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Establishing a Strategic Business Case for IT automation in Retail

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Summary

The retail industry is grappling with widespread disruption. To remain relevant, retailers need to focus on creating business value – conveyed through seamless customer experience, high operational efficiencies, and improved workforce productivity. E-tailers and brick-and-mortar retailers need to enhance their IT capabilities to cope with challenges posed by monolithic and legacy IT systems, which hinder speed and agility, thereby compromising business outcomes. Supported by integrated data flows and reengineered business processes, IT automation can create significant improvements across the retail value chain – from reducing stockouts and inventory costs to delivering superior customer experiences, and enabling a shift to next-generation business models.

Tethering the IT automation narrative solely to IT cost metrics leaves significant value on the table. Retailers can derive the true potential of IT automation by using it to drive broader business transformation. In this approach, business objectives are the starting point and the automation strategy is designed to capture outcomes across the business value chain.

The IT automation strategy can be conceived of as a set of initiatives that, when effectively prioritized, can help create both short- and long-term progression toward a set of carefully selected and measurable business metrics. These metrics can, in turn, be connected to IT performance defined by quality, speed, and cost. However, the IT automation roadmap necessarily needs to be a derivative of the business objectives.

IT modernization and business transformation are key to value-based delivery in retail and can deliver breakthrough outcomes such as superior customer experience and choice, new delivery and revenue channels, faster time to market, and effective monetization of digital assets.

In this report, we:

- Make a case for business-led IT automation in the retail industry
- Outline the business value continuum for retailers, exploring illustrative use cases across the retail value chain
- Lay out IT performance indicators associated with retail operations and related use cases
- Suggest key considerations for retailers as they implement IT automation as part of their broader business transformation

New-age retail: IT modernization and business reimagination

Everest Group take:
The retail industry is undergoing a tectonic shift, with retailers keen on delivering anytime, anywhere contextual experience to customers, to maximize customer lifetime value. Integral to this vision is the need for a new business model, underpinned by a 'phygital' connected world, which requires not only new technology investments, but also modernization of the existing IT landscape

The ongoing disruption in the retail industry is leading to a shift to digital commerce and is driving retailers to embrace hybrid models. Physical stores and supply chains are being reimagined to generate operational efficiencies and deliver superior customer experience. To achieve breakthrough outcomes, retailers are exploring investments across front-end, mid-office, and back-end operations, underpinned by investments in processes and technologies.

EXHIBIT 2

A contrast between traditional and next-gen retail

Source: Everest Group (2019)

Retail value chain segment		Traditional retail	Next-gen retail
Procurement	Sourcing & vendor management --- Purchase management	• One-to-one relationship • Category management	• Vendor collaboration • Assortment planning
Order fulfillment	Inventory management	• Capacity optimization • Inventory forecasting	Just in Time (JIT) sourcing and delivery
	Warehouse management	• Manual logging • Single-channel warehouses	• Lights-out warehouses • Autonomous fulfillment systems • Omni-channel warehouses
	Logistics management	• Linear chains • Transactional business	• Drone-based delivery • Automated truck routing • Shared logistics capabilities
Selling & servicing	In-store operations	• Focus on selling volumes • Visual merchandising • Product positioning	• Try vs. buy insights • Digital kiosks • Smart shelves and AR
	Direct-to-consumer	• Limited touchpoints • Card-based loyalty programs	• 'Phygital' experience • Digital wallets
	Customer service	• Product-centered approach • Limited customer interaction	• Customer/context relevant • Mobile app-based resolution

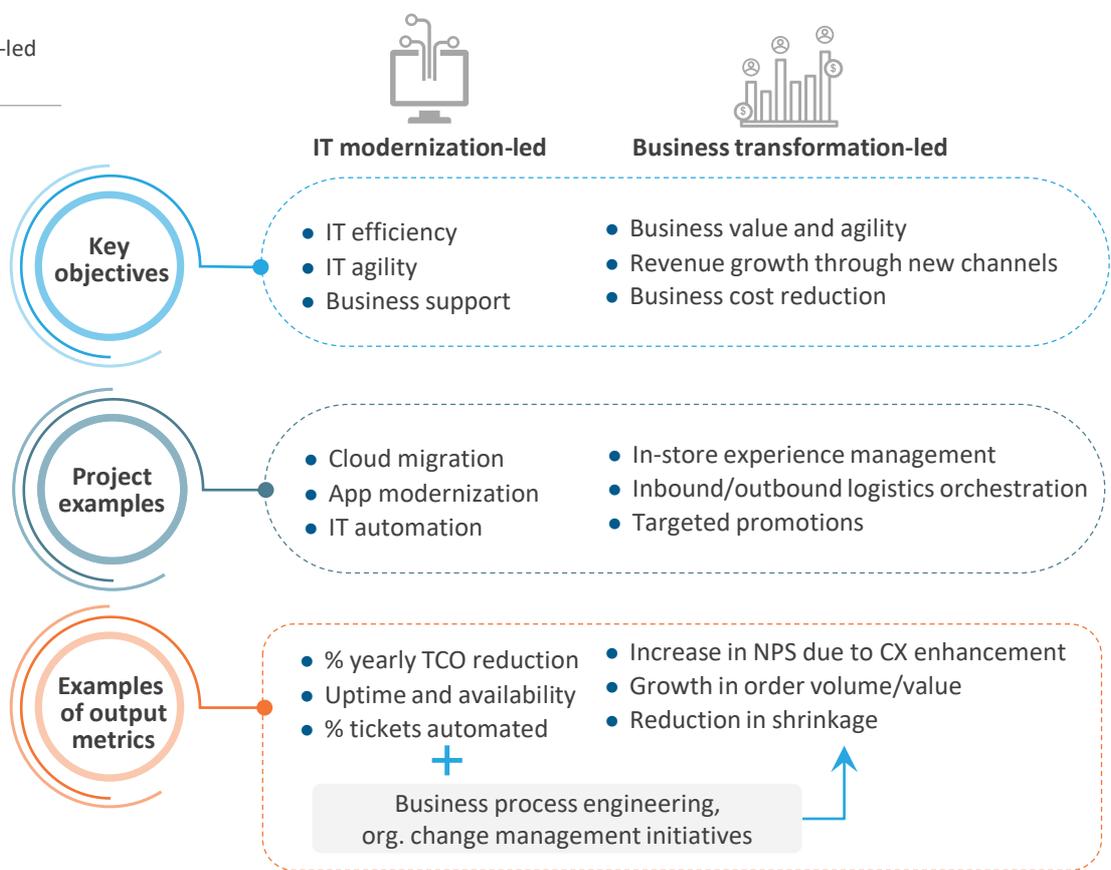The digitalization mandate has given rise to two distinct sets of initiatives:

- **IT modernization:** focused on making IT leaner, more cost effective, and better aligned with business requirements
- **Business transformation:** designed with the desired business outcome as the starting point and focused on the size of business results and the speed at which they can be achieved

Retailers need to adopt a business-aligned approach to IT modernization to become truly 'digital native'. This involves automating their front- and back-office IT systems to optimize operations and deliver promised value to both customers and business stakeholders.

EXHIBIT 2

IT modernization-led vs. business transformation-led IT automation approach

Source: Everest Group (2019)

IT modernization-led

Business transformation-led

Key objectives
- IT efficiency
- IT agility
- Business support

- Business value and agility
- Revenue growth through new channels
- Business cost reduction

Project examples
- Cloud migration
- App modernization
- IT automation

- In-store experience management
- Inbound/outbound logistics orchestration
- Targeted promotions

Examples of output metrics
- % yearly TCO reduction
- Uptime and availability
- % tickets automated

- Increase in NPS due to CX enhancement
- Growth in order volume/value
- Reduction in shrinkage

+

Business process engineering, org. change management initiatives

Presently, IT automation skews toward a standalone IT modernization-led view, focused on "running IT" better rather than "transforming IT". Enterprise focus is limited to reducing IT costs and improving IT process efficiencies, which leaves significant business value untapped. IT automation achieves its full potential only when it is based on a business-first approach, which ties desired business outcomes back to technology imperatives.

Realizing business value in retail through IT automation

Everest Group take:

Retailers need to base their IT automation strategies on pre-defined business value drivers and associated KPIs that capture desired outcomes across stakeholder segments through the business value chain (front to back office). Choosing the right metrics plays a key role in ensuring tangible business value for each stakeholder, while establishing causality between IT metrics and business KPIs.

Further, to realize exponential business value and compounded benefits from individual task automation, the IT automation design must incorporate an effective orchestration layer. This orchestration platform will trigger task and workflows not only within, but across IT functions and the technology stacks.
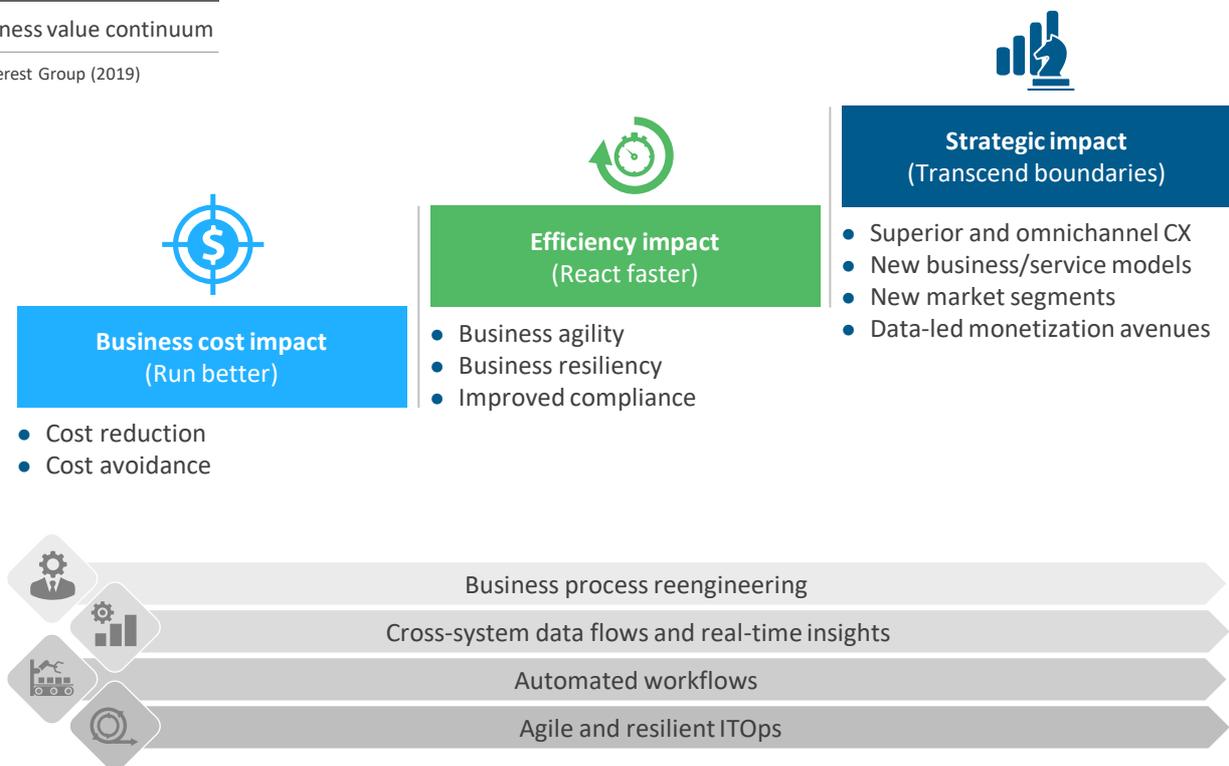
Exploring the business value continuum

The business value continuum comprises three key components:

- **Business cost impact**: Achieving "more with less" by identifying cost optimization and avoidance avenues
- **Efficiency impact**: Associating outcomes with speed of business, accuracy, and improvement in process cycle time
- **Strategic impact**: Achieving breakthrough outcomes and exponential growth through superior customer experience, market differentiation, and a shift in business models

EXHIBIT 3

The business value continuum

Source: Everest Group (2019)

Strategic impact
(Transcend boundaries)

- Superior and omnichannel CX
- New business/service models
- New market segments
- Data-led monetization avenues

Efficiency impact
(React faster)

- Business agility
- Business resiliency
- Improved compliance

Business cost impact
(Run better)

- Cost reduction
- Cost avoidance

Business process reengineering

Cross-system data flows and real-time insights

Automated workflows

Agile and resilient ITOps

Retailers need to contextualize the business value continuum to specific business functions and their desired outcomes. Business objectives and system characteristics vary significantly across back- and front-office functions and need a clear framework of objectives. When designed and implemented appropriately, IT automation can not only help drive outcomes within business functions, but also connect and orchestrate value across front-to-back office channels, thereby helping retailers realize business value that would have been lost otherwise. A framework-driven approach, along with an automated and agile ITOps setup, integrated workflows, robust data management, and well-designed business processes, helps retailers move beyond traditional "cost-of-IT" KPIs. It enables them to deliver superior user experience, access new sales channels, achieve operational excellence, and foster an adept workforce.

Building the IT automation roadmap for a retail enterprise

In today's experience-centric marketplace, retailers need continuous innovations, predictable operations, and reliable service delivery, all of which require a more context-aware, predictive, and preventive service model.
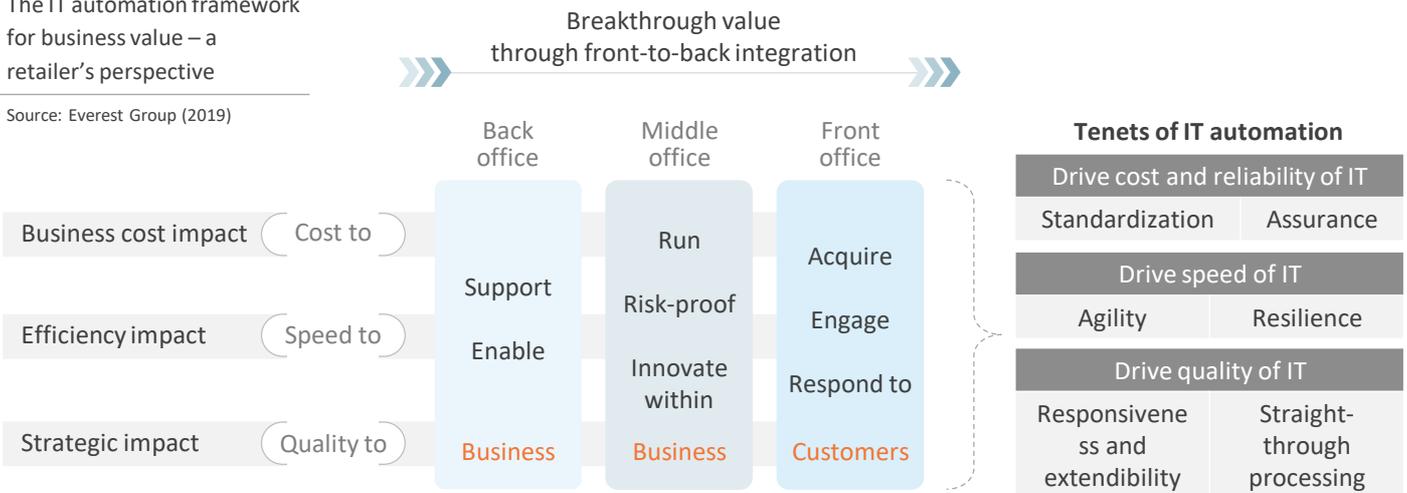
Viewed through the business value continuum, the value from the IT automation roadmap needs to be measured by improvements across three key dimensions:

- **Cost and reliability of IT**: At a foundational level, IT automation should enable lean, cost-effective operations. The automation setup should be well orchestrated to link various workflows and processes, allowing for service assurance through autonomous and self-healing operations

- **Speed of IT**: The time from concept-to-consumer is essential for retailers today. To meet their requirements, IT teams are under constant pressure to deliver agile services that are resilient and consistent. As advanced IT delivery models such as cloud, DevOps, and as-a-service make significant inroads, intelligent automation and orchestration become de-facto levers to manage the sprawling, complex environments across IT functions

- **Quality of IT**: At the highest level, IT needs to deliver a seamless and consistent consumption experience for stakeholders (customers, partners, and employees alike) across the retail value chain. This experience needs to be agnostic of business conditions (e.g., evolving business models, delivery channels, regulatory requirements) and customer touchpoints (e.g., online experience across devices, in-store experience, leverage of IoT and AR, etc.). An embedded automation design that enables IT to adapt/extend to newer environments and offers strong straight-through processing for various IT functions (apps, infrastructure, data, and security) becomes a prerequisite for such an IT setup

EXHIBIT 4

The IT automation framework for business value – a retailer's perspective

Source: Everest Group (2019)

Breakthrough value through front-to-back integration

	Back office	Middle office	Front office
Business cost impact (Cost to)	Support Enable **Business**	Run Risk-proof Innovate within **Business**	Acquire Engage Respond to **Customers**
Efficiency impact (Speed to)			
Strategic impact (Quality to)			

Tenets of IT automation

Drive cost and reliability of IT	
Standardization	Assurance

Drive speed of IT	
Agility	Resilience

Drive quality of IT	
Responsiveness and extendibility	Straight-through processing

Bringing the business value continuum to life for a retailer

A function's business outcomes (for example, enhancing customer experience, reducing inventory carrying costs, and ensuring in-store capacity optimization) require a contextualized IT performance and support models. Thus, retailers need to take a business use case / outcome view to IT performance, to design the corresponding role of IT automation.

The first step of an effective business use case-based approach is defining the desired business outcomes as tangible Key Performance Indicators (KPIs) and prioritizing them based on their immediate versus long-term impact.

EXHIBIT 5

Establishing business use case KPIs – examples across retail value chain

Source: Everest Group (2019)

Illustrative use cases with KPIs across the business value continuum
KPIs in *Orange* focus on net new value creation and are relatively hard to quantify through performance-based benchmarks. They can also require significant business transformation initiatives and external factors beyond IT modernization and automation.

Retail value chain segment		Description	Business cost impact	Efficiency impact	Strategic impact
Procurement	Sourcing & vendor management	Identifying, evaluating, and selecting vendors. Initial sourcing through to execution and contract renewals	• 2-3% cost reduction in indirect spend categories • 15-20% reduction in contractual compliance costs	• 90-95% vendors compliant • 10-20% reduction in order error rate	• 30-40% increase in supplier quality index • Alternative channels (e-sourcing)
	Purchase management	Merchandise purchasing and handling. Merchandise re-ordering process validation	10-15% reduction in procurement costs	• 10-15% reduction in supplier lead time • 20-30% reduction in purchase order (PO) cycle time • 5-10% reduction in the ratio of disputed-to-raised invoices	• Business model shift – online vs. in-store transactions • Successful delivery of emergency purchases

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Order fulfillment	Inventory management	Consolidated inventory tracking, stock counts, manage shrinkage, transfer/return stock, and manage customer orders	• 5-10% reduction in inventory carrying costs • 5-10% reduction in shrinkage • Reduction in revenue loss due to stock-outs	• 20-25% increase in inventory forecasting accuracy • 15-20% reduction in order cycle time • Reduction in inventory-to-sales ratio	Basis point increase in NPS due to improved stock availability
	Warehouse management	Consistent inbound, internal, and outbound ops. Facilitate coordinated movement of merchandise	• 2-3% reduction in picking and packaging costs • 3-5% increase in inventory turnover	• 15-20% reduction in wrong SKU count • 5-8% reduction in customer cycle order time • 25-30% reduction in equipment downtime	Basis point increase in NPS due to shorter replenishment cycles
	Logistics management	Combined logistics & transportation management functionality for single- and multimode business network	• 3-5% reduction in cost as a percentage of sales • Reduction in inventory carrying costs due to JIT delivery	• 5-10% reduction in lead time • 15-20% reduction in incorrect routing	• Percentage point increase in NPS due to on-time delivery • % revenue loss avoidance from reverse logistics
Selling and servicing	In-store operations	Managing customer in-store journey, keeping count of SKUs, request/receive/transfer merchandise	• ~75-80% increase in number of outages avoided • ~99% availability of store registers	20-30% increase in mobile sales due to 100% kiosk uptime	• Basis point increase in in-store CX through faster purchase and checkout • 1-3% revenue increase through periodic capacity optimization • 30-40% uptick in click-and-collect orders
	Direct-to-consumer	Owning product and customer journeys. Manage pricing/customization based on context	3-5% cost reduction in customer onboarding	• 15-20% orders automatically routed to the DC closest to the customer • 70-80% time reduction in customer onboarding • % efficiency gains with real-time inventory management	• 20-30% increase in orders for same day fulfillment • Gains through integration between the retailer's platform and the 3PL provider • Enhancement in perfect order index (POI)
	Customer service	Maintaining 360-degree view of customer, delivering superior CX across all touchpoints	15-20% cost reduction in managing call centers	• ~20% increase in FTR of customer queries • 50-55% increase in ticket-less resolution of customer issues	• Increase in customer retention rate • % cost reduction in customer acquisition • % increase in uptake of loyalty programs

The promise of a "phygital" world is based on IT automation

As the retail industry evolves, most retailers realize there is much more to digital transformation than digital commerce platforms and mobile apps. For many retailers, the business model shift involves a journey to "phygital" – a hybrid model comprising physical and digital elements across procurement, supply chains, digital commerce, and in-store experiences. For instance, a physical store might have kiosks that allow the delivery of goods to a customer's preferred location. This might involve data integration and automated batch processing tasks across physical supply chains. In such a phygital model, IT automation involves modernization of the existing IT landscape, as well as net-new investments. Consequently, the business use-case driven IT automation strategy must tie back to improvements in existing IT metrics, as well as new measures of value.

EXHIBIT 6

IT performance – key metrics across the retail value chain

Source: Everest Group (2019)

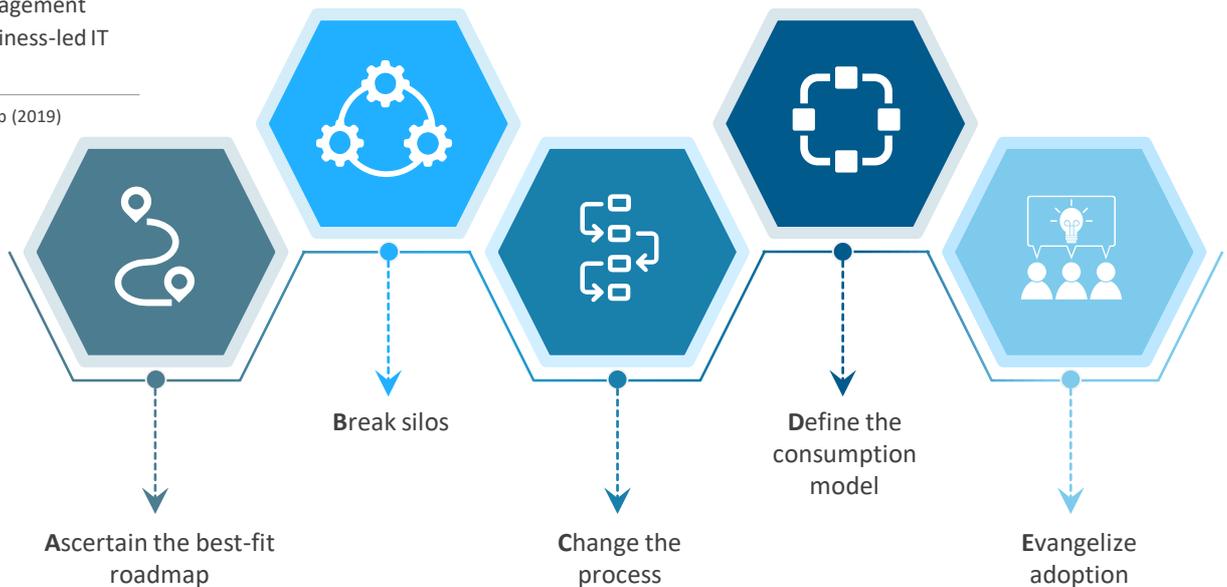| Retail value chain segment		Area of intervention	IT performance KPIs
Procurement	Sourcing & vendor management	• Automated approval tracking during vendor onboarding • Automated vendor rationalizing & labeling through database linkage • Data integration and app availability for continuous evaluation of products and services	• 50-90 basis points uptime improvement in vendor management and order management systems • 80-90 basis points improvement in retailer database availability • 15-20% influx automated
	Purchase management	• Database integration with core contract management and ERP systems • Automated data ingestion, transformation, and analytics for order performance reports	
Order fulfillment	Inventory management	• App and system availability for inventory classification and routing • Database availability for real-time compliance reporting • Verification of QA environments to eliminate bugs and errors in apps	• 80-90 basis points improvement in system uptime • 80-90% service desk tier 1 resolution rate • Autoscaling and predictive capacity alerts with high accuracy • 30-40% improvement in TAT on data requests
	Warehouse management	• Automated load balancing to manage peak season load • Automated data aggregation from inventory / logistics systems to view inventory movement	
	Logistics management	• Establish inventory data linkage with 3PL provider • Database integration with in-store inventory systems • Automated track-and-trace data availability to retailer	• 80-100 basis points uptime improvement in logistics information systems • 80-90% service desk tier 1 resolution rate
Selling and servicing	In-store operations	• Automated environment provisioning for new app launches or database expansion • Automated database updates for store apps • Verification of QA environments to eliminate bugs and errors in apps	• 50-60 basis points improvement in datacenter/cloud availability • 90-95% alert noise elimination • 90-95 basis points reduction in time to triage and fix incidents • 60-80% improvement in time to release new apps and app features
	Direct-to-consumer	• Automated API management, provisioning, and testing • Automated environment provisioning during peak days/season • Infrastructure (server uptime service desk) analytics • Testing automation of digital channel applications	• 60-65% increase in release velocity • 90-95% UAT rate • 40-50 basis points improvement in critical app runtime efficiency • 15-20 basis points improvement in baselined MTTR
	Customer service	• Automated database updates for customer apps • Low code development for UI/UX • Automated API management, provisioning, and testing • Verification of QA environments to eliminate bugs and errors in apps	• 40-50 basis points improvement in critical app runtime efficiency • 75-80% improvement in incident resolution time

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What it takes to get there

Identifying business KPIs and formulating an IT automation roadmap needs to be rooted in pragmatism, considering the retailer's business context and the objective function. Our review of successful industry implementations reveals five action steps for retailers, as illustrated in Exhibit 7-:

EXHIBIT 7

The change management alphabet for business-led IT automation

Source: Everest Group (2019)

Break silos

Define the consumption model

Ascertain the best-fit roadmap

Change the process

Evangelize adoption

1. Ascertain the best-fit roadmap

- **Why:** The roadmap should combine a retail enterprise's end goal with an evaluation of its current state across business and IT landscapes
  IT automation creates superior value when implemented in the right context and to the right degree , and diminishes value when applied in silos. As retailers align their business strategies with customer engagement, they need to expand their offerings to position themselves as the owners of the experience rather than sellers of products and services. However, in certain cases, the first step to engaging customer experiences may require a retailer to focus on resiliency and scalability of IT infrastructure, and not just customer-facing apps

- **How:** A retailer needs to ascertain relative priorities and current state across dimensions of resiliency, cost efficiency, agility, and innovation. Often, prioritization outcomes can be strongly linked to the retail business model. For instance, big box retailers are generally cost-optimized, and will be best served by leveraging IT automation to move the needle on speed and agility of IT service delivery. In contrast, a specialist retailer seeking to create innovative subscription-based models may leverage IT automation initiatives focused on real-time customer insights

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2. Break silos

- **Why:** The true power of IT automation lies in harmonizing deployments within and across service functions, which enables greater straight-through processing and multiplies value. Scaling IT automation across the value chain requires significant collaboration across business operations and IT groups

- **How:** Retailers operating in a multi-sourced environment need to rethink their operating models and investments in service integration and orchestration
For instance, retailers such as direct sellers, need to continuously fine-tune their business costs and efficiency models to keep up with dynamic consumption patterns. By establishing integrated IT+Ops command centers, these retailers can eliminate waste, align technology decisions to business priorities, and create end-to-end visibility for business processes, while delivering at speed

3. Change the process

- **Why:** Broken processes are one of the most common impediments to business-led IT automation initiatives. Automating flawed processes will inevitably fail to scale and will leave significant value on the table

- **How**: Retailers need to critically evaluate potential process redesign to create well integrated and orchestrated workflows
For instance, management of the supply chain workflow from vendor purchase to sale, is a lengthy process fraught with manual operations and delays. An intuitive, automated, and frictionless digital process – across warehousing, logistics, and transportation – can generate increasing benefits for retailers. This also requires improved integration and orchestration, as well as centralized governance for multiple business process scenarios. Hence, a change in process becomes inevitable to make IT automation a success

4. Define the consumption model

- **Why:** The mode of adopting IT automation depends on pre-existing service models and enterprise imperatives (balancing efficiency versus business cost). Identifying the right consumption model for IT automation is the key to not only meeting system and business requirements, but also sustaining funding and creating continuous benefits

- **How**: IT automation may be consumed as a standalone workstream or embedded within the fabric of operations. Standalone models are often defined (e.g., automation CoEs) to create initial scale impetus. Embedded IT automation initiatives typically leveraging tools and techniques within the fabric of ongoing IT activities, are designed to drive initial speed, and are often more suitable for SDLC automation, particularly in the front office. For instance, an e-commerce model cannot be integrated with a retailer's existing systems in a standalone manner. Delivering an omnichannel experience requires access to multiple data sets and dissemination of consistent information across multiple channels. These systems may initially function in a standalone model but will need to be embedded with other processes/systems eventually to become more efficient and robust

5. Evangelize adoption

- **Why:** Cultural resistance and behavioral inertia are perhaps the biggest challenges to IT automation and transformation initiatives. Gaining broader organizational buy-in is a common struggle, as teams are accustomed to established ways of working, roles, and responsibilities

- **How:** Enterprises should encourage IT teams and end users to adopt IT automation solutions and outcomes through a series of top-down and bottom-up evangelization initiatives. Identifying power users is a good starting point and proactively communicating automation benefits within the peer group is vital to scale up adoption.

For instance, it is imperative to highlight that IT automation will improve productivity and free up time for employees to focus on more strategic tasks. The automation anxiety is real and it is necessary to keep the teams focused on the automation journey that will bring in the true RoI for a retailer

Retailers, based on their strategic bets and immediate priorities, will need to undertake significant steps to gain benefits beyond cost savings. Once a retailer determines its business roadmap and the realistic end state, it should prioritize its IT metrics and IT automation use cases, considering the immediate versus mid-/long-term business impact.

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