The anywhere, anytime consumer
Adapting the retail supply chain

Empowering business for what's next
It’s not the organizations that are competing. It’s the supply chains that are competing.

Wael Safwat
Head of Procurement Transformation, Loblaw Companies, Ltd.
Table of contents

03 Shaping modern retail
04 Democratized marketplaces
05 Retail therapy
06 The perfect fit
07 Simplifying the queue
An appetite for consumption

Globalization. Automation. Technology. These disruptors sparked tremendous evolution in retail supply chains of the twentieth century. Small-scale craftsmanship gave way to mass production, which sent ready-to-use products to retailer shelves in quantities and at prices that consumers had not experienced before. As retailers accommodated this abundance with expanded store footprints, supply chains responded with palletization and lifts that allowed for more efficient inventory management, storage, and shipping.

Globalization progressed to take advantage of lower-cost manufacturing locations and led to increasingly complex supply chains and longer lead times. Technology connected large business systems and enabled them to optimize supply and demand based on millions of calculations. It helped determine how best to transport that inventory from factories around the world through a wide network of distribution warehouses to multiple storefronts.

Regression to the mean

Information in the marketplace was fragmented, which gave retailers an advantage: comparison shopping required effort through visiting multiple stores or by scouring multiple information sources, both time-intensive methods for the consumer. The information imbalance also allowed retailers to push products to the consumer, a model that was cyclical and relatively predictable.

Yet fragmented information within the supply chain often led to low visibility and instability in the ecosystem, which could affect retailers’ inventory levels and purchasing practices. Most supply chains were able to accommodate this instability, however, given the slower pace of new product creation and lower levels of competition.

Shaping modern retail

Retail has long operated in a predictable business rhythm of planning, stocking, and selling aligned to seasonal demand patterns. Technology has disrupted that certainty, causing volatile demand fluctuations and shorter cycles to sustain consumer attention.

Some retailers have responded with supply chain innovations like fast fashion, but most are struggling to retool legacy systems to break down channel silos and increase speed. Solutions to this challenge abound, from reframing processes to implementing new technologies, all of which require a shift in mindset to achieve.
Timeline

Supply chain innovation has been the result of applying technology to enable a network of entities to work together more effectively.

As globalization has increased supply chain complexity, more collaboration and a transparent flow of information among participants are required for success. Consumers want products in their hands more quickly, and supply chains must respond with new or better ways to shorten fulfillment cycles.
Democratized marketplaces

Online and mobile shopping have put consumers in the driver’s seat in terms of choice and purchase point. Retailers must adapt quickly to meet consumers’ changing expectations. Consumers can find what they want at the tap of a finger, evaluate specifications and reviews, and compare pricing and availability whenever and wherever they want. These new purchase options have pressed retailers to provide additional product selection to accommodate a diverse set of tastes, as well as fit a wider range of options, creating a more complex supply chain than ever before. Adding to the challenge, mass production is giving way to mass customization, and consumers expect products and services that meet their individual needs. The new balance of power means the familiar drivers of supply chain costs are increasingly under pressure to adapt to these new realities.

“The challenge of the retail business is the human condition.”

Howard Shultz
CEO, Starbucks
Brands that create personalized experiences by integrating advanced digital technologies and proprietary customer data are seeing revenue increase by 6 to 10 percent, two to three times faster than those that don’t.

Source: Profiting from Personalization, BCG, May 2017

Peer pressure
Social media allows consumers to share control of the messaging with retailers about trends and product and brand perceptions. Product reviews, likes, tweets, posts, and memes each can influence demand in a myriad of ways.

A viral social post can impact a brand positively or negatively, creating unpredictable and immediate impacts on demand. And a trending feature may cause high demand for one item, requiring retailers to be prepared for high-volume production as well as to be able to produce lower volume, customized items.

“Social media has created a historical shift from the historically powerful to the historically powerless. Now everyone has a voice.”

Sheryl Sandberg
COO and Member of the Board, Facebook, USA
Channel surfing
As consumers flock to online shopping for its convenience, retailers have responded with separate ecommerce businesses to complement their brick-and-mortar operations. Yet consumers shop in multiple channels, and their purchase journey for an item often involves online, mobile, and in-store shopping—potentially at more than one location—before converting. The lack of omnichannel visibility and execution has left retailers with higher inventory distortions and negative margin results. Lost sales from stockouts are compensated with extra inventory in every channel, leading to excess stock and price markdowns.

Additionally, online businesses have lured consumers with fast delivery, free shipping, and free returns, and now shoppers expect these added services at no extra cost. While retailers with strong brick-and-mortar presences have the locations to compete with fast shipping, their stores and systems are generally not structured to take advantage of this opportunity. Brick-and-mortar retailers face a particular financial downside when trying to compete with fast and free delivery because they need higher inventory levels to account for a lack of omnichannel visibility and carrying inventory in several stores and warehouses.

Return to sender
Retailers’ offers of free return shipping have reduced the risk consumers face when purchasing products they have not yet experienced and have contributed to an increase in online order volume. Because online orders result in a higher rate of returns, there has been a corresponding growth in returned items, adding to the financial and inventory challenges many brick-and-mortar retailers face. Returns generated from online shopping complicate the supply chain in two ways: sorting returns is labor-intensive, and online orders returned to the store are unpredictable and increase that store’s inventory levels. Both often negatively affect the retailer’s bottom line.

DATA POINT
By 2025, nearly a quarter of consumers will expect their deliveries the same day, or faster.
Source: McKinsey, September 2017

DATA POINT
About one-third of internet purchases are returned, compared with only about 9 percent of brick-and-mortar returns.
Source: SupplyChain247, August 2017

DATA POINT
Consumers make more than 50 percent of their purchases in store for eight out of 11 key categories, and over 70 percent used technology to research products while in store prior to purchase.
PWC
Total Retail Global Report, 2016
This is a tricky landscape to navigate, but new paths are emerging for retailers to address these supply chain challenges. While rising logistics costs provide an impetus for change, the underlying optimization principles and goals remain the same as in the past—a drive toward shorter, more predictable, more flexible, and optimal-cost supply chains, as well as solid inventory management. Though globalization, new innovations in automation, and technology continue to spur monumental shifts in the retail supply chain today, savvy retailers can use these factors to their advantage.

Sheer packaging
As the consumer continues to demand more personalized products and services, retailers need adaptable data services and management solutions that provide seamless access and advanced insights. Cloud-based solutions provide flexible, cost-effective, and secure options for achieving those goals. Aggregating the inventory systems of multiple parties in the supply chain is also more feasible with cloud-based solutions, leading to greater transparency within the chain and the potential for a distributed order management capability.

Transparency is critical: a retailer with full visibility into its supply chain can more accurately assess the health of its chain, including inventory levels and locations. This makes it possible to fulfill products from different sources to get the freshest, fastest, and most economical replenishment and fulfillment—and to change processes to increase efficiency and agility and better serve the consumer.

Code of conduct
Integrated cloud-based solutions extend to merging digital and brick-and-mortar inventories, which is necessary to serve the omnichannel consumer. As click and collect gains in popularity, retailers must accurately manage inventory to meet consumer needs from both online and in-store traffic. Radio-frequency identification (RFID)-enabled inventory, supported by a cloud-based data solution, provides store employees and systems visibility into what inventory is available and where it is located in the store for fast retrieval. Also, as consumers continue to demand fast shipping, stores can begin to build a micro-warehousing capability for digital orders with greater visibility into their inventory.

DATA POINT
RFID technology can help to reduce inventory costs by up to 70 percent while improving efficiency.

Personal shoppers for everyone

Transparency is only half the battle. The successful retailer will understand the consumer in more detail and more granularity than ever before. As the prospect of a consumer segment of one becomes a possibility, better forecasting of inventory needs is paramount. Artificial intelligence (AI) can help achieve this granularity by applying its business intelligence, analytics applications, and cognitive services. For example, when viral trends or extreme weather events create spikes in demand, machine learning draws real-time insights and makes recommendations based on evidence faster than any human. It takes data-driven decision making to a new level—which is crucial in an ever-changing marketplace.

Returns on intelligence

With the aforementioned increase in returns from online orders, retailers’ reverse supply chains are exploding. Using technology to understand the consumer better and provide the right product selection from the beginning will reduce the return rate and help control the high cost of reverse logistics.

AI can be used to target consumers more accurately with personalized offers, and mixed reality can help consumers better gauge whether products are exactly what they have in mind, leading to more successful first-time purchases. Or when products miss the mark for large numbers of consumers, machine learning can analyze the reasons for the returns and suggest product revisions to make the items resonate better with consumers in the next iteration. Subscription models applied in new ways can make demand more predictable, reducing volatility. And the Internet of Things (IoT), with its connected products, homebots, and AI-generated insights, can provide retailers with a wealth of data about how, and how often, consumers use their products to help build more accurate and personalized products in the future.

DATA POINT

77 percent of retailers plan to invest in big data solutions for IoT data and 72 percent plan to invest in cognitive computing and machine learning by 2021.

Source: Business Insider, August 2017
Sharing economy

Full transparency: What if consumers and retailers had visibility into the end-to-end product journey, from its origins to the retail shelf?

A growing segment of consumers is already demanding to know information like who grew their food, where their product materials were sourced, and whether their clothes were sewn with fair labor. Blockchain technology could help consumers trace the origins of products to ensure they purchase in alignment with their values and verify that the trust they put in their retailers is legitimately placed.

Blockchain could also help retailers audit their supply chain practices and provide accountability for how they conduct business. This could be a competitive advantage in a consumer environment that demands greater corporate responsibility. Blockchain could also help retailers assess product integrity by measuring the conditions in which their products were shipped. For example, there could be a data trail on temperature-sensitive products and whether they were kept at optimal levels at all points in the chain. It could also be useful in tracking the various parts of distributed orders.

Almost 75 percent of millennials are willing to pay extra for sustainable offerings.

Source: Nielsen, November 2015.

Simplifying the queue

As consumers demand more from retailers, businesses that use their supply chains effectively to instill trust and authenticity in their brands, support experiential stores and grow personalization, and create positive societal impact will be more likely to succeed in this new era.

Implementing next-generation technology to address business challenges and opportunities may simplify retailers’ supply chains even as consumer demands for convenience, selection, and personalization continue to increase. After years of growing complexity, that may seem hard to imagine, but three scenarios shed light on how this might come to be in the next five to 10 years. They involve shifts in the consumer-retailer relationship across the supply chain based on: full transparency, real-time personalization, and values-driven and consumer-centric supply chains. These serve to increase the perceived value delivered to consumers for which they may be willing to pay a premium.
Winning the middle shelf

Values-driven and consumer-centric supply chains: What if retailers could grow sales and profit by increasing the perceived value of their inventory through shared core beliefs with the consumer?

Retailers most deeply connect with consumers through the emotional experience their services provide, or the societal impact they foster. Reframing supply chains around the consumer allows retailers to deepen their relationships with consumers by understanding how best to connect with them. While the dynamics in the retail landscape can change instantly, a consumer-centric supply chain will put the consumer at the forefront of decisions made to adapt to the new environment. In this way, retailers can deliver products and services that speak to what the consumer values—a practice that can open new revenue streams and allow increased margins on current inventory. Longer term, responding to consumer demands for positive social impact, such as greening supply chains, has the ancillary benefits of reducing costs and increasing brand loyalty.

It’s personal … and business

Real-time personalization: What if retailers reimagined their supply chains so their stores could produce on-demand personalized products and experiences for consumers?

Consumers will be drawn to stores that provide bespoke entertainment such as mixed reality mirrors to support makeup choices, or 3D printers to create custom footwear. Fast manufacturing through 3D printing could alleviate the need for stores to hold finished inventory—and for supply chains to distribute goods through multiple nodes. Stores could instead shift the proportion of space they use from majority consumer space to majority storage space. In effect, they could become micro-warehouses for supplies and mini-factories for building products, thereby collapsing steps in the chain. Using shared logistics services or autonomous delivery would help them with last-mile fulfillment to the consumer.
Retailers are working hard to respond to industry disruptions, and new challenges continually emerge. Building a strong technological foundation in conjunction with engaging a strategic thought partner is critical to implementing proactive, tailored solutions. There is no one-size-fits-all answer to supply chain technology needs—retailers who have legacy systems will need a different approach than those born in the cloud.

At Microsoft Enterprise Services, we are ready to collaborate with you on both technology and strategy. We understand from our own experience that transforming your supply chain around the consumer is challenging, but ripe with opportunity.

With Microsoft solutions, you can proactively reduce time to market for new products and services. We will partner with you to apply actionable insights that drive a more cost-effective, responsive supply chain—one that offers end-to-end visibility and increased partner and supply chain collaboration. Our technologies also enable you to optimize inventory management using real-time predictive analytics to improve inventory transparency and anticipate customer and channel demand.

Ultimately, it is about enabling you to deliver personalized, seamless, and differentiated experiences for your customers. That is why our offerings are delivered on a common platform that can span both digital and physical environments. This means you can benefit from seamless connectivity between solutions across all aspects of your business.

In addition, our global partner ecosystem allows you to choose and adapt the technology needed to best run your business—all built on one platform for ease of integration. As the future of retail unfolds, Microsoft looks forward to navigating the journey in partnership with you.
What’s next?

No matter where you are on your digital transformation roadmap, Microsoft Enterprise Services can help.

Empower employees
Empower a high-quality, committed digital workforce to work as a team anywhere, on any device, with seamless data access—helping you innovate, meet compliance requirements, and deliver exceptional customer experiences.

Engage customers
Reimagine the customer experience for a digital world and deliver more value through insights and relevant offers by engaging customers in natural, highly personal, and innovative ways throughout the customer journey—driving increased relevance, loyalty, and profitability.

Optimize operations
Gain breakthrough insights into risk and operational models with advanced analytics solutions and act on real-time intelligence to optimize risk management and meet regulatory requirements.

Transform products
Drive agility with open, connected systems and automated digital processes to support new product development and optimize distribution channel strategies, while meeting the security, privacy, and transparency expectations of customers, regulators, and shareholders.

Credits
Many subject-matter experts from various groups at Microsoft contributed to the conceptualization and articulation of the story contained in this document.

Contributors

Steve Franklin
Global Marketing Lead
Retail and Manufacturing

Susan Jackson
Director, Industry Solutions
Retail and Manufacturing

Ilan Ostfeld
Sr. Business Program Manager
Industry Offerings

Chris Barrett
Sr. Business Program Manager, Data & AI

Ken Collins
Worldwide Director, Business Architecture and Data Science

Chris Cronin
Sr. Business Program Manager

Praveen Gururaja
Sr. Business Program Manager

Casey Hanson
Retail Industry Solution Architect

Noah Herschman
Sr. Architect, Worldwide Retail Industry

Annie Ho
Worldwide Industry Architect, Retail

Jan van Loon
Industry Expert

Dewey Paulovich
Principal Software Engineering Manager

Andrew Quinn
Digital Advisor

Shish Shridhar
Director, Business Development, Data, Analytics & IoT

Brent Sinclair
Director, BPM Management Services

Satyajit Sur
Digital Advisor

James Watson
Creative Director, Designer

Hilary White
Content Evangelist

Colin Wright
Worldwide Industry Solutions Director, Consumer Goods
Microsoft Enterprise Services empowers organizations to accelerate the value realized from their digital experiences.

Imagine.
Realize.
Experience.

microsoft.com/services