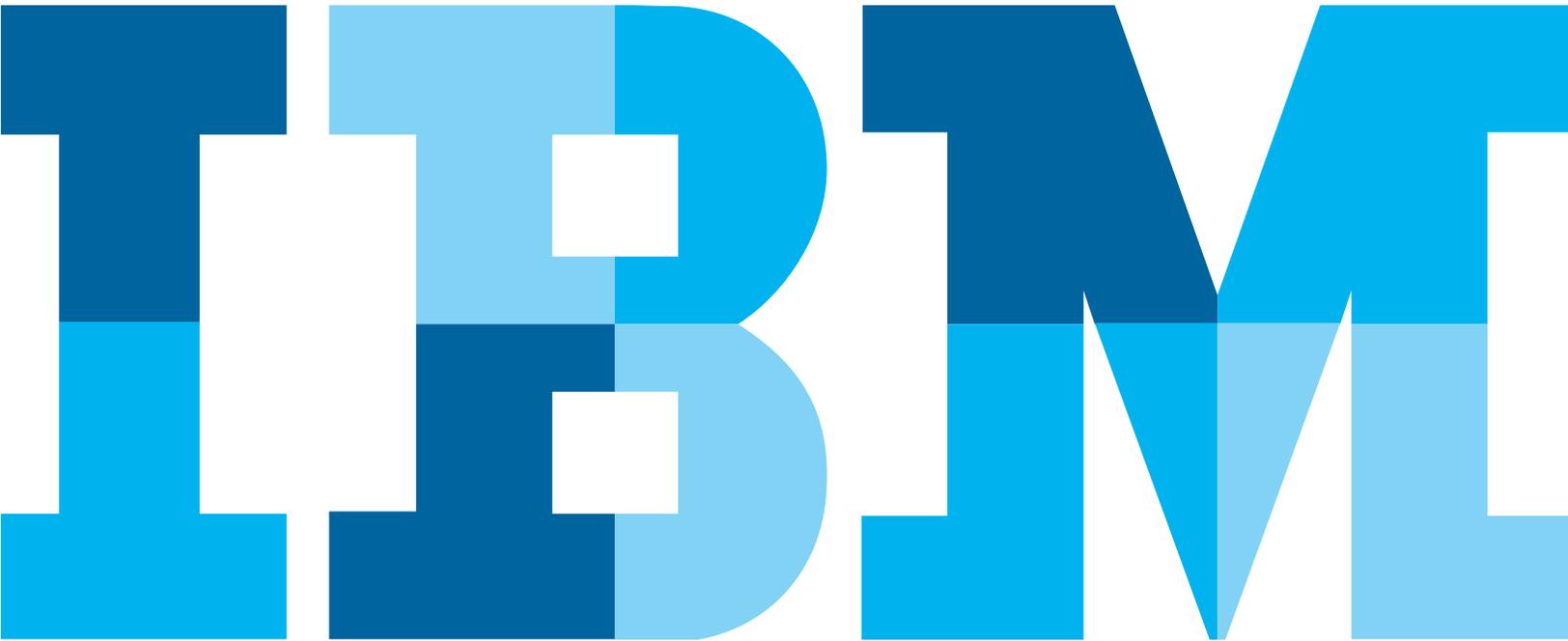


Practical steps to enable an automated finance function



Executive summary

The past two decades brought continuous improvements to the business processes that drive an organization's most critical functions. Technology has exponentially increased process effectiveness and business process transformation, enabling organizations to achieve greater efficiencies, cost savings and business outcomes.

Now, the convergence of several technologies, including cloud, analytics, mobile, social, robotic process automation (RPA), artificial intelligence (AI), and blockchain allows for unprecedented levels of flexibility in terms of how leaders design their operating models. Through effective use of technology, finance organizations can digitally reinvent themselves and achieve significant outcomes such as:

- Transactional processes that are digitized and automated for straight through processing
- Management reporting, workflow and approval requests enabled through mobile devices
- Business analysis that includes data sources not previously considered and can identify previously unknown causal relationships to enable more accurate forecast, predictions and next best actions
- Work sourcing that enables more pinpoint decisions while accounting for needs such as scale, expertise, cost effectiveness and geo-political risk

It has become clear that the combination of new technologies will be profound, driving disruptive innovations and competitive advantage (or disadvantage) in the reinvention of business processes.

While the ability to automate processes is not new, AI-enabled, adaptive and intuitive software capable of supporting complex processes are becoming more consumable and easier to implement, integrate and use. But to effectively automate and reap the benefits of successful business process reinvention, organizations need to identify and address obstacles across processes. This requires an informed, end-to-end look at the current business landscape.

This white paper focuses on how the latest technologies provide opportunities for transforming processes to make them more intelligent, agile and intuitive. It also emphasizes that while technology is an enabler, having a sound framework with industry-specific service expertise and design capability for delivering superior user experience is the real game changer.

Automation in a digital world

The threat of technology disruption shapes today's marketplace, forcing companies to transform their organizations and operating models to reduce costs, improve user experience and enhance business outcomes to remain competitive. Together, the combined technology impact will be larger and more profound than the sum of its parts. The following are examples:

- **Cloud enablement** allows new models of engagement with individuals and organizations, facilitating cross-platform data analytics such as:
 - Subscription access to enterprise applications enabling as-a-service models
 - Cross-platform, on-demand content
 - Automation enablement, which orchestrates services across hybrid environments
 - Accelerated use of robots in the cloud instead of on thousands of desktops
- **Advanced analytics** enables deeper business intelligence and consumer insight, moving from descriptive to predictive and prescriptive, supporting:
 - Personalized customer service and user experiences
 - Integration of internal and external data sources
 - AI-enabled systems that learn dynamically and act intuitively
- **RPA and AI business automation support:**
 - AI technology that allows automation software to tackle a broader and deeper set of tasks
 - RPA acting as an alternative to costly system integration efforts
 - A greater breadth of data for analytics models collected with AI and RPA technology
 - Improved quality by eliminating elements of human processing

- Blockchain technology is set to radically transform how businesses operate, driving trust, accountability and transparency across business networks, and enable:
 - Digitized input loaded to a blockchain via application programming interfaces (APIs) or RPA technology
 - Cognitive evaluation and creation of smart contracts for consensus
 - Advanced analytics fed by expansive data sources including Internet of Things (IoT) input

A digitally reinvented business seamlessly adapts to the changing market demands and expectations, capitalizes on future waves of disruption for competitive advantage and delights newly empowered customers who expect personalized user experiences. To thrive in the Cognitive Era,TM an enterprise needs to:

- Make quicker and better decisions based on what they know about each customer
- Reinvent and innovate business processes
- Accelerate the time it takes to create and bring new products and services to market
- Drive integration across various company divisions

Businesses must transform from an analog to a digital world—and do it quickly to remain competitive. While the goal is fully digitized, automated and intelligent processes with integrated solutions, there are several obstacles to overcome, including:

- Disparate systems
- Lack of process standardization
- Inconsistent policies
- Manual sourcing of data
- Poorly integrated systems
- Errors on data capture
- Frustrating user experiences

What are the best technology choices to reinvent your business processes?

Start with your enterprise resource planning (ERP)

Your ERP platform is the center of business process reinvention. If you have a single instance with the latest access to digital capabilities, you will need fewer enabling technologies to automate an end-to-end business process. According to a recent study, only 30 percent of companies have a common ERP; hence most businesses require enabling technologies to help them automate their processes end to end.¹

Many CFOs feel their organizations are not sufficiently ready for the disruptive market trends impacting the finance function.

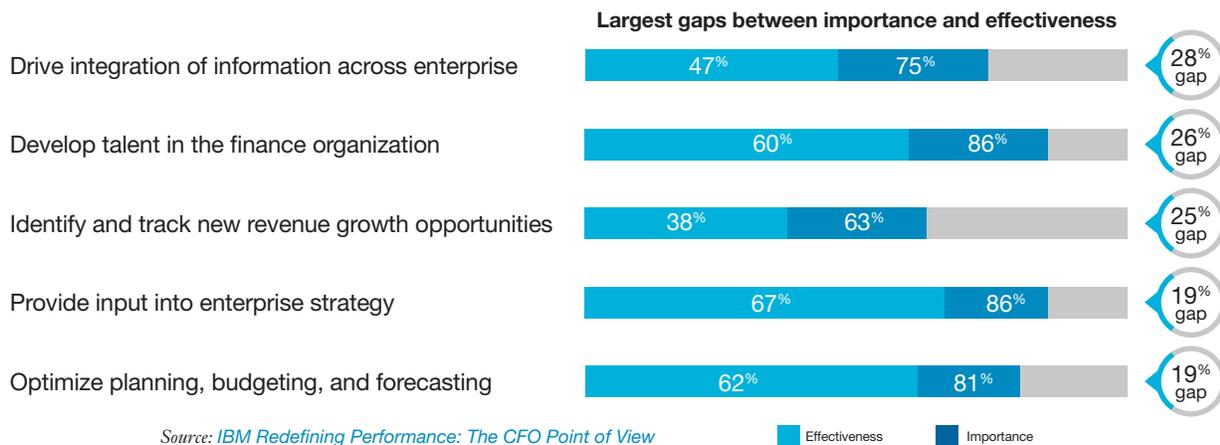


Figure 1. An IBM study shows that many CFOs do not feel their organizations are sufficiently ready for the disruptive market trends impacting the finance function.

Business Process-as-a-Service (BPaaS) provides robust process and data management, with cognitive capabilities

As the market shifts to demand “as a service” models, new options are available to help companies reinvent their business processes with cloud-based technologies that embed analytics, mobility and advanced visualization. For example, if a business has inefficient customer processes (with no common ERP or robust collection modules), they might consider a market-leading order-to-cash BPaaS solution that offers a quickly deployable and configurable cloud-based, multitenant platform. This would help support the company’s order-to-cash process, integrate the process end-to-end, and drive better business outcomes, such as improved Days Sales Outstanding (DSO) and working capital, and reduced aged receivables.

Process workflow automation

Use intelligent process workflows to move work across your business and with your partners. Whether it is fixed assets, journal entries, intercompany or master data management, you can start with an electronic form that digitizes the information and allows you to embed rules to track against the ERP. This helps you ensure proper approvals and monitor activities.

Business process management (BPM) offerings are an integral part of process workflow automation solutions. Look for solutions that provide sophisticated modeling capabilities to more easily capture current processes and collaboratively design and operate end-state, helping you to:

- Accelerate understanding of current processes
- Better demonstrate how processes will function
- Take advantage of prebuilt best-practice processes
- Compare scenarios to quantify impacts of change
- Engage and collaborate with stakeholders to harmonize processes and gain buy in

Analytics and cognitive insights

Service providers have made significant investments to bring the latest prescriptive and predictive analytic capabilities that can accelerate your business process reinvention. Choose a partner who can provide a robust set of embedded analytics—from sourcing to procurement, order-to-cash, record-to-report, financial planning, forecasting and analysis processes. These analytics are designed to provide invaluable insights that help you make better-informed and more timely decisions, and improve processes. Solutions in this area might include analytics for spend, travel, forecasting, collections, compliance and counter fraud—as well as granular time and motion analytics of your shared services practitioners that can drive continuous improvement and innovation.

RPA

Service RPA and AI technologies offer excellent opportunities to automate process activities in the “white space” that falls between different technologies. Over the years, IBM has used its own robotics tools along with those of IBM Business Partners to deliver RPA, including:

- Downloads and uploads into ERPs
- Tracking outstanding inquiries
- Automatically sending follow-up emails

Standardization is often a prerequisite to optimizing the benefits of an RPA program. We caution our users not to add robotics to inefficient, non-standard process activities because this often drives additional development and maintenance, and lower-than-expected benefits due to the lack of scale. With the latest advancements in automation technologies, we can have multiple systems working together to execute functions more seamlessly. These capabilities have now expanded to:

- Operate around the clock
- Free employees to focus on high-value activities, such as driving out the root causes of exceptions
- Better meet the increasing security needs of our clients
- Leverage AI and other advanced capabilities
- Drive intelligent automation, where AI elements lead activities, resulting in autonomous decision-making and self-remediation

Intelligent business automation

AI-enabled tools build a process-related knowledge base and use it in combination with a set of business rules to automate processes. These tools handle unstructured data and have machine learning capabilities which equip them to learn from experience and to expand their knowledge base. They use business rules to automate processes, but can also use predictive tools to infer some operational decisions in situations that might not match pre-compiled rules.

AI-enabled automation technologies, when combined with RPA, can enable new and compelling use cases and unlocks new levels of value. The biggest payoff occurs when RPA and AI—two complementary forms of automation—are integrated, enabling true cognitive automation.

Blockchain

Blockchain is a shared ledger technology allowing any participant in the business network to see the system of record (ledger). Each transaction or asset transfer recorded is digitally signed and encrypted, forming a block. Each block is linked one after another, forming a unique data structure, or an immutable, irreversible chain. Primary benefits of blockchain in finance are expected to be reduced transaction cost, enhanced visibility to transactions during a life-cycle, reduced fraud and improved transaction times.

Example use cases

A. Case study using robotic process automation technology

In this example IBM used BluePrism, which offers extensive potential to improve process efficiency and quality for each activity, resulting in a fully automated process. The objectives were to reduce or remove repetitive, labor-intensive tasks and automate an eight-step process for a human resource (HR) activity. To avoid burdening the company's IT staff with an engagement, IBM used Citrix to connect to multiple systems, including IBM tools, ERP and the company's legacy system.

IBM's approach of optimizing the process before automating it enabled increased simplification, quality and efficiency rather than creating additional complexity.

Specific results included:

- Automation of most activities that had previously been performed manually
- Automation of the end-to-end process—from receipt of request to validation, data entry into the system and sending a completion notification to the requestor

B. Case study using IBM Watson® Policy Management Library (WPML), a cognitive automation tool

IBM uses Watson technology to infuse cognitive automation into our processes. For instance, our WPML has been developed by IBM Research to assist in managing policy compliance activities at a transactional level. The solution allows users to assimilate and store a library of common policy components. These components then enable the automation of key decision points. It can handle large volumes of unstructured and non-standard data, manage exceptions, execute declarative rules and make intelligent decisions at a user-interface (UI) level. The component store is then used to review transactions for compliance against agreed-upon policies, reducing the manual touch points for exception handling and providing a mechanism to automate checks for transaction compliance. WPML can adapt to different operating environments, providing a mechanism for responding to changing conditions. It can also reference constraints and identify best practices within the operating environment. By leveraging AI capabilities, IBM uses Watson to manage exception handling that had been previously been managed manually. The process requires optimizing before automating to reduce the number of human touch points for exception handling. An example of where it can be applied is for highly non-standardized procure-to-pay (P2P) process managing multi-country exceptions, where it is used to automate key decision points and provide exception handling activities.

C. Case study using Watson Language Translator

IBM has applied Watson Language Translator with a global industrial company. This application facilitates language translation tasks in invoice processing to improve practitioners' productivity at offshore delivery centers, as

well as to reduce the dependency on regional teams. The application can be customized to accommodate company-specific terms or specific knowledge domain (such as invoice processing) to be added to dictionaries.

D. Blockchain in P2P

Blockchain is a permissioned, shared ledger with the potential to vastly reduce the cost and complexity of business transactions. Blockchains consist of a peer-to-peer distributed ledger architecture that makes it easier to create cost-efficient business networks where virtually anything of value can be tracked and traded—without requiring a central point of control. The inherent capabilities of blockchain facilitate trust, accountability and transparency while also streamlining business processes.

IBM has built a blockchain for a Fortune 500 company within an accounts payable process. Applying blockchain helps overcome many challenges such as process inefficiencies, low first-pass yield, a high volume of paper-based invoices, limited ability to provide early payment discounts and late supplier payments, lack of actionable insight on invoices, purchase orders (POs) and payment data, and non-compliance.

Blockchain can radically alter finance processes, and deliver significant benefits:

- Reduce invoice processing effort by 60-to-80 percent owing to straight through processing²
- Reduce risks, deliver on-time payments and improved working capital
- Greater transparency between parties, reducing disputes and low value add communications

Why IBM

Wherever you are in your journey toward business process reinvention, IBM can work with you. Let us help you explore and choose the latest automation and robotic technologies that can more efficiently and effectively support your business strategy.

IBM can offer:

- An end-to-end consult-to-operate model executed on a global scale that can provide:
 - Integrated outcome commitments and risk transfer
 - Transformational outsourcing value
- World-class technology, AI-enabled computing and innovation by design, supporting:
 - Faster outcomes with digital processes innovation and automation
 - New value embedded into digital processes with cognitive analytics
 - Faster adoption and better change management “by design”
- Hybrid models (in-house plus BPaaS) processes to help you:
 - Resolve in-house IT constraints
 - Solve scarcity issues with “consumable” outsourcing

HfS Research ranks IBM as an RPA leader

In creating a comprehensive model of the decisions and actions that comprise a successful RPA program, HfS Research has built a maturity model that includes three ascending levels: initialization, industrialization and institutionalization. They place IBM in the highest-level “institutionalization” category. Service providers at this level make a sizeable, executive-led investment in RPA with a view to creating fundamental change in the commercial and delivery operations of the business.³ This has been part of IBM’s strategy for years, which is reflected in HfS ranking.

For almost a decade, IBM has been investing in enabling technologies—including robotics—that help enhance outcomes for our clients. As the journey continues, it expands to include BPaaS and analytics. Today, over 70 percent of our clients are using some form of robotic automation.⁴ As IBM’s portfolio evolves, robotics will continue to play a key part in enabling us to bring the tools, services and capabilities you need to support a more efficient, cost-effective digital operating model.

For more information

To learn more about the IBM Cognitive Process Transformation, please contact your IBM representative or visit the following website: <https://www-935.ibm.com/services/finance/>

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Jennifer has over 20 years of experience leading global teams on finance operations and transformation. She focuses on client experience and thought leadership around emerging and disruptive technologies, how to accelerate finance transformation, and the path to cognitive and Blockchain. She is currently in a role leading transformation for a large consumer packaged goods (CPG) client.



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Tim has been focused on finance operations and consulting for over 25 years. He has built and directed teams globally, including a tenure managing the Shared Services Center (SSC) for clients in Manila, Philippines. He is now in a leadership role focused on North America-based clients.

Footnotes

¹ *The Office of Finance: Report: Business Information - Tomorrow's ERP, February 2014:* <http://officeoffinance.com/report-business-information-tomorrows-erp/>

² *Based on IBM internal analysis of a client engagement. Individual results will vary.*

³ *The Evolving Maturity of Robotics Process Automation by Charles Sutherland, Executive Vice-President of Research, HfS Research, November 2014:* http://www.horsesforsources.com/maturity_rpa_111214

⁴ *Pushing the frontiers - CFO Insights from the IBM 2014 C-Suite Study:* http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=X&B&infotype=PM&appname=GBSE_GB_TI_USEN&htmlfid=GBE03590USEN&attachment=GBE03590USEN.PDF



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