

Redefine Retail with RPA

A Leap Towards New Industry Framework

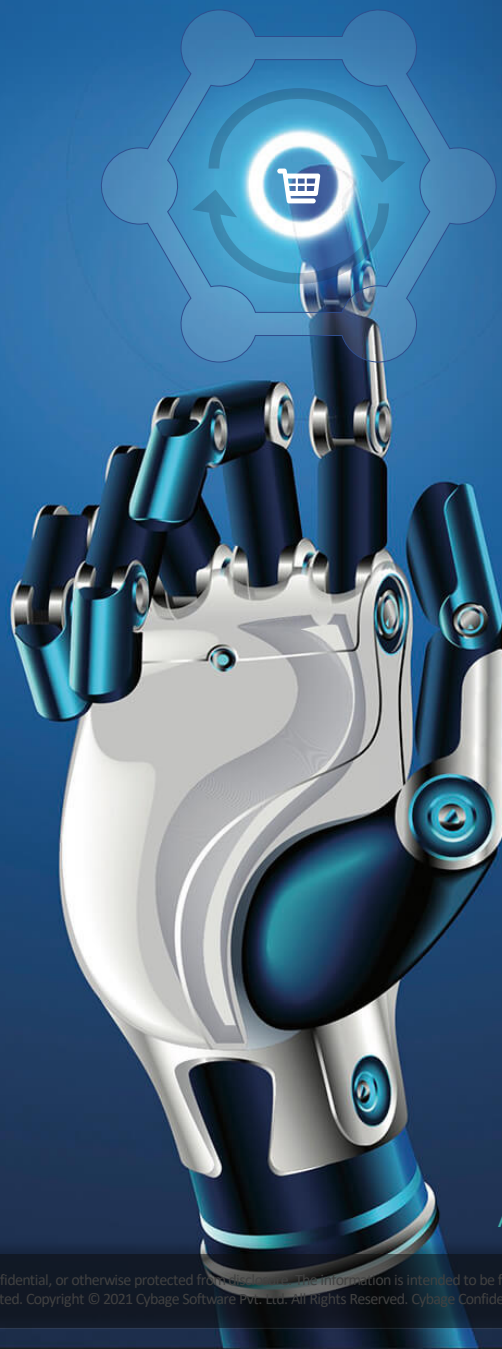
EXPRESS VERSION

This paper depicts the complete story of automation. We start by looking at the big picture of automation in businesses and beyond. Moving on, we learn how various industries are pivoting to dilute the market fear of adoption and other associated factors. Later, we understand the 3-2-1 stages of automation and more specifically the key role of robotic process automation (RPA) driving the industries command and giving rise to connected businesses experience ecosystem. Next, we recognize the changing face of the retail industry with RPA and how it's impacting all the retail functional areas and transforming the complete sector.

Later, in this paper, we envision the game of the BIG automation by looking at the convergence of digital process automation (DPA) with other automation technology-RPA and intelligent process automation (IPA). Also, we learn how enterprises can drive the true value of digital transformation and move into a disruptive position. We also consider how RPA and low code might benefit product engineering. Lastly, we introduce a well-crafted framework for adopting automation and thriving in the 'new normal'.

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SECTION 01 THE AUTOMATION STORY : Beyond Just Chasing the New Technology

The automation story outlines why the global leaders and decision makers need to think beyond automation technology adoption. Task automation is just one of the obvious actions enabled by automation, but the kind of growth an organization might experience is way beyond imagination. Here is an example of automation's revolutionary achievements in general life and in business, which were not seen before, and the boost it gave to the economy can not be ignored.



Last year's SpaceX launch was a major step towards automation, allowing astronauts to dock into international space station without lifting a finger. The fully automated spacecraft not only ushers in a new era of human space travel but also exemplifies the use of technology that is already revolutionizing the way we live and do business.

1.1 Depicting Market Perception Beyond Businesses

When we talk about the story of automation it's important to present its market perception from various angles. It's imperative to know how automation is causing change and how some of the advancements may become threat when they end up in the wrong hands. The businesses should also examine the wrongdoing of automation and its consequences and establish stringent governance or gates to tackle such circumstances.

There are certain market perceptions around automation, and here is the trio that defines the key market point of view.

Market Opinion

- Workforce will be made redundant by machines
- Physical tasks and ability to help with online activities will be impacted
- AI will have positive result on the economic processes thus attesting budget allocation for adoption

Market Disruption

- Automation around self-driving vehicles adopting AI will have the following impact:
 - Can turn over the existing transportation systems and networks
 - Can make cities and systems to alter and accommodate spick-and-span technologies
 - Can overhaul the redundant frameworks and infrastructures and create new opportunities
- Robotics will form tremendous divide between the countries clasping technology vs. those in the backward isolation
- 'Co-Bot' as coworkers will assist human employees and make their jobs easier
- Smart technologies will have a turbulent result on enterprises

Market Fear

- Technology has certain aspects that are worrisome, generally restricted to military applications and spying agencies
- A few of these technologies can detect and recognize targets, classify them, and even target them if required

1.2 '3-2-1' Model

The '3-2-1' model represents the complete story of automation and its applicability. It also addresses how the different stages of the model need to be filled and what kind of framework is required to achieve the final objective and not just tech adoption.

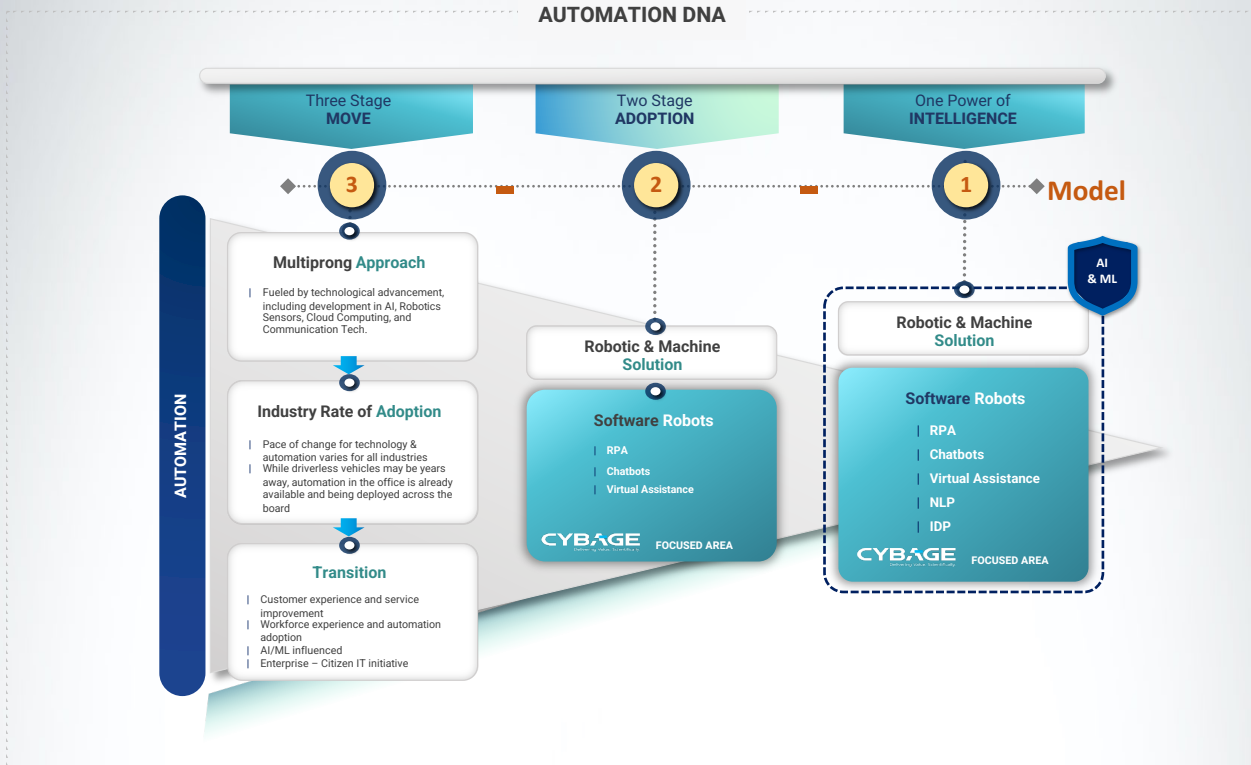


Fig. 1.2

SECTION 02

RPA - A PARADIGM SHIFT : Examine the Transformational Role

Since recent times, there has been a paradigm shift in the industry thought process. Instead of addressing customer experience in silos, industry is adopting the approach of transforming from inside-out. Taking the advantage of robotic process automation (RPA), enterprises are looking into ways to eliminate employees' business as usual (BAU) tasks. The intent is to improve operational activities and open window for workforce to think and act strategically. This enables the workforce to build innovative and customer-centric transformative approaches, which indirectly gives rise to a connected ecosystem with multiple by-products such as revenue improvement and customer satisfaction.

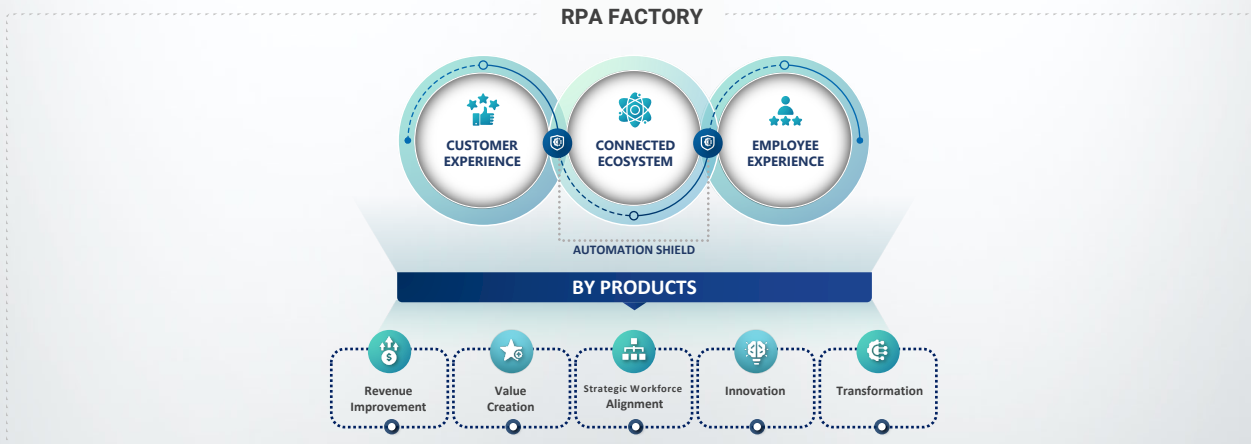


Fig. 2.0

2.1 Reconceived Customer Experience

Today, the predominant trend is to have digital-first initiatives as they are fast in action in response to the COVID-19 crisis. The crisis has forced organizations to re-envision traditional processes for the virtual domain. Businesses that used to count on physical experiences are now moving towards virtual experiences that offer new business values and additional revenue streams. Organizations across industries—from financial services to retail, healthcare to education—are investing in new tools and technologies to provide virtual services. Currently, the organizations are competing to boost the customer experience by creating new digital processes to optimize their services. RPA, data, AI, cloud services, and the internet of things (IoT) can together offer a foundation for rising digital technologies, which organizations are seeking to maintain their competitive advantage.

Internet of behaviors (IoB): IoB accepts information assortment and IoT to make intelligent decisions that impact client behavior. A classic example of IoB would be collecting a retail company's crucial customers' information such as shopping habits, interaction with devices/products, stage of purchase journey, and targeted ads, and then resolving conflicts to own the delighted customer. The goal is to regulate the customer experience at an individual level, giving a level of service personalized to each customer and therefore the enterprise.

2.2 Improved Employee Experience

The way enterprises' approach towards customer experience (CX) has changed, a similar approach is observed towards employee experience (EX) across all industries regardless of the department. Enterprises have realized that they need to empower employees to enhance CX, maximize returns, and channelize their value creation.

RPA is redefining workforce experiences as enterprises have realized the significance of automation in the work environment. People-first approach is the key to rapid transformation. Majority of enterprises are pivoting their ways to growth through a combination of advanced technologies with RPA. RPA not only plays a significant role in executing mundane tasks, but also delivers remarkable customer support. It is crucial to appreciate and embrace the possibilities grouped under the umbrella of RPA that are disrupting industries in numerous ways.

Limitless opportunities with RPA: Improving business & CX through EX & giving rise to improved connected business environment.

2.3 Tech Shield Enabling Industry Responsiveness

It is a blurry line between traditional and conventional business approaches. Technology-first approach to build a connected eco-system for monitoring business activities inside and outside the organization is prevailing. As CX and EX trend is surging, chatbots or virtual assistants are tending to customers before humans. Also, as per a [research report](#), majority of businesses have at least 30% of their processes that are automatable having high potential for data collection and management.

Organizations have identified multiple RPA applications to enhance productivity, CX, and EX simultaneously. RPA is helping employees in upskilling; an amalgamation of humans and machines leads to continuous development that is imperishable.

Retail sector deals with millions of humans every minute, this puts human workforce in tremendous pressure that leads to drop in productivity and poor CX. In such cases, RPA has brought countless benefits for both online and in-store retail pertaining to planning and management, customer satisfaction, and employee satisfaction by streamlining repetitive tasks.

SECTION 03

RPA FOR RETAIL : Enable Untapped Potential

Among all industries, the retail industry leads in customer-end tech adoption. This trend is continuously growing as customers are getting habituated to shop from anywhere leveraging the digital technologies. Chatbots and recommendation engines are creating next-gen experience journeys, helping business owners identify their customers' and employees' behaviors. Moreover, advanced AI-based bots powered to deliver interactive-immersive experiences to customers are rolling and effortlessly pulling customer information. With increasing investments in analytics and logistics, systems are bound to have complex processes that require manual interventions. This is where RPA takes away the credit.

One of the many examples of successful automation adoption in retail is Amazon Go that brought a huge disruption introducing the in-store RPA, where customers can enter stores using a mobile app. Another successful example is Alphabot by Walmart that helps to reduce product delivery time.

To face the prevailing supply chain challenges, organizations are turning to RPA to streamline flow of products and gain competitive edge. Unlike past technologies, RPA capabilities are significantly evolved for supply chain with intelligent bots and AI & ML. Email management, inventory management, vendor selection, supply-demand planning, order processing, shipment status, and payments are major areas where RPA is managing the supply chain. RPA in retail is helping retailers organize complicated organizational tasks such as compliance and audit regulation. When these activities are automated, employees can spare time for complex and strategic roles.

RPA IN RETAIL MANAGEMENT

Traditional retail influenced by traditional technologies such as Cloud, Big Data, and Analytics

Modern retail influenced by traditional & disruptive technologies such as AI/ML, Robotics, and Automation

RETAIL DEPARTMENTS

NON-RPA

- Labor costs constitute an average of **65%** of operating budgets
- Retail inventory is accurate only **63%** of the time

- 68%** marketers struggle to achieve a real time view of their customers

- Over **40%** companies have not updated their HR software

- Tedious document management
- Prone to errors in payments and bills

- Being a process-oriented department, it requires more than human efforts

- Employees spend **10% - 25%** of their time on repetitive computer tasks

- Traditional IT in retail is demand/need based
- Lack of understanding for need of IT impacts other processes

INVENTORY



MARKETING & ADS



HR



FINANCE



LOGISTICS



IT



CUSTOMERS



RPA

- Reduces processing time by **70%** and increases accuracy up to **99.99%**
- Improves labor productivity by **0.35%**

- Drives an average of **14.5%** of rise in sales
- 77%** of rise in customer conversions

- Saves **67%** of time
- RPA assists in transition of HR to employee experience
- 73%** of HR employees' time is saved from doing repetitive tasks

- Saves rework time by up to **50%**
- Minimizes data entry cost by **70%**
- Adheres to regulation

- 80%** reduction in cost of invoice processing

- Helps in identifying & infusing technology across various departments

- Enables easy integration with both new & legacy systems

- 85%** of customer service interactions will be powered by **AI Bots**
- Enhances customer satisfaction by **15%** and boosts productivity by **30%**

SECTION 04

DPA AS THE BIG PICTURE : Revealing a New Dimension Over BPM

The retail industry required simplified and improved solutions to handle complex business processes. This urgent need led to the definition and experimentation of digital process automation (DPA). DPA is observed as an evolution of business process management (BPM). To make an informed decision on the best solution to business problems, it is important to clear the confusion around RPA, BPA, and DPA.

RPA vs. BPA vs. DPA

Robotic Process Automation (RPA)	Business Process Automation (BPA)	Digital Process Automation (DPA)
Automates tasks	Automates multi-step processes	Automates processes that still require human interactions
Works within existing processes	Streamlines existing processes	Improves UX through automation
Works with existing UIs on desktops	Requires integration, APIs, and database access for its information exchange across diversified systems	Optimizes automated digitalized processes
Uses low-code/no-code features to enable business users as citizen developers	Has a level of complexity that requires IT skills for coding and development	Requires business engagement mechanism (e.g., Center of Excellence) focused on optimizing the end-to-end UX
Can deliver efficiencies and cost savings without reengineering tasks or entire processes	Requires analysis and reengineering of existing processes to deliver maximum value	Enables a focus on creating more responsive, customer-focused interactions with software systems

4.1 DPA to Drive the Big Automation

Digital process automation empowers businesses to leverage digital technology and drive the big program of automation. Convergence of technologies such as machine learning (ML), robotic process automation (RPA), and artificial intelligence (AI) with DPA at center can be a game changer for businesses. DPA brings the power of automation available to everyone by leveraging low-code platform. It allows users to accelerate process automation and improve business productivity.

4.2 DPA as a Holistic Benefit to Businesses

New-age organizations are looking for solutions that enable operation from any location. Considering the current economy and the pandemic, organizations are open to provide their employees work-from-anywhere option and at any time to bring flexibility in operation and support their customers.

DPA enables organizations to streamline E2E solutions that is agnostic to varied processes and brings value to mitigate integration challenges allowing all aspects of business process to work in cohesively.

4.3 The Rise of DPA

The rise of digital process automation (DPA) is evident in the increased focus placed by organizations on the user journeys. As customer expectations increased, it became necessary to implement automated solutions to enhance the customer experiences.

In addition to improved customer experiences, increased team collaboration, and the elimination of integration challenges, DPA solutions provide organizations several alternative advantages. Organizations can improve productivity by distinguishing and removing redundancies such as manually entering data into multiple systems. DPA provides increased flexibility in operations permitting pivots in business strategies and more data capturing options to boost compliance, thus giving organizations the power to draw valuable analytical insights.

SECTION 05

UNIFIED BIG AUTOMATION VIEW : DPA, RPA, and IPA

Cybage views automation as more than just technology-first adoption. The architecture of the BIG automation consists of multiple layers.

Layer 1 [L1] : Automation Technology, Digital Technology, and Processes

Layer 2 [L2] : Drive Digital Transformation

Layer 3 [L3] : Rise of Disruptive Digitization

'Layer 1' can be seen as the core engine driving the 'Layer 2'—the theme of business transformation that is digital in nature to enhance the business capabilities and insights to boost the shrinking business model. By applying this to the fullest it can show enterprises the direction to move into the disruptive zone to displace existing services and business models in the form of 'Layer 3'. In business terms, the 3-layer architecture boosts customer engagement, operational excellence, and enables workforce and partner ecosystems. Layers 2 and 3 have got clear differentiation in terms of value, competition, and innovation.

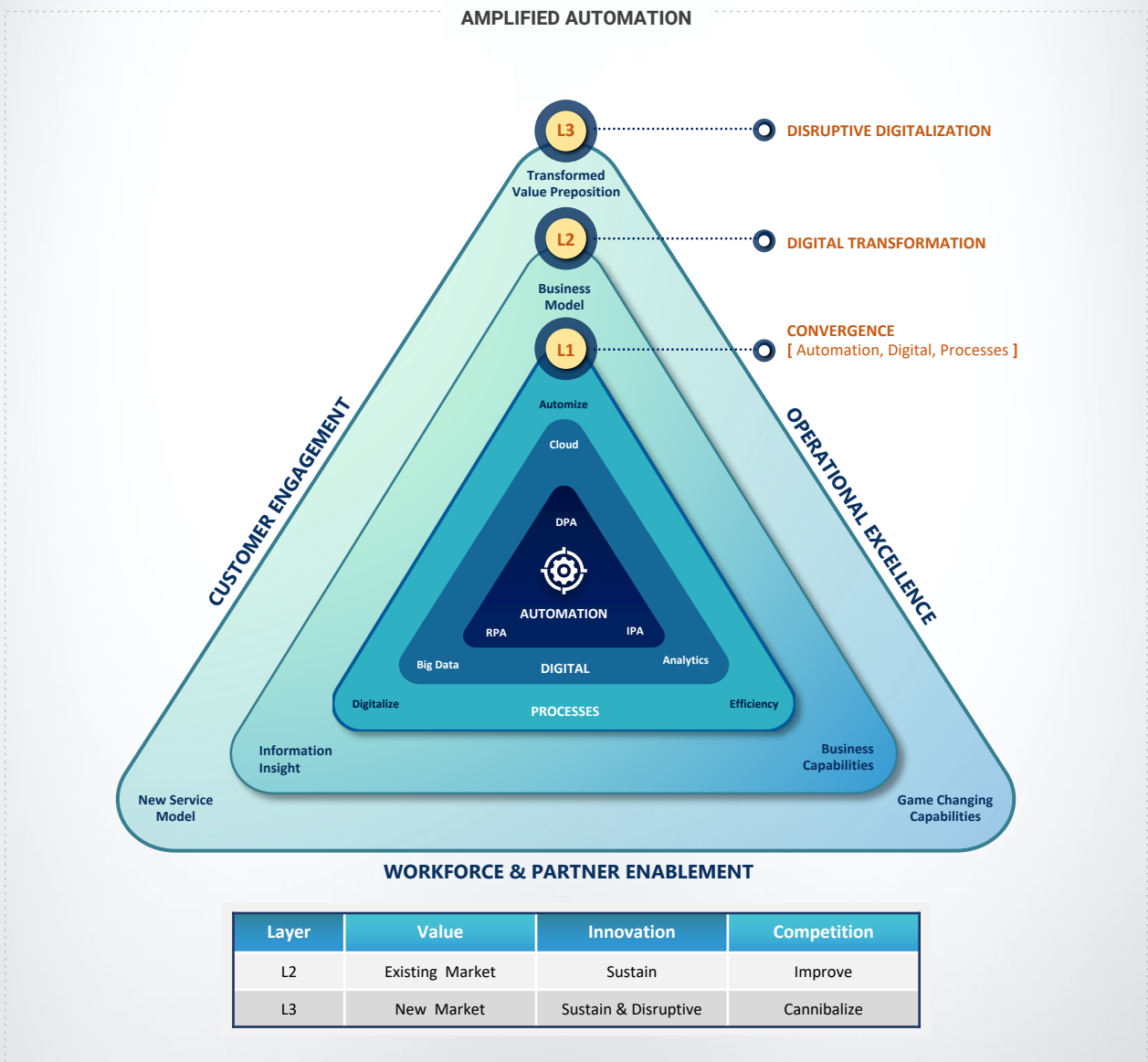
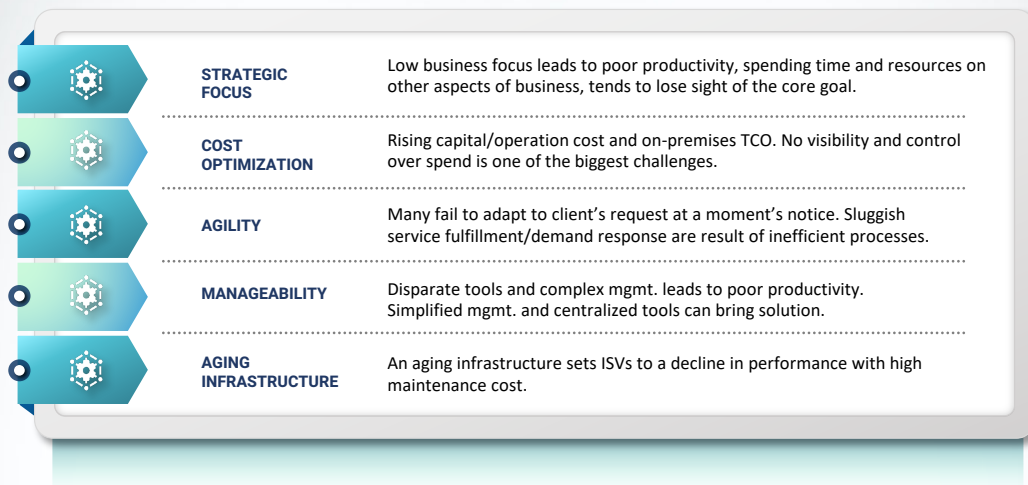


Fig. 5.0

SECTION 06 **COMBINED STORY :** Product Engineering Gain With RPA & Low Code

6.1 Key Challenges of Product Companies

As the technology continues to evolve, product companies face many challenges from a people, process, and technology perspective. Here are some of the key challenges faced by the product companies.



How are these key challenges addressed? Generally, they are taken care of by a specific division of an organization/product department and are usually solved by taking a tactical approach. Every department applies its personalized treatment. On an individual basis, they sometimes succeed. However, for an organization, as a whole, it becomes invariably tough to measure, overcome, or address these challenges strategically. Even if the independent software vendors (ISVs) begin to deal with these challenges at an org level, the focus is more towards customer facing challenges or primarily outbound based, which leaves internal challenges unaddressed such as manageability, cost optimization, agility, and addressing the strategic viewpoint at its best.

6.2 New Age Solution – RPA with Low Code Capabilities

RPA has the potential to offer high value inorganic cost reduction and positive impact over productivity. Its value may be accomplished in a fairly short period of time because it can be deployed quickly with low risk and its integration is non-invasive and simply remediable. To be relevant in today’s atmosphere, it possesses tremendous potential to make the virtual workforce ready. It can be seen as a horizontal service to an org and to the entire digital product development lifecycle. RPA tends to deal with holistic automation—be it business processes, application development and management, testing automation, or infrastructure automation. Some of the parameters that are impacted by it across an organization are customer experience, employee experience, and driving the connected product ecosystems giving rise to several by-products.

6.3 Overcoming Limitations of RPA with Low Code

RPA has its limitations when it comes to task automation related to legacy systems. Huge amounts of quality understanding is required for integration and processes automation. Additionally, there is lot of pain if the data is unstructured in nature. To make optimum use of RPA and overcome the above-mentioned challenges, the system needs to undergo a deep upgrade and allocation of high budget and high-end resourcing skills. This hampers the business vision and the business owners then lookout for different possibilities. Low code on the other hand is comprehensive in nature whether it is for a legacy application or structural data. It can accelerate rebuilding of a legacy system. With RPA, low code can be used to develop process automation applications that integrate seamlessly with the existing and the new applications.

SECTION 07

CYBAGE : The Right Partner

7.1 Drive Transformation Through BIG Automation

Cybage’s business automation process occurs in three stages: **Assessment**, **Roadmap**, and **Execution**. During the Assessment stage, we explore the vision behind business automation and how ready the business is to take over the transformation. Additionally, we gauge how extended the vision is and then build business segregation around it. One of the key aspects of our process stages is to not just adhere to the expectations but make the automation pipeline strong enough to extend at any given point in time.

During the Roadmap stage, as the first step, we apply the process maturity index and as the second step, we define the value graph as per the present expectations and what is needed for generating more value in various dimensions. As the third step, we predict the associated return on investment (ROI) and value on investment (VOI) and by converging both the investment aspects we define the right direction towards digital transformation and disruptive digitization. In the Execution stage, we combine the 5P factor to lead the business in the ONE direction.

CYBAGE AUTOMATION ADOPTION FRAMEWORK

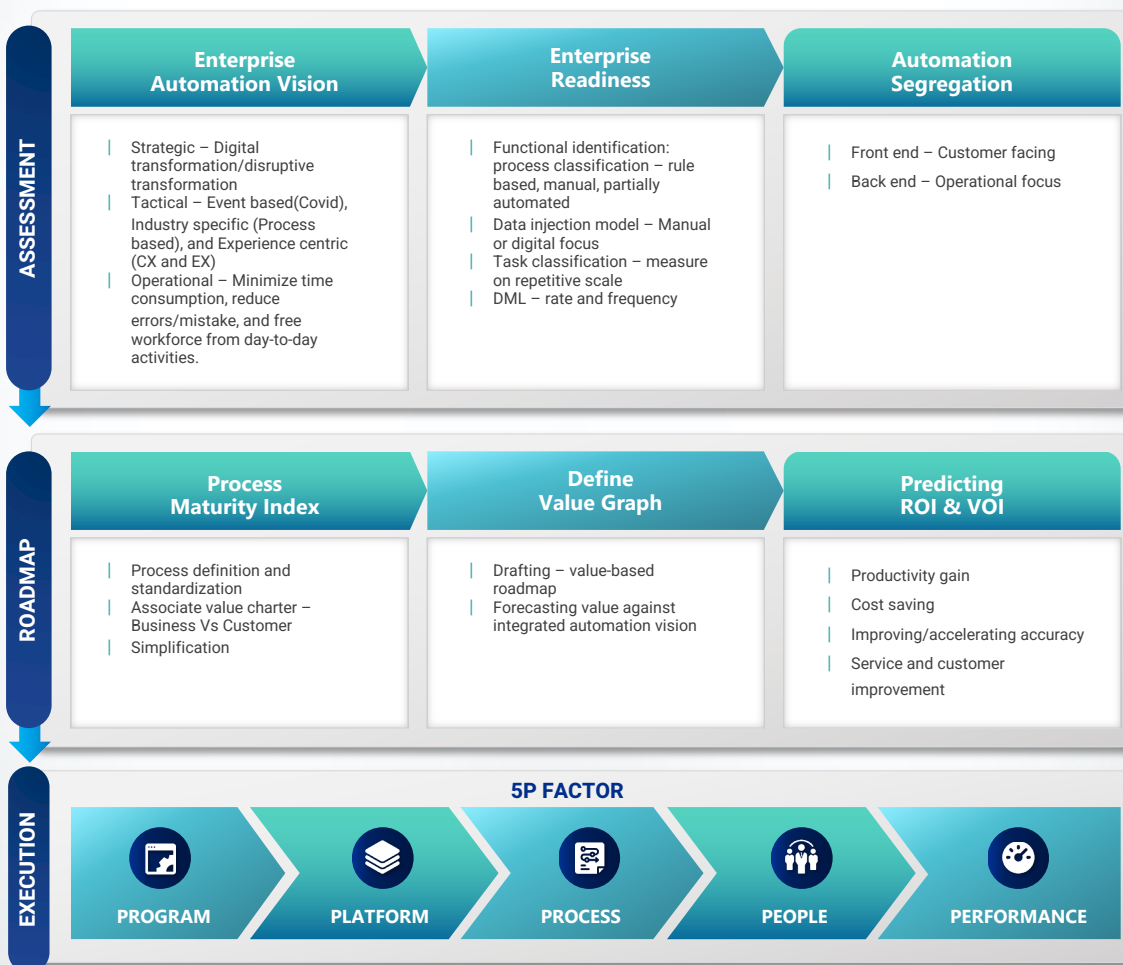


Fig. 7.1

7.2 Next-Gen Digital Product and Cybage Core Capabilities

RPA and low code together can transform the way the product companies approach the product lifecycle management, enabling their customers to be more agile. To elaborate our thought process, we have envisioned a 2-sided picture for ISVs. One side shows how this dual technology can enhance the digital product development process in ISV implementation and the second side shows how after it is deployed in the enterprise environment it can make customers self-sufficient in terms of customization, minimizing the time to market, and many more. Cybage with its core capabilities caters to all types of needs horizontally.

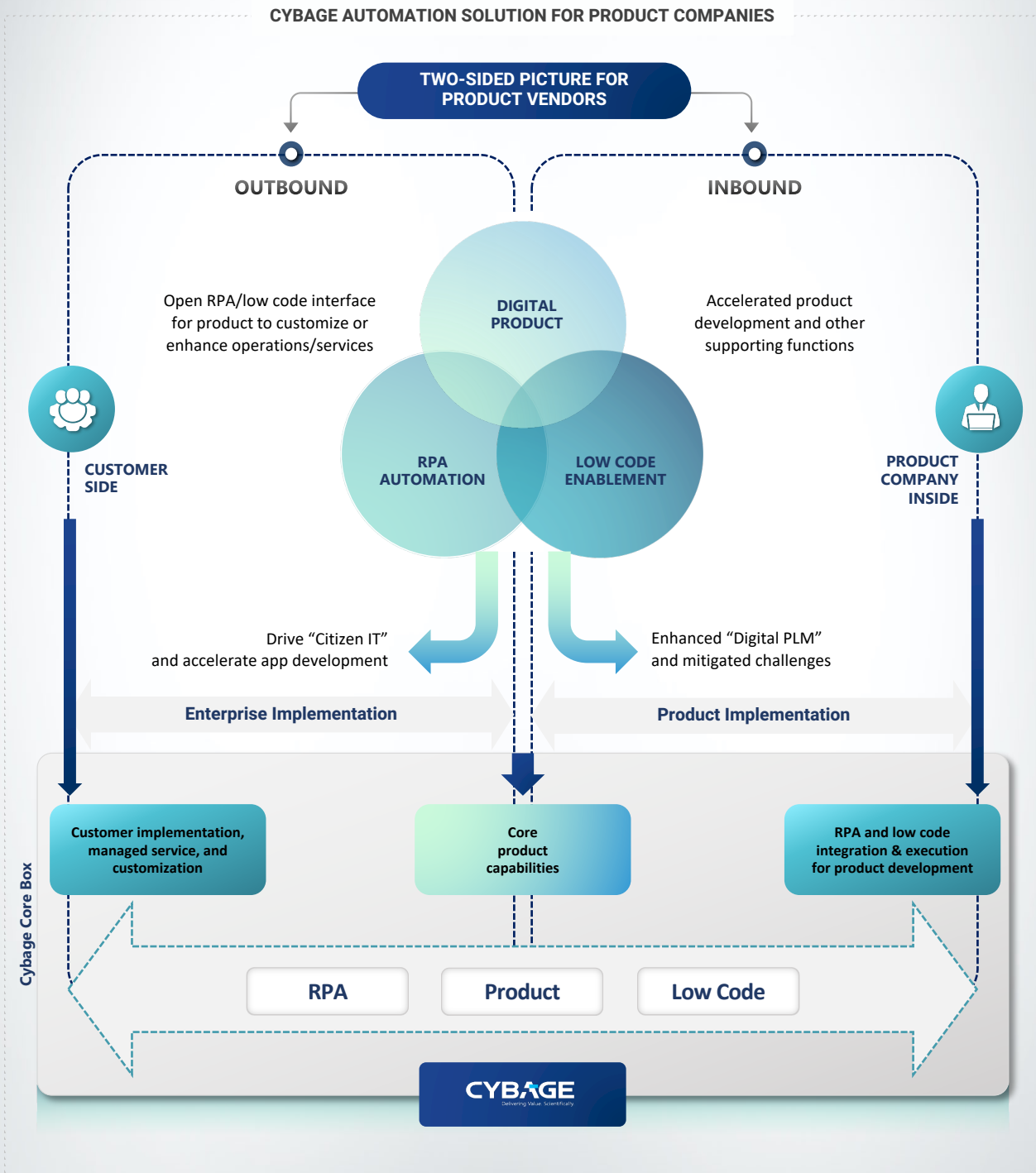


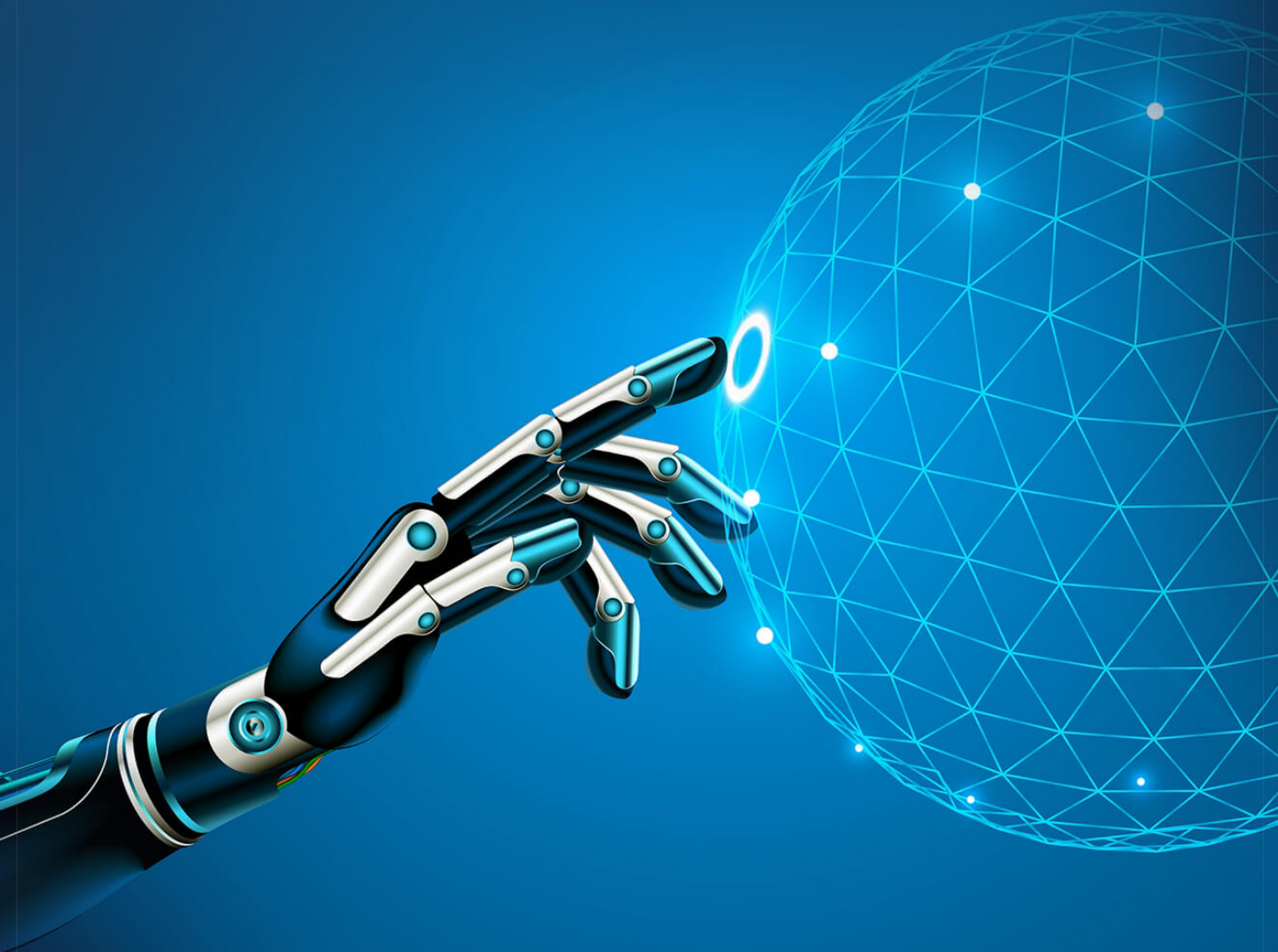
Fig. 7.2

THANK YOU!



Cybage Software is a technology consulting organization specializing in outsourced product engineering services. As a leader in the technology and product engineering space, Cybage works with some of the world's best Independent Software Vendors (ISVs).

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