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Learning from Experience: A Guide to an Efficient Virtual Workforce in Capital Markets

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Robotics Process Automation (RPA) and virtual workforces are frequently discussed trends in capital markets—but only a few organizations have gone as far as implementation. There are a number of challenges when it comes to large scale adoptions of RPA. But when these are overcome, RPA can deliver major cost, control and speed benefits.

Tapping into the full power of a virtual workforce requires organizations to set up infrastructure that maximizes benefits and complies with data restrictions, educates employees to embrace the technology and embeds RPA within the company culture. In this way, firms can look forward to industrialized implementations with an ease and speed of delivery that is unique to RPA.

Investment in virtual workforces puts businesses at the forefront of innovation. Looking ahead, new technologies, such as artificial intelligence (AI), will be used to further grow and develop these virtual workforces into autonomous, automated solutions.

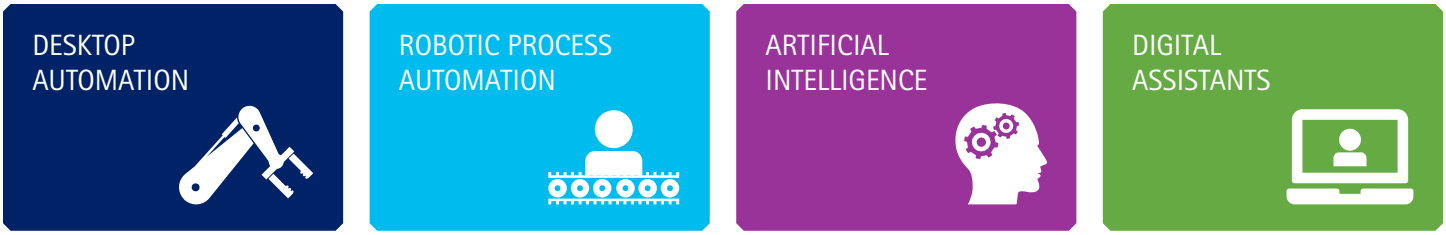
What sets Robotic Process Automation apart

RPA is getting plenty of airtime, but many capital markets businesses do not fully appreciate how this new technology differs from legacy alternatives, such as Desktop Automation (DA) (see Figure 1).

In general, RPA offers an unparalleled level of enterprise scalability, control and management information reporting. To maximize the technology's potential, firms need to have in place the appropriate technical infrastructure for their chosen RPA product. That involves setting up the software on a centralized server rather than user desktops, and assigning a login to a virtual worker to run the automation independently 24/7. That way, the process is not dependent on a user being present.

Setting up this infrastructure requires up-front investment, a long-term strategic view, and a strong grasp of the differences between RPA and DA. For example, a limited understanding of these requirements can lead internal stakeholders to think their organization is ready for RPA when it is not. That, in turn, has a direct impact on delivery, set-up and benefits realized—consequences that are magnified by inconsistent communication within a firm.

Figure 1: Automation spectrum



- Basic "arms"
- Manual operator initiates a sequence of automated steps

- Virtual "workers"
- Scheduled engine mimics execution of manual user's repetitive activities without requiring intervention or assistance

- Cognitive "brains"
- Consists of multiple technologies that enable computers to sense, perceive, understand, learn, reason and infer

- Smart "hybrids"
- Computer-generated character that simulates a conversation to answer questions or queries, and provide guidance

Source: Accenture Research

Why silos are not the answer

Some investment banks operate their business areas as silos with minimal cross-departmental collaboration. Separate departmental budget processes, organizational politics and the RPA "arms race" often reinforce this siloed way of working.

Firms that lack consistent strategies, tools, standards and processes across the organization face two key problems when it comes to RPA:

Duplication

If two departments choose different tools for similar purposes, an organization has to deal with two sets of license agreements, implementation teams, methodologies, templates, change management procedures and more. It's a huge waste of financial and human resources that is entirely avoidable.

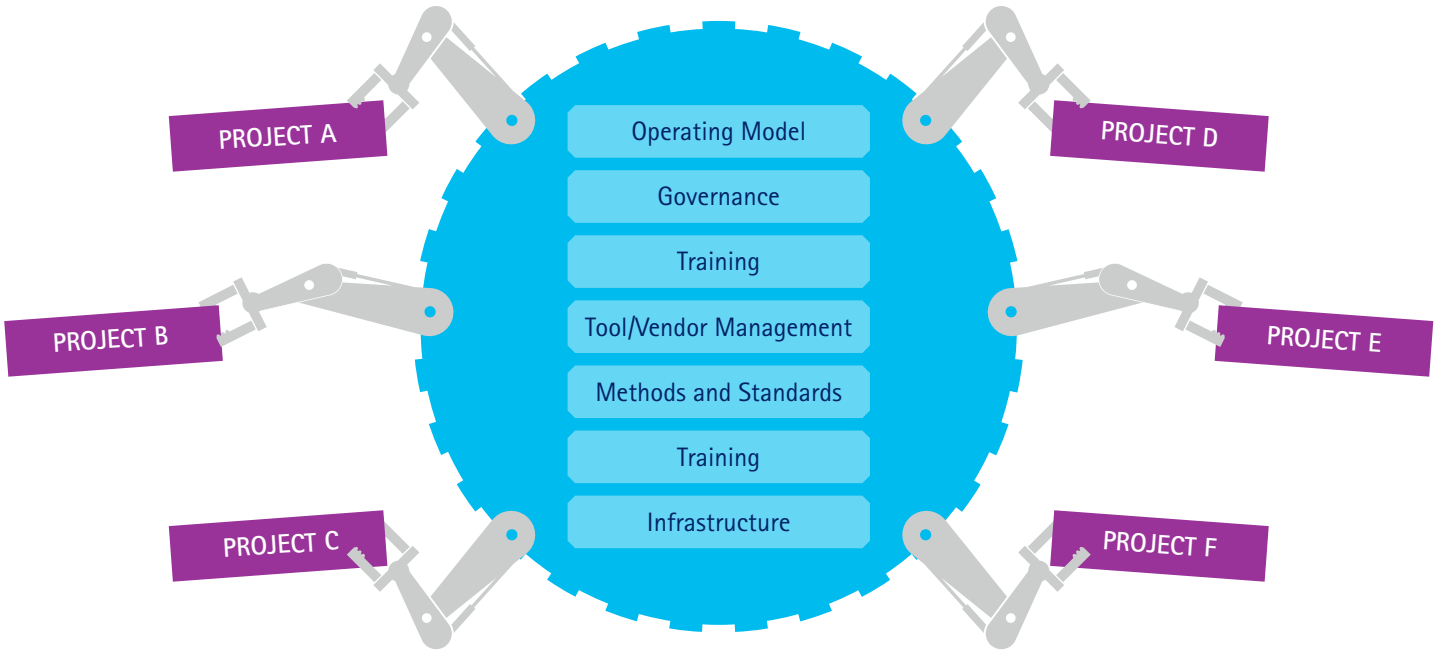
Reduced business benefit

Organizations can reap the full benefit of RPA when they use it consistently, at scale, and as part of a culture of continuous improvement and automation. That, however, becomes increasingly difficult when there are multiple tools and teams involved.

One solution is a centralized RPA factory or center of excellence that provides RPA implementation services and support to all internal departments (see Figure 2). Centralization helps ensure that:

- Consistent standards are set and enforced.
- Methods are defined and followed.
- The organization's RPA strategy and goals are achieved.
- Duplication is minimized and efficiency is maximized.

Figure 2: Centralized center of excellence



Source: Accenture Research

Why policy must come first

Bringing an innovative technology, such as RPA, into an organization is not always straightforward. In some cases, it may require changes to company policy—changes that must be initiated early, would be subject to approval and should be formally communicated to stakeholders. Automated solutions inevitably raise many questions, such as these two:

How will the robot log in to applications through the user interface?

Robots within RPA represent a virtual worker. They must be assigned their own credentials so that they can act independently of human users. A robot account can help firms standardize robot profiles across the business and create a true virtual workforce where robots move seamlessly from one process to another around the clock. Using credentials to turn robots into virtual workers is a new idea for many organizations, and may necessitate a policy shift or system change.

Who is liable for the robot's actions?

Most, if not all, business processes will still have a human owner who is accountable for that process, especially given the new drive for senior manager regimes from global regulators. As for traditional system implementations, business owners are responsible for reviewing automation testing and implementation, and confirming that the process meets their requirements and the firm's information technology (IT) policies. Additional stakeholder sign-offs, including legal and IT, may be required to move a process into production, but business leads will ultimately be responsible for their processes—in the same way they would be with a human team. A policy change or new governance measure may be necessary to ensure appropriate accountability within the organization.

Why FTEs aren't just a number

One of the main selling points of a virtual workforce is the opportunity to increase automation and potentially replace human resources with lower-cost robots. Defining the business case at the outset and revisiting it at each project phase are important steps to ensure that the anticipated benefits are delivered.

The massive focus on efficiency and straight-through processing in recent years has streamlined capital markets organizations. Therefore, there are cases where one resource performs many processes throughout a day, and automating one of those processes will not produce substantial cost savings for the organization.

Take the settlements function, for example. One resource may spend the morning clearing the settlement pre-matching exceptions queues and the afternoon investigating failed trades. In this scenario, two processes would need to be automated to realize any resource savings. Organizations also need to consider who will be monitoring the automation for any exceptions. Will the original resource or a central team of controllers be responsible? The post-implementation operating model for the organization should then be factored into the business case.

For an RPA implementation to have maximum impact, firms should not only analyze processes for RPA suitability, but also map current resource use and forecast future resource use in a virtual workforce situation. Only then can a firm be confident that any planned process automation will produce the intended cost savings.

How education leads to dedication

A successful RPA implementation requires sustained sponsorship from the business and IT throughout the deployment lifecycle. C-suite sponsors must formally communicate their vision for a virtual workforce to all levels of the organization. Realizing such a vision requires buy-in from stakeholders across the business (see Figure 3). The following two examples highlight the importance of stakeholder engagement.

Business process SMEs

Commitment and input from team members who are currently performing the process are critical for successful automation. The time required for a robotics implementation can be significant, especially for complex processes. Clear expectations must be set regarding the time required from SMEs at the outset of an automation project.

Business-as-usual processes tend to take priority over change implementations within organizations, so SMEs can find themselves in a catch-22 position on where to dedicate their time. Organizations should be prepared to reassign day-to-day activities to free up key SMEs, and have ready a post-implementation plan that outlines future roles and responsibilities.

At present, and due to the current economic conditions in which they operate, many investment banks are announcing FTE reductions across the board. Firms can use RPA to do this in a controlled way, so long as they hold on to enough SMEs to support implementation first.

Information technology teams

Caution in the face of change is natural, but educating all relevant parties at the outset of an RPA engagement can help mitigate reservations. While RPA is usually business-driven, IT will need to play a central role to ensure that technology is selected correctly and integrated appropriately, and that any potential concerns across IT teams are addressed early on. That includes application owners and those involved in IT infrastructure, risk, security, audit and architecture.

IT teams are often apprehensive about new technology implementations that will interact with their systems and may impact planned system changes. Early interaction and ongoing governance can serve to educate relevant parties, resolve any questions and foster a sense of inclusion. Failure to take these steps may result in unnecessary friction down the line.

Figure 3: RPA stakeholder matrix

Source: Accenture Research

Why data restrictions matter

When analyzing processes for automation opportunities, maintaining awareness of the data being processed is essential. Particularly in capital markets, certain processes are subject to data confidentiality restrictions. When tax operations are based in locations such as Zurich or Luxembourg, for example, sensitive client data is used to create tax documentation. The automation of processes will require implementation teams to access this data and associated applications. Understanding the process scope and corresponding data restrictions at the outset is critical for estimating architecture and resource costs, and building an accurate business case.

Technical architecture

An organization's technical architecture and set-up will depend on the RPA tool chosen. Data restrictions can be an issue for enterprise-wide tools with centralized servers that are used across locations and business areas. Separate architectures may be required for locations with data restrictions, which would increase infrastructure costs for the RPA implementation.

Resource management

Many organizations favor automation teams in offshore locations to reduce delivery costs and maximize the business case. When designing, building and supporting an automated solution, access to data from the underlying process is essential. If remote access to applications or data cannot be granted by the business, offshore resources may need to travel to these locations or higher-cost local resources may need to be used, thus impacting project costs.

How regulation affects the virtual workforce

The capital markets industry has encountered a wave of regulation over the past decade. Many firms have been forced to change existing processes and IT systems, and establish control points, to become compliant and avoid huge fines. For example, reconciliation processes between business functions, including the front office and operations, are critical to prove completeness and accuracy. Regulators routinely perform checks to ensure banks are in control. These processes are also highly suitable for automation through RPA.

In this environment, organizations need to understand where and how their control points are impacted by automation. That may require applying the necessary testing, operating model or control rigor to ensure that risk, compliance and regulatory requirements are met during implementation and ongoing production support.

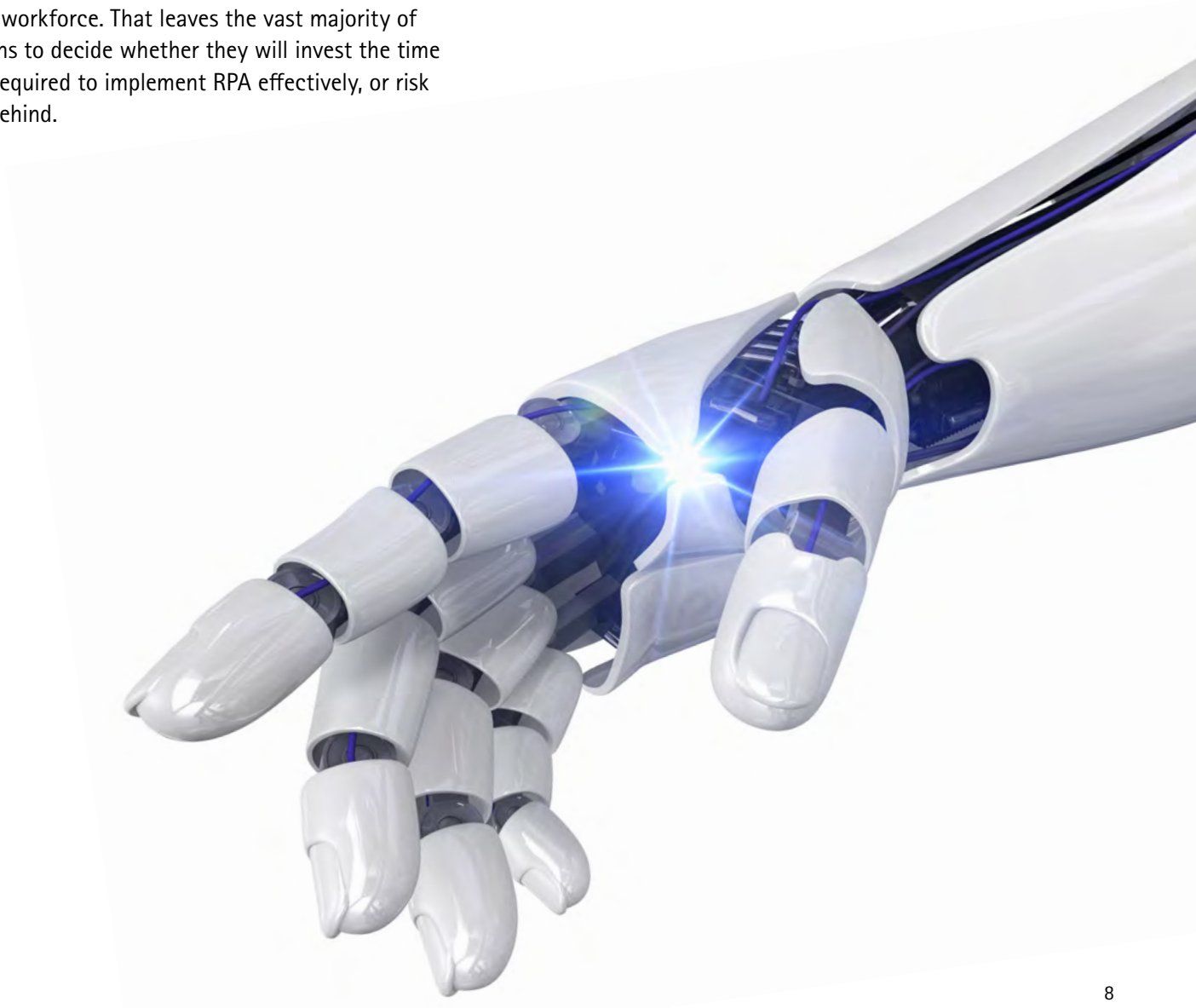
Since many organizations are still early in their RPA adoptions, they have yet to leverage metrics. But metric dashboards—those within RPA tools or those that span multiple automation systems, such as optical character recognition (OCR) and AI products—can provide visibility regarding automation performance, highlight areas for improvement and assist in the prioritization of issues across critical processes. Circulating these metrics to management via a robust governance process will help embed RPA into the organization and reassure skeptical stakeholders that RPA—coupled with a culture of continuous improvement—can increase control, improve efficiency and reduce risk within the organization.

What the next generation of workforce virtualization looks like

As the concept of virtual workers gains traction, and interest grows across capital markets organizations, RPA is starting to define the future structure of firms. Many organizations have focused on using enterprise ready RPA tools to enable virtual workforces and realize business benefits. RPA vendors are now competing intensely and investing heavily, continually expanding their product features to include advanced reporting, analytics and OCR engines.

Additional functionality and increased automation will likely come with the integration of other complementary products in the workforce virtualization space, including speech recognition, natural-language processing and cognitive analytics tools. These emerging technologies will drastically increase the capabilities of virtual workers and the range of processes they are able to perform.

First-movers have already started to realize the benefits of a virtual workforce. That leaves the vast majority of organizations to decide whether they will invest the time and effort required to implement RPA effectively, or risk being left behind.



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