Retail 2030: The Tech Strategy to Power Retail Brands into the Future

Monstarlab

To meet the growing demand of customers for true omnichannel service, retail brands must make clear-headed decisions about what technologies to adopt. In a rapidly changing tech landscape, making the best and right choices are more challenging than ever.

This white paper offers strategic insights for retail brands looking to architect a future-proof tech stack that can drive customer and business success in the 'next normal'.

It draws on Monstarlab's deep expertise in the space, gained by working with some of the most well-known retail and D2C brands, including Forever21, IKEA, Louis Vuitton, Avon, UNIQLO, and more.

In this white paper you will learn:

- A brief history of developments in retail tech and the current challenges faced by the industry
- The emerging and established solution providers that are poised to drive business and customer success in the retail space
- The key aspects to designing an agile and flexible tech architecture built for the future
- A user-centred approach to adopting the latest technologies that can help your team identify opportunities to drive loyalty and growth

Shifting Landscape in Retail Tech

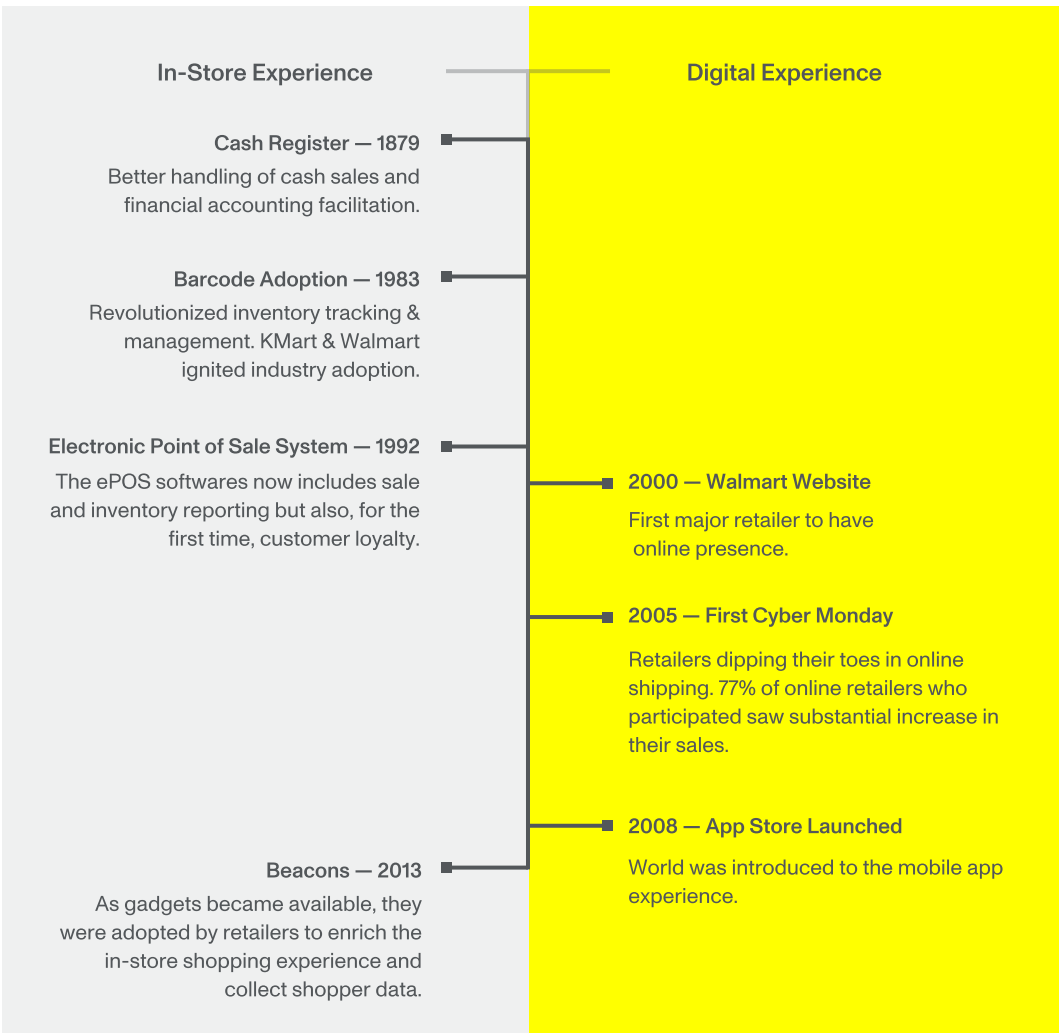
A look back: Key Moments in Retail Technology

The retail industry has been around for hundreds of years. And just like other major industries, it had its share of major disruptions throughout the years leading to today's highly digital and complex shopping experience.

To get a better perspective of where we are now and where we are headed, let us take a look back at major tech disruptions that shaped the retail experience.

Bifurcated Tech Era

From the 1990s to the mid-2000s, we have seen a clearer delineation between in-store and online retail services. This set-up allowed for some level of divergence of systems without much downside to the business and customer experience alike.



Technology has enhanced the in-person shopping experience. Shoppers were able to browse the shop, get well-stocked products, checkout, and even earn rewards while the businesses were able to efficiently manage operations.

Despite the uptick in digital channels, the retail experience was still confined to either physical or digital. Most, if not all, retailers view online as another means to get more customers to visit their stores.

Omnichannel Tech Era

The retail experience was revolutionized largely by the democratization of the internet and mobile data followed by the increasing affordability of mobile devices. All of a sudden, customers can interact with brands near real-time across a wide range of channels spanning brick & mortar stores, online shopping, social media and messaging. These brought new behaviours that will further shape the retail experience.

2010 — Omnichannel Concept was introduced

The concept was first introduced but did not get any traction until much later.

2013 — Showrooming Trend

Customers started to compare prices in-store then purchase cheaper options online later on their laptops. Seen as a threat by brick & mortar stores.

2016 — Webrooming Trend

Consumers compare prices between different stores online before making a buying decision and purchasing in-store. Highlighted importance of updated retailer digital channels.

2020 — Covid-19 Pandemic

Hastened the need to transition into a holistic omnichannel shopping experience to serve drastic changes in customer behaviours; the convenience of online shopping intertwined with a satisfying physical shopping experience.

Technology now plays a huge role in creating a digital ecosystem that will deliver the best-in-class customer experiences that the modern era demands. Retailers have to take a look at how their current technology stack looks versus what the customers are expecting in terms of the shopping experience.

Legacy systems from the early 2000s will not be able to support the fast-changing and highly demanding shopper. Unlike the early days when the tech options were somewhat manageable, now a flurry of new technologies leave many retailer brands wondering where and how to get started.

The Retail Tech Strategy of Tomorrow: A User-Centered Approach to Technology

When the time comes for the organization to sit down and take a look at the technology they would need, the first step is usually the hardest yet most critical. And with a flurry of available technology available in the market, it can be easy to get lost or even make tech acquisitions that later prove to be detrimental.

The process should begin with asking the question, “where do we start?”. The answer to that is to start looking at the potential users of the technology. Everything should start with the users.

And by users, we are not only referring to the end-customers, but also business and operations stakeholders, as well as brand partners. Each of them will also make use of the technology in some way that can either increase or alleviate pain points and should therefore have a stake in tech decisions.

The user-Centred Approach borrows from the design principle of the same name. This approach puts focus on the users and their needs in each phase of the process.

By adapting this to tech strategy we take into account not only the needs of retail customers but also our internal teams as synergy plays an important role in the development of a truly omnichannel experience.

Taking a look at what our users deem important puts us in a good place to start identifying what technology will move the business forward.

Shoppers have identified several important factors that lead to a great shopping experience. And at the top of the list are personalized customer service, online-offline Integration, and loyalty rewards. Today's customers expect and desire personalization from retailers. Epsilon research has shown that personalized customer service increases the likelihood of a customer making a purchase at 80% [11]. Which also ties in perfectly with the opportunity to build relationships and loyalty. Shoppers are willing to share data for loyalty points but would want a loyalty program that provides personalized offers and recommendations [12].

And rounding up the list is the expectation of a more seamless online-offline integration.

After the major challenges of the pandemic, shoppers now look for more options. They want to be able to purchase online then be able to pick up in-store or return an item purchased online to a physical facility. Internal stakeholders on the other hand are looking for technology that can support operational efficiency, interoperability, and agility. Operational efficiency is imperative in the fast-changing retail industry. Working to meet customer demands includes making sure that back-office operations such as inventory and supply chain are well equipped to deliver.

This then brings us to interoperability, especially on data. Systems in place have to be able to readily connect and exchange information to be able to support omnichannel capability. Having a cohesive digital ecosystem allows retail brands to provide better end-to-end customer service.

And finally, there's agility. Modern retail tech stacks have to have flexibility. This provides room for experimentation to streamline technologies or even allow retailers to quickly adapt when major disruptions take place in the industry.

Refresher: What is a tech stack?

A tech stack (technology or solution stack) is a collection of technology components or services used to develop and operate an application. It may include operating systems, protocols, databases, and functionalities built on top of each other in a hierarchy, hence the term "tech stack".

Retail Tech Strategy in Action: User Challenges and Emerging Solutions

Let's take the user-centred approach into practice as we take a look at customer challenges and the corresponding emerging tech solution providers. This should help you re-calibrate your mindset when looking at your specific customer needs and make the best technology choices that will eventually be your own tech stack.

a. User Challenge #1: Discovering the Best Items

One challenge users are encountering is sifting through loads of product content for a good period of time but end up purchasing nothing. Matching customers with the best-personalized items leads to a better shopping experience.

One example is a large European grocer who was able to personalize experiences through customer segmentations and running all transactions through a transaction engine that makes sense of the rich data. Allowing them to further create customer microsegments based on location, time, etc. and then the system optimizes promotions and offers on those bases. For example, daily shoppers who have coffee and lunch in-store will not be offered discounts, instead, they will be served to the other segments who are using the grocer's app as they walk by the store.

Emerging Tech Solution:
Big data and Machine learning

Making sense of rich customer data from omnichannel sources with machine learning allows extensive analysis, optimization of processes and even provides product recommendations. Danish company, Sitecore, is one of the leading enablers of personalized experience platforms using Artificial Intelligence and Machine learning.

b. User Challenge #2: Reward loyalty for shopping

Loyalty rewards have been a huge draw for shoppers for the past few years, but being offered the same rewards over time has taken the excitement out of it. Shoppers are starting to look for rewards that match their personalities and passion points.

Van's Family Loyalty designed its program to be able to provide immersive experiences to its customers. Points are not just earned through purchases but also through engagement with the community. They can spend points on exclusive content, member-only events, and most of all, they get access to exclusive patterns to customize footwear and accessories.

Emerging Tech Solution:
Big data and Machine learning

Closely related to the first challenge, personalization is also a key element of loyalty. Having a system that can take user data and identify behaviour and preferences will enable customized rewards. Cheetah Digital is an emerging player in providing an engaging and exciting loyalty program.

c. User Challenge #3: Make payment seamless

Payment when shopping online has proven to be easier compared to shopping in-store. But with omnichannel experience taking hold, customers are looking for that level of ease in-store.

A most prominent example of a seamless checkout experience is Amazon Go. Here users can come in, shop, walk out, and get charged without having to line up at the counter. Technologies that include cameras, weight sensors and Artificial Intelligence work together to detect items being added by the customers.

Emerging Tech Solution:
AI-based automated checkout

Tech startup, Standard Cognition, provides the tech solution that allows seamless shopping through high-powered cameras, image recognition technology, and artificial intelligence.

d. User Challenge #4: Make returns frictionless

Customers now look at the return experience as a key factor in determining their continued patronage of a retail brand. A UPS study has indicated that 7 out of 10 online shoppers' product return experience impacts their decision to buy again from a retailer [13].

Most shoppers, including online customers, prefer returning products to a physical store. 80% of customers prefer this method according to an NRF survey [14].

Emerging Tech Solution:
Product return ecosystem

Managing returns can be a logistical challenge to most retailers. Having a dedicated returns ecosystem can help make the process more efficient for both the brand and the customer experience. Loop Returns is one of a few solutions providers who specialize in returns who can help kick-start optimizing your returns operations.

e. User Challenge #5: Frictionless inventory management

Real-time inventory visibility has become a necessity in the omnichannel era. A Profitect survey found the 60% of Gen Z shoppers check a store's in-store stock availability before making a purchase. 20% even said that they will drop a retailer if their website indicates available stock but end up unavailable once in-store [15].

On top of real-time visibility, keeping up the replenishment of the right items at the right time is part of the challenge. It requires a good deal of system integrations and automation to achieve timeliness in ordering and dispatching.

Emerging Tech Solution:
Machine learning integration & system automation

System integration between operations and the supply chain is essential to have a real-time view of the inventory levels and the corresponding product demand. Anchanto is a tech solution provider that supports eCommerce logistics with its SaaS solutions and other integrations.

f. User Challenge #6: Easy customer service

Customers have grown used to interacting with digital assistants especially now that behaviour is leaning towards real-time interactions. Insider reports that nearly 40% of worldwide internet users prefer interacting with chatbots than with virtual agents.

Insider also predicts that by the year 2024, retail customers worldwide will spend up to $142B via chatbots.

UK's Very.co.uk AI-powered chatbot called Very Assistant was launched in September 2020 and has since answered 268,000 customer queries monthly. Very Assistant helps with tracking orders, accounts, and payments. Thanks to the chatbot deployment, very.co.uk has reduced customer service contact by 23% year-on-year.

Emerging Tech Solution: AI powered chatbots

Chatbots powered by artificial intelligence allow for smarter and more efficient customer self-service. Interactions can be personalized and therefore drive better engagement. Nuance is one of the top solutions providers for omnichannel customer engagement.

g. User Challenge #8: Meaningful and timely promotions

Promotions, although highly attractive, if executed poorly may be detrimental to the brand. It can diminish brand perception and customers may lose interest if they see too much of the same thing too often. It can also lead to reduced margins if customers eventually only purchase promos.

Promos, however, can be a powerful tool to influence purchase behaviour when done correctly like encouraging cross-selling. For example, a regular customer who purchases health products can be served a discount coupon to try a new organic shampoo.

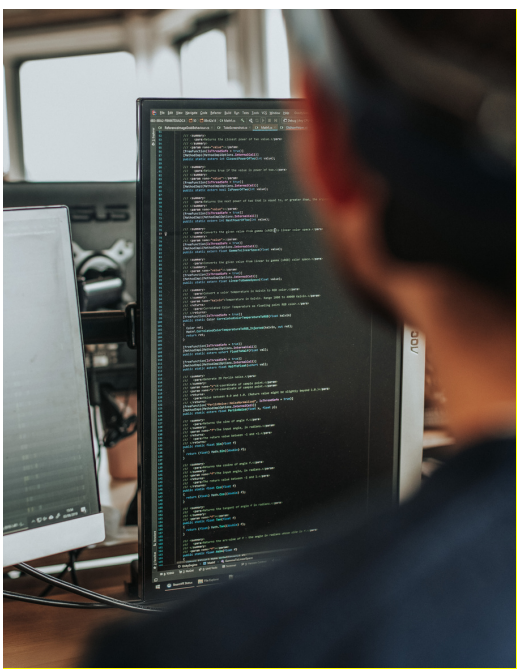
Emerging Tech Solution: Personalized deals and promos

Being served a personalized promo as opposed to a regular mass-market promo has a better chance of being availed due to its high relevance. It opens up opportunities to promote more products and increase basket size. RevLifter uses AI technology to deliver incentives and content with real-time personalisation.

Next Level Tech Architecture: Designing for Agility

The biggest, if not the most valuable, lesson that the pandemic has taught the industry is that agility and flexibility can be the difference between weathering the disruption or losing business.

From a technology architecture standpoint, having a tech stack that allows agile experimentation that enables quick pivots to address shifts in customer behaviour is essential to stay ahead of the curve.



In order to create such a structure, four essential elements have to be considered: Microservices, API-First, Cloud-Native, and Headless setup.

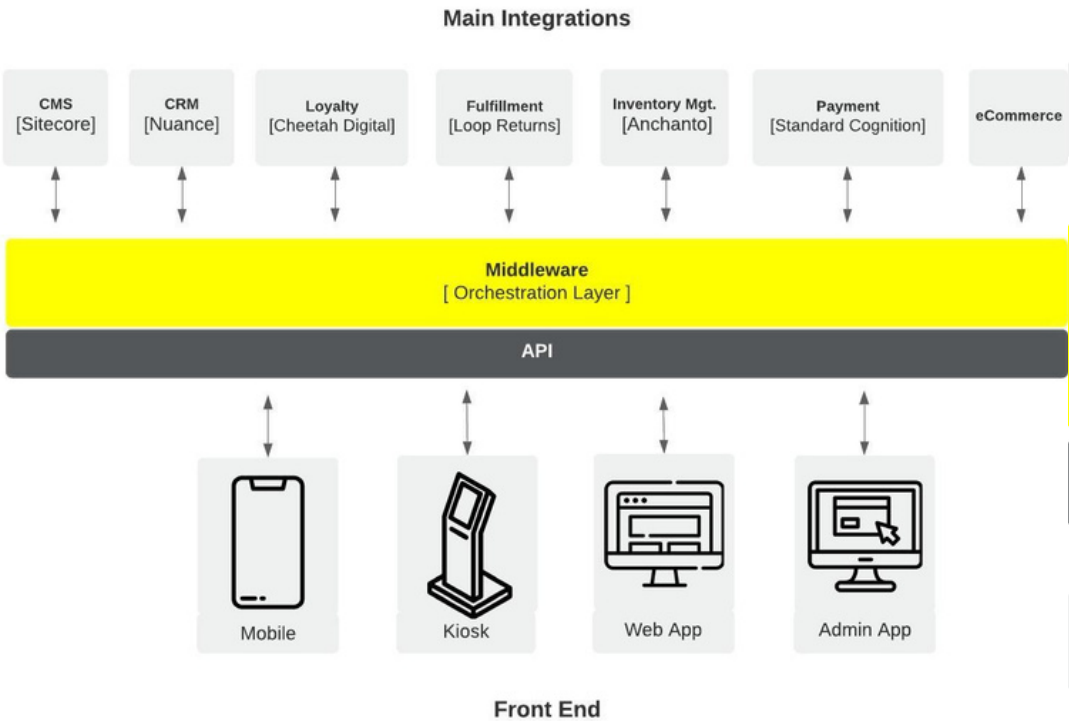
First is the microservices approach, which takes independent tech solutions with specific functions into the fold. This yields faster response times, quick updates and access to new features. Given the emergence of highly relevant tech solutions mentioned in the prior section, this approach can effectively and immediately help you address customer pain points.

Next is being API-first. APIs enable communication between systems, being the thread that binds the functionality between surrounding systems, the backend, and the frontend.

The third is being cloud-native, wherein all systems are developed and released on the basis of being in the cloud. This opens up new features, enables a more scalable infrastructure, and reduces the cost and hassle of maintaining an on-prem system

And rounding it up is having a headless set-up. In this approach, the front end and backend of your e-commerce solution are disconnected. This provides you with extreme flexibility in terms of user experience and makes it possible to tailor user interfaces to different channels.

Now if we take these four key elements of a flexible and scalable architecture and create a sample tech stack taking into account the user-centric approach and the highlighted tech solutions, we may come up with something like this:



> **"Addressing the "challenges of today" from a technology standpoint is indeed important as a business scales and evolves. However, a well-architectured tech stack underpins the business' roadmap thus allowing you to support and stay ahead of the curve and even be a disruptor."**
>
> - Yaw Dako, Monstarlab UK Technical Director

In this modern and fast changing era of global retail, agility is fast becoming a necessity. The past year and a half has proven to be a big challenge for the industry, exposing weaknesses even in the largest of companies. At this point, can you confidently say that your tech stack is built to surmount the next big disruption?

Conclusion: A User-Centered Approach to Retail Tech

Adopting and delivering best-in-class retail technology doesn't happen overnight. The key place to start is on the user problems your brand can solve at every stage of the customer journey.

By focusing on user problems, and building a flexible tech stack, you can operationalize experimentation with newer solutions that can solve the challenges faced by customers now and into the future.

A good tech stack has the flexibility to adjust and adapt when the need arises. And it should also allow a healthy level of experimentation to open opportunities for innovation and further optimization.

Technology can be overwhelming given the sheer number of solutions available, but when you take the key first step of knowing your users you are already in a good starting place.

How You Can Get Started

Often, having a partner from outside the organization helps put things in perspective. You can uncover challenges and opportunities you might have otherwise overlooked.

The same can be said with creating a best-in-class tech stack. Monstarlab's extensive experience with enabling global enterprises with technology gives us expertise that encompasses industries.

Our experts can help guide you through the first steps of the process.

We can do a Technology Audit to understand how your tech stack looks and how it stands against the demands of the market.

And we can conduct Customer Experience or Product Discovery Workshops to understand the desired brand experience and the right technology to achieve that.

The possibilities are endless.

Any questions? Talk to our experts.

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Connected Customer Experiences

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In this role as Director of Strategy at Monstarlab Americas, he partners with clients to drive digital innovation and organizational change, bringing deep expertise in product development and user research. With more than 10 years of experience at the intersection of strategy and design, he provides hands-on leadership to leading and emerging B2C brands, working with teams to launch award-winning products, services, and customer experiences.

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Images:
The Tech stack model on page 12 has been designed using resources from Flaticon.com. [mobile, kiosk, website, computer icons]