TRANSFORMING THE RETAIL INDUSTRY THROUGH STRATEGIC IT

InterSystems®
Health | Business | Government

Executive Summary

Thanks to digital leaders like Amazon and Apple, retail customers have become more technologically savvy than ever before. Customers expect seamless, personalized, and enjoyable digital experiences spanning all touch points of the customer journey — and their expectations are rising every day. Senior management and the line of business now rely on IT to become a strategic partner to help identify and prioritize innovative new services that create new sales channels, increase revenue, increase customer retention and loyalty, and create defensible competitive differentiation — and to implement these services with agility and speed to market.

In short, the challenges for IT organizations in the retail industry have never been greater.

This white paper describes this tectonic shift in the retail industry: the business drivers, current trends, and the challenges for IT organizations. It then describes a new kind of technology platform that is enabling retail organizations to meet these challenges faster, at lower cost, and with fewer resources, helping empower IT to become a strategic partner to the line of business to accelerate digital transformation initiatives and succeed in this new environment.
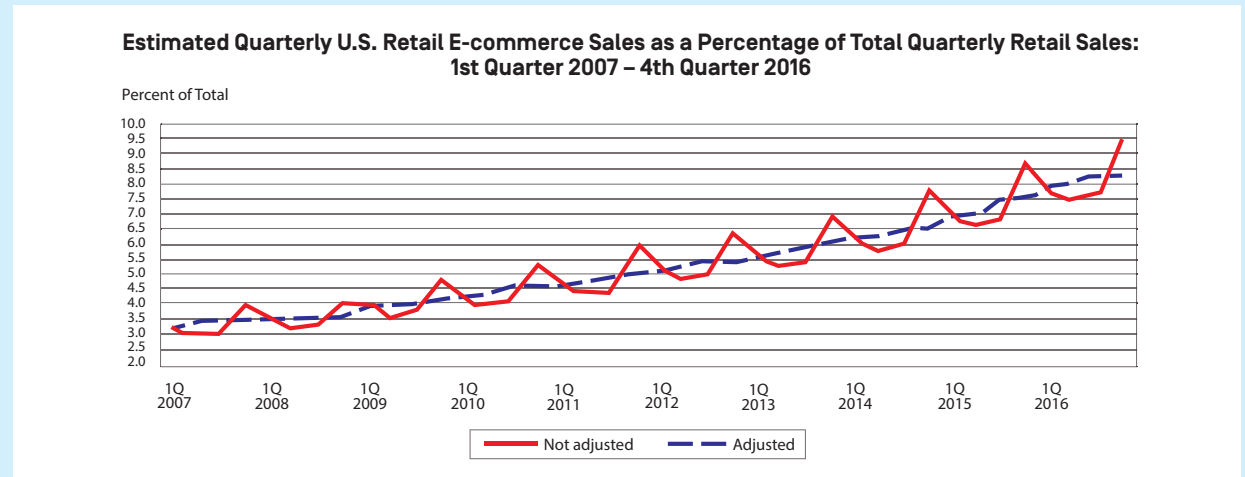
Key Business Initiatives in Retail

The retail industry is undergoing a digital transformation as organizations strive to remain relevant amidst a rapidly shifting digital landscape. Customers shop in stores with their phones in their hands, comparing prices and reviews to what they're seeing in real time. And digital natives have become strong consumers as their buying power has increased. All customers expect retailers to know who they are, what they want, when they want it, and deliver an exceptional experience spanning all interactions and channels.

As a result, today's critical IT initiatives in retail are no longer about just controlling costs and "doing more with less." IT must now become a strategic partner to the line of business to deliver innovative digital services that increase revenue, meet and exceed customer expectations, and create and extend competitive differentiation, or their competitors will pass them by.

Many retailers and analysts agree that retailers' highest-priority digital transformation initiatives must include enabling unified retail commerce and creating and leveraging a deep understanding of each individual customer. In doing so, they can be successful in this new and rapidly changing environment.

Unified Retail Commerce. To be competitive today, retailers must present their customers with a consistent and unified experience spanning their entire extended organization, and encompassing all online and offline channels and touch points.

U.S. retail e-commerce sales for the fourth quarter of 2016 totaled $123.6 billion, an increase of 32 percent from the previous quarter, while e-commerce sales as a percent of total sales rose to 8.1 percent in 2016, up from 7.3 percent in the same quarter 2015[1].

Estimated Quarterly U.S. Retail E-commerce Sales as a Percentage of Total Quarterly Retail Sales: 1st Quarter 2007 – 4th Quarter 2016
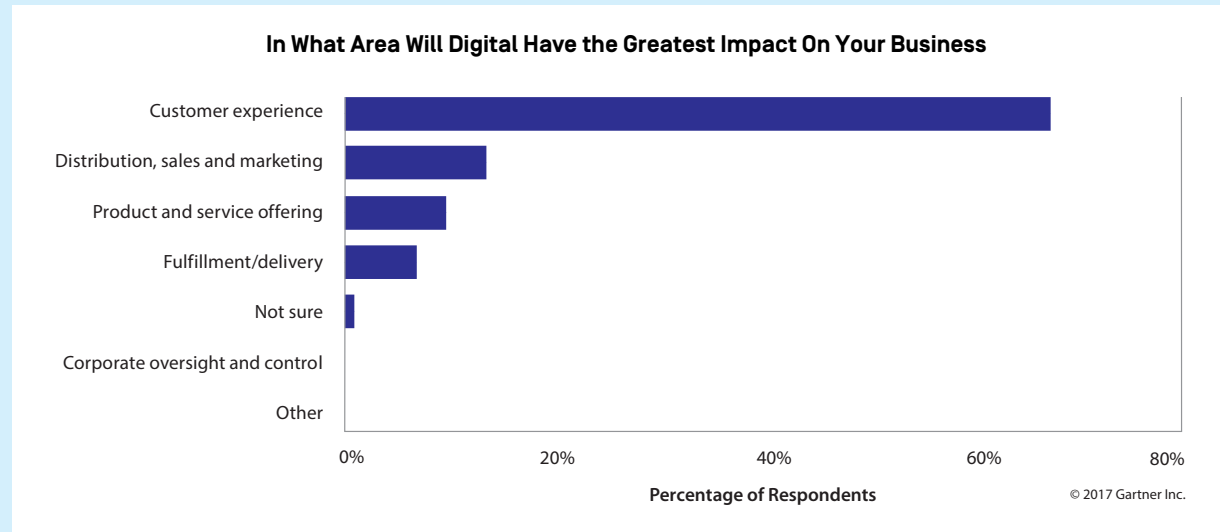
[1] U.S. Census Bureau News, February 17 2017.

Customers expect a consistent shopping experience including product selection, pricing, discounts, promotions, regardless of whether they are shopping online, on mobile and other devices, or in stores.

Customers also expect an accurate, transparent, and seamless view into the relevant business systems and processes that impact them; for example, they expect to be able to check a product's availability, order status, shipment information, return and refund status, all in real time. Making unified retail commerce a reality requires retailers to ensure that their relevant business applications — as well as those of their business partners — are tightly integrated, with seamless composite business processes that can be accessed, exposed, and monitored by employees, business partners, and customers.

Create and Leverage a Deep Understanding of Each Individual Customer. Customers — particularly repeat customers and those enrolled in loyalty programs — expect retailers to know them well and treat them accordingly. This deep level of understanding and personalization is difficult to achieve in practice. It requires retailers to collect and manage data from online and offline customer interactions, as well as enriching their own customer data with relevant third-party data. In doing so, they can create an accurate representation of the customer that crosses sales channels, brand lines, internal systems (website session activity, call center inquiries, and others), and external sources (e.g. social media feeds, data from business partners and marketing services providers). Retailers must be able to personalize interactions along the customer journey, especially as it encompasses more touch points and interactions than ever before.

According to Gartner, "customer experience" has the greatest impact on retailers' business[2].

In What Area Will Digital Have the Greatest Impact On Your Business

Category	
Customer experience	~67%
Distribution, sales and marketing	~13%
Product and service offering	~9%
Fulfillment/delivery	~6%
Not sure	~1%
Corporate oversight and control	
Other	

Percentage of Respondents

0% 20% 40% 60% 80%

© 2017 Gartner Inc.

[2] 2017 CIO Agenda: A Retail perspective, Gartner, February 2017, Gartner report figure 4.

Technology Considerations

Creating a comprehensive, seamless view of an extended retail enterprise can be a daunting task, especially for retail organizations with a diverse set of applications and business partners. Exposing business applications to customers for self-service purchasing, availability information, order status, shipment information, etc. requires organizations to integrate multiple internal systems. For example, their CRM, point-of-sale, warehouse management, and ERP systems must all "speak" to one another, and these, in turn, must correspond to their counterpart systems among their suppliers, distributors, and other business partners. Together, they must create seamless composite business processes that span multiple applications that were not designed to work together. This requires application integration, business process management and monitoring, real-time analytic processing capabilities, real-time event driven capabilities, and a database capable of storing and analyzing large sets of disparate data.

"E-commerce and technology have absolutely changed the rules of the game [in retail] and given massive amounts of power to the consumer. There is a self-help mentality now. People walk around with their phones in their hand to tell them the best model and the best price[3]."
– Simeon Siegel, Executive Director, Equity Research at Nomura Securities

[3] Patricia Cohen. Retail Payrolls Sustain a New Blow as Shopping Habits Shift. New York Times, April 7, 2017.

Creating and maintaining an accurate and up-to-date 360-degree view of each customer, predicting what each customer will want, and presenting the appropriate offers in real time requires both batch and real-time analytic processing capabilities. It can require big data, machine learning, and predictive analytics as well as the ability to work with a range of data types in their native formats. It requires simultaneous transactional and analytic, multi-workload database capabilities to perform analytics on live, real-time transactional data without delays. Furthermore, the retail enterprise needs cost-effective, dynamic scaling capabilities to confidently handle traffic spikes during peak times, such as Cyber Monday, during a major ad campaign, or their own equivalent of Amazon's Prime Day, without cost overruns, performance, or availability issues.

The reality is that many IT teams are finding that it is simply not practical to purchase, install, integrate, learn, support, and maintain the various technologies required to deliver the services that the business requires.

Fortunately there exists a new kind of technology — a single, comprehensive unified data platform — that provides many of the capabilities that retail organizations need to meet today's challenging requirements.

According to Gartner, lack of skills and funding are the top barriers to success in retail IT[4].

Top Barriers Impeding CIO Success in Retail

Showing Top Nine Responses for Overall Respondents	Retail (n = 120)	Top Performers (n = 162)	Typical Performers (n = 1,976)	Trailing Performers (n = 160)	Overall Total (n = 2,299)
Skills/Resources	23%	27%	26%	22%	26%
Funding/Budgets	15%	19%	17%	16%	17%
Management Sponsorship/ Understanding/Relationships	5%	10%	8%	16%	8%
Culture/Structure/of Organization	8%	4%	8%	10%	8%
Technology Challenges (Legacy, Security, etc.)	7%	8%	5%	3%	5%
Lack of Leadership/Planning/ Strategy	10%	4%	5%	6%	5%
Capacity/Willingness to Change	7%	2%	5%	4%	4%
IT/Business Alignment	6%	6%	5%	3%	4%
Business Value of IT	3%	2%	4%	7%	4%

[4] 2017 CIO Agenda: A Retail perspective, Gartner, February 2017, Gartner report figure 2.

According to the research firm IDC, 78% of enterprises surveyed report that the inability to analyze current live data inhibits their ability to take advantage of business opportunities[5].

[5] IDC, 3rd Platform Information Management Requirements Survey, November 2016.

A unified data platform is a single software solution that includes the critical capabilities required for digital transformation, eliminating the need to purchase, integrate, learn, and maintain multiple different technologies. A unified data platform includes:

- A modern, hybrid transactional-analytic multi-workload database for working with all types of data and workloads (both transactional and analytic)

- A full set of integration and interoperability capabilities for connecting internal and partner systems

- Composite business process and workflow capabilities for creating seamless processes that span the entire partner ecosystem and for enabling customer self-service

- Real-time monitoring capabilities, providing accurate visibility and reporting for internal, partner, and customer audiences

- Sophisticated analytics capabilities for batch and real-time processing on all data including structured, unstructured, and big data

- A single, consistent user friendly development and maintenance environment

By leveraging a unified, comprehensive data platform, successful retail organizations are able to accelerate their digital transformation initiatives with less software, at lower cost, and without needing to hire additional resources.

Conclusion

A unified data platform can provide the full suite of capabilities that retailers and their technology providers need to accelerate their digital transformation initiatives, as well as enabling them to meet their myriad business goals faster and with lower total cost of ownership. With broad and deep capabilities spanning integration, orchestration, data management, and analytics, a unified data platform is an attractive technology solution for retailers striving to accelerate their digital transformation efforts — to remain relevant in the challenging new world of retail.

About InterSystems

InterSystems is the engine behind the world's most important applications. In healthcare, finance, government, and other sectors where lives and livelihoods are at stake, InterSystems is the power behind what matters. Founded in 1978, InterSystems is a privately held company headquartered in Cambridge, Massachusetts (USA), with offices worldwide, and its software products are used daily by millions of people in more than 80 countries.

For more information, visit **InterSystems.com**

InterSystems
Health | Business | Government

InterSystems.com