

# Intelligent Mobile Devices Pave the Way to the Future for Retailers and Food Service



Retailers have been under pressure in recent years to adopt new technologies that will make them nimbler and enhance the customer experience. They need to meet shopper demands for the convenience to switch between online platforms and brick and mortar stores – sometimes for the same transaction – to complete a purchase.

Pressure to change intensified for retailers in early 2020 when the fast-spreading COVID-19 pandemic forced businesses to adjust quicker than they expected. Suddenly, aspirational capabilities such as click-and-collect capabilities became immediate requirements. As stores and restaurants closed their doors in efforts to contain the virus, practices such as curbside pickup and BOPIS (buy online, pickup in store) became the only options – at least temporarily – to maintain business operations. Many retailers and restaurants were unprepared for the sudden change.

While some were already investing in technologies such as AI-driven mobile applications and in-store robots, kiosks and self-checkouts, the crisis created urgency to adapt to new or modified processes. Much of those newly adapted processes revolves around the agility to receive orders electronically for curbside, in-store pickup or home delivery. Suddenly, employees started having to juggle multiple roles, including some they didn't have before.

Employees in retail stores and restaurants who might have worked behind a counter or waited tables now must meet customers outside and take orders by phone. Mobile technology can help them be more efficient and productive in the form of enterprise-grade, multifunction devices that allow them to seamlessly switch from one task to another. Ruggedized mobile PDA devices are useful in a multitude of functions, including notifying stores when customers arrive at curbside, connecting with inventory systems to keep shelves stocked, verifying order shipments and deliveries, and supporting contactless transactions. Businesses that invest in these devices can adjust more quickly to new business practices and requirements.



## Trusted Mobile Generation

Rugged devices traditionally have been purpose-built, performing functions for specific jobs or industries. But a new generation of devices have arrived on the market with powerful processors, messaging capabilities, crystal-clear displays, cameras, scanning functionality and a host of other features. APIs allow customization of the devices for specific applications while still delivering multiple other functions. Especially of note are devices that offer innovations such as wireless charging and a secondary display designed for maximum efficiency.



## Wireless Charging

Handheld mobile devices traditionally require cables or docking stations with contact pins for charging. However, charging contacts are the #1 cause of failure and maintenance for such rugged devices. Rough and constant handling by users end up damaging the contact pins on the devices or chargers, rendering them unusable. Dirt and dust also cause damage. Furthermore, charging contacts become receptacles for dust accumulation and microbial growth; wireless induction charging eliminates this risk, helping to achieve newly heighten sanitizing measures. Fixing broken units increases the devices' total cost of ownership – a problem that goes away with wireless charging.

## Hands-free - purpose-built notifications

Another innovation worthy of consideration when choosing mobile devices is to choose a model with a secondary display at the top edge of the device. The display faces up when a device is holstered. When a message arrives, users don't have to interrupt what they're doing because they can read it with a quick glance at the display and prioritize as needed. This hands-free notification capability is particularly valuable in high-pressure, fast-paced environments such as takeout restaurants and retail curbside pickup.

### Enhanced Cleaning Measures

Retailers are all called upon to pay extra attention to cleaning devices and surfaces, especially those with higher human exposure. Harsh cleaners and chemicals can cause components and enclosures of devices to become discolored, weak, brittle and lose integrity. Mobile devices with disinfectant-ready housing that can sustain increase cleaning with certain harsh chemicals will be essential. Disinfectant-ready models can withstand more aggressive cleaners/detergents than the CDC recommended basic solutions.



# RETAIL: CHANGING HABITS

Retailers always look for new ways to leverage innovation, so they can succeed into the future. They must adapt to new shopping realities, like considering the effects caused by the pandemic today, or risk losing business. Consumers, whose habits have been shaped by the convenience of online shopping, have become more demanding when shopping in stores. For instance, a recent survey by Shekel Brainweigh Ltd. revealed that 87% of shoppers would rather shop in stores with touchless or robust self-checkout options. And as a result of the COVID-19 pandemic, consumers are less likely to visit stores for non-essential trips<sup>1</sup>. Nearly one third (30%) of consumers in another survey said they've eliminated non-essential trips to stores, and 52% said they have heavily reduced their trips<sup>2</sup>.



*Queue-busting expedites the checkout process reducing customer waiting time.*

## Checkout

Adapting to the new customer behaviors and expectations requires rethinking business practices. Shoppers conditioned to the convenience of online ordering don't want to stand in line and will expect options with less contact. While stores are looking to increase customer rotation in order to keep capacity to a minimum. At the checkout, for instance, retailers are implementing the following applications to minimize long lines or to bypass checkout:

### Queue-busting

Store associates can scan the items while customers are waiting in queue to expedite the checkout process once they reach the checkout counter. If the purchase is for a few items, the customer completes the transaction with the associate anywhere on the store floor and bypass the checkout counter altogether. This task is easily accomplished with highly efficient mobile devices with integrated 2D Megapixel scan engines and Digimarc® watermarking reading for best performance while scanning items.



*Rugged store-provided devices are the most efficient and secure method for self-shopping.*

### Self-scanning / Self-shopping

The most successful approach to self-shopping is when customers use store-provided, enterprise-grade mobile devices to scan their purchases as they place them in the carts. The devices are intuitive and use a smart, versatile multi-unit cradle that release a unit to a customer once a loyalty card is scanned and validated. Robust imagers with 'Green Spot' technology which shows a visible good-read confirmation are very helpful when scanning is needed from a safe distance. Alternatively, shoppers use their personal smartphones to scan purchases and make contactless payments. Then proceed to show the barcode with tally to an employee equipped with a mobile device.

---

#### Sources:

<sup>1</sup> Retail Customer Experience, "COVID-19 drives grocery shoppers to self-checkout."

<https://www.retailcustomerexperience.com/news/covid-19-drives-grocery-shoppers-to-self-checkout/>

<sup>2</sup> MyTotalRetail, "Consumer Demand for BOPIS and Virtual Service Increases in Light of COVID-19."

<https://www.mytotalretail.com/article/consumer-demand-for-bopis-and-virtual-service-increases-in-light-of-covid-19/>



*For inventory applications that require large numeric data entries, certain mobile devices with physical numeric keypads help simplify and increase data entry rates.*

## In-Store Online Order Fulfillment

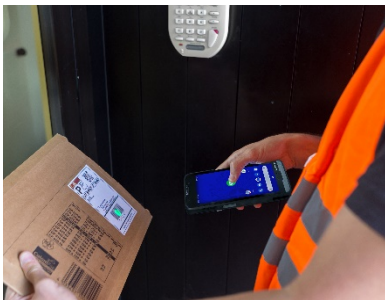
Another area where mobile devices optimize processes is order fulfillment for online orders. Physical stores are now serving as micro-fulfillment sites at a higher capacity to satisfy the growing customer demands. Using in-store inventory is the quickest, most cost-effective way to fulfill those orders but rather than using time-consuming manual processes, stores equip employees with ruggedized mobile PDA devices with large screen displays to pick, scan and package items for pickup. These types of mobile devices not only accelerate the fulfillment process but also update inventory systems in real-time for e-commerce sustainability.

## Buy Online Pickup in Store (BOPIS)

As BOPIS gains traction, especially since the start of the pandemic, it is forcing stores to hone their systems for efficiency and speed. According to Adobe Analytics, BOPIS orders increased 208% April 2020 compared with prior year.<sup>3</sup> The same rugged devices employees use to get items from shelves can send notifications when customers arrive to pick up their orders. When a store worker sees a notification, they immediately respond so customers don't have to wait long. If customers are sitting in their cars at curbside or the parking lot, notifications can include identifiers such as car make and color to help direct the employee to the right customer.

## Curbside Pickup

Once the employee finds the customer's car, they place the order in the trunk or backseat of the without the driver having to get out of the car. In a completely contactless transaction, the mobile device's powerful scanning capabilities are used to scan purchase confirmation barcodes or IDs through a car door window for pickup verification and even for contactless payment, if necessary.



*Multi-functional mobile devices used by a delivery workforce eases overall fleet management operations and tracking transparency, including proof of delivery for contactless drop-off.*

## Last Mile Delivery

Despite click and collect, home delivery isn't going away. About two thirds (68%) of online shoppers want their packages delivered, according to Statista<sup>4</sup>. Many customers will still opt to have orders brought to their doorsteps. Mobile devices play a key role here as well; merchants use them in deliveries to get customer signatures or to take photos as proof of delivery for contactless approach. When orders are shipped through parcel carriers, stores use mobile devices to issue notification of shipment and activate real-time tracking.

<sup>3</sup> Adobe Digital Economy Index: Tracking the State of Ecommerce During COVID-19 and Beyond

<https://theblog.adobe.com/adobe-digital-economy-index-tracking-the-state-of-e-commerce-during-covid-19-and-beyond/>

<sup>4</sup> Statista, "Most Used Methods in Package Delivery Worldwide." <https://www.statista.com/statistics/722366/package-delivery-methods-among-millennials-worldwide/>

# RESTAURANTS: EMPHASIS ON TAKEOUT

For restaurants, impacts caused by the pandemic were arguably more dramatic than for retailers. Establishments that relied on table service suddenly had to transform into takeout operations. Orders at full-service restaurants dropped by 71% in the week ending March 22, Business Insider reported<sup>5</sup>. Returning to normal operations will take some time, especially in municipalities and states with strict social distancing requirements that reduce the number of patrons in dining areas. Takeout will remain a significant portion of the business for the near future, and restaurants need reliable technology to make the process go smoothly.



*Hands-free - purpose-built order notifications on top edge of mobile computer are particularly valuable in high-pressure, fast-paced environments where multi-tasking is essential.*

## Order Entry

Whether takeout orders arrive by phone, over the web, a mobile app or in person, restaurants need efficient processes to handle them in a timely manner. Rugged mobile devices with large enough screen sizes while still in a practical and ergonomic design, provide an efficient and easier way to enter orders. Employees in charge of delivering orders at counters, curbside or parking lots can keep track of orders through their mobile devices. A device with a second display is especially useful in this environment, where stopping to unholster the device every time a message arrives can significantly slow down the work.

## Notifications

Mobile devices are ideal in restaurant settings for all types of notifications. API customization allows businesses to tailor the messages employees receive, including notifications of newly orders and orders ready for pickup in the kitchen, alerts for when customers are waiting outside or at the counter, as well as any other number of notifications relevant to a restaurant's specific operations. Customization helps keep messages relevant, eliminating notifications that distract users from their tasks.

## New Orders

Handling new orders is one of the biggest challenges restaurants face, especially if they don't have much experience with takeout. Mobile devices connected to online and mobile app ordering systems can streamline the process, ensuring orders are properly handled as they come in and filled in the right sequence to keep the time between ordering and pickup as short as possible.

## Curbside Pickup

As with other types of retail, the pandemic has made curbside pickup at restaurants a preferred practice. Restaurants have reassigned some employees to dispatcher roles, having them stand at the curb to track customer arrivals and use their mobile devices to notify colleagues inside of new arrivals. When orders are ready, the dispatcher can place it in a customer's car and use the mobile device for pickup verification and contactless payment.

## Last Mile - Home Delivery

Home delivery has long been a practice in the restaurant business, with pizza shops, Chinese restaurants and sandwich shops employing their own delivery drivers. In recent years, third-party delivery services managed through mobile apps have emerged, but not all restaurants are going to want to relinquish control over deliveries to third parties. Those that keep home deliveries in-house may want to equip drivers with mobile devices for various functions, including notifying drivers when orders are ready, route planning, and delivery verification.



<sup>5</sup> Business Insider, "3 million out of work, \$25 billion lost: 8 figures reveal how the coronavirus pandemic is devastating restaurants across America." <https://www.businessinsider.com/how-coronavirus-devastating-restaurants-across-us-2020-3>

# DATALOGIC MOBILE COMPUTERS

Datalogic offers a family of rugged PDAs mobile computers for use in multiple industries, from healthcare to warehousing and logistics to retail and food service. Newer models such as the Memor 10 and Memor 20 are shaped just like smartphones for familiarity and easy handling. These Android-based devices feature 1D/2D scanners, crystal-clear color displays, full connectivity indoors and out, and powerful chipsets that support a multitude of functions. Both are ruggedized and support wireless charging.

In addition, the Memor 20 has an stunning 5.7" full HD screen and offers the added innovation of a second display at the top edge of the device. The secondary display was designed to cut down on distractions brought on by notifications that force users to interrupt their tasks to read the messages. When holstered, the Memor 20's second display faces up, making it easy for users to quickly check messages without halting their activities. The newest model, the Memor K comes with a physical numeric keypad to improve productivity in inventory applications requiring mass numeric entries by helping simplify and increase data entry rates.

## Recommended Datalogic Device by Application

	Joya Touch A6 	Memor K 	Memor 1 	Memor 10 	Memor 20 
Assisted Sales	✓	✓	✓	✓	✓
Queue-busting	✓		✓	✓	✓
Self-Scanning / Self-Shopping	✓		✓	✓	✓
In-Store order fulfillment	✓	✓	✓	✓	✓
Inventory	✓	✓	✓	✓	✓
BOPIS	✓	✓	✓	✓	✓
Order Entry / Order Management				✓	✓
Curbside Pickup				✓	✓
Last Mile Deliveries				✓	✓
Overall Store/Rest. Management Assist				✓	✓

## CONCLUSIONS

While a post-pandemic return to normal is on its way, new habits where customers are better served emerge. Restaurants and the full spectrum of retail businesses, from convenience to boutique to large supermarkets and department stores, are adopting additional practices that will likely become permanent. A stronger emphasis on BOPIS and curbside pickup are likely to continue and grow.

To successfully adopt these new practices, businesses will heavily rely on mobile devices that allow them to be nimble and effective to keep their employees productive. With new enterprise mobile technologies, businesses and restaurants need not to wait for change, but rather embrace it as the right path to viable, more profitable future.

To learn more about the ideal mobile PDA for your application, visit <https://www.datalogic.com/mobile-computers>.



**About Datalogic**

*Datalogic is a global technology leader in the automatic data capture and process automation markets. We offer manufacturers in the automotive industry identification devices, vision systems and sensors. Our technology detects object presence, safeguards workers with light curtains, assures product quality with vision sensors, and identifies items using laser marking. Process and product traceability are assured by fixed industrial and handheld bar code readers, scanners, and mobile computers that track items through the manufacturing process and on to distribution.*

*For more information visit [www.datalogic.com](http://www.datalogic.com).*

*©2020 Datalogic. All rights reserved.*