Retail Digital Transformation and Innovation Primer for 2020

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Initiatives: Retail Digital Transformation and Innovation

The digital business battle has moved back into the physical retail realm, and differentiation depends on digital transformation of the physical retail environment. Retail CIOs can use this research to identify the role of technology in supporting retail digital transformation in the next decade.

Scope

Every customer interaction is a unique opportunity to harness long-term value by providing exceptional service. Retailers must leverage technology that augments the customer’s preferred way to shop.

The topics we cover include these areas:

- **Digital Business Transformation** — The retail business and technology trends at work in the market. It covers digital business strategies, new digital business key performance indicators (KPIs), new technologies supporting platform businesses, collaboration models and ecosystems. The required shift to speedy and frequent adaptation models is also explored.

- **Channel Operations and Execution** — Retail operational excellence through the execution of customer-facing processes to support unified retail commerce. It supports POS applications and AI-powered smart check-outs, RFID, Internet of Things (IoT), robotics and the execution and monitoring of in-store processes. Major focus on fulfillment, inventory management, robotics and operations monitoring in the connected store.

- **Emerging Technology and Innovation** — Retail business and technology trends, innovations, emerging technologies, changing business processes. Topics include AI, robotics, blockchain, robotic process automation (RPA), IoT, digital twins, digital business platforms, new business models and conversational commerce.

- **Merchandise Planning and Execution** — Transformation of retail business processes and adoption of technologies that enable highly effective merchandise planning and execution. It covers core merchandising applications, including merchandise financial planning, assortment planning, and category management and allocation. It also supports intelligent virtual store design (IVSD), including macro- and microspace management solutions and processes that
The goal of retail digital transformation and innovation is enabling the delivery of a unified retail commerce experience for customers. Unified retail commerce first involves understanding how customers use technology in their everyday lives, then deploying technology that makes their lives support visual merchandising, and solutions for price, promotion and markdown management and optimization.

- **Digital for Quick Service Restaurants** — QSR is at the forefront of retail transformation, providing a test case for many technologies, while carving a new digital business roadmap. It covers business and technology trends that can create competitive advantage. Focus on improving operational efficiency by implementing AI and robotic automation, balancing between automation and human labor capital and selecting the right delivery options.

- **Digital Workplace Employee Experience** — Employee engagement and organizational culture are important elements for success in a transformed retail environment. It covers workforce management and optimization systems, as well as digital dexterity. It also includes organizational culture change to help facilitate digital transformation and ways to leverage store associates to create competitive advantage.

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**Analysis**

The goal of retail digital transformation and innovation is enabling the delivery of a unified retail commerce experience for customers. Unified retail commerce first involves understanding how customers use technology in their everyday lives, then deploying technology that makes their lives...
simpler, better, easier and safer. Collaboration within the parts of the enterprise, as well as between customers, competitors, suppliers and third-party services, will transform retailers’ ability to deliver exceptional customer-centric experiences. Instead of managing the business through channels that reach out to the customer, retailers must learn and monitor customer requirements, organizing operations around four major customer processes. The intersection of these customer processes is the focal point of a customer-centric experience:

- **Search** — Enables customers to browse, search and research what they need, as well as discover new and different products and services that will enhance their lifestyles. This is provided by stores and online channels, as well as mobile, social, IoT-enabled devices, AI and augmented reality working together to deliver an immersive shopping experience.

- **Transact** — Enables a seamless capability for the customer to transact within and across channels, regardless of the product or the combination of products and services, without inconvenience or delays. This is provided through modern, interconnected point of sale (POS) applications, mobile applications and the excellent customer-facing execution of processes.

- **Acquire** — Enables the customer to acquire goods and services using a variety of methods, including physical shopping, click and collect, in-home delivery, automated replenishment and lockers, as well as partnerships with external organizations. This is provided by executing distributed order management, highly flexible fulfillment models, including traditional, in-store shopping and many last-mile delivery options.

- **Consume** — Enables customers’ enjoyment and enhances their consumption experience. This is provided through enhanced information and services, connected devices, subscriptions, autoreplenishment, and voice-enabled interactions.

Every retail transaction is a one-to-one customer interaction, but enabling customer-centric engagement across all shopping touchpoints requires more than just transaction capability. Retailers must have in-depth knowledge of their customers’ expectations in and across channels or location. Today’s retail landscape is replete with retailers that have lost touch with their customer base. Many have floundered or failed to survive, while the winners have developed real differentiation strategies based on understanding customer behavior.

**Topics**

Retailers that successfully adopt unified retail commerce to understand and serve their customers will remain relevant to their key customer segments. By doing so, they will maintain market share, achieve profitable operating margins and rightsize their store base, while targeting new business opportunities from less robust market participants.

Our research centers on the following topics:

**Channel Operations and Execution**
Excellent execution of customer experiences, regardless of channel, is the battleground for customer retention and sales growth. As retailers transform from multichannel to unified retail commerce, new technologies are being introduced to digitalize the physical store, improve operational efficiency and allow for real-time data and analytics. Individually, these technologies — like mobility, IoT (for example, RFID), computer vision and AI smart check-out — are beneficial for many use cases. Retailers are also coming to grips with how to implement a mixed labor portfolio consisting of both humans and machines.

Questions Your Peers Are Asking

- What are the key customer transaction options that can be deployed to enable unified retail commerce?
- How can I support the business in delivering efficient and effective customer-facing interactions?
- How can I support the business to deliver efficient and effective single-channel and cross-channel operations?
- How can I best incorporate and balance in-store automation such as robotics, check-out and IoT to improve efficiency and (CX/AX) experience?

Recommended Content

- “Smart Check-Out: Choosing the Right In-Store Approach for Your Customers”
- “Harness the Insight of RFID to Enhance the Retail Customer Experience”
- “Future of Experience: Generation Z Is Inspiring the Future of Customer Experience”
- “Exploring Digital Business Opportunities: Benefits and Cautions of Digital Twins in Retail”
- “Lessons From Luxury Retail — Younger Generations Lead the Way”

Planned Research

- AI-powered smart check-out: what you need to know
- Market Guide for digital-business-ready POS applications for Tier 1 & 2 unified commerce retailers 2019
- What’s in store for the retail store
- Best practice for selecting a POS unified commerce platform
- Driving more value from traffic counting solutions
Digital Business Transformation

In an age in which new and innovative business models are flooding the market, retailers must become top performers in digital business to succeed in delivering unified retail commerce experiences for customers. Years of underinvestment in transforming technologies, the failure to perform required upgrades, the growth of shadow IT projects across diverse business units, and cultural challenges continue to plague many organizations. Retailers are masters at trying to do more for less in a bid to support increasingly thin profit margins.

Questions Your Peers Are Asking

- How can I help the business to shape or adapt to the digital business vision of the retail industry?
- How can I contribute to developing the leadership, organization and culture to succeed in digital business?
- How can I enable the business to implement platforms and technologies to execute the digital business strategy?
- How can I leverage new business models or collaboration to support our digital transformation?

Recommended Content

- Some recommended content may not be available as part of your current Gartner subscription.

- “Retail Scenarios for 2025 and Beyond: The Future Is Yet in Your Power”
- “Retail Scenarios for 2025 and Beyond — Elasticity Stretches by Leveraging Technology to Serve Customers”
- “Retail Scenarios for 2025 and Beyond: Dexterity Coordinates Activities Behind the Scene to Deliver Enhanced Customer Experiences”
- “Retail Scenarios for 2025 and Beyond: Speed Drives Growth by Excelling at the Basics”
- “Retail Scenarios for 2025 and Beyond: Strength Builds With Human-Centric Experiences”
- “Adopt Digital Business KPIs to Lay the Foundation for Digital Transformation in Retail”
- “Customer Centricity Is Essential to Retail Digital Marketplace Success”
- “Forecast Overview: Retail IT Spending, 2018”
Digital for Quick Service Restaurants
The quick-service restaurant sector is tackling digital business disruption head-on. Socioeconomic factors and consumer demand for convenience and flexible fulfillment are pushing customer experience boundaries. Organizations can use this research to identify opportunities and create competitive advantage by understanding trends and technologies that support digital transformation.

**Questions Your Peers Are Asking**
- How can I improve operational efficiency by implementing AI and robotic automation?
- What is the right balance between automation and human labor capital?
- How can I assist my organization to select the right delivery options to gain competitive differentiation?
- What business and technology trends do I need to be aware of to assist my organization in identifying opportunities to create competitive advantage?

**Recommended Content**
- Some recommended content may not be available as part of your current Gartner subscription.
- “Quick-Service Restaurants Point the Way to Competitive Differentiation in 2019 and Beyond”
Planned Research

- Market Guide for digital-business-ready POS applications for Tier 1 quick-service restaurants 2020
- Embracing the needs of Generation Z will create competitive advantage for quick-service restaurants
- AI use cases for digital QSR
- Excellent execution of mobile ordering boosts loyalty for quick-service restaurants
- Third-party delivery integration: opportunities and challenges for QSR

Digital Workplace Employee Experience

Customer demand for unified retail commerce, combined with struggling retailer performance, has placed the spotlight on retail stores and their associates. Pressure to keep the best talent requires a more socially engaged, collaborative, informed and innovative work environment. This type of environment is known as the digital workplace. In a digital workplace, associates must have access to cross-channel information to provide consistency by remaining engaged in the customer support process and resulting experiences.

Questions Your Peers Are Asking

- How can I optimize our workforce to execute effectively on customer requirements?
- How can I help my organization foster digital dexterity?
- How can I support organizational culture change to help facilitate digital transformation?
- How can I help my organization leverage store associates to create competitive advantage?
- What is the right mix of work between man and machine needed in store?

Recommended Content

- Some recommended content may not be available as part of your current Gartner subscription.
- “Market Guide for Retail Workforce Management Applications”

Planned Research

- Prepare, adapt, transform: the retail associate’s new reality
- What retail CIO’s need to know about AI in workforce management
- Fostering digital dexterity in retail stores
Retailers gain competitive advantage by applying emerging technologies that align to support customers’ expectations while reducing costs and growing top-line revenue. AI, IoT, mixed reality, algorithms, RPA, robotics and autonomous vehicles are just some technologies that are transforming retail. Technology leaders and their teams must play a pivotal role in helping business leaders understand the benefits and limitations of technologies, identify new providers, and ensure their teams are upskilled to support. Prepare to advise members of the C-suite concerning new technologies, how they can support digital business strategies, and the possibilities for unique partnerships and acquisitions to ensure most effective implementations.

Questions Your Peers Are Asking

- How can I enable my organization to employ appropriate strategies aligned with future business and technology trends?
- How are emerging technologies presenting retailers with new business opportunities?
- How can I ready my organization for transformative technology through identifying current and future use cases?

Recommended Content

- “Retailers Must Move Beyond Chatbots to Gain Competitive Advantage Through Conversational Commerce”
- “Digital Twins Can Create Competitive Advantage for Retail Digital Business Success”
- “Exploring Digital Business Opportunities: Benefits and Cautions of Digital Twins in Retail”
- “Survey Analysis: Retail Use of Artificial Intelligence Expected to Surge”
- “RPA Will Be Required for Retailers to Make Progress in Digital Business”
- “Strategic Framework of AI Use Cases in Retail”
- “Customer Centricity Is Essential to Retail Digital Marketplace Success”
- “Hype Cycle for Retail Technologies, 2019”
- “Cool Vendors in Retail for Excellent Execution of Customer Expectations”

Planned Research
To win in the digitally revolutionized retail marketplace, retailers must refine merchandising processes for customer centricity. Gartner anticipates that innovative use of information and automation through advanced analytics and AI will transform the industry. For too long, retailers have adopted a product-centric approach to merchandising with an internal focus that chooses to perpetuate what has traditionally provided sales results. Retail organizations can use this research to help merchandising procure, source and develop products and services as demanded and expected by the customer.

Questions Your Peers Are Asking

- What is the role of AI in automating and optimizing merchandising processes and decision making?
- How can I create and execute merchandising strategies using customer insight to deliver unified retail commerce?
- How can I contribute to developing new leadership, organization and culture for merchandising?

Recommended Content

- “Market Guide for Advanced Retail Space Management Applications”
- “What Retail CIOs Need to Know About AI for Merchandising”
- “Market Guide for Unified Price, Promotion and Markdown Optimization Applications”

Planned Research

- Market Guide for retail assortment management applications
Suggested First Steps

Use this research to gain broad perspectives about unified retail commerce, digital transformation in retail and the technologies required.

- **“Retail Scenarios for 2025 and Beyond: The Future Is Yet in Your Power”** — Execution is what differentiates customer experiences. Retailers must meet their brand promises by delivering experiences that meet customer expectations and take advantage of their unique competencies. Retail CIOs can use this research for internal collaboration on future retail scenarios.

- **“Retail Scenarios for 2025 and Beyond — Elasticity Stretches by Leveraging Technology to Serve Customers”** —

- **“Retail Scenarios for 2025 and Beyond: Dexterity Coordinates Activities Behind the Scene to Deliver Enhanced Customer Experiences”** — With a future yet unclear, retailers can predict and preempt disruption through the adaptation of different market scenarios. Retail CIOs can develop strategies that align with the dexterity scenario, where agile delivery of customer expectations maximizes business opportunities.

- **“Retail Scenarios for 2025 and Beyond: Speed Drives Growth by Excelling at the Basics”** — Disruptive retail requires adaptation within future scenarios, making a way to meet it with offense, not defense. Retail CIOs can use this research to develop strategies aligned with the speed scenario, where efficient execution of basic customer expectations maximizes business opportunities.

- **“Retail Scenarios for 2025 and Beyond: Strength Builds With Human-Centric Experiences”** — Disruption in retail has no end in sight. Retail CIOs should develop strategies that align with the strength scenario by leveraging technology to support transactions and customer desires for human-led and personalized experiences.

- **“Adopt Digital Business KPIs to Lay the Foundation for Digital Transformation in Retail”** — To maintain success in digital business, retail CIOs must leverage digital business KPIs. The new business environment is characterized by the blurring of physical and digital channels and the integration of businesses, people and things to create new business value.

- **“Future of Experience: Generation Z Is Inspiring the Future of Customer Experience”** — There is much talk about the millennials shaping the future. However, retail CIOs should be cognizant of Generation Z, a rapidly growing cohort that is already becoming a prime mover, shaker and disruptor, shaping experiences not only for the future of retailing, but for the future of living.
“Retail Predicts 2020: Consumers Determine Success Well Before the Sale” — Customers are demanding greater levels of contextualization of products and services. Retail CIOs can leverage intelligence to capture deeper insights, anticipate customer needs and proactively deliver across every touchpoint.

“Retail CIOs Should Align IT Cost Optimization Strategies With Customer Expectations to Scale Digital Business” — Retail CIOs are charged with directing cost optimization efforts that are often clouded by conflicting priorities and internal politics. Gartner recommends a proactive and strategic approach for retail CIOs to lead cost optimization activities in both customer-facing and enterprise activities.

“Hype Cycle for Retail Technologies, 2019” — Retail CIOs can use this Hype Cycle to advise the business areas on how to cut through market hype when prioritizing retail technology investments to support unified retail commerce in a digital business environment.

**Essential Reading**

These documents provide more in-depth analysis of the Core Topics covered in this Key Initiative.

“RPA Will Be Required for Retailers to Make Progress in Digital Business” — Robotic process automation can help automate existing manual processes, but is only a step on the path toward transformational automation and algorithmic retailing. CIOs can use this research to help business leaders understand automation that supports digital business.

“Smart Check-Out: Choosing the Right In-Store Approach for Your Customers” — The convergence of technology in digital business has resulted in the emergence of new in-store smart check-out models. This research helps retail CIOs understand and determine the most suitable check-out models to deliver the fast and convenient check-out experience customers expect.

“Survey Analysis: Retail Use of Artificial Intelligence Expected to Surge” — Retailers require AI capabilities as a foundation of digital business strategy and execution to remain viable in the market. Retail CIOs can use this research to understand the current state of application implementations, pilots and plans, and learn the keys to achieving successful outcomes.

“10 Best Practices for Using Customer Data to Grow Retail Loyalty” — Effective retail leaders understand how to grow relationships with customers by incorporating and acting on the right data at the right time. Retail CIOs can use this research to inspire and enable their organizations in developing initiatives that drive customer loyalty.

“Retailers Must Grow Understanding of Customer Behavior to Increase Market Share” — Retailers are challenged to provide contextualized customer experiences across a unified retail commerce ecosystem. CIOs can use this research to understand a framework for incorporating customer behavior into strategic planning and operational execution for digital business.
“Customer Centricity Is Essential to Retail Digital Marketplace Success” — Retailers must approach digital marketplaces strategically, predicated on the principles of unified retail commerce. Retail CIOs can proactively advise the business of the central role of IT in enabling retail digital marketplace models successfully.

“Market Guide for Unified Price, Promotion and Markdown Optimization Applications” — Price optimization, while largely accepted as a requirement for doing business, has reached a point where AI and advanced analytics are required to price strategically and in a unified manner. Retail CIOs can use this research to understand UPPMO as the foundation for future price optimization.

“Harness the Insight of RFID to Enhance the Retail Customer Experience” — In digital business, stores continue to play a critical role in meeting customer expectations for converged digital product content. This research highlights retail RFID implementations that converge digital and physical offerings; CIOs can use this to enhance their own customer experience offering.

“Cool Vendors in Retail for Excellent Execution of Customer Expectations” — Retailers create competitive differentiation and drive growth by enabling associates to deliver experiences that exceed customer expectations. Retail CIOs can consider these Cool Vendors for unique approaches to improve customer centricity, associate enablement, elevated service and personalization.

“Digital Twins Can Create Competitive Advantage for Retail Digital Business Success” — Digital twins converge the physical and digital worlds to transform enterprise decision-making processes. Retail CIOs can use this research to understand the fundamental aspects of digital twins and how they can be used to deliver competitive advantage in a world of unified commerce.

“Exploring Digital Business Opportunities: Benefits and Cautions of Digital Twins in Retail” — Digital twins can help model, forecast and anticipate the behaviors and outcomes of their physical twin. As retail CIOs use digital twins to drive new digital business opportunities, this research can help explore the associated benefits and cautions.

“Strategic Framework of AI Use Cases in Retail” — Retailers view AI as a strategic game changer in retail’s future, yet AI technologies are not in the top three priorities for technology funding. Retail CIOs can use this Toolkit to communicate the value of AI with senior leaders and IT teams and to identify use cases aligned to business needs.

“Market Guide for CRM in Tier 1 Retail, 2019” — New digital business models and advanced analytic technologies are significantly transforming how retailers engage customers to build profitable relationships. Today, CRM excellence requires retail CIOs to leverage the right data at the right time across a variety of contextual settings.
“2019 CIO Agenda: Retailers Not Moving Fast Enough to Identify Future Scenarios” — Retail is a dynamic industry with many possible future scenarios. Success hinges on active discovery of customer expectations along with leverage of technology. Retail CIOs can use this research to understand the current marketplace and communicate with business leaders on future-scenario planning.

“What Retail CIOs Need to Know About AI for Merchandising” — Product development and selection, planning, buying and demand forecasting will undergo major transformation as retailers focus on automation and customer centricity using AI. Retail CIOs can use this research to understand the implications of AI on merchandising staff and processes.

“Market Guide for Retail Workforce Management Applications” — Associate demand for consumer-grade technology and the need for flexibility and labor optimization in stores give rise to a new generation of AI-enabled WFM technologies. CIOs can use this guide to understand the direction of the retail WFM market to inform retail digital workplace investments.

“Lessons From Luxury Retail — Younger Generations Lead the Way” — Luxury retail attracts the most discerning customers seeking tailored goods, superior quality and elevated service. As Millennials and Generation Z customers raise expectations, this research helps retail CIOs develop strategies and identity technologies to successfully engage with all customers.

“Quick-Service Restaurants Point the Way to Competitive Differentiation in 2019 and Beyond” — The quick-service restaurant sector is tackling digital business disruption head-on. Socioeconomic factors, and consumer demand for convenience and flexible fulfillment are pushing customer experience boundaries. CIOs can use this research to identify opportunities and create competitive advantage.

“Market Guide for Advanced Retail Space Management Applications” — Retail’s changing dynamics demand planning for the required retail selling space, not the available space. New applications deliver constant assortment editing for new products and near-real-time updates. Retail CIOs can use this research to understand current trends and identify vendors.

“Retailers Must Move Beyond Chatbots to Gain Competitive Advantage Through Conversational Commerce” — Technology provides new opportunities to connect with customers who increasingly expect a conversational style of interaction across channels. Retail CIOs can use this research to explore examples and develop a strategy to employ conversational commerce technologies to improve revenue and profit.

Tools and Toolkits

“Toolkit: Create a Strategic Technology Map for Unified Retail Commerce” — Retail CIOs can use this Toolkit with business users to help identify and prioritize technologies to support digital business transformation.