

Table of Contents

Executive Summary	
Introduction	
Consumer Experience is King	ξ
Consumer Journeys Show the Way	6
- Short Versus Long Consumer Journeys	
- Changing Consumer Behavior is Impacting Shopper Journeys	
- Personalizing Consumer Journeys Requires a Continuous Approach	10
- Pay Attention to Staff Journeys as Well	11
Technology as a Catalyst for Change	12
Storevolution: Design, Enable and Operate Consumer and Staff Journeys	13
- Consumer Centricity	14
- Store Digitalization	15
- High Connectivity	16
- Store as a Service	15
Next Steps on the Way to Meeting Evolving Consumer Demands	18
Sources	10



Executive Summary

Retail will be one of the most disrupted industries over the next 10 years, which is why retail leaders are urged to move their focus to **adaptability**. While changing the retail enterprise into a more adaptable one, the consumer experience has become king.

Consumer experiences very much depend on the flawless execution of the "consumer journey." This starts with an in-depth understanding of what a consumer needs, and a careful design of the activities, followed by an optimization of the interactions and touchpoints along the way. In the Age of the Consumer, personalized journeys—short and long—cater to individual consumers' needs, and as such have become central to how consumers perceive a retail brand.

A great deal of attention typically goes to supporting consumer journeys, however, the journeys store associates make are equally important. Staff journeys are zooming in on efficiency and service, and are essential for improving consumer loyalty by delivering better shopping experiences. With good reason, the majority of retail executives indicate that "empowering store associates" is a top priority for 2020. Staff and consumer journeys are increasingly intertwined, with technology as a catalyst and enabler for both.

Retailers need an adequate response to the continuous innovation in consumer and staff journeys. At Diebold Nixdorf, we have introduced **Storevolution™**, an overarching approach and program designed to help retailers adapt to constant change, with a focus on optimizing consumer experiences while lowering overall costs. As such, Storevolution supports retailers in designing, enabling and operating relevant consumer and staff journeys on a daily basis.

Storevolution is built upon four guiding principles that allow retailers to successfully navigate the new era of retail based on their brand:

- Consumer centricity: based on a consumer's individual needs, brand preferences and purchase history, retailers can design and enable appealing consumer journeys supported by an optimal checkout mix.
- Store digitalization includes all hardware, software and related processes to reduce friction in consumer journeys, making interactions between staff and consumers more efficient and thus lowering TCO for the store operations.
- High connectivity offers consumers an end-to-end connected shopping experience, regardless of whether the journey started at home, on-the-go, or in the store. Based on openness and an Open Retailing platform strategy with a set of standardized APIs for faster and easier integration, it provides retailers with a choice to employ a collaborative multivendor strategy.
- Store as a Service lets retailers stay in control of the complexity of a multivendor IT landscape with many different in-store touchpoints. Based on proactive, remote maintenance and a globally standardized service, this final guiding principle of Storevolution ensures consumer and staff journeys stay "always-on" while focusing on maximum efficiency and reduced TCO.

Storevolution is not a silver bullet that conquers all challenges that lie ahead. Rather, Storevolution itself is a continuous, iterative journey towards maximizing store efficiencies and improving the consumer experience. And this is a journey that we as Diebold Nixdorf would like to embark on together with you as retailer!





Consumer Experience is King

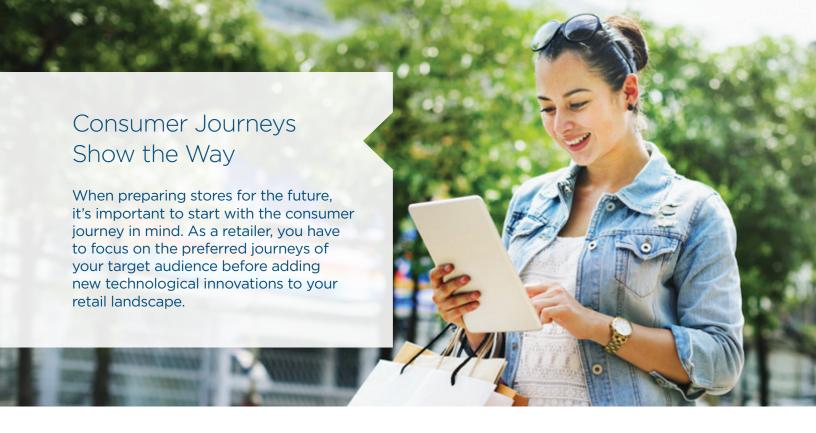
It goes without saying that for most retailers, the compass to base their course of action on is the consumer. Consumers dictate how they want to make a purchase: where and when they shop, how they pay, how and when it is delivered, and what after-sales service they would like to receive. Yet although in many cases consumers are a retailer's true north, it is far from certain what consumers want exactly. Whereas 10 years ago, retailers were looking into multi-channel solutions, soon to be followed by cross-channel retailing solutions, this is now irrevocably passé.

Today, it is all about the *consumer experience*. The in-store consumer experience is what sets one store apart from the other, and we see that consumers are shifting their spending priorities from product to experience.² Or according to Shep Hyken,³ "Consumer experience rises to the top of whether or not the consumer will decide to keep doing business with a brand." Regardless of the communication and sales channels used, consumers expect flawless service, they expect to be known and served "on demand."

"The channel landscape undergoes tectonic shifts and channel borders become insignificant"

- Future Retail Disruption 2019/2020, EDGE by Ascential²





Why are consumers shopping: is something broken which needs replacement? Are they looking for a quick bite on-the-go? Or are they on a tight budget and hence searching for the best "bang for the buck" to outfit the family at Back to School? Whatever the driving force behind their intentions, it is essential for retailers to be able to cater to them. Understanding the consumer and offering suitable "paths to success" will be highly instrumental. It paves the

way for designing and enabling the ideal consumer journey—i.e. ideal from the perspective of this particular consumer, as different consumers can have different ideal journeys they want to make. It's definitely no longer a "one-size-fits-all approach": in the Age of the Consumer, it is all about individual consumer needs and offering personalized journeys to reach the desired destination on time, within budget and, preferably, with a smile!

Consumer Journeys Typically Start Outside of the Store

In a study⁴ of more than 15,000 grocery shoppers carried out by Nielsen and commissioned by Diebold Nixdorf, we found that most consumer journeys have started long before a shopper enters the store. Of the shoppers surveyed...



create a shopping list for their grocery shopping beforehand (at least sometimes)



check the availability of items in stock online before they go shopping (or would be very interested to do so)



consult the retailer's website (at least sometimes) before they go shopping



have at least one grocery retailer app installed on their smartphone¹

¹⁾ Base: Smartphone users visiting retailer websites at least rarely, n=11,727). Source: Nielsen, Grocery Shopping Consumer Survey, December 2019, Online Survey, n=15,004. Commissioned by Diebold Nixdorf.

Short Versus Long Consumer Journeys

Not every journey is the same. According to Philippe Dauphin, Vice President Retail at Diebold Nixdorf, retailers should differentiate between short consumer journeys and long consumer journeys. Short journeys are dominated by efficiency, long journeys by emotion. As a result, consumers on a long journey expect to get a high-quality shopping experience, e.g. by having personalized promotions, instant benefits integrating their profile or even a dynamic basket analysis, or benefiting from assisted selling from qualified store associates. On the contrary, short journeys are all about efficiency and saving time. Especially in smaller households, time to spend on shopping is rather scarce. According to EDGE's February 2020 edition of its Global Convenience Channel Report, 5 sociographic factors impact shopping behavior: "As household sizes shrink, consumer behaviors will shift away from both regular cooking and big weekly shopping trips, driving fast and frequent convenience shopping missions close to home and online."

Short and Long Journeys

Based on the Nielsen Grocery Shopping Consumer Survey⁴ commissioned by Diebold Nixdorf, we found that the average amount of time shoppers spent was related to the type of shopping trip.



Shoppers, on average, spent 50 minutes when doing their regular grocery shopping.



24 Min.

On average, shoppers spent only 24 minutes for top-up shopping trips.



When visiting a brick-and-mortar retail store to shop for items for immediate consumption, the average time drops to just 16 minutes.

Source: Nielsen, Grocery Shopping Consumer Survey, December 2019, Online Survey, n=15,004. Commissioned by Diebold Nixdorf.



In this light, consider reading Arvin Jawa's article on Total Retail, in which he states that of all things, the shopper is most interested in getting back what he or she values most: their time.⁶ Funny fact: furniture giant IKEA just announced a "Buy with Your Time" campaign for its Dubai-based store, where consumers can get their travel time to and from the store reimbursed via a discount on their purchases. All the consumer needs to do is show IKEA checkout staff their Google Maps timeline. The app details how much time they've spent travelling to the IKEA store, which can then be redeemed for products.⁷

"In a short journey, the consumer has a limited timeframe in which to shop. He or she just wants to buy a few pre-determined items, bag them, pay in a fast checkout lane and leave the store as soon as possible. Long journeys, on the other hand, are all about the consumer experience. The consumer has more time to shop, yet also demands more from this encounter with the retailer or brand."

— Philippe Dauphin, Vice President Retail, Diebold Nixdorf

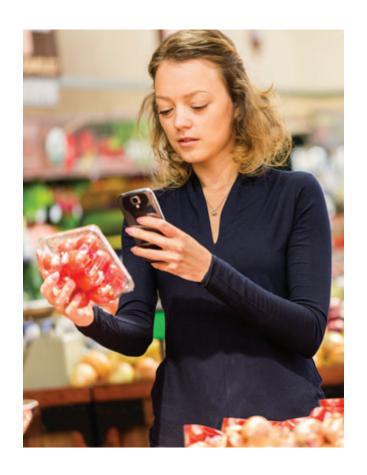


Changing Consumer Behavior is Impacting Shopper Journeys

Retailer brand loyalty is eroding, as smartphones and tablets have made the world transparent in terms of choice, pricing, quality and peer reviews. This coincides with a trend for more ethical and sustainable shopping, in which people tend to care less about where they shop, and more about **what** they buy, how and where it is produced, and how it impacts the environment.

Demographics also appears to have an impact on consumer behavior. As average life expectancy rates are increasing, consumers are getting older while living in smaller households. In both the U.S. and in Europe, the number of households is rising, while nearly two-thirds of all households consist of either one or two persons. At the same time, younger generations of individualistic, urban dwellers are living life "in the fast lane," i.e. cooking less and socializing more, seeking experiences and adopting faster, on-the-go lifestyles.

It is clear that changing consumption behaviors are impacting how consumers want to go about their "shopping journeys". This, in turn, requires adaptability and flexibility of a retail business to be able to give the right response on time—one which serves their consumers as well as their own business in the best possible way.



Access to Information Changes Consumer Journeys

The Nielsen Grocery Shopping Consumer Survey⁴ indicated a shift of interest in or use of a mobile device while in-store in order to obtain additional product information (e.g. source of origin, allergens).

GenX/Baby Boomers 35%

interested in or are already using a mobile device in-store to obtain additional product information

Millenials/ GenZ

56%

interested in or are already using a mobile device in-store to obtain additional product information



percentage points difference

indicates a clear shift in shopping consciousness and associated desires for instant product information.

Source: Nielsen, Grocery Shopping Consumer Survey, December 2019, Online Survey, n=15,004. Commissioned by Diebold Nixdorf.



Personalizing Consumer Journeys Requires a Continuous Approach

According to RIS the number-one strategic priority for retailers for 2020 is "personalizing the consumer experience." Retailers can indeed influence journeys based on a deep understanding of each consumer—and consumers appear willing to trade their data in exchange for the benefits of a more personalized journey. Based on the aforementioned Nielsen Grocery Shopping Consumer Survey commissioned by Diebold Nixdorf, 37% of the respondents would be willing to share their shopping list with a retailer in exchange for personalized discount coupons for items they have on their list.

Many retailers are making serious inroads to further personalize the consumer journey. Take for example an international retailer who offers personalized discounts based on a shopper's past purchases. This is not a one-time exercise—the underlying system continuously learns from each purchase to ensure that the observed consumer preferences on file reflect changes in purchase behavior as soon as they occur. Another example is a European fashion retailer that offers personalized promotions and rewards based on previous purchases, which can be redeemed either online or in-store. By linking to previous choices and areas of interest, the fashion retailer expects a higher rate in return visits and thus continues to strengthen the relationship with its consumers.



Pay Attention to Staff Journeys as Well

It's no surprise that most attention goes to the **consumer journey**. However, it is important to realize that **staff journeys are also as important**. According to RIS, 53% of retail executives polled indicate that "empowering store associates" is one of their top priorities for 2020.¹¹

Staff journeys are fully focused on efficiency and service while keeping a keen eye on costs. For example, staff journeys can be deployed for queue busting, or for assisted selling supported by online product information.

Retailers can optimize the shopping experience for the consumer by designing and enabling staff journeys in such a way that staff is at the right place at the right time to best serve the consumer. For example, an effective shelf-replenishment process is key for a positive consumer experience, for a consumer to find an item out-of-stock, even temporarily, is a "no-go." In fact, according to the Nielsen Grocery Shopping Consumer Survey, both waiting in the checkout queue [37%] and out-of-stocks [36%] are at the top of the list of annoying shopping experiences.

Restocking is a "necessary evil" that has to happen fast and preferably during the least busy times of the week. Supporting this staff "replenishment journey" with retail-hardened, mobile tools to optimize this process is already widely used. For example, the store manager can analyze item sales levels during the day to flag items that need replenishment first.

The manager can also analyze peak versus off-hours, to determine when to avoid replenishment activities. This can be combined with an optimal staffing schedule using temporary help to minimize the replenishment time while lowering the total cost of ownership (TCO) for the retailer at the same time.

Another great example of a staff journey that improves the consumer journey is Tesco's "Call a Colleague" service. This European grocery retailer has deployed several self-service kiosks across its Tesco Extra stores. These kiosks allow shoppers to call a staff member for help, e.g. when the shopper cannot find an item. After having called for help via the kiosk device, the shopper receives a service ticket and can watch the status on a TV screen until a staff member arrives.¹²

Mobile devices play an important role in the staff journeys. For price checks and questions from consumers about item reservations, for barcode scanning and temporary queue busting, or for communicating with other store associates, mobile staff devices contribute to a major change in the retail landscape. Moreover, with the ever-decreasing cost and miniaturization of mobile devices, we foresee the day when all staff will be connected.



Technology as a Catalyst for Change

Technology can be both a catalyst for change as well as the answer to many of the challenges faced by retailers today.

With the rise of e-commerce, physical store retailers were challenged to offer the same breadth of assortment as their online competitors while keeping stock costs at an acceptable level. One of the answers is found in BOPIS (Buy Online, Pick-up In Store). Another alternative some retailers use is "endless aisles" in which consumers can browse through product categories using a touchscreen device in the store, and order the item immediately online from within the store.

told us that they would rather use a self-checkout lane if

there was a queue at the staffed checkout lane. So, in

essence, all shoppers could eventually be found in a

Another challenge, instigated by the online economy of being always "ready to order," is that retailers must look for alternatives for how to offer affordable 24x7 opening hours. Perhaps not surprisingly, online giant Amazon pioneered this concept when it decided to expand from online to physical retail stores, by introducing fully automated "cashier-less" self-service stores with cameras detecting what items someone puts in their bag before leaving the store again.

What Does a Typical "Self-Checkout Shopper" Look Like?

There are a number of shared characteristics that distinguish shoppers who prefer a self-checkout lane from traditional shoppers who prefer a staffed checkout lane. The "typical" self-checkout shopper is:4







Very time-conscious, i.e. not willing to spend more time in store than required



Opting to use a card for payment: in fact, 73% still prefer self-checkout even if it would only accept cashless payments



More likely to check online whether a product is in stock before they even enter the store



More willing to adopt mobile payment options in the future

Source: Nielsen, Grocery Shopping Consumer Survey, December 2019, Online Survey, n=15,004. Commissioned by Diebold Nixdorf. Base: Shoppers with self-checkout preference, n=6,200.

These examples challenge a retailer to literally think "out of the box." Supporting new types of consumer journeys as well as staff journeys requires a fundamentally different approach—and a different way of thinking for retailers. It requires an approach that supports constant change and adaptability, and a relentless focus on optimizing consumer experiences while lowering overall costs. This thinking—and how to operationalize it in retail stores—is called **Storevolution**.



self-checkout lane.

Storevolution: Design, Enable and Operate Consumer and Staff Journeys

At Diebold Nixdorf, we have developed an overarching program and approach to support retailers to keep up with this continuous process of change. We call this **Storevolution**.

The Storevolution program helps retailers understand and address key trends and innovations happening in retail today **and** tomorrow. Storevolution as such supports retailers in designing, enabling and operating frictionless consumer and staff journeys on a daily basis.

Storevolution is built around **four guiding principles** for retailers to focus on in order to successfully navigate the new era of retail based on their brand:







Store Digitalization

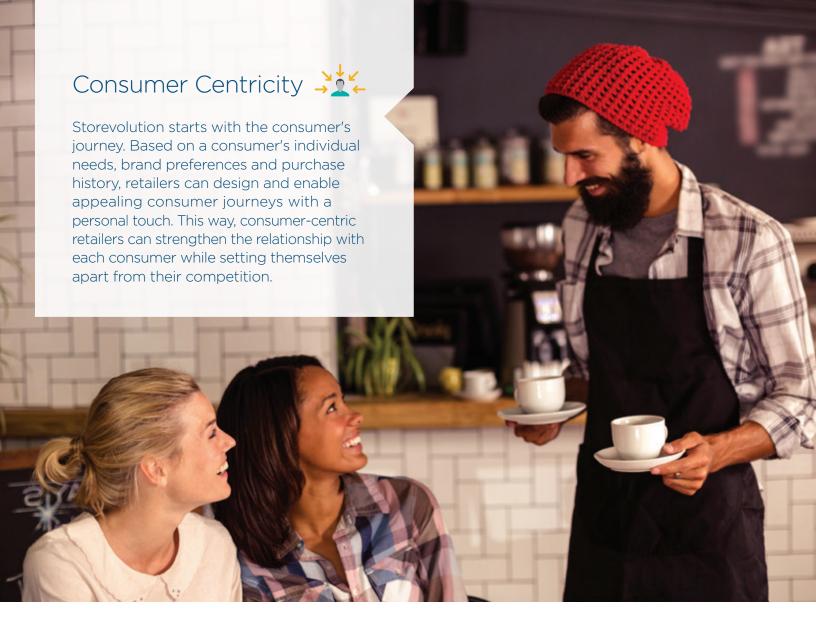


High Connectivity



Store-as-a-Service





In a consumer-centric world, thinking in terms of store boundaries only is no longer relevant. The future is about weaving online and offline (020) experiences together, by centralizing and sharing the same business logic to provide a consistent, frictionless consumer experience. Understanding and applying data has become a crucial element in designing and enabling consumer-centric journeys without any boundaries. On each touchpoint or interaction point, retailers will benefit from collecting consumer data to gain a better, deeper understanding of consumer preferences. This deeper understanding of each consumer can lead to many different improved interactions, from real-time recommendations to personalized discounts and preferred delivery options, up to even a personalized user interface on the self-checkout device that shows the consumer's favorite payment option highlighted on the touchscreen.

At Diebold Nixdorf, we have a dedicated team of specialists who support retailers in becoming more consumer-centric by analyzing the data and strategy from a retailer's existing store checkout process, including key friction points. As part of this analysis, data is leveraged to create consumer profiles and determine what a "good shopping experience" looks like for these consumers. Based on real-life observations in the store and underpinned by a thorough business case and various simulation scenarios, our Storevolution Advisory Services team can materially optimize the consumer experience, with specific focus on defining and implementing the optimal checkout mix.





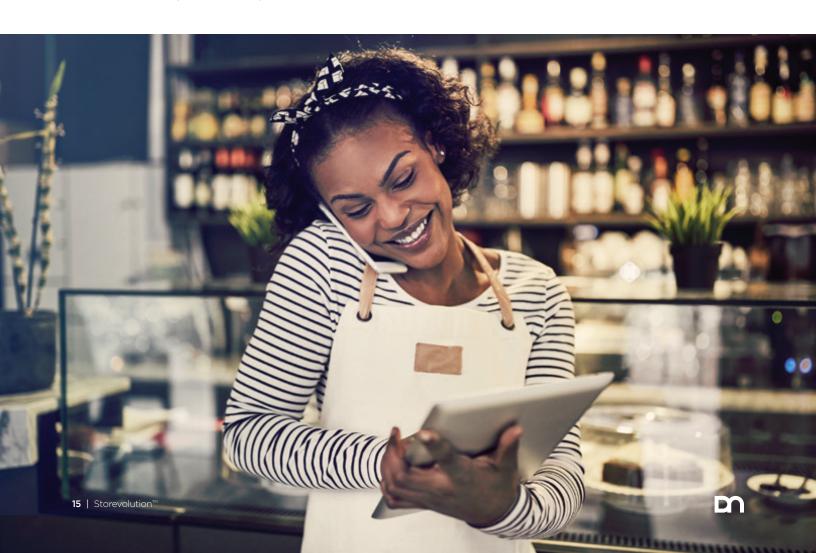
IKEA, one of the best-known home furniture brands in the world, is always keen on introducing new shopping experiences that better meet the needs of their consumers. For IKEA customers, efficiency and convenience are key, especially in the restaurant area where they want to be served quickly. That's why the retail giant has introduced iTray, a sophisticated "automatic food recognition system" combined with a self-checkout solution. 13 This award-winning self-checkout solution is based on Diebold Nixdorf's self-checkout technology. Using artificial intelligence (AI), cameras and sensors, the consumer just has to place the tray under the sensor and proceed with the payment; within seconds the device will automatically recognize the items on the tray, without the need to scan barcodes or manually enter the items. This solution benefits both the consumer journey—no more gueues. faster checkout and more convenience; as well as the staff journey, where staff time is now freed up to better service consumers. It will come as no surprise that with iTray, IKEA Italy won the EHI reta award for the best in-store technology solution in retail.¹⁴

Innovative solutions like iTray require a well-thought-through store digitalization concept, encompassing all equipment, software and related processes to help reduce friction in the

consumer journeys. Store digitalization supports staff while fulfilling consumer service journeys, making consumer interactions more efficient and, in the end, lowering TCO for the store operations. It also allows retailers to systematically collect data on consumer journeys to optimize consumer experiences while removing friction as much as possible.

Store digitalization is all about using technology—meaning hardware, software and services—to design and enable better journeys for consumers and staff. E.g. self-service technology, but also digital apps and mobile self-scanning solutions fall into this category.

Since no one knows for sure what the future will look like, flexibility built in into the store digitalization is a critical success factor. Modular and open retail solutions allow retailers to easily deploy different combinations of store technology in order to meet the needs and wants of today's and tomorrow's consumers. With flexible store technology based on openness and modularity, it will be possible to quickly exchange or extend components while avoiding unnecessary divestments.



High Connectivity

Retailers frequently need to integrate new technologies and touchpoints into their existing brick-and-mortar stores. Traditional retailers, unlike start-ups in online retailing, need to do this carefully to preserve investments already made in the existing technology landscape. This is often a huge roadblock to innovation.

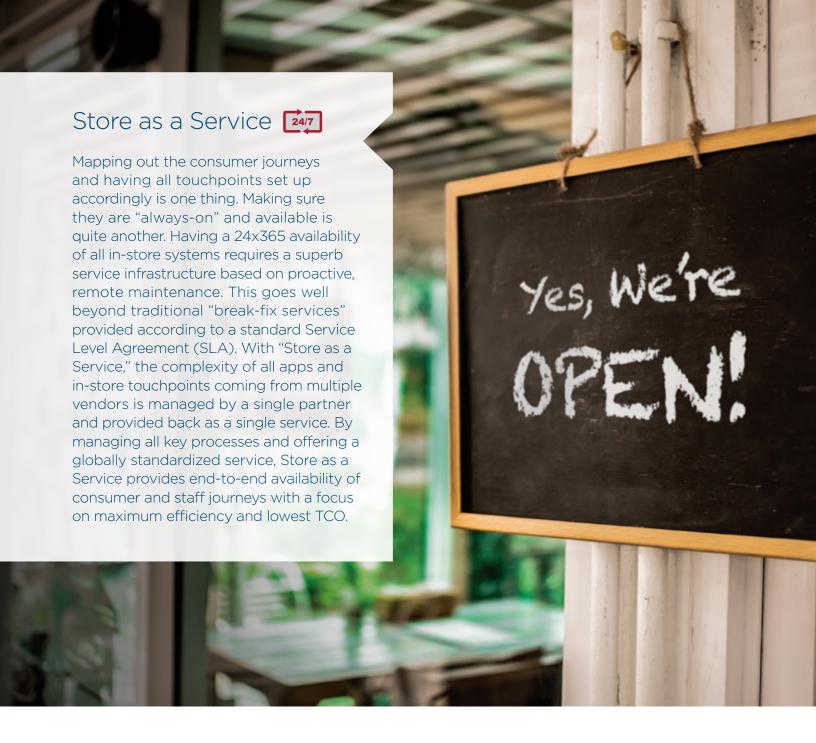
Having the ability to seamlessly connect with existing solutions—regardless of who the supplier is—is another guiding principle of Storevolution, and it's crucial for store owners if they want to innovate. The adoption of open technologies is important because no single vendor has a monopoly on all the technologies needed to facilitate a consumer journey. High connectivity enables an optimized, collaborative multivendor strategy, providing retailers with a maximum degree of freedom to choose their preferred vendors and solutions that best match with their strategy and with the consumer journeys they choose to support.

Storevolution is not meant as a way to predict the future, but rather to help "future proof" today's investments. That is why openness is needed. Journey experiences can be optimized via an Open Retailing platform strategy. This allows retailers be more "adaptive" and ready for future changes, whenever they may arise. It enables retailers to offer an end-to-end, connected

shopping experience, regardless of whether the consumer journey starts at home, on-the-go or in the store. By weaving online and offline (020) experiences together, retailers can ensure consistent, frictionless journeys wherever the consumer is at that very moment.

High connectivity and Open Retailing are based on a platform approach with a set of standardized APIs for faster and easier integration. This enables a modular software platform that doesn't require complex integrations to be done for each checkout type. It minimizes integration efforts and simplifies change management. Standard interfaces allow you to streamline the integration with third-party software solutions, enable future migrations and have a future-proof solution. This lets retailers evolve along with their consumers' evolution, keeping pace with changing demands in how to shop and pay.





A leading UK-based grocery retailer with roughly 3,000 stores wanted to increase the opening hours for its convenience stores, so that the stores were open from 6am to 11pm every day of the week. At the same time, the retailer was looking for a solution that could adequately manage consumer demand during peak trading hours. The grocery retailer had already deployed several thousands of self-checkout (SCO) systems but found that store staff was still allocating a significant portion of their time to helping self-service consumers check out. Numerous interventions, like age-restricted items and items not recognized by the SCO system, had taken up a great deal of time for the store's staff, and truly sub-optimized their efficiency.

In order to solve this, the retailer implemented Diebold Nixdorf's managed self-service solution for all stores equipped with SCO technology. This **Store as a Service** offering consisted of proactive, remote maintenance of their in-store hardware touchpoints. The result was a dramatic improvement in service-call diagnostics, faster call resolution, higher "first-time fix" rates and a 30% reduction in SCO interventions by staff. Thanks to an uptime of more than 99% for all checkout devices, staff could now focus on servicing consumer journeys rather than fixing issues, leading to an increase in consumer satisfaction and a reduced TCO, saving the retailer several millions of pounds a year!





Retail is evolving, as consumers are evolving, and consumer experience is king. This demands retailers to act based on a **business philosophy in which continuous change and adaptability is embedded**, using a **program** that facilitates this in the most flexible and controlled way.

Storevolution offers both, and equips retailers to be—and stay—successful in the Age of the Consumer. Based on a vision in which the consumers and their shopping journeys are at the forefront, Storevolution offers retailers all the necessary tools, data and processes to design, enable and operate relevant consumer and staff journeys on a daily basis.

A final comment: Storevolution is not so much about finding the silver bullet to conquer all challenges that lie ahead. We believe Storevolution is, first and foremost, about **adaptation and evolution**. As such, Storevolution itself is a continuous, iterative journey. Together with you, we would like to embark on **your** Storevolution journey. In an open, adaptive environment, and with strong collaboration as business partners, we look forward to working with you on the next steps towards maximizing your store efficiencies and improving the consumer experience!



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