To be truly relevant, retailers need to transform their technology and focus on creating value customers appreciate.

Consumers increasingly expect to shop in ways that integrate effortlessly with their lifestyles, making life easier, better and more fulfilling.

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Uniting the technologies that serve customers with those that run the business creates enhanced customer value.

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Prioritize customer value above the cost of individual technologies by understanding how they serve the customer and generate value for them.

Traditionally, retailers have had a strong place in people’s hearts. They have been the go-to destination to grab essentials, pick up a treat, get advice and spend time with friends. Some have offered delivery, while others have recommended trusted tradespeople. But, over time, as the scope, scale and variety of the sector has grown alongside the volume of visiting customers, those levels of familiarity and trust have weakened.

Even though retailers have worked hard to put the consumer at the center of their businesses, to thrive in the future they need to go further. They need to recapture that authentic spirit of retail, which means becoming truly integrated into the lives of their customers, but this time at scale – not delivered perfectly in a pilot but rolled out across the business as the “normal way that we do business.” To do so successfully requires a fundamental shift in how retailers view and implement their technologies that replaces the traditional front and back office divide with a more holistic approach that is accretive to the experiences that you plan to deliver to your customers and employees.
The new strategic mindset for customer integration

While retailers have invested heavily in digital technologies, few have pursued those strategies with true consumer integration in mind. Creating a shopping app with augmented reality (AR) capabilities, developing in-store navigation and advice bots, and improving internal processes through automation are all exciting steps on the way, but they are not the destination. Instead, retailers must integrate their core technologies directly and seamlessly with the consumer.

How retailers are investing in technology

![Graph showing technology adoption](Image)

Digital-first entrants are a proof of concept for this approach. Having had the luxury of building systems from scratch, their strategic value propositions are tailored explicitly to meet today’s flexible and highly personalized customer expectations. Without having the distraction of only using technologies to cut costs and achieve process inefficiencies, their malleable digital infrastructures have enabled them to rapidly deploy and develop new offerings based on accurate, enterprise-wide flows of customer data.

And while such strategies are enabled by technologies, crucially they have people at their heart. They unite the consumer and the retailer in real time so that insights generated by the continuous flow of data can rapidly generate improvements and innovation in services, information sharing and experiences.

Michael Renz
EY Global Retail Technology Leader

"The technology that delivers value to customers is the same technology that runs the business."

Creating a core to the business that adds continual value

New entrants have only scratched the surface of the value that can be unlocked by this approach. Often, they have cherry-picked niche markets or products and remain relatively small-scale businesses. In that respect, traditional retailers with strong brand awareness, established trust, and larger customer bases are in a much better position to benefit from integrating into consumer lives at scale.

However, that entails the transformation of legacy technology infrastructures, which can be both unattractive and difficult. Such systems are often scattered across the enterprise and have been made to work with newer technologies where necessary. And because systems do not work well together easily, building creative value propositions that truly integrate with the customer is much harder and often more expensive to achieve. Yet this is precisely what is needed.
Taking an approach that transforms and streamlines core technologies is the next crucial step. Agile projects aimed at collapsing data silos and unifying broken lines of communication are likely to add greater value to the customer than a pilot of an untested technology in a remote part of the business. Data from all customer touchpoints across the enterprise must be available centrally in real time to every part of the business and applied to improving further integration and operational excellence. For example, it becomes simpler to identify and tackle decision points in the customer journey that can be better informed by data or improved or automated by the technology team. Retailers without this clarity should resolve it as their number one priority. Once the foundation is solid, any new technologies that are introduced will benefit from smooth integration and rapid deployment.

Creating a foundation of operational excellence

If retailers are to bring together the technologies that serve customers with those that run the business to drive value for both, they must first use technology to establish operational excellence across their business:

<table>
<thead>
<tr>
<th>Core operations</th>
<th>Supply chain, logistics and distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Robotic process automation</td>
<td>• Robust and connected supply chain</td>
</tr>
<tr>
<td>• Data lake and end-to-end data visibility</td>
<td>• Intelligent stocking</td>
</tr>
<tr>
<td>• Smooth interoperability between all systems</td>
<td>• Fast logistics</td>
</tr>
<tr>
<td>• Listening skills with data digitization capturing text, audio, images, video and converting to digital forms for analysis using machine learning, neuro linguistic programming and AI</td>
<td>• Real-time product tracking, stock location</td>
</tr>
<tr>
<td>• Real-time data exchange in the Cloud</td>
<td>• IoT integration</td>
</tr>
<tr>
<td></td>
<td>• Seamless and transparent integration with partners</td>
</tr>
<tr>
<td></td>
<td>• Predictive planning</td>
</tr>
</tbody>
</table>

During 2020

66% retailers said that investment in digital technology was most impacted.

From 2019 to 2020

65% retailers increased investments in digital technology.

From 2020 to 2021

70% retailers expect to increase investments in digital technology.
Channel: store, website, app, social

- Frictionless checkout and payment options
- Frictionless delivery options and returns
- Simple formats for easy product location
- Advice on hand e.g., chat bots, advisers, in-store intel points
- Right size for the numbers using it so no queues
- Seamless across channels – stock, promotion, voice

Talent

- Accessing real-time information from a single point of truth to support customer
- Curation of local experiences, products and services
- Putting the right people on the core technology transformation initiatives

Customer and customer experience

- Granular customer understanding and segmentation
- Relevant customer engagement and personalization – segmented offers and recommendations, adjusted assortments and promotions in real-time, etc
- Secure data capture and management

Putting operational excellence at the service of the consumer

Achieving such operational excellence means that the customer gets every bit of value from the technologies and processes that a business uses (as well as the business). This shift in thinking from what the technology can do to how it can serve the consumer’s needs is all important.

If a retailer can command these technologies from within the core of the business to structure, organize, share and understand the data that customers generate, it can use those insights to invent new factor combinations that have not previously existed but are directly relevant to customer needs and aspirations. That may include, for instance, revitalizing bricks and mortar stores by integrating them with a wide range of human and digital capabilities – from advice bots, apps and store navigators, to self-checkout and virtual reality, staff curated experiences.

Focusing on what consumers value is critical to this process. We see three fundamental expectations: make my life easier, make it feel better, or make it more fulfilling. These create three areas of opportunity for a retailer to become an integrated part of the customer’s life: become invisible, become indispensable, or become an intimate part of their life experience (someone the customer wants to spend time with). In brief, that means a retailer needs to be able to provide time-saving convenience that the customer does not notice (invisibility); solve pressing problems, often by teaming up with other partners (indispensability); and create rewarding experiences that draw the retailer into a customer’s circle of trust (intimacy).

Even if each customer expectation tends to lean toward one opportunity for the retailer, every new service or product will be a blend of those three value propositions. Retailers must develop the right mix for their business as well as the right blend of model and formats to deliver them, based on their strengths and capabilities. Having the power and flexibility to create and manage such complexities is key to unlocking true customer integration.
Delivering the three I’s – what does it mean for retailers to become:

- A time saver delivering invisibility
- A problem solver delivering indispensability
- An experience creator delivering intimacy

Become a time saver – delivering invisibility

Focus on **speed, convenience and efficiency** to save time for customers.

Minimize pain points in order **to seamlessly and invisibly integrate** into consumers’ lives.

<table>
<thead>
<tr>
<th>Integrating with the customer</th>
<th>Through auto-replenishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating the right experience</td>
<td>With frictionless buying</td>
</tr>
<tr>
<td>Simplifying the complex</td>
<td>With speed</td>
</tr>
</tbody>
</table>

**Technologies to deliver invisibility:**
- Automation
- Robotics
- Digital and AI capabilities
- Listening skills
- Data digitization
- Real-time data exchange in Cloud
- IoT in supply chain
- Grab and go
- AR-based in-store navigation
- Auto-replenishment shopping baskets
- with smart household AI with IoT
- Biometric payment

Become a problem solver – delivering indispensability

Create **personalized solutions** for customers. Bundle goods and services into **holistic packages that deliver outcomes** to specific consumer needs (don’t just sell products).

<table>
<thead>
<tr>
<th>Integrating with the customer</th>
<th>Be a trusted adviser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating the right experience</td>
<td>With personalization</td>
</tr>
<tr>
<td>Simplifying the complex</td>
<td>Via ecosystems</td>
</tr>
</tbody>
</table>

**Technologies to deliver indispensability:**
- Infrastructure to link front and back office and across network of supply partners and brands
- Cross-industry process operability
- AI capabilities
- Data and Analytics
- Real-time data exchange in Cloud
- IoT in supply chain — product location for bundling
- Platforms
- Service orientation (optimization)
Become an experience creator – delivering intimacy

Focus on providing enriching experiences. Charge a premium (potentially) on sales because customers want to spend time shopping in digital and physical spaces.

Integrating with the customer: Be a lifestyle partner
Creating the right experience: With AR/VR gamification
Simplifying the complex: With humans augmented by tech

Technologies to deliver intimacy:

Integrating dynamic value propositions aligned to strategy

Increasingly, the technology that delivers value to customers is the same technology that runs the business. With both customer and operational data shared beyond siloes and accessible centrally, technology enables retailers to bring consumers credible value propositions – ones that are best rooted in the business’ own identity, integrated back into the business and relevant to their customers’ lives. Auto-replenishment, virtual reality experiences and click and collect partnerships, for example, work best in a framework that is meaningful to the way customers live and embedded in how the business operates. Without this context, they are in danger of becoming merely fancy, expensive add-ons that are difficult to scale and deliver questionable value.

That is why routes to customer integration must be delivered by strategies that are created in the context of the three value propositions. For those who see weekly grocery shopping as a chore, they will want to save time and will be happy to see online shopping baskets auto replenished, sensible digital navigation in store and perhaps an option to click and collect somewhere convenient on the way back from a school run. Someone organizing a party may enjoy using an app provided by their retailer that brings together local musicians, food, drink and venues under an easy-to-use umbrella to solve the problem. Or for those who want to check out the latest fashions, they may enjoy a trip to a store that offers augmented reality mirrors, virtual reality displays and integrated social media experiences to share with friends.

With a powerful suite of technologies that work seamlessly the opportunity for retailers to create compelling propositions that blend all three dimensions in ways that are most relevant to the consumer appears limitless – as the following examples show:

How a grocer could use technology to deliver the “invisibility” customers want

A retailer needs to be able to provide time-saving convenience that the customer does not notice (invisibility) helping them to:

Save time at the checkout

- Check-outs are frictionless with fast payment options – video capturing and facial recognition to do it automatically
- Grab and Go with computer vision and video analytics to analyze products customers pick in store and verify during self-checkout
### Save time in the store
- Always have fresh produce – advanced computer vision and machine learning identifies products past their best and informs staff
- Fine-tune forecasting so products are always in stock and the customer does not waste their time

### Save time choosing
- Make personalized promotions relevant using insights from 360° customer data
- Use AI to suggest recipes and auto fill shopping lists, to check availability, update preferences, e.g., to vegan options

### Save time online
- Auto-replenish shopping baskets for delivery using historical shopping data and AI
- Use smart household AI with IoT to manage and curate pantries

### Save time getting food home
- Automate picking in warehouse
- Fast delivery options and shorter “at home” windows – route optimization modeling

### How a hardlines retailer could use technology to deliver the “indispensability” customers want

A retailer needs to solve pressing problems, often by teaming up with other partners, to make life better for customers (indispensability), offering:

#### Inspiration to make life better
- Provide access to specialist people for advice and design expertise, e.g., interior designers, sound and light technicians, computer technical staff, garden design
- Showcase the best from start-ups to bring you the latest innovations

#### Practical help to make life better
- Connect customers with trusted specialists and trades from builders, electricians, heating engineers, painters and decorators, etc.

#### Guidance to make life better
- Keep track of plans and costs in one place and use the data to recommend new ideas, partners and products
- Spot the upgrades and new products customers require as projects become more technical or specific

### How an apparel retailer could use technology to deliver the “intimacy” customers want

A retailer needs to create digital and physical spaces that customers want to spend time in (intimacy), that draws the retailer into a customer’s circle of trust, offering ways to:

#### Spend time finding out more
- Increase transparency across the supply chain so customers can find out where materials and inspiration come from
- Tell product stories to the consumer and use AI to show someone famous is wearing it now
Spend time making it my own

- Let customers customize clothing graphics or choose their own patterns, colors or images
- 3D print limited editions in-store and customize certain products

Spend time being inspired

- Install smart mirrors for customers to style themselves in your products
- Develop a virtual wardrobe that pairs what your customer has at home with a potential purchase, and remind them they already have one identical

Creating successful technology strategies to integrate into consumer lives

Retailers must bring together the technologies that serve customers with those that run the business to drive value for both, if they are to integrate into consumer lives. Here are five strategic considerations:

1. Deliver technology with humans at the center
   Technologies and processes are vital, but only half the story. Successful technological transformations require an approach that has humans at the center. Remember that customer data represents the real experiences of people interacting with the business – often with employees. Improving technologies and processes is a journey that brings along both customers and employees alike and empowers their relationships seamlessly and effortlessly.

2. Create a foundation of operational excellence
   Ensure the business’ core technologies and processes consistently meet the desired performance your value propositions demand. Once in place, it becomes easier to enhance offerings or deliver new ones with confidence that expectations will be met to today’s standards at the very least. Creating operational excellence is business critical and resource limited so focus the best people on these scalable projects to drive transformation at the heart of the enterprise.

3. Pool data to create one version of the truth
   Capture business data alongside customer data in a central data lake to holistically analyze performance, behaviors and trends. Provide access to master data across the entire business generating actionable insights to drive customer engagement and experience, and operational decisions and innovation.

4. Prioritize customer value above individual cost
   Focus on the profitability of the whole technology ecosystem and the contribution individual technologies make toward generating customer value. Looking at the profitability of individual technology projects in isolation will not give you a complete understanding of the contribution they make to the customer or the business. Use technology to build its own business case by understanding the systemic value it will bring to the enterprise, rather than building a business case for the technology in siloed initiatives.
Shift mindset
Enable executive management to control the technological transformation agenda so that agile pilots support the business’ long-term strategic objectives. Carefully consider the business’ own strengths and identity and create a values-based digital business model supporting a vision of the future. Leverage the complexity of technologies and processes to create new factor combinations and new value propositions that customers value.

Summary
To recapture the authentic spirit of retail, businesses need to integrate with the lives of their customers at scale. That entails following three possible routes: invisibility, indispensability and intimacy. Creating a business that meets those expectations demands operational excellence in core technologies and processes. Uniting the technologies that serve customers with those that run the business into a streamlined whole brings power, flexibility and relevance to its value propositions and empowers its people. Because operational excellence is enterprise wide, retailers can seamlessly blend those offerings and experiences at scale in ways that were previously unthinkable.