McKinsey & Company

The Modern Retail Collective

Accelerating retail technology innovation

In September, we opened the doors to the Modern Retail Collective, in partnership with Mall of America. The Collective is a technology-backed store in Mall of America that enables retailers to test and measure the impact of new technologies in a live, customer-facing space. We support the build, rapid test and learn, and analytics throughout. *[see sidebar for more about The Collective]*

The concept of retail technology transforming store profit and loss has been "right around the corner" for years and the past 18 months has offered tremendous progress. We have seen the focus shift from technology at the core to advanced analytics at the core, with technology becoming the enabler to collect or display the data. We have also seen movement towards interoperability and away from proprietary hardware and ecosystems, which bodes well for the industry. These advances give us confidence that several use cases are now ready for prime time.

Yet with this positive momentum, we do not see a commensurate increase in retailer experimentation. The proliferation and fragmentation of the solutions augmented with a lack of deep understanding on how they drive quantifiable impact are holding the sector back. We believe the Collective offers an opportunity to accelerate retail technology innovation by showcasing the power of technology, analytics and a change in store processes.
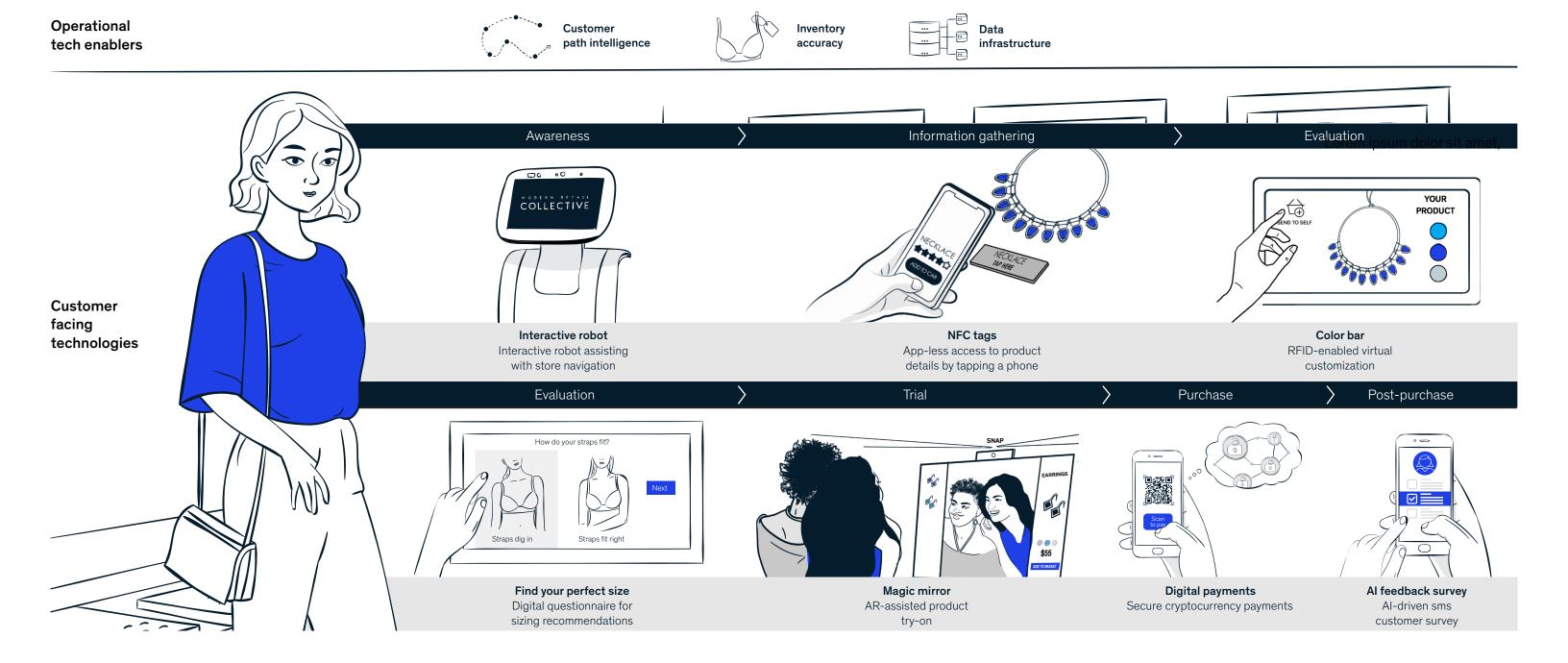
In our first wave of the Modern Retail Collective, we focused on testing technologies that enhanced the customer's product discovery journey (as seen in Exhibit 1). These technologies allowed retailers to collect in-store data they rarely have access to, including in-depth shopper journeys, active versus passive dwell time, and categories and products most browsed. It also allowed us a deeper understanding of how various customer segments interact with technology in different ways, and the benefits of getting it right (or pitfalls of getting it wrong). While we spent meaningful time identifying innovative technology providers, much of our effort was spent building the back-end infrastructure, creating an integrated data lake across technologies, and then harnessing the stitched-together data for tangible insights. This memo shares our largest lessons from our first wave.

What is the Modern Retail Collective (MRC)?

- The MRC runs in waves lasting approximately four months and brings together a unique ecosystem of collaborators to continuously test and learn

  – Mall of America: providing four thousand square feet of retail space, store design and staffing

  – McKinsey: supporting the build, test and learn, and analytics throughout

  – Retailers: three to five cohesively assorted brands, refreshed every wave

  – Tech providers: vetted technology providers to support the customer journey

- Wave 1 was focused on testing technology to enhance the product discovery journey and included four brands and over ten tech providers

- We have three guiding principles as we develop the Collective

  – The store should be brand and product focused to mimic a real environment, with technology in a supporting role

  – We prioritize lower-cost and nearer-in technology with higher potential return on inverstment that is realistic to scale across a full store network

  – The customer experience must be at the forefront with customers able to choose whether (and how to) engage and, with associates trained to help

Exhibit 1

Technologies in Wave 1 of the Modern Retail Collective

Operational tech enablers

Customer path intelligence

Inventory accuracy

Data infrastructure

Customer facing technologies

| Awareness | Information gathering | Evaluation |

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MODERN RETAIL COLLECTIVE

NECKLACE
ADD TO CART

NECKLACE
TAP HERE

SEND TO SELF

YOUR PRODUCT

Interactive robot
Interactive robot assisting with store navigation

NFC tags
App-less access to product details by tapping a phone

Color bar
RFID-enabled virtual customization

| Evaluation | Trial | Purchase | Post-purchase |

How do your straps fit?

Next

Straps dig in   Straps fit right

SNAP

EARRINGS

$55
ADD TO BASKET

Scan to pay

Find your perfect size
Digital questionnaire for sizing recommendations

Magic mirror
AR-assisted product try-on

Digital payments
Secure cryptocurrency payments

AI feedback survey
AI-driven sms customer survey

Lesson 1: Traditional store metrics are too myopic

The industry is all in on omni-channel, yet most retailers still primarily measure four-wall sales. As our data came in, we realized we were not measuring the right key performance indicators (KPIs). While store conversion is important, it paints too narrow and too short sighted a view.

We evolved to measure a broad set of omni-channel metrics – new input metrics and more comprehensive sales metrics. We factored in new input metrics, including email addresses collected and virtual shopping carts launched while in our store. For example, 45 percent of magic mirror (that is, augmented-reality-assisted product try-on) users who took a photo, provided their email to send themselves the photo. Traditional metrics do not account for the immense value of this data. In addition to the opted-in email address, we also have a deep understanding of this customer—the styles and colors they liked (or disliked), the price points they spent the most time on, and the item that finally raised the excitement level enough to send that photo. If this data is properly utilized, it allows a retailer to personalize the initial email outreach. As expected, our research shows a strong correlation between the relevance of an initial email to a customer and their likelihood not to opt out.

We also included a broader set of sales metrics, including ecommerce sales in the local zip code and, where possible, growth in sales of nearby stores. Some of our retailer partners saw key ecommerce metrics in the Bloomington, Minnesota, zip code outgrow the market by 5-10 percent.

This holistic set of metrics painted a very different picture of the role of technology and helped us home in on its impact.

Lesson 2: Measuring technology ROI requires a far deeper understanding of customers and the "commitment actions;" they take

When measuring the return of investment (ROI) of a technology, there is too much noise to rely on sales alone. We realized we needed a far more granular understanding of how customers shop and what role technology could play in this customer journey. Thus, we began measuring new quantifiable metrics of success, which we call "commitment actions." In other words, these are actions customers can take that help them engage with and become more loyal to a brand. Identifying these valuable commitment actions allows us to have clear and measurable metrics of success, to deliberately design the tech to drive these high value actions, and to provide tactical recommendations when training store associates (rather than asking them to "sell more").

For example, two competing technologies in the Collective drove commitment actions in distinct ways that a focus on conversion would not have uncovered:

- Magic mirror (that is, augmented-reality-assisted product try-on) was the clear winner at introducing shoppers new to the brand to the breadth of products. Nearly 50 percent of people passing the installation engaged with it, and as we shared earlier, a meaningful portion then shared a "selfie" via their email address. These customers often engaged with a broad set of products, with over 50 percent of sessions virtually trying on more than five products.

- Color bar (that is, radio-frequency-identification (RFID)-enabled virtual jewelry customization) created deep connection to a single product, but typically only for customers who were familiar with the brand. While the breadth of product did not compare to magic mirror usage, the depth of engagement was unrivaled. Twenty-five percent of users spent more than 60 seconds with 40 percent making over five customizations to the product.

Understanding this depth of insight is critical when a retailer is selecting the right technology. Are they looking to introduce new customers to the brand or drive engagement with loyal customers? It also informs associate training to include tips on how associates can encourage certain technologies based on the customer's familiarity with the brand.

As seen in Exhibit 2, commitment actions occur across the customer journey—from awareness to post purchase. The various commitment actions a customer takes throughout the journey, aggregate to a single, composite "commitment score" for that customer which ultimately leads to in-store or online conversion.

Exhibit 2
Commitment actions across the customer journey

Technology activation
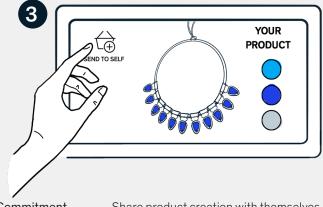
1

Commitment action

Enter store

Learn about brand story

2

Commitment action

Engage with product details, ratings, and reviews

3

Commitment action

Share product creation with themselves via email or sms

4

Commitment action

Try on breadth of product

Share photo with a friend via email or sms

Ultimately leading to...

In-store conversion

Purchase at other nearby stores

Buy online

Lesson 3:
Your customer loves and hates tech; get this wrong at your peril

We were told some customers would engage with the technology and others would not. Our initial customer satisfaction results seemed to back this up, with technology being a top driver of a positive experience and a top driver of a negative experience. However, upon deeper investigation we realized it was often the same customer that answered positively and negatively.

Further analysis of the data helped us realize that various customer segments engage with the technology and the associates in different ways. If the associate did not pick up on subtle cues that inform the customer's segment, the customer became frustrated. We had to learn from the data and then train store associates to know when and how to assist customers with the technology according to their segment, to ensure they have a seamless tech experience.

We found tech users fell into three distinct segments: "full-service experience" (5 percent), "help me only when I need it" (45 percent), and "just need a nudge" (50 percent)

Segment 1: Full-service experience (5 percent)

These customers wanted and needed store associate assistance throughout their entire tech journey. This often included an overview of the tech activation, a demonstration on how to use the technology, and support throughout the customer's session. These customers wanted to see the technology in action but wanted the associate to use their own device or the associate to drive the technology engagement directly. While this was heavy touch and involvement from the store associates, these customers were rare - only making up 5 percent of tech users.

Segment 2: Help me only when I need it (45 percent)

There was a much larger group of users that wanted to be shown what to do, and then checked in on over the course of their tech interaction. Most of the time, they would pull the store associate in only when they had questions. This group also became the most frustrated when technical glitches occurred, so it was important the associate was available to help on demand.

Segment 3: Just need a nudge (50 percent)

These are the customers who enjoy self-service. While this group was comfortable and often preferred to be on their own, we found value in small nudges upfront to explain or show the technology—but the store associates only needed that conversation once.

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Lesson 4:
A holistic set of changes in store is needed to support the technology

To capture full value from in-store technology, there are other in-store changes that are needed—across associate training and processes, store KPIs and incentives, and merchandising and format.

Associate training and processes: Associates' ways of selling must encourage tech usage and trainings must teach store associates how to pick up on shopper cues to influence how they engage with them. Whether that is to determine which tech-user segment the customer falls into, when it is the most valuable time to approach, or what product the associate can recommend (for example, if shopper builds a necklace using color bar, the store associate can recommend a pair of earrings that would match).

Store KPIs and incentives: As described earlier, a broader set of input and output metrics need to be tracked to truly measure the omnichannel journey. Associates should appreciate their impact on the customers' omni-shopping journeys and help drive the specific and measurable commitment actions in store.

Merchandising and format: Technology both provides new insights that must be accounted for and comes with limitations that must be addressed to capture the full value. For example, our customer-pathway data identified pain points in the natural customer flow which suggested changes in the location of our displays. Our tech-engagement data allowed us to understand which products shoppers were browsing to inform in-store product availability. For technology limitations, we found certain metals and packaging less conducive to RFID tags and therefore altered the product displays to account for this. We identified that our customer pathway data was most accurate if the shopper remained at least 3.5 feet above the floor and redesigned tables and chairs to account for this.
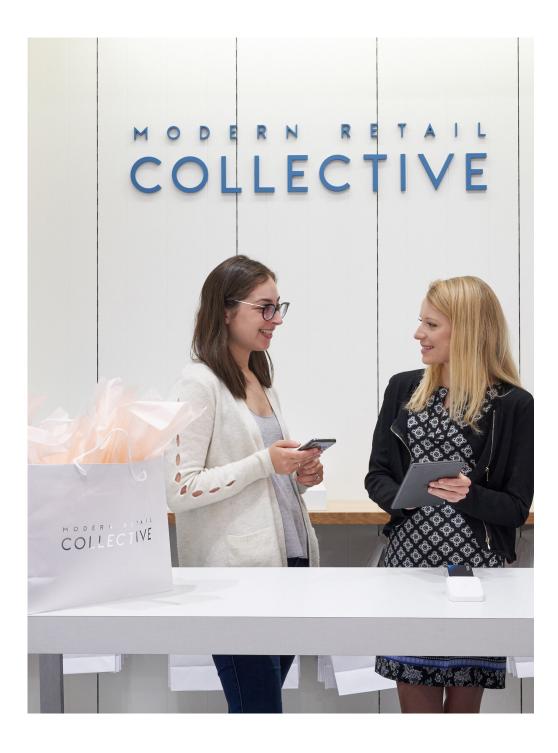
Lesson 5:
Traditional operating models will not work

Retailers are largely used to traditional governance models to drive change in the store—both in their internal ways of working and in their relationships with external providers. However, to successfully capture the full value of in-store technology, retailers will require internal cross functional agile teams and collaborative relationships with technology partners.

Internally, this new age of store transformation must be led across the C-suite, with sponsorship from analytics, merchandising, operations, and technology. In fact, many of the successful transformations we see for in-store technology enablement are led by a retailer's technology leads, rather than the traditional operations or merchandising functions. In addition, retailers need to motivate their teams to drive rapid experimentation and a "test and learn" mindset. At the Collective, we made enhancements to the technology, merchandising, and store processes nearly weekly to refine the customer experience and capture the full potential of the technology.

This transformation also often benefits from more collaborative relationships between retailers and external technology providers. While it is important for retailers to understand the solution's off-the-shelf capabilities, each retailer will require a unique technical integration with their existing technology infrastructure. With the right thought partnership between tech providers and retailers, technology providers are often uniquely positioned to help navigate and integrate across a retailer's complex ecosystem. It is also beneficial for retailers to understand the solution's road map and work with the technology partner to enhance the solution together. This ensures retailers continue to capture value and have input in improvements as the solution evolves. This kind of collaboration can be a huge boon for both parties in deploying, enhancing, and measuring technology solutions.

The retail sector is only scratching the surface in capturing the value of in-store technology, and we expect to see a step change in adoption in the next 18 months. Retail-technology innovation is no longer "just around the corner."

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